

Arabic and contact-induced change

Edited by

Christopher Lucas

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Contact and Multilingualism 1



Contact and Multilingualism

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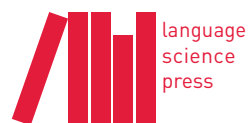
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Contents

1	Introduction	
	Christopher Lucas & Stefano Manfredi	1
I	Contact-induced change in varieties of Arabic	
2	Pre-Islamic Arabic	
	Ahmad Al-Jallad	37
3	Classical and Modern Standard Arabic	
	Marijn van Putten	57
4	Arabic in Iraq, Syria, and southern Turkey	
	Stephan Procházka	83
5	Khuzestan Arabic	
	Bettina Leitner	115
6	Anatolian Arabic	
	Faruk Akkuş	135
7	Cypriot Maronite Arabic	
	Mary Ann Walter	159
8	Nigerian Arabic	
	Jonathan Owens	175
9	Maghrebi Arabic	
	Adam Benkato	197
10	Moroccan Arabic	
	Jeffrey Heath	213

Contents

11 Andalusī Arabic Ángeles Vicente	225
12 Ḥassāniyya Arabic Catherine Taine-Cheikh	245
13 Maltese Christopher Lucas & Slavomír Čéplö	265
14 Arabic in the diaspora Luca D'Anna	303
15 Arabic pidgins and creoles Andrei Avram	321
II Language change through contact with Arabic	
16 Modern South Arabian languages Simone Bettega & Fabio Gasparini	351
17 Neo-Aramaic Eleanor Coghill	371
18 Berber Lameen Souag	403
19 Beja Martine Vanhove	419
20 Iranian languages Dénes Gazsi	441
21 Kurdish Ergin Öpengin	459
22 Northern Domari Bruno Herin	489
23 Jerusalem Domari Yaron Matras	511

24 Mediterranean Lingua Franca	
Joanna Nolan	533
III Domains of contact-induced change across Arabic varieties	
25 New-dialect formation: The Amman dialect	
Enam Al-Wer	551
26 Dialect contact and phonological change	
William M. Cotter	567
27 Contact and variation in Arabic intonation	
Sam Hellmuth	583
28 Contact-induced grammaticalization between Arabic dialects	
Thomas Leddy-Cecere	603
29 Contact and calquing	
Stefano Manfredi	625
30 Contact and the expression of negation	
Christopher Lucas	643
Index	669

Chapter 1

Introduction

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This introductory chapter gives an overview of the aims, scope, and approach of the volume, while also providing a thematic bibliography of the most significant previous literature on Arabic and contact-induced change.

1 Rationale

With its lengthy written history, wide and well-studied dialectal variation, and involvement in numerous heterogeneous contact situations, the Arabic language has an enormous contribution to make to our understanding of how language contact can lead to change. Until now, however, most of what is known about the diverse outcomes of contacts between Arabic and other languages has remained inaccessible to non-specialists. There are brief summary sketches (Versteegh 2001; 2010; Thomason 2011; Manfredi 2018), as well as a recent collection of articles on a range of issues connected with Arabic and language contact in general (Manfredi & Tosco 2018), but no larger synthesis of the kind that is available, for example, for Amazonian languages (Aikhenvald 2002).

Arabic has thus played little part in work to date on contact-induced change that is crosslinguistic in scope (though see Matras 2009; Trudgill 2011 for partial exceptions). By providing the community of general and historical linguists with the present collaborative synthesis of expertise on Arabic and contact-induced change, we hope to help rectify this situation. The work consists of twenty-nine chapters by leading authorities in their fields, and is divided into three



Parts: overviews of contact-induced change in individual Arabic varieties (Part I); overviews of the outcomes of contact with Arabic in other languages (Part II); and overviews of various types of changes across Arabic varieties, in which contact has played a significant role (Part III). Chapters in each of the three Parts follow the fixed broad outlines detailed below in §5, in order to maximize coherence and ease of reference. All authors have also been encouraged a) to ensure their chapters contain a rich set of (uniformly glossed and transcribed) linguistic data, including original data where appropriate, and b) to provide as much sociohistorical data as possible on the speech communities involved, framed where possible with reference to Van Coetsem's (1988; 2000) distinction between changes due to borrowing (by agents dominant in the recipient language (RL)) and imposition (by agents dominant in the source language (SL); see §4 for further details). These features are aimed at ensuring that the data presented in the volume can be productively drawn upon by scholars and students of linguistics who are not specialists in Arabic linguistics, and especially those working on the mechanisms, typology, outcomes, and theory of contact-induced change cross-linguistically.

The rest of this introductory chapter is structured as follows. We begin by providing a thematic bibliography of existing work on Arabic and contact-induced change in §2. The overall scope of the present volume is then detailed in §3. §3.1 locates and classifies the different varieties of what is called "Arabic" according to Jastrow's (2002) three geographic zones and Labov's (2007) concepts of transmission and diffusion in language change, while §3.2–§3.4 provide an overview of the content of each of the three Parts into which the present volume is divided. In §4 we give details of Van Coetsem's (1988; 2000) framework, and in §5 we outline the common structure and transcription and glossing conventions of the volume. This introductory chapter then finishes with §6, in which we discuss some of the challenges to Van Coetsem's framework posed by the data in this volume, how these challenges can be addressed, and how the data and analyses collected in the present work can be built on by others.

2 Previous work

As noted in §1, there is a reasonably large existing literature focusing on specific aspects of Arabic and contact-induced change. For reviews of much of this literature, readers are referred to the relevant chapters of the present volume. Here we simply list some key works for ease of reference in the following (non-comprehensive) bibliography, organized by linguistic variety.

- Old Arabic and Middle Aramaic: Retsö (2011), Weninger (2011), Owens (2016).
- Arabic and Neo-Aramaic: Arnold & Behnstedt (1993), Arnold (2007), Coghill (2010; 2012; 2015), Jastrow (2015).
- Arabic and Hebrew: Blau (1981), Yoda (2013), Horesh (2015).
- Arabic and (Modern) South Arabian languages: Diem (1979), Lonnet (2011), Zammit (2011), Watson (2018).
- Arabic and Indo-Iranian languages: Tsabolov (1994), Matras (2007), Asbaghi (2011), Gazsi (2011), van der Wal Anonby (2015), Herin (2018).
- Arabic and Turkish: Procházka (2002; 2011), Haig (2014), Taylan (2017), Akkuş & Benmamoun (2018).
- Arabic and Berber: Taine-Cheikh (1997; 2018), Brahimi (2000), Corriente (2002), Lafkioui & Brugnatelli (2008), Kossmann (2009; 2010; 2013), El Aissati (2011), Lafkioui (2013a), Souag (2013), van Putten & Souag (2015).
- Arabic and (sub-)Saharan languages: Owens (2000a; 2015), Lafkioui (2013b), Souag (2016).
- Arabic and Latin/Romance languages: Brunot (1949), Benoliel (1977), Corriente (1978; 1992), Talmoudi (1986), Heath (1989; 2015), Cifoletti (1994), Vicente (2006), Sayahi (2014).
- Contact influences on Classical and Modern Standard Arabic (MSA): Jeffery (2007) [1938], Blau (1969), Hebbo (1984).
- Contact influence in Mesopotamian Arabic: Masliyah (1996; 1997), Matras & Shabibi (2007), El Zarka & Ziagos (2019).
- Contact influence in Central Asian Arabic: Jastrow (2005), Ratcliffe (2005), Ingham (2011).
- Contact influence in Levantine Arabic: Barbot (1961), Neishtadt (2015).
- Contact influence in Cypriot Maronite Arabic: Newton (1964), Tsiapera (1964), Borg (1997; 2004).
- Contact influence in Maltese: Colin (1957), Aquilina (1958), Krier (1976), Mifsud (1995), Brincat (2011), Souag (2018).
- Arabic pidgins and creoles: Owens (1985), Miller (1993), Luffin (2014), Avram (2017), Bizri (2018), Owens (2018).
- Contact between Arabic dialects: Gibson (2002), Miller et al. (2007), Cotter & Horesh (2015), Leddy-Cecere (2018).

3 Scope

3.1 Where and what is Arabic?

Arabic is one of the most widely spoken languages in the world, and the first language of around 350 million speakers spread throughout the Middle East and North Africa. There are twenty-five sovereign states in which Arabic is an official language. In addition, Arabic is widely spoken as a *lingua franca* (i.e. vehicular language) for a range of communicative interactions between different linguistic communities in Asia and Africa. Following Jastrow (2002; see also Watson 2011; Manfredi forthcoming), the present-day Arabic-speaking world can be broadly subdivided into three geographic zones (cf. Figure 1): Zone I covers the regions of the Arabian Peninsula where Arabic was spoken before the beginning of the Islamic expansion in the seventh century; Zone II includes the Middle Eastern and North African areas into which Arabic penetrated during the Islamic expansion, and where it is today spoken as a majority language; and Zone III encompasses isolated regions where Arabic is spoken today by minority bilingual communities (see also Owens 2000b). Further to this, following successive waves of mass emigration in recent centuries, Arabic is also spoken as a heritage language by diasporic communities around the world (Rouchdy 1992; Boumans & de Ruiter 2002; D’Anna, this volume). Against the backdrop of this complex geo-historical distribution, the question that arises is what unites all the varieties that fall under the glottonym “Arabic” and, more generally, what should count as Arabic from a linguistic point of view?

After all, the term “Arabic” encompasses a great deal of internal variety, whose origins can be traced back to both internally and externally motivated (i.e. contact-induced) changes. One way of understanding these different patterns of language change is through Labov’s (2007) distinction between TRANSMISSION and DIFFUSION. If transmission refers to change through an unbroken sequence of first-language acquisition (Labov 2007: 346), diffusion rather implies the transfer of features across languages via language/dialect contact (Labov 2007: 347). Change through transmission is said to be regular because it is incremented by young native speakers, whereas diffusion is thought to be more irregular and unpredictable because it is typically produced by adult bilingual speakers. Both mechanisms contribute to long-term language change even though, according to Labov, transmission is the foremost mechanism by which linguistic diversity is produced and maintained. In a recent study, Owens (2018) tests the generality of the Labovian distinction between transmission and diffusion against the complex linguistic and sociohistorical patchwork of Arabic. He concludes that

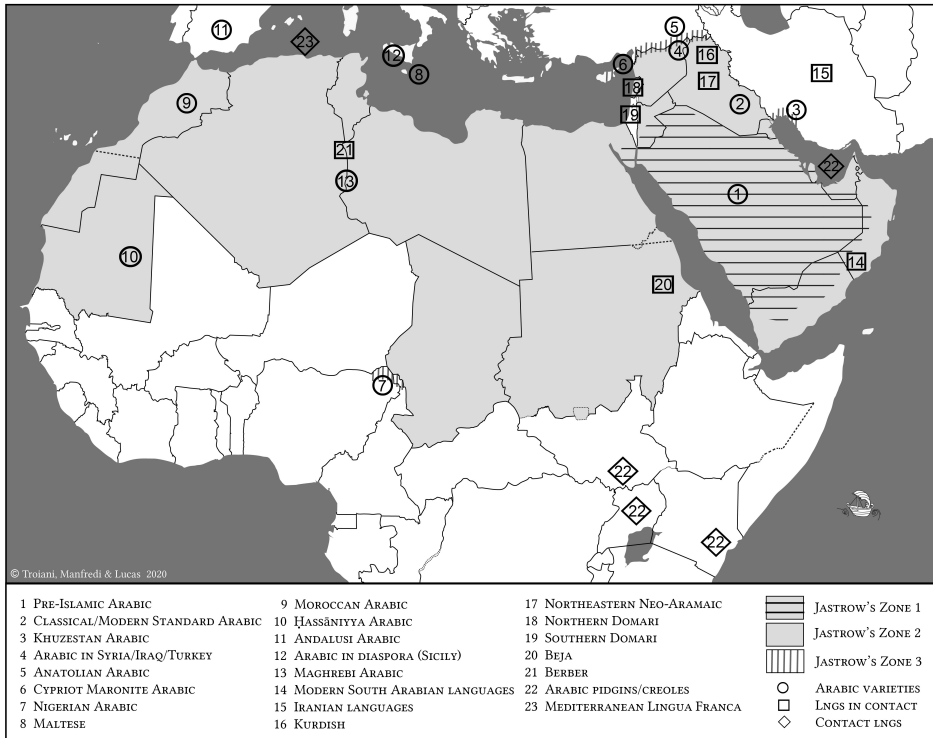


Figure 1: Approximate distribution of languages and Arabic varieties discussed in this volume

change through diffusion cannot be said to be more irregular than change via transmission and that, other than for Arabic-based creoles (see Avram, this volume), there are no clear-cut criteria for distinguishing the two mechanisms of language change. The reason for this is that most of the linguistic varieties that are commonly referred to under the heading of “Arabic” are the result of a longstanding series of multi-causal changes encompassing both internal drift and convergence, as well as contact-induced change via diffusion. What we do not see, however, in any of the varieties usually referred to as Arabic, are the atypical kinds of changes produced by the disruption of language transmission as observed in pidgin and creole languages (but see below). Thus Part I of this volume primarily (but not exclusively) deals with contact-induced change in spoken varieties of Arabic that have gone through an unbroken chain of language transmission, the so-called “Arabic dialects”.

3.2 Overview of Part I: Contact-induced change in varieties of Arabic

The survey chapters in Part I of this volume offer an extensive overview of contact-induced change in first Eastern (*mašriqī*) and then Western (*maḡribī*) Arabic dialects (to use the terminology of the traditional geographical classification of modern Arabic dialects; cf. Palva 2009; Benkato, this volume). The majority of chapters dealing with types of Eastern Arabic describe varieties spoken by bilingual minorities affected to different degrees by language shift towards local dominant languages. For instance, the Arabic-speaking Maronite community of Kormakiti is involved in an asymmetric pattern of bilingualism resulting in a gradual and inexorable language shift towards Cypriot Greek (Walter, this volume). In contrast, speakers of Nigerian Arabic (Owens, this volume), despite considerable proficiency in Kanuri and/or Hausa, maintain transmission of their ancestral language to the younger generations. As far as it is possible to tell, a similar situation holds for the Mesopotamian dialects of Anatolia (Akkuş, this volume) and Khuzestan (Leitner, this volume), which are in intense contact with Turkish and Persian respectively (among other languages), but without (yet) showing signs of definitive language shift. Procházka (this volume), on the other hand, describes the effects of contact-induced change in a continuum of Eastern Arabic dialects dispersed across Lebanon, Syria, Iraq, and southern Turkey. In this broader geographical context, Arabic represents the main vernacular language, affected to different degrees by long-term bi- or multilingualism with Aramaic, Kurdish, and Turkish.

As far as Western Arabic dialects are concerned, Benkato (this volume) describes a history of contact-induced change in different Maghrebi dialects from the beginning of the Arabization of North Africa until the colonial period. Four further chapters then take a closer look at contact-induced changes in specific varieties of Western Arabic. Heath (this volume) covers Moroccan, while Taine-Cheikh (this volume) covers Ḥassāniyya – two majority varieties of Arabic historically affected by contact with Berber and Romance languages. Lucas & Čéplö (this volume) then provide an overview of contact-induced change in Maltese – a variety which is no longer usually considered to be a subtype of “Arabic”, but which, as Lucas & Čéplö show, is nevertheless historically part of the Western group of Arabic dialects. Indeed, despite the far-reaching lexical and grammatical effects of contact with Italo-Romance and English, Maltese remains largely a product of transmission in the Labovian sense. We would not therefore classify it as a contact (i.e. mixed) language (cf. Stolz 2003 and see further below). Lastly, D’Anna (this volume) offers a linguistic account of different varieties of Arabic in diasporic settings, with particular focus on the Tunisian community of Mazara

del Vallo in Sicily. Unlike the Western varieties described in the aforementioned chapters, in this latter context Arabic is involved in an unbalanced contact situation, resulting in moderate language shift towards Sicilian and Italian.

As well as the aforementioned spoken varieties of Arabic, Part I of the volume also includes three chapters analysing the outputs of language contact in different varieties of written Arabic. First of all, Al-Jallad (this volume) describes a number of likely instances of contact-induced change in pre-Islamic Arabic documentary sources (primarily inscriptional), and postulates the existence of different patterns of bilingualism between Arabic and Akkadian, Aramaic, Old South Arabian, and Greek (among other languages). Van Putten (this volume) then focuses on contact influences on the later Classical and MSA, examining both early influences from Aramaic, Greek, Persian, Ethio-Semitic and Old South Arabian, as well as later influence from Ottoman Turkish and twentieth-century journalism in European languages. Since these written varieties of Arabic are rather artificial constructs, van Putten also examines the influence of the native Arabic dialects of the authors of texts in Classical Arabic and MSA. The third and final written Arabic variety analysed in this volume is Andalusian Arabic. Attested as a form of Middle Arabic (Lentin 2011) between the tenth and seventeenth centuries, Andalusian Arabic displays significant grammatical and lexical input from both Romance and Berber languages (Vicente, this volume). As evidence for the Arabic varieties described in these three chapters is exclusively written, they cannot be treated in the same manner as spoken varieties which emerged in a context of first language acquisition. They are, however, representative of a long-standing and uninterrupted written tradition that goes back to the pre-Islamic period, and that has always been in a multi-faceted relationship of mutual influence with different varieties of spoken Arabic. In this sense, despite their rather artificial nature, written varieties of Arabic may also be considered the product of language transmission.

In the final chapter of Part I, on the other hand, Avram (this volume) describes a number of Arabic-based pidgins and creoles, which contrast with modern Arabic dialects (including Maltese) in that they have emerged in contact situations where the available language repertoires did not constitute an effective tool for communication (Bakker & Matras 2013: 1). These contact languages are thus the product of partial or full interruption of language transmission, and for this reason they fall outside the range of what is usually considered Arabic (i.e. they are not straightforwardly classifiable as genetically related to it; cf. McMahon 2013). In such contexts, the effects of language diffusion via second language acquisition are obviously more evident. The varieties discussed by Avram include the so-called Sudanic pidgins and creoles (i.e. Juba Arabic, Kinubi, and Turku), which

emerged in Sudan in the nineteenth century and are today scattered across East Africa, as well as a number of contact languages that have recently emerged in the context of labour migration to the Middle East: Gulf Pidgin Arabic, Pidgin Madame, Romanian Pidgin Arabic, and Jordanian Pidgin Arabic. Despite their different sociohistorical and ethnolinguistic backgrounds, the contact languages included in this chapter share many formal features as a result of the strong impact of second language acquisition of Arabic in extreme contact situations.

In sum, Part I of the present volume aims at a comprehensive overview of contact-induced changes in both spoken and written varieties of Arabic, as well as in Arabic-based contact languages (but see §3.5).

3.3 Overview of Part II: Language change through contact with Arabic

Throughout its history, Arabic has not only been subject to contact influence from other languages, but has also itself induced profound changes in the languages with which it has come into contact (see Versteegh 2001 for a general overview). The latter topic is the focus of the chapters included in Part II of the present volume. Let us note in this regard that, thanks to its religious function as the language of Islam, the linguistic influence of (Classical) Arabic has of course travelled well beyond the traditional borders of the Arabic-speaking world, and has affected linguistic communities that have never acquired Arabic as a second language. Such is the case, for example, of Indonesian and Swahili, whose lexica are characterized by a high proportion of Arabic-derived loanwords. In the present volume we largely disregard this kind of influence, however, as our focus is rather on the effects of language contact in communities characterized by a relatively high degree of societal bilingualism in Arabic. These bilingual communities typically fall within Jastrow's Zone II (see §3.1 and Figure 1), and are therefore affected to varying degrees by language shift towards Arabic.

Accordingly, the first two chapters of Part II focus on the structural effects of language contact with Arabic in two Semitic languages of the Middle East. First of all, Bettega & Gasparini (this volume) provide an overview of Arabic influence on the Modern South Arabian languages (i.e. Mehri, Hobyōt, Ḥarsūsi, Baḥari, Šheret/Jibbāli and Soqōtri) of Oman and Yemen. These minority languages are used in an asymmetric pattern of bilingualism with Arabic, and have been strongly affected by contact with the dominant language, both in their lexicon and grammar. A similar situation is described by Coghill (this volume) for North-Eastern Neo-Aramaic (NENA), a group of closely related languages whose speakers are scattered across Iraq, Turkey, Syria, and Iran (as well as in several

diasporic communities around the world). Unlike for the Modern South Arabian languages, however, Arabic has only recently become the dominant language in much of the region where NENA languages are spoken, with Kurdish being the primary historical contact language. Nevertheless, the intensity of this contact, despite its relatively short duration, has been sufficient to result in significant influence on the grammar and lexicon of NENA languages, as Coghill demonstrates. Being closely related to Arabic, NENA and Modern South Arabian languages are incidentally particularly relevant to the question of the role played by language contact (i.e. diffusion) as opposed to internal drift (i.e. transmission) in the reconstruction of the Semitic language family.

The next two chapters in Part II deal with languages that are also genetically related to Arabic, though much more distantly. First of all, Souag (this volume) surveys some of the most prominent examples of the influence of Arabic on the numerous Berber languages spoken across North Africa and the Sahara. Though many Berber-speaking communities are in the process of language shift, different communities present different patterns of bilingualism. Tuareg, for example, has been least affected by contact with spoken Arabic, whereas smaller varieties, such as that of Awjila in Libya, are severely endangered, with language shift to Arabic being rather far advanced (van Putten & Souag 2015). Berber as a whole thus represents a particularly rich source of data for the typology of changes brought about by contact with Arabic (see also Kossmann 2013). Vanhove (this volume), on the other hand, describes the influence of Arabic on Beja, a Northern Cushitic language mainly spoken in eastern Sudan. Probably due to their constituting a large proportion of the population in this region, and in spite of their high degree of bilingualism with Sudanese Arabic, Beja speakers continue robust transmission of their ancestral language to younger generations and are therefore not involved in a process of language shift. Against this background, Beja offers interesting hints for the analysis of the morphological effects of contact with Arabic, especially in relation to the transfer of roots and patterns (see also Vanhove 2012).

Part II of the volume also provides data for the analysis of contact-induced changes that occurred in languages with no genetic link with Arabic. These are all Indo-Iranian languages, spoken in a large area stretching from Iran in the east to Israel in the west. Gazsi (this volume) offers a wide-ranging survey of the mostly lexical influence of Arabic on Iranian languages, with a particular focus on New Persian and Modern Persian dialects spoken in Iran. Öpengin (this volume) then describes the effects of contact with Arabic in Northern and Central Kurdish languages spoken in Turkey, Syria, and Iraq. Due to the longstanding bilingualism with Arabic since the early phases of the Islamic expansion, Kurdish

has been profoundly affected in its phonology and lexicon by contact with both Mesopotamian dialects and Classical Arabic. Lastly, two further chapters assess the changes produced by contact with Arabic in different varieties of Domari, an Indic language spoken by itinerant linguistic minorities in the Middle East. Matras (this volume) analyses the Southern variety of Domari, spoken in Jerusalem, which is reported to be extremely endangered, while Herin (this volume) focuses on the Northern varieties of Domari, spoken in Syria, Lebanon, Jordan, and Turkey, which exhibit different degrees of linguistic vitality. In this overall situation, Domari has been thoroughly affected in all lexical and grammatical domains by contact with Arabic, with dialects of Syria and Turkey showing a lower degree of linguistic interference, while more southerly dialects are on the verge of extinction due to language shift.

In the final chapter of Part II, Nolan (this volume) discusses another contact language with significant input from Arabic: Mediterranean Lingua Franca, a vehicular language spoken from the sixteenth to nineteenth centuries on the North African Barbary coast as an interethnic means of communication between various populations, including pirates and captured slaves. The lexicon and grammar of Mediterranean Lingua Franca were apparently drawn from a wide range of Italo-Romance, Spanish, Portuguese, Franco-Provençal, Turkish, Greek and Arabic varieties. Although the contribution of Arabic to this language was relatively slight, a substantial proportion of its speakers had Arabic as their first language and inevitably therefore transferred Arabic features into this contact language.

3.4 Overview of Part III: Domains of contact-induced change across Arabic varieties

Parts I and II of the present volume offer overviews of contact-induced changes in individual languages and Arabic varieties. Part III, by contrast, presents studies examining contact-induced change in various domains, across a number of relevant languages and Arabic varieties. Some of these chapters focus on the processes producing contact-induced change in Arabic (e.g. dialect contact, contact-induced grammaticalization), while the others describe the outcomes of language contact in specific grammatical domains (e.g. intonation, negation) in a cross-dialect perspective. Taken together, the chapters included in Part III provide a broader framework for understanding the dynamics and results of language contact involving Arabic.

First of all, drawing on the concepts of koinéization and focusing, as defined by Trudgill (2004), Al-Wer (this volume) describes the process of new dialect formation in Amman, resulting from the contact there between Palestinian and

Jordanian dialects. Through examination of a number of morphophonological variants, Al-Wer assesses the relative contributions of different social factors in the formation of the Amman dialect, concluding that gender and style are the major organizing factors, while ethnicity plays only a secondary role.

In the following chapter, Cotter (this volume) addresses the closely related topic of phonetic and phonological changes, affecting both consonant and vowel systems, resulting from contact between Arabic dialects. Cotter's analysis emphasizes the role of large-scale migration within and between Arabic-speaking countries in the emergence of phonological diversity in Arabic, as in the case of the dialect of Gaza City, which presents both Bedouin and sedentary phonological features.

Though far less often considered from a historical linguistic perspective than segmental changes, supra-segmental change also appears to be particularly liable to be caused by language contact. In this vein, Hellmuth (this volume) explores the hypothesis that variation in the intonation systems of Arabic dialects is largely a product of language contact. Describing a series of dialect-specific prosodic features in Tunisian, Moroccan and Egyptian Arabic, Hellmuth proposes different contact scenarios with Berber in the Maghreb and with Greek and Coptic in Egypt as the cause, though without excluding the possibility of purely internal prosodic change.

As evidenced by almost every contribution to the present volume, contact-induced change is certainly not limited to lexicon and phonology, with the impact of language contact clearly felt also in the morphosyntax and semantics of Arabic varieties. Accordingly, Leddy-Cecere (this volume) adopts the theoretical framework of contact-induced grammaticalization proposed by Heine & Kuteva (2003; 2005) for an analysis of the outcome of contact between Arabic dialects in the domain of future tense markers. Though traditionally situated in the context of contact between genetically unrelated languages, this model of contact-induced change proves useful for explaining the development and distribution of a range of morphosyntactic features across Arabic varieties (cf. Leddy-Cecere 2018). In his contribution, Leddy-Cecere identifies five prototypical paths of grammaticalization of future markers whose spread, he argues, is best explained as the outcome of dialect contact.

Manfredi (this volume), for his part, focuses exclusively on the process of calquing, understood as the transfer of semantic and morphosyntactic patterns without accompanying morphophonological matter. He thus analyses several instances of lexical and grammatical calquing in a range of Arabic varieties, and explains their distribution in terms of different degrees of bilingual proficiency. This perspective permits an explanation of why narrow grammatical calquing

tends to be limited to communities with a high degree of bilingual proficiency, whereas lexical calquing can occur also in largely monolingual communities.

In the final contribution to Part III, Lucas (this volume) presents a diachronic overview of the development of different negation patterns in Arabic and a number of its contact languages. While recognizing that conclusive evidence of diffusion as opposed to transmission in this domain is hard to come by, Lucas argues that the geographical distribution of preverbal, bipartite, and postverbal clausal negation in Arabic and its contact languages (i.e. Modern South Arabian, Berber and Domari among others) is a product of transfer, rather than of internal parallel developments (see also Lucas & Lash 2010).

3.5 Limitations

Inevitably with a project of this scale, it has not been possible to cover every aspect of the topic that we would have liked to, and the chapters included necessarily represent a compromise between several different academic and practical considerations (not least the availability of contributors with the relevant expertise). Thus, while we have aimed for blanket coverage of languages and varieties of Arabic that have been significantly affected by contact, a number of omissions should be noted.

For example, Central Asian Arabic (see Seeger 2013), a minority variety strongly affected by contact with Tajik and Uzbek, though it is cited a number of times for comparative purposes by several contributors, is not thoroughly analysed in a dedicated chapter in Part I. Similarly, the influence of Modern Hebrew on Palestinian Arabic in Israel (see Horesh 2015) is not analysed in detail here. Furthermore, with the exception of Nigerian Arabic, the volume has regrettably little to say about the range of vernacular and vehicular varieties of Arabic spoken in sub-Saharan Africa (see Lafkioui 2013b).

Similarly, the languages discussed in Part II are certainly not the only ones to have been affected by direct contact with Arabic. For instance, several Nilo-Saharan languages found in central and eastern Africa have historically been in contact with different varieties of Arabic. This is the case of Nubian, an Eastern Sudanic language spoken on the Egypt–Sudan border (Rouchdy 1980), for example. The same applies to a number of Niger-Kordofanian languages spoken in the Nuba Mountains region of Sudan, and among which we can mention the case of Koalib (Quint 2018). As far as the Middle East is concerned, the influence of Arabic on the Armenian varieties spoken in Lebanon unfortunately remains unstudied, and the same is true for the Turkmen dialects of Iraq and Syria.

There are also several phenomena that can be observed in multiple Arabic varieties and for which explanations in terms of language contact have been made, but on which it was not possible to include a chapter in the present volume. To cite a single example, several works (including Coghill 2014; Döhla 2016; Souag 2017) have investigated the possible role of contact between varieties of Arabic and other languages in the development of differential object marking and clitic doubling (see also Lucas & Čéplö, this volume).

Despite these descriptive gaps, the chapters included in the present volume have the collective merit of discussing a wide range of contact situations involving Arabic (balanced bilingualism, unbalanced bilingualism, pidginization and creolization), covering a broad geographical area and lengthy timespan, and thus giving a near-comprehensive picture of the currently known facts of Arabic and contact-induced change.

4 Framework

4.1 Overview

The majority of works cited in §2 (like the majority of work generally on contact-induced changes in specific languages) describe a set of linguistic outcomes of language contact, without addressing the cognitive and acquisitional processes that lead speakers to introduce and adopt changes of this kind. In the present volume, we have encouraged authors wherever possible to go beyond mere itemization of contact-induced changes, and to give consideration to the processes which are likely to have brought them about. Specifically, we have asked authors to analyse changes wherever possible in terms of the framework (and terminology) developed by Frans Van Coetsem (1988; 2000).

While there are various models of contact-induced change available (see e.g. Thomason & Kaufman 1988; Johanson 2002; Matras 2009), Van Coetsem's is preferable for our purposes, in that it allows us to distinguish the major types of contact-induced change, based on the cognitive statuses of the source and recipient languages in the minds of the bilingual speakers who are the agents of the changes in question. This model, which has gained greater prominence following Winford's (2005; 2007; 2010) work to popularize it (see also Ross 2013 for a broadly similar approach), makes a fundamental distinction between *BORROWING* and *IMPOSITION* as the two major types of *TRANSFER* (i.e. contact-induced change that has the effect of making the RL more closely resemble the SL in some respect).¹ The distinction between borrowing and imposition boils down

¹Note that not all contact-induced changes involve transfer in this sense. See §4.4 for details.

to whether the agents of a particular change (i.e. the bilingual speakers who first introduce it) are cognitively (not sociolinguistically) dominant in the SL or the RL. Lucas (2012; 2015) argues that this notion of dominance (which Van Coetsem himself does not define precisely) can be reduced to nativeness, and is thus not equivalent to temporary accessibility: borrowing (also referred to as change under RL agentivity) is when a speaker for whom the RL is a native language introduces changes to the RL based on an SL model; imposition (also referred to as change under SL agentivity) is when changes of this sort are made by a speaker for whom the RL is not a native language. Imposition occurs essentially because adults, with their impoverished language acquisition abilities relative to young children, consciously or unconsciously draw on the resources of their native language(s) to fill the gaps in their knowledge of the non-native RL. Borrowing, on the other hand, occurs either as a deliberate enrichment of the native language with material drawn from a second language, or otherwise as a result of the “inherent cognitive tendency to minimize the processing effort associated with the use of two (or more) languages” (Lucas 2012: 291). Imposition thus prototypically transfers more abstract structural features (e.g., for German native speakers speaking second-language English, syllable-final devoicing and lack of preposition stranding), whereas borrowing is prototypically associated with transfer of lexical and constructional material.

This approach neatly complements Labov’s distinction between transmission and diffusion. Labov (2007: 349) points out that “transmission is the product of the acquisition of language by young children” whereas “most language contact is largely between and among adults” and that the fundamental differences between child first language and adult second language acquisition (cf. Bley-Vroman 1989; 2009; Meisel 2011) explain the characteristically different types of change associated with transmission versus diffusion. We can go further and say that diffusion changes are of two main types – borrowing versus imposition – and it is similarly because borrowing is carried out by native speakers and imposition by second language learners that these two types of diffusion typically have different results (see §6 for further discussion).

Moreover with this approach we even have a prospect, at least in certain specific cases, of addressing one of the hardest problems in historical linguistics, Weinreich et al.’s (1968) “actuation problem”:

For even when the course of a language change has been fully described and its ability explained, the question always remains as to why the change was not actuated sooner, or why it was not simultaneously actuated wherever identical functional conditions prevailed. (Weinreich et al. 1968: 112)

If the change in question involves diffusion, understood in the above terms, then we have a straightforward answer to this question. Prior to contact with the SL, the change did not occur because the linguistic conditions were such that it could not occur in a normal language transmission scenario. Once the RL comes into contact with the SL, however, the landscape of language acquisition and use is drastically altered, such that the linguistic conditions are now sufficient to trigger the change, which can then, potentially, spread throughout and beyond the bilingual speech community (see Lucas, this volume; Lucas & Lash 2010 for further discussion of this point in the context of the contact-induced spread of bipartite negation in the languages of North Africa and southern Arabia).

To illustrate these concepts, the following subsections give some examples of borrowing and imposition (as well as some problematic cases that do not fit easily into either of these categories), drawn from the contributions to this volume.

4.2 Borrowing

As noted above, borrowing most typically and saliently targets lexical items. Every chapter in Parts I and II testifies to the large number of loanwords in the varieties discussed. While borrowing prototypically involves content words, it can also result in transfer of function words, idiomatic structure, and derivational and inflectional morphology. For example, Vanhove (this volume) notes that Beja has borrowed the Arabic conjunction *wa* ‘and’ as an enclitic which coordinates noun phrases and nominalized clauses, as in (1).

- (1) Beja (BEJ_MV_NARR_01_shelter_057)²
 bʔaɖaɖ=wa i=ko:lej=wa sallam-ja=aj=he:b
 sword=COORD DEF.M=stick=COORD give-PFV.3SG.M=CSL=OBJ.1SG
 ‘Since he had given me a sword and the stick...’

Leitner (this volume) shows that Khuzestan Arabic has borrowed a phrasal verb constructional frame from Persian, as illustrated in (2), consisting of an Arabic light verb (a calque of the Persian source verb) and a noun borrowed from Persian.

- (2) a. Khuzestan Arabic (Leitner’s field data)
 kaðð īrād
 take.PRF.3SG.M nagging
 ‘to pick on someone’

²See Vanhove (this volume) for details of the source of this example.

- b. Persian
īrād gereftan
nagging take.INF
'to pick on someone'

As an example of the borrowing of derivational morphology, Benkato (this volume) cites the Moroccan Arabic circumfix *tā-...-t*, borrowed from Berber, as the regular means of deriving nouns of professions and traits, as in *tānāžžārt* 'carpentry' (< *nāžžār* 'carpenter').

Finally, in the domain of verbal inflection, we can point to the contact-induced grammaticalization in NENA of a prospective future marker *zi-*, as in (3), on the model of Arabic *rah-* with the same function, both deriving from elements with the basic meaning of 'going'.

- (3) Christian Telkepe NENA (Coghill's field data)
zi-napl-ɒ
PRSP-fall.PRES-3SG.F
'She's going to fall.'

4.3 Imposition

As well as changes due to borrowing, the contributions to this volume cite numerous instances of changes due to imposition, which are typically more abstract and less lexical-constructional than changes due to borrowing.

In the domain of phonology, we can point to the example of conditioned monophthongization found only in the Arabic dialects of coastal Syria and northern Lebanon, almost certainly as a result of imposition from Aramaic, older layers of which shared this feature. As Procházka (this volume) shows, in the dialect of the island of Arwad *ay and *aw are preserved only in open syllables. Elsewhere they merge to /ā/, as illustrated in (4).

- (4) Arwad Arabic, western Syria (Procházka 2013: 278)
*bayt, *baytayn > *bāt, baytān* 'house, two houses'
*yawm, *yawmayn > *yām, yawmān* 'day, two days'
*bayn al-iθnayn > *bān it-tnān* 'between the two'

In the domain of morphosyntax, van Putten (this volume) cites Wilmsen's (2010) example of imposition in the treatment of direct and indirect pronominal objects in MSA. As Wilmsen shows, native speakers of Egyptian Arabic writing MSA tend to impose their native system, such that the direct object cliticizes to

the verb, as in (5), whereas native speakers of Lebanese Arabic tend to impose their native system, such that it is the indirect object that cliticizes to the verb, as in (6).

- (5) Egyptian-style MSA (Wilmsen 2010: 100)
 al-ʔawrāq-i llatī **sallamat-hā** **la-hu** ʔarmalat-u
 DEF-papers-OBL REL.SG.F give.PRF.3SG.F-3SG.F DAT-3SG.M widow-NOM
 ʔabdi l-wahhāb
 PN
 ‘the papers, which Abdel Wahhab’s widow had **given him**’
- (6) Lebanese-style MSA (Wilmsen 2010: 99)
 al-ʔawrāq-i llatī **sallamat-hu** **ʔiyyā-hā** ʔarmalat-u
 DEF-papers-OBL REL.SG.F give.PRF.3SG.F-3SG.M ACC-3SG.F widow-NOM
 ʔabdi l-wahhāb
 PN
 ‘the papers, which Abdel Wahhab’s widow had **given him**’

Taken together, the above examples give an impression of the nature and variety of changes that are reported on in this volume, and which can be understood as having occurred via either borrowing or imposition.

4.4 Problematic cases

Not all changes due to contact can be classified as either borrowing or imposition in Van Coetsem’s terms, however. First of all, there is the rather frequent case of communities in which the norm is not monolingual native acquisition followed by acquisition of a second language later in life, but the simultaneous acquisition, from early childhood, of two (or more) native languages. While Van Coetsem (2000) acknowledges such cases, the data from studies of bilingual individuals of this type do not bear out his suggestion (2000: 86) that these situations lead to “free transfer” of elements from any linguistic domain between the two languages. Instead, what we see in both the speech of (young) individuals of this kind, as well as communities in which multiple native languages are the norm, is typically little phonological transfer but often considerable syntactic reorganization (Lucas 2009: 96–98; 2012: 279). The traditional term for the process by which languages (typically in so-called “linguistic areas” such as the Balkans) become more similar over time is CONVERGENCE. Lucas (2015) extends the use of this term to specifically those contact-induced changes brought about by individuals who are native speakers of both the RL and the SL.

Language situations described in this volume in which convergence in this sense, rather than borrowing, is the likely mechanism underlying the changes described include the Modern South Arabian languages, especially Baḥari, as described by Bettega & Gasparini (this volume), as well as both Northern and Jerusalem Domari, as described by Herin (this volume) and Matras (this volume). As several authors point out, however, for some historical contact situations we simply do not have enough sociolinguistic information to be able to infer what kind of agentivity must underlie a given change. In such cases we must content ourselves with merely identifying the changes that are (likely) due to contact and, for the time being at least, give up on the goal of actually explaining how and why they were actuated.

Finally, a word is required here on changes, such as reduction or elimination of inflectional distinctions, which are characteristic of the usage of second-language speakers, but which do not necessarily have the effect of making the RL more closely resemble the native language of those speakers, and are not therefore properly classified as instances of transfer. Lucas (2015) gives the label “restructuring” to changes of this kind, which presumably occur in almost any contact situation where imposition is also taking place, though they will usually go undetected, being indistinguishable after the fact from purely internally caused changes. One circumstance where restructuring changes are clearly identifiable, however, concerns pidgins and creoles. Where these show a reduction in morphological complexity relative to the lexifier language that also does not represent transfer from the substrate(s), this can only have been caused by restructuring. See Avram (this volume) for several cases of this kind involving Arabic-based pidgins and creoles.

5 Layout of chapters

5.1 Structure

Chapters in each Part of the present volume follow a fixed basic structure. In Part I chapters, the first section gives sociolinguistic, demographic, and other relevant background information on the current state and/or historical development of the dialect(s) or varieties of Arabic under discussion. The second section then details the languages which the variety under discussion is or was in contact with, and describes the nature of those contacts. The third and main section then provides the data on the most noteworthy contact-induced changes in the variety under discussion. In general, changes described in this third section are ordered: phonology, morphology, syntax, lexicon. All chapters finish with a

concluding section that includes an outline of what we still do not know about contact-induced change the variety in question, as well as the most urgent issues for future research. Part II chapters on language change through contact with Arabic follow the same structure, with the second section focusing on the nature of the contact between Arabic and the language under discussion, as well as any other significant contacts in the case of those languages which have had contact influence from multiple languages. Since Part III focuses on contact-induced changes in specific, rather distinct, linguistic domains, the structure of chapters in this Part is less uniform, but each chapter begins with an introduction to the topic from a general linguistic point of view, followed by an overview of contact-induced changes in the domain in question, and finally a conclusion which again includes discussion of what remains unclear about the topic of the chapter, as well as the most promising avenues for future research.

5.2 Transcription and glossing

All chapters in the present volume adhere as far as possible to a single consistent system of transcription and glossing of numbered examples. In this subsection we summarize key elements of these two systems.

Examples from any language which has an official standardized Latin-script orthography (such as English, French, or Maltese) are transcribed in that orthography. Other than Arabic, any languages with no official standardized orthography, or only one which is not based on the Latin script, are transcribed according to a consistent scholarly system of each contributor's choosing. The International Phonetic Alphabet (IPA) is used only when the specific focus of discussion is points of phonological or phonetic detail. All Arabic examples in the volume are transcribed in accordance with the system for consonants laid out in Table 1.

In this table, voiced/voiceless pairs appear with the voiced sound immediately below its voiceless counterpart. Emphatic sounds (i.e. sounds with a secondary pharyngeal/uvular/velar articulation) appear immediately to the right of their plain counterparts, and are distinguished from them with a dot below.³ This broad phonemic system only distinguishes sounds which express meaningful contrasts (and vowels are transcribed following the same principles). For sub-phonemic contrasts that cannot be captured with the symbols in Table 1, the IPA is used. Gemination is signalled by doubling consonant symbols, vowel length by

³Note that /ħ/ does not, however, represent an emphatic version of /h/. We have chosen to retain the use of the traditional symbol ⟨ħ⟩ (rather than ⟨ḥ⟩) for the voiceless pharyngeal fricative, despite this unwanted implication that it represents an emphatic sound, so as to avoid confusion with the use of the symbol ⟨ḥ⟩ in the Maltese orthography (for details of which, see Lucas & Čěplö, this volume).

Table 1: Transcription system for Arabic consonants

	<i>Labial</i>	<i>Interdental</i>	<i>Dental/Alveolar</i>	<i>Postalveolar</i>	<i>Palatal</i>	<i>Velar</i>	<i>Uvular</i>	<i>Pharyngeal</i>	<i>Glottal</i>
Plosive	p b		t ṭ d ḍ			k g	q		ʔ
Affricate				č ç					
Fricative	f v	θ ð	s ṣ z ḏ	š ž		ħ (x) ^a ɣ	ħ	ʕ	h
Nasal	m		n						
Vibrant			r ṛ						
Lateral			l						
Approximant	w				y				

^a⟨ħ⟩ represents the voiceless velar fricative phoneme in all Arabic varieties where this contrasts with pharyngeal and glottal fricative phonemes. In Walter's (this volume) chapter on Cypriot Maronite Arabic, however, the symbol ⟨x⟩ is used to represent the single phoneme in that variety that is the outcome of the merger of the voiceless fricatives at all three of these places of articulation.

a macron above the long vowel. Stress is only marked for Arabic (with an acute accent on the nuclear vowel) where it marks a meaningful contrast, or where it is otherwise the focus of discussion in a particular passage.

Glossing of linguistic examples in the volume is handled similarly to transcription. The Leipzig Glossing Rules are followed throughout, with extensions where necessary. Every chapter includes at the end a list of glossing and other abbreviations used in that chapter. Within these parameters authors make their own choices for precisely how they wish to gloss languages other than Arabic. For all Arabic examples in the volume, we have tried to ensure that way they are glossed is completely consistent. Some of the key choices we have made in this regard are as follows.

As is well known, regular verbs in Arabic varieties have two basic conjugations: one in which the person–number affixes are exclusively suffixal, and one in which they are mainly prefixal. The suffix conjugation typically (but not al-

ways) functions to express past tense and/or perfective aspect, while the prefix conjugation typically (but not always) functions to express non-past tense and/or imperfective aspect. Since our aim with all glossing in the volume is to have one consistent gloss per morpheme, regardless of the precise temporal or aspectual functions in context, we have chosen to use the traditional Arabist labels of perfect and imperfect for these two conjugations, as opposed to alternatives such as past/non-past or perfective/imperfective. The abbreviations used are PRF for perfect and IMPF for imperfect.

Related to the issue of how best to label these two conjugations is the question of how best to analyse the distribution of person, number, gender, tense–aspect, and mood features across the verb stem and any affixes. The details need not concern us here, but finding an intuitive way of assigning each of these features to an appropriate morpheme, in a way that is consistent across all cells in the relevant paradigms, is extremely challenging. For this reason, in the present volume we make no attempt at morphological decomposition in the glossing of a word such as MSA *yaktubūna* ‘they (m.) write’. This is glossed simply as: *yaktubūna* ‘write.IMPF.3PL.M’. Accordingly, *sallamat* in (5) is glossed as ‘give.PRF.3SG.F’. It follows from this that the absence of a hyphen in a string of Arabic in a numbered example cannot be taken to imply that that string is monomorphemic. Relatedly, we make no attempt to distinguish between clitics and affixes in the glossing of Arabic examples in the present volume: a morpheme boundary of any sort is signalled by a hyphen.

The overarching principle we have followed in all of these decisions on glossing and transcription is to try to present the relevant linguistic data in as clear, plain, and unambiguous a format as possible.

6 Problems and prospects

As discussed in §4, Van Coetsem’s framework, with its basic distinction between borrowing and imposition, has the merit of enabling us not only to coherently categorize many contact-induced changes according to the processes of language acquisition and use that produced them, but also, at least in some cases, to attempt to address Weinreich et al.’s (1968) actuation problem, and so provide a genuinely explanatory account of the genesis of individual contact-induced changes.

This is certainly not to claim, however, that Van Coetsem’s framework, in the way that he himself presents it, is without its weaknesses. We have already discussed in §4.4 some instances of contact-induced change which are not easily accommodated by the neat dichotomy between the two main transfer types: this

is why Lucas (2015) proposes extending Van Coetsem's model to accommodate convergence and restructuring as additional transfer types.

A more fundamental problem is that, for many of the changes discussed in this volume and elsewhere, there is simply not enough sociohistorical information available to be able to infer with confidence what precise mechanisms underlie the changes in question. In such cases Van Coetsem (1988; 2000) and, following him, Winford (2005) suggest that the type of transfer that was operative in a given change can be diagnosed from its results. That is, for example, if a change involves word order, we can assume that it was due to imposition, while loanwords can be assumed to have been introduced via borrowing. Van Coetsem (1988: 25) argues that this is so because "language does not offer the same degree of stability in all its parts, in particular [...] there are differences in stability among language domains, namely among vocabulary, phonology and grammar (morphology and syntax)." He labels this observation the STABILITY GRADIENT, and suggests that it is this supposed fact about language that underlies the observed discrepancies between the types of change characteristically associated with borrowing and imposition respectively. As argued by Lucas (2012; 2015), however, there is no *a priori* or empirical reason to believe that the whole of "grammar" – a term which covers a range of highly heterogeneous phenomena – should necessarily behave similarly in language contact situations, with any contact-induced grammatical changes necessarily being due to imposition. This argument does not of course deny the strong tendency, already pointed out in §4.1, for imposition to be systematic and to target abstract structural features, while borrowing is more sporadic and centred on lexicon. But if the stability gradient only reflects a tendency, not an exceptionless law, then its usefulness as a diagnostic tool is greatly reduced. Indeed, several authors have pointed out that there are clear cases of contact-induced grammatical change for which only RL agentivity is plausible. For example, Kossmann (2013: 430) points out that, though the predictions of the stability gradient tend to be borne out in cases in which phonological and morphological change are mediated through borrowed lexical items, there are however also cases in which elements of Arabic structure (e.g. the syntax of clausal coordination and relativization) have been transferred into Berber under RL agentivity, without obviously being related to lexical transfer.

Further challenges to the idea of the stability gradient are provided by several of the contributions to the present volume. For example, Leitner (this volume) points to the transfer of verb–auxiliary order from Persian to Khuzestan Arabic as an instance of abstract structural transfer (not the transfer of a specific construction) in a context in which only borrowing, not imposition, can be the cause (cf. (2) in §4.2). Similarly, Walter (this volume) points out that in Cypriot

Maronite Arabic there has been systematic abstract phonological (as well as syntactic) transfer from Greek, in a sociolinguistic situation in which RL-dominant individuals must have been the agents of change. In the contribution of Manfredi (this volume), the necessity for a fine-grained approach to how transfer interacts with the different types of agentivity is brought into sharp relief, thanks to Manfredi's distinction between three types of grammatical calquing, two of which involve the calquing of polyfunctionality of lexical or grammatical items with or without syntactic change, while the third is a "narrow" type, producing syntactic change without calquing of the functions of lexical/grammatical items. A simplistic approach that sees lexicon and grammar as wholly distinct, internally homogeneous entities is clearly inadequate for an understanding of the mechanisms underlying changes of this sort.

A final challenge to a straightforward application of Van Coetsem's framework to problems in contact linguistics concerns the emergence of new languages in extreme contact situations. According to Winford (2005: 396; 2008: 128), the processes that create contact languages are the same as those that operate in ordinary cases of contact-induced language change. Thus he identifies three broad categories of contact languages: those that arise through RL agentivity (i.e. borrowing); those that arise primarily through SL agentivity (i.e. imposition); and those that arise through a combination of SL and RL agentivities (see also Manfredi 2018: 414). From the perspective of this classification, Winford points out that creole languages, since they emerge in a context of second language acquisition, are essentially a product of SL agentivity. But if we take a closer look at Arabic-based pidgins and creoles (Avram, this volume), the picture is more complex. For example, a number of phonological features of Juba Arabic (e.g. loss of pharyngeal and pharyngealized consonants; loss of consonant and vowel length) are clearly attributable to imposition from Bari, the main substrate language, during the first phases of its emergence. In the same manner, the lexical and grammatical semantics of Juba Arabic are strongly affected by those of Bari, as shown by several cases of calquing (Manfredi, this volume). However, a number of phonological and morphological innovations (e.g. presence of implosive sounds and integration of nominal prefixes and suffixes) must instead be seen as the result of borrowing enacted by Juba Arabic-dominant speakers latterly exposed to Bari as an adstrate language. What this shows is that creolization, being necessarily multicausal, cannot be straightforwardly reduced to a single type of linguistic transfer. Instead, it is essential that we combine the linguistic dominance approach with fine-grained sociohistorical criteria for typologizing contact languages.

As is evident from our decision to adopt Van Coetsem's model as this volume's basic analytical framework, we believe that its focus on agentivity and dominance must be central to any attempt understand the cognitive factors that actually cause contact-induced change, as opposed to the sociolinguistic factors that promote it. We do not consider, therefore, that the challenges for this framework that we have explored in the current section are insurmountable (see Lucas 2012; 2015 for a detailed defence, revision, and application of the framework). Rather our hope is that the ideas explored in this introduction, together with the wealth of data presented in the following chapters, will serve as a stimulus for the wider community of Arabists and historical linguists to push forward understanding both of the history of the Arabic language, and of the nature of contact-induced change in general.

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Abbreviations

*	reconstructed form	NENA	North-Eastern Neo-Aramaic
1, 2, 3	1st, 2nd, 3rd person	NOM	nominative
ACC	accusative	OBJ	object
COORD	coordination	OBL	oblique
CSL	causal	PFV	perfective
DAT	dative	PN	personal name
DEF	definite	PRES	NENA Present Base
F	feminine	PRF	perfect
IMPF	imperfect	PRSP	prospective
INF	infinitive	REL	relative
IPA	International Phonetic Alphabet	RL	recipient language
M/m.	masculine	SG	singular
MSA	Modern Standard Arabic	SL	source language

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Part I

**Contact-induced change in
varieties of Arabic**

Chapter 2

Pre-Islamic Arabic

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This chapter provides an overview of Arabic in contact in the pre-Islamic period, from the early first millennium BCE to the rise of Islam. Contact languages include Akkadian, Aramaic, Ancient South Arabian, Canaanite, Dadanitic, and Greek. The chapter concludes with two case studies on contact-induced development: the emergence of the definite article and the realization of the feminine ending.

1 Preliminaries

1.1 Language contact in the pre-Islamic period

[I]n the Djāhiliyya, “the Age of Ignorance” [...], the Arabs lived to a great extent in almost complete isolation from the outer world... [t]his accounts for the prima facie astonishing fact that Arabic, though appearing on the stage of history hundreds of years after the Canaanites and Aramaeans, nevertheless in many respects has a more archaic character than these old Semitic languages. The Arabs, being almost completely isolated from outer influences and living under the same primitive conditions of their ancestors preserved the archaic structure of their language. (Blau 1981: 18).

This is the image of Arabic’s pre-Islamic past that emerges from Classical Arabic sources. For writers such as Ibn Khaldūn, contact-induced change in Arabic was a by-product of the Arab conquests, and served to explain the differences between the colloquial(s) of his time and the literary language. More than a century and a half of epigraphic and archaeological research in Arabia and adjacent areas has rendered this view of Arabic’s past untenable. Arabic first appears in the epigraphic record in the early first millennium BCE, and for most of its pre-Islamic history, the language interacted in diverse ways with a number of related



Semitic languages and Greek. This chapter will outline the various foci of contact between Arabic and other languages in the pre-Islamic period based on documentary evidence. Following this, I offer two short case studies showing how contact-induced change in the pre-Islamic period may explain some of the key features of Arabic today.

1.2 Old Arabic

Old Arabic is an umbrella term for the diverse forms of the language attested in documentary and literary sources from the pre-Islamic period, including inscriptions, papyri, and transcriptions in Greek, Latin, and cuneiform texts. The present usage does not refer to Classical Arabic or the linguistic material attributed to the pre-Islamic period collected in the eighth and ninth centuries CE, such as poetry and proverbs, as we cannot be sure about their authenticity, especially with regard to their linguistic features. Al-Jallad (2017) defines the corpus of Old Arabic as follows: Safaitic, an Ancient North Arabian script concentrated in the Syro-Jordanian Ḥarraḥ (end of the 1st millennium BCE to 4th c. CE), Hismaic, an Ancient North Arabian script spanning from central Jordan to northwest Arabia (chronology unclear, but overlapping with Nabataean), the substratum of Nabataean Aramaic, along with a few Arabic-language texts carved in this script (2nd c. BCE to 4th c. CE), the Nabataeo-Arabic inscriptions (3rd c. CE to 5th c. CE), pre-Islamic Arabic script inscriptions (5th c. CE to early 7th c. CE) and isolated inscriptions in the Greek, Dadanitic (the oasis of Dadān, modern-day al-ʿUlā, northwest Ḥiǧāz), and Ancient South Arabian alphabets (varied chronology).

In geographic terms, Old Arabic is attested mainly in the southern Levant, the Sinai, and northwestern Arabia, as far south as Ḥegrā (Madāʿin Ṣāleḥ). Within this area a variety of non-Arabic languages were spoken and written, with which Old Arabic interacted. The main contact language was Imperial Aramaic, which served as a literary language across North Arabia in the latter half of the first millennium BCE until, perhaps, the rise of Islam. Since contact must be viewed through the lens of writing, it is in most cases difficult to determine how extensive multilingualism was outside of literate circles.

2 Contact languages

2.1 Arabic and Akkadian

The first attestations of Arabic are preserved in cuneiform documents. While no Arabic texts written in cuneiform have yet been discovered, isolated lexical

items survive in this medium. Livingstone (1997) identified an example of the Old Arabic word for ‘camel’ with the definite article in the inscriptions of Tiglath-pileser III (744–727 BCE): *a-na-qa-a-te* = *(h/?)an-nāq-āte* ‘the she-camels’. Aside from this, almost all other Arabic material consists of personal and divine names. There are reports of “Arabs” in Mesopotamia – inhabiting walled towns in western Babylonia – as early as the eighth century BCE (Eph’al 1974: 112). While we cannot be sure that the people whom the Babylonians called Arabs were in fact Arabic speakers, a few texts in dispersed Ancient North Arabian scripts hail from this region. So far, all seem to contain only personal names with Arabic or Arabian etymologies.¹ These facts can only suggest the possibility of contact between speakers of Arabic and Akkadian in the early first millennium BCE.

2.2 Arabic and Canaanite

Contact between Arabic speakers and speakers of Canaanite languages is documented in the Hebrew Bible (Eph’al 1982: ch.2; Retsö 2003: ch.8), and there is one inscription directly attesting to contact between both groups. An Ancient North Arabian inscription from Bāyir, Jordan contains a prayer in Old Arabic to three gods of the Iron Age Canaanite kingdoms of Moab, Ammon, and Edom (Hayajneh et al. 2015). The text is accompanied by a Canaanite inscription, which remains undeciphered. The reading of the Arabic according to the edition is as follows:

- (1) Bāyir inscription (Hayajneh et al. 2015)

h mlkm w-kms w-qws b-km ḥwḏn h-ʔshy
 VOC PN CONJ-PN CONJ-PN PREP-2PL.M protect.PRF.1PL DEM-well.PL
 m-mdwst
 PREP-ruin

‘O Malkom, Kemosh, and Qaws, we place under your protection these wells against ruin.’

2.3 Arabic and Aramaic

Evidence for contact between Arabic and Aramaic spans from the middle of the first millennium BCE to the late sixth century CE, and is concentrated in the southern Levant and northwest Arabia.² Perhaps one of the earliest examples

¹“Dispersed Ancient North Arabian” is a temporary term given to the Ancient North Arabian inscriptions on seals, pottery, bricks, etc. which have been found in various parts of Mesopotamia and elsewhere (Macdonald 2000: 33).

²See Stein (2018) on the role of Aramaic in the Arabian Peninsula in the pre-Islamic period.

of Arabic speakers using Aramaic as a written language comes from the fifth-century-BCE Nile Delta. A king of Qedar, Qayno son of Gošam,³ commissioned an Aramaic votive inscription dedicated to *hn-ʔlt* ‘the goddess’ (Rabinowitz 1956). Arabic names can be found in transcription across the Levant in Aramaic inscriptions (Israel 1995), and in most cases names with an Arabic etymology terminating in the characteristic final -w, reflecting an original nominative case (Al-Jallad forthcoming).

Arabic and Aramaic language contact reaches a climax in the written record at the end of the first millennium BCE with the arrival of inscriptions in the Nabataean script. The Nabataeans established a kingdom in the region of Edom in the fourth century BCE, which at its greatest extent spanned from the Ḥawrān to the northern Ḥiḡāz. While they, like their contemporaries across the Near East, wrote in a form of Imperial Aramaic, the spoken language of the royal house and large segments of the population was Arabic. Unlike other examples of Aramaic written by Arabic speakers so far, Nabataean incorporated Arabic elements into its writing school, such as the optative use of the perfect, the negator *yayr*, and a significant number of lexical items relating to daily life (Gzella 2015: 242–243).

Perhaps one of the most interesting examples of contact between the two languages is found in Nabataean legal papyri from the Judaeian desert (1st–2nd c. CE). These Aramaic-language legal documents contain a number of glosses in Arabic, for example: *ʔqd* /ʔaqd/ ‘contract’; *mʕnm* /maʕnam/ ‘profit’; *prʕ* /faraʕ/ ‘to branch out’; *ʕnʕh* /ʕanʕah/ ‘handiwork’, etc. (Yardeni 2014). Macdonald (2010: 20) has suggested, based on this evidence, that Nabataean legal proceedings would have taken place in Arabic, while all written records were made in Aramaic.

In addition to the use of Arabic within Aramaic, a unique votive inscription from ʔEn ʔAvdat (Negev, Israel) contains three verses of an Arabic hymn to the deified Nabataean king ʔObodat embedded within an Aramaic text. While undated (but likely earlier than 150 CE), the text is certainly the earliest example of continuous Arabic language written in the Nabataean script, as before this almost all examples are isolated words and personal names.

³The symbol š denotes the Old Arabic reflex of Classical Arabic ⟨ش⟩, which is usually transcribed š. /š/ was likely realized as a voiceless lateral fricative [ʃ].

(2) ʔEn ʔAvdat inscription⁴

a. Aramaic

dkyr b-ṭb q[r]ʔ qdm ʔbdt ʔlhʔ
 remember.PTCP.PASS PREP-good read.PTCP.ACT PREP PN god.DEF
 w-dkyr mn ktb grmʔlhy br
 CONJ-remember.PTCP.PASS REL write.PRF.3SG.M PN son.CS
 tymʔlhy šlm lqbl ʔbdt ʔlhʔ
 PN be_secure.PRF.3SG.M PREP PN god.DEF

‘May he who reads this aloud be remembered for good before ʔObodat the god, and may he who wrote be remembered. May Garmallāhi son of Taymallāhi be secure in the presence of ʔObodat (the god).’

b. Arabic

p-ypʔl lʔ pdʔ w-lʔ ʔtrʔ p-kn
 CONJ-act.IMPF.3SG.M NEG ransom.ACC CONJ-NEG scar.ACC CONJ-be.INF
 hnʔ ybʔ-nʔ ʔl-mwtw lʔ ʔbʔ-h
 here seek.IMPF.3SG.M-1PL DEF-death.NOM NEG make.obtain.INF-3SG.M
 p-kn hnʔ ʔrd grḥw lʔ
 CONJ-be.INF here want.PRF.3SG.M wound.NOM NEG
 yrd-nʔ
 want.IMPF.3SG.M-1PL

‘May he act that there be neither ransom nor scar; so be it that death would seek us, may he not aid its seeking, and so be it that a wound would desire (a victim), let it not desire us!’

c. Aramaic

grmʔlhy ktb yd-h
 PN writing.cs hand.3SG.M

‘Garmallāhi, the writing of his hand.’

The presence of Aramaic is much more lightly felt in the desert hinterland to the east and north of Nabataea. A small handful of Safaitic–Aramaic bilingual inscriptions are known (Hayajneh 2009: 214–215). In one Safaitic text, produced by a Nabataean, the author gives his name and affiliation to social groups in a type of Aramaic, but then writes the remainder of the inscription in Old Arabic, suggesting that this individual may have been bilingual.

⁴This is my translation; the *editio princeps* is Negev, Naveh & Shaked (1986); it is discussed most recently in Fiema et al. (2015: 399–402) and Kropp (2017).

- (3) Nabataean Safaitic (Al-Jallad 2015: 19; C 2820)

l ʔʔsd bn rbʔl bn ʔʔsd bn rbʔl nbṭwy slmy w
 PREP PN son.CS PN son.CS PN son.CS PN Nabataean Salamite CONJ
 brḥ ḥlqt śty h-dr w
 depart.PRF.3SG.M period.CS winter DEF-region CONJ
 tōr h-smy
 keep_watch.PRF.3SG.M DEF-sky

‘By ʔAʔsad son of Rabbʔel son of ʔAʔsad son of Rabbʔel, the Nabataean Salamite, and he set off from this place for the period of winter and kept watch for the rains.’

A handful of Aramaic loans are found in the Safaitic inscriptions: *sfr* ‘writing’; *ʔsyt* ‘hide, trap’; *lṣt* ‘thief’, ultimately from Greek *lēistēs*. Other words, such as *mdbr* /*madbar*/ ‘the Hamad, wilderness’ and *nḥl* /*naḥl*/ ‘valley’, are absent in Classical Arabic yet appear in the Northwest Semitic languages. These do not appear to be loans, however, as their meanings and phonologies are local and Arabic, respectively. They should instead be regarded as genuine cognates that did not make it into the Islamic-period lexica.

2.4 *Provincia Arabia* and the Nabataeo-Arabic script

In 106 CE, under circumstances that remain poorly understood, the Romans annexed the Nabataean Kingdom and established their Province of Arabia. While Nabataean political independence ended, their script, writing tradition and language continued to thrive and evolve. This is exemplified by the famous tomb inscription of Raqōs bint ʔAbd-Manōto from Madāʔin Ṣāliḥ. Dated to 267 CE, the text is a legal inscription associated with the grave of a woman who died in al-Ḥegr. Unlike other grave inscriptions at this site, the Raqōs inscription is composed almost entirely in Arabic, with the Aramaic components restricted to the introductory demonstrative *dnh* ‘this’, the words for ‘son’ and ‘daughter’, the dating formula, and the name of the deity. The Aramaic components are bolded below:

- (4) Madāʔin Ṣāliḥ inscription (JSNab 17)⁵

dnh qbrw ṣnʔ-h kʔbw **br** ḥrtt l-rqwš **brt**
 DEM grave build.PRF.3SG.M-3SG.M PN SON PN PREP-PN daughter
 ʔbdmnwtw ʔm-h w-h hlkt fy ʔl-ḥgrwy **šnt**
 PN mother-3SG.M CONJ-3SG.F die.PRF.3SG.F PREP DEF-PN year

⁵For the latest discussion of this text, see Macdonald’s contribution to Fiema et al. (2015: 402–405).

mʔh w-štyn w-tryn b-yrḥ tmwz
 hundred CONJ-sixty CONJ-TWO PREP-month Tammūz
w-lʔn mryʕlmʔ mn yšnʔ ʔl-qbrw d[ʔ]
 CONJ-curse.PRF.3SG.M PN REL desecrate.IMPF.3SG.M DEF-grave DEM
w-mn yfṯh-h ḥšy w wld-h
 CONJ-REL open.IMPF.3SG.M-3SG.M except w children-3SG.M
w-lʔn mn yqbr w-yʕly
 CONJ-curse.PRF.3SG.M REL bury.IMPF.3SG.M CONJ-remove.IMPF.3SG.M
mn-h
 PREP-3SG.M

‘This is a grave that Kaʕbo **son** of Ḥāreθat constructed for Raqōś **daughter** of ʕAbd-Manōto, his mother, and she perished in al-Ḥegro **year one hundred and sixty two in the month of Tammūz**. **May the Lord of the World** curse anyone who desecrates this grave and anyone who would open it, with the exception of his children, and may he curse anyone who would bury or remove from it (a body).’

During the same period, the classical Nabataean script continues to evolve towards what we consider the Arabic script (Nehmé 2010). Its letter forms take on a more cursive character, and the connecting element of each letter goes across the bottom of the text. Nehmé considers the letter forms typical of the Arabic script to have evolved from Nabataean between the third and fifth centuries CE. In inscriptions from this period, the Arabic component begins to increase at the expense of Aramaic (Nehmé 2017). This trend may suggest that knowledge of Aramaic was waning in these centuries, or that the writing tradition itself was transforming – Aramaic was slowly being replaced by Arabic. If we think in terms of writing schools, there may not have been much Arabic–Aramaic bilingualism in Arabia outside of the scribal class – indeed, scholars have continued to debate whether Nabataean Aramaic was ever a colloquial, and there are good arguments to doubt that it was (Gzella 2015: 240). The remnants of Aramaic in the latest phases of the Nabataeo-Arabic inscriptions, however, most certainly functioned as a code, grams for Arabic words, a situation comparable to the Aramaeograms of Pahlavi (cf. Nyberg 1974).

2.5 The Arabic inscriptions of the sixth century CE

In Arabic inscriptions of the sixth century, written Arabic and Aramaic continue the stable situation of contact witnessed in the Nabataeo-Arabic period. Aramaic fossils are employed in dating formulae and the word for ‘son’, and possibly the

first person pronoun. But otherwise, the language of these texts is entirely Arabic. Perhaps the most famous among these is the inscription of Jebel Usays, given in (5), in which the Aramaic components are bolded.

- (5) Jebel Usays inscription⁶
ʔnh⁷ r̥qym **br** m̥r̥f ʔl-ʔwsy ʔrsl-ny ʔlhrt ʔl-mlk ʔly
 1SG PN SON PN DEF-Awsite send.PRF.3SG.M-1SG PN DEF-king PREP
 ʔsys msl̥h snt 423
 Usays outpost year 423
 ‘I, Ruqaym **son** of Muʔarrif the Awsite, al-Ḥārīṯ the king sent me to
 Usays as an outpost, year 423.’ [= 528/9 CE]

2.6 Arabic, Greek and Aramaic in sixth-century Petra

In 1993, a corpus of carbonized Greek papyri – some 140 rolls – was discovered at the Byzantine church of Petra.⁸ These documents attest to a trilingual situation at the city: Greek served as the official administrative language, while Arabic and Aramaic appear to have been spoken languages. The microtoponyms (names of small plots of lands and vineyards) are in both Arabic and Aramaic, and often-times the same word is expressed in both languages, as in Table 1.

Table 1: Arabic–Aramaic equivalents in the Petra Papyri (Al-Jallad 2018a: 41)

Translation	Arabic	Aramaic
‘land markers’	أرām /ārām/	Εραμαεία /eramayyā/
‘farm’	αλ-Ναῖβα /al-naṣbah/	Ναῖβαθα /naṣbatā/
‘canal’	αλ-Κεῖσεβ /al-qeṣeb/	Κιῖσεβ/Κεῖσεβ /qiṣbā/

This naturally suggests that, alongside literacy in Greek, there was spoken bilingualism in Arabic and Aramaic, perhaps a stable situation extending back to Nabataean times.

⁶For the latest discussion of this text, see Macdonald’s contribution to Fiema et al. (2015: 405).

⁷While it has been suggested that the spelling *ʔnh* reflects a pausal form (Larcher 2010), it seems more likely in light of the Thaʔlabah Nabataeo-Arabic inscription (Avner et al. 2013), which spells ‘I’ as *ʔnh*, that this form reflects the Aramaic spelling of the pronoun rather than an Arabic variant.

⁸These papyri are edited in a five-volume series: the *Petra Papyri I–V* (2002–2018), various editors, Amman: American Center of Oriental Research. See Arjava et al. (2018) for the last volume.

2.7 Arabic and Ancient South Arabian

Classical Arabic sources note a situation of close contact between Arabic and “Ḥimyaritic”, a term used for a language they associated with the pre-Islamic kingdom of Ḥimyar in what is today Yemen. The pre-Islamic inscriptions from the northern Yemeni Jawf, the so-called Haram region, attest to a similar situation. These texts are composed in Sabaic, but contain a significant admixture of non-Sabaic linguistic material. Some scholars (e.g. Robin 1991) have considered Arabic to be the contributing source, but in most cases the non-Sabaic linguistic features are not specific to Arabic, such as the use of the causative verb ʔaCCaC , which is attested in Aramaic and Gəʕəz for example, rather than haCCaC as in Sabaic. As Macdonald (2000: 55) rightly puts it, these inscriptions are basically Sabaic, with a small admixture from North Arabian languages, but not necessarily Arabic. Four texts from this region, however, exhibit the Arabic isogloss of *lam* for past-tense negation, suggesting that some form of Arabic may have contributed to their mixed character.⁹

Mixed North/South Arabian texts can be found further to the north, in Nağrān and Qaryat al-Fāw. The most famous is perhaps the grave inscription of *Rbbl bn Hfym*. This unique text attests features that can be attributed to both non-Sabaic and Sabaic sources. On the non-Sabaic side, it uses the definite article ʔl , the causative morpheme ʔ- rather than h- , and occasionally the 3rd person pronoun h rather than hw . At the same time, the text employs mimation, clitic pronouns with long vowels, e.g. -hw , and prepositions not known in Arabic (Al-Jallad 2018b: 30). At Nağrān, one occasionally encounters Arabic lexical items, such as *ldy* ‘at’ and *ʕnd* ‘with’ in otherwise perfectly good South Arabian texts. So then, how are we to interpret the mixed character of these texts? For Qaryat al-Fāw, Durand (2017: 95, fn.32) has suggested, based on the significant amount of Petraean pottery, that a sizable Nabataean colony existed at the oasis. It could be the case that Nabataean colonists introduced Arabic to the oasis, where it naturally gained prestige as a trade language given its links with the north. The mixed nature of some of the inscriptions of this site could therefore be interpreted in two ways. If they reflect a spoken variety, then perhaps they are the result of convergence between the Arabic introduced by the Nabataeans and Sabaic, similar to the modern dialects of Yemeni Arabic today, which are essentially Arabic with a significant South Arabian admixture.¹⁰ If we are dealing with an artificial scribal register, then the language may be the result of a scribe attempting to produce

⁹For a list of the Haram inscriptions, see Macdonald (2000: 61), who labels these texts Sabaeo-North-Arabian.

¹⁰On these varieties, see Watson (2018).

a text in Arabic, for an Arabic-speaking customer, but inadvertently introducing Sabaicisms from the language he is more used to writing. A similar phenomenon might be at play in the Aramaic–Hasaitic tomb inscription from Mleiha.¹¹ There, the scribe – seemingly unintentionally – uses the Aramaic word for son, *br*, in the Hasaitic portion of the text, suggesting perhaps that he was bilingual and more used to writing in Aramaic (Overlaet et al. 2016).

2.8 Arabic in the Ḥiḡāz

Before the arrival of the Nabataeans, the written language of the oasis of al-ʿUlā and associated environs in the northern Ḥiḡāz was Dadanitic, a non-Arabic Central Semitic language. A few texts, however, display features that are unambiguously Arabic. The best known of these is JSLih 384. This short text is written in the Dadanitic script but seems to be, in other respects, produced in a dialect of Old Arabic, notably making use of the relative pronoun *?lt* /ʔallati/. Two other Dadanitic texts make use of the Arabic construction *?n yʃl*, that is, the use of the subordinator *?an* with a modal verb. In addition to this, one occasionally finds the *?(l)* definite article employed in these inscriptions. The interpretation of this contact situation, like that in South Arabia, is unclear. Do these few texts represent the writings of travelers or immigrants from the north, whose spoken language influenced the dictation of text to the scribe? Or do they reflect unique points on a dialect continuum? The complex linguistic situation at ancient Dadan is the subject of a fascinating study by Kootstra (2019).

2.9 Arabic and the languages of the Thamudic inscriptions

Even more difficult to distill is the possible contact situation between Arabic and the more shadowy pre-Arabic Semitic languages of north and central Arabia. We are afforded a small glimpse of these languages by the laconic Thamudic inscriptions, mainly those classified in the C, D, and F scripts.¹² While it is difficult to say much about the languages these scripts express, they are clearly distinct from Arabic (Al-Jallad 2017: 321–322). The only evidence for contact between Arabic and any of these languages is found in the tomb inscription of Raqōs at Madāʿin Šāliḥ, illustrated in (4). This text, as discussed in §2.4, is written mainly in Arabic, with a few fossilized Aramaic components. Alongside the main inscription, there is a short text inscribed in the Thamudic D script stating: *?n rqš bnt ʃbdmnt* ‘This is Raqōs, daughter of ʃAbdo-Manōto’. The use of the introductory element

¹¹Hasaitic is the name given to the pre-Islamic script and language of East Arabia.

¹²Thamudic B, C, and D are discussed in Macdonald (2000) and Al-Jallad (2017; 2018b); Thamudic F is outlined in Prioletta & Robin (2018).

?n ‘this’ or perhaps ‘for’, rather than the Arabic demonstrative *d?* /*ðā*/ or perhaps its feminine equivalent *dy* /*ðī*/, employed in the Nabataean text, indicates that we are dealing with a third language.¹³ Did Raqōs originally hail from a nomadic community who spoke a non-Arabic Semitic language expressed in the Thamudic D script? And did she later come to live in Arabic-speaking Ḥegrā? Was the use of this script on her grave a tribute to her heritage? These questions are impossible to answer with the data available to us now, but they widen the scope of investigation when examining Arabic’s history. The available fragments of evidence support the suggestion put forth recently by Souag (2018): we must consider the possibility of unknown Semitic substrate(s) in the development of early Arabic.

2.10 Arabic and Greek

The nexus of Arabic–Greek contact, based on the inscriptions known so far, is the Syro-Jordanian Harrah, the basalt desert that stretches from the Hawrān to northern Arabia. Greek inscriptions are occasionally found throughout this region, interacting with the local Arabic dialects in diverse ways. The commonest type of bilingual text consists of simple signatures in Safaitic and Greek. These texts, illustrated in (6), only prove that the author knew how to write his name in Greek, and do not constitute evidence for genuine bilingualism.

(6) Graeco-Arabic inscription A1 (Al-Jallad & al-Manaser 2016: 56)

- a. Greek
Θαιμος Γαφαλου
Taym Gaḥfal
‘Taym, son of Gaḥfal’
- b. Arabic
l-tm bn gḥfl
PREP-Taym son Gaḥfal
‘for/by Taym, son of Gaḥfal’

The second inscription discussed by Al-Jallad & al-Manaser (2016), illustrated in (7), provides more insight into the different degrees of Arabic–Greek bilingualism. The author carves a short text in both Greek and Old Arabic, indicating that he knew both languages but that his command of Arabic was obviously better.

¹³While it is tempting to interpret *?n* as the first-person singular pronoun *?anā*, such a formula would indeed be strange in a grave epitaph. Perhaps *?n* is cognate with the demonstrative/presentative element *han, or perhaps it should be construed as a dative ‘to, for’ cognate with East Semitic *ana*.

(7) Graeco-Arabic inscription 2 (Al-Jallad & al-Manaser 2016: 58)

a. Arabic

l-γθ w thll ʔfwh ʔql sr
PREP-Ghawth CONJ go.PRF.3SG.M PREP protected_area Sayr
'By Ghawth and he went into the protected area of Sayr.'

b. Greek

Γαυτος ἀπῆλθεν [ε]ἰς τόν Ακελον Σαιρου
Ghawth.NOM depart.AOR.3SG PREP DEF.M.ACC.SG ʔaql.ACC.SG Sayr.GEN
'Ghawth, he went away to the ʔaql of Sayr.'

The author translates the Arabic into Greek effectively, but seems not to have known the Greek word for the culturally specific term *ʔaql*, 'a protected area of pasturage'. In this case, he simply wrote the word out in Greek: *Ακελον*.

There is evidence that some nomadic Arabic speakers did master the Greek language, as one sometimes comes across very well-composed texts in Greek, attesting to full-scale bilingualism, at least in writing (for example A2 in Al-Jallad & al-Manaser (2015). This level of bilingualism, however, must have been rare. There is no appreciable influence from Greek on the Arabic of the Safaitic inscriptions. A few loanwords are known, e.g. *qsr* 'Caesar', *lʃt* 'thief', but these more likely come through Aramaic.

2.11 Arabic in eastern Arabia

The inscriptional record of eastern Arabia is relatively poor when compared to the western two-thirds of the Peninsula. Nevertheless, the extant texts point towards contact between Aramaic and the local Arabian language, called Hasaitic by scholars. This language, however, cannot be regarded as a form of Arabic, and there are no pre-Islamic attestations of Arabic from eastern Arabia yet (Al-Jallad 2018b: 260–261).

3 Grammatical features arising from contact

This section offers a contact-based explanation for two linguistic features found in Old Arabic: the definite article, and the realization of the feminine ending.

3.1 Definite article

It has long been established that the overt marking of definiteness in the Semitic languages is a relatively late innovation (Huehnergard & Rubin 2011: 260–261).

All varieties of Arabic today attest some form of the definite article – most commonly variants of *ʔal* but other forms exist as well, mainly in southwest Arabia, including *am*, *an*, and *a-*, with gemination of the following consonant. In light of the comparative evidence, did Arabic innovate this feature independently or was contact with other Semitic languages involved?

The evidence suggests that the prefixed article *han- emerged in the central Levant sometime in the late second millennium BCE, after the diversification of Northwest Semitic (Tropper 2001; Gzella 2006; Pat-El 2006). It seems clear that by the early first millennium BCE, the article had spread across the southern Levant and to North Arabia, as it is found in Taymanitic, Thamudic B, and Dadanitic, as well as in the Old Arabic of the Safaitic inscriptions. In the latter case, contact with Canaanite is substantiated in the inscriptional record in the form of the Bāyir inscription (see §2.2 above).

All of these languages, including the earliest Old Arabic, took over the form of the article unchanged; that is *h-* with the assimilation of the /n/ before a consonant, the exception being Dadanitic, which preserves the /n/ before laryngeal consonants, e.g. *h-mlk* /ham-malk/ ‘the king’ vs. *hn-ʔly* ‘the upper’ /han-ʔaʕlay/. We cannot, however, argue for the spread of the definite article to Proto-Arabic. The original, article-less situation is attested in the inscriptions of Central Jordan stretching down to the Hismā, known as Hismaic (Graf & Zwettler 2004). These texts are in unambiguously Arabic language, but they lack the definite article. The *h-*morpheme exists, but it has a strong demonstrative force. Indeed, in a few Nabataean–Hismaic bilingual inscriptions, the definite article *ʔl* of the Nabataean component is rendered as zero in the Hismaic text (Hayajneh 2009). A minority of Safaitic inscriptions also lack the definite article (Al-Jallad 2018b), showing that it had not spread to all varieties of Arabic even as late as the turn of the Era. Thus, like Hebrew and Aramaic, the earliest linguistic stages of Arabic – and indeed Proto-Arabic – lacked a fully grammaticalized definite article. Contact with Canaanite then seems to be the likeliest explanation for the appearance of the *h-*article in Old Arabic.

While the *h-* article is the commonest form in Old Arabic, whence the *ʔal* form? The *ʔal* article appears to be a later development from the original *han* article, through two irregular sound changes: *h* > *ʔ* and *n* > *l*.¹⁴ The former is well attested in Arabic (e.g. the causative *ʔaCCaCa* from *haCCaCa*), while the latter is not uncommon in loans (e.g. *finḡān* vs. *finḡāl* ‘cup’). The *ʔal* article appears to have developed in the western dialects of Old Arabic, attested first in the Nile Delta (cf. the famous *αλιλατ al-ʔilat* ‘the goddess’ mentioned in Herodotus, *Histories* I: 131), and is the regular form of the article in the dialect of the Nabataeans,

¹⁴The origins of the *al-*article are discussed in detail in Al-Jallad (forthcoming).

who were situated in ancient Edom, stretching south to the Ḥiḡāz. The *ʔal*-article is attested sporadically at Dadān in the western Ḥiḡāz as well. Based on the inscriptional record, the *ʔal*-article was a typical linguistic feature of settled, rather than nomadic groups, being attested most frequently in the Nabataean dialect, and in cities and oases like Petra and Ḥegrā. The nomads used a variety of definite article forms. It was perhaps not until the rise of Islam, and the resulting prestige given to official Arabic of the Umayyad state, that the *ʔal* article began to dominate at the expense of other forms.

3.2 The feminine ending

In most modern Arabic dialects, the feminine ending **-at* is realized as *-a(h)* in all contexts except the construct state, where it retains its original form *-at*. In Classical Arabic, it is *-at* in all situations, except for in utterance-final position, where it is realized as *-ah*. The Quranic Consonantal Text resembles the situation in the modern dialects, as do the transitional Nabataeo-Arabic and sixth-century Arabic script inscriptions (Nehmé 2017). Yet, if we go back further to the first century CE, it seems that varieties of Arabic written in the Hismaic and Safaitic script never experienced the sound change *-at* > *-ah* in any position – the feminine ending is always written as <t>. In the Arabic of the Nabataeans, however, the sound change of *-at* to *-ah* seems to have operated as early as the third century BCE (Al-Jallad 2017: §5.2.1).

The sound change *-at* > *-ah* is common in the Central Semitic languages, but the distribution can vary. In Phoenician, it applies to verbs but not nouns, while in Hebrew it applies equally to nouns and verbs (Huehnergard & Rubin 2011: 265–266). The most common Arabic distribution matches Aramaic: it applies to nouns but not verbs. I would suggest that, since this sound change is first attested in a dialect of Arabic for which we have abundant evidence of heavy contact with Aramaic, it is likely a contact-induced change (see also van Putten, this volume). Contact, or the lack thereof, may explain its absence in the ancient nomadic dialects, where, as we have seen above, there is little evidence for contact with Aramaic. Thus, like the *ʔal* article, the *-at* to *-ah* change would have been a typical feature of Arabic dialects of settled groups in the pre-Islamic period. In later forms of Arabic, the change spreads even to nomadic dialects, as we find it operational today across the Arabian Peninsula. Yet, the chronology of this diffusion is not quite clear. In an important study by van Putten (2017), the Dosiri dialect of Kuwait appears to preserve the archaic situation where the feminine ending is realized as *-at* in all positions.

4 Conclusion

Contact must be factored into our understanding of language change for Arabic at every attested stage. A summary of the facts above show that Arabic was in most intense contact with Aramaic, a situation that persisted for over a millennium prior to the rise of Islam, which may explain the high number of Aramaic loanwords into Arabic, and indeed some striking structural parallels, such as the distribution of the sound change *-at > -ah*. At the same time, there is very little evidence for contact with Sabaic (Old South Arabian), a contact situation only represented by a small number of mixed texts. This nicely matches the absence of South Arabian influence on Old Arabic and later forms of the language, with the exception of those dialects spoken in southwest Arabia.

Further reading

- Al-Jallad (2018b) provides a comprehensive outline of the languages and scripts of pre-Islamic North Arabia.
- Macdonald (2003) gives a description of the multilingual environment of ancient Nabataea.
- Nehmé (2010) outlines the development of the Arabic script based on the newest Nabataeo-Arabic inscriptions from Northwest Arabia.
- Stein (2018) gives an outline of the use of Aramaic in pre-Islamic Arabia.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person	INF	infinitive
ACC	accusative	M	masculine
ACT	active	NOM	nominative
AOR	aorist	PASS	passive
BCE	before Common Era	PL	plural
c.	century	PN	proper noun
CE	Common Era	PREP	preposition
CONJ	conjunction	PRF	perfect (suffix conjugation)
DEF	definite	PTCP	participle
DEM	demonstrative	REL	relative
F	feminine	SG	singular
IMPF	imperfect (prefix conjugation)	VOC	vocative

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Chapter 3

Classical and Modern Standard Arabic

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The highly archaic Classical Arabic language and its modern iteration Modern Standard Arabic must to a large extent be seen as highly artificial archaizing registers that are the High variety of a diglossic situation. The contact phenomena found in Classical Arabic and Modern Standard Arabic are therefore often the result of imposition. Cases of borrowing are significantly rarer, and mainly found in the lexical sphere of the language.

1 Current state and historical development

Classical Arabic (CA) is the highly archaic variety of Arabic that, after its codification by the Arab Grammarians around the beginning of the ninth century, becomes the most dominant written register of Arabic. While forms of Middle Arabic, a style somewhat intermediate between CA and spoken dialects, gain some traction in the Middle Ages, CA remains the most important written register for official, religious and scientific purposes.

From the moment of CA's rise to dominance as a written language, the whole of the Arabic-speaking world can be thought of as having transitioned into a state of diglossia (Ferguson 1959; 1996), where CA takes up the High register and the spoken dialects the Low register.¹ Representation in writing of these spoken dialects is (almost) completely absent in the written record for much of the Middle Ages. Eventually, CA came to be largely replaced for administrative purposes by Ottoman Turkish, and at the beginning of the nineteenth century, it was functionally limited to religious domains (Glaß 2011: 836). During the nineteenth-century

¹Diglossic situations are often seen as consisting of a high register (often called H) and a low register (L). These two are seen to be in complementary distribution, where each register is used in designated environments, where the H register takes up such domains like formal speeches and writing, while the L register is used in personal conversation, oral literature etc.



Arabic literary revival known as the *Nahḍa*, CA goes through a rather amorphous and decentralized phase of modernization, introducing many neologisms for modern technologies and concepts, and many new syntagms became part of modern writing, often calqued upon European languages. After this period, it is customary in scholarly circles to speak of CA having transitioned into Modern Standard Arabic (MSA), despite the insistence of its authors that CA and MSA are one and the same language: *al-sarabiyya l-fuṣḥā* ‘the most eloquent Arabic language’ (Ryding 2011: 845).

2 Contact languages

Considering the significant time-depth of CA and MSA, contact languages have of course changed over time. Important sources of linguistic contact of the pre-Islamic varieties of Arabic that come to form the vocabulary for CA are Aramaic, Greek and Ethio-Semitic. While there are already some Persian loanwords in the very first sources of CA, this influence continues well into the Classical period, and ends up having a marked effect on CA and MSA alike.

2.1 Aramaic

Aramaic becomes the dominant lingua franca in much of the Achaemenid empire, and both written and spoken varieties of Aramaic continue to play an essential role all throughout Arabia, Syria and Mesopotamia right up until the dawn of Islam. As such, a not insignificant amount of vocabulary has been borrowed from Aramaic into Arabic, which shows up in CA. Moreover, Aramaic was an important language of Christianity and Judaism, and a noticeable amount of religious vocabulary from Aramaic has entered CA (§3.4.2). There may even be some structural influence on the phonology of pre-Classical Arabic that has made it into CA (§3.1).

2.2 Greek

Greek was the language of state of the Byzantine Empire, which, when not directly ruling over Arabic-speaking populations, was at least in close contact with them. This can be seen in the significant amount of Greek vocabulary that can be detected in CA. Aramaic, however, has often borrowed the same terms that we find in CA, and it is usually difficult, if not impossible, to decide whether a Greek word entered Arabic directly from Greek or through the intermediary of Aramaic (§3.4.3).

2.3 Persian

After the rise of Islam, Greek and Aramaic quickly lose the central role they once played in the region, and they do not continue to influence CA significantly in the Islamic period. Persian, however, of which a number of words can already be detected in the *Qur'an*, continues to have a pronounced influence on Arabic, and many more Persian words enter CA throughout its history (§3.4.5).

2.4 Ethio-Semitic and Old South Arabian

It is widely recognized that some degree of influence from Ethio-Semitic can be identified within CA (§3.2.3; 3.4.1). Many of the Ethio-Semitic words that have entered into *Qur'anic* Arabic presumably arrived there through South Arabian contact after the invasion of Yemen by Christian Ethiopia in the sixth century. Also previous South Arabian contact must probably be assumed, and the divine epithet *ar-Rahmān* is usually thought to be a borrowing from South Arabian, where it in turn is a borrowing from Aramaic (Jeffery 2007 [1938]: 140–141).

While Ethio-Semitic contact has been fairly well-researched, research into contact with Ancient South Arabia is still in its infancy. The exact classification of the Old South Arabian languages and their relation to Modern South Arabian and Ethio-Semitic is still very much under debate. A simple understanding of this highly multilingual region seems impossible. Due to the extensive contact within South Arabia and the South Arabian languages, it is not always easy to pin down the exact vector of contact between CA and these languages of South Arabia and Ethiopia (§3.4.4).

2.5 Arabic dialects

The spoken Arabic dialects, of course, have had and continue to have a noticeable influence on CA and MSA (§2.5; 3.2.1; 3.2.2; 3.3; 3.5). It seems that from the very moment CA became canonized as an official language, it was already a highly artificial register that nobody spoke in the form in which it was canonized. Especially the *Ḥiǧāzi* conquerors had a noticeable effect on the language – no doubt through mediation of the *Qur'anic* text. Noticeable irregularities in the treatment of the glottal stop, for example, have entered the language, and have influenced the treatment of certain morphological features (§3.2).

2.6 Ottoman Turkish

In the Ottoman period, Ottoman Turkish becomes the official language in use in the Middle East, and replaces many of the sociolinguistic functions that CA had

previously had. The imposition of this official language had a significant effect on the Arabic vernaculars throughout the Middle East (even outside the borders of the Ottoman Empire), but also had a noticeable impact on the vocabulary of CA, especially in the eighteenth and nineteenth centuries, which feeds into MSA (§3.4.6).

3 Contact-induced changes in Classical and Modern Standard Arabic

3.1 Phonology

Due to the highly conservative nature of CA, finding any obvious traces of contact in phonological change is very difficult. From the period in which Sibawayh describes the phonology of the *ṣarabiyya* until today, only minor changes have taken place in the phonology of CA. The most obvious example of this is the loss of the lateral realization of the *dād*, which in Sibawayh's description is still a lateral, while today it is generally pronounced as [d^s]. Blau (1969: 162–163) convincingly attributes this development to influence from the modern dialects. In most modern Arabic dialects, the reflexes of *d* [k^s] and *ḍ* [ḍ^s] merged to *ḍ* [ḍ^s].² In sedentary dialects that lose the interdentalals, this merged sound subsequently shifts to *d* [d^s]. As such, original *ḍ* and *d* are either both pronounced as an emphatic interdental fricative or both as an emphatic dental stop. As virtually all modern dialects, however, have lost the lateral realization of *d*, the sedentary stop realization was repurposed for the realization of *d*, to introduce the phonemic distinction between *ḍ* and *d* in MSA.

As this is a case where the speakers influencing the phonology of the RL are SL-dominant, this change in pronunciation of the *d* from a lateral to a stop realization can be seen as a form of imposition on the phonology of MSA. It should be noted, however, that the type of imposition we are dealing with in this case is of quite a different character than what is traditionally understood as imposition within the framework of Van Coetsem (1988; 2000). In this case, we see a conscious effort to introduce a phonemic distinction lost in the SL between original *d* and *ḍ* by using two different dialectal outcomes of the merger of these two phonemes.

Other cases of phonetic imposition on MSA from the modern dialects may especially be found in the realization of the *ḡīm*. While Sibawayh's description of the *ḡīm* was probably a palatal stop [ʃ], today the realization that seems to carry

²Not all dialects, however, see Behnstedt (2016: 16ff.).

the most prestige and is generally adhered to in Qurānic recitation is [dʒ]. However, here too we often find imposition of the local pronunciation of this sound in MSA. In spoken MSA of Egyptians the *ǧīm* is regularly pronounced as [g], the realization of the *ǧīm* in Egyptian Arabic. Likewise, Levantine Arabic speakers whose reflex of the *ǧīm* is [ʒ] will often use that realization when speaking MSA.

If we shift our focus to developments that began in the pre-Classical period and continue in CA, we find that there are several phonetic developments that bear some similarity to developments of Aramaic. It has therefore, not unreasonably, been suggested that such developments are the result of contact with Aramaic.

The first of these similar phonetic developments shared between CA and Aramaic is the shift of the semivowels *w* and *y* to *ʔ* between a preceding *ā* and a following short vowel *i* or *u*. This can be seen, for example, in the similar outcomes of the active participles of hollow roots. This similarity was already remarked upon and described by Brockelmann (1908: 138–139), e.g.:

- (1) a. CA *qāwimūn > qāʔimūn ‘standing’
- b. Aram. *qāwim > qāʔem ‘standing’

However, it is clear that, at least in Nabataean Arabic, this development had not yet taken place (Diem 1980: 91–93). This is a dialect that was certainly in contact with Aramaic, as most of the writing of the Nabataeans was in a form of Aramaic. As such, we may plausibly suggest that this development took place *after* the establishment of linguistic contact between Aramaic and Arabic. It is quite difficult to decide whether this development, if we are correct to interpret it as the result of contact-induced change, is the result of imposition, borrowing or convergence. We do not have a clear enough picture of the sociolinguistic relations between Aramaic and pre-Classical Arabic to identify the type of contact situation that would have caused it. One is tempted to see it as the result of imposition simply because of the fact that phonological borrowing seems to be uncommon (Lucas 2015: 526).³

As proposed by Al-Jallad (this volume), another possible case of contact induced phonological change between Aramaic and pre-Classical Arabic is the shift of pausal *-at* to *ah*, found only in nouns and not in verbs. Huehnergard & Rubin (2011: 267–268) already suggested that this development, which cannot be due to a development in a shared ancestor, may have been the result of areal diffusion.

³We cannot discount the possibility of parallel development, however. Akkadian seems to have undergone an almost identical development (Huehnergard 1997: 196), where it is not likely to have been the result of contact.

Whether we can really interpret the development of Aramaic as similar to that of CA, however, depends somewhat on the interpretation of the Aramaic evidence. While we can indeed see a development of the original Aramaic feminine ending **-at* that is written with <-h> in consonantal writing, which might suggest it has shifted to /ah/, one also finds that all other cases of word-final nominal *t* have been lost, while not leaving a consonantal *-h*, e.g.:

- (2) a. *šalōt > šlō <šlw> ‘prayer’
- b. *zakūt > zkū <zkw> ‘merit, victory’
- c. *ešāt > ʔešā <ʔšʔ> ‘fire’
- d. *bayt > bay <by> ‘house’

For this parallel loss of final *t* in all other environments, Beyer (1984: 96, fn. 4) prefers to interpret the <-h> as a *mater lectionis* for final /ā/ or /a/. In this interpretation, the development of Aramaic compared to Arabic is quite different, since in Arabic the <-h> is clearly consonantal, and the loss of final *t* does not happen after long vowels in Arabic:

- (3) Aramaic
 - a. *kalbat > kalbā <klb> ‘bitch’ (-at# > -a/ā)
 - b. *ʔešāt > ʔešā <ʔšʔ> ‘fire’ (-āt# > -ā)
- (4) Arabic
 - a. *kalbat > kalbah
 - b. *kalbāt > kalbāt remains unchanged

However, if one takes the <-h> of the feminine to originally represent **-at* > *-ah*, and the loss of *t* in other word-final positions to be a different development, one could reasonably attribute the development in Arabic to the result of contact with Aramaic, as it is clear that in many varieties of pre-Islamic Arabic, the **-at* > *-ah* shift had not yet taken place.⁴

3.2 Morphology

3.2.1 Imposition of the taCCiʔah stem II verbal noun for glottal-stop-final verbs

A well-known feature of Ḥiǧāzī Arabic in the early Islamic period, and a feature that is found in many of the modern dialects, is the (almost) complete loss of the

⁴For a discussion on the development of the **-at* > *-ah* shift in pre-Islamic Arabic see Al-Jallad (2017: 157–158).

glottal stop (Rabin 1951: 130–131; van Putten 2018). This loss has usually caused glottal-stop-final roots to be reanalyzed as final-weak verbs, e.g. Cairene *ʔara*, *ʔarēt* ‘he read, I read’ (< *qaraʔa, *qaraʔtu).

A typical feature of final-weak verbal noun formations in CA is their formation of the verbal noun of stem II verbs. Sound verbs form verbal nouns using the pattern taCCiC, e.g. *taslīm* ‘greeting’ from *sallama* ‘to greet’. Final-weak verbs, however, regularly use the pattern taCCiyah instead (Fischer 2002: 44), for example, *tasmiyah* ‘naming’ from *sammā* ‘to name’.⁵

In CA, the *ʔ* generally functions as a regular consonant. Thus a verb like *qaraʔa/yaqraʔu* ‘to read, recite’ does not differ significantly in its behavior from any other triconsonantal verb such as *fataḥa/yaftaḥu* ‘to open’.

However, verbs with *ʔ* as final root consonants unexpectedly frequently side with the final-weak verbs when it comes to the verbal noun of stem II verbs (Fischer 2002: 128). For example, *hannaʔa/yuhanniʔu* ‘to congratulate’ does not have the expected verbal noun ***tahnīʔ*, but instead *tahniʔah* ‘congratulation’. Other examples are:

- (5) a. *nabbaʔa* v.n. *tanbiʔah* (besides *tanbīʔ*) ‘to inform’
- b. *barraʔa* v.n. *tabriʔah* ‘to acquit’
- c. *hayyaʔa* v.n. *tahyiʔah* (besides *tahyīʔ*) ‘to make ready’
- d. *naššaʔa*, v.n. *tanšiʔah* (besides *tanšīʔ*) ‘to raise (a child)’

Some other verbs with the same pattern do have the expected CA form such as *baṭṭaʔa* v.n. *tabṭīʔ* ‘to delay’.

This behaviour can plausibly be attributed to the fact that in many (if not most) spoken varieties of Arabic, from early on the final-glottal-stop verbs had already merged completely with the final-weak verbs, and as such a verb like *hannaʔa* had come to be pronounced as *hannā*, and was thus reanalyzed as a final-weak verb. Like original final-weak verbs, their regular verbal noun formation would be *tahniyah*. When verbs of this type were employed in CA, the weak root consonant *y* was replaced with the etymological glottal stop *ʔ*, rather than completely converting the verbal noun to the regular pattern. This is a clear example of the imposition of a morphological pattern onto CA grammar by speakers of Arabic dialects.

⁵This is an ancient idiosyncrasy of final-weak verbs. While the taCCiC formation is not a regular formation in other Semitic languages, when it does occur, the final-weak verbs have a feminine ending, e.g. Hebrew *tarmi-t* ‘betrayal’, *toḏā* ‘praise’ (< *tawdiy-ah), see Brockelmann (1908: 385–387).

3.2.2 Imposition of the ʔaCCiḡāʔ broken plural pattern

A similar case of imposition, where the morphological categories of glottal-stop-final roots behave in the grammar as if they are final-weak, may be found in the broken-plural formation of CaCīʔ nouns and adjectives. The broken-plural formation most generally used for final-weak adjectives with the pattern CaCiyy (< * CaCīy) is ʔaCCiḡāʔ . For example, *ḡaniyy* pl. *ʔaḡniḡāʔ* ‘rich’, *waliyy* pl. *ʔawliḡāʔ* ‘close associate’, *daḡiyy* pl. *ʔadaḡiḡāʔ* ‘bastard’, *sawiiyy* pl. *ʔaswiḡāʔ* ‘correct’, *ḡaliyy* pl. *ʔaḡliḡāʔ* ‘free’.

For sound nouns of this type, it is much more typical to use the plural formations CiCāC (*kabīr* pl. *kibār* ‘big’) or CuCaCāʔ (*faḡīr* pl. *fuḡarāʔ* ‘poor’), although there are a couple of sound nouns that do use this plural, such as *qarīb* pl. *ʔaqribāʔ* ‘relative’ and *ṣadiḡ* pl. *ʔaṣdiḡāʔ* ‘friend’ (Ratcliffe 1998: 106–107).⁶

CaCiC formations where the last root consonant is ʔ , however, behave in rather unexpected ways in CA, usually following the pattern of final-weak nouns, often even replacing the final ʔ with y , for example: *barīʔ* pl. *ʔabriḡāʔ* ‘free’, *radīʔ* pl. *ʔardiḡāʔ* ‘bad’. These nouns have plurals that are proper not to the Classical form they have, but rather to the colloquial form without ʔ , i.e. *bariyy*, *radiyy*. Once again this can be seen as a clear case of imposition of the colloquial Arabic forms onto the classical language.⁷

3.2.3 Borrowing of the broken plural pattern CaCāCiCah

CA, like the modern Arabic dialects, is well-known for its broken-plural patterns. This is a feature it shares especially with Old South Arabian (Stein 2011: 1050–1051), Modern South Arabian languages (Simeone-Senelle 2011: 1085) and Ethio-Semitic (Weninger 2011a: 1132). The use of broken plurals has caused somewhat

⁶The pattern (with metathesis) is also regular for geminated CaCiC adjectives, e.g. *ṣadīd* pl. *ʔaṣiddāʔ* ‘severe’.

⁷These two cases of imposition of glottal stop-less morphology onto CA are two of the more clear and systematic cases, but close observation of CA morphology reveals many more of these somewhat more isolated cases, e.g. *ḡaḡīʔah* ‘sin’ with a plural *ḡaḡāyā*, for which the expected singular would rather be *ḡaḡiyyah*; *bariyyah* pl. *barāyā* ‘creature’ which is a derivation from *baraʔa* ‘to create’; *ḡurriyyah*, *ḡirriyyah* pl. *ḡarāriyy* ‘progeny, offspring’, derived from *ḡaraʔa* ‘to sow, seed’. Another example of irregular treatment of ʔ that is presumably the result of imposition is found in verbal nouns of stem VI verbs, and *mafāʔil* plurals of hollow roots, which modern textbooks say should not have a ʔ despite having the environment that is expected to undergo the shift āwu/i , $\text{āyi} > \text{āʔu/i}$, āʔi as discussed in §3.1. The lexicographical tradition and Quranic reading traditions often record disagreements on the application of the *hamzah* in such cases. For example, we find both *tanāwuṣ* and *tanāʔuṣ* ‘reaching one another’, and *mafāʔiṣ* and *mafāʔiṣ* ‘ways of living’.

of a controversy in the subgrouping of the Semitic language family. Scholars who consider broken plurals a shared retention do not view their presence as important for grouping Arabic, Old South Arabian, the Modern South Arabian languages and Ethio-Semitic together (Huehnergard 2005: 159–160); while those who consider their presence an innovation in a subset of Semitic languages see this as a strong indication that these languages should be grouped together into a South Semitic branch (e.g. Ratcliffe 1998).

While most scholars today seem to agree that the broken-plural system is a shared retention (Weninger 2011b: 1116), it seems clear that the retention of a highly productive broken-plural system is to be considered an areal feature that clusters around South Arabia and the Horn of Africa. CA partakes in this areal feature.

A possible case of influence from Old South Arabian (and/or Ethio-Semitic) into Arabic is the introduction of the CaCāCiCah plural formation. In the South Arabian languages,⁸ the equivalent plural formation CaCāCiCt is extremely productive, and numerous words with four consonants form their plural in this way. For example in Sabaic, mCCCt is the regular plural formation to mCCC nouns of location, e.g. *mḥfd* pl. *mḥfdt* ‘tower’ (Beeston 1962: 34). It is likewise common in Gəʕəz, e.g. *tānbāl* pl. *tānabəlt* ‘ambassador’ (Dillmann 2005 [1907]: 309), and occurs occasionally in Modern South Arabian, e.g. Mehri *mələk* pl. *məlaykət* ‘angel’ (Rubin 2010: 68).

While this pattern exists in CA, it is much rarer than the other broken plural formations of four consonantal forms, i.e. CaCāCiC and CaCāCiC. In the *Qurān*, *malak* pl. *malāʔikah* ‘angel’ is the only plural with this pattern. This noun is widely recognized as being a loanword from Gəʕəz *malʔak*, *malāʔəkt* (Jeffery 2007 [1938]: 269), in part on the basis that it shares this plural formation: the word seems to have been borrowed together with its plural formation. Considering the rarity of this pattern in Arabic and how common it is in South Arabian, it seems possible that the pattern was introduced into Arabic through South Arabian contact. However, the absence of other clearly identifiable South Arabian loanwords with this plural pattern makes it rather difficult to make a strong case for this identification.

Another possible word of South Arabian origin with this plural pattern is *tubbaʕ* pl. *tabābīʕah* ‘a Yemenite king’, but evidence that this word is indeed of Old South Arabian origin is missing. The word does not occur as a separate word in Old South Arabian, and instead is only the first part of several Old South Arabian theophoric names such as *tbʕkrb*, *tbʕʕl*. Such names should probably be

⁸South Arabian is used here as a purely geographical descriptive term, not one of classification.

understood as being related to the root $\sqrt{tb\ell}$ which, like in Arabic, may have had the meaning ‘following’, so such names likely mean ‘follower of the deity KRB’ and ‘follower of the deity ?L ’. Such names being associated with Yemenite kings may have led to the Arabic meaning of *tubbaʕ* as ‘Yemenite king’, but in Old South Arabian itself it does not seem to have carried a meaning of this kind.

All in all, the evidence for this being a pattern that is the result of South Arabian influence is rather slim, although the rarity of the pattern in CA does make it look unusual. If the interpretation of this plural pattern as being a borrowing from South Arabian is correct, it seems that some South Arabian nouns were borrowed along with their respective plural. This would be a case of morphological borrowing rather than the more common type of morphological influence through imposition.⁹

Note that this plural pattern has become the productive plural pattern for quadriconsonantal loanwords regardless of them being of South Arabian origin or elsewhere, e.g. *biṭriq* pl. *baṭāriqah* ‘patrician’ (< Latin *patricius*), *?usquf* pl. *?asāqifah* ‘bishop’ (< Greek *episkopos*), *?ustāḏ* pl. *?asātiḏah* ‘master’ (< Middle Persian *ōstād*), *tilmīḏ* pl. *talāmiḏah* ‘student’ (< Aramaic *talmīḏ*).

3.3 Syntax

Due to CA being the High register in a diglossic situation for centuries, we should presumably consider the majority of the written material produced in this language to be written exclusively by non-native speakers. Moreover, a large proportion of its writers all throughout its written history must have been speakers not only of Arabic vernaculars but also of entirely different languages such as Persian and Turkish. It seems highly unlikely that such a multilingual background of authors of CA would have been completely without effect on the syntax of the language; however, as it is difficult to decide from what moment onward we can speak of true diglossia, and what the syntax was like before that period, it has not yet been possible to trace such influences in detail.

There is, however, promising research being done on influence on MSA syntax from the speakers of modern Arabic dialects. Wilmsen (2010) convincingly describes one such point of influence in a paper on the treatment of object pronouns in Egyptian and Levantine newspapers.

Wilmsen (2010: 104) shows that, in the case of ditransitive verbs, Egyptian and Levantine have a different natural word order. In Egyptian Arabic, the direct

⁹This can be seen as a type of “Parallel System Borrowing” similar to that which we find in Berber languages. Berber languages, like Arabic, have apophonic plurals; but Arabic nouns are simply borrowed along with their own Arabic broken plurals (Kossmann 2010).

Table 1: Occurrences of theme–recipient and recipient–theme order with *manaḥa* ‘to grant’

Database	theme–recipient	recipient–theme
al-Ḥayāt 96	29	56
al-Ḥayāt 97	27	52
al-Ṭawra	27	66
al-ʔAhrām	44	8

Table 2: Occurrences of theme–recipient and recipient–theme order with *ʔaʕṭā* ‘to give’

Database	theme–recipient	recipient–theme
al-Ḥayāt 96	11	23
al-Ḥayāt 97	8	22
al-Ṭawra	9	38
al-ʔAhrām	33	2

From this data it is clear that the dialectal background of the author of an MSA text can indeed play a role in how its syntax is constructed, despite both resulting sentences being grammatically acceptable in CA/MSA.¹⁰

This (and any contact phenomenon in MSA–dialect diglossia) should be seen as a case of imposition, where the dialect SL, in which the speakers/writers are dominant, has influenced the MSA RL.

It stands to reason that such syntactic research could be undertaken with CA works as well. Taking into account the biographies of authors, it might be possible to find similar imposition effects that can be connected to different dialects and languages in former times. To my knowledge, however, this work has yet to be undertaken.

3.4 Lexicon

In terms of lexicon, Jeffery’s indispensable (2007 [1938]) study of the foreign vocabulary in the *Qurān* allows us to examine some of the important sources of lexical influence on pre-Classical Arabic. Influence from Greek, Aramaic, Gəʕəz and Persian are all readily recognizable.

¹⁰Other works that discuss clear cases of country-specific language use of MSA include Ibrahim (2009), Parkinson (2003), Parkinson (2007) and Parkinson & Ibrahim (1999).

3.4.1 Gəʕəz

Nöldeke (1910) is still one of the most complete and important discussions of Gəʕəz loanwords in CA. Both Gəʕəz and Arabic display a significant amount of religious vocabulary that is borrowed from Aramaic. It is quite often impossible to tell whether Arabic borrowed the word from Gəʕəz or from Aramaic. Such examples are *ṭāyūt* ‘idol’, Gz. *ṭaʕot*, Aram. *ṭāʕū* ‘error, idol’ (Nöldeke 1910: 48); *tābūt* ‘ark; chest’, Gz. *tabot* ‘ark of Noah, ark of the covenant’, Aram. *tēbō* ‘chest; ark’ (Nöldeke 1910: 49).

There is religious vocabulary that is unambiguously borrowed from Gəʕəz, e.g. *ḥawāriyyūn* ‘disciples’ < Gz. *ḥāwarəya* ‘apostle’ and *muṣḥaf* ‘book (esp. Quran)’ < Gz. *māṣḥāf* ‘scripture’, but there is also religious vocabulary borrowed unambiguously from Aramaic, e.g. *zakāt* ‘alms’ < Aram. *zākū* ‘merit, victory’; *sifr* ‘large book’ < Aram. *sḫar, seḫrā*. It is therefore just as likely that Arabic would have borrowed such Aramaic loanwords via Gəʕəz as directly from Aramaic.

Some religious vocabulary from Aramaic and Hebrew can be shown to have arrived in Arabic through contact with Gəʕəz, since these words have undergone specific phonetic developments shared between CA and Gəʕəz but absent in the source language. As these often involve core religious vocabulary, and the Christian Axumite kingdom was established centuries before Islam, it seems reasonable to assume such words to be borrowings from Gəʕəz into CA, e.g. CA *ḡāhannam* ‘hell’ < Gz. *ḡāhännām* (but Hebrew *gehinnom* and Syriac *gehannā*) and CA *ṣayṭān* ‘Satan’ < Gz. *ṣāyṭan* (but Hebrew *śāṭān* and Syriac *sāṭānā*).¹¹

3.4.2 Aramaic

As already remarked upon by Retsö (2011), Aramaic loanwords in CA often have an extremely archaic character. The Aramaic variety that influenced Quranic and pre-Classical Arabic had not undergone the famous *bəḡadkəḫāṭ* lenition of post-vocalic simple stops, nor had it lost short vowels in open syllables. This necessarily means that the form of Aramaic that influenced Quranic and Classical Arabic, even the religious vocabulary, cannot be Syriac, which almost certainly underwent both shifts before becoming a dominant religious language. The *bəḡadkəḫāṭ* spirantization can be dated between the first and third centuries CE, and the syncope of short vowels in open syllables takes place sometime in the middle of the third century (Gzella 2015: 41–42). However, Classical Syriac itself, as an important vehicular language of Christianity, only emerges in the fourth century CE, well after these developments had taken place (Gzella 2015: 259).

¹¹Leslau (1990) often reverses the directionality of such borrowings, though without an explanation as to why he thinks a borrowing from CA into Gəʕəz is more likely.

Had *bāḡadkəpāṭ* taken place, we would expect Syr. *ḡ*, *d*, *k*, and *t* to be borrowed with their phonetic equivalents in CA: *γ*, *ḏ*, *h*, and *θ* respectively.¹² This, however, is not the case; instead these consonants are consistently borrowed with the stop equivalents *ḡ*, *d*, *k*, and *t*, and without the loss of vowels in open syllables, clearly showing that these Aramaic loanwords predate the phonetic developments in Classical Syriac.

- (10) a. *malakūt* ‘kingdom’, Syr. *malkūt-ā* ‘kingdom’ < *malakūt-ā
b. *malik* ‘king’, Syr. *mleḵ* ‘king’ < *malik¹³
c. *masḡid* ‘place of worship, mosque’, Syr. *masḡed-ā* ‘place of worship’ < *masḡid-ā

Even the proper names of Biblical figures have a markedly un-Syriac form.

- (11) a. *zakariyā*, *zakariyā?*, Syr. *Zḵaryā* < *zakaryā
b. *mīkāʔil*, *mīkāʔil*,¹⁴ Syr. *mīkāʔel* < *mīkāʔēl

In other words, far from Syriac being “undoubtedly the most copious source of Qurʾānic borrowings” (Jeffery 2007 [1938]: 19), the Aramaic vocabulary in the Quran seems to not be Syriac at all.¹⁵ Any isogloss that would allow us to identify it as such is conspicuously absent. This has important historical implications, as the presence of supposed Syriac religious vocabulary in the Quran is viewed as an important indication that Syriac Christian thought had a pronounced influence on early Islam (e.g. Mingana 1927: 82–90; Jeffery 2007 [1938]: 19–22).¹⁶ While

¹²Retsö (2011) suggests that *b* could also be borrowed as *w*. This might be true, but at least the phonetic match in this case is not perfect.

¹³This word is not recognized as an Aramaic loanword by Jeffery (2007: 270), but it likely is. All the Semitic cognates of this noun are derived from a form *malk, which should have been reflected in CA as *malk*. However, we find it with an extra vowel between the last two root consonants. This can be best understood as the epenthetic vowel insertion as it is attested in Aramaic which was then subsequently borrowed with this epenthesis into Arabic. I thank Ahmad Al-Jallad for pointing this out to me.

¹⁴Most readers of the Quran read either *mīkāʔil* or *mīkāʔil*, only the most dominant tradition today, that of Ḥafṣ, reads it in the highly unusual form *mīkāl* (Ibn Muḡāhid no date: 166).

¹⁵Note that Jeffery (2007 [1938]: 19) explicitly states that by Syriac he means any form of Christian Aramaic, so, besides Syriac, most notably also Christian Palestinian Aramaic. However, this caveat hardly solves the chronological problem, as the latter rises to prominence even later.

¹⁶Even if we were to accept the possibility that the dating of the lenition and syncope is somehow off by several centuries, the suggestion that “it is possible that certain of the Syriac words we find in the Qurʾān were introduced by Muḡammad himself” (Jeffery 2007 [1938]: 22) must certainly be rejected. In the grammatical works of Jacob of Edessa (640–708 CE) we have an unambiguous description of the lenition of the consonants (Holger Gzella p.c.). It seems highly unlikely that a wholesale lenition took place in only a few decades between the composition of the Quran and the time of his writings.

this is of course still a possibility, this has to be reconciled with the fact that the majority of clearly monotheistic religious vocabulary was already borrowed from a form of Aramaic before the rise of Syriac as a major religious language.

This does not mean that CA is completely devoid of Aramaic loanwords that have undergone the lenition of the consonants, and several post-Quranic loanwords have been borrowed from a variety which, like Syriac, had lenited its stops, e.g.:

- (12) a. *tilmīḏ* ‘student’ < Syr. *talmīdā* (Fraenkel 1886: 254)
 b. *tūḥ, tūt* ‘mulberry’ < Syr. *tūtā* (Fraenkel 1886: 140)
 c. *ḥiltīḥ, ḥiltūt* ‘asa foetida’ < Syr. *ḥeltītā* (Fraenkel 1886: 140)
 d. *kāmaḥ, kāmiḥ* ‘vinegar sauce’ < Syr. *kāmḵā* (Fraenkel 1886: 288)
 e. *karrāḥ, kurrāḥ* ‘leek’ < Syr. *karrātā* (Fraenkel 1886: 144)

It is interesting to note that Aramaic loanwords in Gəʕəz reflect a similar archaicity, in those cases where this is detectable. The expected lenited *k* is not represented with Gəʕəz *ḥ* but with *k*, and short vowels in open syllables are retained. This might suggest that, when looking for religious influences on Islam, we should rather shift our focus to the south, where during the centuries before Islam both Judaism and Christianity were introduced, presumably through the vector of Gəʕəz. Some examples of such similarly archaic Aramaic loanwords in Gəʕəz are cited by Nöldeke (1910: 31–46), e.g.:

- (13) Gəʕəz
 a. *mālʔāk* ‘angel’, cf. CA *malak*, Syr. *malʔak-ā* < *malʔak-ā
 b. *mäläkot* ‘kingdom’, cf. CA *malakūt*, Syr. *malkūt-ā* < *malakūt-ā
 c. *ḥämelät* ‘mantle, headcloth’, Syr. *ḥmilt-ā* < *ḥamilat-ā
 d. *näbīy* ‘prophet’, cf. CA *nabiyy, nabīʔ*, Syr. *nḥīyyā* < *nabīʔ-ā
 e. *mäsīḥ* ‘Messiah’, cf. CA *al-masīḥ*, Syr. *mšīḥ-ā* < *masīḥ-ā
 f. *siʔol* ‘hell’, cf. Syr. *siwül* < *siʔül (cf. Hebr. *səʔol*)
 g. *ʔärämi, ʔärämāwi, ʔärämay* ‘heathen’, cf. Syr. *ʔarmāy-ā* < *ʔaramāy-ā
 h. *mänarät, mänarat* ‘candlestick’, cf. CA *manārah*, Syr. *mnārḫ-ā* < *manārat-ā

As of yet, there is not a clear historical scenario that helps us better understand how both CA and Gəʕəz, and, from the scanty information that we currently have, also Old South Arabian, ended up with similarly archaic forms of

Aramaic. This seems to suggest an as yet unattested, very archaic form of Aramaic in South Arabia. Alternatively, the syncope and lenition so well-known in Syriac may have had a much less broad distribution across the written Aramaic dialects than previously thought.

3.4.3 Greek (and Latin)

Besides this noticeable cluster of Aramaic and Gəʕəz words, there are of course also Greek loanwords in CA, generally in the semantic fields of economy and administration. Very often Aramaic likewise has these words, and it is usually not possible to decide whether Arabic borrowed the word from Aramaic or directly from Greek. The former direction is presumably more likely considering the broad presence of Aramaic as a lingua franca. Some examples are e.g. *dinār* ‘dinar’, Aram. *dēnār*, Gk. *dēnárion*, Lat. *denarius*; *zawǧ* ‘spouse, pair’, Aram. *zōǧ* ‘id.’, Gk. *zeûgos* ‘yoke’; *širāt* ‘way’, Aram. *ʔestṛāt* ‘street’, Gk. *stráta*, Lat. (*via*) *strata*; *qirtās* ‘parchment, papyrus’, Aram. *qartīs*, Gk. *k^hártēs*; *qašr* ‘castle’, Aram. *qašrā*, Gk. *kástron*, Lat. *castrum*; *qalam* ‘reed-pen’, Gk. *kálamos* ‘reed-pen’.¹⁷

A new influx of mostly philosophical and scientific Greek vocabulary entered CA during the early Abbasid period (mid 8th–10th centuries), at the time of the Graeco-Arabic translation movement (Gutas 1998). Once again, these words seem to have entered the language through Syriac (Gutas 2011). From this translation movement, we have words such as *ǧins* ‘genus’ < Syr. *ǧensā* < Gk. *génos*; *faylasūf* ‘philosopher’ < Syr. *pīlōsōpā* < Gk. *p^hilósop^hos*; *kīmyāʔ* ‘alchemy’ < Syr. *kīmīyā* < Gk. *k^hēmeía*; and *ʔistāḏiyā* ‘stadium’¹⁸ < Syr. *estāḏyā* < Gk. *stádion*.

3.4.4 Old South Arabian

It is often difficult to establish from which of the South Arabian languages a certain word originates. As Old South Arabian retained all the Proto-Semitic consonants, a borrowing from Old South Arabian or an inheritance from Proto-Semitic is often difficult to distinguish in CA. While Jeffery (2007 [1938]: 305) identifies a fair number of possible words of South Arabian origin, hardly ever

¹⁷Nöldeke (1910: 50) argues that the CA *qalam* must come from Greek through Gz. *qālām*. While this is possible, there is nothing about this word that requires us to assume this directionality, nor is it particularly unlikely that CA and Gəʕəz independently borrowed this word without its Greek ending *-os*.

¹⁸Note here the apparent application of the Syriac lenition being borrowed as such in Arabic, unlike earlier loans. But it may also be possible that the lenition is part of the Greek lenition of the *delta* instead, as we see it today in Modern Greek.

does this seem the only possibility. Another issue with identifying South Arabian loanwords is that we have very scanty knowledge of its vocabulary or its linguistic developments. As a result, Old South Arabian identifications can be quite difficult to substantiate.

In recent years several lexical studies have tried to draw connections between Old South Arabian and Arabic vocabulary, but this is often based on certain semantic extensions or uses of words as described in CA dictionaries. While these observations may eventually be proven correct, it is somewhat difficult to evaluate whether we are truly dealing with borrowings in these cases, and the extremely limited knowledge that we have of the vowel system of the different Old South Arabian languages makes it difficult to evaluate this in detail. Several interesting suggestions are given by Weninger (2009), Hayajneh (2011) and Elmaz (2014; 2016).

To illustrate the difficulties we run into when trying to identify Old South Arabian borrowings in Arabic, let us examine the word *tārīḥ* pl. *tawārīḥ* ‘date’. From the perspective of CA morphology, *tārīḥ* could only be a hypocorrect form of *taʔrīḥ* – which is indeed an attested biform of *tārīḥ*. The existence of the plural *tawārīḥ* rather than *taʔārīḥ*, however, seems to suggest that *taʔrīḥ* is rather a hypercorrect insertion of *hamzah* from an original form *tārīḥ*, which certainly looks foreign in its formation.

Both Hebbo (1984: 27) and Weninger (2009: 399) have suggested that this word is to be connected with the widespread Semitic root $\sqrt{wrḥ}$, related to ‘month’ or ‘moon’ (cf. Hebrew *yeraḥ* < **warḥ* ‘month’), which exists in Old South Arabian but not in CA.¹⁹ The verb *ʔarraḥa* ‘to date’ would then reasonably be taken as a backformation from *tārīḥ*.

However, this explanation still leaves us with many problems. There is perhaps some reason to suppose that in Old South Arabian **aw* would have collapsed to an unknown monophthong (Early Sabaic *ywm* ‘day’; Late Sabaic *ym*). This might explain why the word is *tārīḥ* and not ***tawrīḥ*, but *tārīḥ* is not actually attested in Old South Arabian. So while the suggestion is certainly possible, it seems that another of the many non-Arabic Ancient northern Arabian epigraphic languages could likewise have been an origin. Barring further discoveries, many such proposed etymologies remain highly speculative, and drastically simplify the rather complex multilingual situation of pre-Islamic Arabia, where many other sources besides Old South Arabian remain possible (Al-Jallad 2018).

¹⁹Note, however, that the root $\sqrt{wrḥ}$ ‘month’ is attested unambiguously in the singular (*wrḥ*), dual (*wrḥn*) and plural (*ʔrḥ*) in the Old Arabic corpus of Safaitic inscriptions (Al-Jallad 2015: 353).

3.4.5 Persian

Whereas with the advent of Islam the influence of Aramaic, Greek and Gəʕəz on CA quickly diminished and disappeared, the influence of Persian actually increased. While the Quran already contains a sizeable number of Persian borrowings, this only increases in the following centuries.

Some clear Persian borrowings in the Quran include: *ʔistabraq* ‘silk brocade’, cf. New Persian *istabra* (Eilers 1962: 204); *numruq* ‘cushion’ < Middle Persian *namrag*; *kanz* ‘treasure’ < Middle Persian *ganz/ganğ* ‘treasury’ (Eilers 1962: 206). Outside of the Quran many other Persian words may be found in Arabic, e.g. *dīwān* ‘archive, collected writings’ < Early New Persian *dīwān* (Eilers 1962: 223), *banafsağ*, *manafsağ* ‘violet’ < Middle Persian *banafš* (Eilers 1971: 596); *barnāmağ* ‘program’ < Middle Persian *bārnāmag* (Eilers 1962: 217-218); *wazīr* ‘minister’ < Middle Persian *wizīr* (Eilers 1962: 207).²⁰

3.4.6 Ottoman Turkish

The influence of Ottoman Turkish on MSA is significantly less than on the modern Arabic dialects, largely due to linguistic purism (Procházka 2011). Words that have entered MSA are words related to administration, technology and food, but also several other origins are found. For example: *damya* ‘stamp’ < *damga*; *ğumruk* ‘customs’ < *gümruk* (ultimately from Latin *commercium*); *bāšā* ‘pasha’ < *paša*; *bābūr* < *vapur* ‘steam ship’ (ultimately from French [*bateau à*] *vapeur*); *quşāğ* ‘pliers’ < *kıskaç*; *balta* ‘axe’ < *balta*; *šāwurma*, *šāwirma* ‘lamb, etc., roasted on a spit’ < *çevirme*; *qāwurma*, *qāwirma* ‘fried meat’ < *kavurma*; *kufta* ‘meatballs’ < *köfte*.

Of some interest is the *-ci* suffix that denotes professions and characterizations in Turkish. This suffix has developed some amount of productivity in modern dialects (especially in Iraq, Syria and Egypt), where it may even be suffixed to nouns of non-Turkish origin. In MSA the suffix is attested not infrequently, although it would probably go too far to say that it is productive. Some examples are *nawbatğī* ‘on duty; command of the guard’ < *nawba* ‘shift, rotation’ + *-ci*; *qahwağī* ‘coffeehouse owner’ < *qahwa* ‘coffee’ + *-ci*; *xurdağī* ‘dealer in miscellaneous smallwares’ < *hordaci* ‘id.’; *baltağī* ‘sapper, pioneer’ < *baltaci* ‘sapper’; *būyāğī* ‘painter, bootblack’ < *boyaci* ‘painter’.

3.4.7 Influence of Standard Average European

A rather different, but nevertheless important factor of language contact for MSA, especially in the journalistic style, was described by Blau (1969). Blau argues

²⁰I thank Chams Bernard for updating the transcription of the Middle Persian forms.

that, under the influence of what he dubs “Standard Average European” (SAE; cf. Whorf 1956), MSA (as well as Modern Hebrew) has taken on a large amount of vocabulary,²¹ phraseology, and syntax similar to the journalistic language use of European languages, though the actual languages of influence could be quite different in different countries (e.g. Russian and Yiddish for Modern Hebrew; English for Egyptian MSA, French for Lebanese, Moroccan, Tunisian and Algerian MSA).²² Examples of such influence take up over a hundred pages in Blau’s pioneering work.

Blau identifies examples of lexical expansion of existing words to include lexical associations present in SAE, e.g. *saṭḥī* ‘flat’ is extended in meaning towards ‘superficial’ due to influence of, e.g. French *superficiel* and German *oberflächlich* (Blau 1969: 65); *ḡaww* ‘air, atmosphere’ comes to be used in a metaphorical sense in the same way English uses ‘atmosphere’, e.g. *ḡawwu s-siyāsati mukahrabun* ‘the political atmosphere is electrified’ (Blau 1969: 69).

Even whole phrases may show up as loan translations, such as MSA *ʔanqaḏa l-mawqifa* ‘to save the situation’, cf. French *sauver la situation*, German *die Situation retten*; MSA *qatala l-waqta* ‘to kill time’, cf. French *tuer le temps*, German *die Zeit totschiagen* (Blau 1969: 76). Even such highly specific metaphorical expressions as ‘to miss the train’, in the meaning of missing an opportunity, appears in MSA *ʔasriʔ wa-ʔillā fātaka l-qiṭāru* ‘hurry, otherwise you will miss the train’ (Blau 1969: 101).

Such linguistic influence, of course, does not lend itself particularly well to be classified within the framework of Van Coetsem (1988; 2000), as the writers of MSA in these cases are dominant in neither the source language(s) nor the recipient language, a situation which is a rather unique result of the Arabic diglossia in combination with the influence of foreign journalistic styles that have transformed the way in which MSA is written.

3.5 Influence of the early Islamic vernaculars

While, as a general rule, CA retains its archaic features, such as the retention of glottal stop in all positions and the lack of vowel harmony and syncope, we occasionally find single lexical items which optionally allow innovative forms which presumably stem from spoken vernaculars before the standardization of the classical language. This tends to be visible especially for words that have lost

²¹For further discussion of the development of Modern Standard Arabic technical vocabulary see Dichy (2011) and Jacquart (1994).

²²The influence of French in terms of borrowings and adaptations is especially salient in literary Arabic as used in the Maghreb. Kropftisch (1977) is an excellent study on this topic.

the glottal stop, a feature usually attributed to the Ḥiǧāzī variety of the early Islamic period. For example, CA has *nabiyy* ‘prophet’, *nubuwwah* ‘prophethood’ from the root $\sqrt{nb?}$;²³ likewise *bariyyah* ‘creature’ from the root $\sqrt{br?}$.²⁴

The likely loss of postconsonantal ʔ in Ḥiǧāzī Arabic has influenced the way the verb *raʔā* ‘to see’ ($\sqrt{rʔy}$) is conjugated. Its imperfect irregularly loses the ʔ : *yarā* ‘he sees’. Similarly the verb *saʔala* ‘to ask’ ($\sqrt{sʔl}$) has two different imperatives, either the regular *isʔal* or the Ḥiǧāzī *sal* (< *sʔal). The imperative *ʔalik* ‘send!’ must be the imperative of an otherwise unattested verb *ʔalʔaka ‘to send’, which has likewise irregularly lost its postconsonantal ʔ . Besides verbs, we may also see the irregular lack of representation of post-consonantal ʔ in other nouns, e.g. *malak* ‘angel’, which, considering its plural *malāʔikah* and etymological origin, was presumably originally *malʔak.

The pseudo-verbs *niʔma* ‘what a wonderful ...’ and *biʔsa* ‘what an evil ...’, are presumably originally from *naʔima and *baʔisa, with vowel harmony and syncope. These original forms have disappeared from the classical language in their pseudo-verbal use, only retaining their verbal meaning: *naʔima* ‘to be happy, glad’ and *baʔisa* ‘to be miserable, wretched’. However, other pseudo-verbs retain both unharmonized and unsyncope forms as optional variants even in their pseudo-verbal use: *ḥasuna*, *ḥusna*, *ḥasna* ‘how beautiful, magnificent’, and *ʔaḏuma*, *ʔuḏma*, *ʔaḏma* ‘how powerful, mighty’. Such syncopated and harmonized forms are claimed by the Arab grammarians themselves to be part of the eastern dialects, and absent in the Ḥiǧāzī dialects (Rabin 1951: 97), but surprisingly are retained for such pseudo-verbs.

Syncopated forms, while reported for regular verbs as well by the Arab grammarians (e.g. *ʔihda* or *ʔahda* for *ʔahida*), never occur in the Classical language. For some CaCiC nouns, syncopated forms are reported by lexicographers (e.g. *katf* and *kitf* besides *katif*), but it is not clear whether these syncopated forms are used in CA outside of these lexicons.

These kinds of dialectal forms that appear to have been incorporated into CA are indicative of the artificial amalgam that makes up the language, and require a much more in-depth discussion than the present chapter allows. It seems clear that the vast amount of dialectal variation that is described by the Arab grammarians, judiciously collected by Rabin (1951), does not end up in CA, but some amount of variants are either allowed, or are the only possible form present in the standard. The exact parameters that determine how and why such dialectal forms were incorporated into the language are currently unclear.

²³In several Quranic reading traditions these are still read *nabiʔ* and *nubūʔah*, as expected (Ibn Muǧāhid no date: 106–107).

²⁴Read as *bariʔah* in several Quranic reading traditions (Ibn Muǧāhid no date: 693).

4 Conclusion

Due to CA and MSA being almost exclusively High literary registers, with no true native speakers, the type of language contact that we see in the Islamic period is rather different from what we may see in more natural language contact situations. We mostly see imposition of certain dialectal forms onto the Classical ideal. An interesting exception to this is the calquing of MSA words and phraseology upon “Standard Average European”, where the speakers are dominant in neither the recipient nor the source language.

Borrowing can be detected in phonology, morphology and vocabulary from Greek, Aramaic and Ethio-Semitic from the pre-Islamic period, which were then inherited by CA. In the Islamic period, it is mostly vocabulary that is borrowed, with a significant number of loans coming from Greek, Persian and Ottoman Turkish into CA.

Examining these pre-Islamic borrowings, it has become clear that the Aramaic that has primarily influenced CA, contrary to what is popularly believed, was not a form of Syriac, but rather a more archaic variety. The historical implications of this have not yet been well-integrated into our understanding of pre-Islamic linguistic diversity in Arabia and neighbouring regions.

While some studies have looked at syntactic imposition of the spoken dialects onto MSA with promising results, this has not yet been applied to medieval texts written in CA. Nevertheless, considering the clear ethnic and geographic diversity of writers of CA, it seems likely that future work should be able to detect such influences even in the medieval period.

Further reading

- ▶ Jeffery (2007) [1938] is still one of the most comprehensive books on loanwords in *Qurānic Arabic*.
- ▶ Hebbō (1984) is an in-depth study of foreign words as they appear in the *Sīrah* of Ibn Hišām.
- ▶ Fraenkel (1886) is an in-depth discussion of Aramaic loanwords in Arabic, but in some respects outdated.
- ▶ Nöldeke (1910) contains an important section on loanwords both from Arabic to the Ethio-Semitic languages and the other way around.
- ▶ Blau (1969) is a pioneering work researching the interaction between European literary languages and the effects they have on the literary style of Modern Standard Arabic and Modern Hebrew.

- The chapters on language contact in the *Encyclopaedia of Arabic Language and Linguistics* are also highly useful and informative, and contain many up to date references for contact with Greek (Gutas 2011), Persian (Asbaghi 2011), Aramaic Retsö (2011), and Turkish (Procházka 2011).

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Abbreviations

*	reconstructed form	M	masculine
**	unattested form	MSA	Modern Standard Arabic
1, 2, 3	1st, 2nd, 3rd person	NOM	nominative
ACC	accusative	OBL	oblique
Aram.	Aramaic	PL	plural
CA	Classical Arabic	PN	personal name
CE	Common Era	PRF	perfect (suffix conjugation)
DAT	dative	REL	relative pronoun
F	feminine	RL	recipient language
Gk.	Greek	SG	singular
Gz.	Gəʕəz	SL	source language
IMPF	imperfect (prefix conjugation)	Syr.	Syriac
Lat.	Latin	v.n.	verbal noun

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Chapter 4

Arabic in Iraq, Syria, and southern Turkey

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This chapter covers the Arabic dialects spoken in the region stretching from the Turkish province of Mersin in the west to Iraq in the east, including Lebanon and Syria. The area is characterized by a high degree of linguistic diversity, and for about two and a half millennia Arabic has come into contact with various other Semitic languages, as well as with Indo-European languages and Turkish. Bilingualism, particularly with Aramaic, Kurdish, and Turkish, has resulted in numerous contact-induced changes in all realms of grammar, including morphology and syntax.

1 Current state and historical development

The region discussed in this chapter is linguistically extremely heterogeneous: in it three different Arabic dialect groups, plus several other languages, are spoken. The two main Arabic dialect groups are Syrian and Iraqi, the distribution of which does not exactly correspond to the political boundaries of those two countries. Syrian-type dialects are also spoken in Lebanon, in three provinces of southern Turkey (Mersin, Adana,¹ Hatay), and in one village on Cyprus (cf. Walter, this volume). In Iraq, Arabic is mainly spoken in Mesopotamia proper, whereas considerable parts of the mountainous parts of the country are Kurdish-speaking. Arabic dialects which are very akin to the Iraqi ones extend into north-eastern Syria and southeastern Anatolia (for the latter see Akkuş, this volume). These two groups are geographically divided by a third dialect group, which arrived in the region with an originally (semi-) nomadic population from northern

¹The dialects spoken in Mersin and Adana provinces will henceforth referred to as Cilician Arabic.



Arabia. Today, this variety preponderates in all villages and most towns between the eastern outskirts of Aleppo and the right bank of the Tigris, and stretching north into the Turkish province of Şanlıurfa.

The total number of native Arabic speakers in the whole region is estimated to be 54 million (see Table 1). The dialects of large urban centers like Beirut, Damascus, Aleppo, and Baghdad have become supra-regional prestige varieties that are also used in the media and therefore understood by most inhabitants of the respective countries. The situation is very different in Turkey, where the local Arabic is in sharp decline and public life is exclusively dominated by Turkish. Only recently has the position of Arabic in Turkey been socially enhanced by the influx of more than 3.5 million Syrian refugees fleeing the civil war that started in 2011.²

Table 1: Speaker populations for dialects of Arabic

Country	Speakers
Syria	17,000,000
Lebanon	6,000,000
Iraq	30,000,000
Turkey	1,000,000

Arabic was spoken in the region long before the advent of Islam (Donner 1981: 95), but became the socially dominant language in the wake of the Muslim conquests in the seventh century CE. From that time until the end of the tenth century, when Bedouin tribes seized large parts of central and northern Syria, there was probably a continuum of sedentary-type dialects that stretched from Mesopotamia to the northeastern Mediterranean (Procházka 2018: 291). During the Mongol sacking of Iraq in 1258, much of the population was killed or expelled. This resulted in far-reaching demographic and linguistic changes as the original sedentary-type dialects were only able to hold ground in Baghdad and the larger settlements to its north. Further south they persisted only among the non-Muslim population. Most of today's Iraq was re-populated by people who spoke Bedouin-type dialects (mostly coming from the Arabian Peninsula), which over the centuries have heavily influenced the speech of even most large cities (Holes 2007). Very similar dialects are spoken further south and in the Iranian province of Khuzestan (see Leitner, this volume). The foundation of nation states

²See UNHCR figures at <https://data2.unhcr.org/en/situations/syria/location/113>.

after World War One caused a significant decrease in contact between the different dialect groups and an almost complete isolation of the Arabic dialects spoken in Turkey.

2 Contact languages

During its two-and-a-half-millennia presence in the region, Arabic has come into contact with many languages, both Semitic and non-Semitic. Those most relevant for the topic will be treated in more detail below (for Syria, see also Barbot 1961: 175–177). Akkadian was spoken in southern Iraq until about the turn of the eras, i.e. the first century CE.³ Greek was the language of administration in Greater Syria until the Arab conquest (Magidow 2013: 185–187) and continued to play a role for Orthodox Christians.⁴ During Crusader times, Arabic speakers in Syria came into contact with various medieval European languages; and along the Mediterranean coast the so-called *Lingua Franca* (see Nolan, this volume) was an important source for the spread of particularly nautical vocabulary for many centuries (Kahane et al. 1958). Since the nineteenth century, locally restricted contacts between Arabic and Armenian and Circassian have existed in parts of Syria and Lebanon.

2.1 Aramaic

Aramaic is a Northwest Semitic language and thus structurally very similar to Arabic. Different varieties of Aramaic were the main language in Syria and Iraq from the middle of the first millennium BCE and it can be assumed that some contact with Arabic existed even at that time. From the first century CE onwards, the southern fringes of the Fertile Crescent became largely Arabic-dominant and there was significant bilingualism with Aramaic, particularly in the towns along the edge of the steppe, such as Petra, Palmyra, Hatra, and al-Ḥīra (Procházka 2018: 260–262). Though after the Muslim conquests Arabic eventually became the majority language, it did not oust Aramaic very quickly: the historical sources suggest that Aramaic dominated in the larger towns and the mountainous regions of Syria and Lebanon for a long time. In Iraq, by contrast, the massive influx of Arabs into the cities fostered their rapid Arabization, while Aramaic continued to be spoken in the countryside (Magidow 2013: 184; 188). But over the centuries,

³For Akkadian lexical influence on Arabic, see Holes (2002) and Krebernik (2008).

⁴The enormous influence of Modern Greek on the Arabic spoken in the Kormakiti village of Cyprus is discussed by Walter (this volume). For a detailed study, see also Borg (1985).

the diverse Aramaic dialects became marginalized and, with very few exceptions, were finally relegated to non-Muslim religious minorities, particularly Christians and Jews, in peripheral regions like Mount Lebanon and the Anti-Lebanon Mountains, where Aramaic was prevalent until the eighteenth century (Retsö 2011). Western Aramaic is still spoken in three Syrian villages, the best known of which is Maaloula.⁵ There also remain speakers of Neo-Aramaic in northern Iraq.⁶

It is hard to establish the degree of bilingualism in the past, but it can be assumed that it was mostly Aramaic L1 speakers who had a command of Arabic and not vice versa. In the present time, nearly all remaining Aramaic speakers in Syria are fluent in Arabic. In Iraq this is mainly true of those living in the plain just north of Mosul (Arnold & Behnstedt 1993; Coghill 2012: 86). The influence of different strata of Aramaic on spoken Arabic is a long debated issue, various scholars rating it from considerable to negligible (Hopkins 1995: 39; Lentin 2018: 199–204).

2.2 Persian and Kurdish

For many centuries, Arabic and the two Western Iranian languages Persian and Kurdish have influenced each other on different levels. Persian-speaking communities existed in medieval Iraq, and economic and cultural contacts between Mesopotamia and Iran have continued to the present (cf. Gazsi 2011). An important factor of language contact are the holy shrines of the Imams in Kerbela, Najaf, and other Iraqi cities, which have always attracted tens of thousands of Persian-speaking Shiites every year. Intensive contacts between speakers of Kurdish and Arabic have existed since at least the tenth century, particularly in Northern Iraq, northeast Syria, and southeast Anatolia (see Akkuş, this volume). Until their exodus in the early 1950s, the Arabic-speaking Jewish communities which existed in Iraqi Kurdistan usually had a native-like command of Kurdish (Jastrow 1990: 12). Due to the multilingual character of the region, bilingualism in Kurdish and Arabic is still relatively widespread, particularly in urban settings, though with Kurds usually much more fluent in Arabic than the other way around.⁷ However, for obvious reasons, little linguistic research has been done in Iraq for decades, which makes it impossible to give up-to-date information about the linguistic situation in ethnically-mixed cities like Kirkuk.

⁵The village heavily suffered from the jihadist occupation of 2013–2014, but after government troops had retaken control over the region, many inhabitants returned and began its reconstruction (cf. the reports collected at <http://friendsofmaaloula.de/>).

⁶See Coghill (2012) and <http://glottolog.org/resource/language/id/nort3241>.

⁷With significant exceptions in some parts of southeast Anatolia; see Akkuş (this volume).

2.3 Ottoman and Modern Turkish

Contacts between spoken Arabic varieties and various Turkic languages existed from the ninth century onwards. These early contacts, however, left hardly any traces in Arabic except for a handful of loanwords. In the sixteenth century, the Ottomans established their rule over most Arab lands, including Syria, Lebanon, and Iraq. This domination lasted four hundred years, until World War One. Particularly in the provinces of Aleppo and Mosul, there was a relatively high percentage of Turkish speakers and probably a significant degree of bilingualism.⁸ As the language of the ruling elite, Turkish had high prestige and therefore was at least rudimentarily spoken by many inhabitants of those regions, especially urban men. The collapse of the Ottoman Empire put an abrupt end to Turkish–Arabic contacts, which today remain intensive only among the Arabic varieties spoken within the borders of Turkey itself, where most Arabic speakers are fluent in Turkish, the dominant language in all contact settings.

In some areas of Syria and in northern Iraq, the Arabic-speaking population lives side by side with several hundred thousand speakers of Turkish and Azeri Turkish, who call themselves Turkmens. Unfortunately, no reliable data on the sociolinguistic settings and the degree of bilingualism exist for those areas. Again, it can be assumed that most of the Turkmens in both countries are dominant in Turkish, but use Arabic as a second language.

2.4 French and English

After World War One, Syria and Lebanon stayed under the French mandate and Iraq under the British mandate until they reached independence.⁹ French is still widely spoken as a second language in Lebanon, especially by Christians. In Iraq, English has maintained its position as by far the most important foreign language – a fact which was reinforced by the US military occupation from 2003 to 2010.

2.5 Intra-Arabic contacts

Contacts between different Arabic varieties, for instance between speakers of rural and urban dialects, happen on an everyday basis and often trigger short-term accommodation without leading to long-lasting changes. The situation is different with regard to the enduring contacts between the Bedouin and the sedentary

⁸See Wilkins (2010: xv) for Aleppo. Koury (1987: 103) maintains that Aleppo's hinterland was culturally even more Turkish than Arab. For Mosul, see Shields (2004: 54–55).

⁹Iraq in 1932, Lebanon in 1943, Syria in 1946.

populations, whose dialects differ from each other considerably.¹⁰ Such contacts are most intense at the periphery of the Syrian steppe and along the middle Euphrates, where scattered towns with sedentary dialects like Palmyra, Deir ez-Zor and Hit are surrounded by an originally nomadic population. Though the nomadic way of life has been abandoned by most of them, they still speak Bedouin-type Arabic dialects. As the nomads were, for many centuries, both socially and economically dominant, speakers of sedentary dialects often adopted linguistic features from more prestigious Bedouin (though reverse instances are also found; cf. Behnstedt 1994a: 421). Due to the historical circumstances mentioned in §1, Bedouins also had a strong linguistic impact on Iraqi dialects. In Baghdad the sedentary dialect of the Muslim population has been gradually Bedouinized due to massive migration from the countryside to the city (Palva 2009). The Christian and, in former times, Jewish inhabitants, on the other hand, preserved their original sedentary-type dialects because they had much less contact with the Muslim newcomers.

3 Contact-induced changes

Change induced by contact with Aramaic almost exclusively happened through imposition, that is, by Aramaic speakers who had learned Arabic as a second language and later often completely shifted to Arabic. This explains the relatively numerous phonological changes and pattern replications in syntax. Lexical transfers from Aramaic certainly were also made by Arabic-dominant speakers, particularly in semantic fields like agriculture that included novel concepts for the mostly animal-breeding Arabs.

The same is true for transfers from Greek, for which a very low level of bilingualism can be assumed. Thus we find only matter replication (in the sense of Sakel 2007) in the form of loanwords, mostly in domains where lexical gaps in older layers of spoken Arabic are likely.

In the case of transfer from Kurdish, bilingualism is much more widespread among speakers of the source language, suggesting imposition. This might explain some of the phonological changes discussed in §3.1.2, as speakers dominant in the source language tend to preserve its phonological features (Lucas 2015: 532). The relatively small number of instances of lexical matter replication is probably the result of the fact that Arabic has long been regarded as the more prestigious by speakers of both the source and the recipient language.

¹⁰Since these two speech communities differ from each other in so many ways, it is a relatively robust approach to rate the following features as results of dialect contact and not mere variation (cf. Lucas 2015: 533).

The numerous loanwords from Persian into Iraqi Arabic may well be the result of matter replication by agents who were dominant in the recipient language Arabic. Starting with the rule of the Abbasid caliphs in the eighth century CE and continuing to the present, Iranian material culture and cuisine often had a great impact on neighbouring Mesopotamia. There were also many intellectuals, among them praised writers of Arabic prose, who were actually Iranians and hence knew both languages. Frequent contacts on the everyday level caused additional borrowing of ordinary vocabulary and the retention of sounds that are replaced in Persian loans found in Classical Arabic or other dialects.¹¹

Changes induced by contact with Ottoman Turkish may have happened mostly through Arabic-dominant speakers. The current situation of Arabic speakers in Turkey is, however, very different, because at least the last two generations have acquired Turkish as an L2 or even as a second L1 at very young age. Thus, at least some of the contact phenomena described in the following paragraphs may be examples of linguistic convergence (see Lucas 2015: 525).

French and English have largely remained typical “foreign languages” learned at school or in business with a considerable amount of bilingualism only in some urban settings of Lebanon, particularly Beirut. The agents of change are certainly dominant in the recipient language.

The distinction between the two transfer types is not always clearly discernible in case of intra-Arabic contact-induced changes. In the towns of the Syrian steppe and the middle Euphrates the agents of change were mostly the sedentary population who adapted their speech towards the norms of the socially more prestigious Bedouin. However, there has always been inter-marriage, and Bedouins often settled in towns and may well have adopted features from the local sedentary variety. Especially in cases like Muslim Baghdadi (see §1), we may assume with good reason that the Bedouin character of today’s variety developed through both imposition and borrowing.

3.1 Phonology

3.1.1 Aramaic-induced changes

It has been hypothesized that several phonological features of the Syrian and Lebanese dialects are due to the contact-induced influence of Aramaic. But in the case of the shift from interdental fricatives to postdental plosives (*/ð/ > /d/; /θ/ > /t/; /ð̤/ > /d̤/*) this is unlikely because: (i) this sound change is common crosslinguistically; (ii) it does not occur in all dialects of the region; and (iii) it is found in many other Arabic dialects without an Aramaic substrate.

¹¹The phonological changes are not, however, only the result of Persian influence (cf. §3.1.2).

A phonotactic characteristic of most dialects spoken along the Mediterranean, from Cilicia in the north to Beirut in the south, is that all unstressed short vowels (including /a/) in open syllables are elided,¹² whereas in other dialects east of Libya only /i/ and /u/ in this position are consistently dropped.

- (1) Cilician Arabic (Procházka 2002a: 31–32; 130)
Old Arabic (OA) *raṣāṣ > rṣāṣ ‘lead, plumb’
OA *miknasa > mikinsi ‘broom’,¹³
*fataḥ-t > ftaḥt ‘I opened’

Because this rule corresponds to the phonotactics of Aramaic and is otherwise not found to the same degree except in Maghrebi dialects (cf. Benkato, this volume), pattern replication is likely, though cannot be proved.¹⁴

In roughly the same region, except Cilicia and many dialects of Hatay,¹⁵ the diphthongs /ay/ and /aw/ are only preserved in open syllables, but monophthongized to /ē/ and /ō/ respectively in closed syllables. In some regions, for instance on the island of Arwad, both diphthongs merge to /ā/ in closed syllables (Behnstedt 1997: map 31).

- (2) Arwad, western Syria (Procházka 2013: 278)
OA *bayt, *baytayn > bāt, baytān ‘house, two houses’
OA *yawm, *yawmayn > yām, yawmān ‘day, two days’
OA *bayn al-iṯnayn > bān it-tnān ‘between the two’

Likewise, in older layers of Aramaic, diphthongs were usually monophthongized in closed syllables (for Syriac see Nöldeke 1904: 34), which makes imposition by L1 speakers of Aramaic rather likely (Fleisch 1974a: 227).

Another striking phenomenon is the split of historical /ā/ into /ō/ and /ē/ that is found in scattered areas of the Levant, particularly northern Lebanon, around the Syrian port of Tartous, the Qalamūn Mountains, and the exclusively Christian town of Maḥarde on the Orontes River.¹⁶ Because in many varieties of Aramaic the old Semitic /ā/ is reflected as /ō/, it could be assumed that Aramaic speakers transferred their peculiar pronunciation to Arabic when learning it. Fleisch

¹²Therefore, Cantineau (1960: 108) called them *parlers non différentiels* – a term still very often applied in Arabic dialectology – as they make no distinction in the treatment of the three short vowels.

¹³With insertion of an epenthetic /i/ to avoid a sequence of three consonants.

¹⁴Cf. Diem (1979: 47); Arnold & Behnstedt (1993: 69–71); Weninger (2011: 748).

¹⁵Where this phenomenon occurs only in Alawi villages (Arnold 1998: 84).

¹⁶For details cf. Behnstedt (1997: map 32). The conditioned shift /ā/ > /ō/ is also found in and around Tarsus in Turkey (Procházka 2002a: 37–38).

(1974b: 49) rejected the hypothesis of an Aramaic influence, arguing that the conditioned distribution of the two allophones is merely a further development of the [ɒ] : [æ] split widely attested for Lebanon and parts of western Syria. However, in the Syrian Qalamūn Mountains there are dialects with an unconditioned shift (Behnstedt 1992), and this is precisely the region where the shift from Aramaic to Arabic occurred relatively late, probably after a long phase of bilingualism. In the town of Nabk, for instance, one can infer that the former Aramaic speaking inhabitants would have simply turned every /ā/ into /ō/ – except those which long before had become [ē] (or [ē̄]) as a result of the so-called conditioned *imāla* (i.e. the tendency of long /ā/ to be raised towards [ē] or even [ī] if the word contains an /i/ or /ī/).¹⁷ Example (3) clearly shows that the distribution of the allophones is not conditioned by the consonantal environment.

- (3) Nabk, Syria (Gralla 2006: 20)
 OA *ṭābiḥ > ṭēbeh ‘cooking’ vs. OA *ṭālib > ṭōleb ‘student’
 OA *ḥāmil > ḥēmel ‘pregnant’ vs. OA *ḥāmiḍ > ḥōmeḍ ‘sour’

In these cases Aramaic influence seems plausible. For the region of Tripoli it may be assumed that Aramaic bilinguals from the adjacent mountains used [ō] instead of [ā] when speaking Arabic and thus reinforced the already existing [ɒ] : [æ] split.¹⁸

3.1.2 The “new” phonemes /č/, /g/, and /p/

Consonantal phonemes that are originally alien to Arabic are found in all Arabic dialects spoken in Turkey (see also Akkuş, this volume), northern Syria, and Iraq. These are the unvoiced affricate /č/, the voiced /g/,¹⁹ and the unvoiced /p/, the latter mainly used in Iraq. The emergence of these sounds was very likely contact-induced, but it is often impossible to discern which language triggered each development: all three sounds are found in Persian, Kurdish, Turkish, and the Lingua Franca. For the dialects of Cilicia, Hatay and Syria, the main source language doubtless was Turkish. The sound /p/ in the Iraqi dialects was probably first introduced through contact with Persian and Kurdish, and then reinforced

¹⁷Cf. Arnold & Behnstedt (1993: 68).

¹⁸For discussion see Fleisch (1974b: 48–50; 1974a: 133–136), Diem (1979: 45–46); Behnstedt (1992); Arnold & Behnstedt (1993: 67–68); Weninger (2011: 748).

¹⁹The sound [g] is prevalent in whole Syria and Lebanon but seems to have phonemic status only in the north (Sabuni 1980: 26). For further examples and discussion see Ferguson (1969). This “foreign” /g/ must therefore be differentiated from the /g/ which is the regular reflex of OA *q. The latter development is found in many Bedouin-type dialects.

by Ottoman Turkish. In the Bedouin-type dialects of the region, the phonemes /č/ and /g/ are not products of contact-induced change but occur due to internal sound changes, unvoiced /č/ as a conditioned affricated variant of /k/ and /g/ as the ordinary reflex of OA *q.

Thus, it can be assumed that over the centuries speakers of the sedentary dialects of Iraq and Syria borrowed either from other languages or from Bedouin Arabic varieties words that possess these two sounds, which subsequently were fully incorporated into the phonemic inventory. This development may have been facilitated by the fact that the three sounds /č/, /p/, and /g/ are not fundamentally unfamiliar to Arabic, but are the voiceless/voiced counterparts of the well-established phonemes /ğ/, /b/, and /k/. It seems no accident that the new sound /č/ is much more often found in dialects that have preserved the affricate /ğ/ than in those where it has shifted to /ž/, as illustrated in examples (4) and (5).

- (4) Aleppo (Sabuni 1980: 205–210)
čanṭāye ‘handbag’ (Turkish *çanta*)
čwāl ‘sack’ (Turkish *çuval*)
čāy ‘tea’ (Turkish *çay*)
gağaleg ‘nightgown’ (Turkish *gecelik*)

The words given in (4) are usually pronounced with [š] instead of [č] in the central Syrian and Lebanese dialects where contact with Turkish was less intense and /ğ/ is reflected as /ž/.²⁰

- (5) Mosul (own data)
šūč ‘fault’ (Turkish *suç*)
pāčā ‘stew of sheep and cow legs and innards’ (Kurdish/Persian *pāče*)
zangīn ‘rich’ (Turkish *zengin*)

Once integrated into the phonological system, these sounds not only enabled easier integration of loanwords from other languages like French and English (see §2.4), but sometimes also resulted in the spread of assimilation-induced allophones from single words to the whole paradigm or even root. In Aleppo one finds *yəkdeb > yəgdeb ‘he lies’, due to assimilation. The g subsequently was transferred to other words derived from the root: *gadab* ‘he lied’, *gādbe* ‘lie’, and *gaddāb* ‘liar’ (Sabuni 1980: 26, 209).

²⁰Cf. Behnstedt (1997: maps 18, 19, 25). For details and more examples see Sabuni (1980: 205–210), who lists all words with č/g in Aleppo, and Procházka (2002b: 185) for Cilician Arabic.

Speakers of sedentary dialects who had everyday contact with Bedouins – for example the inhabitants of Deir ez-Zor and Khatuniyya – first integrated /č/ and /g/ into their phonemic inventory through the borrowing of typically Bedouin vocabulary such as *dabča* ‘a Bedouin dance’ (Khawetna; Talay 1999: 29) and *tabga* ‘milk-bowl’ (Soukhne; Behnstedt 1994b: 310). These sounds then entered other fields of the lexicon, which led to unpredictable distribution, including doublets, as in (6)–(8).

- (6) Khawetna (Talay 1999: 28–31)
gəşša ‘forehead’, but *qəşša* ‘story’ (OA *quşša / *qişša)
dīč ‘rooster’ (OA *dik)
- (7) Deir iz-Zor (Jastrow 1978: 42–43).
gāf ‘soil’ (OA *qāf)
čam ‘how much?’ (OA *kam)
- (8) Baghdad (Palva 2009: 18–19)
guffa ‘large basket’ (OA *quffa), but *quful* ‘lock’ (OA *qufl)
fiğab ‘to pass’, but *fiqab* ‘to follow’ (both OA *fiqab)

The opposition /k/ : /č/ has even entered morphology, particularly with the 2sg suffixes: *ʔabū-k* ‘your (SG.M) father’ vs. *ʔabū-č* ‘your (SG.F) father’. In the Syrian oasis of Soukhne, long-term contact with speakers of Bedouin dialects caused a chain of phonetic changes: first /k/ shifted to /č/, which originally was the reflex of OA /ğ/; then /č/ (< /ğ/) shifted further to /ts/, which has become a unique feature of the local dialect. The unconditioned shift from /k/ > /č/, which is not found in the Bedouin dialects, in turn caused a shift from /q/ > /k/.²¹

- (9) Soukhne (Behnstedt 1994b: 226, 344, 357, 360)
kirbi ‘water-skin’ (< OA *qirba, Bedouin *girba*)
čalb ‘dog’ (< OA *kalb, Bedouin *čalib*)
čurr ‘donkey foal’ (< OA *kurr, Bedouin *kurr*)
tsubn ‘cheese’ (< OA *ğubn, Bedouin *ğubun*)

3.2 Morphology

3.2.1 Diminutive

The Aramaic diminutive suffix *-ūn* has become restrictedly productive in Iraqi Arabic (Masliyah 1997: 72), as illustrated in (10). In Syria and Lebanon it is only

²¹See Behnstedt (1994b: 4–11) for details.

found in fossilized forms such as *šalfūn* ‘young cockerel’ and *qafšūne* ‘little cage’. Such kinds of morphological transfer are usually triggered by lexical borrowing. Thus, it may be assumed that this suffix spread from loanwords like *šalfūne* ‘small knife blade’ < Aramaic *šelpūnā* ‘little knife’ (cf. Féghali 1918: 82).²²

- (10) Iraq (Masliyah 1997: 72)
darb ‘road’ > *darbūna* ‘alley’
gšayyir ‘short’ < *gšayyrūn* ‘very short’
mḥammadūn hypocoristic form of the name *Muḥammad*

3.2.2 Morphological templates

Syrian and Lebanese dialects exhibit a few word patterns (templates) that are attested for OA (and other dialects) but seem to have become widespread through contact with Aramaic due to their frequency in the latter. These are the verbal pattern $\text{šaC}_1\text{C}_2\text{aC}_3$ and the (primarily diminutive) nominal patterns $\text{C}_1\text{aC}_2\text{C}_2\text{ūC}_3$ and $\text{C}_1\text{aC}_2\text{C}_3\text{ūC}_4$.²³

An example of the first is *šanfah* ‘to puff up’, related to *nafah* ‘to blow up’ (Féghali 1918: 83; cf. Lentin 2018: 201 for further discussion); the nominal forms are illustrated in (11) and (12).

- (11) Aleppo (Barthélemy 1935: 104, 158, 851)
ğahḥūš ‘little donkey’ (related to *ğahš* ‘young donkey’)
ḥassūn ‘goldfinch’ (related to the personal name *ḥasan*)
namnūme ‘small louse’ (cf. *naml* ‘ants’)

The pattern $\text{C}_1\text{aC}_2\text{C}_2\text{ūC}_3(\text{i})$ is still productive in the whole region, including the Bedouin dialects, to derive hypocoristic forms from personal names:

- (12) *fāṭma* > *fattūma*
ḥalīme > *ḥallūma*
aḥmad/mḥammad > *ḥammūdi*

3.2.3 Pronouns

In all Syrian and Lebanese dialects, as well as in Anatolia, the 2PL and 3PL pronouns exhibit an /n/ in place of the /m/ that is found in other Arabic dialects, which makes them look as if they were reflexes of OA feminine forms (Table 2).

²²This must be a very old borrowing because the suffix is also found in the Gulf dialects (e.g. *ḥabbūna* ‘a little’ Holes 2002: 279) and even in Tunisian Arabic (Singer 1984: 496), where direct Aramaic influence can be excluded.

²³For the latter two see Corriente (1969) and Procházka (2004).

Table 2: 2PL and 3PL pronouns

	Damascus	Jerusalem	OA PL.F	Syriac PL.M
2PL	<i>ʔantu / -kon</i>	<i>ʔintu / -kom</i>	<i>ʔantunna / -kunna</i>	<i>ʔatton / -kon</i>
3PL	<i>hanne(n) / -hon</i>	<i>humme / -hom</i>	<i>hunna / -hunna</i>	<i>hennon / -hon</i>

Because generalization of the feminine is unlikely,²⁴ these forms have often been explained as a contact-induced change. In Aramaic the corresponding pronouns also have /n/ (for Syriac see Muraoka 2005: 18). In particular, the 3rd person forms with final *-n* exactly mirror the Aramaic pattern, but lack a plausible intra-Arabic etymology. Thus imposition seems plausible. Nevertheless, substratum influence has been doubted, particularly because of the infrequent evidence of *n*-pronouns in other regions.²⁵

3.2.4 Vocative suffixes

The suffixes *-o* (in the west of the region) and *-u* (in the east) can be attached to various kinship terms and given names when used for direct address, usually hypocoristically.²⁶

- (13) Urfa (own data)
šnōnak hayy-o? ‘Brother, how are you?’
ǧidd-o ‘Grandfather!’
ʕamm-o ‘(paternal) Uncle!’
hāl-o ‘(maternal) Uncle!’

In Syria the suffix is also added to female nouns: *ʕamm-t-o* ‘(paternal) Aunt!’ and *hāl-t-o* ‘(maternal) Aunt!’, whereas in Iraq the corresponding forms end in *-a*: *ʕamm-a*, *hāl-a*.

Since this suffix has no overt Arabic etymology, it has been assumed to be a borrowing of the Kurdish vocative *-o* (e.g. Grigore 2007: 203). The Persian suffix *-u* also forms affective diminutives,²⁷ which would make Persian influence

²⁴This is mainly because the feminine forms are only used for addressing groups of females, whereas the masculine forms may also refer to a mixed group. Therefore, the masculine forms are certainly more frequent. In all Arabic dialects except those mentioned above, the gender-neutral plural forms are clearly derived from the historical masculine.

²⁵See Owens (2006: 244–245) and Procházka (2018: 283–284) for details.

²⁶See also Ferguson (1997: 187).

²⁷E.g. *pesar-u* ‘kid’; *ʕamm-u* is even the common word for ‘uncle’ (Perry 2007: 1011).

possible, at least for Iraq.²⁸ However, the distribution of this feature extends far beyond even indirect contact with Kurdish or Persian,²⁹ though reinforcement and influence on the phonology may be possible for certain regions. Similar endings in Aramaic (Fassberg 2010: 88–89) and Ethiopian (Brockelmann 1928: 122) suggest a common Semitic origin (see also Pat-El 2017: 463–465).

3.2.5 Turkish derivational suffixes

All dialects of the region have incorporated the Turkish suffix *-ci* [dʒi] into their nominal morphology, as illustrated in (14) and (15). This suffix has become productive and is therefore a good example of morphological matter borrowing (Gardani et al. 2015). It is widely used for expressing professions, occupations, and habitual actions – the latter overwhelmingly pejorative, or at least humorous. In Iraqi dialects the suffix is reflected as *-či*, which corresponds to its pronunciation in the regional Turkish varieties. In the other varieties, it follows the usual development of *ǧ, which means that it is realized as *-ǧi* or *-ži*.

- (14) Syria/Damascus (own data)
kahrab-ži ‘electrician’ (*kahraba* ‘electricity’)
nəswān-ži ‘womanizer’ (*nəswān* ‘women’)
māškal-ži ‘troublemaker’ (*māšakle* ‘problem’)
- (15) Iraq (Procházka-Eisl 2018: 40–44)
pančar-či ‘tire repairman’ (*pančar* ‘puncture’)
mharrib-či ‘human trafficker’ (*mharrib* ‘one who helps s.o. to escape’)
šarag-či ‘drunkard’ (*šarag* ‘aniseed brandy’)

The suffix clearly fills a morphological gap, because it enables morphologically transparent derivation even from loanwords, by preserving the basic, immediately recognizable word – in contrast to the Arabic C₁C₂C₂āC₃ pattern or participles, which are derived from the root (for details see Procházka-Eisl 2018).

To a lesser extent other Turkish suffixes have enhanced the morphological devices of the dialects treated here,³⁰ specifically the relative suffix *-li*, the privative suffix *-siz*, and the abstract suffix *-lik*, which is reflected as *-loyiyya* in Iraq,

²⁸In the Iraqi dialects the vowel is *-u*, e.g. *šamm-u*, *hāl-u* and *ǧidd-u* (Abu-Haidar 1999: 145).

²⁹The suffix is, for instance, attached to given names for endearment in the Gulf dialects, cf. Holes (2016: 128). The address forms *ya šamm-u*, *ya hāl-u* ‘uncle’, *ǧidd-u* ‘grandfather’, *sitt-u* ‘grandmother’ are used in Cairo, where hypocoristic variants of given names are likewise attested, e.g. *mīšu* for *hišām* (Woidich 2006: 109). The suffix *-o/-u* in address forms is also attested in eastern Sudan (Stefano Manfredi, personal communication), and in the Maghreb; Prunet & Idrissi (2014: 184) provide a list of such nouns for Morocco.

³⁰See Halasi-Kun (1969: 68–71); Sabuni (1980: 168); Masliyah (1996); Procházka (2002a: 186).

i.e. with the Arabic abstract morpheme affixed. For the most part these suffixes appear in Turkish loanwords, e.g. Cilicia *şihhat-li* (< Turkish *sıhhatlı*) ‘healthy’, *rahaṭ-şiz* (< Turkish *rahatsız*) ‘uncomfortable’. Only in Iraq have they gained a certain degree of productivity, particularly *-sizz* and *-loyiyya*:

- (16) Iraq (Masliyah 1996: 293–294)
muḥḥ-sizz ‘stupid, brainless’
ḥaya-sizz ‘shameless’
ḥaywān-loyiyya ‘ignorance’ (lit. ‘animal-ness’)
zmāl-loyiyya ‘stupidity’ (lit. ‘donkey-ness’)

3.2.6 Light-verb constructions

Arabic dialects spoken in Turkey not infrequently use light-verb constructions (in Turkish grammar mostly called phrasal verbs) which consist of the verb ‘to do’ plus a following noun (see also Akkuş, this volume). Such compound verbs are very frequent in Turkish (and Kurdish) and enable easy integration of foreign vocabulary into the verbal system. The light verbs found in the Arabic dialects show that this formation is a case of selected pattern replication because, first, not all examples are exact copies of the Turkish model, and second, the word order follows the Arabic VO rather than the Turkish OV pattern:

- (17) Harran–Urfa (own data)
sāwa qaza (Turkish *kaza yapmak*) ‘to have an accident’
sāwa fēš (in Turkish not a phrasal verb, but *pişirmek*) ‘to cook’
- (18) Cilician Arabic (Procházka 2002a: 198)
sawwa zarar (Turkish *zarar vermek*) ‘to harm’
sawwa ḥayir (Turkish *hayır işlemek*) ‘to do a good deed’

3.2.7 Intra-Arabic dialect contact

Concerning intra-Arabic contact, here we see that this has led to the adoption of typical Bedouin-type pronouns into sedentary dialects (cf. Palva 2009: 27–29), e.g.:

- (19) Baghdad, Deir ez-Zor, Soukhne
?əḥna for *nəḥna* 1PL
- (20) Baghdad
?āni for *?ana* 1SG

In addition, as shown in Table 3, virtually all the eastern sedentary dialects of Syria have copied the typical Bedouin-type active participles of the verbs ‘to eat’ and ‘to take’, which exhibit initial *m-* (Behnstedt 1997: map 175).

Table 3: Active participles of the verbs ‘to eat’ / ‘to take’

Bedouin	Soukhne	Palmyra	Damascus
<i>māčil / māḥiḏ</i>	<i>mīčil / mīḥiḏ</i>	<i>mākil / māḥiḏ</i>	<i>ʔākel / ʔāḥed</i>

Finally, in a few places intensive mutual contact has resulted in an interdialect (Trudgill 1986: 62) with completely new forms, such as the 3_{PL.M} inflectional suffix *-a* in the Syrian village of Ṣōrān (Behnstedt 1994a: 423–425), as shown in Table 4.

Table 4: 3_{PL.M} inflectional suffixes – ‘they said’

Bedouin	Sedentary	Ṣōrān
<i>gāl-am</i>	<i>qāl-o</i>	<i>qāl-a</i>

3.3 Syntax

3.3.1 Changes due to contact with Aramaic

3.3.1.1 Clitic doubling

In all but the Bedouin-type dialects of the region, two constructions exist which both use an anticipatory pronoun and the preposition *l-* ‘to’: (i) a construction involving analytical marking of a definite direct object, as in (21–23); and (ii) a construction involving analytic attribution of a noun, as in (24). The frequency and constraints of these two cases of clitic doubling show great variety, but in general the usage of construction (i) is restricted to specific objects, particularly elements denoting human beings, and construction (ii) is mostly found with inalienable possession, particularly kinship. A detailed discussion of both features is found in Souag (2017).

- (21) Damascus (Berlinches 2016: 144)
 ḥabbēt-o la-ʕamər
 love.PRF.1SG-3SG.M to-Amr
 ‘I loved Amr.’
- (22) Baghdad, Christian (Abu-Haidar 1991: 116)
 qayētū-nu l-əl-əktēb
 read.PRF.1SG-3SG.M to-DEF-book
 ‘I read the book.’
- (23) Cilician Arabic (*ʕalā* instead of *l-*; Procházka 2002a: 158)
 biyḥibb-u ʕala ḥāl-u
 love.IMPF.IND.3SG.M-3SG.M on uncle-3SG.M
 ‘He loves his (maternal) uncle.’
- (24) Baghdad, Christian (Abu-Haidar 1991: 116)
 mayt-u l-aḥū-yi
 wife-3SG.M to-brother-OBL.1SG
 ‘my brother’s wife’

Though the preposition *l-* is sometimes attested in Classical Arabic for introducing direct objects and is common even in Modern Standard Arabic for analytic noun annexation, there are good arguments that the two constructions are pattern replications of an Aramaic model.³¹ For one thing, they do not have direct parallels either in OA or in dialects which lacked contact with Aramaic. Example (25) shows that both constructions have striking parallels in especially the later eastern varieties of Aramaic (Rubin 2005: 94–104).

- (25) a. Syriac (Rubin 2005: 100)
 bnā-y l-bayt-ā
 build.PRF.3SG.M-3SG.M to-house-DEF
 ‘He built the house.’
- b. Syriac (Hopkins 1997: 29)³²
 šm-ēh l-gabr-ā
 name-3SG.M to-man-DEF
 ‘the name of the man’

³¹Not discussed here are two variants of construction (i), one without the suffix and the other without the preposition (cf. Lentin 2018: 203). Among the many studies that are in favor of Aramaic influence are Contini (1999: 105); Blanc (1964: 130); and Weninger (2011: 750). Diem (1979: 47–49) and Lentin (2018) are more skeptical. Souag (2017: 52) suggests that at least “the initial stages of the development of clitic doubling in the Levant derive from Aramaic substratum influence, but the current situation also reflects subsequent Arabic-internal developments”.

³²The same pattern using the linker *d-* is more common.

3.3.1.2 *fī* ‘can’

In the entire western part of the region including southern Turkey, the preposition *fī* ‘in’, together with a pronominal suffix, is used to express a capability, as in (26). This has a striking parallel in the modern Aramaic *ʔīθ b-* ‘there is in’ ~ ‘be able’ (Borg 2004: 52).

- (26) Damascus (Cowell 1964: 415)
fī-ni sād-ak əb-kamm lēra
in-1SG help.IMPF.1SG-2SG.M with-some pound
‘Can I help you with a few pounds?’

3.3.1.3 Specific indefinite *šī*

A final example of possible Aramaic influence is the Syrian particle *šī* that mainly indicates partial specificity, as in (27). It might be a pattern replication of the Western Neo-Aramaic form *mett*, used with the same function (Diem 1979: 49). What reduces the likelihood of imposition by Aramaic speakers is the existence of a cognate in Moroccan Arabic which is used with almost the same function.³³

- (27) Damascus (own data)
hnīk fī šī ʔamūd
there EXS INDF column
‘There is some column.’

3.3.2 Changes due to contact with other languages

3.3.2.1 Indefiniteness

A hallmark of both sedentary and Bedouin-type Iraqi dialects is that reflexes of the noun *fard* ‘individual (thing or person)’ are used to mark different kinds of indefiniteness (Blanc 1964: 118–119). The same form with the same indefinite article function is found in the Iranian province of Khuzestan, and in all Arabic speaking language islands of Central Asia, i.e. Khorasan, Uzbekistan, and Afghanistan, as illustrated in (28).

- (28) Kirkuk (own data)
taʔrif-lak fadd ʔabīb bāʔiniyye
know.IMPF.2SG.M-DAT.2SG.M INDF doctor internal
‘Do you know a doctor of internal medicine?’

³³Cf. Brustad (2000: 19, 26–27) and Wilmsen (2014: 51–53).

It is very likely that the noun *fard* has developed into a kind of indefinite article under the influence of other areal languages, particularly Turkish, Turkmen, Persian, and Neo-Aramaic. However, in contrast to all contact languages, Iraqi Arabic has not grammaticalized the numeral ‘one’ (*wāḥid*), but *fard*. This clearly indicates that this feature is a case of pattern replication. There are many parallels in the functions of the indefinite articles (such as marking pragmatic salience, semantic individualization, approximation with numerals). Moreover, in all languages they are not fully systematized as a grammatical category as their usage is often optional.

In the dialects of the Jews of Kurdistan the definite article is often omitted in subject position – a flagrant imitation of the Kurdish model (see also Akkuş, this volume, for some Anatolian dialects).

- (29) Kurdistan Arabic (Jastrow 1990: 71)
 baʔdēn mudīra baʔatət ḥalf-na
 then director send.PRF.3SG.F after-1PL
 ‘Then the director sent for us.’

3.3.2.2 *m-bōr* ‘because, in order to’

An interesting case of calquing which shows the difficulty of distinguishing between borrowing and imposition (see Manfredi, this volume) is the conjunction *m-bōr* ‘because, in order to’. It exhibits both matter and pattern transfer, as it is a copy of Kurdish *ji ber (ku)*. In the actual form the Kurdish *ji* ‘from’ was replaced by the Arabic equivalent *m-* (Jastrow 1979: 64).

3.3.2.3 Evidentiality

Syntactic change because of contact with Turkish is restricted to the Arabic dialects spoken in Turkey. In Cilicia and the Harran–Urfa region, active participles express evidentiality, that is, they are used in utterances where a speaker refers to second-hand information. As evidentiality is not a common category in Semitic, it is very likely that the bilingual Arabic speakers of those regions copied this linguistic category from Turkish. In Turkish, any second-hand information is obligatorily marked by the verbal suffix *-miş*, whose second function besides evidentiality is to express stativity and perfectivity. The latter two functions are assumed by the active participle in many Arabic dialects, including those in question here. Thus, we can suppose that the stative/perfective function, which is shared by both Arabic active participles and the Turkish suffix *-miş*, was likely the starting

point of the development that led to the additional evidential function of Arabic participles. The fact that evidentials seem to spread readily through language contact (Aikhenvald 2004: 10) makes Turkish influence even more probable.³⁴ The example in (30) illustrates how the speaker uses perfect forms for those parts of the narrative he witnessed himself, and participles for secondhand information (perfect forms italic, participles in bold face).

- (30) Harran–Urfa (Procházka & Batan 2016: 465)
ʔiḥne b-zimānāt *čān* ʔid-na ġār b-al-maḥalle huwwa *māt ərṭiḥam*
əngül-lu šēḥ məṭar [...] nahār rabiʔ-u wāḥad **ʔāzm**-u ʔala stanbül **rāyiḥ**
maʔzūm ʔala stanbul **māḥiḏ** šēḥ məṭar əb-sāġt-u
‘Once we had a neighbor in our quarter. He died; he passed away. We called him Sheikh Məṭar. One day somebody invited his friend to Istanbul. As he was invited he went to Istanbul and he took Sheikh Məṭar with him.’

3.3.2.4 Comparative and superlative

In most Arabic dialects that are spoken in Turkey, comparatives and superlatives may be expressed by means of the Turkish particles *daha* and *en*, respectively, followed by the simplex instead of the elative form of the adjective (cf. Akkuş, this volume). As for comparatives, the use of such constructions is rather restricted, while, at least in Cilician Arabic, they are relatively frequent for the superlative.

- (31) Harran–Urfa (own data)
daha zēn ṣārat
more good become.PRF.3SG.F
‘It has become better.’
- (32) Cilician Arabic (Procházka 2002a: 155)
mīn en zangīl bi-d-dini
who SUP rich in-DEF-world
‘Who is the richest (person) in the world?’

In Cilicia, comparison is often expressed by the elative pattern of an adjective, which is preceded by the particle *issa*. This clearly reflects a calque: the Turkish equivalent of the adverb *issa* ‘still, yet’ is *daha*, which in Turkish is also used as the particle of the comparative.

³⁴For more examples and further details see Procházka (2002a: 200–201) for Cilicia, and Procházka & Batan (2016: 464–465) for the Bedouin-type dialects in the Harran–Urfa region.

- (33) Cilician Arabic (Procházka 2002a: 202)

ṣāyir issa aḥsan
 become.PTCP more good.ELA
 ‘It became better.’

- (34) Turkish

Daha iyi ol-du.
 more good become-PRF.3SG
 ‘It became better.’

3.3.2.5 Valency

Sometimes a change in verb valency occurs as a consequence of the copying of Turkish models. A case found throughout these dialects is the verb *ṣağab* ‘to like’: usually in Arabic the entity that is liked is the grammatical subject and the person who likes something is the direct object of the verb; but in the Arabic dialects in question, the construction of this verb reflects its Turkish (and English) usage with the person doing the liking being the grammatical subject.

- (35) a. Cilicia (Procházka 2002a: 200)

ṣğabt bayt-ak
 like.PRF.1SG house-2SG.M

- b. Damascus (own data)

bēt-ak ṣaḏab-ni
 house-2SG.M like.PRF.3SG.M-1SG

‘I liked your house.’

3.4 Lexicon

Apart from the Aramaic loanwords also found in Classical Arabic (see Retsö 2011; van Putten, this volume) – often in the realms of religion and cult – the dialects of this region exhibit a large number of Aramaic lexemes. They are particularly common in Lebanon and western Syria, but also found in Iraq and even in the Bedouin-type dialects (Féghali 1918; Borg 2004; 2008). A large percentage of these words belong to flora and fauna, agriculture, architecture, tools, kitchen utensils, and other material objects:³⁵

³⁵See also Neishtadt (2015: 282). Note that, unless otherwise indicated, lexemes cited in this section are taken from Barthélemy (1935) for Syrian dialects, and Woodhead & Beene (1967) and al-Bakrī (1972) for Iraqi dialects.

- (36) *šumd* ~ *šimd* ‘plough’ < Syriac *šāmdē* ‘yoke’
qālūz ‘bolt (of a door)’ < Syriac *qālūzā*
nāṭūr ‘guard (of a vineyard etc.)’ < Syriac *nāṭūrā*
šaṭaḥ ‘to spread’ < Syriac *šetaḥ*
šōb ‘heat, hot’ < Syriac *šawbā*

Many nautical terms and words denoting agricultural products and tools were borrowed by Arabic from Greek, often via other languages, especially Aramaic,³⁶ the Lingua Franca, and Turkish:

- (37) *brāša* < Greek *práson* ‘leek’
laḥana < Greek *láhana* ‘cabbage’
dārrāʔen < Greek *dōrákinon* ‘peaches’
ʔabrīm/brīm ‘keel’ < Greek *prýmnē* ‘stern, poop’
sfīn < Greek *sfēn* ‘wedge’

Kurdish borrowings are mainly restricted to northern Iraq, where bilingualism is widespread:

- (38) Mosul
pūš ‘chaff’ < Kurdish *pûş*
hēdi hēdi ‘slowly’ < Kurdish *hêdî* (Jastrow 1979: 68)

The intensive cultural and economic contacts between Iraq and Iran led to many Persian loanwords in various domains of the Iraqi dialects.

- (39) *mēwa* ‘fruit’ < Persian *mīva* ~ *mayva*
baḥat ‘luck’ < Persian *baht*
čariḥ ‘wheel’ < Persian *čarḥ*
gulguli ‘pink’ < Persian *gol* ‘rose’
yawāš ‘slow’ < Persian *yavāš*
puḥta ‘mush’ < Persian *poḥte* ‘(well) cooked’

Ottoman Turkish contributed a great deal to culinary vocabulary and the terminology of clothing and (technical) tools of Syria and Iraq.³⁷ It was even the source of several adverbs and even verbs in the local Arabic varieties (Halasi-Kun 1969; 1973; 1982).

³⁶This is especially true for words related to Christian liturgy and ritual, which constitute about twenty per cent of the Greek vocabulary that entered the dialects of Syria.

³⁷The same loanwords are, of course, often found in other regions that were under Ottoman rule, above all in Egypt, but also in Tunisia, Yemen and other regions.

- (40) Syria (Damascus)
šāwərma ‘shawarma’ < Turkish *çevirme*
šāž ‘iron plate for making bread’ < Turkish *saç*
yalanži ‘vine-leaves stuffed with rice’ < Turkish *yalançı* ‘liar’ (as they pretend to be “real” *dolma* stuffed with meat)
šiš tāwū? ‘spit-roasted chicken’ < Turkish *şiş tavuk*
kəzlok ‘glasses’ < Turkish *gözlük*
ʔūda ‘room’ < Turkish *oda*
ballaš ‘to begin’ < Turkish *başla-mak* by metathesis.
- (41) Iraq (Muslim Baghdadi, cf. Reinkowski 1995)
qūzi ‘a dish with roasted mutton’ < Turkish *kuzu* ‘lamb’
tēl ‘wire’ < Turkish *tel*
yašmāy ‘kerchief (for men)’ < Turkish *yaşmak* ‘veil (for women)’
bōš ‘empty; neutral’, which yielded also the verb *bawwaš* ‘to put into neutral (gear)’ < Turkish *boş* ‘empty’
qačay ‘smuggled goods’ < Turkish *kaçak*

During the last century, the Arabic dialects in Turkey³⁸ have incorporated numerous Turkish words in addition to loanwords from Ottoman times. Among them are terms in education, medicine, sports, media, and technology. Besides these, kinship terms, the vocabulary of everyday life, and structural words like adverbs and discourse markers have infiltrated the dialects from Turkish.

- (42) Cilician Arabic
qāyin ... ‘-in-law’ (< Turkish *kayın*)
ṭōrūn ‘grandchild’ (< Turkish *torun*)
bīle ‘even’ (< Turkish *bile*)
qāršīt ‘opposite from’ (< Turkish *karşı*)

The cases of semantic extension of an Arabic word result from the wider semantic range of its Turkish equivalent which has been transferred into Arabic. Thus, in both Cilician and Harran–Urfa Arabic *sāq/ysūq* ‘to drive’ also occurs with the meaning of ‘to last’ like the Turkish verb *sürmek*. In Harran–Urfa *b-arḏ* ‘on the place/ground (of)’ has become a preposition/conjunction meaning ‘instead’. This can be seen as an instance of contact-induced grammaticalization (Gardani et al. 2015: 4) under the influence of Turkish *yerine* ‘instead, in its place’.

³⁸For Cilicia see Procházka (2002a; 2002b: 187–199).

- (43) Harran–Urfa (own data)
al-mille tākl-u b-arḏ al-laḥam
DEF-people eat.IMP.F.3SG.F-3SG.M in-place DEF-meat
‘The people eat it instead of meat.’
- (44) Harran–Urfa (own data)
b-arḏ-in tibči ʔigir āya
in-place-LINK cry.IMP.F.2SG.M read.IMP.SG.M verse
‘Instead of crying recite a (Koranic) verse!’

In Iraq, many English words related to Western culture and technology have been, and still are, borrowed into the dialects. The same is true for French in Syria and (particularly) Lebanon (cf. Barbot 1961: 176).

- (45) Iraq (words of English origin)
kitli < kettle
buṭil < bottle
glāṣ < glass
pančar ‘flat tire’ (< *puncture*)
pāysikil < bicycle
māṭōrsikil < motorcycle
lōri < lorry
igzōz < exhaust (pipe)
brēk < brake
- (46) Syria and Lebanon (words of French origin)
gātto ~ *gaṭō* < *gâteau* ‘cake’
garsōn < *garçon* ‘waiter’
sēšwār < *séchoir* ‘hair drier’
kwaffēr < *coiffeur* ‘hair-dresser’
ʔaṣansēr < *ascenseur* ‘elevator’
grib < *grippe* ‘influenza’

Due to long-term contacts, there are mutual borrowings between the Bedouin and sedentary dialects of the region. This affects not only specific vocabulary of the respective cultures but also basic lexical items. Historically, the sedentary dialects have been much more influenced by the Bedouin-type dialects than vice versa.

4 Conclusion

The sociolinguistic history of the regions treated here suggests that the conditions for imposition were relatively restrictive and mainly found in contact settings with Aramaic, which, over the centuries, has been given up by most of its speakers in favor of Arabic. Thus, it is not surprising that so many features beyond the lexicon for which contact-induced change can be assumed are related to Aramaic influence.

Morphological borrowing is in general relatively rare because it presupposes a high intensity of contact (Gardani et al. 2015: 1). Practically all cases presented in §3.2 corroborate the universal tendencies that: (i) derivational morphology is more prone to borrowing than inflectional morphology; and (ii) nominalizers and diminutives are very frequently represented in instances of borrowed derivational morphology (Gardani et al. 2015: 7; Seifart 2013). On the whole, the Bedouin-type dialects exhibit significantly fewer contact-induced changes than the sedentary dialects. This may be the result of both the Bedouin groups' nomadic way of life at the fringes of the desert and their tribally organized society, which impedes intense contact with outsiders.

The relative infrequency of contact-induced changes in morphology and syntax found in the Arabic varieties spoken in Turkey have two main explanations: first, the high degree of complete bilingualism is a very recent phenomenon that only pertains to the last two generations; and second, and probably more importantly, the great structural differences between the two languages, which have impeded both matter and pattern replications.

What is still relatively unclear is the degree of historical bilingualism between Arabic on the one hand and Ottoman Turkish, Kurdish, and Persian on the other. Future research would be particularly desirable with regard to Iraq, providing interesting new data on contact-induced changes in multilingual regions like Mosul and Kirkuk, where Arabic, Turkmen, and Kurdish speakers have been in contact for a long time. Also, studies like that of Neishtadt (2015) for Palestine should be carried out for Syrian and especially Iraqi dialects with regard to lexical borrowings from Aramaic. Another completely under-researched topic is idiomatic constructions, in which the mutual influence of most languages in the region may be assumed.

Further reading

There are no studies which treat the subject of contacts between Arabic and the other languages of the whole region covered in this chapter. However:

- Arnold & Behnstedt (1993) is an in-depth study of the mutual contacts between Western Neo-Aramaic and the local Arabic dialects in the Anti-Lebanon Mountains of Syria.
- Diem (1979) is a pioneer study of substrate influence in the modern Arabic dialects, though with focus on South Arabia, i.e. outside of the region treated in this chapter.
- Palva (2009) is a very good case study of the diachronic relations between sedentary and Bedouin-type dialects in the Iraqi capital Baghdad.
- Weninger (2011) is a concise overview of contact between different varieties of Aramaic and Arabic.

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Abbreviations

1, 2, 3	1st, 2nd, 3rd person	L1	first language
BCE	before Common Era	L2	second language
CE	Common Era	LINK	linker
COMP	complementizer	M	masculine
DEF	definite	OA	Old Arabic
F	feminine	OBL	oblique
ELA	relative degree	PL	plural
EXS	existential	PRF	perfect (suffix conjugation)
IMP	imperative	SG	singular
IMPF	imperfect (prefix conjugation)	SUP	superlative
INDF	indefinite		

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Chapter 5

Khuzestan Arabic

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Khuzestan Arabic is an Arabic variety spoken in the southwestern Iranian province of Khuzestan. It has been in contact with (Modern) Persian since the arrival of Arab tribes in the region before the rise of Islam. Persian is the socio-politically dominant language in the modern state of Iran and has influenced the grammar of Khuzestan Arabic on different levels. The present article discusses phenomena of contact-induced change in Khuzestan Arabic and considers their limiting factors.

1 Current state and historical development

1.1 Historical development

Arab settlement in Iran preceded the Arab destruction of the Sasanian empire with the rise of Islam. Various tribes, such as the Banū Tamīm, had settled in Khuzestan prior to the arrival of the Arab Muslim armies (Daniel 1986: 211). In the centuries after the spread of Islam in the region, large groups of nomads from the Ḥanifa, Tamīm, ʿAbd-al-Qays, and other tribes crossed the Persian Gulf and occupied some of the territories of southwestern Iran (Oberling 1986: 215). The Kaʿb, still an important tribe in the area,¹ settled there at the end of the sixteenth century (Oberling 1986: 216). During the succeeding centuries many more tribes moved from southern Iraq into Khuzestan. This has led to a considerable increase of Arabic speakers in the region, which until 1925 was called Arabistan (see Gazsi 2011: 1020; Gazsi, this volume). Today Khuzestan is one of the 31 provinces of the Islamic Republic of Iran, situated in the southwest, at the border with Iraq.

There has been considerable movement to and from Iraq, to Kuwait, Bahrain, and Syria, and from villages into towns. Many of these migrations were a consequence of the Iran–Iraq war (1980–1988), but some were due to socio-economic

¹Cf. Oberling (1986: 218) for an overview of the Arab tribes in Khuzestan.



reasons. The settlement of Persians in the region over the past decades (Gazsi 2011: 1020) is another important factor in its demographic history. From the early twentieth century on, Khuzestan has attracted international, especially British, interest because of its oil resources.

1.2 Current situation of Arabs in Khuzestan

Information about the exact number of Arabic-speaking people in Iran, and in Khuzestan in particular, is hard to find. Estimates in the 1960s of the Arabic-speaking population in Iran ranged from 200,000 to 650,000 (Oberling 1986: 216). Today it is estimated that around 2 to 3 million Arabs live in Khuzestan (Matras & Shabibi 2007: 137; Gazsi 2011: 1020).

Many Arabs and Persians living in Khuzestan work in the sugar cane or oil industries, but few of the former hold white-collar or managerial positions (De Planhol 1986: 55–56). This is one of the reasons why many Arabs in Khuzestan feel strongly disadvantaged in society and politics in comparison to their Persian neighbours.²

2 Language contact in Khuzestan

Currently, the main and most influential language in contact with Khuzestan Arabic (KhA) is the Western Iranian language Persian. Among the other (partly historically) influential languages in the region the most prominent are English, Turkish/Ottoman (cf. Ingham 2005), and Aramaic (see Procházka, this volume).

Persian and different forms of Arabic share a long history of contact in the region of Khuzestan, implying a long exchange of language material in both directions.

KhA belongs to the Bedouin-type south Mesopotamian *gəlat*-dialects.³ Therefore, it shows great similarity to Iraqi dialects such as Basra Arabic, as well as to other dialects in the Gulf, such as Bedouin Bahraini Arabic – that is, the Arabic spoken by the Sunni Arab population descended from Najd.

²The most common Khuzestan Arabic terms for the Persian people and their language are *sağam* ‘Persian’ (people and language; lit. ‘non-Arab’), and *əl-ğamāfa* ‘Persians’ (lit. ‘group of people’). Both are often used pejoratively.

³There is as yet no comprehensive grammar of the dialects of Khuzestan. The main source of information on these dialects is the collection of data made in the 1960s by the Arabist and linguist Bruce Ingham (1973; 1976; 2011). The article by Yaron Matras and Maryam Shabibi, “Grammatical borrowing in Khuzistani Arabic” (Matras & Shabibi 2007), is based on Shabibi’s unpublished dissertation “Contact-induced grammatical changes in Khuzestani Arabic” (Shabibi 2006).

The dialects of Khuzestan can be considered “peripheral” dialects of Arabic because they are spoken in a country where Arabic is not the language of the majority population and is not used in education or administration. Therefore, there is practically no influence of Modern Standard Arabic. However, because it shares a long geographically-open border with Iraq, Khuzestan is not isolated from the Arabic-speaking world. Moreover, since around 2000 it has had access to Arabic news, soaps, etc. via satellite TV. Intra-Arabic contact is limited to the linguistically very similar (southern) Iraqi dialects⁴ through, for example, religious visits to Kerbala.

Persian is the only official language in Iran, it is the only language used in education, and is sociolinguistically and culturally dominant, especially in the domains of business and administration. Persian consequently enjoys high prestige in society. For Persian speakers, and sometimes also for KhA speakers, the KhA varieties have very low prestige and are not associated with the highly prestigious Arabic of the *Quran*, which is taught in schools. KhA speakers who acquire KhA as a first language usually acquire Persian at school. Later, the opportunities for KhA speakers to use Persian are restricted to certain social settings outside the family, e.g. school, work (employment in a large company would probably require communication in Persian), contact with Persian friends, or through the Persian media.

Accordingly, the command of Persian or the degree of bilingualism among KhA speakers varies greatly due to such factors as level of education, affiliation, age, gender, and urban or rural environment. The older generation and women have far less access to education and jobs and consequently less contact with people outside the family, which implies less exposure to contact situations and a lower degree of bilingualism. Among some members of the younger generation we may notice a certain intentional reinforcement of Arabic words alongside a resistance to recognizable Persian lexical borrowings, plus a preference for the Arabic over the Persian names for the cities in Khuzestan. This is of course consistent with nationalist ideas and the separatist movement taking place in present-day Khuzestan, and also shows the impact of intentionality in language contact situations.

In sum, one might find very different degrees of Persian influence among the speakers of KhA (cf. Matras & Shabibi 2007: 147). For that reason, all statements on Persian–KhA contact phenomena must be seen in relation to the above factors, which are decisive for any speaker’s command of Persian.

⁴KhA is often differentiated from its neighboring Iraqi dialects by the number of Persian borrowings that are employed (Gazsi 2011: 1020). Although the greatest influence has occurred in lexicon, Persian influence also extends to grammar (see below).

3 Contact-induced changes in KhA

3.1 General remarks

The main aim of the present chapter is to highlight the most striking phenomena and trends in KhA language change due to contact with Persian.⁵

All phenomena of contact-induced change in KhA can be considered as transfer of patterns or matter⁶ from the source language (SL) Persian to the recipient language (RL) KhA under RL agentivity (i.e. borrowing rather than imposition). The agents of transfer are cognitively dominant in the RL KhA, the agents' L1. Even though Persian is generally acquired during childhood and today is spoken by most speakers, it usually is the speakers' L2. Cases of convergence (cf. Lucas 2015: 530–531) are possible in the present contact situation among speakers with a very high (L1-like) command of Persian, for example university students. But of course it is hard to draw an exact line between L1 and L2 proficiency and thus between convergence and borrowing (cf. Lucas 2015: 531).

3.2 Phonology

As in other Bedouin Arabic dialects, the presence of the phonemes /č/ and /g/ is ultimately the result of internal development from original *k and *q, rather than borrowing from Persian (see Procházka, this volume).

The phoneme /p/, e.g. *perde* 'curtain' < Pers. *parde*,⁷ is also common in all Iraqi dialects and probably emerged in this region due to contact with Persian and Kurdish (see Procházka, this volume).

An interesting phonological feature of KhA is that /y/ often reflects etymological *q,⁸ which is otherwise realized as /g/ and /ğ/. It is most likely that the shift /y/ < *q first occurred in KhA forms borrowed from Persian but ultimately of Arabic origin, e.g. *yisma* 'part, section' (cf. Pers. *yesmat*), *taşdıy* 'driving licence' (cf. Pers. *taşdıy* 'approval'), *tayriban* 'approximately' (cf. Pers. *tayriban*

⁵The data used for the present analysis was collected mainly in Aḥwāz, Muḥammara (Khorramshahr), Ḥamīdiyye and Ḥafaḡiyye (Susangerd) in 2016. The male and female informants were bilingual as well as monolingual KhA speakers from 25 to over 70 years old.

⁶Sakel (2007: 15) defines matter replication as the replication of "morphological material and its phonological shape".

⁷For convenience, and due to the lack of sources on other spoken varieties of Persian, in this and all following lexical references "Persian" refers to Contemporary Standard Persian. This should not be taken to suggest that the relevant form in KhA was necessarily borrowed from this variety of Persian. The transcription and translation of all Persian lexical items is based on the forms as given by Junker & Alavi (2002) and/or information provided by native speakers.

⁸This phenomenon is also documented for the Arabic dialects of Kuwait, Qatar, and the United Arab Emirates (Holes 2016: 54, fn. 5).

‘idem’), *bāyri* ‘electronic’ (cf. Pers. *baryi* with the same meaning but ultimately going back to CA *barq* ‘lightning’). This feature is either an internal development,⁹ or a transfer from Persian, in which both *q and *ɣ in Arabic loanwords are always pronounced /ɣ/ (Matras & Shabibi 2007: 138).¹⁰ Later, this phonological change further affected lexemes which have no cognate forms in Persian, e.g. *bayra* ‘cow’, a borrowing from Modern Standard Arabic (the KhA dialectal form being *hāyša* ‘cow’). There are, however, certain lexemes, especially those that do not have a cognate form in Persian, which are not affected by this rule, e.g. *gāl* ‘he said’, *gēḏ* ‘summer’, or *marag* ‘sauce’. Other lexemes show free variation in the pronunciation of /g/, e.g. *gabul* ~ *ɣabul* ‘formerly, before’.

Lexical borrowings are often adapted to Arabic phonology. For example, speakers of the older generation usually pronounce the phoneme /p/ as [b], e.g. *berde* ‘curtain’ < Pers. *parde*.

Negative structures bear stress on the first syllable,¹¹ e.g. KhA *mā arūḥ* ‘I don’t go’. This is a feature shared with some Persian and Turkish varieties and other North East Arabian dialects (Ingham 2005: 178–179). This common phonological characteristic therefore seems to be a Sprachbund phenomenon of the Mesopotamian region, which reflects the long history of contact and migration across language boundaries due to trade, war, shared cultural practices, nomadism, etc. (Winford 2003: 70–74). Though the directions and mechanisms of borrowing within the languages of a Sprachbund are often hard to categorize (Winford 2003: 74), we can probably assume that KhA, being spoken by a minority group, has borrowed and adapted this phonological stress pattern under RL agentivity.

3.3 Syntax

3.3.1 Replication of Persian phrasal verbs

The replication of phrasal verbs is a contact phenomenon also found in the Arabic varieties of Turkey (Grigore 2007: 157–159; Procházka, this volume). As shown in examples (1–4), KhA replicates Persian phrasal verbs by substituting the Persian light verbs with KhA equivalents and directly replicating the Persian nouns (cf.

⁹Cf. Holes (2016: 53–54), who explains the /ɣ/-/q/ merger among the Najd-descendent Bahraini Arabic speakers as an internal development.

¹⁰In Modern Standard Persian with Tehran “standard” pronunciation (cf. Paul 2018: 581) the phoneme /ɣ/ (corresponding to CA /q/) has two allophones, [g] and [ɣ] (Majidi 1986: 58–60). There are, however, some varieties of Spoken Modern Persian, for instance Yazdi Persian, that maintain a difference between *q and *ɣ (Chams Bernard personal communication; cf. Paul 2018: 582).

¹¹Ingham (1991: 724) describes this phenomenon also for KhA *wh*-interrogatives and prepositions.

Matras & Shabibi 2007: 142). The noun in example (1) is Arabic in its origins but its usage in a phrasal verb construction with a new meaning is a Persian innovation.

- (1) a. Aḥwāz, Khuzestan, male, 26 years (own data)
ṭəgg muḥḥ
hit.PRF.3SG.M brain
- b. Persian
muḥḥ zadan
brain hit.INF
'to brainwash, convince someone'¹²
- (2) a. Aḥwāz, Khuzestan, male, 39 years (own data)
kaḏḏ īrād
take.PRF.3SG.M nagging
- b. Persian
īrād gereftan
nagging take.INF
'to pick on someone'

As examples (3) and (4) show, Persian nouns are sometimes adapted morpho-phonologically.

- (3) a. Aḥwāz, Khuzestan, male, 50 years (own data)
sawwa ʔōmāde
make.PRF.3SG.M ready
- b. Persian
āmāde kardan
ready make.INF
'to prepare sth.'
- (4) a. Aḥwāz, Khuzestan, male, 26 years (own data)
ṭalaḥ yabūli¹³
emerge.PRF.3SG.M acceptance
- b. Persian
yabūl šodan
acceptance become.INF
'to pass (an exam), be accepted'

¹²All Persian translations are given in the modern spoken Tehrani variety of Persian, and were provided by Hooman Mehdizadehjafari, a native speaker of this variety. They are presented in a broad phonemic transcription.

The pattern for phrasal verbs – transferred into the RL KhA under RL agentivity – provides KhA with an easy way to convert foreign nouns into verbs.

As illustrated in examples (5) and (6), the pattern is adapted according to Arabic syntactic rules: (i) the verb is moved into the initial position; and (ii) a direct object is introduced between verb and nominal element (post-verbally). In Persian, however, the verb always remains in final position following the nominal element and a direct object would be introduced before both elements (see e.g. Majidi 1990: 447–448).

- (5) a. Aḥwāz, Khuzestan, male, 26 years (own data)
 ʔəggi ʔandart-i wāks
 hit.IMP.2SG.F shoe-OBL.1SG wax
- b. Persian
 kafš-am-o vāks be-zan
 shoe-OBL.1SG-OBJ wax IMP-hit.PRS
 ‘Polish my shoes!’
- (6) a. Aḥwāz, Khuzestan, female, 35 years (own data)
 ʔəggūn əʔ-ʔamāte rande
 hit.IMP.3PL.M DEF-tomato grater
- b. Persian
 gūge_farangi-ro rande mī-zanan
 tomato-OBJ grater IND-hit.PRS.3PL
 ‘They grate some tomato.’

This structure has become productive in KhA. For example, in the phrasal verb *ʔəgg dabbe* ‘to cheat’ (lit. ‘to hit a water canister’) both the verb and noun are taken from KhA and only the construction’s syntactic pattern is taken from Persian.

3.3.2 Definiteness marking

Matras & Shabibi (2007: 141–142) see KhA relative clauses without definite heads as evidence for the decline of overt definiteness marking in KhA, based on a Persian model with generally unmarked definiteness, e.g. *mara lli šiftū-ha ḥābarat* ‘The woman that you saw called’ (2007: 142). However, this pattern is also documented in Arabic dialects which have had no contact with Persian (Pat-El 2017: 454–455; cf. Procházka 2018: 269).

¹³The final *-i* in *ʔabūli* probably originates from the Persian indefiniteness marker *-i* (see Majidi 1990: 309–314) and has become part of this word in KhA, so that *ʔabūli* is monomorphemic.

Matras & Shabibi (2007: 140) further postulate that the Persian *ezāfe* pattern in adjectival attribution is replicated in KhA.¹⁴ According to their theory, the construct state marker *-t* (with an indefinite head) and/or the definite article (of the attribute) are reanalysed as markers of attribution matching the Persian *ezāfe* marker *-(y)e*, as in (7).

- (7) a. KhA (Matras & Shabibi 2007: 140)
 ḡazīra-t l-ḥaḏra
 island-CON DEF-green.F
- b. Persian
 ḡazīre-ye sabz
 island-EZ green
 ‘the green island’

However, this pattern is also observed in other modern Arabic dialects which have not been exposed to Persian influence as well as in older forms of Arabic.¹⁵

Consequently, it is highly unlikely that this phenomenon has developed due to Persian influence, although it cannot be ruled out that contact with Persian has fostered the preservation of this apparently old feature.

3.3.3 Word order changes

KhA shows no changes due to contact in basic word order.¹⁶ The only attested word order changes concern the position of the verbs *čān* ‘to be’ and *šār* ‘to become’, both of which can appear in final position as an unmarked construction. This sentence-final position in no case functions as the default, and is in fact

¹⁴See e.g. Ahadi (2001: 103–109) for the usage of the Persian *ezāfe*.

¹⁵See Pat-El (2017: 445–449) and Stokes (2020) for numerous examples from different varieties of Arabic and other Central Semitic languages. See also Retsö (2009: especially 21–22) and Procházka (2018: 267–269), who also proves that this is an old feature already found in Old Arabic and points out that it is mainly found among dialects which are spoken in regions with no or only marginal influence from Modern Standard Arabic.

¹⁶Ingham (1991: 715) states that in KhA neither VSO nor SVO word order is particularly dominant. Matras & Shabibi (2007: 147) postulate that the usage of OV order in KhA is increasing as “the beginning of a shift in word order” on the basis of the Persian type, where OV prevails. In both of their examples the objects are topicalized (with pronominal resumption), which is a common phenomenon in spoken Arabic (Brustad 2000: 330–333; 349), and as such not obviously the result of Persian influence (cf. El Zarka & Ziagos 2019, who in their recent description of the beginnings of word order changes in some Arabic dialects spoken in southern Iran, show that these dialects, like KhA, have still retained VO as their basic word order despite the strong influence of Persian).

less frequent than its non-final position.¹⁷ *čān* or *šār* in final position are never stressed.

The sentence-final position of *čān* or *šār* (see examples 8–10) is likely a pattern replication of the Persian model, i.e. sentences with final *būdan* ‘to be’ or *šodan* ‘to become’.

- (8) a. ΓAbbādān, Khuzestan, male, 35 years (own data)
 šuyul-hum b-əl-bandar čān
 work-3PL.M in-DEF-port be.PRF.3SG.M
- b. Persian
 kār-ešūn tū-ye bandar būd
 job-OBL.3PL in-EZ port be.PST.3SG
 ‘Their job was at the port.’
- (9) a. Muḥammara, Khuzestan, male, 30 years (own data)
 əğdād-i mallāk-in čānaw
 grandparents-OBL.1SG owner-PL be.PRF.3PL.M
- b. Persian
 ağdād-am mālek būdan
 grandparents-OBL.1SG owner be.PST.3PL
 ‘My grandparents were owners [of land].’
- (10) a. Aḥwāz, Khuzestan, female, 40 years (own data)
 hassa šway l-māy bārəd šār
 now a_bit DEF-water cold become.PRF.3SG.M
- b. Persian
 alʔān yekam ʔāb sard šod
 now a_bit water cold become.PST.3SG
 ‘The water has become a bit cold now.’

The next example might show a tendency to use a present-tense copula with human subjects, expressed with the verb *šār* ‘to become’:

- (11) a. Aḥwāz, Khuzestan, female, 35 years (own data)
 əhya mart uḥū-y əṣṣīr
 3SG.F wife brother-OBL.1SG COP.IMP.F.3SG.F
- b. Persian
 ūn zan-dādāš-am-e
 3SG wife-brother-OBL.1SG-COP.PRS.3SG
 ‘She is the wife of my brother.’

¹⁷In my data, *čān* appears 23 of 152 times in sentence-final position, *šār* 11 of 165 times. The additional examples are taken from my questionnaire.

In the KhA construction for pluperfect tense, *čān* can also appear in sentence-final position, after the active participle. This construction, although not very frequent, is very likely a direct transfer of the Persian structure, in which the auxiliary *būdan* also follows the participle.¹⁸

- (12) a. Aḥwāz, Khuzestan, male, 26 years (own data)
 lamman əyəna l-əl-bīət, əhma mākl-īn čānaw
 when come.PRF.1PL to-DEF-house 3PL.M eat.PTCP-PL.M be.PRF.3PL.M
- b. Persian
 vayti-ke mā bargāštīm ḥūne, ūnhā yāzā-ro ḥorde
 when-REL 1PL come_back.PST.1PL home 3PL food-OBJ eat.PTCP
 būdan
 be.PST.3PL
 ‘When we came home, they had (already) eaten.’

This word order change has probably been triggered by the high frequency in speech of Persian sentences with forms of *būdan* in final position. Lucas (2012: 295) explains the usage of foreign patterns as the result of the human cognitive tendency to minimize the high processing efforts associated with the extensive use of two languages.¹⁹

čān is also used in sentence-final positions after the main verb in the imperfect in KhA constructions expressing the continuous past. In spoken Persian, the continuous past is formed without a sentence-final *būdan*.²⁰ This case is not a direct transfer of the Persian pattern, but perhaps a construction analogous to the pluperfect and other Persian forms with *būdan* in final position.

- (13) a. Aḥwāz, Khuzestan, male, 55 years (own data)
 hāda ham mən zuḡur yəštəyəl čān
 DEM.SG.M also from childhood work.IMP.3SG.M be.PRF.3SG.M
 ‘This one has also been working from childhood on.’

¹⁸Matras and Shabibi (2007: 142–143) describe the use of this construction as a change in the KhA tense system. However, the pattern *kān* + active participle is also commonly used in other Arabic dialects to express pluperfect meaning or to describe completed actions which have an impact on the present, see for example Denz (1971: 92–94; 115–116) for Iraqi (Kwayriš) and Grotzfeld (1965: 88) for Syrian Arabic.

¹⁹Connections between units of a neural network associated with certain syntactic patterns can be strengthened from repeated exposure to and use of that pattern (Lucas 2012: 291). Hence, the employment of a Persian syntactic structure in KhA needs less processing effort because the same strengthened neural network is activated.

²⁰The Modern Iranian Persian continuous past is formed with the particle *mī* prefixed to the simple past of the respective main verb and can (for the progressive form) be preceded by the simple past of *dāstan* ‘to have’: e.g. (*dāšt*) *mī-raft* ‘he was going’ (Majidi 1990: 232, 235).

b. Persian

in-am az kūdaki kār mī-kard
 DEM.SG-also from childhood work IND-do.PST.3SG
 ‘This one has also been working from childhood on.’

Example (14) shows both syntactic variants in one sentence, i.e. *čān* before and after the main verb.

(14) a. Muḥammara, Khuzestan, female, 40 years (own data)

umm-i čānat təṭḥağğab, eh, əb-zamān əš-šāh,
 mother-OBL.1SG be.PRF.3SG.F veil.IMP.F.3SG.F yes in-time DEF-shah
 bass tətbawwaš čānat
 only veil.IMP.F.3SG.F be.PRF.3SG.F

b. Persian

mādar-am (dāšt) neqāb mī-zad, āre, dar zamān-e
 mother-1SG (have.PST.3SG) veil IND-hit.PST.3SG yes in time-EZ
 šāh, hamīše neqāb mī-zad
 shah always veil IND-hit.PST.3SG

‘My mother used to veil her face (with a *būšiyye*),²¹ yes, during the times of the shah, she always used to veil her face.’

Because all the above examples equally work with *čān/šār* in non-final position, this process of word-order-related pattern replication in KhA is still ongoing. Indeed, all informants, when asked for the correct structure in the above examples, preferred the verb *čān* in non-final position.²²

Lucas (2015: 530–531) explains the basic word order changes (from VSO to SOV) in Bukhara Arabic (cf. Ratcliffe 2005: 143–144; and Versteegh 2010: 639) as a result of convergence with Uzbek.²³ Although a clear division between convergence and borrowing is hard to make, I consider the contact-induced word order changes that occur in KhA to be instances of borrowing because most speakers are clearly native speakers of, and therefore dominant in, KhA only.

²¹*būšiyye* or *pūšiyye* ‘veil’ is also documented for Iraqi Arabic (Woodhead & Beene 1967: 53).

²²My informants from Baghdad considered all constructions with *čān* in final position to be wrong. However, this structure is used in Basra Arabic (Qasim Hassan, personal communication, January 2018).

²³Lucas (2015: 525) defines convergence as changes made to a language under the agentivity of speakers who are native speakers of both the SL and the RL.

3.3.4 *hōš* preceding verbs and nouns

In Persian, *hōš* ‘good, well’ is used as a prefixed (lexicalized) element preceding some nouns and verbs to coin compound adjectives, nouns, and verbs (Majidi 1990: 411, 413): e.g. Pers. *hōš-andām* ‘handsome’ (< *andām* ‘shape; body’), *hōš-nevīs* ‘calligrapher’ (< present stem *nevīs-* ‘to write’).

KhA has borrowed some of these Persian compound adjectives: e.g. KhA *hōš-bū* ‘nice-smelling’ (< Pers. *bū* ‘smell, scent’), *hōš-tīp* ‘handsome’ (< Pers. *tīp* ‘type’), and *hōš-ahlāq* ‘(with) good manners’ (< Pers. *ahlāq* ‘decency; ethics, morality’, pl. of *holq* ‘character, nature’). However, in KhA the use of this element has been further developed. It is productively used as an attributive adjective preceding nouns, but not agreeing in gender or number with them, e.g. *hōš walad* ‘a good boy’, *hōš abnayya* ‘a good girl’, *hōš banāt* ‘good girls’, *hōš əwlād* ‘good kids’, and as an adverb meaning ‘well’, e.g. *həyya hōš təsʔal* ‘she asks good questions’ (lit. ‘she asks well’; speaker: Aḥwāz, Khuzestan, male, 27 years).²⁴

3.4 Lexicon

3.4.1 Lexical transfer

The greatest influence from Persian on KhA has occurred in lexicon. Many Persian lexemes were borrowed generations ago. The most frequently borrowed elements are nouns denoting cultural or technological innovations which have filled lexical gaps in the RL KhA. Verbs, adverbs, adjectives, and many discourse particles have also been borrowed from the SL Persian.

The majority of the examples below are cases of transfer of morphophonological material (matter) and semantic meaning (pattern) under RL agentivity.

Many of the Persian borrowings have been phonologically and morphologically integrated into the RL. For instance, for many borrowed Persian nouns Arabic internal plural forms are created, e.g. *ḥatākīr* ‘ball-point pens’ (sg. *ḥatkār* < Pers. *ḥod-kār* ‘ball-point pen’), or *banādār* ‘ports’ (sg. *bandar* < Pers. *bandar* ‘port’).

Again, the borrowing of foreign (L2) elements into the speakers’ L1 might be explained by the human cognitive tendency to minimize the processing effort in lexical selection between two languages (Lucas 2012: 291; see §3.3.3). So if a certain Persian word is frequently used and often heard (for example at school), the connections of a neural network associated with this word are strengthened (Lucas 2012: 291), which makes it easier to employ the word in one’s L1.

²⁴This construction is also found in Iraqi Arabic (cf. Erwin 1963: 256), which might prove that the element *hōš* is an older borrowing.

3.4.2 Semantic fields

The following illustrative list of Persian loans in KhA shows the most important semantic fields of lexical borrowing.

Administration and military:

čarra ‘crossroad’ < Pers. *čahār-rāh*; *sarbāz* ~ *šarbāz* ‘soldier’ < Pers. *sarbāz*;
farmāndāri ‘governorship’ < Pers. *farmāndāri*.

Agriculture:

kūd ‘dung’ < Pers. *kūd*; *ʔalafkoš* ‘pesticide’ (lit. weed-killer) < Pers. *ʔalafkoš*.

Dress and textiles:

dāmen ‘skirt’ < Pers. *dāman*; *šāla* ‘head covering’ < Pers. *šāl* ‘Kashmir shawl’ (Ingham 2005: 174).

Education:

klāš ‘class, grade’ < Pers. *kelās*; *ħatkār* ‘ball-point pen’ < Pers. *ħod-kār*;
dānišga ‘university’ < Pers. *dānišgāh*.

Food:

ğāʔfari ‘parsley’ < Pers. *ğāʔfari*; *češmeš* ‘raisins’ < Pers. *kešmeš*; *serke* ‘vinegar’ < Pers. *serke*; *šalyam* ‘turnip’ < Pers. *šalyam*.

Material culture:

šīše ‘bottle’ < Pers. *šīše*; *ğām* ‘(window) glass’ < Pers. *ğām* ‘(window) glass; goblet, cup’; *tīye* ‘blade’ < Pers. *tīye*; *yəħčāle* ‘refrigerator’ < Pers. *yahčāl*;
sīm buksel ‘towrope’ < Pers. *sīm-e boksol*; *perde* ~ *berde* ‘curtain’ < *parde*;
gīre ‘hair barrette’ < Pers. *gīre-ye sar/mūy*; *mīz* ‘table’ < Pers. *mīz*; *darīše* ‘window’ < Pers. *darīče*; *pəŋgara* ‘window’ < Pers. *paŋgare*.

Other:

yīme ‘price’ < Pers. *yīmat*; *bandar* ‘port’ < Pers. *bandar*; *nāmard* ‘brute’ < Pers. *nāmard* ‘coward; brute, rascal’.

Some items ultimately of Arabic origin have been re-borrowed into KhA from Persian, preserving the Persian meaning, e.g. KhA *bəryi* ‘electronic’ < Pers. *bary* ‘electricity; lightning’ < Arabic *barq* ‘lightning’.

3.4.3 Verbs and adverbs

KhA verbs and adverbs resulting from language contact are always morphologically integrated. These are either directly borrowed Persian verbs, e.g. *bannad* ‘to close (e.g. the tap)’ < Pers. imperfect and present stem *band-* ‘close’;²⁵ *gayyar* ‘to get stuck’ < Pers. *gīr šodan* ‘to get stuck’; *šammər* ‘to repair’ < Pers. *tašmīr kardān* ‘to repair’; *čassəb* ‘to glue’ < Pers. *časb zadan* ‘to glue’; *gəzar* ‘to pass (time)’ < Pers. present stem *gozar-* ‘to pass (time)’ (see example (15) below);²⁶ *zaḥəm* ‘to bother’ (transitive) < Pers. *zəhmat dādan* ‘to bother, cause trouble’ (transitive) (see examples (16) and (17) below);²⁷ or Persian nouns turned into KhA (ad)verbs, e.g. *əb-zūr* ‘by force’ < Pers. *zūr* ‘power; violence; force’.

- (15) Aḥwāz, Khuzestan, male, 26 years (own data)
 čā hāy əl-ḥayāt lō la? təgzar baʃad, təmši
 DM DEM.F DEF-life or no pass.IMPF.3SG.F after_all go.IMPF.3SG.F
 ‘See, that is how life is, right? It passes by (quickly), it goes.’
- (16) Aḥwāz, Khuzestan, male, 26 years (own data)
 zaḥmīət-kum, ʃafwan
 bother.PRF.1SG-2PL.M sorry
 ‘Sorry, I must have bothered you.’²⁸
- (17) Aḥwāz, Khuzestan, male, 25 years (own data)
 mumkin azaḥm-ək əb-šuyla
 possible bother.IMPF.1SG-2SG.M with-issue
 ‘May I bother you with something (i.e. ask you a favour)?’

3.4.4 Discourse elements

A range of Persian discourse elements have been borrowed by KhA (cf. Matras & Shabibi 2007: 143–145),²⁹ e.g. KhA *ham* ~ *hamme* ‘also, as well’ < Pers. *ham* and

²⁵ Also common in the Gulf region and in Yemen (Behnstedt & Woidich 2014: 290).

²⁶ The verb *gəzar* is used only in phrases that refer to the “passing by” of life.

²⁷ The KhA noun *zaḥme* ‘shame’ is also used for a rebuke, e.g. *zaḥme ʃalīək!* ‘Shame on you!’, which would be expressed in a different way in Persian: *heḡālat ne-mī-keši?* ‘Shame on you!’ (lit. ‘Are you not ashamed?’).

²⁸ A phrase often used when leaving, for example after an invitation for dinner, cf. Pers. *ḥeyli zahmat dādīm* lit. ‘We have caused (you) a lot of trouble’.

²⁹ Matras & Shabibi (2007: 144) claim that the Persian conjunctions *agarče* and *bāinke*, both meaning ‘although, even though’, and the Persian factual complementizer *ke* ‘that’ have also been borrowed by KhA. However, I have found no evidence for their usage in my data.

KhA *ham...ham* ‘(both)...and’ < Pers. *ham...ham*;³⁰ or KhA *hič* ‘nothing; no(t)... at all’ < Pers. *hič*.³¹

The KhA discourse elements *hō/hōš* ‘well; okay’ < Pers. *ho(b)/hoš* are often used phrase-initially, (18).³² They are of Persian origin, but have partly adopted a different form and function in KhA.³³

- (18) Aḥwāz, Khuzestan, male, 55 years (own data)
 ḥōš, š-ʔəd-na, taʔay əhna baba
 DM what-at-1PL come.IMP.SG.F here father
 ‘Okay, what (else) do we have, come here, dear!’

Both *hō* and *hōš* are also often used in stories following the verb *gāl* ‘to say’.

- (19) Aḥwāz/Fəllāhiyya, Khuzestan, female, 50 years (own data)
 lamman ʔada mən ʔəd-hum, gāl-la ḥō,
 when leave.PRF.3SG.M from at-3PL.M say.PRF.3SG.M-DAT.3SG.M DM
 hāy ər-rummānāt š-asawwi bī-hən
 DEM.SG.F DEF-pomegranate.PL what-make.IMP.F.1SG with-3PL.F
 ‘When he left them, he said to him, “Well, what shall I do with these pomegranates?”’

4 Conclusion

Because of the dominance of Persian in the Iranian educational system and work environment, the lack of influence from Modern Standard Arabic, and the long period of geographical proximity, the Persian-speaking society of southwest Iran has left many linguistic traces in the language of the Arabic-speaking community of Khuzestan.

³⁰This discourse element is also known for Iraq (Malaika 1963: 36) and, like KhA *hast ~ hassət* ‘there is’ < Pers. *hast* (Ingham 1973: 25, fn.27), is probably an older borrowing.

³¹Shabibi (2006: 176–177) further derives KhA *balkət* ‘maybe, hopefully’ from Pers. *balke ham*, which can mean ‘maybe’. A Turkish origin of this word seems more likely: cf. Aksoy (1963: 620) for the existence of *belke ~ belkit* in Eastern Turkish dialects. Malaika (1963: 35) also derives the Baghdadi Arabic *belki* ‘rather, maybe’ from Turkish, as does Seeger (2009: 28) for *balki, balkiš, balkin* ‘maybe; possibly; probably’ in Ramallah Arabic.

³²According to my informants and data, the form *hōb* is not used in KhA (contrast Matras & Shabibi 2007: 143).

³³In Persian, *hōb* is a discourse particle and related to the adjective and adverb *hūb*, *hō* is also a discourse particle used in less formal situations (Mehrdad Meshkinfam, Erik Anonby and Mortaza Taheri-Ardali, personal communication), and *hoš* is an adjective (see §3.3.4; Shabibi 2006: 160; Mohammadi 2018: 104–105). Thus the Persian adjective *hoš* has been desemantized in KhA to function as a discourse particle with the meaning ‘well, okay’ (Shabibi 2006: 160).

Van Coetsem (2000: 59; cf. Lucas 2015: 532) suggests that lexical, but not syntactic and phonological transfer is to be expected under RL agentivity. However, KhA phonology and syntax have been influenced by the SL Persian under RL agentivity, albeit to a much lesser extent than the lexicon.

KhA does not show transfer of patterns from Persian in either inflectional or derivational morphology. However, we do find an adapted pattern replication of Persian phrasal verbs (with preservation of the Arabic word order).

As for syntax and contact-induced word order changes, the alternative sentence construction with *čān* in sentence-final position can be explained as a result of Persian influence on KhA. This change might have been triggered by the similar and very frequent Persian constructions with sentence-final *būdan*. Thus, we do have some syntactic change due to transfer under RL agentivity, which Van Coetsem considered to be unexpected (see above).

Persian lexical items have often been borrowed in KhA for novel concepts (lexical gaps), which is why semantic fields relating to technical or cultural innovations, education, and administration show the greatest amount of Persian borrowing. This also explains why nouns are generally more often transferred than verbs (cf. Lucas 2015: 532). Persian words are regularly integrated into KhA phonology and morphology, for example the Arabic internal plural is formed for Persian nouns. Also, many discourse particles have been transferred from Persian into KhA. Some of them, e.g. *ham* ‘also’, had been in use generations ago among Arabic speakers in Khuzestan and beyond (Iraq, Gulf).

Of course, contact between KhA and Persian has always been limited to certain social contexts (outside the family), especially for women, who had and still have much less access to education and employment and thus to the Persian-speaking world. This fact, and some structural differences between the languages, explain the limits of contact-induced language change in KhA, especially in morphology and syntax.

Hopefully, future research on the dialects of Khuzestan will provide more empirical data on instances of contact-induced change. An enlarged database should especially provide further evidence concerning the development and extent of word order changes.

Further reading

- Ingham (2011) provides a sketch grammar of KhA.
- Ingham (2005) discusses Turkish and Persian borrowings in KhA and north-eastern Arabian dialects.

- Matras & Shabibi (2007) is an article on contact-induced changes in KhA based on Shabibi (2006).
- Shabibi (2006) is an unpublished doctoral dissertation on contact-induced change in KhA.

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Abbreviations

1, 2, 3	1st, 2nd, 3rd person	KhA	Khuzestan Arabic
CA	Classical Arabic	M	masculine
COP	copula	OBJ	object
DAT	dative	OBL	oblique
DEF	definite	Pers.	Persian
DEM	demonstrative	PL/pl.	plural
DM	discourse marker	PTCP	participle
EZ	Persian <i>ezāfe</i>	PRF	perfect (suffix conjugation)
F	feminine	PROG	progressive
IMP	imperative	PRS	present
IMPF	imperfect (prefix conjugation)	PST	past
IND	indicative	REL	relative particle
INF	infinitive	SG/sg.	singular

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Chapter 6

Anatolian Arabic

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This chapter investigates contact-induced changes in Anatolian Arabic varieties. The study first gives an overview of the current state and historical development of Anatolian Arabic. This is followed by a survey of changes Anatolian Arabic varieties have undergone as a result of language contact with primarily Turkish and Kurdish. The chapter demonstrates that the extent of the change varies from one dialect to another, and that this closely correlates with the degree of contact a dialect has had with the surrounding languages.

1 Current state and historical development

Anatolian Arabic is part of the so-called *qaltu*-dialect branch of the larger Mesopotamian Arabic, and essentially refers to the Arabic dialects spoken in eastern Turkey.¹ In three provinces of Turkey – Hatay, Mersin and Adana – Syrian sedentary Arabic is spoken (see Procházka, this volume, for discussion of these dialects). Other than these dialects, in Jastrow's (1978) classification of Mesopotamian *qaltu* dialects, Anatolian Arabic dialects are subdivided into five groups: Diyarbakır dialects (spoken by a Jewish and Christian minority, now almost extinct); Mardin dialects; Siirt dialects; Kozluk dialects; and Sason dialects. In his later work, Jastrow (2011a) classifies Kozluk and Sason dialects under one group along with Muş dialects – investigated primarily by Talay (2001; 2002). The two larger cities where Arabic is spoken are Mardin and Siirt, although in the latter Arabic is gradually being replaced by Turkish.

¹This group represents an older linguistic stratum of Mesopotamia as compared to the *gəlat* dialects. The terms *qaltu* vs. *gəlat* dialects are due to Blanc (1964), who distinguished between the Arabic dialects spoken by three religious communities, Muslim, Jewish, and Christian, in Baghdad. He classified the Jewish and Christian dialects as *qaltu* dialects and the Muslim dialect as a *gəlat* dialect, on the basis of their respective reflexes of Classical Arabic *qultu* 'I said'.



The linguistic differences between these various Arabic-speaking groups are quite considerable. Thus, given the low degree of mutual intelligibility, speakers of different varieties resort to the official language, Turkish, to communicate. Jastrow (2006) reports an anecdote, wherein high school students from Mardin and Siirt converse in Turkish, since they find it difficult to understand each other's dialects. Expectedly, mutual intelligibility is at a considerably higher level among different varieties of a single group, despite certain differences. For instance, speakers of Kozluk and Muş Arabic have no difficulty in communicating with one another in Arabic.

The existence of Anatolian dialects closely relates to the question of the Arabization of the greater Mesopotamian area. Although the details largely remain obscure, a commonly-held view is that it took place in two stages: the first stage concerns the emergence of urban varieties of Arabic around the military centers, such as Baṣra or Kūfa, during the early Arab conquests. Later, the migration of Bedouin dialects of tribes added another layer to the urban dialects (see e.g. Blanc 1964; Versteegh 1997; Jastrow 2006 for discussion). According to Blanc (1964), the *qəltu* dialects are a continuation of the medieval vernaculars that were spoken in the sedentary centers of Abbasid Iraq. Blanc (1964) also noted that the *qəltu* dialects did not stop at the Iraqi–Turkish border, but in fact continued into Turkish territory. He mentioned the towns of Mardin and Siirt as places where *qəltu* dialects were still spoken.

Despite being a continuation of Mesopotamian dialects, Anatolian dialects of Arabic have been cut off from the mainstream of Arabic dialects. How exactly this cut-off and separation between dialects happened, given the lack of specific barriers, is largely unknown and remains at a speculative level. Regarding this topic, Procházka (this volume) suggests “the foundation of nation states after World War One entailed significant decrease in contact between the different dialect groups and an almost complete isolation of the Arabic dialects spoken in Turkey”.

Like Central Asian Arabic and Cypriot Maronite Arabic (Walter, this volume), Anatolian Arabic dialects are characterized by: (i) separation from the Arabic-speaking world; (ii) contact with regional languages, which has affected them strongly; and (iii) multilingualism of speakers.

The Anatolian dialects have diverged much more from the Standard type of Arabic compared to the other *qəltu* dialects, such as the Tigris or Euphrates groups (Jastrow 2011b). One of the hallmarks of Anatolian Arabic is the suffix *-n* instead of *-m* in the second and third person plural (e.g. in Mardin Arabic *baytkən* ‘your (PL) house’, *baytən* ‘their house’) and the negation *mō* with the imperfect. In

addition to many interesting properties like the ones just mentioned, Anatolian Arabic has acquired a large number of interesting contact-induced patterns.

These dialects are spoken as minority languages by speakers belonging to different ethnic or religious groups. As noted by Jastrow (2006), not all of the Anatolian Arabic varieties are spoken *in situ* however, and in fact some may no longer be spoken at all. Jastrow notes that some of the dialects were exclusively spoken by Christians and almost died out during World War One as a result of the massacres of the Armenians and other Christian groups. A few thousand speakers of these dialects survive to this day, most of whom have migrated to big cities, starting from the mid-1980s, particularly Istanbul. Some speakers of these dialects also live in Europe. Nevertheless, these dialects are very likely to face extinction in a few decades.

The Jews who spoke Anatolian Arabic varieties (mainly in Diyarbakır, but also in Urfa and Siverek; cf. Nevo 1999) migrated to Israel after the foundation of the State of Israel in 1948. These dialects also face a serious threat of extinction.

Today Anatolian Arabic dialects are predominantly spoken by Muslims (although there are a few hundred Arabic-speaking Christians, particularly in some parts of Istanbul, such as Samatya). These dialects are still found *in situ*, however they are also subject to constant linguistic pressure from Turkish (the official language) and Kurdish (the dominant regional Indo-Iranian language), and social pressure to assimilate. The quote from Grigore (2007a: 27) summarizes the overall context of Anatolian Arabic: “il se situe dans un microcontexte kurde, situé à son tour dans un macrocontexte turc, étant isolé de la sorte de la grande masse des dialectes arabes contemporains.”²

The total number of speakers is around 620,000 (Procházka 2018: 162), most of whom are bi- or trilingual in Arabic, Kurdish and Turkish. As Jastrow (2011a: 88) points out, the phenomenon of diglossia is not observed in Anatolia; instead Turkish occupies the position of the ‘High variety’, and Anatolian Arabic, the ‘Low variety’, occupies a purely dialectal position. In addition, speakers of different dialects may speak other minority languages as well. For instance, a considerable number of Sason Arabic speakers know the local variety of the Iranian language Zazaki, and those of Armenian origin speak an Armenian dialect.

Anatolian Arabic varieties are in decline among the speakers of these varieties, and public life is dominated primarily by Turkish (and Kurdish). The presence of Arabic in Turkey has increased due to Syrian refugees who fled to Turkey, yet this increased presence primarily concerns Syrian Arabic, rather than Anatolian Arabic (see Procházka, this volume). In addition to the absence of awareness about

²“It is situated in a Kurdish microcontext, which is in turn situated in a Turkish macrocontext, thus being isolated from the vast majority of contemporary Arabic dialects”.

Anatolian Arabic dialects in the Arab states, the Anatolian dialects also suffer from a more general lack of interest. The speakers generally do not attribute any prestige to their languages, calling it “broken Arabic”, and often making little effort to pass it on to the next generations. It should, however, be noted that there has been increasing interest in these dialects in recent years, especially at the academic level. To this end, several workshops have been organized at universities in the relevant regions, aimed at promoting these dialects and discussing possible strategies for their preservation.

The data referenced in this chapter come from various Anatolian Arabic dialects. The name of each variety and its source(s) are as follows: *Āzəḥ* (Wittrich 2001); *Daragözü* (Jastrow 1973); *Ḥapəs* (Talay 2007); *Hasköy* (Talay 2001; 2002); *Kinderib* (Jastrow 1978); *Mardin* (Jastrow 2006; Grigore 2007b; Grigore & Biṭună 2012); *Mutki-Sason* (Akkuş 2016; 2017; Isaksson 2005); *Siirt* (Biṭună 2016; Grigore & Biṭună 2012); *Tillo* (Lahdo 2009).

2 Contact languages

2.1 Overview

Anatolia, especially the (south)eastern part, has been home to many distinct linguistic groups (as well as ethnic and religious groups). Up until the beginning of the twentieth century, speakers of the largest Anatolian languages – Kurdish, Zazaki, Armenian, Aramaic and Arabic – had been co-existing for almost a thousand years. This has naturally resulted in extensive contact among these languages.

Contact influence on Anatolian Arabic has arisen mainly through long-term bi- and multi-lingualism rather than through language shift (in which speakers of other languages shifted to Arabic; Thomason 2001).³ As a result, when applicable, the changes seem to be primarily through borrowing, rather than imposition (in the sense of Van Coetsem 1988; 2000).

2.2 Turkish

Turkish, as the official language of Turkey, currently dominates public life in most Arabic-speaking areas. However, as noted by Haig (2014: 14), “the current omnipresent influence of Turkish in the region is in fact a relatively recent phenomenon, fueled by compulsory Turkish-language state education, the mass-media, and large-scale military operations carried out by the Turkish army in the

³But note also the case of the Mhallamiye near Midyat, who most likely were Aramaic speakers and shifted to Arabic after adopting Islam as their religion (thanks to Stephan Procházka for bringing this to my attention).

conflict against militant Kurdish groups. But prior to the twentieth century, the influence of Turkish in many parts of rural east Anatolia was negligible.”

Although Turkish is the dominant language in the public sphere, there are still many people, particularly in rural parts of (south-)eastern Turkey, who do not speak Turkish, including speakers of Anatolian Arabic varieties. It is usually women over forty years old that fall into this category. They tend to speak the local Arabic variety along with the dominant language in that geographic area.

Moreover, the amount of Turkish influence is greater on the Arabic speakers who have migrated to bigger cities such as Istanbul, compared to those who still speak their dialects *in situ*.

2.3 Kurdish and Zazaki

Anatolian Arabic has been in intensive contact with two Western Iranian languages: Kurmanji Kurdish and Zazaki. These languages have influenced each other on different levels. As noted by Procházka (this volume) and Öpengin (this volume), Kurdish and Arabic, including the region of south-eastern Anatolia, have experienced extensive contact since at least the tenth century.

Due to the multi-ethnic (and to a lesser extent multi-religious) nature of the regions, bilingualism between Arabic and Kurdish (or Zazaki) is very widespread. The speakers of the non-dominant languages tend to have a stronger command of the dominant languages than the reverse situation. For instance, in Mutki, Bitlis province, where Kurdish is the dominant regional language, Arabic speakers have a native-like command of Kurdish, whereas not many Kurdish speakers speak the local Arabic variety. In some parts of Sason, Batman province, on the other hand, Arabic is the dominant language, and Kurdish speakers learn Arabic as a second language.

2.4 Aramaic

Aramaic and Arabic have for centuries lived side by side, so that it is possible to speak of both substrates (from Syriac/Neo-Aramaic to Arabic), and of adstrates, or rather, of superstrates (from Arabic to Aramaic). In the context of Anatolian Arabic, Aramaic has been in contact mainly with the Mardin dialect group.

These two languages have influenced each other in many ways. For instance, the many dialects constituting Modern Eastern Aramaic show considerable diversity as to choice of verbal particles. Some dialects use particles similar in form and function to those of the *qəltu*-dialects (see e.g. Jastrow 1985; as well as Coghill, this volume, for North-Eastern Neo-Aramaic dialects).

Finally, it is worth mentioning that, given the existence of Arabic speakers of Armenian origin, Armenian might have influenced certain Anatolian Arabic varieties. However, the influence of Armenian is hardly known, apart from the fact that many villages in the further eastern part of Anatolia, in which Arabic was spoken or is still spoken, bear Armenian names. This requires further investigation in its own right.

3 Contact-induced changes in Anatolian Arabic

Anatolian Arabic dialects manifest considerable variation, and have also come to exhibit interesting patterns due to language contact in every linguistic aspect. This section surveys these changes and features in turn.

3.1 Phonology

Anatolian Arabic has undergone significant changes in its consonant and vowel inventories due to language contact (as well as language internal developments). These changes include the introduction of new consonantal phonemes, loss or weakening of emphatic consonants, and introduction of new vowels. In addition to these changes, it is possible to count word-final devoicing as a contact-induced change.

This section first introduces the consonant inventory in varieties of Anatolian Arabic. It should be noted that not all consonants are present in every variety, but the chart serves as the sum of consonants available across Anatolian Arabic varieties. For instance, the phonology of Sason Arabic (and other varieties of the Kozluk–Sason–Muş group) is characterized by the (near) absence of pharyngeal and emphatic (pharyngealized) consonants,⁴ which have fused with their plain counterparts, e.g. *pasal* ‘onions’ in Sason < Old Arabic (OA) *baṣal*.⁵

Table 1, with information largely taken from Jastrow (2011a), demonstrates that Anatolian Arabic has several consonants that were originally alien to Arabic (see §3.1.1 for discussion). With respect to the inventory of vowels, the noteworthy development is the introduction of /ē/ and /ō/ for some lexical items. Note that

⁴These sounds, whose emphatic quality is indicated in Table 1 and throughout with a subscript dot are only nearly absent for two reasons: (i) it is possible to detect them in the speech of elderly speakers in some lexical items, while the younger generations have lost them, (ii) Talay (2001) reports their availability in Hasköy, Muş province to a certain extent.

⁵Compare Cypriot Maronite Arabic (Walter, this volume), Maltese (Lucas & Čéplö, this volume) and Nigerian Arabic (Owens, this volume).

Table 1: Inventory of consonants. Marginal or doubtful phonemes within parentheses

	<i>Labial</i>	<i>Interdental</i>	<i>Dental</i>	<i>Postalveolar</i>	<i>Palatal</i>	<i>Velar</i>	<i>Uvular</i>	<i>Pharyngeal</i>	<i>Glottal</i>
Plosive	p b		t ṭ d ḍ			k g	q		(?)
Affricate				č č̣					
Fricative	f v	θ ð ð̣	s ṣ z	š ž		ħ ʁ		ħ ʕ	h
Nasal	m		n						
Vibrant			r ṛ						
Lateral			l						
Approximant	w				y				

the Old Arabic diphthongs *ay and *aw have largely been preserved in these varieties: Jastrow (2011a: 89) notes that one of the processes by means of which these mid long vowels entered the inventory of Anatolian Arabic is via loanwords from Turkish and Kurdish, e.g. commonly used items, *čöl* ‘desert’, *tēl* ‘wire’ (Turkish, probably through the intermediary of Kurdish), *ħōrt* ‘young man’ (Kurdish).

3.1.1 New phonemes /p, č, ž, g, v/

The Anatolian Arabic varieties, as well as the varieties in (northern) Syria and Iraq, have certain phonemes that were not originally familiar to these varieties of Arabic. These phonemes include the voiceless bilabial stop /p/, the voiceless affricate /č/, the voiced post-alveolar fricative /ž/,⁶ the voiced velar stop /g/, and the voiced labiodental fricative /v/.⁷ The emergence of these phonemes is most likely due to the massive contact with Turkish, Kurdish and Aramaic. That is, the most likely scenario is that the centuries-long borrowing of words which contained these sounds ultimately resulted in them getting incorporated into the phonemic inventory.

⁶Cf. Jastrow (2011a) and Grigore & Bițună (2012) regarding the status of /ž/: this sound is largely restricted to borrowed words. The reflex of Arabic <ج> in Anatolian Arabic is /ğ/.

⁷Blanc (1964: 6–7) considers /p/ and /č/ as characteristic of Mesopotamian varieties.

With regard to /v/, it is likely that there are two paths of emergence: (i) as an internal evolution of the voiced interdental fricative /ð/ and (ii) via loan-words from Turkish and Kurdish. The forms *vîp* and *zîp* ‘wolf’ (cf. OA *ðiʔb* ‘wolf’) represent a language internal development, whereby the interdental fricatives have shifted to sibilants in Kozluk–Sason–Muş, and to labiodental fricatives in Āzəx (Şırnak province, Wittrich 2001), whereas they have been retained in most Mardin group dialects.⁸

In many cases, it is impossible to pinpoint which language these sounds were (initially) borrowed from. However, as also noted in Procházka (this volume), /p/ was probably introduced via contact with Kurdish, followed by influence from Ottoman and Modern Turkish.⁹ Some illustrations are as follows:

- (1) *pīs* ‘dirty’, cf. Kurdish/Turkish *pīs*, *pis*
parčāye ‘piece’, cf. Turkish *parça*
pūz ‘nose’ (Ḥapəs), cf. Kurdish *poz*
davare ‘ramp’, cf. Kurdish *dever* fem. ‘place’
čuvāle ‘sack’, cf. Turkish *çuval*
pēlāv (Ḥasköy) ‘shoe’, cf. Kurdish *pêlav*
čāy ‘tea’, cf. Turkish *çay*
čaqmāq ‘lighter’, cf. Turkish *çakmak*
rēnčbarī (Hasköy), *rēžbarī* (Sason) ‘husbandry’, cf. Kurdish *rênçberî*
žīžo (Āzəḥ) ‘hedgehog’, cf. Kurdish *jîjo*
tāži ‘greyhound’, cf. Kurdish *tajî*
gōmlak ‘shirt’, cf. Turkish *gömlek*
magzūn, *mazgūn* (in Sason) ‘sickle’, cf. Syriac *magzūnā*; Turoyo *magzūno*

Talay (2007) suggests that the loss of the phonemic status of the emphatic consonants and the weakness of the pharyngeal in Kozluk–Sason–Muş group is likely due to the influence of Turkish, which does not have them. Examples are from the Hasköy dialect, and are taken from Talay (2007: 181):

- (2) *ata* ‘he gave’ (< *ʔaʔtā), cf. *adā* in Sason
sēbi ‘boy’ (< *šabiyy)
zarab ‘he hit’ (< *ḡarab < *ḡarab)

Thus, changes of this kind can be seen as a quasi-adaptation of the consonant inventory to that of the superstrate and adstrate languages.

⁸For more discussion, see Wittrich (2001), Jastrow (2011a), Grigore (2007b), Talay (2011), Akkuş (2017), and Biṭunā (2016) among others.

⁹For further illustrations and discussion, see e.g. Vocke & Waldner (1982), Jastrow (2011a), Talay (2002; 2007) and Grigore & Biṭunā (2012).

3.1.2 Word-final devoicing

Certain voiced stops in Anatolian Arabic /b, d, ğ, g/ have a tendency to become devoiced [p, t, č, k] when they occur word-finally, probably due to Turkish influence, which is well-known for this property.

For instance, /b/ is mainly realized as the voiceless [p] in final pre-pausal position, e.g.: *anep* ‘grape(s)’, cf. OA *finab*; *yarīp* ‘stranger’, cf. OA *yarīb*. This might reflect a change in progress, as Lahdo (2009) points out that the incidence of devoicing in other Anatolian dialects is also increasing over time. Note that the devoicing process does not take place in all instances, supporting the claim that the language is undergoing a transition in this regard. Moreover, the lack of a written form removes a possible brake on this process. Further illustrations are as follows:

- (3) *axa[θ]* ‘he took’
kata[p] ‘he wrote’ (Mardin; Jastrow 2011a: 90)
ktē[p] ‘book’ (Mardin), cf. OA *kitāb*
baṣi[t] ‘far’ (Āzəḥ), cf. OA *baṣīd*
aṭya[p] ‘nicer’ (Tillo), cf. OA *ṭaṭyab*
azyat[t] ‘more’, cf. OA *ṭazyad* (Lahdo 2009: 106)

Devoicing is not limited to word-final position, however, but is also attested before voiceless consonants, e.g. *haps* ‘prison’, cf. OA *ḥabs*.

3.2 Morphology

The influence of language contact is also observable in the domain of morphology. For example, as discussed by Procházka (2018: 182–183), the numerals 11–19 in the Kozluk–Sason region show inversion of the unit and decimal positions, e.g. *šaṣra sätte* (and not *satt šaṣra*) ‘sixteen’. See also Procházka (this volume) for discussion of the personal pronouns.

Some other cases of contact-induced changes such as reduplication, degree in adjectives and compounds are discussed below.

3.2.1 Reduplication

A type of reduplication due to contact with Turkish produces doublets with /m/. The consonant /m/ may be added initially to vowel-initial words, as in (4a), or replaces the initial consonants in consonant-initial words, as in (4b) (see Akkuş 2017; Lahdo 2009). The reduplication conveys vagueness, with a meaning paraphrasable with ‘et cetera’ or ‘something like that’.

(4) Sason Arabic

- a. aẓīn m-aẓīn
dough m-dough
'dough or something like that'
- b. hās m-ās lā taso
sound m-sound NEG make.IMPF.2PL
'Don't make any noise!' (Lit. 'Don't make sound or something like that.')

Following the same restriction in Turkish, if a word starts with /m/, this type of reduplication is disallowed, e.g. *māse* 'table' cannot be reduplicated in a way that would result in *māse māse*.

3.2.2 Degree in adjectives

Adjectives in Anatolian Arabic follow the noun directly, agreeing with it in gender, number, and definiteness. In this respect, the situation is similar to most Arabic varieties. Degree, on the other hand, is not an inflectional category in Sason Arabic. Instead, this dialect has adopted the Turkish adverbs *daha* 'more' and *en* 'most' for comparative and superlative, respectively. Both these items precede the adjectival constituent, as shown in (5a) and (5b).

(5) Sason Arabic

- a. mənn-i daha koys-e ye
from-OBL.1SG more beautiful-F COP.3SG
'She is more beautiful than me.'
- b. en gbīr
most big
'the biggest'

The Tillo variety also uses the Turkish-derived *an* 'most' in superlative forms, with both Arabic-derived adjectives (in the elative form) and Turkish-derived adjectives (which lack an elative form), as in (6a) and (6a) respectively.

(6) Tillo Arabic (Lahdo 2009: 198)

- | | |
|---|--|
| a. an ¹⁰ aṭyap
most delicious.ELA
'the most delicious' | b. an yāqən
most close
'the closest' |
|---|--|

¹⁰Lahdo (2009) describes this vowel as "short front-to-back unrounded" in Tillo.

On the other hand, the comparative in the Tillo variety is formed through the relative alone (which functions in other Arabic varieties as both comparative and superlative). The standard of comparison is introduced by the preposition *mən* ‘from’.

- (7) Tillo Arabic (Lahdo 2009: 162)
 təllo iyy aṭyap mən əṣṭanbūl
 Tillo COP.3SG good.ELA than Istanbul
 ‘Tillo is better than Istanbul.’

3.2.3 Derivational affixes

Through numerous loanwords, a few derivational suffixes have been introduced into Anatolian Arabic. These suffixes include the agentive morpheme *-ḡi/-či*, and the abessive suffix *-səz*, which translates as ‘without’. Ingham (2011: 178) points out that these suffixes, especially the former, are also found in the dialects of Iraq, Syria, and elsewhere (see also Procházka-Eisl 2018 for further details).

- (8) a. Sason Arabic
 gahwa-ḡi
 coffee-AGT
 ‘coffee maker’
 b. Sason Arabic
 viḡdan-səz
 conscience-ABESS
 ‘unconscientious’
 c. Tillo Arabic (Lahdo 2009: 199)
 kəlla kānu mṭahhər-či-yye
 all be.PRF.3PL circumcizer-AGT-PL
 ‘They all were circumcizers.’

The presence of these suffixes on lexemes of the local Arabic varieties, e.g. *ḡāser-ḡi* ‘yogurt maker, yogurt seller’ (Sason Arabic) or *mṭahhər-či* ‘circumsiser’ (Tillo Arabic), suggests that the forms above are not necessarily adopted as a whole. Rather, Arabic speakers may decompose the word and apply the suffix to other lexemes in some cases.

3.2.4 Compounds

Anatolian Arabic has borrowed the N+N compounding strategy from Turkish, where the right-hand member carries the compound linker morpheme *-i*. This pattern is not generally found in other varieties of Arabic and it is most likely due to contact with Turkish. This type of compound is often used with whole Turkish phrases. The examples are as follows (note that the buffer consonant *-s* appears between the linker morpheme and the noun when the noun ends in a vowel):

(9) Sason Arabic (Akkuş & Benmamoun 2018: 41)

a. *lisa* *mudur-i*
 high_school *director-LINK*
 ‘high school director’

b. *qurs* *oratman-i*
 course *teacher-LINK*
 ‘course teacher’

(10) Tillo Arabic (Lahdo 2009: 199)

fəstəq *fabriqa-si*
pistachio *factory-LINK*
‘pistachio factory’

This compounding strategy is found in other Arabic varieties spoken in Turkey as well, for instance, *buz dolab-i* ‘refrigerator’ (lit. ‘ice cupboard-LINK’) in the Adana dialect. Whether compounding has been borrowed as a productive process as opposed to borrowing of the whole phrase requires further investigation.¹¹

3.2.5 Vocative ending *-o*

Another morphological feature that Anatolian Arabic has acquired is the vocative particle *-o*. When addressing a person directly, *-o* is commonly affixed to kinship terms and given names. This appears to be available in the whole area. Unlike the situation in Syria and Iraq (see Procházka, this volume), this form of address is not usually used hypocoristically. Some examples are below:

(11) *amm-o* ‘(paternal) uncle!’
 ġemāl-o ‘Cemal!’
 hāl-o ‘(maternal) uncle!’

¹¹Thanks to Stephan Procházka for the discussion and the example from the Adana dialect.

The corresponding forms of feminine nouns end in *-ē*, as in *ḥabībt-ē* ‘darling!’. Grigore (2007a: 203) suggests that this vocative *-o* is borrowing of a morphological form from Kurdish (cf. Haig & Öpengin 2018), since the suffix, with masculine and feminine forms, is not historically available in Arabic. Note, however, the existence of cognates in other Semitic languages and *-u* in the whole of North Africa, where Kurdish influence is not likely (see Prochazka, this volume).

In brief, contact with Turkish and other neighboring languages has led to various noticeable changes in the morphology of Anatolian Arabic, particularly the more easterly varieties.

3.3 Syntax

Research on the syntax of Anatolian Arabic varieties, let alone work on contact-induced syntactic changes, lags significantly behind the research conducted on other aspects of these languages. Several factors might have contributed to this situation. Researchers’ tendency to focus on phonological or lexical aspects and the lack of sufficient data from which to draw conclusions are two possible factors. Another possibility that Ingham (2005) raises for contact-induced syntactic change is that since the languages in contact are so typologically different, it is difficult for them to adopt syntactic features from each other without extensive language change taking place.

This section introduces several syntactic phenomena that can be attributed to language contact, including copulas, marking of indefiniteness, light verb constructions and the periphrastic causative. Although the details are not elaborated on here, the conclusion we can arrive at is in line with Ingham (2005), in that the degree and intensity of contact with the neighboring languages leads to differences among Anatolian Arabic dialects. The more easterly varieties, e.g. the Kozluk–Sason–Muş group, appear to be the most innovative, and the dialect group(s) most influenced by the language contact, whereas the Mardin group appears to be the most conservative (see Akkuş 2017; Jastrow 2011a for further discussion).

3.3.1 Copula

One of the most distinctive features of Anatolian Arabic is the existence of the copula in nominal sentences, based on the independent pronouns. This copula is realized as an enclitic suffix in most Anatolian dialects. Although researchers seem to differ with respect to the degree of the influence, they converge on the view that it is a matter of language contact, and that at least the development

and the proliferation of the obligatory copula is under the influence of the neighboring languages – Turkish, Kurdish, Zazaki and Aramaic – which all have copulas in nonverbal clauses (see Lahdo 2009; Grigore 2007b; Palva 2011; Talay 2007; Jastrow 2011a; Akkuş 2016; 2017; Akkuş & Benmamoun 2018, for more discussion and illustrations).

Although the copula forms themselves are not imported, the way they are used in Anatolian Arabic is exactly the same as it is in Kurdish, Turkish and Ṭuroyo (Aramaic), which have copula in the present tense. The copula is placed after the predicate (examples from Grigore 2007b).

- (12) a. Kurdish
bav-ê min şivan-e
father-EZ POSS.1SG shepherd-COP.3SG
'My father is a shepherd.'
- b. Turkish
baba-m çoban-dır
father-POSS.1SG shepherd-3SG
'My father is a shepherd.'
- c. Ṭuroyo
bab-i rəŷyo-yo
father-POSS.1SG herder-3SG
'My father is a herder.'

Some examples from Anatolian Arabic are illustrated in (13).¹²

- (13) a. Kinderib Arabic (Jastrow 1978: 131)
maliḥ-we
beautiful-3SG.M
'He is beautiful.'
- b. Sason Arabic
raḥw-īn nen
sick-PL 3PL
'They are sick.'

¹²It should be noted that the copula is not necessarily realized as an enclitic in some dialects. For instance, in the dialect of Siirt (Jastrow 2011a) the copula precedes the predicate. Moreover, the copula is identical to the personal pronoun in Siirt, whereas other Anatolian varieties use the shortened version of the pronoun in the 3SG and 3PL. See Akkuş (2016) for some discussion.

- c. Daragözü Arabic (Jastrow 1973: 40)
 nā ḥāš-nā
 1SG good-1SG
 ‘I am good.’

In negative sentences as well, the same order of morphemes is attested. The negative morpheme (and the copula if there is one) follows the predicate in the neighboring languages, as the sentences in (14) show.

- (14) a. Turkish
 hasta deḡil-ler
 sick NEG.COP-3PL
 ‘They are not sick.’
 b. Kurdish
 kemal xwendekar nîn-e
 Kemal student NEG-COP.3SG
 ‘Kemal is not a student.’
 c. Zazaki
 cinya niwaş ni-yo
 child sick NEG-COP.3SG
 ‘The child is not sick.’

The same order is found in Sason Arabic, in that the NEG+COP follows the predicate.¹³

- (15) Sason Arabic
 nihane me-nnen
 here NEG-COP.3PL
 ‘They are not here.’¹⁴

Given that the copula is almost unknown in other Arabic speaking areas (but see Blanc 1964; also Lucas & Čéplö, this volume; Walter, this volume), it is safe to assume that the development of a full morphological paradigm for the copula along with its syntactic function is at least facilitated by contact with the neighboring languages.

¹³This is not the most common order in Anatolian Arabic varieties, however. For more discussion, see Jastrow (2011a) and Akkuş (2016; 2017).

¹⁴In Sason Arabic, the 3PL personal pronoun can be *innen* or *iyen*. A shortened version of this pronoun is used both in affirmative, as in (13b) and negative, as in (15), non-verbal clauses.

3.3.2 Light verb construction

Light verb constructions are another domain where the influence of contact is clearly manifested. In surrounding languages, particularly Turkish, Kurdish and Zazaki, a light verb construction consists of a nominal part followed by the light verb, which is usually ‘to do’ or ‘to be’, e.g. Kurdish *pacî kirin* (lit. ‘kiss do’) ‘to kiss’, Turkish *motive etmek* (lit. ‘motivation do’) ‘to motivate’.

There are a relatively large number of compound verbs constructed with Arabic *sāwa* – *ysāwi* ‘to do’ and a nominal borrowed from Turkish or Kurdish, as illustrated in (16). In the majority of the cases, the construction is a complete calque of its Turkish or Kurdish counterparts (see e.g. Versteegh 1997; Lahdo 2009; Grigore 2007b; Talay 2007; Jastrow 2011a; Akkuş 2016; 2017; Akkuş & Benmamoun 2018 and Bişună 2016 for more examples).

- (16) a. Āzəḥ/Mardin Arabic (Talay 2007: 184)
sāwa brīndār ‘to injure’, cf. Kurdish *brīndar kirin*
sāwa ḡāmērtīye ‘to act generously’, cf. Kurdish *camêrtî kirin*
sāwa yōt ‘to mow’, cf. Kurdish *cot kirin*
- b. Tillo Arabic (Lahdo 2009: 202)
sāwa yārdəm ‘to help’, cf. Turkish *yardım etmek*
sāwaw dawām ‘they continue ...’, cf. Turkish *devam etmek*
nsayy qahwaltə ‘we have breakfast’, cf. Turkish *kahvaltı etmek*

In Sason Arabic, the default order in this construction has reversed, in that in most cases the nominal is followed by the light verb. Thus, Sason manifests head-final order, undoubtedly due to contact with Turkish and Kurdish. Similarly, the nominal part of the construction can be borrowed from Turkish as in (17), including instances of reborrowing of an originally Arabic word, (17b), or Kurdish as in (18). In fact, the nominal part might also be Arabic, as in (19).

- (17) Sason Arabic (Turkish borrowing)
- | | |
|------------------|-------------------|
| a. qazan sāwa | b. iṣāret sāwa |
| win do.PRF.3SG.M | sign do.PRF.3SG.M |
| ‘to win’ | ‘to sign’ |
- (18) Sason Arabic (Kurdish borrowing)
- ser asi
watch do.IMPF.1SG-do
‘I watch ...’

(19) Sason Arabic

- a. gerre/hās sāwa
noise/sound do.PRF.3SG.M
'to make noise/sound'
- b. šəyle lā təsi, aməl si!
talk NEG do.IMP.2SG.M work do.IMP.2SG.M
'Don't talk, do work!'
- c. huğūm sinna
attack do.PRF.1PL
'We attacked.'

Anatolian Arabic usually resorts to the same periphrastic construction when borrowing verbs from Turkish; it creates a complex predicate, rather than adapting a foreign verb directly to Arabic verbal morphology, a borrowing strategy seen also in the other languages in the region, such as Kurdish, Zazaki. In many cases, the complex predicate comprises of *sāwa* + the Turkish verbal form of the indefinite past (i.e. *miş*-verb), rather than the bare form of the verb, as illustrated in (20).

- (20) Anatolian Arabic (Talay 2007: 184)
sawa gačənməš 'to manage', cf. Turkish *geçinmiş*
başlaməš sawa 'to begin', cf. Turkish *başlamış*

Despite the widespread use of this process for loanwords, some borrowed verbal forms have been totally assimilated to the Arabic verbal system; the majority of these verbs are formed according to verbal measures (stems) II or III, as can be seen in example (21).

- (21) Āzəḥ (examples from Talay 2007)
- | | | |
|----------|---|----------------------------|
| Stem II | <i>qappat – iqappət</i> 'to close' | cf. Tr. <i>kapatmak</i> |
| Stem II | <i>qayyad – iqayyəd</i> 'to register' | cf. Tr. <i>kayıt etmek</i> |
| Stem III | <i>dāyan – idāyən</i> 'to be patient, to bear up' | cf. Tr. <i>dayanmak</i> |
| Stem III | <i>tēlan – itēlən</i> 'to rob' | cf. Kr. <i>talán kirin</i> |

3.3.3 Marking of (in)definiteness

In Classical Arabic and in modern varieties spoken in the Arab world, the indefinite noun phrase is unmarked or is preceded by an independent indefinite particle, whereas an NP becomes definite by prefixing the definite article *al-/əl-/l-*

etc. (Brustad 2000). However, Kozluk–Sason–Muş group dialects have adopted the reverse pattern (see also Uzbekistan Arabic; Jastrow 2005), which is found in the neighboring languages Turkish and Kurdish. That is, the definite NP is left unmarked, and the enclitic *-ma* is used to mark the indefiniteness of an NP (Talay 2007; Akkuş 2016; 2017; Akin et al. 2017; Akkuş & Benmamoun 2018), as illustrated in (22).

- (22) Sason Arabic *mara* ‘the woman’ > *mara-ma* ‘a woman’
bayt ‘the house’ > *bayt-ma* ‘a house’

The parallel constructions in Kurdish and Turkish are illustrated in (23) and (24) respectively.

- (23) Kurdish
derî ‘the door’ > *derî-yek* ‘a door’
- (24) Turkish
kadın ‘the woman’ > *bir kadın* ‘a woman’ (Turkish)

3.3.4 Periphrastic causative

Sason Arabic resorts to periphrastic causative constructions rather than the root and pattern strategy found in other non-peripheral Arabic varieties. In this respect it is on a par with Kurdish, which uses the light verb *bıdın* ‘to give’ to form the causative, as in (25).

- (25) Adıyaman Kurmanji Kurdish (Atlamaz 2012: 62)
 mî piskilet do çekir-in-e
 OBL.1SG bicycle give.PTCP repair.PTCP-GER-OBL
 ‘I had the bicycle repaired.’ (Lit: ‘I gave the bicycle to repairing.’)

Sason Arabic exhibits the same pattern for causative and applicative formation, as shown in (26), which is most likely as a result of extensive contact with Kurdish.¹⁵

¹⁵Sason Arabic also has another periphrastic construction that is formed with the verb *sa* ‘to do/make’, which may embed a finite clause (i.a) or a verbal-noun phrase (i.b).

- (i) Sason Arabic (adapted from Taylan 2017: 221)
- a. dohtor mæša ali ku isi fiy-u (le yaddel)
 doctor to Ali COP.3SG.M make.IMPF.3SG.M in-3SG.M (COMP make.IMPF.3SG.M)
 sipor
 sports
 ‘The doctor is making Ali do sports.’

- (26) Sason Arabic (Taylan 2017: 221)
 əmm-a məša fatma ši adəd-u addil
 mother-OBL.3SG.F to Fatma food give.PRF.3SG.F-3SG.M make
 ‘Her mother made Fatma cook (Lit: Her mother gave food making to Fatma).’

3.4 Lexicon

Anatolian Arabic dialects have borrowed single words and whole phrases or expressions mainly from (Ottoman and Modern) Turkish and Kurdish. The influence of these two languages on the Arabic lexicon is enormous. Aramaic words also survive in Anatolian Arabic to a lesser degree. A few illustrations are given in (27).¹⁶

- (27) *bōš* ‘much’, cf. Kurdish *boş*
bōšqa ‘different’, cf. Turkish *başka*
ṛūvi ‘fox’, cf. Kurdish *rûvî*
hiç ‘none, whatsoever’, cf. Turkish *hiç*
səpor ‘sport’, cf. Turkish *spor*
magzūn, *mazgūn* (in Sason) ‘sickle’, cf. Syriac *magzūnā*; Turoyo *magzūno*

As Jastrow (2011a: 95) mentions, while more Turkish borrowings are found in bigger cities such as Mardin, Diyarbakır or Siirt, Kurdish borrowings constitute a bigger part of the lexicon of rural dialects. Anatolian Arabic dialects which have preserved the emphatics, pharyngeals or interdental adapt borrowings into their phonology. For instance, Turkish *halbuki* ‘however’ is borrowed as *ḥālbūki*. In most cases, the velar *k* is turned into the uvular *q*, e.g. *çaqmāq* ‘lighter’, cf. Turkish *çakmak*. Also, Kurdish feminine nouns (and even some Turkish nouns) are suffixed with the Arabic feminine morpheme *-e/-a*, e.g. *tūre* ‘shoulder’ (cf. Kurdish *tūr*).

There are several function words that are copied from Turkish into Arabic, e.g. Turkish *ama* ‘but’ is realized as *hama* in Sason, and as *aḡma* in Tillo Arabic.

-
- b. aya sa hazd hašiš
 headman make.PRF.3SG.M cut.INF grass
 ‘The village headman had the grass cut.’

Although the origin of these constructions is not clear, they do not appear to be contact-induced.

¹⁶See Vocke & Waldner (1982: xxxix–li) for detailed statistics on Kurdish/Turkish/Aramaic loanwords. See also Lahdo (2009: 207–223) for a comprehensive glossary of Turkish and Kurdish loanwords in Tillo Arabic, most of which are found in other Anatolian Arabic varieties as well.

The conjunction *çünkü* ‘because’ from Turkish is attested in many Anatolian varieties, with the same function. Lahdo (2009: 179) notes that it expresses causal clauses in Tillo, as in (28), and Biṭunā (2016: 213) reports the same role for Siirt. Jastrow (1981: 278) and Grigore (2007a: 261) also confirm its existence in Ḥalanze and Mardin, respectively.

- (28) Tillo Arabic (Lahdo 2009: 179)
mā ʔaṭaw-ni əzan çünkü ğītu əl-anqara
NEG give.PRF.3PL-1SG permission because come.PRF.1SG to-Ankara
‘They did not give me permission because I had come to Ankara.’

Procházka (2005) notes that particles such as *bīle* < *bile* ‘even’, or *zātan* < *zaten* ‘already’ in the Adana region are also borrowed from Turkish (see also Isaksson 2005).

4 Conclusion

This chapter has dealt with contact-induced changes in the Anatolian Arabic dialects. We have seen that Anatolian Arabic has been primarily in contact with Turkish, Kurdish and Aramaic, and the influence of these neighboring languages on Anatolian Arabic is evident. We have surveyed some contact-induced changes at the phonological, morphological, syntactic and lexical level.

Mardin and Siirt dialects have been covered much more comprehensively than other dialects in the literature. It is desirable to have more comprehensive investigations carried out for the dialects around the Bitlis, iliMuş and Diyarbakır areas. This research has the potential to fill the gaps in our current state of knowledge about these dialects.

Similarly, in terms of the linguistic features investigated, phonological and morphological properties (along with lexicon) have received more attention in the literature, whereas syntax, in particular, has been understudied. This situation, however, might change once we are at a point where we have enough recordings and transcriptions to investigate syntactic properties of the dialects.

Further Reading

- ▶ Jastrow (1978) is a seminal work, which provided the classification for Anatolian Arabic varieties.
- ▶ Jastrow (2011a) is a concise, yet comprehensive encyclopedia entry on characteristic features of Anatolian Arabic.
- ▶ Talay (2011) is a good source for an overview of Arabic dialects in the Mesopotamian region.

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Abbreviations

1, 2, 3	1st, 2nd, 3rd person	Kr.	Kurdish
I, II etc.	1st, 2nd etc. verbal derivation	LINK	linker
ABESS	abessive	M	masculine
AGT	agentive	NEG	negation
COMP	complementizer	OA	Old Arabic
COP	copula	OBL	oblique
DEF	definite article	PL	plural
ELA	elative degree	POSS	possessive
EZ	<i>ezāfe</i>	PRF	perfect (suffix conjugation)
F	feminine	PTCP	participle
GER	gerund	SG	singular
IMPF	imperfect (prefix conjugation)	Tr.	Turkish
INF	infinitive		

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Chapter 7

Cypriot Maronite Arabic

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Cypriot Maronite Arabic is a severely endangered variety that has been in intensive language contact with Greek for approximately a millennium. It presents an interesting case of a language with extensive contact effects which are largely limited to the phonological domain.

1 Current state and historical development of Cypriot Maronite Arabic

Cypriot Maronite Arabic (CyA) is a minority language spoken by a small community on the island of Cyprus. Although essentially moribund, it is currently the focus of preservation and revitalization efforts.

1.1 Historical development of Cypriot Maronite Arabic

The time of arrival of this community of Arabic speakers to Cyprus is unknown. The island was occupied by an Arab garrison subsequent to Muḏāwiya's invasion of 649 CE, but the garrison was then removed and, presumably, the Arabic speakers left as well. More likely, a permanent presence dates back to the population movements of the ninth and tenth centuries during disruptions to Byzantine rule.¹ Subsequent waves of Arab emigration to Cyprus are documented during the early crusading period. Such movements also quite likely took place during Lusignan (French crusader) rule in Cyprus (1192–1489), for some portion of which the Anatolian city of Adana, where Arabic is still widely spoken (see Procházka,

¹See §2 for a discussion of where the CyA-speaking community originated from and the dialectological affiliation of this variety of Arabic.



this volume), was also held by Lusignan rulers. Speakers of not only Arabic but a locally distinct version of Arabic in Cyprus are mentioned by Arab historians beginning in the thirteenth century, thereby providing a *terminus ad quem* to its dialectal development (Borg 2004).

As fellow communicants in the Catholic church, the Maronite community was granted certain privileges of independent worship during the Lusignan period, which were later lost during Venetian (1489–1571) and Ottoman rule (1571–1878), at which time some retaliation occurred on the part of the Orthodox community (Gulle 2016). After the Ottoman conquest of Cyprus in 1571, the Maronite community was at first placed under the administration of the Orthodox bishop, but regained religious autonomy shortly thereafter.

The number of Maronite villages underwent a steady decline during the Ottoman period, from over thirty to only five at the time of British occupation of the island in 1878 (Baider & Kariolemou 2015; though it is unclear if this is associated with any actual population decline). The remaining five villages are all located in the northwestern area of the island. However, as of the twentieth century at least, only one of them was home to speakers of CyA, the others having linguistically assimilated to Cypriot Greek entirely. The CyA-speaking village is Kormakiti(s) (also known as Kormacit and Koruçam in CyA and in Turkish, respectively).

Both the Cypriot liberation struggle of the 1950s against the British, and the years after independence was attained in 1960, saw increased communal conflict between the Turkish and Greek communities on the island. This period witnessed increasing separation of communities, as Turkish Cypriots withdrew into ethnic enclaves, and culminated in the 1974 conflict between Greece-sponsored coup plotters, military forces of Turkey, and local Cypriots on various sides, the result of which was a *de facto* division of the island between the Republic of Cyprus-controlled territory in the south, which was majority Greek Orthodox and Greek-speaking, and the Muslim and Turkish-speaking northern part of the island. This northern area subsequently declared independence, but remains unrecognized by any other country except the Republic of Turkey to this day.

It is important to note that the relative geographical separation between Greek Cypriots and Turkish Cypriots dates only from this recent period, as refugees sought safety within their own communities. This entailed a radical change in the social circumstances of CyA speakers, who moved to the capital city of Nicosia essentially *en masse*. Thus, they went from living in a Maronite village in which community life could be conducted in CyA, to being a tiny percentage of a large urban population. Not only that, but the pre-1974 population surrounding the CyA-speaking Maronite village of Kormakiti was composed of Greek speakers, whereas the current local population around the village is comprised of Turkish

speakers (many of whom also know Greek, but no longer use it as a language of public life).

Since 1974 the permanent population of the village of Kormakiti has amounted to at most a couple of hundred residents, with the rest of the Maronite community residing primarily in the capital city Nicosia. The Maronite community has occupied a special place in Cypriot society, as for three decades they alone had the ability to freely cross the UN-monitored “Green Line” (buffer zone) dividing the island. Thus connections with the village have been maintained throughout this period, and weekend visits are common. Since 2003 the line has been crossable for all Cypriots.

1.2 Current situation of Cypriot Maronite Arabic

The Cypriot Maronite community currently numbers roughly 5,000 individuals. However, only approximately one thousand are CyA speakers (estimates range from 900 to perhaps 1300; Council of Europe 2017).

All CyA speakers are bilingual in Cypriot Greek, with Greek as their dominant language, and currently living in a heavily Greek-dominant urban area. There are currently no fluent native speakers under the age of thirty. Due to these factors, the CyA language was designated as severely endangered by UNESCO in 2002.

However, the accession of the Republic of Cyprus to the European Union in 2004 has led to an influx of both institutional and financial support for CyA. In its 2004 initial report on its implementation of the European Charter for Regional or Minority Languages (ECRML), which it ratified in 2002, the Republic of Cyprus declared Armenian as such a language in Cyprus. Although CyA was explicitly excluded as being “only” a dialect and therefore in no need of protection, this formulation was not accepted by ECRML, and CyA was thenceforth officially recognized as a minority language of Cyprus as well. Since 2008 Maronites have been officially recognized as a separate community within Cyprus, and are no longer required to identify themselves as Greek Cypriots (or Turkish Cypriots) on government documents.

The change in designation of the Cypriot Maronites as a linguistic as well as religious minority community led to associated changes in the linguistic rights legally accorded to them. After decades of waiting, one state school in Nicosia is now designated as Maronite and offers optional after-school classes in CyA for its approximately 100 Maronite students, the majority of whom have now joined the classes. Adults may also study CyA now at the new community center. Funding was also made available for a one-to-two week summer language immersion camp for Maronite youth in Kormakiti village, attendance at which

has risen to approximately 100. For the first time, training seminars for teachers have also been organized, concomitantly with codification efforts towards a written version of CyA. Sporadic writing in CyA has been carried out using the Greek alphabet. (See the community websites in the Further reading section at the end of this chapter).

Outside the government, there is also an NGO *Hki fi Sanna* ('speak in our language') with the goal of promoting CyA use. Usage remains community- and home-based, as Standard Greek (and English) is the language of written and broadcast media. The Cyprus Center of the Peace Research Institute Oslo (PRIO) has undertaken a project entitled *The protection and revival of Cypriot Maronite Arabic*. The scope of the project included a variety of community activities, as well as meetings with Sami (Norway) community members for sharing revitalization strategies, described in the resulting publication (PRIO 2009). Finally, a project at the University of Cyprus titled *The creation of an archive of oral tradition for Cypriot Maronite Arabic* is currently underway under the supervision of Dr. Marilena Karyolemou, though with no web presence or published deliverables to date. There is thus some reason for optimism regarding the future of CyA.

2 Contact languages

CyA has undergone intensive language contact with Cypriot Greek for the entirety of its presence in Cyprus, which may extend to a millennium (see §1.1). This contact has intensified since the removal of the population from the traditionally Maronite and CyA-speaking village of Kormakiti to the capital city, Nicosia.

This move has also resulted in a concomitantly larger social role for Standard Greek. Cyprus is a diglossic society in which Cypriot Greek coexists with Standard Greek, the language of education and formal domains.² In moving to Nicosia, the children of the community also began attending schools with Greek Cypriot children, rather than their own village schools. Only in the last few years has a primary school been designated specifically for Maronite children. Most of them still attend other schools, and the Maronite school is in any case also (Standard-)Greek-medium and follows the same national curriculum (with the addition of optional after-school weekly CyA language classes).

²Some in fact refer to triglossia, encompassing Standard Greek, koinéized Cypriot Greek, and various other local varieties, with the island-wide koine taking a mesolectal position (Arvaniti 2010).

Therefore, the influence of Greek has increased radically through contact with Greek classmates and neighbors, as well as intermarriages with Greek Cypriots and Maronites from other, non-CyA speaking villages. Such situations are common due to the small size of the Maronite community, and typically CyA is not used in these households.

In comparison, contact with Turkish has been limited. Although remaining residents of Kormakiti are now surrounded by Turkish speakers, the village remains quite set apart socially, to the extent that all water supplies are trucked in rather than plumbing systems being shared. In Borg's (1985) texts, speakers do mention using Turkish with some speakers employed as farm workers, however. Contact with Turkish speakers in Nicosia is, of course, rare.

Cyprus is "double-diglossic": the same situation as with Cypriot and Standard Greek holds also with respect to Cypriot and Standard Turkish. To the extent that contact with Turkish does occur, it is with Cypriot Turkish rather than Standard Turkish, unlike Greek, where both varieties are prominent in the lives of CyA speakers.

There is next to no contact with other varieties of Arabic. The Maronite clergy in Cyprus often come from Lebanon, and some intermarriage occurred in the more distant past between the Cypriot and Lebanese Maronite communities, but this no longer occurs. Roth (2004) refers to the "double minoritization" of CyA speakers with respect to both the Cypriot context and the wider Arabophone context – in both, their speech variety is considered deviant and unintelligible.

While early research on CyA identifies it as a Levantine variety of Arabic (Tsiapera 1969), Borg (1985; 2004) argues strongly for an Anatolian origin with significant Aramaic substrate influence. Because the Aramaic influence, if any, must have occurred in the pre-Cyprus period, contact with Aramaic will not be considered further here, despite its putative influence. A substantial discussion can be found in Borg (2004).

Another Semitic language, Syriac, is the liturgical language of the Maronite community. However, no instruction is available in Syriac in Cyprus, so its use is limited to rote recitation during (very sparsely attended) church services, at which transliterations and Greek translations are also provided.

English is the third official language of the Republic of Cyprus (along with Greek and Turkish) and is widely spoken. Instruction in English begins in primary school in the national curriculum, and private English-medium schools are also widespread. However, contact with English postdates contact with Greek and Turkish (beginning only after 1878 and intensifying in the twentieth century) and appears to have had no effects on CyA language structures.

The French school in Nicosia is traditionally a popular choice for Maronite families, so that competence in French has also been common in the community – a shared characteristic with Lebanese Maronite society. However, like English, this appears not to have influenced CyA grammar in any significant way.

Remaining minority languages of Cyprus include Armenian and a variety of Romani locally called *Kurbetça/Gurbetça*. The reports of ECRML specify that there has been no contact requested or arranged between the Armenian and Maronite community institutions, however. The small size of the communities (each less than 1% of the population) no doubt also reduces the chances of contact. As for *Kurbetça*, it is unclear whether or not it is still actually spoken on the island. Members of this community are Turkish-speaking and interact little if at all with the Maronite community.

Finally, the most common immigrant language after English is Russian, which occupies an increasingly prominent place in the linguistic landscape of Cyprus. There are now several Russian-medium schools on the island. However, these are primarily located outside the capital, and its recent appearance means that it also has not influenced CyA.

Therefore, the next section will focus on contact effects from Greek on CyA.

3 Contact-induced changes

According to Borg, the doyen of CyA studies, “linguistic acculturation to Greek in [CyA] is fairly extensive...and involves transfer of allophonic rules, function words, and virtually unrestricted borrowing of content words in the context of codeswitching” as well as “a significant degree of calquing on Greek idioms” (2004: 64). This occurs to such an extent that he describes CyA as “Greek in transparent Arabic garb”, although “the degree of hellenization...tends to be concealed...the inflectional pattern of [CyA] having largely resisted significant intrusion of Greek morphological elements” (2004: 65).

In the remainder of this section, we will examine examples of such Greek influence, particularly in the phonological domain. At the same time, the remarkable persistence of CyA language patterns in the face of intensive contact, especially in the morphological domain, will be discussed.

3.1 Phonology

CyA phonology has been heavily restructured in comparison with other varieties of Arabic, resulting in what Roth (2004: 55) calls “total convergence” of the

phonological system with Cypriot Greek. Similarly, Gulle (2016: 47) refers to the “complete adoption of Greek phonology.”

Like other varieties of Arabic in intense contact with non-Semitic languages, CyA has lost the series of so-called emphatic, guttural or pharyngealized consonants. The obstruents have merged with their non-emphatic counterparts, and the pharyngeal fricative *ħ* has merged with the original glottal fricative *h*, which in turn is now pronounced as a velar fricative [x] under the influence of Greek, as in the examples in Table 1.³

Table 1: Reflexes of emphatic and guttural consonants in CyA

CyA	Arabic	Gloss
<i>taraf</i>	<i>ṭaraf</i>	‘end’
<i>txin</i>	<i>ṭahīn</i>	‘flour’
<i>pakar</i>	<i>baqar</i>	‘cattle’
<i>axsen</i>	<i>aḥsan</i>	‘better’

The sole survivals among the Arabic consonants that have no counterparts in Greek are the interdental consonants and the pharyngeal glide /ʕ/ (see example 5b below). It is interesting that the pharyngeal glide, perhaps the most typologically unusual, remains as a sort of iconic survivor of the Arabic phonemic inventory. The retention of this phoneme, alongside the loss of so many others, implies that the radical changes to the consonant inventory of CyA, though clearly linked to Greek influence, cannot be wholly attributed to imposition in the sense of Van Coetsem (1988; 2000) – or at least, is evidence of significant resistance to such imposition. In any case, imposition would presumably be due to late learners of CyA, and it is doubtful that CyA was ever acquired in this way by speakers from outside the community.

As for the vowels, the Arabic vowel length contrast has also been lost, unstressed (formerly) short vowels deleted, and mid vowels have joined the inventory, resulting in a five-vowel inventory matching that of Greek, as illustrated in Table 2.

This unsurprising result also occurred in other contact varieties such as Maltese and Andalusī Arabic, although may have evolved without the influence of contact, as in some Levantine varieties.

³Examples are taken from Borg’s (2004) glossary except where noted otherwise. CyA forms are given in his orthography. “Arabic” forms are the presumed etymological source forms, typically shared by Standard Arabic as well as other varieties.

Table 2: Illustration of the innovative vowel system of CyA

CyA	Arabic	CyA Gloss
<i>ipn</i>	<i>ibn</i>	‘son’
<i>umm</i>	<i>umm</i>	‘mother’
<i>tarp</i>	<i>darb</i>	‘road’
<i>klep</i>	<i>kilāb</i>	‘dogs’
<i>yaxtop</i>	<i>yaktub</i>	‘he writes’
<i>ten</i>	<i>yadayn</i>	‘hands.DU’

Phonotactically speaking, CyA remains more permissive than Cypriot Greek, in that it “allows a wider range of final consonants and is alone [relative to Cypriot Greek] in allowing final clusters” (Newton 1964: 51).

The effect of (Cypriot) Greek has not been limited to the phonemic inventory. CyA also conforms in the realm of alternations. Like Cypriot Greek, CyA has absolute neutralization of voicing in stop consonants, as illustrated in Table 3.

Table 3: Voicing neutralization in CyA stop consonants

CyA	Arabic	Gloss
<i>sipel</i>	<i>sabal</i>	‘stubble’
<i>ʃates</i>	<i>ʃadas</i>	‘lentils’
<i>pakar</i>	<i>baqar</i>	‘cattle’

It also has the same palatalization and spirantization rules (with the latter applying to the first member of consonant clusters), as well as epenthesis of transitional occlusives in clusters (Tsiapera 1969; Borg 1985; Roth 2004), as illustrated in Table 4.

Table 4: Greek-derived phonological processes in CyA

CyA	Arabic	Gloss	Phonological process
<i>kʰilp</i>	<i>kalb</i>	‘dog’	Palatalization
<i>xtuft</i>	<i>katabt</i>	‘I wrote’	Spirantization
<i>pkyut</i>	<i>buyūt</i>	‘houses’	Consonant epenthesis

As with changes in the phoneme inventory, these additions to the phonological rules of CyA imply considerable L2 pronunciation effects of Cypriot Greek, even though it was presumably typically acquired later in life than CyA, a puzzling apparent contradiction.

3.2 Morphology

According to Newton (1964: 43), “words of Arabic [...] origin retain the full morphological apparatus of Arabic while those of Cypriot-Greek [...] origin appear exactly as they do in the mouths of monolingual speakers of the Greek dialect.” He goes on to state that “the exceptions to the rule that the morphemes of any one word are either exclusively [Cypriot Greek] or exclusively [Arabic] in origin would seem to be few,” and that Greek verbs “are conjugated exactly as they are when they occur in [Greek].” Example sentences that he provides contain multiple code-switches between Arabic and Greek-origin words, as in (1), where Greek words are highlighted in bold.

- (1) CyA Newton 1964: 49
 paxsop **na enicaso** xamse **kamares**
 intend.IMPF.1SG SBJV rent.PRS.1SG five room.PL
 ‘I intend to rent five rooms.’

Newton (1964: 50) concludes that neither source “would be in a position to claim an undisputed majority [of words/morphemes].” Gulle (2016) also discusses examples of “loss of systemic integration” morphologically, with respect to noun plurals, meaning that Greek-origin nouns are used with Greek affixal morphology rather than being integrated into the CyA morphological system. The example in (2) illustrates the use of Greek-origin nouns with Greek plural morphology intact (in bold) in a CyA matrix sentence.

- (2) CyA Borg 1985: 183, 193
 allik p-**petrokop-i** n-tammet l-**ispiriðk-ya** ta
 DEM.PL DEF-stonecutter-PL PASS-end.PRF.3SG.F DEF-match-PL COMP
 kan-yišelu **fayy-es**
 PROG.PST-light.IMPF.3PL dynamite.hole-PL
 ‘While those stonecutters were igniting sticks of dynamite, the matches got used up.’

On the whole, the picture is of a language somewhat similar to Maltese (see Lucas & Čéplö, this volume), in that we have two morphological systems operating in parallel, depending on the etymological origin of the root (Romance or

Arabic, in the case of Maltese; Greek or Arabic, in the case of CyA). Alternatively, we could say that speech in CyA is replete with code-switching, and the use of such Greek forms says nothing about the system of CyA itself.

The main exception to morphological non-interaction between CyA and Greek is the use of the Greek diminutive suffix *-ui* (feminine *-ua*) with native CyA words, noted by all three of the major authors on CyA (Borg, Tsiapera, and Newton). For example, this suffix is used with Arabic nouns such as *xmara* ‘female donkey’ and *pint* ‘girl’, yielding *xmarua* ‘small donkey’ and *pindua* ‘girl’ (Newton 1964: 43–44). Tsiapera (1964) additionally notes the borrowing of two adjectival suffixes, *-edin* (which makes nouns into adjectives) and nominal masculine singular *-o*.

Relatedly, Gulle (2016) observes that CyA lacks marking for directive and locative, unlike other Arabic varieties but like spoken Greek. Accusative case marking is used in spoken Greek for this purpose, but due to the lack of overt case marking in CyA, such constructions are unmarked entirely.

(3) CyA Gulle 2016: 44

- | | |
|-----------------|-----------------|
| a. k-kafene | b. fi-l-lixkali |
| DEF-cafe | in-DEF-field |
| ‘(in) the cafe’ | ‘in the field’ |

Occasional use of Arabic *fi* ‘in,’ as in other varieties and example (3b), was attributed by some CyA speakers of Gulle’s acquaintance to the influence of Levantine Arabic. For at least one speaker, the usage of locative/directional *fi* appeared to be influenced by calquing from Standard Greek.

However, Borg (2004: 3) notes similar usage in Old Arabic and Hebrew, such that Greek is not necessarily the source of this pattern. Gulle (2016: 47) concludes that “the tense–aspect–modality (TAM) system [of CyA] is surprisingly almost completely intact”, adding only the exception of the use of the Greek modal verb *prepi* in necessitative constructions.

Finally, the occasional borrowing of the Greek plural morpheme is observed. However, this is sporadic, and a quantitative investigation of pluralization based on Borg’s (2004) glossary (Walter 2017) reveals that native non-suffixal plurals are still used for over half of all pluralizable nouns, at percentages even higher than those posited for other Arabic varieties. Greek plurals were given for only 8 of the 251 nouns.

Therefore, although the typically-Arabic use of non-concatenative plural morphology is indeed subject to some degree of suffixal regularization (17% of cases) and somewhat more restricted in terms of the variety of plural forms in CyA, the effect of Greek plural forms has been negligible.

Plural formation, perhaps the most distinctive and cross-linguistically idiosyncratic morphological characteristic of CyA, thus appears remarkably robust in the face of contact. This echoes the retention of the pharyngeal glide in the phonological domain.

On the whole, as Borg (1994: 57) states, “the external impact on the native morphological patterns of [CyA] is slight.”

3.3 Syntax

According to Roth (2004: 70), “syntax is a linguistic domain particularly permeable to interference from Greek” (author’s translation). By this she means that function words are doubled with loans from Greek, in particular with relative clause markers and more complex constructions, as well as the use of Greek and Arabic-origin negation markers in combination. The example in (4) demonstrates the CyA use of the native *ma* negation morpheme concurrently with Greek *me...me*. In this case, phonetic similarity may have aided the adoption of *me*.

- (4) a. CyA Borg 1985: 149
 ma-pišrap me pira me mpit
 NEG-drink.IMPF.1SG NEG beer NEG wine
 ‘I don’t drink either beer or wine.’
- b. Cypriot Greek
 em-pinno me piran me krasin
 PROG-drink.PRS.1SG NEG beer.ACC NEG wine.ACC
 ‘I don’t drink either beer or wine.’

It is unclear, however, whether all or most of this is simply code-switching and whether it should be termed syntactic rather than lexical influence.

A syntactic change which does not involve code-switching or lexical borrowing is the development of a predicative copula (lacking in the present tense in most varieties of Arabic) from Arabic pronouns, discussed by both Roth (2004) and Borg (1985), and illustrated in (5).

- (5) CyA Borg 1985: 134
- | | |
|------------------------------|---------------------------|
| a. l-iknise e maftux-a | b. p-pkyara enne maʕak |
| DEF-church 3SG.F open-F | DEF-well.PL 3PL deep.PL |
| ‘The church is open.’ | ‘The wells are deep.’ |

In example (5a), the copula corresponds to the third-person feminine pronoun ‘she’ (also *e*, < *hiya*). Likewise, the copula *enne* in (5b) corresponds to the third-

person plural pronoun ‘they’ (also *enne*, < *hunna*). The development of this copula presumably replicates the obligatory present-tense copula found in Greek. See Lucas & Čéplö (this volume) for a similar phenomenon in Maltese.

Finally, both Roth (2004) and Newton (1964) document variable placement of adjectives, according to both Arabic and Greek norms, as illustrated in (6).

- (6) a. CyA Roth 2004: 72
m-mor-a li-ẓʕar
DEF-child-PL DEF-small.PL
‘small children’
- b. Lebanese Arabic Newton 1964: 48
l-bēt l-ikbir
DEF-house DEF-big
‘the big house’
- c. CyA Newton 1964: 47
li-kbir payt
DEF-big house
‘the big house’
- d. Cypriot Greek Newton 1964: 48
to meálo spítin
DEF big house
‘the big house’

However, Borg (2004) notes that so-called “peripheral” varieties of colloquial Arabic have been said to employ freer word order than others, so the variation in noun–adjective ordering may be an independent internal development (or alternatively, perhaps peripheral varieties are by nature more subject to contact, which leads to this pattern of variation).

In summary, syntax, like morphology, shows relatively little influence of language contact, especially in contrast to the phonological system. As word order is already relatively flexible in both CyA and Cypriot Greek (e.g. with respect to subject–verb ordering; Newton 1964: 48–49), this is perhaps to be expected.

3.4 Lexicon

According to Newton (1964), of the 630 common lexical items which he elicited, 38% were Greek in origin. However, he goes on to say that the percentage is lower in running speech, in which typically the most common (and therefore native Arabic origin) vocabulary was used. Newton raises the possibility (1964: 51) that

CyA consists of “Arabic plus a large number of Cypriot [Greek] phrases thrown in whenever [a speaker’s] Arabic fails him or the fancy takes him.” Tsiapera (1964: 124) concurs, stating that “any speaker of [CyA] has a minimum of about thirty per cent of Greek lexical items in his speech which are not assimilated into the phonological and morphological system of his native language.” She identifies the semantic fields of government and politics, numerical systems including weights and measures, and adverbial particles as particularly dominated by words of Greek origin.

This percentage contrasts with the relatively small number of Greek-origin items appearing in Borg’s (2004) glossary. However, the difference in elicitation contexts must be kept in mind – Newton’s work occurring in the Cypriot context and himself being competent in Greek, versus Borg’s work occurring partly overseas and himself an Arabist rather than a scholar of Greek.

Roth (2004) refers to the drastic reduction of the lexicon, and estimates that it includes at most 1300 items. Borg’s (2004) glossary contains roughly 2000 entries (corresponding to 720 lexical consonantal roots), which he considers to be a “substantial portion” (though not all) of the “depleted” Arabic-origin CyA lexicon.

Gulle (2016: 45) notes suppletion in the paradigm of the verb ‘to come’, with imperative forms borrowed from Greek. The consonantal root of the verb ‘to come’, in CyA as elsewhere in Arabic, is \sqrt{zy} , as seen in the form *ža* ‘he came’. However, CyA imperative forms of this verb (*ela*, *eli*, *elu*, in masculine singular, feminine singular, and plural forms, respectively) are clearly based on Greek *ela*, *elate* (singular and plural, respectively). This particular case seems to reflect a pan-Balkan spread of this item, as *ela/elate* are also used in Bulgarian (personal knowledge).

In summary, universal bilingualism and Greek dominance among CyA speakers results in widespread use of code-switched Greek vocabulary and associated morphology, with marginal lexical suppletion. However, there is very little loan material integrated into the CyA grammatical system.

As a final note, Hadjidemetriou’s (2009) doctoral dissertation examines language contact between CyA and Cypriot Greek (as well as Armenian and Cypriot Greek), in the opposite direction, to identify any effects of CyA on Cypriot Greek. Unsurprisingly, however, given the current dominance of Cypriot Greek for these speakers, no such effects were found, in any of the above domains.

4 Conclusion

CyA appears to present a counterexample to Van Coetsem’s notion of the stability gradient, which claims that phonology (and syntax) are more stable than

other domains (the lexicon). It is clear that for CyA, phonology has been the least stable domain. The observed phonological convergence to Greek is of the type that suggests pervasive effects of L2 pronunciation (except for the retention of the pharyngeal glide). Yet it is difficult to imagine any sociolinguistic scenario in which CyA was taken up in any significant numbers by Greek speakers from outside the community, and the typical acquisition scenario (when CyA was still acquired by children) has been use of CyA as a home language, and Greek as a school language, thereby generating sequential (though eventually probably Greek-dominant) bilinguals. The historical record is unfortunately lacking any relevant information that could shed light on the situation.

The most urgent issue for future research on CyA is undoubtedly the need for additional documentation efforts. In particular, naturalistic texts and audio recordings are a desideratum. It is to be hoped that the documentation and revitalization efforts currently underway will remedy this situation.

Further reading

- Tsiapera's (1969) work is the only one so far to consider CyA in its totality as a spoken language, although not at great length, and it drew subsequent criticism of the author's lack of background knowledge of the Arabic language. This monograph does, however, have the additional advantage of a publication date very close in time to the radical change in the sociolinguistic circumstances of CyA speakers due to ethnic tensions in the island, culminating in their near-unanimous relocation from traditionally Maronite villages to the capital city Nicosia.
- Borg's (1985) foundational work on morphophonology is still the most extensive resource on CyA grammar. He takes a historical perspective on changes from earlier Arabic to contemporary CyA, both contact-driven and otherwise, and also includes substantial textual material in CyA at the end. These texts are currently the only published ones available.
- The follow-up volume by Borg (2004) includes a substantial introductory essay situating CyA within the range of Arabic dialects and elucidating the influences of the main contact language, Cypriot Greek. The lexical entries are enriched by comparisons with dialectal forms from other varieties of Arabic, as well as Greek, Aramaic, and other contact languages where relevant.
- The most up-to-date and reliable information regarding CyA and its speakers, including documentation, preservation and revival efforts, may be found in the Council of Europe (2017) report.

- The following two community websites contain information on CyA institutions and activities in both Greek and English, including contact information, historical background, archived copies of the monthly (Greek-language) community newsletter, and so on.
- <http://www.maronitesofcyprus.com> (in both Greek and English)
 - <http://kormakitis.net/portal/> (in Greek)

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Abbreviations

ACC	accusative	PRF	perfect (suffix conjugation)
CE	Common Era	PL	plural
CyA	Cypriot Maronite Arabic	PRIO	Peace Research Institute Oslo
COMP	complementizer	PROG	progressive
DEF	definite	PRS	present
DEM	demonstrative	PST	past tense
DU	dual	SBJV	subjunctive
ECRML	European Charter for Regional or Minority Languages	SG	singular
F	feminine	TAM	tense–aspect–modality
IMPF	imperfect (prefix conjugation)	UN	United Nations
PASS	passive	UNESCO	United Nations Educational, Scientific and Cultural Organization

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Chapter 8

Nigerian Arabic

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Nigerian Arabic displays an interesting interplay of maintenance of inherited structures along with striking contact-induced innovations in a number of domains. This chapter summarizes the various domains where contact-based change has occurred, concentrating on those less studied not only in Arabic linguistics, but in linguistics in general, namely idiomatic structure and an expanded functionalization of demonstratives. Methodologically, comparative corpora are employed to demonstrate the degree of contact-based influence.

1 Historical and linguistic background

Nigerian Arabic (NA) is spoken by perhaps – there are no reliable demographic figures from the last 50 years – 500,000 speakers. These are found mainly in northeast Nigeria in the state of Borno where their homeland is concentrated along the Cameroon–Chad border as far south as Banki, spreading westwards towards Gubio, and south of Maiduguri towards Damboa. Mirroring a larger trend in Nigerian demographics, the past 40 years have seen a considerable degree of rural–urban migration. This has seen, above all, the development of large Arab communities in cities in Borno – the capital Maiduguri has at least 50,000 alone¹ – though they are now found throughout cities in Nigeria.

Arabs in Nigeria are traditionally cattle nomads, part of what the anthropologist Ulrich Braukämper (1994) has called the “Baggara belt”, named after the Arab

¹A report in the 1970s by an urban planning company, the Max Lock Group (1976), estimated that 10% of the then estimated population of 200,000 Maidugurians were Arabs. Today the population of Maiduguri is not less than one million and may be considerably larger, which proportionally would estimate an Arab population in Maiduguri alone of at least 100,000. Of course, if one included the refugee camps today, the number would be much higher.



tribe in the western Sudan (Kordofan, Darfur; see Manfredi 2010) whose culture and dialect are very similar to those of the Nigerian Arabs. Until the very recent Bokko Haram tragedy, besides nomadism, Arabs practiced subsistence farming. As of the writing of this chapter, nearly all rural Nigerian Arabs have been forced to flee their home villages and cattle camps, and are living mainly in refugee camps in northeast Nigeria and neighboring countries.

Arabs first came to the Lake Chad area – whether territorial Nigeria is at this point undetermined – in the late fourteenth century. They were part of what initially was a slow migration out of Upper Egypt towards the northern Sudan beginning in the early thirteenth century, which gained momentum after the fall of the northern Nubian kingdom of Nobadia (or Maris) in the fourteenth century. All in all, NA exhibits a series of significant isoglosses which link it to Upper Egypt, via Sudanese Arabic, even if it displays interesting “archaisms” linking it to regions far removed from Africa (Owens 2013). Its immediate congeners are found in what I have termed Western Sudanic Arabic (WSA; Owens 1994a,b), stretching between northeast Nigeria in the west and Kordofan in the east (Manfredi 2010). When properties of NA are contrasted with other varieties of Arabic, it is implicitly understood that these do not necessarily include other WSA varieties. Much more empirical work is necessary in this regard, but, to give one example, many of the extended functions of the NA demonstrative described in §3.3.2 below are also found in Kordofanian Arabic (Manfredi 2014). Moreover, where throughout the Sudanic region as a whole any given isogloss lies is also an open question, as is the issue of the degree to which the contact-induced changes suggested here represent broad areal phenomena. As my own in many cases detailed data derives from NA, I limit most observations to this area. NA itself divides into two dialect areas, a western and an eastern one that I have also termed Bagirmi Arabic, since it is spoken by Arabs in the Bagirmi-speaking region.

In Borno, Arabs are probably the largest minority ethnic group, though still a minority. The entire area bordering Lake Chad, both to the east and to the west, is dominated by Kanuri-speaking peoples (Kanembu in Chad). This was a domination which the Arabs already met in their first migrations into the region, both a political and a linguistic domination. As will be seen, this has left dramatic influences in some domains of NA, while leaving others untouched.

While until about 1970 Kanuri was the dominant co-territorial language, Arabs in the Lake Chad area have been in close contact with other languages and ethnic groups as well, for instance Fulfulde, Kotoko (just south of Lake Chad) and Bagirmi (south of Ndjamena in Chad). Furthermore, Kanuri established itself in Borno in an area already populated by speakers of Chadic languages, so it as

well was probably influenced by some of the co-territorial languages Arabs met. Since 1970, Hausa has become the dominant lingua franca in all urban areas in northeastern Nigeria (indeed throughout the north of the country). In a sample of 58 Maiduguri speakers for instance (Owens 1998; Owens 2000: 324), 50 professed knowing Hausa, and 46 Kanuri. In the only study of its type, Broß (2007) shows that urban Maiduguri Nigerian Arabs have a high degree of accuracy for a number of complex variables in Hausa, while, using a similar sample, in one of the few interactional studies available, Owens (2002) also documents a high multilingual proficiency between Arabic and Hausa, and for some speakers, English. How such micro-studies can be interpreted against the over 400 years of NA contact with area languages remains a question for the future. Rural areas have not yet experienced such a high penetration of Hausa. In a second, rural sample consisting of 48 individuals, only sixteen self-reported knowing Hausa versus forty Kanuri. Note that as of the 1990s, there were still a considerable number of monolingual Arabic speakers, particularly in the area along the Cameroonian border which among Nigerian Arabs is known as the Kala-Balge region.

While Standard Arabic (Classical Arabic) has always been a variety known among a small educated elite in Borno (of all ethnic backgrounds), along with Hausa it has gained considerable momentum in recent years. Whereas traditionally Classical Arabic, as a part of Koranic memorization, has always been a part of Arabs' linguistic repertoire, it is only since about 1990 that the teaching of Standard Arabic as a school subject has spread oral fluency in this variety.

To this point, conditions have been described which, on paper at least, would favor influence via borrowing under RL-agentivity (in the terminology of Van Coetsem 1988; 2000). Nigerian Arabs as a linguistic minority tend to be bilingual, and, it may be assumed, have had a history of bilingualism in Kanuri and locally other languages going back to their first migrations into the region. Equally, however, Nigerian Arabic society has itself integrated other ethnic groups creating conditions of shift to Arabic. According to Braukämper's (1994) thesis, the very basis of Nigerian Arab nomadism is cattle nomadism based on a Fulani model. This is said to have arisen around the mid-seventeenth century as Arabs coming from the east met Fulani moving west. Today there is very little Fulfulde spoken in Borno or Chad, so it may be surmised that the result of the Fulani-Arab contact was language shift in favor of Arabic. Furthermore, slavery was a well-established institution which incorporated speakers from other ethnic groups (see recording TV57b-Mule-Hawa in Owens & Hassan 2011, as an instance of a slave descendant). Inter-marriage is another mechanism by which L1 speakers would switch to Arabic. In contemporary Nigeria, inter-marriage in fact tends to favor Arab women marrying outside their group, rather than marriage into Arab

society, though there is no cultural proscription of the practice, and such practices tend, *inter alia*, to be influenced by the relative prestige and power of the groups involved. Today Arabs are dominated politically by the Kanuri, though there are eras, for example the period of Kanemi in the mid-nineteenth century, or the rule of Rabeh at the beginning of the twentieth, when Arabs were more dominant and perhaps had greater access to marriage from outside groups. I will return to these summaries in §4.

The data for this chapter comes from long years of working on Arabic in the Lake Chad region. More concretely, a large oral corpus of about 400,000 words (Owens & Hassan 2011) forms the basis of much of the research, and this corpus will be referred to in a number of places in the chapter. When a form is said to be rare, frequent, etc., these evaluations are made relative to what can be found in the corpus. All examples come from this corpus. The source of the recording in the data bank is indicated by the number in brackets at the end of the example.

2 Contact and historical linguistics

Language contact is an integral part of historical linguistics. In the case of Arabic, the history of Arabic has different interpretations, so it is relevant here to very briefly reiterate my own views (Owens 2006). All varieties of contemporary Arabic derive from a reconstructed ancestor or ancestors. Whether singular or plural is a crucial matter, but one answered legitimately only within historical linguistic methodology (see e.g. Retsö 2013, who appears to favour the plural). As is usually accepted (perhaps not by some working within grammaticalization theory, e.g. Heine & Kuteva 2011), historical linguistics operates at the juncture of inheritance and contact, and examines change due to internal developments and change due to contact. In the case of Arabic, contact extends well into the pre-Islamic era (Owens 2013; 2016a; forthcoming).

Furthermore, it operates at the level of the speech community, and Arabic has and had many speech communities, each with its own linguistic history. The history of speech communities is not co-terminous with political history, usually not with the history of individual countries, or even with cultural entities such as a nomadic lifestyle. It follows that Arabic linguistic history is quite complicated, its large population being the product of and reflecting many individual social entities.

Any individual contemporary Arabic speech community therefore lies at the end of many influences. Interpreting whether and when a particular change occurred due to contact is anything but straightforward, as I will discuss very briefly in the following phonological issue.

Ostensibly NA shows the loss of *θ:

- (1) *θ > t, *θawr > tōr ‘bull’

or in the eastern area:

- (2) *θ > s, *θawr > sōr ‘bull’

There is no space to go into the detailed historical linguistic arguments here, but it would be incorrect to assert that these changes, quite plausibly originally due to contact, took place in the territorial NA or WSA region. This can be seen *inter alia* in the fact that all of Egyptian Arabic (EA) and all of the Sudanic region including the WSA area has (1). Whenever the shift occurred, it was well before Arabs came to the Sudanic region, let alone Nigeria. The changes in (1) and, I would argue, (2) as well, are part of the historical linguistics of ancestral Sudanic Arabic, but the changes themselves are antecedent to Arabic in the Sudanic region and therefore are not treated here.

3 Contact-induced changes

3.1 Phonology

Excluding cases like (1–2) on methodological grounds, other than marginal effects due to borrowing, discussed briefly in §3.2, there are no significant instances of contact-induced phonological change limited only to NA. Two changes confined to all or part of the WSA region can be suspected, however.

Throughout Nigeria, Cameroon, and most of Chadian Arabic, *ħ/ʕ have depharyngealized.

- (3) *ħ/ʕ > h/?
 ħilim ‘dream’ > *hilim*
 gaʕad ‘stay, sit’ > *gaʔad*

As a set, the change is attested only in this region. Moreover, the area it is attested in begins by and large in the region where Arabic fades into minority status.

A second candidate for a local WSA innovation is the reflex of *ṭ, which is a voiced, emphatic implosive /d/. The implosive /d/ is also found in Fulfulde, as well as other possible contact languages such as Bagirmi, which, as noted above, are one source of shifters to Arabic. Manfredi (2010: 44; and personal communication) notes that /d/ is an allophonic variant in Kordofanian Baggara Arabic.

The status of one phoneme, /č/, is still open. It is fairly frequent (about 100 entries out of about 8,500 (excluding proper names) in a dictionary currently in preparation begin with /č/). In a minority of cases an Arabic origin is certain or likely, e.g. *čāl* ‘come’ (eastern variant) < *tāl and perhaps *čatt* ‘all’, < *šattā ‘various’, with [š + t] > /č/ recalling some Gulf dialects *ičūf* ‘you see’. /č/ is never a reflex of *k. However, most instances of /č/ are still unaccounted for (e.g. *ču* ‘very red’, *čāqab* ‘wade through’).

All in all then, there has not been a great deal of fundamental phonological change due to contact. Note that NA maintains all inherited emphatics, and probably inherited its phonemically contrastive emphatic /ṃ/, /ṛ/ and perhaps its /l/ as well.

3.2 Loanwords

Despite its long period as a minority language in the Lake Chad region, NA has only a modest number of loanwords (see Owens 2000 for a much more detailed treatment of all aspects of loanwords in the classical sense). In a token count based on about 500,000 words, only about 3% of all words were loans. On a type basis the percentage rises considerably, though still is far from overwhelming. Table 1 presents loanword provenance data from the dictionary currently in progress.

Table 1: Loanwords in NA, types, $N = 1263$

Language	Types
English	509
Hausa	255
Kanuri	252
Standard Arabic	212
French	21
Fulfulde	12
Kotoko	2

The figures in Table 1 are probably a slight underestimation, as there are about sixty words, like *bazingir* ‘soldier of Rabeh’ which clearly are not of Arabic origin but whose precise origin has not been found.

There are many interesting issues in understanding the loanwords, a few of which I mention very cursorily here. The semantic domains differ from source to source. Standard Arabic, for instance, has mainly learned words. Kanuri covers a fairly wide spectrum, and strikingly includes a large number of discourse markers and conjunctions, on a token basis. *dugó* ‘then, so’ (< *dugó*) for instance has something in the range of 630 occurrences and *yo, yō, iyō* ‘so, okay, aha’ has 938. In Owens (2000: 303), discourse particles and conjunctions are shown to make up no less than 23.3% of all loanword tokens in the sample. It is noticeable that although a few Hausa discourse marker tokens (*to* ‘right, okay, so’) do occur, there are hardly twenty in all, this being indicative of the much shorter time span Hausa has been in large-scale contact with NA as compared to Kanuri.

The question of origin has two aspects, one the ultimate origin, the other how it got into NA. *bel* ‘belt’ is ultimately of English origin, but the same word is also found in Hausa (*bel*) and in Kanuri (*bêl*). Given that both of these languages are dominant ones, it is likely that *bel* entered NA from one of these, not directly from English. The statistics above are the ultimate origin. The medial origin (travel words) is much harder to trace. Using the corpus, it is possible to discern likely paths. For instance, NA *sanāʔa* ~ *sapa* ‘trade, occupation, profession’ is cognate with both Standard Arabic *šināʔa* ‘art, occupation, craft’ and Hausa *sanāʔā* ‘trade, craft, profession’. Considering the distribution of *sapa* among speakers who have no knowledge of Standard Arabic, it is likely that the word reached NA via Hausa.

Non-Arabic phonology will often be maintained in the loanword. However, as can be discerned from loanwords of higher frequency, usually there is variation between retention of the source phoneme and adaptation. For instance ‘police’ comes in two forms, *polīs* and *folīs* (Owens 2000: 278). The [p] variant occurs in 19 tokens distributed among eight speakers, the [f] in 18 tokens among six speakers. Inspection of the statistics shows only a tendential bias towards [f] among women and villagers. Both variants appear therefore to be widespread. Note in this case that variation between [p] and [f] is also endemic to Kanuri, so it is likely here that the variation itself was borrowed.

3.3 Syntax

There are three strong candidates for contact-induced change in the syntactic domain: word order, ideophones and an expansion and realignment of demonstratives.

3.3.1 Word order and ideophones

NA has only two pre-noun modifiers, *gōlit* ‘each’, *kunni* ‘each’.

- (4) *gōlit* *ʔid* *nulummu*
each holiday gather.IMPF.1PL
‘We would gather at each festival.’

Otherwise NA is head-N-initial, which means that *čatt* ‘all’ and *kam* ‘how many’ are post-N, while demonstratives only have a post-N position (as in EA).

- (5) *numšu* *be* *ʔaḥuwāt-na čatt-ina*
go.IMPF.1PL with sisters-1PL all-1PL
‘We go with our sisters, all of us.’
- (6) *tağīb* *ḍahaḅ kam*
bring.IMPF.2SG.M gold how.much
‘How much gold do you bring?’

The post-nominal-only demonstrative would have been inherited from EA. *čatt* ‘all’ mirrors the post-nominal alternative for *kull*, both taking a pronoun cross-referencing the head noun. Therefore, strictly speaking, the only innovation is the post-nominal position of *kam* ‘how many’, and an argument could be made that internal analogies lead NA towards a more consistent head-first noun-phrase order. By the same token, Kanuri is also consistently head-first order in the NP, so it could be that contact with Kanuri accelerated an inherited trend.

The numeral phrase has undergone considerable re-structuring. From ‘twenty’ upwards, the order is decade–ones.

- (7) *talātīn haw wāhid*
thirty and one
‘thirty one’

Though inherited teens do occur, the usual structure is ten–ones.

- (8) *ʔasara haw wāhid*
ten and one
‘eleven’

This order mirrors that of Kanuri (Hutchison 1981: 203), and indeed that of most languages in the immediate Lake Chad area. Uzbekistan Arabic has the

same numeral order and structure as NA, and in these cases independent contact events are likely the reason for the shift from an inherited structure.

A new syntactic category (for Arabic), that of ideophones, is described in detail in Owens & Hassan (2004) (see *tul* in (11b) below). To date in the dictionary of NA in progress there are 342 ideophones, about 4% of the lemma total.

3.3.2 Demonstratives

Formally, NA demonstratives reproduce their inherited forms, and therefore are virtually identical to paradigms found in various Egyptian dialects, except that, in consonance with NA morphology, feminine plural has a distinct form, which most Egyptian dialects have neutralized (see Table 2).

Table 2: NA demonstratives

	Near		Far	
	Singular	Plural	Singular	Plural
Masculine	da	dōl	ďāk	ďōlak
Feminine	di	dēl	ďik	ďēlak

As with all Arabic demonstratives, NA demonstratives are used both as modifiers and pronominally. The traditional, inherited functions are entity referential (*al-bēt da* ‘this house’), and propositional anaphoric (*?ašān da* ‘because of this’, where ‘this’ references an introduced proposition).

Additionally, however, the demonstratives occur in several contexts which either are not attested at all, or are attested only on an extremely infrequent basis in other Arabic dialects. I summarize these here.

1. Marking the end of dependent clauses, whether relative, conditional or adverbial.

Usually *da* is the default form in this function, though in the case of relative clauses the demonstratives often agrees with the head noun.

- (9) Conditional clause

[kan gul balkallam kalām-hum da] ma
 [if say.PRF.1SG speak.IMP.1SG language-3PL.M DEM.SG.M] NEG
 bukūn
 possible
 ‘If I said I speak their language, it is not possible.’

(10) Relative clause

balkallam le-əm be l-luqqa
speak.IMPF.1SG to-3PL.M with DEF-language
l-biyarifū-ha di
REL-know.IMPF.3PL.M-3SG.F DEM.SG.F
'I speak to them in the language which they know.'

2. Text referential, cataphoric.

da is used cataphorically to foreshadow a propositional expansion. In (11) the speaker is asked how he farms. Instead of answering directly, he introduces his answer with the cataphoric use of *da*, which is then expanded upon in the following independent proposition.

(11) a. kēf tihērit

how farm.IMPF.2SG.M
'How do you farm?'

b. baharit da, al-hirāta l-wād-e tul di
farm.IMPF.1SG DEM.SG.M DEF-farming DEF-one-F only DEM.SG.F
d-duḥun
DEF-millet
'How I farm? The one type of farming is only millet.'

3. Deictics.

A number of deictic words, mainly adverbs, are marked by demonstratives, in this case nearly always *da*. The deictics include *hassa* 'now', *dugut* 'now', *wakit* ~ *waqit* 'now', *tawwa* 'previously, formerly', *hine/hinēn* 'here', *awwal* 'first, before', *gabul* 'previously, before', *baʔad* 'afterwards', *alōm/alyōm* 'today', *bukura* 'day after tomorrow', *amis* 'yesterday', *albāre* 'yesterday evening', *ambākir* 'tomorrow', *məṇṇaṣabá* 'in the morning', *qādi* 'there', *hināk* 'there', *hağira* '(a place) away from here', *bilhēn* 'much'.

(12) hağira da ma mašēt
away DEM.SG.M NEG go.PRF.1SG
'I didn't go away anywhere.'

(13) albāre da as-sarārik daḥalo
yesterday DEM.SG.M DEF-thieves enter.PRF.3PL.M
'Yesterday evening thieves broke in.'

4. Demonstratives mark pronouns, in this case often agreeing with the pronoun in terms of number and gender, and other demonstratives, where usually *da* occurs.

- (14) a. *inti di ġībi le-i š-suqúl da*
 2SG.F DEM.SG.F bring.IMP.SG.F to-OBL.1SG DEF-thing DEM.SG.M
 ‘You there bring me the watchamacallit.’
- b. *ʔard gaydam dōla da kula ʔarab*
 land Geidam DEM.PL.M DEM.SG.M also Arab
 ‘In the land around Geidam and the like are also Arabs.’

Basic attributes of these expanded functions can be given in cursory manner.

Concerning frequency, the occurrence of demonstratives in these functions on a token basis is high. For instance, there are 887 tokens of *qādi* ‘there’ in the corpus, of which 108 or 12% are marked by *da*. The highest percentages of demonstratives in these functions occur with dependent clauses and the 3SG pronouns *hu* ‘he’ and *hi* ‘she’. For *hu*, nearly 25% of all tokens occur with *da* (586/2407 24.3%). As far as the four innovative functions summarized above are concerned, a sample of 1318 tokens of *da* gathered from an arbitrary selection of 45 texts in the corpus reveals the data presented in Table 3. While the inherited referential functions constitute the largest single class, they make up only 53% of the total. The remaining 47% are functionally innovative.

Table 3: Functions of *da* in NA

Function	Percentage of total
Inherited functions	53.4%
Entity referential	42.3%
Proposition-anaphoric	11.1%
Innovative functions	46.7%
Cataphoric-propositional	7.2%
Dependent clause	18.7%
Adverbs/deictic	12%
Pronouns, demonstratives	8.8%

The syntactic, pragmatic and semantic nuances of using or not using the demonstratives in these innovative contexts have yet to be worked out. The two

It clearly, however, has a different functionality from NA pronoun + demonstrative. In EA the construction consistently is anaphoric to a previous proposition or situation, as in (17), where it introduces a previously-established topic to a following descriptive qualification. In 11 of the 58 tokens in the EA corpus it is followed by a relative clause, as in (17). Most tellingly, there are 2,677 *huwwa* (~ *hu*, *hū*, *hiwwa*, *hūwa*) tokens, of which only 58, or 2% are followed by *da* (~ *dah*, *dih*, *deh*, *dī*). This compares to the nearly 25% *hu + da* tokens in NA noted above. Moreover, in the NA sample, no tokens of *hu da* are followed by a relative clause. In this same statistical vein, the total number of singular proximal demonstratives in NA amounts to 16,774 tokens (14,591 *da*, 2,183 *dī*). In the EA corpus there are only 8,239 (4,996 *da*, 3,243 *dī*). Given that the corpora sizes are comparable (EA in fact a little larger), the demonstratives in NA are vastly over-proportional. This preponderance is due to *da*. Clearly there is a case to be answered: what accounts for the vastly higher frequency of the 3sg.M demonstrative in NA? Recall, in answering this question, that behind the simple statistical comparison is a fundamental historical one as well. Ancestral NA came from ancestral EA. The initial populations, it needs to be assumed, had a demonstrative system like that of EA, and the majority of NA demonstrative tokens (see Table 3) still reflect this system. A blunt historical linguistic question is what caused the vast shift in frequencies.

From these initial, basic observations, it does not appear that the greatly expanded functionality of the demonstrative in NA can be explained by an increasing grammaticalization of the demonstrative.² This follows from two observations. First, the expanded functions of the demonstrative in Table 3 are, with the exception of the boundary-marking of dependent clauses (10), not those associated with the grammaticalization of demonstratives (e.g. the 17 trajectories of demonstratives in Diessel 1999). Secondly, NA and EA split over 400 years ago. One of the branches, represented by NA, underwent the considerable changes outlined here, whereas the other branch, EA, probably did not change at all (i.e. sentences such as (17) were probably present in EA in 1200, and before).³ There is thus no natural or inherent tendency for demonstratives to expand as in Table 3. It can thus be safely assumed that the expanded functionality of the NA demonstrative was due to contact.

²I do not at all agree with Heine & Kuteva (2011) and Leddy-Cecere (this volume) that changes due to contact can be assimilated to a type of grammaticalization process, so the following contact-based account is independent of grammaticalization. Grammaticalization, in Meillet's original sense, pertained only to internally-motivated changes.

³Cf. Damascus, which has an identical construction to that of EA. There are parallels also in Classical Arabic, so this type of construction is probably proto-Arabic. If so, it only heightens the degree to which NA has innovated away from an original, stable structure.

In fact, there is a good deal of *prima facie* evidence supporting this supposition. However, as is so frequently the case when one suspects pattern (metatypical)-type contact influence which is probably centuries old, support for the position will be indexical. Moreover, in the current case one is most probably dealing with a large-scale areal phenomenon in the Lake Chad area (and perhaps beyond) which encompasses well over a hundred languages. In this summary chapter it will therefore have to suffice to rather peremptorily indicate that throughout the region there is a referential marker, sometimes a demonstrative, sometimes an article-like element, sometimes an element with both demonstrative and article-like properties, which consistently has the distribution of (9–16). Some languages have a better fit than others, and, of course, they will differ in detail in their language-internal functionality. A basic pattern is illustrated in (18) with Kanuri (Hutchison 1981: 47, 207, 218, 234, 241, 270), and summary references are made for Bagirmi, Wandala and Fali. So far as is known, Fali and Wandala had no significant contact with NA or its WSA relatives.

The Kanuri determinative *-da* has the following functions.

(18) Kanuri (Nilo-Saharan/Saharan)

Anaphoric entity reference

- a. obligatorily ends RC and optionally many adverbial clauses; = (9), (10)
- b. pronoun focus; = (14)
- c. marks adverbs; = (12), (13)

The only Kanuri structure missing from the list appears to be the propositional cataphoricity illustrated in (11).

Wandala (Frajzyngier 2012: 507–34, 603) has two morphemes: *-na* which is broadly glossed as a determiner and *-w* ‘that’. *-na*, besides marking entity reference, obligatorily marks the ends of a relative clause, and optionally a conditional (=9, 10); it occurs as an obligatory element in certain time/place adverbs (=12, 13); it is part of the previous mention marker *ɲán-na*; *ɲán* itself is said to originally be a third person singular pronoun, so there is a structural parallel to *hu + da*. *-w* functions as a topic marker that marks pronouns (=14).

In Fali (Adamawa; Niger-Congo) the demonstratives *gi/go* also obligatorily mark the end of relative and conditional clauses (=9, 10), subject focus (=14), and occur with some adverbs (=12, 13).

In Bagirmi a “determiner particle” *-na* is a constitutive part of the demonstrative *enna* < *et-na* ‘this’, and *-na* alone obligatorily marks the end of relative clauses, and can emphasize pronouns, adverbs and entire sentences (Stevenson 1969: 40, 51, 54).

Areal features typically are not sensitive to language family, and this appears to be the case in this brief exemplification. Kanuri and Bagirmi are Nilo-Saharan, Wandala is Chadic, Fali is Niger-Congo, and Arabic is Semitic. Only Wandala and Arabic are very distantly related genetically. Nonetheless, in all of the languages there is a deictic–referential marker (demonstrative, determiner, demonstrative–determiner) which, besides a classic deictic or anaphoric function, surfaces in an extended range of identical (cf. marking boundary of dependent clause) or similar (pronouns, adverbs)⁴ functions. These extended functions are precisely those which distinguish NA from other varieties of Arabic. The case for contact follows from two directions: in certain (not all) respects, NA deviates markedly from a putative ancestral source shared with EA, and where it does, its deviation corresponds broadly to analogous categories in co-territorial languages.

3.4 Semantics

The innovative distribution of the NA demonstratives is striking for the degree to which it appears to have raised the overall demonstrative token count, relative to EA. Discerning its presence in a text, however, is a straightforward matter. A much subtler, but no less pervasive instance of contact-based change pertains to idiomaticity. Like the demonstrative, this has a semantic and a formal aspect. Semantically, meanings emerge which are, for Arabic, unique, as in the following.

- (19) a. rās al-bēt
 head DEF-house
 ‘roof’
 b. nādim rās-a
 person head-3SG.M
 ‘an independent person, person of his own means’
- (20) a. tallāfo galb-i
 spoil.PRF.3PL.M heart-1SG
 ‘They angered me.’
 b. galb-a helu
 heart-3SG.M sweet
 ‘He is happy.’

⁴The comparativist is limited to the extant reference grammars. These are in many instances excellent. Still, I suspect that they understate the flexibility of distribution of elements such as the deictic marker discussed here. *Mea culpa*, in Owens (1993: 88, 221, 235) the extended functions of the demonstrative described in this chapter for NA were treated in disparate sections, with no overall focus.

Formally the idioms are distinctive (as Arabic collocations) in bringing together lexemes which in other dialects would hardly co-occur, like [tallaf + galb] or [galb + helu]. The idiomatic meanings of the keywords (e.g. *tallaf*, *galb*) are, in usage terms, often the typical usage for a given lexeme. In the NA corpus, for instance, of 101 tokens of *galb* ‘heart’ all of them, 100%, are idiomatic. There is no reference to a physical heart. Similarly, *rās* is 80% idiomatic (247/308 tokens; Ritt-Benmimoun et al. 2017: 53). Thus, while idiomaticity has been consistently ignored as a theoretical issue in historical linguistics in general and in Arabic in particular, on a usage basis it is an integral aspect of understanding the lexical texture of the language.

Here as well NA is strikingly different from EA, as again can be determined from corpora-based comparison. In general, though both NA and EA share idiomatic keywords (*galb/?alb* and *rās* are frequent in both, for instance), their meanings and their collocational environments hardly overlap. For instance, in the EA corpus there are 110 tokens of *galb/?alb* ‘heart’, of which 102 or 93% are idiomatic. This percentage closely parallels that of NA idiomatic *galb*. The typical EA collocate of idiomatic *?alb*, however, is very different. The most frequent meaning is ‘center of X’, *?alb il-baħr* ‘middle of the sea’. This meaning is entirely lacking in NA, and consequently collocates like *!galb al-baħar* (! = collocationally/semantically odd) are also lacking.

How different NA idiomaticity (meaning and collocational environment) is from EA was shown recently in Ritt-Benmimoun et al. (2017). There a three-way comparison was conducted between EA, southern Tunisian Arabic and NA, looking at three idiomatic keywords frequent in all three dialects: *rās*, *galb* ‘heart’, and *ʕēn* ‘eye’. EA and southern Tunisian, though separated by a longer period of time (ca. 1035–present) than EA–NA (ca. 1300–present), showed a much higher identity of idiomatic structure than EA–NA (or NA–southern Tunisian). Both EA (21a) and Tunisian Arabic (21b), for instance, maintain the same lexemes, same structure, same idiomaticity in a highly specific meaning.

- (21) a. Egyptian Arabic
 ḥaṭṭ rās-u fi t-turāb
 put.PRF.3SG.M head-3SG.M in DEF-ground
 ‘He humiliated him.’
- b. Tunisian Arabic
 ḥaṭṭ-l-a rās-a fi t-trāb
 put.PRF.3SG.M-to-3SG.M head-3SG.M in DEF-ground
 ‘He humiliated him.’

These are nonsensical, or literal collocations in NA.

The comparison between EA and southern Tunisian Arabic serves as a similar baseline to comparing the overall demonstrative frequencies between EA and NA. The same question occurs. Why is NA different?

In this case the answer is even clearer than with the demonstrative. Essentially, NA has calqued its idiomatic structure (meaning and collocation) from Kanuri. The Kanuri of (19a) and (20b), for instance, are as in (22).

- (22) a. *kəla fato-be*
 head house-GEN
 ‘roof’
 b. *kam kəla-nzə-ye*
 person head-3SG.M-GEN
 ‘an independent person, person of his own means’

A ‘roof’ in both languages is the ‘head of a house’, an independent person is a ‘person of his head’, and so on, for something in the range of 70–80% of all the approximately 340 idioms studied (see Owens 1996; 2014; 2015; 2016b for details).

In summary, a large part of NA lexical structure is, as it were, not Arabic, but rather, as termed in Owens (1998), part of the Lake Chad idiomatic area. This identity, however, exists only at a semantic and collocational level. In their basic meaning, and their phonology, morphology and syntax, even in the context of idioms (Owens & Dodsworth 2017), the constituent lexemes *rās*, *bēt*, *tallaf*, *galb* etc. in NA are indistinguishable from any variety of Arabic at all.

There doubtless remains a good deal more systematic, contact-based correspondence between NA and languages of the Lake Chad area to be explored. The influence on NA is significant.

4 Conclusion

According to the historico-demographic background to NA, this variety did and does live with co-territorial languages, particularly Kanuri, today increasingly with Hausa, and in the past, Fulfulde and other smaller languages. NA bilingualism should, presumably, manifest itself in borrowing. Equally, NA speech communities have incorporated speakers of other languages into its fabric. The expectation here is that NA would be influenced via shift (imposition) from other languages.

In the domains summarized here, it is hard to discern a clear correlation between linguistic outcome and type of contact. There has been some phonological

change, which in Van Coetsem's (1988; 2000) model is suggestive of change via shift (imposition), but the influence is limited to the features discussed in §3.1. What I believe is more striking than the contact-induced phonological change is the maintenance of inherited structures. NA still maintains a robust series of emphatics, has a non-reductive syllable structure reminiscent of, *inter alia*, Tihāma varieties, has classic distinguishing syllable structure attributes such as the *gahawa* syndrome (*ahamar* 'red') and the *bukura* syndrome (*bi-ǧiri* 'he runs'), to mention but a few. If the changes in (9–16) are due to imposition, it is equally clear that the "imposers" otherwise learned/learn a very normal Arabic.

Classic borrowing is moderate. The fact that discourse markers and conjunctions are token-wise frequent suggests that speakers were/are conversant in both Kanuri and Arabic. This does not, however, indicate whether these loans arose through imposers or borrowers. Moreover, to complicate matters even more, assuming Kanuri to have been the widespread lingua franca in the past, it would not need to have been native Kanuri speakers who imposed the Kanuri into Arabic. Speakers of Fulfulde, Kotoko, Malgwa or other languages would have been involved as well. As shown in Owens & Hassan (2010), discourse markers are prevalent in code-switching, which here would be conducted by Arabs code-switching between Arabic and Kanuri. From this scenario the discourse markers entered as borrowed elements.

The interpretation of demonstratives and idiomatic structure is equally ambiguous. The easiest development to envisage is L2 Arabic speakers imposing their L1 Kanuri, Fulfulde etc. usage onto their L2 Arabic. What makes this interpretation attractive is that it explains why in both cases such a massive importation of non-Arabic structure came into Arabic. As the name implies, these speakers could simply have imposed their own semantics and collocational alignment onto Arabic. Equally, however, it is not impossible that L1 Arabic speakers, fully bilingual in Kanuri and/or other languages simply shifted their Arabic usage to accommodate to their L2. Full fluency implies knowing idiomatic structure and the use of demonstratives, which the Arab borrowers could eventually incorporate into their own Arabic.

The only obvious common denominator to these musings is that the speakers would have been highly fluent in their respective L2s, whether L2 Arabic speakers shifting to Arabic or L1 Arabic speakers fluent in Kanuri or other languages borrowing from their L2. The issue is only partly who the L1 and L2 speakers are. It is equally how well the populations knew/know Arabic/other languages, and how the high level of fluency produces the results shown.

Adding to the interpretive problem is that neither of the domains, idiomaticity or the expansion of demonstratives as it occurred in NA, have a comparative basis. Idiomaticity in the recent western linguistic tradition has been all but entirely subordinated to metaphor theory (Lakoff & Johnson 1999; see Haser 2005 for one critical perspective). It has received very little principled historical interpretation, and what work has been done (e.g. Sweetser 1990) tends to follow a Lakoffian paradigm and to be confined to European languages and to societies quite different from that of Nigerian Arabs. As far as demonstratives go, the little work that has been done on the languages co-territorial with NA (e.g. Kramer 2014: 141 on Fali), assume a grammaticalization of demonstrative usage *ab novo* via grammaticalization processes. Assuming such a perspective for the development of NA gives the lie to this simple assumption for the following reason. It would need to explain why the grammaticalization process did not take place in EA or other Arabic varieties, but did in NA, which is spoken in an area where the co-territorial languages, historically antecedent to Arabic, have the structures which NA acquired. If change via contact is the only plausible explanation for NA, it equally needs to be entertained for any language in the Lake Chad region.

Given so many open variables, it might be interesting to approach the issue from the opposite perspective, namely, what parts of language were not influenced by contact. Most of phonology was not, morphology hardly at all, syntax to a degree, basic vocabulary little.⁵ This minimally implies that if the contact changes were due to shift, the shifters in other domains (those where they did not impose idiomaticity or demonstrative usage) acquired a native-like competence in Arabic. In this respect it might be easier to envisage L1 Arabic borrowers maintaining these structures, and borrowing idiomaticity/demonstrative usage via their L2.

At the end of the day I think the range of questions evoked far surpasses the ability of currently-formulated linguistic theories of contact or language change, whether based on sociolinguistic or on cognitive perspectives (Lucas 2015: 523) to provide profound insight into how the obvious, and in some cases pervasive influence on NA via contact came about. It would be more fruitful to turn the question around and ask how rich databases such as exist for NA, EA and some other Arabic dialects inform the overall issue of change via contact.

⁵A Swadesh 100-word list gives something in the range of 79–83% cognacy with other varieties of Arabic.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person	N	noun
DEF	definite article	NA	Nigerian Arabic
DEM	demonstrative	NEG	negative
DM	discourse marker	NP	noun phrase
EA	Egyptian Arabic	OBL	oblique
EXS	existential	PL	plural
F	feminine	PRF	perfect (suffix conjugation)
GEN	genitive	REL	relative
IMPF	imperfect (prefix conjugation)	SG	singular
M	masculine	WSA	Western Sudanic Arabic
N	number		

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Chapter 9

Maghrebi Arabic

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This chapter gives an overview of contact-induced changes in the Maghrebi dialect group in North Africa. It includes both a general summary of relevant research on the topic and a selection of case studies which exemplify contact-induced changes in the areas of phonology, morphology, syntax, and lexicon.

1 The Maghrebi Arabic varieties

In Arabic dialectology, MAGHREBI is generally considered to be one of the main dialect groups of Arabic, denoting the dialects spoken in a region stretching from the Nile delta to Africa's Atlantic coast – in other words, the dialects of Mauritania, Morocco, Algeria, Tunisia, Libya, parts of western Egypt, and Malta. The main isogloss distinguishing Maghrebi dialects from non-Maghrebi dialects is the first person of the imperfect, as shown in Table 1 (cf. Lucas & Čěplö, this volume).¹

Table 1: First-person imperfect 'write' in Maghrebi and non-Maghrebi Arabic

	Non-Maghrebi		Maghrebi	
	Classical Arabic	Baghdad Arabic	Casablanca Arabic	Maltese
Singular	<i>aktub</i>	<i>aktib</i>	<i>naktəb</i>	<i>nikteb</i>
Plural	<i>naktub</i>	<i>niktib</i>	<i>nkətbu</i>	<i>niktbu</i>

¹More about the exact distribution of this isogloss can be found in Behnstedt (2016).



This Maghrebi group of dialects is in turn traditionally held to consist of two subtypes: those spoken by sedentary populations in the old urban centers of North Africa, and those spoken by nomadic populations. The former of these, usually referred to as “pre-Hilali” (better: “first-layer”) would have originated with the earliest Arab communities established across North Africa (~7th–8th centuries CE) up to the Iberian Peninsula. The latter of these, usually referred to as “Hilali” (better: “second-layer”), is held to have originated with the westward migration of a large group of Bedouin tribes (~11th century CE) out of the Arabian Peninsula and into North Africa via Egypt. Their distribution is roughly as follows.² First-layer dialects exist in cities such as Tunis, Kairouan, Mahdia, Sousse, Sfax (Tunisia), Jijel, Algiers, Cherchell, Tlemcen (Algeria), Tangier, Tetuan, southern Rif villages, Rabat, Fez, Taza, so-called “northern” dialects (Morocco), Maltese, and formerly Andalusian and Sicilian dialects; most Judeo-Arabic dialects formerly spoken in parts of North Africa are also part of this group. Second-layer dialects are spoken by populations of nearly all other regions, from western Egypt, through all urban and rural parts of Libya, to the remaining urban and rural parts of Algeria and Morocco. Though some differences between these two subtypes are clear (such as [q, ʔ, k] vs. [g] for *q), there have probably been varying levels of interdialectal mixture and contact since the eleventh century CE. In many cases, first-layer varieties of urban centers have been influenced by neighboring second-layer ones, leading to new dialects formed on the basis of inter-dialectal contact. It is important to note that North Africa is becoming increasingly urbanized and so not only is the traditional sedentary/nomadic distinction anachronistic (if it was ever completely accurate), but also that intensifying dialect contact accompanying urbanization means that new ways of thinking about Maghrebi dialects are necessary. It is also possible to speak of the recent but ongoing koinéization of multiple local varieties into supralocal or even roughly national varieties—thus one can speak, in a general way, of “Libyan Arabic” or “Moroccan Arabic”. This chapter will not deal with contact between mutually intelligible varieties of a language although this is equally important for the understanding of both the history and present of Maghrebi dialects.³

²More will not be said about the subgroups of Maghrebi dialects that have been proposed. For more details about the features and distribution of Maghrebi dialects see Pereira (2011); for more detail on the complex distribution of varieties in Morocco see Heath (2002).

³The emergence of new Maghrebi varieties resulting from migration and mixture is discussed in Pereira (2007) and Gibson (2002), for example. The oft-cited distinction between urban and nomadic dialects is also problematized by the existence of the so-called rural or village dialects (though this is also a problematic ecolinguistic term), on which see Mion (2015). Dialect contact outside of the Maghreb is discussed by Cotter (this volume).

2 Languages in contact

Contact between Arabic and other languages in North Africa began in the late seventh century CE, when Arab armies began to spread westward through North Africa, reaching the Iberian Peninsula by the early eighth century CE and founding or occupying settlements along the way. Their dialects would have come into contact with the languages spoken in coastal regions at that time, including varieties of Berber and Late Latin, and possibly even late forms of Punic and Greek. The numbers of Arabic speakers moving into North Africa at the time of initial conquests were likely to have been quite small.⁴ By the time of the migration of Bedouin groups beginning in the eleventh century, it is doubtful that languages other than Berber and Arabic survived in the Maghreb. The Arabization of coastal hinterlands and the Sahara increased in pace after the eleventh century. Berber varieties continue to be spoken natively by millions in Morocco and Algeria, and by smaller communities in Libya, Tunisia, Mauritania, and Egypt. Any changes in an Arabic variety due to Berber are almost certainly the result of Berber speakers adopting Arabic rather than Arabic speakers adopting Berber – the sociolinguistic situation in North Africa is such that L1 Arabic speakers rarely acquire Berber.

Beginning in the sixteenth century, most of North Africa came under the control of the Ottoman Empire and thus into contact with varieties of Turkish, although the effect of Turkish is essentially limited to cultural borrowings (see §3.4). The sociolinguistic conditions in which Turkish was spoken in North Africa are poorly understood.

The advent of colonialism imposed different European languages on the region, most prominently French (in Mauritania, Morocco, Algeria, and Tunisia), Italian (in Libya), and Spanish (in Morocco). Romance words in dialects outside of Morocco may also derive from forms of Spanish (via Andalusí refugees to North Africa in the 16th–17th centuries) or from the Mediterranean *Lingua Franca*.⁵

The effects on Maghrebi Arabic of contact with Chadic (e.g. Hausa) or Nilo-Saharan (e.g. Songhay, Tebu) languages is largely unstudied since in most cases data from the relevant Arabic varieties is lacking. Yet some borrowings from these languages can be found in Arabic and Berber varieties throughout the region (Souag 2013).⁶ Lastly, Hebrew loans are present in most Jewish Arabic dialects of North Africa (Yoda 2013), though unfortunately these dialects hardly exist anymore.

⁴See Heath (this volume) for discussion of Late Latin influence in Moroccan Arabic dialects.

⁵On the *Lingua Franca* see Nolan (this volume).

⁶See also Souag (2016) for an overview of contact in the Sahara region not limited to Arabic.

To restate these facts in Van Coetsem's (1988; 2000) terms, there are two major contact situations at work in Maghrebi Arabic in general, though the specifics will of course differ from variety to variety. The first is change in Arabic driven by source-language (Berber) dominant speakers; this transfer type is IMPOSITION. The second is change in Arabic driven by recipient-language (Arabic) dominant speakers where the source language is a European colonial language; this transfer type is called BORROWING.⁷ So far, "dominance" describes linguistic dominance, that is, the fact that a speaker is more proficient in one of the languages involved in the contact situation. However, social dominance, referring to the social and political status of a language (Van Coetsem 1988: 13), is also important, especially in North Africa.

3 Contact-induced changes in Maghrebi dialects

3.1 Phonology

Changes in Maghrebi Arabic phonology due to contact with Berber are difficult to prove. There are several cases, for example, where historical changes in Arabic phonology may be argued to be the result of contact with Berber *or* the result of internal developments. These include the change of *ǧ to /ǰ/ in many varieties, or the emergence of phonemic /z/ (Souag 2016). Another example, the pronunciation /t/ in some first-layer varieties where most Arabic varieties have /ð/, has also been explained as a result of Berber influence, or as unclear directionality (Kossmann 2013a: 187), while Al-Jallad (2015) argues that it is actually an archaism within Arabic.

The merger in Arabic of the vowels *a and *i (and even *u) to a single phoneme /ə/ in some, especially first-layer, varieties, is often attributed to Berber influence, as many Berber varieties have only a single short vowel phoneme /ə/. However Kossmann (2013a: 171–174) points out that Berber also merged older *ǎ and *ə to a single phoneme /ə/ and that it cannot be proven that the reduction happened in Berber before it happened in Arabic. Hence, again the directionality of influence is difficult to show.

Related to this development is also that many Maghrebi varieties disallow vowels in light syllables (often described as the deletion of short vowels in open syllables), such that *katab 'he wrote' > Tripoli *ktəb* or *kitāb 'book' > Algerian *ktāb*.⁸ Meanwhile, second-layer varieties often do allow vowels in light syllables

⁷Another good illustration of the two transfer types in the Van Coetsemian framework can be found in Winford (2005: 378–381).

⁸Since the short vowels merge to schwa in many Moroccan and Algerian varieties, vowel length is no longer contrastive and it is common to transcribe e.g. *ktab* rather than *ktāb*.

(e.g. Benghazi *kitab* ‘he wrote’, Douz *mⁱšē* ‘he went’). While proto-Berber and some modern varieties allow vowels in light syllables, most Berber varieties of Algeria and Morocco do not. This is another example of a similar development wherein the directionality of influence is unclear (see Souag 2017: 62–65 for further discussion).

In the Arabic variety of Ghomara, northwest Morocco, *d and *t are spirantized to /ð/ and /θ/ initially (*d only), postvocally and finally (Naciri-Azzouz 2016): e.g. *māθəθ* ‘she died’ (*mātat), *warθ* ‘inheritance’ (although etymologically *warθ, dialects of the wider Jbala region of Morocco have no interdentals so *wart), *ḍāba* ‘now’ (*dāba), *ħəθma* ‘work’ (*ħidma), *wāħəð* ‘one’ (*wāhid). Naciri-Azzouz points out that the distribution of spirantization is the same as in Ghomara Berber, a variety spoken by groups in the same region.⁹

New phonemes have been borrowed into Maghrebi varieties through contact with European languages: for example, /p/ and nasalized vowels in more recent French loans in Tunisian Arabic, or /v, č, ğ/ in Italian loans in Libyan Arabic (*grīḡū* ‘gray’ < *grigio*).

3.2 Morphology

In the realm of morphology, changes in Arabic varieties due to contact vary depending on whether the relationship between Arabic and the contact language is substratal, adstratal, or superstratal.

Morphological influence from Berber on the Arabic varieties of the northern Maghreb is not overly common.¹⁰ In some places where Berber–Arabic bilingualism is or was more common, contact has led to the borrowing of Berber nouns into Arabic together with their morphology, a phenomenon known as “parallel system borrowing”.¹¹ In Ḥassāniyya, for example, many nouns have been transferred together with their gender and number marking.¹² In the dialect of Jijel, Berber singular nouns are transferred together with their prefixes (*āwtūl* ‘hare’, cf. Kabyle *āwtūl*); plurals are then formed in a way which resembles Berber but is

⁹The Berber variety of Ghomara exhibits an extreme amount of influence from dialectal Arabic, see Mourigh (2015). Kossmann (2013a: 431) writes that given the existence of parallel morphological systems for virtually all grammatical categories (nominal, adjectival, pronominal and verbal morphology) and a high loanword count (more than 30% of basic lexicon is Arabic) it would be possible to call Ghomara Berber a mixed language.

¹⁰Documentation of the varieties where such influence would be more expected, such as Arabic-speaking towns in the otherwise Berber-speaking Nafusa Mountains in Libya, is lacking.

¹¹For a closer look at parallel system borrowing in the context of Arabic and Berber contact, see Kossmann (2010), mostly discussing the borrowing of Arabic paradigms into Berber.

¹²See Taine-Cheikh (this volume).

not identical (Jijel *āsrəf*, *āsarfan* ‘bush(es)’, cf. Kabyle Berber *āsrəf*, *īsarfan*); moreover, the prefix *ā-* is also used with nouns of Arabic origin (*āfhəd* ‘thigh’, Arabic *faḥaḏ) (Marçais 1956: 302–318).

In Algeria and Morocco the circumfix *tā-...-t*, which occurs on feminine nouns in Berber, can derive abstract nouns (e.g. Jijel *tākəbūrt* ‘boasting’, *tāwəḥḥūnt* ‘having labor pains’) and in Moroccan Arabic *tā-...-t* is the regular way of forming nouns of professions and traits (e.g. *tānəžžārt* ‘carpentry’) (Kossmann 2013b).

The verbal morphology of Arabic dialects is much less affected by Berber, though Ḥassāniyya again provides an interesting example. It has a causative prefix *sā-* used with both inherited Arabic verbs and borrowed Berber verbs, and most likely to be borrowed from Berber causative forms in *s-/š-* (Taine-Cheikh 2008).

Turkish influence on morphology is restricted to the suffix *-ḡi/-ži* (< *-ci*) used to indicate professions and borrowed widely into Arabic dialects in general. In Tunisia, its use has been extended to derive adjectives of quality from nouns (*sukkārzi* ‘drunkard’) and has also even been added to borrowed French nouns (*bankāzi* ‘banker’ < French *banque*). As Manfredi (2018: 410) points out, the productivity of this borrowed derivational morpheme constitutes one example of how recipient-language agentivity can introduce morphological innovations via borrowing.

French (and other Romance) verbs are also routinely borrowed into Maghrebi varieties. Talmoudi (1986) discusses their integration into different forms of the verbal system of Tunisian Arabic, e.g. *mannak* ‘to be absent’ < French *manquer* (1986: 81–82) or (*t*)*rānā* ‘to train’ < French *entraîner* (1986: 21–24).

3.3 Syntax

Syntax is often the least documented aspect of the grammar of Maghrebi Arabic varieties and research on contact-induced changes in syntax is still in its infancy. Much attention has been devoted recently to explaining the rise of bipartite negation in Arabic and Berber; in varieties of both languages the word for ‘thing’ (Arabic *šayʔ*, Berber **kāra*) has been grammaticalized postverbally in a marker of negation:

- | | |
|--|---|
| <p>(1) Arabic (Benghazi)</p> <p>mā-šift-hā-š</p> <p>NEG-see.PRF.1SG-3SG.F-NEG</p> <p>‘I didn’t see her’.</p> | <p>(2) Berber (Tarifit)</p> <p>wā t-zriy ša</p> <p>NEG 3SG.F-see.PRF.1SG NEG</p> <p>‘I didn’t see her’.</p> |
|--|---|

Although some accounts give no attention to Berber, while others attribute the Arabic development solely to Berber, the development in both languages in the same contexts is probably not a coincidence, though there is no current consensus on the direction of transfer – see Lucas (this volume) for discussion.¹³ However, it must be noted that not all Berber varieties have double negation (e.g. Tashelhiyt *ur nniy ak* ‘I didn’t tell you’ where the only negator is *ur*).

In another area, recent work on the variety of Tunis has yielded interesting conclusions: while possessives with French nouns are overwhelmingly analytic (*l-pronunciation mtēf-ha* ‘her pronunciation’) and those with Arabic nouns are almost as overwhelmingly synthetic (*nutq-u* ‘his pronunciation’), the frequent occurrence of French loan nouns may be triggering an increase in the overall frequency of analytical possessives over syntactic ones, including those with Arabic nouns (Sayahi 2015).

The remainder of this section will discuss one particularly interesting case: the first-layer dialect of Jijel, a city in eastern Algeria. At the time of its description (Marçais 1956), it showed little influence from second-layer varieties, but displayed wide-ranging influence from Berber in multiple domains. In a recent article, Kossmann (2014) has demonstrated how a Berber marker of non-verbal predication was adopted into the Arabic dialect of Jijel as a focus marker. Here I will briefly summarize Kossmann’s arguments with a few examples. In the Jijel dialect, as described by Marçais and reanalyzed by Kossmann, a morpheme *d* occurs in the following syntactic contexts (examples (3–7) are all from Kossmann 2014: 129–131, who retranscribes from Marçais’ texts): before non-verbal predicates (3), in clefts with a noun/pronoun in the cleft (4), in secondary predication with a specific noun (5), as a marker of subject (or object) focus (6), and in left-moved focalizations (7).

(3) l-lila d-əl-ʕid
DEF-night D-DEF-feast
‘Tonight is the feast.’

(4) d-hum əddə šraw-əh qbəl-ma nəzdad
D-3PL.M REL buy.PRF.3PL.M-3SG.M before-COMP be.born.IMPF.1SG
‘It is them who bought it before I was born.’

¹³See Lucas (2007; 2010; 2018) and Souag (2018) for further discussion of the grammaticalization of ‘thing’ for indefinite quantification and polar question marking in Arabic and Berber. Kossmann (2013a: 324–334) surveys the situation in the Berber languages. See Lafkioui (2013) for an overview of negation in especially Moroccan Arabic, as well as discussion of a variety of Moroccan Arabic which features the discontinuous morpheme *mā- ... -bū*, where the latter part has been borrowed from Tarifit.

- (5) ɾa-na nqəttʃu-č d ət-ɾraf
 PRST-1PL cut.IMPF.1PL-SG D DEF-pieces
 ‘We will cut you (into) pieces.’
- (6) tkəʃʃrət d l-idura
 break.PRF.3SG.F D DEF-bowl
 ‘The bowl has broken.’
- (7) qalu d əɾ-ɾbiɣ dəhlət
 say.PRF.3PL D DEF-spring enter.PRF.3SG.F
 ‘They say spring has come.’

Although previous analyses attempted to explain *d* within Arabic, Kossmann notes that an Arabic-internal derivation of *d* is impossible. However, Kabyle, the Berber language neighboring the Jijel area has an element *d* (realized [ð]) due to spirantization in Kabyle) which is used in (pro)nominal predicates (8), cleft constructions (9), and secondary predication when non-verbal (10). Examples (8–10) are all Kabyle Berber, taken from Kossmann (2014: 135–136). This element *d* is attested in Berber more widely, too, and is likely reconstructible to older stages of the language.

- (8) d-yəlli-m
 D-daughter-2SG.F
 ‘Is it your daughter?’
- (9) d-ay-ən i d-tənnə abrid amənzɔ
 D-this-DEICT REL hither-say.3SG.F road first
 ‘This is what she said the first time.’
- (10) ad nəǧǧəl iman nn-əɣ d-inəbgiwən n ɾəbbi
 MOD make.1PL self GEN-1PL D-guests GEN lord
 ‘We shall pretend to be beggars (lit. guests of God).’

Thus Berber *d* is the best candidate for the origin of Jijel Arabic *d*, though its usage in (Kabyle) Berber (where it is primarily a marker of syntactic organization) differs from that of Jijel Arabic (where it is mainly a marker of information structure). In a simplified scenario with a Berber variety as source language and Jijel Arabic as recipient, *d* would likely have been imposed into Jijel Arabic with its exact Berber functions. As Kossmann notes, though, speech communities are full of variation and language contact is a “negotiation between the frequency of non-native speech and the prestige of the native way of speaking” (Kossmann 2014: 138). Kossmann thus proposes a scenario in which larger groups of Berber speakers switched to a variety of Jijel Arabic and began imposing their own *d*; the

native Jijel Arabic speakers, fewer in number, began adopting *d* but understood it differently and interpreted it as a focus marker, introducing it into new contexts; eventually the variety of Jijel Arabic with *d* in all these functions became nativized. Per Kossmann (2014: 138–139), two processes would have taken place: the transfer of a source-language feature by speakers dominant in the source language (Berber), followed by the borrowing of this feature by speakers dominant in the recipient language (Arabic), and its eventual regularization in that variety. Jijel Arabic is an excellent example of what may happen when large numbers of Berber speakers switch to Arabic.

3.4 Lexicon

Much work on contact and Maghrebi Arabic has focused on loanwords, the most salient effects of borrowing, with secondary attention to their phonological or morphological adaptation. The concept of social dominance has particular relevance for borrowing: in the North African context, the colonial languages, and especially French, have high social status for both Arabic and Berber native speakers. One also must modify the idea of linguistic dominance to include those who acquire two languages natively (2L1 speakers; see Lucas 2015: 525), definitely the case for certain speakers of Berber and Arabic in North Africa.

Unsurprisingly, we see firstly that the majority of words borrowed into Arabic varieties are nouns, and secondly that the lexical domains into which these borrowings fall are often restricted. Social dominance seems to play a role in the nature of the nouns borrowed.

Berber loans are found in most Maghrebi Arabic varieties, though their number ranges from only a handful of words in the east to many more in the west (cf. §3.2 above). Almost all Maghrebi varieties have borrowed the words *ʒ(i)rāna* ‘frog’ and *fakrūna* ‘turtle’, while in some oases Berber influence in agricultural terminology can be seen. Again, the documentation of the relevant varieties is often insufficient.

Several studies on contact between Maghrebi Arabic varieties and European languages exist. For French in Morocco, Heath (1989) argues that code-switching and borrowing are essentially the same in a bilingual community which has established borrowing routines.¹⁴ For French in Tunisia, Talmoudi (1986) analyzes the phonological and morphological adaptation of French verbs into Arabic.

¹⁴Van Coetsem (1988: 87) notes that for bilingual speakers who have a balance in linguistic dominance between the two languages, the separation between the two transfer types (borrowing and imposition) will be weaker. Hence, either of the two dominant languages can serve as the recipient language in code-switching behavior. Winford (2005, esp. 394–396), expanding on Van Coetsem’s framework, points out that code-switching is inherently linked to the borrowing transfer type. In the Maghreb, this scenario is possible for Berber–Arabic bilinguals as well as for some French–Arabic bilinguals. See Ziamari (2008) for an insightful and more

Sayahi (2014: 127–151) gives a broader view of lexical borrowing in diglossic or bilingual communities, focusing on French in Tunisia and Spanish in Morocco. Vicente (2005) studies Arabic-Spanish code-switching in Ceuta, a Spanish enclave in northern Morocco. Italian in Tunisia is studied briefly by Cifoletti (1994). Studies of contact with Turkish are limited to discussion of lexical borrowing: on Morocco see Procházka (2012); on Algeria, see Ben Cheneb (1922), to be read with the review by G. S. Colin (Colin 1999: 21–30).

The remainder of this section will consider the influence of Turkish and Italian on Libyan Arabic (henceforth LA), a hitherto under-researched topic. Uniquely in the Maghreb region there is at present no superstratum language spoken widely by Arabic speakers in Libya, while there are also fewer Berber speakers than in Algeria or Morocco. As far as documented varieties of LA (Tripoli and Benghazi) go, contact situations are historical and not active.

There seems to be an impression among dialectologists that LA varieties have the largest number of Turkish loans, though there is not a published basis for this. Procházka (2005: 191) suggests that the number of (Ottoman) Turkish loans in a given Arabic dialect is proportional to the length and intensity of Ottoman rule. By this criterion Libya should have quite a few, as the regions now constituting Libya were under control of the Ottoman Empire from 1551 to 1911, but Procházka estimates that the dialect would show 200 to 500 surviving loans, fewer than in other dialects. Another important factor is likely to be that Libya's population was very small during the period of Ottoman rule so that the long-term presence of even a few thousand Turkish speakers could have had a significant effect. However, I cannot yet offer a statistical analysis of Turkish words in LA.¹⁵ It is clear so far, though, that the effects of Turkish on LA can mainly be seen in the lexicon and, in my data, almost entirely in nouns. In terms of their semantic domains, Procházka (2005: 192) points out that the majority of Turkish loans in Arabic dialects in general fall into three categories, roughly described as: private life; law, government, social classes; and army, war. By far the majority of surviving loans would belong to the first of these classes (such as *šīšma* 'tap' < *çeşme*, *dizdān* 'wallet' < *cüzdan*), or the second (such as *fayramān* 'order' < *ferman*, *haḫḫa* 'week' < *haḫḫe*) while I suspect that words from the third class are increasingly rarer. Outside of these, only a few words other than nouns seem to be present, such as

recent analysis of Moroccan Arabic in contact with French using a "matrix language frame" analysis.

¹⁵The only study dedicated to Turkish loans in LA is Türkmen (1988), who lists 90 words. However, the basis for his wordlist seems unclear and several items are either spurious or incorrect (e.g. there is no word *kabak* 'pumpkin' in Benghazi Arabic but there is *bkaywa* 'pumpkin', identified by Souag (2013) as a loan from Hausa). Turkish words in LA cited here are from the Benghazi variety, author's data.

duġri ‘straight ahead’ and *balki* ‘maybe’. The length of time since Turkish was last actively spoken in Libya no doubt means that the number of Turkish loans actively used by speakers has been decreasing.

LA is unique among Maghrebi varieties in having had Italian as the main European contact language. Italian had a presence in what is now Libya from the 1800s, but this was mainly limited to the Tripolitanian Jewish community and wealthy merchant families. The Italian colonization of Libya officially began in 1911; though the majority of the region was not brought under Italian control until the early 1930s, large numbers of Italian colonists had begun to settle in Libya in the 1920s. From that period until 1970, when the remaining Italian citizens were expelled from the country, Italians made up 15% or more of the population and the language was in widespread use. From the 1970s on, Italian was scarcely used in Libya, and the teaching of foreign languages was banned in 1984, not to return again until 2005.¹⁶ Many of the postwar generation spoke (and still speak) Italian, though they rarely use it anymore, but few Libyans of younger generations do. The 1920s to the 1970s can thus be regarded as the main period of contact between LA and Italian.¹⁷ However, the concentration of Italians differed from region to region and thus may have influenced local varieties differently. The primary study devoted to analyzing Italian loans in LA is that of Abdu (1988) who, focusing on the variety of Tripoli, draws up a list of nearly 700 items (a few are misidentified), of which about 50% were recognized by a majority of those surveyed. Some 93% of these are nouns and the remainder are practically all derived from nouns or adjectives, such as *bwōno* ‘well done!’ < *buono* ‘good’ or *faryaz* ‘to go out of order’ < Italian *fuori uso*.¹⁸ Abdu’s study (1988: 248–268) groups Italian loans into some 22 semantic categories, the vast majority of which relate to material culture. Examples of these from the Benghazi variety are *byāmbu* ‘lead’ < *piombo*, *bōskō* ‘zoo’ < *bosco* ‘wood’, *furkayta* ‘fork’ < *forchetta*, *maršabīdi* ‘sidewalk’ < *marciapiede* (author’s data).

As D’Anna (2018) points out, the adaptation of Italian words to LA phonology varies: new phonemes, particularly [v] and [č], sometimes occur but are sometimes adapted to the dialects’ pre-existing phonologies, an indication of “subsidiary phonological borrowing” (Van Coetsem 1988: 98). Of course, the maintenance of new phonemes often depends on speakers continuing to have access

¹⁶For more information on the return of Italian instruction to Libya, see D’Anna (2018).

¹⁷The Italian words in Yoda’s (2005) study of Tripoli Judeo-Arabic need to be seen slightly differently than Italian words in non-Jewish dialects, owing to a different history of contact between the Tripolitanian Jewish community and Italy.

¹⁸See Abdu (1988: 271) and D’Anna (2018). Some denominal verbs are cited by Abdu, but more extensive data might reveal several more in use: for example in the variety of Benghazi, I identified *fuṛan* ‘to brake (intransitive)’ < *frayno* ‘brake’ < Italian *freno*, not listed by Abdu.

to the source language; as this is no longer the case in Libya, Italian borrowings in LA are traversing a different trajectory than French borrowings in other Maghrebi varieties, where only the oldest borrowings have been phonologically integrated.

The overwhelming majority of surviving Turkish and Italian loans in LA are nouns, widely acknowledged to be the most easily-borrowed word class due to their being the least disruptive of the recipient language's argument structure (Myers-Scotton 2002), though a few verbs derived dialect-internally do exist. Furthermore, almost all the nouns are cultural borrowings – “lexical content-words that denote an object or concept hitherto unfamiliar to the receiving society, terminology related to institutions that are the property of the neighboring [or colonizing] culture, and so on” (Matras 2011: 210). Cultural borrowings are to be differentiated from core borrowings, the latter being words that more or less duplicate already existing words and which originate in a bilingual code-switching context. These facts lead us to conclude that Turkish and Italian borrowings in Libyan varieties would be from (1) to (2) on the borrowing scale proposed by Thomason & Kaufman (1988: 78–83). While (1) of the scale involves lexical borrowing of non-basic vocabulary only, (2) includes some function words as well as new phones appearing in those loanwords. Colonial language contact situations are typically ones of recipient-language agentivity, as the number of indigenous people learning the colonial language is many times more than the number of colonizers learning indigenous languages. Without a longer period of sustained bilingualism or language education motivated by continued contact with the metropole, Italian has affected LA to a much smaller degree than French has Libya's Maghrebi neighbours.

4 Conclusion

The general parameters of the Maghrebi linguistic landscape and contact situations are relatively well understood. However, more documentation of Maghrebi varieties is needed, and more specifically, of those where contact situations – especially with Berber – may have existed. Additionally, further research into the sociolinguistic factors affecting bilingualism in Berber and Arabic, or regarding the intersection of diglossia with bilingualism, will no doubt add to our knowledge of the parameters of contact-induced change more generally. Finally, inter-dialectal contact as well as the gradual rise of national or at least supra-local varieties certainly merits continuing attention.

Further reading

- ▶ Kossmann (2013a) is the most extensive study so far of Berber–Arabic contact, written from a Berberological point of view but important for Arabists.
- ▶ Sayahi (2014) studies the intersection of dialects, Standard Arabic, French and Spanish in Tunisia and Morocco.
- ▶ Souag (2016) summarizes contact in the Saharan region among Arabic, Berber, Hausa, Songhay, Chadic, etc.
- ▶ Ziamari (2008) is the most up-to-date work discussing code-switching and borrowing strategies between Moroccan Arabic and French.

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Abbreviations

1, 2, 3	1st, 2nd, 3rd person	M	masculine
COMP	complementizer	MOD	modal
DEF	definite	NEG	negative
DEICT	deictic	PL	plural
F	feminine	PRF	perfect (suffix conjugation)
GEN	genitive	PRST	presentative
IMPF	imperfect (prefix conjugation)	REL	relative
LA	Libyan Arabic	SG	singular

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Chapter 10

Moroccan Arabic

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Morocco, even if the disputed Western Sahara is excluded, is rivaled only by Yemen in its variety of Arabic dialects. Latin/Romance sub- and ad-strata have played crucial roles in this, especially 1. when Arabized Berbers first encountered Romans; 2. during the Muslim and Jewish expulsions from Iberia beginning in 1492; and 3. during the colonial and post-colonial periods.

1 History and current state

1.1 History

Moroccan Arabic (MA) initially took shape when Arab-led troops, probably Arabized Berbers from the central Maghreb who spoke a contact variety of Arabic, settled precariously in a triangle of Roman cities/towns consisting of Tangier, Salé, and Volubilis, starting around 698 AD. Mid-seventh-century tombstones from Volubilis, inscribed in Latin, confirm that Roman Christians were present, though in small numbers, when the Arabs arrived. Shortly thereafter, in 710–711, an Arab-led army from Morocco began the conquest of southern Spain, a richer and more secure prize that drew away most of the Arab elite. In Morocco, turnover of the few Arabs and of their Arabized Berber troops was high; they were massacred or put to flight in the Kharijite revolt of 740. The eighth and ninth centuries had perfect conditions for the development of a home-grown Arabic in the Roman triangle in Morocco, and in the emerging Andalus, with a strong Latinate substratum.

The first true Arab city, Fes, was not founded until approximately 798, a century after the first occupation of Morocco, and its population did not bulk up until immigration from Andalus and the central Maghreb began around 817. With a cosmopolitan population, and located outside of the old Roman triangle, its



Andalusi and non-Andalusi quarters may have maintained their respective dialects for a long time. The remainder of Morocco was occupied by Berber tribes until much later.

During the eleventh century, the Arabian Bedouin often called Banu Hilāl entered the central Maghreb in large numbers (cf. Benkato, this volume). They partially bedouinized the Arabic dialects in Tunisia and Algeria, producing hybrid varieties that combined pre- and post-Hilalian features. They also gradually pushed their way south and west across the Sahara, bringing their distinctively Bedouin Arabic, known as Ḥassāniyya, into the southern Maghreb, including some oases of southern Morocco proper and the entire Western Sahara. Meanwhile, hybridized Algerian dialects, also reflecting a Berber substratum, were spreading into western Morocco, taking root in new farming villages in the central plains around Fes, and in the younger cities such as Meknes and Marrakesh (Heath 2002).

In 1492, the Catholic Kings abruptly expelled Spanish Jews from Spain, followed by expulsions through 1614 of Muslims from Spain and Portugal (see also Vicente, this volume). Jewish deportees, whose predominant home language was Judeo-Spanish, flooded into the Jewish quarters (*mellahs*) of Moroccan cities, constituting a new Jewish elite. Muslim deportees, variably speaking Arabic or Romance, arrived in several waves and were more easily assimilated. The Jewish presence in Morocco was strong until 1951, when most Jews left for Israel and other destinations.

Moroccan ports participated in growing Mediterranean and Atlantic maritime activity, associated linguistically with Lingua Franca (cf. Nolan, this volume) and various Romance languages along with Turkish, in the seventeenth and eighteenth centuries. European precolonial penetration into coastal Morocco in the late nineteenth century later expanded during the French and much smaller Spanish protectorates which lasted from 1912 to 1956. Exposure to French increased dramatically in this period.

Also of linguistic relevance is the fact that the Moroccan–Algerian border has been virtually closed for decades, due mainly to political disputes. This has partially sealed off Morocco from the central Maghreb and allowed a specifically Moroccan koiné to flourish.

1.2 Current situation

Of the 33 million Moroccans recorded in a 2014 census, nearly all are fluent L1 or (among the Berber-speaking minority) L2 speakers of some form of MA. Moreover, except in the thinly populated Western Sahara, the once-robust dialectal

variation within MA has now been greatly compressed. The MA that one is likely to hear in cafés in Rabat, Fes, Meknes, Marrakesh, Oujda, and even Tangier is the Moroccan koiné, a hybridized variety mixing pre- and post-Hilalian features and showing heavy Berber influence in prosody and vocalism.

Many Berber dialects, commonly (but inaccurately) classified into three languages (Tarifiyt, Tamazight, and Tashelhiyt), are still widely spoken in the mountain ranges and in the Souss valley along the Atlantic coast near Agadir. However, these Berber languages are full of Arabic loans, and they are slowly losing ground to Arabic in all of the cities and large towns.

2 Contact languages

2.1 General

This chapter focuses on contact between MA and European languages. Punic (Phoenecian) had probably died out locally before the Arab conquest, and Greek was a non-factor in spite of nominal Byzantine suzerainty after the fall of the Roman empire. Berber–Arabic contact is covered elsewhere (see Souag, this volume and Benkato, this volume). Diglossic borrowing from literary Arabic would take us far afield; on this, see Sayahi (2014) and Heath (1989).

The hallmark of abrupt language shift is powerful substratal influence in phonology and prosody. Some calquing of grammatical constructions may occur, but this can be difficult to tease apart from morphosyntactic simplification. There may be little or no carryover of core vocabulary and of concrete grammatical morphemes. The profile of language shift contrasts with that of adstratal borrowing during prolonged bilingualism, whose manifestations are mainly lexical, and whose complexities involve the morphological and semantic nativization of foreign-source inflected forms (cf. Manfredi, this volume).

2.2 Late Latin

The best-kept secret about MA is that, unlike the case elsewhere in the Maghreb, its oldest forms originated by language shift (probably rapid) from Late Latin (LL) to a contact Arabic spoken by Berber troops.

There are no written records of colloquial LL of the relevant period, either in North Africa or in Europe, but we can surmise that the LL spoken in the Roman triangle was intermediate between Classical Latin and early Medieval Romance, e.g. Medieval Spanish. This implies either five or possibly seven vowel qualities, phonemic stress, no vowel length, and probably some affricates č [tʃ] and ġ [dʒ].

2.3 Medieval Judeo-Spanish

The major injection of Medieval Spanish into the Moroccan heartland was the arrival of expelled Spanish Jews in 1492. They joined existing Jewish communities in the large cities, but a cultural divide between the newcomers (*megorashim*) and incumbents (*toshavim*) quickly emerged. We know from rabbinical responsa that Judeo-Spanish was still spoken in the central cities for two centuries after 1492 (Chetrit 1985). In far northern Morocco, a form of Arabic- and Hebrew-influenced Judeo-Spanish called Hakitia or Haketia remained in vernacular use until the early twentieth century (Benoliel 1977), after which it merged with Modern Spanish.

2.4 Modern French and Spanish

Spanish and to some extent Portuguese and Catalan remained contact influences chiefly in ports through the late nineteenth century, when direct Spanish involvement in northern Morocco became more significant. Iberian loanwords figure prominently in the early twentieth-century maritime vocabulary provided by Brunot (1920). During the Protectorates, French became a major language of education and administration in most of Morocco, especially in the west-to-east Casablanca–Rabat–Fes–Meknes–Taza corridor, while Spanish consolidated its position in the far north. French loanwords during the early Protectorate are in Brunot (1949). MA–French and MA–Spanish bilingualism has increased in the postcolonial period due to media and mass education. English influence is increasing, mainly through tourism, science education, and finance.

3 Contact-induced changes in MA

3.1 Phonology

MA dialects – archaic Pre-Hilalian, hybridized Post-Hilalian, and in the far south the unhybridized Ḥassāniyya – differ sharply in vocalic systems, reflecting their different histories (Heath 2018).

Classical Arabic (CA) had short {*i* *ā* *ū*} versus long {*ī* *ā* *ū*}, diphthongs {*āy* *āw*}, no syncope, and no phonemic stress.

Of the three main types of MA, Ḥassāniyya is closest to CA. It has short vowels limited to closed syllables: {*ə* *ă*} with *ə* < {**i* **ū*}, in some dialects (e.g. Mali) also some cases of *ū*. It distinguishes long {*ī* *ā* *ū*} from diphthongs {*āy* *āw*}, and has no phonemic stress, but unlike CA it does allow syncope of short vowels (cf. Taine-Cheikh 1988). Ḥassāniyya shows limited effects of language contact in the phonology of Berber loanwords (cf. Taine-Cheikh 1997).

By contrast, the koiné and some other hybrids reduce all three short vowels to just one short vowel ə with various allophones, contrasting with full vowels {i a u}. The hybrid dialects monophthongize {*äy *äw} to merge with {i u}. The rounding of original short *ü often survives next to a velar/uvular consonant, even after syncope (which is productive), suggesting an ongoing feature transfer that, if and when fully implemented, would result in underlying labiovelars {k^w g^w q^w ħ^w ʕ^w} next to ə (which becomes phonetic [ʊ]) or before a consonant. Again there is no phonemic stress. This is a Berber-like system, reflecting deep long-term substratal/adstratal contact.

A more archaic Berber-like system, still preserving at least the opposition of short *ī ~ *ā versus *ü and likely at least some diphthongs, was brought to Morocco by the early Arabized Berber troops. There it was overlaid on an LL substratum that had five to seven vowel qualities, phonemic stress, no syncope, and no vowel length. The resulting Pre-Hilalian MA has: three regular vowels {i a u}, a subset of which (the original short vowels) syncopate in weak metrical positions; phonemic stress; and a schwa vowel ə confined to posttonic final closed syllables. The leveling of vowel length distinctions, and the re-splitting of the previously merged *ī ~ *ā into i and a based on consonantal environment, were disruptive to the morphology (see §3.2). Both the leveling, and the new phonemic stress, were shared with speakers of early Andalusī Arabic, which had a similar LL substratum and whose first invaders came from Morocco. This points to an original dialect area in the eighth and ninth centuries, including coastal Andalus and at least the Tangier–Salé axis in Morocco (after Volubilis was abandoned in favor of Fes), differing significantly from even Pre-Hilalian central Maghrebi dialects, which likely never had major LL substratal effects.

The differences among MA dialect types can be illustrated by forms of ‘big’ (Table 1). The suggested proto-forms are close to CA but show some adjustments to short *ī and *ü. Acute accent marks stress in Pre-Hilalian. Observe especially that the two homophonous Pre-Hilalian *kbír* forms behave differently when a vowel-initial suffix is added. The morphological consequences of length merger in Pre-Hilalian are considered below. Emphatic /r/ is phonemically distinct from plain /r/ in all varieties.

Later adstratal borrowings from Spanish and French, as well as from CA, predictably required adjustments to MA phonology. The most disruptive changes affected French borrowings into MA (our data are best for the hybrid koiné). The rich array of French vowel qualities had to be squeezed into three MA qualities. French {i ü e ε} merge as MA i. French {u o ɔ œ} merge as MA u. French a becomes MA a. This compression has had considerable morphological consequences (see §3.2 below).

Table 1: The word-family ‘big’ in MA dialect types

Gloss	Proto	Pre-Hilalian	Hybrid	Ḥassāniyya
‘big’ (SG.M)	*kǎbīr	<i>kbír</i>	<i>kbir</i>	<i>kbīr</i>
‘big’ (SG.F)	*kǎbīr-a	<i>kbír-a</i>	<i>kbir-a</i>	<i>kbīr-a</i>
‘he got big’	*kǎbīr	<i>kbír</i>	<i>kbər</i>	<i>kbər</i>
‘she got big’	*kǎbīr-at	<i>kíbr-at</i>	<i>kbr-at</i>	<i>kəbr-at</i>
‘bigger’	*ǎkbǎr	<i>kbár</i>	<i>kbər</i>	(ǎ)kbǎr
‘big (PL)’	*kǔbār	<i>kbar-ín</i>	<i>k^wbar</i>	<i>kbār</i>

The main contribution of Romance to MA consonantism is the affricate č [tʃ]. In the current koiné, this is present as a phoneme (if at all) in the loanword *lččina ~ ltšina* ‘orange (fruit)’ < Spanish *la China*, as brought out in the diminutive which breaks up the čč cluster, hence *lččin ~ ltišin* and further variants (Heath 1999). Archaic northern dialects have more examples of č, and these dialects pronounce geminated ž as affricate ġ [dʒ].

3.2 Morphology

Direct borrowing of bound function morphemes is rare in MA as in other languages. A notorious exception is *ta-...-t* in abstract nouns of profession, from the Berber feminine singular, likely extrapolated from specific Berber borrowings like *ta-šaffar-t* ‘thief’.

Another glaring exception is the set of D-possessives: *d* (archaic *di*) before nouns, *dyal-* (Pre-Hilalian *dyál-*) primarily before pronominal suffixes (e.g. *dyal-i* ‘mine’, *dyal-u* ‘his’). The obvious etymology (Latin *dē* > LL **de* or unstressed **di*) presents no phonological or semantic difficulties, but it was rejected by a century of Maghrebi Arabists, who favored various far-fetched Arabic-internal etymologies. However, an LL source is also indicated by its dialectal distribution: Pre-Hilalian MA, regional colloquial Andalusī Arabic, and certain coastal enclaves in Algeria that were likely settled by Andalusī merchants. The mysterious pre-pronominal variant *dyál-* was generalized from LL **di él(l)u* ‘its; his’ and LL **di él(l)a* ‘hers’, which are near-exact matches to the still extant Pre-Hilalian *dyál-u* ‘his’ and *dyál-a* ‘hers’. The motivation for this admittedly unusual morphemic borrowing was the need for a new possessive morpheme as Arabic dialects gradually abandoned the compound-like CA “construct” possessive (Heath 2015). The fact that possessive morphemes are not immune from borrowing is also shown

by possessed forms of certain kin terms, with a Berber nasal suffix, before nominal possessors in hybrid dialects, as in (koiné) *bḥa-yn ḥamid* ‘Hamid’s father’, cf. *bḥa* ‘father’.

Verbs as well as nouns are readily borrowed from Romance languages into MA. This raises the question of which Romance inflected form is borrowed, and what value it is assigned to within the MA aspectual system, which groups 1st/2nd persons versus 3rd person subject splits in the perfect of some verb types. Most Spanish verb borrowings look like Spanish infinitives, e.g. *frinar* ‘to brake’ (< *frenar*), but more likely reflect a cluster of forms based on this stem shape in Spanish itself. In addition to the infinitive, this set also includes future *frenar-é*, conditional *frenar-ía*, and forms with *d* instead of *r*, namely participle *frenado* and imperative plural *frenad*. Consonant-final borrowed verbs like *frinar* behave like native MA quadriliteral verbs, and have identical perfect and imperfect forms.

By contrast, French verbs are regularly borrowed as weak (i.e. vowel-final) verbs, with imperfect and 1st/2nd perfect *i*, versus 3rd-person perfect *a*. An example is ‘declare’: imperfect *-diklari* matching perfect 1st/2nd *diklari-*, versus 3rd *diklara(-)*. The likely crosslinguistic bridge is the conspicuous cluster of French forms ending in orthographic *-er* (infinitive), *-ez* (2PL subject), *-ais/-ait/-aient* (imperfect), and *-é(e)(s)* (participle). All of these are phonetic [e] or [ɛ] and therefore merge as MA *i*, interpretable in MA as the imperfect and 1st/2nd perfect of weak verbs. The marked 3rd-person perfect with final *a* is then easily formed by analogy (cf. Lucas & Čéplö, this volume: §4.2 for a parallel development in Maltese).

The merger of vowel length in Pre-Hilalian MA set off a chain reaction of morphophonological restructurings, most notably in the verbal system. The CA three-way vocalic opposition of hollow verbs, e.g. for ‘to be’ imperfect *kūn-*, pre-consonantal perfect *kūn-*, and prevocalic (or word-final) perfect *kān-*, is largely preserved in hybrid and Post-Hilalian dialects. By contrast, in Pre-Hilalian MA, after the momentous vowel-length merger, the hollow paradigm was reorganized into a binary opposition of *kún* (imperfect and 1st/2nd perfect) versus *kán* (3rd perfect). This paradigmatic reorganization, which makes no sense semantically and is apparently unique to Pre-Hilalian MA, then spread analogically to other verb types, including strong trilaterals that have three consonants and no long vowels, e.g. ‘enter’: imperfect *-thul* matching 1st/2nd perfect *thul-*, but 3rd perfect *thal*.

3.3 Syntax

Before reaching Morocco, spoken Arabic had prepositions, possessum–possessor, and DEF–N–ADJ order within NPs, preverbal negation (cf. Lucas, this volume)

and complementizers, a perfect/imperfect split in verbs, and pronominal-subject agreement on verbs (expressed, in part, by suffixes). Romance languages like Spanish, and presumably eighth-century LL, were already close to this profile, so opportunities for syntactic influence were limited. Some minor French complementizers are common in educated MA, as in *au lieu d'igulu...* 'instead of them saying', from French *au lieu de* 'instead of' plus MA *igulu* 'they say'.

3.4 Lexicon

While the LL substratum had a profound effect on early MA phonology and morphophonemics, and also left behind a morphemic souvenir in the form of D-possessives, not a single basic LL lexical item can be shown to have been preserved in any archaic MA dialect. The most promising candidate for such a retention is dialectal MA *qb̄tal* and variants 'elbow'. The likely etymon is LL *cubitellu (later LL *kubtellu), diminutive of Latin *cubitu(s)* 'elbow', cf. Modern Spanish *codillo*. The other possibility, less straightforward semantically, is a reflex of the related adjective, Latin *cubitāle*, cf. Modern Spanish *codal*. In Morocco, *qb̄tal* 'elbow' survives in several Judeo-Arabic dialects. For Muslims, it was recorded in an unspecified location in the unpublished fichier of colonial-period linguist Georges Colin (Iraqi Sinaceur 1993: 1525; de Prémare 1998: 224), and by me in the 1980s in archaic varieties of the Fes–Sefrou area. *qb̄tal* is completely unknown to the great majority of Moroccan Muslims. Preservation of *b* shows that *qb̄tal* is not a recent borrowing from any form based on Modern Spanish *codo*. The *b* was still present in (very) Old Spanish *cobdo*, its diminutive *cobdillo*, and *cobdal*. "Cubtill" 'elbow' is recorded for late Andalusī Arabic (Corriente 1997: 412; Dozy 1967: 302). The geographic and communal distribution of *qb̄tal*, especially among Muslims, suggests that it was introduced into Morocco by late Medieval Jewish refugees.

There are, however, hundreds of well-established Spanish loanwords, especially in northern Morocco. There, Spanish is ubiquitous in schools and broadcast media, Spanish tourists are common, and many Moroccans serve as day-laborers in Spanish enclaves Ceuta and Melilla. While Spanish got a precolonial head-start, French has long since overtaken it in the rest of Morocco. Of special interest are cases where an original Spanish borrowing was later gallicized, sometimes only in part. Examples are MA *antiris* '(monetary) interest', a hybrid of Spanish *interés* and French *intérêt*, and MA *gr̄baṭa* 'necktie' from Spanish *corbata* and French *cravate*. Nonsynonymous mergers also occur, as with *garṣun*, attested both as 'waiter' (French *garçon*) and 'underpants' (Spanish *calzón*). 'To sign' is now usually *-siṇi/siṇa* or *-sini/sina* (< French *signer*), but an obsolescent

Judeo-Arabic variant *sinar* with (pseudo-)Spanish infinitival ending is attested. Since the Spanish synonym is the unrelated *firmar*, MA *sinar* must have been formed by applying a borrowing routine “add *-ar* to the stem” to French stems, probably early in the colonial period when still-abundant Spanish borrowings were being replaced or hybridized under the influence of the newly dominant French.

The process is now coming full circle, as English influence expands. The weak verb alternation of final *a/i* is productive for verbs borrowed from French, as noted above (cf. again the close parallels in Maltese; Lucas & Čěplö, this volume: §4.2). A borrowing routine “add final *a/i* to the stem” extrapolated from French/MA pairs, is now extended to English, where it has no basis in English inflectional paradigms. Examples are the comical *ka-y-spiki mzyan* ‘he speaks (English) well’, and junkie slang like *tt-ṣṭuna* ‘he got stoned’ (participle *m-ṣṭuni* ‘stoned’).

And then there are the many playful translinguistic inventions, concocted among groups of men sitting in cafés, sipping mint tea or smoking... whatever. Nearly all such inventions are ephemeral, but a few have caught on (Heath 1987). Consider the fairly common koiné noun *ḥwadri* ‘pal, buddy’. Unbeknownst to those who now use it, it must have arisen via two successive transformations. First, Spanish *padre* and *madre* were playfully combined with the CCaCCi template for denominal occupational derivatives, as though derived from MA *ḥba ~ bu* ‘father’ and MA *ḥm^(w)* ‘mother’. Templatic CCa... is realized as Cwa... when based on a CV... input, as in *ṣwabni* ‘seller of soap’ (< *ṣabun*). Combining CCaCCi with *padre* and *madre* produces the slang terms (attested but rare) *ḥwadri* and *ḥmadri*. The final and most ingenious step was to combine the sub-template Cwadr-i, emergent from these ‘father/mother’ forms, to *ḥa- ~ ḥu-* ‘brother’, out-putting *ḥwadri*, which then acquires the same ‘buddy’ sense as American English *bro*.

4 Conclusion and prospects

The broad outlines of historical language contact in Morocco are becoming reasonably clear. The most urgent need is for more material and analysis of Moroccan Judeo-Arabic (MJA), in forms accessible to international audiences. Ideally we would want to tease apart the original LL influence on Pre-Hilalian MJA, as preserved by the *toshavim*, from the medieval Judeo-Spanish brought to Morocco in 1492 by the *megorashim*.

Significant Moroccan Arab and Berber expat communities exist in France, the Netherlands, Belgium, Germany, Switzerland, and Spain. These *vacanciers* return

to Morocco in large numbers during summer vacations and on Muslim holy days. There are opportunities to study them both in Europe (Nortier 1990) and in their interactions with other Moroccans.

Another promising topic for investigation is a semi-pidginized form of MA used by monolingual maids in large cities as a kind of foreigner talk to their expat French employers.

Further reading

- Heath (1989) is a study of lexical and phrasal borrowing/code-switching from European languages and from Standard Arabic in Moroccan Arabic.
- Nortier (1990) examines language contact phenomena among Moroccans in the Netherlands.
- Sayahi (2014) is a regional study of Arabic sociolinguistics and language contact from Spain through Morocco to Tunisia.

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Abbreviations

CA	Classical Arabic	MA	Moroccan Arabic
F	feminine	M	masculine
L2	second language	PL	plural
LL	Late Latin	SG	singular

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Chapter 11

Andalusi Arabic

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This chapter covers an ancient contact language situation: Andalusi Arabic with two other languages – the Romance varieties spoken by the local population, and the Berber varieties brought by different Berber speakers arriving in al-Andalus during its existence. The situation of bilingualism whereby the Romance language was sociolinguistically dominant for most of the population over the course of several centuries resulted in numerous contact-induced changes in all areas of grammar. In addition, interaction between Arabic-speaking and Berber-speaking populations constituted a second locus of language contact with consequences for Andalusi Arabic.

1 Historical development of Andalusi Arabic

A dialect of the Western Neo-Arabic type, Andalusi Arabic is currently a dead language. It was spoken from the eighth to the seventeenth century in a changing territory following historical vicissitudes.

Arabic arrived in the Iberian Peninsula in the eighth century with Arabic-speaking tribes coming from different zones at various stages.¹ According to historical sources, the number of Muslims initially arriving was small, most of them probably partially Arabized Berber-speakers from North Africa.² Over time, the society of al-Andalus (the name given to the territory in the Iberian Peninsula

¹Historians have long argued for the ethnic variety of the Arabs who invaded the Iberian Peninsula, particularly referring to the presence of Syrian and Yemeni tribes. See Terés Sádaba (1957), Al-Wasif (1990) and Guichard (1995).

²Historians agree that it is extremely difficult, if not impossible, to establish what the level of Arabization of this population was. According to Manzano Moreno (1990: 399), it seems that linguistic Arabization was not widespread among Andalusi Berbers at least during the eighth century.



under different Muslim–Arab systems of rule for eight centuries) would eventually come to use a distinctive variety of Maghrebi Arabic known as Andalusí Arabic.³ This variety evolved through dialectal levelling and changes resulting from contact with other languages present in the zone, and had become a reasonably unified variety by the tenth century. The political success of the Umayyad dynasty and the establishment of their caliphate in the year 929 CE may have contributed to language levelling, though dialect variation continued to exist in the form of diatopical variants from various regions; scholars thus refer to the existence of an Andalusí “dialect bundle” (e.g. Corriente 1977: 6; 1992a: 446). For instance, the Granadian variety seems to have been more conservative than dialects spoken in other regions.⁴ The regional Andalusí variety spoken in Valencia was the last to disappear with the expulsion of the *moriscos* (Muslims forced to convert to Christianity) in the seventeenth century (Barceló & Labarta 2009: 117).

Even though Andalusí Arabic was a vernacular variety, the few extant sources are always written, and therefore reflect a higher register than that of the language used for daily communication. In fact, hardly any material reflecting the everyday dialectal level is available, since most of the sources consist of texts written in Middle Arabic (i.e. a written form intermediate between Classical and spoken dialectal Arabic; see Lentin 2011). Furthermore, complications arise due to the use of Arabic script to record dialect variants.⁵

Consequently, a comprehensive view of all the periods and places where this language was spoken is lacking. For instance, sources are scarce regarding the use of the language in the eighth and ninth centuries. As Wasserstein (1991: 3) puts it: “A linguistic map of Islamic Spain for any period between the middle of the eighth century and the middle of the thirteenth century would be extremely difficult to draw.”

Nevertheless, written documents in Andalusí Arabic are available from the tenth century until the expulsion of the *moriscos* in the seventeenth century. The oldest documented and preserved Andalusí text is an early form of *zağal* poetry dating from 913 CE, illustrated in (1).⁶

³Andalusí Arabic features the only common discriminating trait of Maghrebi varieties, that is, the *n-* and *n...-u* desinences for the first person singular and plural of the imperfect (cf. Benkato, this volume).

⁴According to Corriente (1998a: 56), this is because Granada was relatively isolated from the Andalusí mainstream, and played a secondary political role, at least initially. An example that Corriente gives of this conservatism is the retention of strong *imāla* (raising of originally low front vowels) found in Granadian Arabic, since this feature was eliminated or reduced in other Andalusí varieties with written attestation.

⁵An overview of sources for the description of Andalusí Arabic can be found in Corriente et al. (2015: xxiii–xxiv).

⁶It consists of a verse by one of the supporters of ʿUmar ibn Ḥaḥṣūn, insulting the caliph ʿAbd ar-Raḥmān III. It appears in the historical chronicle *al-Muqtabis V*, by Ibn Ḥayyān.

(1) Tenth-century Andalusi Arabic (Corriente et al. 2015: 237).⁷

- a. labán úmm-u fi fúmm-u
 milk mother-3SG.M in mouth-3SG.M
 ‘His mother’s milk is in his mouth.’
- b. rás ban ḥafşún fi ḥúkm-u
 head Ban Ḥafşún in power-3SG.M
 ‘Ban Ḥafşún’s head is at his disposal.’

The latest attestations of this language consist of private documents written by *moriscos* from Valencia from the seventeenth century, in which interesting instances of Romance dialectalisms and influence of Catalan, the Romance language spoken in the region, Aragonese and Castilian can be observed (Barceló & Labarta 2009: 119).

Andalusi Arabic continued to be spoken in the Iberian Peninsula after the end of al-Andalus as a Muslim–Arab state in 1492 CE, as some of the Arabic-speaking population remained in certain regions up until the seventeenth century, when the last *moriscos* were expelled. This language was therefore taken by the migrant population to various places in North Africa in different periods from the Middle Ages up to the Modern Era.⁸

Initially a second language (L2) for most of the population, after a two-century gestation process (from around the time of the conquest in 711 until the beginning of the caliphate in 929), Andalusi Arabic gradually became the first language (L1) of the majority of the population, overtaking the Romance dialect spoken by the original local population. The main reason for this was the growing social prestige attached to Arabic in an Islamic society, in contrast to the lower social status of Andalusi Romance, which became the local L2 and eventually disappeared.⁹

Andalusi Arabic became the dominant language (regardless of religion) thanks to the political and social situation of al-Andalus. Furthermore, the advent of an Arabic-speaking population from the east, especially in the Umayyad caliphate (929–1031), played a major role in the expansion of Arabization. According to some scholars such as Fierro Bello (2001) and Corriente (2008: 104), al-Andalus became a society largely monolingual in Andalusi Arabic around the eleventh

⁷ Acute accents on vowels in transcription of Andalusi Arabic represent stress rather than vowel length. See §3.1.1 for further details.

⁸ This is the reason why Andalusi Arabic has played a very important role in the formation of Moroccan Arabic (cf. Vicente 2010; Heath, this volume).

⁹ Mixed marriages between Muslims and Christian women constituted a significant factor in the propagation of Andalusi Arabic amongst Christians until it also became their L1 (Guichard 1989: 82–83; 1995: 456–457; Chalmeta 2003).

century, though communities using other languages did exist, especially in rural areas (see §2.1 for more details).

The vernacular Arabic variety spoken in al-Andalus even reached the status of a literary language, appropriating part of the domain of Classical Arabic through proverbs and a number of stanza-based poetic forms (including some *haraġāt* and the *azġāl*). Andalusī Arabic poetry reached the circles of the court and the palaces of Taifa kings. Such social and cultural prestige reveals the extent to which Andalusī Arabic had become the dominant language in this society, and it is for this reason that it is the best-documented vernacular Arabic variety of all those spoken in the Middle Ages.

Andalusī Arabic does not conform neatly to either the Bedouin or the pre-Hilali sedentary type of dialect in the classification usually applied nowadays to Maghrebi Arabic dialects (cf. Benkato, this volume). It shares features of both types of dialects. For instance, in the phonological system, the three interdental phonemes are the same as those in Old Arabic, as is the case in Bedouin-type Maghrebi dialects;¹⁰ however, /q/ is realized using the voiceless variant [q] as in sedentary-type dialects, rather than the voiced variant [g], as in Bedouin-type dialects.¹¹

According to Corriente (1992b: 34), the number of speakers of Andalusī Arabic was at its largest between the eleventh century – a time when the Andalusī koiné reached maturity – and the twelfth century.

2 Contact languages

Andalusī Arabic developed in the Iberian Peninsula through the interaction of various different Arabic dialects along with two contact languages.¹² This situ-

¹⁰In sedentary-type Maghrebi dialects these are typically pronounced as occlusives. The data do show that the occlusive pronunciation of interdentals was known in Andalusī Arabic, though it was considered vulgar and was repressed (Corriente et al. 2015: 29).

¹¹That said, /q/ may have been realized as a voiced [g] in some registers, regions or periods in Andalusī Arabic (see Corriente et al. 2015: 64).

¹²Besides Eastern Neo-Arabic varieties brought by invaders in the eighth century, from which Andalusī Arabic emerged, this language continued to evolve in interaction with Maghrebi dialects, particularly with Moroccan Arabic. Owing to this, it is possible to find intra-Arabic contact-induced language change, for instance in the Andalusī variety of Granada. Some instances of transfer from Moroccan are the verbs *šāf* ‘to see’ and *ġāb* ‘to bring’, and the second element in the negative *ma šāf šī* ‘he did not see’ (cf. Corriente 1998a: 57). For example, the particle *lás* or *lís* (a variant of *lás* with *imāla*) was the most frequently used negation particle in Andalusī Arabic, while the *ma... šī* construction was generally exceptional in older sources, though not in the work of aš-Šustarī, a Granadian author, due to his travels to North Africa,

ation spanned a long period of time, resulting in a significant amount of transfer. This has been analysed by various authors (e.g. Ferrando 1995; 1997; Vicente 2006), and particularly by Corriente (e.g. Corriente 1981; 1992b; 2000; 2002).

The languages with which Andalusi Arabic was in contact were the Romance varieties spoken by the Andalusi population and the Berber varieties brought by different Berber speakers arriving in al-Andalus during its existence.

2.1 Andalusi Romance

Andalusi Romance is a dialect bundle originating in the Romance varieties that were spoken in the Iberian Peninsula when the Islamic invasion occurred in 711,¹³ and which underwent a particular evolution through interaction with Arabic. This Ibero-Romance dialect was the L1 of a large proportion of Andalusi society regardless of their religion. It is also the oldest documented variety of Ibero-Romance: according to Corriente, the language of the *haraġāt* (see below) reflects the Romance dialect bundle used in al-Andalus between the ninth and eleventh centuries (Corriente 1995; 1997a; 2000).

The language is not well known: only a few written sources are available, transmitted by copyists who may have had limited knowledge of the language. These sources are written both in Arabic and Latin scripts.

Sources in Arabic script consist of bilingual dictionaries and botanical, agromonomical and medical glossaries. These evidence a limited number of Andalusi Romance loanwords in Andalusi Arabic, constituting less than 5% of the lexicon according to Corriente (1992b: 142).

Another source in Arabic script are *haraġāt*, the final refrains of each stanza of the *muwaššahāt*, one of the two types of Andalusi strophic poetry. A few of these refrains were partially written in Andalusi Romance.¹⁴ In addition to these *haraġāt*, loanwords of Andalusi Romance origin were also transmitted in the *zaġal* poems of Ibn Quzman.

Latin-script sources also exist, in toponymy, for instance, as well as in loanwords from Andalusi Romance in more northerly Romance dialects, though the data these contribute need to be treated with caution, since adaptation to other

according to Corriente et al. (2015: 212–215). In addition, Classical Arabic had an influence, especially on the lexicon. The migration of the Bedouin population into North Africa, however, did not have an influence on the evolution of Andalusi Arabic.

¹³These varieties in turn descended from Iberian Vulgar Latin, with substrate influence from pre-Romance Iberian languages and Visigoth lexical borrowings.

¹⁴Up to 68 *haraġāt* in Andalusi Romance have been found (42 in Arabic script and 26 in Hebrew script) with one or more words in this language (Corriente 1997a: 268–323), all of them dating from the tenth–eleventh centuries (Corriente 1997a: 343).

Romance dialects blurs features of the source language, making them of limited use from a linguistic point of view.

Andalusi Romance has been analysed by Corriente (1995; 2000; 2012); who has compiled lists of lexical borrowings from Andalusi Romance into Andalusi Arabic in botanical glossaries and in *ḥaraġāt* poetry.

In the first centuries of the history of al-Andalus, Andalusi Romance was the L1 used by the majority of Andalusi society, even by some Muslims, such as the *muwalladūn* (converted Muslims), who would learn Arabic as their L2 for self-promotion in society. In time, however, as an Arabic variety became the dominant language, diastratic differences become noticeable. Thus, Andalusi Romance was the L1 used by the rural population and lower classes, whereas the urban Andalusi population underwent more rapid Arabization due to increased exposure to Arabic through mosques, schools, trade, pilgrimages, and so on. Thus, the inhabitants of cities and, above all, leading members of society always had Andalusi Arabic as their L1.

No concrete evidence exists as to when monolingualism in Andalusi Arabic became established. The most commonly accepted date for the disappearance of Romance as a common means of communication in al-Andalus is the late twelfth century, under Almoravid rule. This period saw migrations north out of al-Andalus of the Christian Mozarabs, although most of these were in fact Arabic speakers, as instances of lexical borrowings from Andalusi Arabic in Romance languages from the north reveal. Corriente (1997b; 1992b: 443; 2005) suggests that bilingualism no longer existed by the thirteenth century, and that in the eleventh and twelfth centuries it was merely vestigial. In contrast, Galmés de Fuentes and Menéndez Pidal have defended the existence of bilingualism in Andalusi society up until the thirteenth century (Galmés de Fuentes 1994: 81–88; Menéndez Pidal & de Fuentes 2001).¹⁵

2.2 Berber

The arrival of a Berber-speaking population in al-Andalus occurred in the eighth and thirteenth centuries, first as auxiliary troops and later as conquerors, though many of them may have already become Arabic-speaking and used an early form of North African Arabic as L2 or even as L1 in the case of those arriving later.

Modern historiography (e.g. Manzano Moreno 1990; Guichard 1995; Chalmeta 2003) reveals that a significant number of Berbers played a major role in the conquest of al-Andalus, a population which grew larger with the later arrival of

¹⁵While some Romance-speaking communities may indeed have lasted up until the thirteenth century, note that this circumstance does not imply the existence of a wider bilingual Andalusi society.

the Almoravid and Almohad dynasties in the twelfth and thirteenth centuries. Interaction between Arabic-speaking and Berber-speaking populations on both sides of the Strait of Gibraltar facilitated lasting language contact.

The role of Berber in the language development of al-Andalus has not been analysed in depth, however. This is due to data being scarce regarding not only the state of Berber varieties at the time, but also their impact on Andalusi Arabic and the speed of their disappearance from the language scene in the Iberian Peninsula. No sources exist written directly in Berber, plus interpretation issues arise due to the transmission of Berber loanwords in Arabic or Latin script, as the phonological systems of these languages do not fully coincide.

Berber varieties had no social prestige in al-Andalus, and were associated with lower registers, a fact which had obvious effects on the direction of transfers in contact-induced changes. According to scholars such as Chalmeta (2003: 160) and Guichard (1995) the reason behind this could be the Berbers' social organization, who tended to settle in rural zones.

As a result of all of the above, plus the fact that the number of local Romance speakers was much higher, there is far less transfer into Andalusi Arabic from Berber than there is from Romance.

These transfers basically consist of lexical borrowings, which are mainly to be found in Arabic-script botanical glossaries, and have been analysed by various authors, including: Ferrando (1997),¹⁶ Corriente (1981; 1998b; 2002) and Corriente et al. (2017; 2020).

3 Contact-induced changes in Andalusi Arabic

3.1 Contact with Andalusi Romance

A special feature of the linguistic history of al-Andalus is that, within a few centuries, a situation of bilingualism, whereby the Romance language was the L1 for most of the population while Andalusi Arabic was L2, was reversed, eventually leading to a third phase of monolingualism using only Andalusi Arabic.

Transfers from Romance to Andalusi Arabic probably took place during the first of the bilingualism phases, a situation which, according to Corriente (2005; 2008), must have lasted two hundred years, from the eighth to the tenth century.

It is difficult to diagnose what type of transfer took place in such an ancient contact situation. When the agents of change used Romance (the source language; SL) as L1 and Andalusi Arabic (the recipient language; RL) as L2, the type

¹⁶This work includes a previously unpublished analysis conducted by G. S. Colin.

of change was imposition, according to the framework of Van Coetsem (1988; 2000). As we have seen, however, this situation would evolve, and the agents of change would come to have Andalusi Arabic (the RL) as their L1 and Romance (the SL) as their L2, meaning that transfer in this situation would be classified as borrowing in Van Coetsem's framework.

However, in cases such as this where the precise sociolinguistic situation at a given time is impossible to judge, it is difficult to establish whether the agents of change had two L1s or one L1 and one L2. Thus, the possibility exists that the contact-induced language changes taking place are a convergence type of transfer (in the terms of Lucas 2015).

3.1.1 Phonology

One contact-induced language change from Romance concerned the prosodic rhythm of Andalusi Arabic. The quantitative rhythm of Old Arabic was replaced by the intense stress system of early Romance languages in the Iberian Peninsula.¹⁷ Thus, while all Old Arabic and Neo-Arabic varieties feature a prosodic rhythm that distinguishes long and short syllables, Andalusi Arabic is the only variety where this quantitative rhythm was replaced by a system where there is no phonemic vowel length (Corriente 1977; 1992a; Corriente et al. 2015: 75–78).

In this case, the agents of change were presumably L1 speakers of Andalusi Romance, making the transfer a case of imposition on the L2, Andalusi Arabic.

The altered use of the *matres lectionis* in the Arabic script constitutes graphemic evidence of this change in prosodic rhythm. Thus, in Andalusi sources, the graphemes which traditionally mark the Old Arabic long vowels are sometimes used to mark etymologically short vowels, to indicate that these are stressed. For instance: مقاص *muqāṣ* = /muqáṣṣ/ 'pair of scissors' (OA *miqaṣṣ*), أسقوف *usqūf* = /usqūf/ 'bishop' (OA *usquf*), قنفود *qunfūd* = /qunfūd/ 'hedgehog' (OA *qunfud*).

Moreover, historically long vowels that were not stressed are often represented without the regular *matres lectionis*, for instance: فران *firān* = /firān/ 'mice', عم *ʕam* = /ʕam/ 'year'.

Another instance is the very name *al-Andalus*, pronounced by its inhabitants as /alandalús/, a fact known due to the *matres lectionis* for /ū/ which appears in the final syllable, indicating that this syllable is stressed: اندلوس *al-andalūs* = /alandalús/.

In addition, lexical borrowings from Andalusi Arabic currently found in Ibero-Romance languages also attest to this change of prosodic rhythm. For instance, the Spanish word *andaluz* (stressed on the last syllable) can only originate in

¹⁷A change which had taken place in Latin about one thousand years earlier. This language evolved from a quantitative stress system to an intense stress system in some of its daughter languages. The same process took place later in Andalusi Arabic.

the Andalusī word /alandalús/, while the Spanish word *azahar* ‘orange blossom’ (also stressed on the last syllable) comes from the Andalusī word /azzahár/, rather than directly from Old Arabic *zahr* ‘flower’.

The use of *matres lectionis* in this way was by no means systematic, since less cultivated scribes inserted or suppressed them arbitrarily; a fact which could be interpreted as indicative of an incipient evolution towards the loss of the phonological value of stress in Andalusī prosody (Corriente et al. 2015: 76, fn. 213), a phenomenon that today characterizes Moroccan Arabic, perhaps the last step of this evolution in Maghrebi Arabic dialects.

In some cases, a graphic gemination of the following consonant instead of the grapheme of the vocal quantity is an alternative means of indicating a stressed vowel, for instance: *أسقف* *usquff* = /usqúf/ ‘bishop’, *ثقة* *θiqqa* = /θíqa/ ‘trust’, (Corriente et al. 2015: 77).

Andalusī Arabic also features the appearance of three marginal phonemes /p/, /g/ and /č/ as transferred from Andalusī Romance, which, however, may not have existed in some Andalusī sub-dialects. Bearing in mind that these phonemes were incorporated through loanwords (Corriente 1978), we can assume that the agents of change had Andalusī Arabic as L1 and that therefore this is a borrowing type of transfer. Examples include: *čípp* ‘trap’, *čiqála* ‘cicada’, *čírniya* ‘blackbird’ (Corriente et al. 2015: 57). As these phonemes exist even in late toponymy it may be concluded that they were part of the Andalusī phonological system.

Another example of a contact-induced phonological change was the partial loss of contrastive velarization in some phonemes. As velarization does not exist in Romance languages, we can assume that this was a case of phonological imposition by L1 Romance speakers on their L2 Andalusī Arabic.

The effects of this change are visible, for instance, in the frequent interchangeability of /s/ and /š/. Recurrent permutations between both realizations exist and pseudo-corrections are also in evidence. For example: /sūr, šūr/ ‘wall’, /nāqūs, nāqūš/ ‘bell’, /qaswa, qašwa/ ‘cruelty’. This is not, however, a very common feature and took place only in the early stages of the Arabization process (Corriente et al. 2015: 82).

The spirantization of occlusives is another example of contact-induced phonological change in Andalusī Arabic, due to imposition from Andalusī Romance. According to Romanists, this phenomenon was commonly found in Romance languages since the Latin period.¹⁸

¹⁸The spirantization of the occlusives is also a feature of some Arabic varieties spoken in Morocco, especially, though not exclusively, in the north (Sánchez & Vicente 2012: 235–236). In this case, the agents of change were Arabic–Berber bilingual speakers who imposed the phonology of their L1 Berber on their L2 Arabic. This may have also happened in Andalusī society, though data to corroborate it is insufficient.

For instance, spirantization of /d/ > [ð] can be observed. Authors of Andalusi Arabic would write ⟨ð⟩ (ð) rather than ⟨d⟩ (d) for both *d and *ð because they considered both sounds to be allophones of /d/, particularly in postvocalic position.¹⁹ The realization of the /d/ phoneme clearly changed through contact with Andalusi Romance. This is a widespread feature noted in various authors, regions, ages and social groups. For instance: جدول /ǧaðwal/ ‘creek’ < ǧadwal, حفيد /ħafið/ ‘nephew’ < ħafīd, الأحد /al-ħaðð/ ‘Sunday’ < al-ħadd, سيدي /sīði/ ‘my lord’ < sīdi. This phenomenon seems to have been more common in lower and middle registers of Andalusi.

Another example is the spirantized allophone of /b/, [β], which could constitute a borrowing from Romance or Zenati Berber. This may be confirmed by the use of ⟨f⟩ to represent /b/ (as in قسפורى *qasfūrā* < *kuzbara* ‘coriander’, فش *fiš* < *baš/biš* ‘in order to’), or by confusion between both phonemes: *baysāra/faysāra* ‘a dish of cooked beans’ (Corriente et al. 2015: 19).

3.1.2 Morphology

A noteworthy contact-induced morphological change concerns the elimination of a gender distinction in the second person singular of both pronouns and verbs, as in *taqtúl* ‘you kill’, *tikassár* ‘you break’, *tahtarám* ‘you respect’, *tahriǧ* ‘you throw’ (Corriente et al. 2015: 154–155).

The addition of Romance suffixes to Arabic words to produce hybrid terms was another example of morphological transfer. These suffixes are numerous. For instance, the augmentative suffix *-ūn*, as in *ǧurrún* ‘big jar’ < *ǧarra* ‘jar’, *raqadún* ‘sleepyhead’ < *rāqid* ‘asleep’, and the agentive suffix *-áyr*, as in *ǧawabáyr* ‘cheeky’ < *ǧawāb* ‘answer’ (cf. Corriente 1992b: 126–131; Corriente et al. 2015: 230–231).

3.1.3 Syntax

Changes in gender agreement also arguably result from contact-induced change: *fáyn* ‘eye’, *šáms* ‘sun’, and *nár* ‘fire’ are generally feminine in Arabic but were occasionally treated as masculine in Andalusi Arabic, as their translation equivalents are in Romance. Likewise, *má* ‘water’ and *dwá* ‘medicine’ are masculine in Arabic but were sometimes considered feminine in Andalusi Arabic, again on a Romance model (Corriente et al. 2015: 232). This was presumably a case of imposition, where the agents of change were L2 speakers of Andalusi Arabic.

There are cases of concordless determination constructions in qualifying syntagms following the Romance construction, for instance: *alšaqd θānī* ‘the second contract’ instead of more typical *al-šaqd aθ-θānī* (Corriente et al. 2015: 186).

¹⁹This spirantization is also realized in other positions, however.

These examples come from texts written by bilingual Mozarabs from Toledo; since they were either dominant in Andalusi Arabic or had both Andalusi Arabic and Andalusi Romance as L1s, this change must have been either an instance of borrowing or of convergence.

There are instances of a construction using the analytic genitive with the preposition *min* ‘of’ as well as innovative uses of *li* ‘for’. These are found particularly in late texts with strong influence from Andalusi Romance (cf. Corriente 2012). As in the previous case, we are dealing here with agents of change who are either dominant in Andalusi Arabic and thus borrowing from Andalusi Romance, or this is an instance of convergence brought about by speakers of both languages as L1s.

(2) Late Andalusi Arabic (Corriente et al. 2015: 233–234)

- a. *mudda min ʕām-ayn*
period from year-DU
‘a two-year period’
- b. *min ʕām*
from year
‘one year old’
- c. *naḥruġ li wild-ī*
go_out.IMPF.1SG to father-OBL.1SG
‘I look like my father.’

The examples in (2) are clearly calqued on Romance expressions: *un periodo de dos años*, *de un año* and *salgo a mi padre*, respectively.

3.1.4 Lexicon

Lexical borrowings from Romance in Andalusi Arabic constitute less than 5%, according to Corriente (1992b: 142).²⁰

²⁰The number of lexical borrowings from Andalusi Arabic into Romance languages spoken in Spain is larger. According to Corriente (2005), its number is close to two thousand, not counting the lexical derivations and place names included by other authors, who have put the number at four thousand or even five thousand. Many of the terms in question are nowadays obsolete (Corriente 2005: 203, fn. 59). We must not forget that these languages had a different social status during the period of bilingualism, a major element in contact-induced language changes. In such situations, less prestigious languages always receive a larger number of transfers (cf. Corriente et al. 2019).

The most common semantic fields are botanical terms of species endemic to the Iberian Peninsula, as in *ūliyā* ‘olive’, *amindāl* ‘almond’, *blātur* ‘water lily’, *bulmuš* ‘elm tree’, and zoological terms, as in *burrays* ‘lamb’, *poḥóta* ‘whiting’, *buṭrah* ‘mule’, *ṭābaraš* ‘capers’. For more examples, see Corriente et al. (2017). Other semantic fields are parts of the body, as in *imlīq* ‘navel’ and *muḡḡa* ‘breast’, family relations, as in *šuqru* ‘father-in-law’, *šubrīn* ‘nephew’, and household items and technicalities of various professions, as in *šuqūr* ‘axe’ and *šayra* ‘basket’, (Corriente et al. 2015: 224).

Some words even adapted to the pattern of broken plural in Andalusī Arabic, for instance *š(u)nyūr* ‘sir’, pl. *šanānīr*, though most used the regular plural suffix *-āt*.

3.2 Contact with Berber

As with the Arabic–Romance contact situation, lack of information regarding the sociolinguistic status of Berber speakers in al-Andalus in the relevant period makes it difficult to classify the relevant changes according to the types of agentivity involved. That said, since we have no reason to think that significant numbers of native Arabic speakers would have acquired Berber languages as L2s, the changes described here seem most likely to be the result of imposition by L1 Berber speakers.

3.2.1 Phonology

Available data is always from written sources and it is therefore hard to be certain about the existence of contact-induced phonological changes.

The realization of *k as [h] has been considered a Zenati Berber influence (Corriente 1981: 7). For instance: *aḥṭar* ‘more’, *aḥṭubar* ‘October’ (Corriente et al. 2015: 61).

The replacement of /l/ with /r/, as in Tarifit Berber, could be another instance of transfer from Berber. Thus, the following spellings in documents written in Latin script could be instances of possible assimilation-induced allophones: *Huaraç*, *Hurad*, *Uarat* < *walad* ‘boy’. The late source where these spellings are found, documents written by Valencian *moriscos* in the second half of the sixteenth century (Labarta 1987), suggests that this change could have been introduced through contact with the last Berber immigration waves into al-Andalus (thirteenth century). However, this trait may not have been generalized in the speech of the wider community, and could merely represent idiolectal variation or even misspelling.

3.2.2 Lexicon

While contact-induced changes in Andalusi Arabic from Berber were initially considered very scarce, more comprehensive analyses of the sources have revealed that changes may not have been so insignificant.²¹ In fact, the list compiled by Corriente in 1981 contained 15 Berber loanwords in Andalusi Arabic (1981: 28–29), the list in his dictionary of 1997 listed 62 (Corriente 1997b: 590), and the compilation made by Ferrando the same year included 82, of which 39 corresponded to an unpublished study by G. S. Colin and 43 were compiled from proposals made by various other scholars (Ferrando 1997: 133). The most recent list contains 115 Berber loanwords (Corriente et al. 2017: 1432–1433).

As Ferrando (1997: 140) points out, these borrowings appear mostly in earlier sources, and their number decreases considerably in later sources. This fact could be put down to the social and cultural prestige Andalusi Arabic achieved in later centuries, even contributing to social cohesion and, therefore, linguistic cohesion. Most lexical transfers must have taken place in the early centuries of the existence of al-Andalus, prior to the arrival of new Berber speakers, the Almoravids and the Almohads. For obvious geographical reasons it is quite likely that the Berber-speaking Muslims (already Arabized) who reached the Iberian Peninsula with the first Muslim troops came from an area in modern northwestern Morocco, the region known as Jbala. Ghomara and Senhaja are the vernacular Berber varieties from this region. These non-Zenati varieties are different from those spoken in the Rif (Kossmann 2017). It is therefore probable that Ghomara and Senhaja Berber were the sources of a good deal of these borrowings, though any attempt at classifying them is hindered by the lack of detailed phonetic or morphological data.

Semantically, most of these lexical borrowings correspond to phytonyms and zoological terms, socio-political symbols and names of weapons, clothing, food, and household goods. The number of Berber loanwords that were regularly used by the Andalusi population is not easily determined, as many are names of plants that probably only occurred in Berber botanical treatises.

The following are some examples from Corriente et al. (2017):²² *azarūd* ‘sweet clover’ < *azrud/azrud*, *aṭṭifu* ‘take him’ < *aṭṭaf* ‘take’, *āwurmī* ‘garden street’ <

²¹For instance, linguistic analyses of some sources, such as the botanical glossaries written in al-Andalus, have yielded a large number of Berber loans in Andalusi Arabic (cf. al-Iṣṣīlī 2004; 2007; Corriente 2012).

²²The Berber origin of some of the lexical borrowings from these lists is only probable, not certain. Due to the characteristics of the sources, written in Arabic or Romance by possibly non-Berber-speaking scribes, the available information sometimes does not allow us to go beyond mere working hypotheses. It is also difficult to decide which Berber variety they belong

awurmi/iwurmi, *aylāl* ‘snails’ < *aylal*, *tamayra* ‘banquet’ < *tamayra* ‘wedding party’, *zuyzal* (with agglutination of the preposition *s-* ‘with’) ‘half-pike (Berber weapon)’ < *ugzal*, *tāqra* ‘terrine’ < *tagra* ‘wooden dish to make couscous’, *aqrūn* ‘pancakes cut into squares and eaten with honey’ < *ayrum* ‘bread’.²³

Some of these loans present a chronological problem. The problematic items are those which have an ungeminated /š/ or /q/, phonemes that were transferred to the Berber varieties through contact with Arabic.²⁴ These would appear, therefore, to be later loans that arrived with the Berber already Arabized or through Moroccan Arabic, for instance: *išir* < *iššir* ‘boy’, *finniš* ‘mule’ < *afanniš* ‘snub-nosed’,²⁵ *barqī* < *abərqi* ‘slap’.²⁶

Some of these loans do not appear in modern dictionaries of Berber varieties, such as *aryīs* ‘barberry’ < *aryis*,²⁷ *āḍiqal* ‘watermelon’ < *adigal*, *maqāqūn* ‘stallion’ < *amaka*.²⁸

In some cases we have loans that come from Vulgar Latin to Andalusī Arabic via Berber, for instance: *fullūs* ‘chicken’ < *afəllus* (Berber) < *pullus* (Vulgar Latin), *bāqya* ‘large clay dish’ < *tabaqit/ṭabəqqiṣθ* (Tarifit) ‘great dish of superior quality’²⁹ < *bacchia* (Vulgar Latin) ‘goblet, water jug’, *hirkāsa* ‘rustic leather shoe’ < *arkasən* (Kabyle) or *arkas*, *ahərkus* (Tarifit) perhaps < *calcēus* (Vulgar Latin), *tirfās* ‘truffles’ < *tərfaš* (Berber) < *tuferas* (Vulgar Latin), *zabzīn* ‘low-quality couscous’ < *zabazin* (Berber, with agglutination of the preposition *s-* ‘with’) < *pisellum* (Vulgar Latin, diminutive of *pisum* ‘pea’).³⁰ These transfers are very likely to have

to: Tarifit, Taqbaylit and Tashelhiyt have all been found. Note also that all Arabic items in this section are rendered as transliterations of their Arabic-script orthography, rather than transcriptions of their (assumed) phonology.

²³This item exists in Taqbaylit with the meaning ‘unleavened cooked pasta cookie’ (Dallet 1982). The ending *-um* becomes *-un* due to a metanalysis that associates it with the Romance suffix *-on*, which is highly productive in Andalusī Romance.

²⁴I thank Maarten Kossmann for this and other valuable comments on the section of this work dealing with contact between Andalusī Arabic and Berber varieties.

²⁵In Moroccan Arabic *fənniš/fənnūš* (de Prémare 1998: 167).

²⁶According to de Prémare (1993: 5), the Moroccan Arabic word *ābərəq* ‘slap’ is also a loanword of Berber origin.

²⁷The Berber origin of this item has nevertheless been affirmed by Colin and Ferrando, based on the data provided by Ibn al-Bayṭār (Ferrando 1997: 110–111). It is documented in Moroccan Arabic, *āryīs* ‘barberry’ (de Prémare 1995: 151), and in Spanish it has become *alargue* and *alguese*, and in Portuguese *largis* (Corriente et al. 2020). A fall into disuse in the SL is perhaps the reason for its absence from the current dictionaries.

²⁸The last two lexical borrowings are documented in the Andalusī source *kitābu ṣumdati ṭ-ṭabīb*, by Abu l-Ḥayr al-ʿIṣbīlī (2004; 2007), a botanist of the eleventh century. However, their Berber origin is quite doubtful for M. Kossmann (personal communication).

²⁹See Ibáñez (1949: 272) whose transcription is *zabeqqixz*.

³⁰The word exists in Moroccan Arabic as *ābāzīn* (de Prémare 1993: 5), and in Kabyle Berber as *tabazint* (augmentative of *abazin*).

first taken place in North Africa (the northern part of present-day Morocco), since we know that some variety of Vulgar Latin was in contact there with the Berber variety of the region before the arrival of Muslim troops (cf. Heath, this volume). The Berber-speaking Andalusians would have then later transferred these items to Andalusī Arabic.³¹

Some of these lexical borrowings have certain characteristics that demonstrate greater integration than others in Andalusī Arabic:

1. Morphophonemic adaptations.

a) Phonemic adaptation to Arabic (although this may simply be a problem of orthography, since the Arabic script lacks a means of representing the Berber phonemes /g/ and /z/). /g/ is represented as ⟨k⟩, ⟨q⟩ or ⟨ḡ⟩: *akzal/aqzal* ‘pike (characteristic weapon of the Berbers)’ < *agzal*;³² *āḍiqal* ‘watermelon’ < *adigal*; *arḡān* ‘argan tree’ < *argan*, *qillid* ‘Berber prince’ < *agallid*, while /z/ is represented as ⟨z⟩: *zawzana* ‘mutism’ < *aḏizun*, *lazāz* ‘werewolf’ < *azḏaz*.

b) Elimination of typically Berber morphemes: e.g., the loss of prefix *a-* of masculine nouns: *bāzīn* ‘a dish of couscous, meat and vegetables’ < *abazin*, *dād abyad* ‘white chameleon’ < *addad*, *mizwār* ‘manager, commander’ < *aməzwaru* ‘first’, *fīnniṣ* ‘mule’ < *afənniṣ* ‘snub-nosed’, *mazad* ‘Quranic school’ < *amzad*. Likewise the loss of prefix and suffix *t...-t* of feminine nouns: *zaynaz* ‘brooch, buckle’ < *tisəynəst* (Tarifit),³³ *muzūra* ‘horse braid’ < *tamzurt* (Tarifit and Kabyle), *saryant* ‘root of the orpine plant’ < *tasəryint*, as well as elimination of prefix *t-*, as in *abyā* ‘wild bramble’ < *tabya*.

2. Another process for the integration of lexical borrowing involves fitting Berber words to Arabic patterns, as in *zawzana* ‘mutism’ (with the Arabic pattern CawCaCa) < *aḏizun*, *harkama* ‘tripe stew’ (with the Arabic pattern CaCCaCa) < *urkimen*, *hirkāsa* ‘rustic leather shoe’ (with the Arabic pattern CiCCāCa) < *arkasən* (Kabyle) or *arkas*, *ahərkus* (Tarifit).

³¹A number of these Berber loans have then gone on to reach the Romance languages through Andalusī Arabic. The most recent list includes forty of these borrowings in Romance languages (Corriente et al. 2019).

³²Andalusī Arabic seems to have had a diminutive form of this item: *tagzalt* (modern dictionaries give the diminutive *tagəzzalt* ‘small stick’; Taifi 1991). This could then be the source of Castilian *tragacete* and Portuguese *tragazeite* ‘dart’ (Corriente et al. 2020).

³³This is a noun of instrument derived from the verb *ynəs* ‘to tie with a brooch’. Corriente derives it from *asəgnəs* ‘needle’, see (Corriente et al. 2020), but the phoneme /ɣ/ makes the first option more likely (M. Kossmann, personal communication).

4 Conclusion

Andalusi Arabic developed in the Iberian Peninsula through intra-Arabic leveling and contact with two other language types: Romance and Berber. This situation spanned a long period of time and resulted in a good deal of contact-induced change.

Initially the L2 of most of the population, after a two-century gestation process, Andalusi Arabic gradually became the dominant language, overtaking the Romance dialect spoken by the local population. The main reason was the growing social prestige attached to Arabic in an Islamic society, in contrast to the lower social status of Andalusi Romance, which first became an L2, before the bilingual situation eventually disappeared. This contact situation resulted in a number of contact-induced changes in all areas of grammar, but it is often difficult to diagnose what type of transfer took place in such an ancient contact situation.

Concerning Berber varieties, modern historiography reveals that the interaction between Arabic-speaking and Berber-speaking populations on both sides of the Strait of Gibraltar facilitated lasting language contact. The role of Berber in the language development of al-Andalus, however, has not yet been analysed in depth. The nature of the available data is such that lexical borrowings are the only transfers that have been well described at present.

Future research would be particularly desirable with regard to contact-induced changes in Andalusi Arabic due to the presence of Berber varieties in the Iberian Peninsula. This should involve collaboration between scholars of Berber and of Arabic.

Further reading

- Corriente (1997a) provides a linguistic analysis of Andalusian strophic poetry.
- Corriente (2005) offers valuable information concerning the impact of Andalusi Arabic on Ibero-Romance.
- Corriente et al. (2015) is the most up-to-date book-length description of Andalusi Arabic grammar. It contains a section dealing with transfer from Romance and Berber.
- Ferrando (1997) offers an etymological description of some Berber loanwords in Andalusi Arabic.
- Vicente (2010) details the Andalusi influence on the dialects of northern Morocco.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person	OA	Old Arabic
DU	dual	OBL	oblique
IMPF	imperfect (prefix conjugation)	RL	recipient language
L1	first language	SG	singular
L2	second language	SL	source language
M	masculine		

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Chapter 12

Ḥassāniyya Arabic

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The area where Ḥassāniyya is spoken, located on the outskirts of the Arab world, is contiguous with those of several languages that do not belong to the Afro-Asiatic phylum. However, the greatest influence on the evolution of Ḥassāniyya has been its contact with Berber and Classical Arabic. Loanwords from those languages are distinguished by specific features that have enriched and developed the phonological and morphological system of Ḥassāniyya. In other respects, Ḥassāniyya and Zenaga are currently in a state of either parallel evolution or reciprocal exchanges.

1 Current state and historical development

1.1 Historical development of Ḥassāniyya

The arrival in Morocco of the Banī Maṣqil, travelling companions of the Banī Hilāl and Banī Sulaym, is dated to the thirteenth century. However, the gradual shift to the territories further south of one of their branches – that of the Banī Ḥassān, the origin of the name given to the dialect described here – began closer to the start of the subsequent century.

At that time, the Sahel region of West Africa was inhabited by different communities: on the one hand there were the “white” nomadic Berber-speaking tribes, on the other hand, the sedentary “black” communities.

Over the course of the following centuries, particularly during the seventeenth and eighteenth centuries, the sphere of Zenaga Berber gradually diminished, until it ceased to exist in the 1950s, other than in a few tribes in the southwest of Mauritania. At the same time, Ḥassāniyya Arabic became the language of the nomads of the west Saharan group, maintaining a remarkable unity (Taine-Cheikh 2016; 2018a). There is virtually no direct documentation of the region’s linguistic



history during these centuries. This absence of information itself suggests a very gradual transformation and an extended period of bilingualism.

Despite the lack of documentation of the transfer phenomenon, it seems highly likely that bilinguals played a very important role in the changes described in this chapter.

1.2 Current situation of Ḥassāniyya

The presence of significant Ḥassāniyya-speaking communities is recognized in six countries. With the exception of Senegal and especially of Niger, the regions occupied by these communities, more or less adjacent, are situated primarily in Mauritania, in the north, northeast and east of the country.

The greatest number of Ḥassāniyya speakers (approximately 2.8 out of a total of four million) are found in Mauritania, where they constitute the majority of the population (approximately 75%). The Ḥassāniyya language tends to fulfil the role of the lingua franca without, however, having genuine official recognition beyond, or even equal to, that which it has acquired (often recently) in neighbouring countries.

2 Contact languages

2.1 Contact with other Arabic varieties

The Islamization of the Ḥassāniyya-speaking population took place at an early date, and Ḥassāniyya has therefore had lengthy exposure to Classical Arabic. For many centuries this contact remained superficial, however, except among the Marabout tribes, where proficiency in literary Arabic was quite widespread and in some cases almost total. The teaching of Islamic sciences in other places reached quite exceptional levels in certain *mḥāḍar* (a type of traditional desert university).¹ In the post-colonial era, the choice of Arabic as official language, and the widespread Arabization of education, media and services, greatly increased the Ḥassāniyya-speaking population's contact with literary Arabic (including in its Modern Standard form), though perfect fluency was not achieved, even among the young and educated populations.

Excluding the limited influence of the Egyptian and Lebanese–Syrian dialects used by the media, the Arabic dialects with which Ḥassāniyya comes into contact

¹These may be referred to as universities both in terms of the standard of teaching and the length of students' studies. They were, however, small-scale, local affairs, located either in nomadic encampments or in ancient caravan cities.

most often today are those of the neighbouring countries (southern Moroccan and southern Algerian). Most recently Moroccan koiné Arabic has established a presence in the Western Sahara, since the region came under the administration of Morocco.

2.2 Contact with Berber languages

Ḥassāniyya has always been in contact with Berber languages. Currently, speakers of Ḥassāniyya are primarily in contact with Tashelhiyt (southern Morocco), Tuareg (Malian Sahara and the Timbuktu region) and Zenaga (southwest Mauritania). In these areas, some speakers are bilingual in Ḥassāniyya and Berber.

In Mauritania, where Zenaga previously occupied a much larger area, Berber clearly appears as a substrate.

2.3 Contact with languages of the Sahel

Contacts between Ḥassāniyya speakers and the languages spoken in the Sahel have varied across regions and over time, but have left few clearly discernible traces on Ḥassāniyya.

The contact with Soninke is ancient (cf. the toponym *Chinguetti* < Soninke *sí-n-gèdé* ‘horse well’), but the effects are hardly noticeable outside of the old cities of Mauritania. The contact with Songhay is both very old and still ongoing, but is limited to the eastern part of the region in which Ḥassāniyya is spoken (especially the region of Timbuktu).

The influence of Wolof, albeit marginal, has always been more substantial in southwestern Mauritania, especially among the Awlād Ban^yūg of the Rosso region. It peaked in the years 1950–70, in connection with the immigration to Senegal of many Moors (e.g. *gord^yigen* ‘homosexual’, lit. ‘man-woman’). In Mauritania, the influence of Wolof can still be heard in some areas of urban crafts (e.g. mechanics, electricity), but it is primarily a vehicle for borrowing from French.

Although Pulaar speakers constitute the second-largest linguistic community of Mauritania, there is very limited contact between Ḥassāniyya and Pulaar, with the exception of a few bilingual groups (especially among the Harratins) in the Senegal River valley.

Certain communities (particularly among the Fulani) were traditionally known for their perfect mastery of Ḥassāniyya. As a result of migration into major cities and the aggressive Arabization policy led by the authorities, Ḥassāniyya has gained ground among all the non-Arabic speakers of Mauritania (especially in the big cities and among younger people), but this has come at the cost of a sometimes very negative attitude towards the language.

2.4 Contact with Indo-European Languages

Exposure to French has prevailed in all the countries of the region, the only exception being the Western Sahara, which, from the end of the nineteenth century until 1975, was under Spanish occupation.

In Mauritania the French occupation came relatively late and was relatively insignificant. However, the influence of the colonizers' language continued well after the country proclaimed its independence in 1960. That said, French has tended to regress since the end of the twentieth century (especially with the rise of Standard Arabic, e.g. *minəstr* has been replaced by *wazīr* 'minister'), whilst exposure to English has become somewhat more significant, at least in the better educated sections of the population.

3 Contact-induced changes in Ḥassāniyya

3.1 Phonology

3.1.1 Consonants

3.1.1.1 The consonant /d/

As in other Bedouin dialects, /ð/ is the normal equivalent of the <ض> of Classical Arabic (e.g. *ðmər* 'to have an empty stomach' (CA *ḍamira*) and *ðhak* 'to laugh' (CA *ḍahika*). Nonetheless, /d/ is found in a number of lexemes in Ḥassāniyya.

The form [d] sometimes occurs as a phonetic realization of /d/ simply due to contact with an emphatic consonant (compare *şdam* 'to upset' and *şadma* 'annoyance', CA *şdm*). However, /d/ generally appears in the lexemes borrowed from Standard Arabic, either in all words of a root, or in a subset of them, for example: *staḥḍar* 'to be in agony' and *ḥadari* 'urbanite' but *ḥḍar* 'to be present' and *mah^oḍra* 'Quranic school'. The opposition /d/ vs. /ð/ can therefore distinguish a classical meaning from a dialectal meaning: compare *staḥḍar* to *staḥḍar* 'to remember'.

/d/ is common in the vocabulary of the literate. The less educated speakers sometimes replace /d/ with /ð/ (as in *qāḍi* for *qāḍi* 'judge'), but the stop realization is stable in many lexemes, including in loanwords not related to religion, such as *dšiv* 'weak'.

The presence of the same phoneme /d/ in Berber might have facilitated the preservation of its counterpart in Standard Arabic loans, even though in Zenaga /d/ is often fricative (intervocally). Moreover, the /d/ of Berber is normally devoiced in word-final position in Ḥassāniyya, just as in other Maghrebi dialects, for example: *şayvaṭ* 'to say goodbye', from Berber *şfd* 'to send'.

3.1.1.2 The consonant /z/

/z/ is one of the two emphatic phonemes of proto-Berber. This emphatic sibilant sound regularly passes from the source language to the recipient language when Berber words are used in Ḥassāniyya. For example: *azz* ~ *āzz* ‘wild pearl millet’ (Zenaga *īzi*).

However, /z/ is also present in lexemes of a different origin. Among Ḥassāniyya roots also attested in Classical Arabic, *z often becomes /z/ in the environment of /r/ (e.g. *rāz* ‘to try’, CA *rāza*; *razza* ‘lightning’, CA *rizz*; *zabra* ‘anvil’, CA *zubra*). Sometimes /z/ appears in lexemes with a pejorative connotation, e.g. *zraṭ* ‘fart; lie’ (CA *darāṭa*), *zagg* ‘make droppings (birds)’ (CA *zaqq*).

3.1.1.3 The consonant /q/

The normal equivalent of the ⟨ق⟩ of Classical Arabic is the velar stop /g/, as in other Bedouin dialects (e.g. *bagra* ‘cow’, CA *baqara*). However, /q/ is in no way rare.

First of all, /q/ appears, like /d/, in a number of words borrowed from Classical Arabic by the literate: *ṣaq³d* ‘religious marriage contract’; *vassaq* ‘to pervert’. The opposition /g/ vs. /q/ can therefore produce two families of words, such as *qibla* ‘Qibla, direction of Mecca’ and *gābla* ‘one of the cardinal directions (south, southwest or west, depending on the region)’. It can also create a distinction between the concrete meaning (with /g/) and the abstract meaning (with /q/): *θgāl* ‘become heavy’, *θqāl* ‘become painful’.

Next, /q/ is present in several lexemes of non-Arabic origin, such as *bsaq* ‘silo’, *mzawraq* ‘very diluted (of tea)’, (in southwest Mauritania) *sarqalla* ‘Soninke people’, (in Néma) *sasundaqa* ‘circumcision ceremony’, (in Walata) *raqansak* ‘decorative pattern’, *asanqās* ‘pipe plunger’, *sayqad* ‘shouting in public’, and (in the southeast) *ṣayqa* ‘to move sideways’. These lexemes, often rare and very local in use, seem to be borrowed mostly from the languages of the Sahel region.²

Finally, /q/ is the outcome of *y in cases of gemination, (/yy/ > [qq]): compare *raqqad* ‘to make porridge’ to *ryīda* ‘a variety of porridge’ (CA *rayīda*). This correlation, attested in Zenaga and more generally in Berber, can be attributed to the substrate.

Insofar as the contrast between /y/ and /q/ is poorly established in Berber, the substrate could also explain the tendency, sometimes observed in the southwest, to velarize non-classical instances of /q/ (or at least instances not identified as

²I am currently unable to specify the origin of these terms except that *bsaq* (attested in Zenaga) could be of Wolof origin.

classical): hence *yandīr* ‘candle’ for *qandīr* < CA *qandīl* – this is despite the fact that the shift /y/ > /ʔ/ is very common in Zenaga. However, the influence of Berber does not explain the systematic shift of /y/ to /q/ throughout the eastern part of the Ḥassāniyya region (including Mali): thus eastern *qlab* ‘defeat’ for southwestern *ylab* (CA *yalaba*).³

3.1.1.4 Glottal stop

The glottal stop is one of the phonemes of Zenaga (its presence in the language is in fact a feature that is unique among Berber varieties), however it is not found in Ḥassāniyya, with the exception of words borrowed from Standard Arabic, e.g. *tʔabbad* ‘to live religiously’, *danāʔa* ‘baseness’ and *taʔhīr* ‘postponement’. Very rarely the glottal stop is also maintained when it occurs at the end of a word as in *baʔraʔ* ‘to declare innocent’.

3.1.1.5 Palatalized consonants

There are three palatalized consonants: two dental (/tʲ/ and /dʲ/) and a nasal /nʲ/. Unlike the phonemes discussed above, these are very rare in Ḥassāniyya, especially /nʲ/.

The palatalized consonants are also attested in certain neighbouring languages of the Sahel, as well as in Zenaga (but these are not phonemes of Common Berber). They are rather infrequent in the Zenaga lexicon, occurring especially in syntagmatic contexts (-d+y-, -n+y-) and in morphological derivation (formation of the passive by affixation of a geminate /tʲ/).

In Ḥassāniyya, the palatalized consonants mostly appear in words borrowed from Zenaga or languages of the Sahel. Interestingly, certain loanwords from Zenaga are ultimately of Arabic origin and constitute examples of phonological integration, as in *tʲfāya*, a given name and, in the plural, the name of a tribe < Zenaga *atʲfāya* ‘marabout’ < CA *al-faqīh*, and *hurūdʲ* ‘leave (from Quranic school)’ < Zenaga *hurūdʲ* < CA *huruġ* ‘exit’.

One should also note the palatization of /t/ in certain lexemes from particular semantic domains (such as the two verbs related to fighting *tʲbəl* ‘to hit hard’ and *kawtʲam* ‘boxer’). This may suggest the choice of a palatalized consonant for its expressive value (and would then be a marginal case of phonosymbolism).

³The regular passage from /y/ to /q/ is a typical Bedouin trait, related to the voiced realization (/g/) of *q. It occurs especially in southern Algeria, in various dialects of the Chad–Sudanese area, and in some Eastern dialects (Cantineau 1960: 72).

3.1.1.6 Labial and labiovelar consonants

The labiovelar consonants /m^w, b^w, f^w, v^w/ or /ṃ, ḃ, Ḥ, ṽ/) are common in Ḥassāniyya, as they are in Zenaga. In both cases, they often come in tandem with a realization [u] of the phoneme /ə/.

This phenomenon may have originally arisen in Zenaga, since the Ḥassāniyya of Mali (where it was most likely in contact with other languages) exhibits greater preservation of a [u] vowel sound and, at the same time, less pronounced labiovelarization of consonants.

The Ḥassāniyya of Mali also has a voiceless use of the phoneme /f/, where the Ḥassāniyya of Mauritania is characterized by the use of /v/ in its place (Heath 2004; an observation that my own studies have confirmed). This phonetic trait does not come directly from Zenaga (in which /v/ exists but is very rare). However, it could be connected with the preference for voiced phonemes in Berber generally and in Zenaga in particular.

3.1.2 Syllabic structures

In Ḥassāniyya, Arabic-derived syllabic structures do not contain short vowels in word-internal open syllables, with the exception of particular cases such as passive participles in *mu-* (*mudagdag* ‘broken’) and certain nouns of action (*ḥašy* > *ḥaši* ‘filling’). However, loanwords from literary Arabic and other languages (notably Berber and French) display short vowels quite systematically in this context: *abadan* ‘never’ and *ḥazin* ‘sad’ (from Standard Arabic); *tamāt* ‘gum’ (from Zenaga *taʔmaḍ*); *tamāta* ‘tomato’. In fact, it may be noted that, unlike the majority of Berber varieties (particularly in the north), Zenaga has a relatively substantial number of lexical items with short vowels (including ə) in open syllables: *kaṛaḍ* ‘three’, *tuḍuṃaʔn* ‘a few drops of rain’ *awayan* ‘languages’, *əgəḍih* ‘necklace made from plants’.⁴

Furthermore, a long vowel *ā* occurs word-finally in loaned nouns which in Standard Arabic end with *-āʔ*: *vidā/vidāy* ‘ransom’. In other cases, underlyingly long word-final vowels are only pronounced long when non-final in a genitive construct.

⁴It is precisely for this reason that, regarding the loss of the short vowels in open syllables, I deem the hypothesis of a parallel evolution of syllabic structures in Maghrebi Arabic and Berber to be more convincing than the frequently held alternative hypothesis of a one-way influence of the Berber substrate on the Arabic adstrate.

3.2 Morphology

3.2.1 Nominal morphology

3.2.1.1 Standard forms

Nouns and adjectives borrowed from Standard Arabic may often be identified by the presence of: a) open syllables with short vowels, e.g. *vaḍalāt* ‘rest of a meal’, *yaḍab* ‘anger’, *vasād* ‘alteration’, *ḥtimāl* ‘possibility’, b) short vowels /i/ (less frequently /u/) in a closed syllable: *miḥrāb* ‘mihrab’, *muḥarrir* ‘inspector; editor’.

Some syllables are only attested in loanwords, such as the nominal pattern CVCC, where the pronunciation of the double coda necessitates the insertion of a supporting vowel, in which case the dialect takes on the form CCVC: compare *ṣaq³d* ‘religious marriage’ with *ṣqal* ‘wisdom’.

The most characteristic loanword pattern, however, is that of *tahrīr* ‘liberation; verification (of an account)’. In Ḥassāniyya the equivalent of the pattern taCCiC is tACCāC. For the root \sqrt{hrr} , this provides a verbal noun for other meanings of the verb *ḥarrar*: *tāḥrār* ‘whipping of wool (to untangle it); adding flour to make dumplings’. As for the form taCaCCuC, the /u/ is sometimes lengthened: *tāḥammul* ‘obligation’, but *tavakkūr* ‘contemplation’.

3.2.1.2 Berber affixes

Nouns borrowed from Berber are characterized by the frequent presence of the vowels /a, ā, i, ī, u, ū/. These are of varying lengths, except that in a word-final closed syllable they are always long and stressed. Since these vowels appear in all types of syllables – open and closed – this results in much more varied syllabic patterns than in nouns of Arabic origin.

These loans are also characterized by the presence of affixes which, in the source language, are markers of gender and/or number: the prefix *a/ā-* or *i/ī-* for the masculine, to which the prefix *t-* is also added for the feminine or, more frequently (especially in the singular), a circumfix *t...-t*. Compare *iggīw* ~ *īggīw* ‘griot’ with the feminine form *tiggīwīt* ~ *tīggīwīt*. A suffix in *-(ə)n* characterizes the plurals of these loanwords which, moreover, differ from the singulars in terms of their vocalic form: *iggāwən* ~ *īggāwən* ‘griots’, feminine *tiggawātən* ~ *tīggawātən*. The presence of these affixes generally precludes the presence of the definite article.

Though these affixes pass from the source language to the target language along with the stems, the syllabic and vocalic patterns of such loans are often particular to Ḥassāniyya: compare Ḥassāniyya *āršān*, plural *iršyūn* ~ *iršiwən* ‘shallow pit’ with Zenaga *a?raš*, plural *a?raššan* (see Taine-Cheikh 1997a).

Ḥassāniyya speakers whose mother tongue is Zenaga have most likely played a role in the transfer of these affixes and their affixation to nouns of all origins (including those of Arabic origin: a possible example being *tasūvra* ‘large decorated leather bag for travelling’, cf. *sāvər* ‘to travel’). The forms that these speakers use can also be different from those used by other Ḥassāniyya speakers – especially if the latter have not been in contact with Berber speakers for a long time.

It is not proven that Berber speakers are the only ones to have created and imposed these forms which are more Berberized than authentically Berber. However, it may be noted that the gender of nouns borrowed from Berber is generally well preserved in Ḥassāniyya, even for the feminine nouns losing their final *-t*, other than in special cases such as the collective *tayšəṭ* ‘thorny tree (*Balanites aegyptiaca*)’ with a final *-ṭ* (< Zenaga *tayšaD* for *tayšaḏt*).⁵ In fact, this indicates a deep penetration of the meaning of these affixes and of Berber morphology in general (up to and including the incompatibility of these affixes with the definite article).

The borrowing of the formants *ən-* ‘he of’ and *tən-* ‘she of’ (quasi-equivalents of the Arabic-derived *bū-* and *ūm(m)-*) is fairly widespread, in particular in the formation of proper nouns. It is also mostly in toponyms and anthroponyms that the diminutive form with prefix *ay-* and suffix *-t* is found, e.g. the toponym *Agjoujt* (< *ay-žoʔž-t* ‘small ditch’).

3.2.2 Verbal Morphology

3.2.2.1 The derivation of *sa-*

The existence of verb forms with the prefix *sa-* is one of the unique characteristics of Ḥassāniyya (Cohen 1963; Taine-Cheikh 2003). There is nothing, however, to indicate that the prefix is an ancient Semitic feature that Ḥassāniyya has preserved since its earliest days. Instead, the regular correspondences between the three series of derived verb forms (causative–factitive vs. reflexive vs. passive) and the specialization of the morpheme *t* as a specific marker of reflexivity underlie the creation of causative–factitives with *sa-*. Neologisms with *sa-* generally appear when forms with the prefix *sta-* have a particular meaning: *staslaʃ* ‘to get worse (an injury)’ – *saslaʃ* ‘to worsen (injury)’; *stabrak* ‘to seek blessings’ – *sabrak* ‘to give a blessing’; *stagwa* ‘to behave as a griot’ – *sagwa* ‘to make someone a griot’; *staqbal* ‘to head towards the Qibla’ – *saqbal* ‘to turn an animal for slaughter in the direction of the Qibla’.

⁵In Zenaga, non-intervocalic geminates are distinguished not by length, but rather by tension, and it is this that is indicated by the use of uppercase for the final *D*.

Furthermore, the influence of Berber has certainly played a role, since the prefix *s(a)-* (or one of its variants) very regularly forms the causative–factitive structure in this branch of the Afro-Asiatic language family.

In Zenaga, the most frequent realization of this prefix is with a palato-alveolar shibilant, but a sibilant realization also occurs, particularly with roots of Arabic origin. For example: Hass. *sādəb* (variant of *ddəb*) – Zen. *yassiʔəb* ‘to train an animal (with a saddle)’ < CA *ʔdb* (cf. *ʔaddaba* ‘educate, carefully bring up’); Hass. *sasla* – Zen. *yassaslah* ‘to let a hide soak to give it a consistency similar to a placenta’ and Hass. *stasla* – Zen. *staslah* ‘start to lose fur (of hides left to soak)’ < CA *ʔsly* (cf. *salā* ‘placenta’).

Parallel to these examples where the Berber forms (at least those with the prefix *st(a)-*) are most likely themselves borrowed, we also find patterns with *sa-/ša-* which are incontestably of Berber origin: compare Ḥassāniyya *niyyər* ‘to have a good sense of direction’, *sanyar* ‘to show the way’, *stanyar* ‘to know well how to orient oneself’ and Tuareg *ener* ‘to guide’, *sener* ‘to make guide’. Typically, however, when Ḥassāniyya borrows causative forms from Berber, it usually integrates the Berber prefix as part of the Ḥassāniyya root, making it the first radical of a quadrilateral root, e.g. Hass. *sadba* – Tuareg *sidou* ‘to make s.o. leave in the afternoon’ and Hass. *ssadba* (< *tsadba*) – Tuareg *adou* ‘to leave in the afternoon’.

The parallelism between Arabic and Berber is not necessarily respected in all cases, but the forms with initial *s-/š-* are usually causative or factitive in both cases. The only exception concerns certain Zenaga verbal forms which have become irregular upon contact with Ḥassāniyya: thus *yassəḏbah* ‘to leave in the afternoon’ or *yišnar* ‘to orient oneself’ (a variant of *yinar*), of which the original causative value is now carried by a form with a double prefix (*ž+š*): *yažəšnar* ‘to guide’.

3.2.2.2 The Derivation of *u-*

The existence of a passive verbal prefix *u-* for quadrilateral verbs and derived forms constitutes another unique feature of Ḥassāniyya. For example: *udagdag*, passive of *dagdag* ‘to break’; *uṭabbab*, passive of *ṭabbab* ‘to train (an animal)’; *udāya*, passive of *dāya* ‘to cheat (in a game)’.

The development of passives with *u-* was most likely influenced by Classical Arabic, since here the passives of all verbal measures feature /u/ in the first syllable in both the perfect and the imperfect, e.g. *fuʕila*, *yufʕalu*; *fuʕʕila*, *yufaʕʕalu*; and *fūʕila*, *yufāʕalu*, the respective passives of *faʕala*, *faʕʕala* and *fāʕala*.

However, influence from Berber cannot be excluded here since, in Zenaga, the formation of passives with the prefix *Tʸ* is directly parallel to those of the passives

with *u-* in Ḥassāniyya. Moreover, this prefix is *t(t)u-* or *t(t)w-* in other Berber varieties (especially those of Morocco) and this could also have had an influence on the emergence of the prefix *u-*.

3.3 Syntax

3.3.1 Ḥassāniyya–Zenaga parallelisms

Ḥassāniyya and Zenaga have numerous common features, and this is especially true in the realm of syntax. In general, the reason for these common traits is that they both belong to the Afro-Asiatic family and remain conservative in various respects; for example, in their lack of a discontinuous negative construction.

There are, however, also features of several varieties of both languages documented in Mauritania that represent parallel innovations. Thus, corresponding to the diminutive forms particular to Zenaga, we have in Ḥassāniyya *mutatis mutandis* a remarkably similar extension to verbs of the diminutive pattern with infix *-ay-*, e.g. *mayllas*, diminutive of *mallas* ‘to smooth over’ (Taine-Cheikh 2008a: 123–124).

In the case of aspectual–temporal forms, there are frequent parallels, such as Ḥassāniyya *mā tla* and Zenaga *war yiššiy* ‘no longer’, Ḥassāniyya *ma-zāl* and Zenaga *yaššiy* ‘still’, Ḥassāniyya *tamm* and Zenaga *yuktay* ‘to continue to’, Ḥassāniyya *ʕgab* and Zenaga *yaggara* ‘to end up doing’. One of the most notable parallel innovations, however, concerns the future morpheme: Ḥassāniyya *lāhi* (invariable participle of an otherwise obsolete verb, but compare *ltha* ‘to pass one’s time’) and Zenaga *yanhāya* (a conjugated verb also meaning ‘to busy oneself with something’, in addition to its future function). In both cases we have forms related to Classical Arabic *lahā* ‘to amuse oneself’, with the Zenaga form apparently being a borrowing. It seems, therefore, that this borrowing preceded the *lāhi* of Ḥassāniyya and likely then influenced its adoption as a future tense marker. Note also that in the Arabic dialect of the Jews of Algiers, *lāti* is a durative present tense marker (Cohen 1924: 221; Taine-Cheikh 2004: 224; Taine-Cheikh 2008a: 126–127; Taine-Cheikh 2009: 99).

Ḥassāniyya and Zenaga also display common features with regard to complex phrases. For example, concerning completives, Zenaga differs from other Berber languages in its highly developed usage of *ad ~ aḏ*, and in particular in the grammaticalized usage of this demonstrative as a quotative particle after verbs of speaking and thinking (Taine-Cheikh 2010a). This may have had an influence on the usage of the conjunctions *an(n)-* and *ʕan-* (the two forms tend to be confused) in the same function in Ḥassāniyya.

Finally, regarding the variable appearance of a resumptive pronoun in Ḥassāniyya object relative clauses, if influence from Berber (where a resumptive pronoun is always absent) has played any role here, it has simply been to reinforce a construction already attested in the earliest Arabic, whereby the resumptive pronoun is absent if the antecedent is definite, as in (1).

- (1) nṛədd ʕli-kum əṛ-ɾwāye lli radd-∅ ʕli-ya
 tell.IMPF.1SG on-2PL DEF-story REL tell.PRF.3SG.M-∅ on-OBL.1SG
 muḥammad
 Mohammed
 ‘I am going to tell you the story that Mohammed told me.’

3.3.2 Regional influence of Maghrebi Arabic

The Ḥassāniyya spoken in the south of Morocco is rather heavily influenced by other Arabic varieties spoken in the region. Even among those who conserve virtually all the characteristic features of Ḥassāniyya (preservation of interdentals, synthetic genitive construction, absence of the pre-verbal particle *kā-* or *tā-*, absence of discontinuous negation, absence of the indefinite article), particular features of the Moroccan Arabic koiné appear either occasionally or regularly among certain speakers. The most common such features are perhaps the genitive particle *dyal* (Taine-Cheikh 1997b: 98) and the preverbal particle *kā* (Aguadé 1998: 211, §37; 213, §42).

In the Ḥassāniyya of Mali, usage of a genitive particle remains marginal, although Heath (2004: 162) highlights a few uses of genitive (*n*)*tāf* in his texts.

3.4 Lexicon

3.4.1 Confirmed loanwords

3.4.1.1 Loanwords from Standard Arabic

Verbs loaned from Standard Arabic are as common as nominal and adjectival loans. Whatever their category, loans are often distinctive in some way (whether because of their syllabic structure, the presence of particular phonemes or their morphological template), since the lexeme usually (though not always) has the same form in both the recipient language and the source language. Examples of loans without any distinctive features are *barṛar* ‘to justify’ and *ḍahbi* ‘golden’.

A certain number of Standard Arabic verbs with the infix *-t-* or the prefix *sta-* are borrowed, but these verbal patterns can be found elsewhere in Ḥassāniyya.

Certain lexical fields exhibit a particularly high degree of loans from Standard Arabic: anything connected with Islamic studies or abstract concepts (religion, rights, morality, feelings, etc.) and, more recently, politics, media and modern material culture. These regularly retain the meaning (or one of the meanings) of the source-language item.

3.4.1.2 Loanwords from Berber

There are many lexical items that are probable loans from Berber, with a number of certain cases among them.

Here we may point to several non-Arabic-origin verbs with cognates across a wide range of Berber languages, such as *kraṭ* ‘to scrape off’ (Zenaga *yugraḍ*); *šayḍaḍ* ‘to make a lactating camel adopt an orphaned calf from another mother’ (Zenaga *yašsuḍaḍ* ‘to breastfeed’, *yudḍaḍ* ‘to suckle’); *santa* ‘to begin’ (Zenaga *yassanta* ‘to begin’, Tuareg *ent* ‘to be started, to begin’); *gaymar* ‘to hunt from a distance’ (Berber *gmər* ‘to hunt’).

Other verbs are derived from nouns loaned from Berber. Hence, *yawba* ‘to restrain a camel, put it in an *ayāba*’ (Tuareg *ayaba* ‘jaws’). Sometimes there is both a verb and an adjective stemming from a loaned root, as in *gaylal* ‘to have the tail cut’ and *agilāl* ‘having a cut tail’ (Tuareg *gilel* and *agilal*).

Some loaned Ḥassāniyya nouns are found with the same root (or an equivalent root) in Berber languages other than Zenaga. For example: *agayš* ‘male busterd’ (Tuareg *gayəs*); *āškər* ‘partridge’ (Kabyle *tasekkurt* in the feminine form); *tayffārət* ‘fetlock (camel)’ (Zenaga *tiʔffart*, Tuareg *téffart*); *azāyər* ‘wooden mat ceiling between beams’ (Zenaga *azayri* ‘lintel, beam (of a well)’, Tuareg *əzgər* ‘to cross’, *āzəgər* ‘crossbeam’); *talawmāyət* ‘dew’ (Zenaga *tayaṃut*, Tuareg *tālāmūt*); *(n)tūrza* ‘*Calotropis procera*’ (Zenaga *turžah*, Tuareg *tərza*).

Most of the loanwords cited above are attested in Zenaga (sometimes in a more innovative form than is found in other Berber varieties, such as *yaggīyay* ‘to have a cut tail’ where /y/ < *l). However, there are numerous cases where a corresponding Berber item is attested only in Zenaga. In such cases it is difficult to precisely identify the source language, even if the phonology and/or morphology seems to indicate a non-Arabic origin.

Loanwords from Berber seem to be particularly common in the lexicon of fauna, flora, and diseases, as well as in the field of traditional material culture (objects, culinary traditions, farming practices, etc.; Taine-Cheikh 2010b; 2014). Unlike the form of the loans, which is often quite divergent from that of the source items, their semantics tends to remain largely unchanged. However, there are some exceptions, notably when the verbs have a general meaning in Berber

(cf. above ‘to breastfeed’ vs. ‘to make a lactating camel adopt an orphaned calf from another mother’).

3.4.1.3 Loanwords from Sahel languages

Rather few Ḥassāniyya lexical items seem to be borrowed directly from African languages, and the origin of those that are is rarely known precisely. We may note, however, in addition to *gadʸ* ‘dried fish’ (< Wolof) and *dʸangra* ‘warehouse’ (< Soninke), a few terms which appear to be borrowed from Pulaar: *tʸəhli* ‘roof on pillars’ and *kīri* ‘boundary between two fields’.

In some regions we find a concentration of loans in particular domains in relation to specific contact languages. For example, in the ancient town of Tichitt, we find borrowings from Azer and Soninke (Jacques-Meunié 1961; Monteil 1939; Diagana 2013): *kā* ‘house’ (Azer *ka(ny)*, Soninke *kā*) in *kā n laqqe* ‘entrance of the house’; *killen* ‘path’ (Azer *kille*, Soninke *killé*); *kunyu* ~ *kenyen* ‘cooking’ (Azer *knu* ~ *kenyu*, Soninke *kinṅú*).

A significant list of loanwords from Songhay has been compiled by Heath (2004) in Mali, including e.g.: *ṣawṣab* (< *sosom* ~ *sosob*) ‘pound (millet) in mortar to remove bran from grains’; *daydi* ~ *dayday* (< *deydey*) ‘daily grocery purchase’; *ākārāy* (< *kaarey*) ‘crocodile’; *sari* (< *seri*) ‘millet porridge’. Only *sari* has been recorded elsewhere in Mauritania (in the eastern town of Walata). On the other hand, all authors who have done field work on the Ḥassāniyya of Mali (particularly in the region of Timbuktu and the Azawad), have noted loanwords from Songhay. This is true also of Clauzel (1960) who, as well as a number of Berber loanwords, gives a small list of Songhay-derived items used in the salt mine of Tāwdenni, such as *titi* ‘cylinder of saliferous clay used as a seat by the miners’ (< *tita*) and *tʸar* ‘adze’ (< *tʸara*).

3.4.1.4 Loanwords from Indo-European languages

The use of loanwords from European languages tends to vary over time. Thus, a large proportion of the French loanwords borrowed during the colonial period have more recently gone out of use, such as *bərṭmāla* or *qorṭmāl* ‘wallet’ (< *portemonnaie*), *dabbīš* ‘telegram’ (< *dépêche* ‘dispatch’) or *ṣarwaṣ* ‘to be very close to the colonizers’ (< *service* ‘service’). This is true not only of items referring to obsolete concepts (such as the currency terms *sūvāya* ‘sou’ or *ftən/vəvtən* ‘cent’, likely < *fifteen*), but also of those referring to still-current concepts which are, however, now referred to with a term drawn from Standard Arabic (e.g. *minəstr* ‘minister’,

replaced by *wazīr*). This does not, however, eliminate the permanence of some old loanwords such as *wata* ‘car’ (< *voiture*) or *maṣṣa* ‘market’ (< *marché*).⁶

Although not unique to Ḥassāniyya, the frequency of the emphatic phonemes (especially /ṣ/ and /ṭ/) in loans from European languages is notable. Consider, in addition to the treatment of *service*, *porte-monnaie* and *marché* as noted above, that of *baṭṭrūn* ‘boss’ (< *patron*), which gives rise to *tbaṭṭran* ‘to be(come) a boss’ *ṭawn* ‘ton’ (< *tonne*).

3.4.2 More complex cases

3.4.2.1 *Wanderwörter*

Various Arabic lexical items derive from Latin, Armenian, Turkish, Persian, and so on. In the case of, for example, the names of calendar months, or of items such as trousers (*sarwāl*), these terms are not borrowed directly from the source language by Ḥassāniyya and are found elsewhere (e.g. *balbūza* ‘eyeball’ < Latin *bulbus*, attested throughout the Maghreb). The history of such items will not be dealt with here. We can, however, mention the case of some well-attested terms in Ḥassāniyya that appear to have been borrowed from sub-Saharan Africa.

One such is *māru* ‘rice’, which seems to come from Soninke (*máarò*), although it is also attested in Wolof (*maalo*) and Zenaga (*mārih*). Another term, which is just as emblematic, is *mbūru* ‘bread’, whose origin has variously been attributed to Wolof, Azer, Mandigo, and even English *bread*.

To these very everyday terms, we may also add *mutri* ‘pearl millet’ and *makka* ‘maize’, which have the same form both in Ḥassāniyya and in Zenaga. The first is a loanword from Pulaar (*muutiri*). The second is attested in many languages and seems to have come from the placename Mecca.

As for *garta* ‘peanut’, *lālo* ~ *lalu* ‘pounded baobab leaves that serve as a condiment’ (synonym of *taqya* in the southwest of Mauritania) and *kaddu* ‘spoon’, these appear to be used just as frequently in Pulaar as they are in Wolof.

3.4.2.2 Berberized items

Despite the absence of any Berber affixes in the loanwords listed in §3.4.2.1, only *kaddu* ‘spoon’ is regularly used with the definite article. In this regard, these loanwords act like words borrowed from Berber, or more generally, those with Berber affixes.

⁶Ould Mohamed Baba (2003) gives an extensive list of loanwords from French and offers a classification by semantic field.

It is, in fact, difficult to prove that a noun with this kind of affix is definitely of Berber origin, since we find nouns of various origins with Berber affixes. Some of them are loanwords from the languages of the sedentary people of the valley, such as *adabāy* ‘village of former sedentary slaves (*ḥrātīn*)’ (< Soninke *dèbé* ‘village’); *iggīw* ~ *īggīw* ‘griot’ (Zenaga *iggiwi*, borrowed from Wolof *geewel* or from Pulaar *gawlo*). Others are borrowed from French: *agārāž* ‘garage’; *təmbīskit* ‘biscuit’. Even terms of Arabic origin are Berberized, as is likely the case with *tasūvra* ‘large decorated leather bag for travelling’ (cf. *sāvər* ‘to travel’) or *tāzəzmīt* ‘asthma’ (cf. CA *zağma* ‘shortness of breath when giving birth’).

3.4.2.3 Reborrowings

Instances of back and forth between two languages – primarily Ḥassāniyya and Zenaga – seem to be the reason for another type of mixed form, illustrated previously in §3.2.2.1 by the Zenaga verbs *yassəḍbah* ‘to leave in the afternoon’ and *yīšnar* ‘to orient oneself’.

Ḥassāniyya *saynan* ‘to mix gum with water to make ink’ provides another example, where this time the points of departure and arrival seem to be from the Arabic side. In fact, this loanword is a borrowing of Zenaga *yassuynan* ‘to thicken (ink) by adding gum’, a verb formed from *əssayan* ‘gum’. This noun in turn appears to be an adaptation of the Arabic *samyā* ‘ink’.

In the case of *sla* ‘placenta’, there is a double round-trip between the two languages, this time without metathesis: after a passage from Arabic to Zenaga (> *əs(s)la*), there is return to Ḥassāniyya with the causative verb *sasla* ‘to soak a hide’, and a second loan into Zenaga with the reflexive form (*yə*)*stasla* ‘to start to lose fur (of soaked hides)’.

3.4.2.4 Calques

Calques are undoubtedly common, but they are particularly frequent in locutions such as *rəggət əž-žəll* ‘susceptibility’ and *bū-damfa* ‘rinderpest’ (literally ‘thinness of skin’ and ‘the one with a tear’). These are exact calques of their Zenaga equivalents *taššəddi-n əyim* and *ən-andi* (Taine-Cheikh 2008a).

3.4.2.5 Individual variation

Receptivity to loanwords differs from one individual to another. This is natural when we are dealing with bilingual speakers and this probably explains the special features of the Ḥassāniyya of the Awlād Ban^yūg (often bilingual speakers of Ḥassāniyya and Wolof) or the Ḥassāniyya of Mali (where Arabic speakers often

speak Songhay and sometimes Tamasheq). However, it also depends on the individuals in question in terms of what we might call their “loyalty” to the language, whether the language is under pressure from Moroccan Arabic koiné in Morocco (Taine-Cheikh 1997b; Heath 2002; Paciotti 2017), or whether it is imposed as a lingua franca in Mauritania (Dia 2007).

4 Conclusion

The principal domain affected by contact in Ḥassāniyya is that of the lexicon (though an assessment in percentage terms is not at present possible). However, the integration of loanwords – in particular those from Standard Arabic and Berber – has resulted in a significant enrichment of the phonological system and of the inventory of nominal patterns. The effects of contact on the verbal morphology and syntax of the dialect are more indirect. The major developments in Ḥassāniyya seem most likely to instead be a product of internal evolution. In certain cases, Zenaga has probably had an influence; in others, we rather witness instances of parallel evolution.

In future, by studying the vehicular Ḥassāniyya of Mauritania and of the border regions (southern Morocco, southern Algeria, Senegal, Niger, and so on) we will perhaps discover new developments as a result of contacts triggered by the political and societal changes of the twenty-first century.

Further reading

Links between Ḥassāniyya and other languages are particularly complex at the level of semantics and lexicon. On these topics, beyond the available Ḥassāniyya and Zenaga dictionaries (Heath 2004; Taine-Cheikh 1988–1998; 2008b), readers may consult the available studies of specific fields (Monteil 1952; Taine-Cheikh 2013) or particular templates (Taine-Cheikh 2018b).

Abbreviations

1, 2, 3	1st, 2nd, 3rd person	OBL	oblique
CA	Classical Arabic	PL	plural
DEF	definite	REL	relativizer
Hass.	Ḥassāniyya	SG	singular
IMPF	imperfect	Zen.	Zenaga
M	masculine		

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Chapter 13

Maltese

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This chapter presents an overview of the most prominent contact-induced developments in the history of Maltese, a language which is genetically a variety of Arabic, but which has undergone significant changes, largely as a result of lengthy contact with Sicilian, Italian, and English. We first address the precise affiliation of Maltese and the nature of the historical and ongoing contact situations, before detailing relevant developments in the realms of phonology, inflectional and derivational morphology, syntax, and lexicon.

1 Maltese and Arabic

From a historical point of view, Maltese is a variety of spoken Arabic, albeit one that has undergone far-reaching changes as a result of sustained and intensive contact with Italo-Romance varieties, and more recently also with English. This is a fact about which there is no controversy among contemporary linguists. It should be noted, however, that a mix of social, cultural, historical, political, and indeed linguistic factors has led to a situation in which many Maltese people today view their language as Semitic, but not a type of Arabic. Since we are concerned here only with the historical perspective, we will not dwell on the vexed question of whether or not contemporary Maltese should be classified as an “Arabic dialect”.¹ Suffice it to say that the idea, first popularized by de Soldanis

¹Note that Maltese itself has a number of different dialects, one of which – that of the major towns, and the variety used in media, literature and administration – is referred to as Standard Maltese. Except where specified, this chapter deals exclusively with the standard variety of Maltese.



(1750) and Vassalli (1791), that Maltese is a variety of Phoenician or Punic, has been shown since at least since Gesenius (1810) and de Sacy (1829) to be entirely without merit.

Since the Phoenicians and then the Carthaginians occupied Malta for much of the first millennium BCE, followed by Roman and Byzantine occupation for much of the first millennium CE, it would seem *prima facie* likely that elements of the languages of these occupiers would survive into contemporary Maltese. Brincat (1995) shows, however, based on the account of al-Ĥimyarī, that Malta was to all intents and purposes uninhabited in the period between its conquest by the Arabs in 870 CE and the first concerted efforts at colonization by Arabic-speaking Muslims in 1048–1049 CE. It is for this reason that the Semitic component of Maltese phonology, morphology, syntax and lexicon is Arabic and Arabic only (see also Grech 1961).

As for the provenance of the Arabic component of contemporary Maltese, there is no doubt that the most important source is a variety of Maghrebi (Western) Arabic. This is evident from grammatical features such as: the pan-Maghrebi extension to the singular of the first-person *n-* prefix of the imperfect verbal paradigm (see Table 1); the loss of a gender distinction in the second person singular, in pronouns and both perfect and imperfect verbs, as in urban Tunisian Arabic varieties (Gibson 2011); variable rearticulation of the definite article on postnominal adjectives in definite noun phrases, as in (1) (cf. Gatt 2018), found also in Casablanca Arabic (Harrell 2004: 205); and the *-il* suffix of the numerals ‘eleven’ to ‘nineteen’ in determiner use, as in (2), which also occurs in the Arabic dialects of Casablanca (Caubet 2011) and Tlemcen (Taine-Cheikh 2011).²

Table 1: First-person imperfect ‘write’ in Eastern and Western Arabic

	Eastern		Western	
	Classical Arabic	Baghdad Arabic	Casablanca Arabic	Maltese
Singular	<i>ʔaktub</i>	<i>aktib</i>	<i>nəktəb</i>	<i>nikteb</i>
Plural	<i>naktub</i>	<i>niktib</i>	<i>nkətbu</i>	<i>niktbu</i>

(1) il-kelb (l-)abjad
 DEF-dog (DEF)-white
 ‘the white dog’

(2) it-tnax-il appostlu
 DEF-twelve-DEF apostle
 ‘the twelve apostles’

²Unless otherwise specified, all numbered examples present data from Maltese. All Maltese examples in this chapter are rendered using Standard Maltese orthography.

Narrowing matters down further, Zammit's (2014) study of lexicon shared between Maltese and the Arabic dialect of Sfax offers yet more support (see also Vanhove 1998) for the geographically unsurprising conclusion that Maltese is more closely related to the traditional (so-called pre-Hilalian; see Benkato, this volume) urban Tunisian dialects than to any other extant Arabic variety. This is not to suggest, however, that the Arabic component of Maltese resembles these dialects in all respects. Borg (1996) lists a number of areas in which Maltese accords more closely with Levantine Arabic dialects than with those of the Maghreb. But the social and political history of Malta after the end of direct Arab rule in 1127 CE is such that most or all of these similarities should be understood as the failure of Maltese to participate in innovations that later spread through the mainland Maghrebi varieties, and not as evidence of influence of Eastern Arabic on the formation of Maltese.

2 Contact with Italo-Romance and English

2.1 Italo-Romance

A comprehensive history of immigration to Malta in the medieval period is yet to be written (if indeed such a history is possible at all, given the apparently scarce documentary evidence). It is therefore impossible to give precise details of the sociolinguistic conditions under which the Arabic variety spoken in Malta came into contact with varieties of Italo-Romance in the course of the second millennium. We can, however, sketch the broad outlines of this process, and make some reasonable inferences.

The Arabic-speaking settlers who colonized Malta in 1048–1049 CE can be assumed to have come from either Sicily or southern Italy or both (Brincat 1995: 22), but in any case it seems likely that at least some of these came speaking a variety of Sicilian in addition to Arabic. Even after Malta was brought under Norman control in 1127 CE by Roger II of Sicily, and went on to be part of the Kingdom of Sicily, there does not seem to have been a large-scale immigration of non-Arabic speakers to Malta at any point, a fact which is of course consistent with the survival of the Maltese language until today. Unsurprisingly from a geographical and political perspective, what immigration there was appears to have come overwhelmingly from Sicily and southern Italy, with lesser numbers coming also from Spain (Ballou 1893: 134, 289; Blouet 1967: 43–46; Fiorini 1986; Goodwin 2002: 26–32).

Comprising mostly soldiers, craftsmen and churchmen of various types, it would appear that this immigration was disproportionately male. In addition to

families in which the only language spoken was Maltese, there must, therefore, have been significant numbers of families in medieval Malta in which the father spoke only Sicilian natively and the mother spoke only Maltese natively, with communication necessarily involving second-language speech by one or both parents. Children of such families would therefore have been exposed minimally to native and non-native Maltese speech and native Sicilian speech.

From the perspective of Van Coetsem's (1988; 2000) framework for understanding contact-induced change, therefore, it seems highly likely that transfer from Sicilian to Maltese occurred both through imposition under source-language agentivity (by L1 Sicilian speakers) and borrowing under recipient-language agentivity (by L1 Maltese speakers).

There is no doubt that, alongside Sicilian, (Tuscan) Italian had an important place in Maltese life over many centuries, starting at the latest in 1530, when it became the official language of government under the regime of the Knights of Malta. But as Comrie & Spagnol (2016: 316) point out, Italian did not gain a foothold at the expense of Sicilian among bilingual Maltese until the later eighteenth century, and given its social function as a vehicle for government, education and high culture, rather than the native language of a significant proportion of ordinary Maltese, it is reasonable to say that transfer from Italian will have been mediated predominantly by borrowing under recipient-language agentivity.

2.2 English

Starting in 1800, when Malta became a protectorate of the British Empire, English gradually began to supplant Italian as the language of government, education and high culture, being joined in that role by the Maltese language itself only in the last few decades. English is now widely spoken in Malta: according to 2011 census data (National Statistics Office 2014: 149), 94.6% of the population of Malta reported speaking Maltese "well" or "average[ly]", while 82.1% reported the same for English. English is a native language for only a very small percentage of Maltese residents, however: Sciriha & Vassallo (2006) put the figure at 2%. As with Italian, then, transfer from English to Maltese will overwhelmingly have occurred through borrowing under recipient-language agentivity. With the Maltese variety of English, the reverse is true of course: here the transfer from English to Maltese will have been almost exclusively imposition under source-language agentivity by native speakers of Maltese, resulting in such hallmark features of Maltese English as word-final obstruent devoicing (cf. §3.1.1.2 below), and the use of *but* in clause-final position (Lucas 2015: 527).

Given that transfer from English was and is restricted to borrowing in Van Coetsem's sense, while the more extensive and long-lasting contact with Sicilian will have involved both borrowing and imposition, it is not surprising that a picture will emerge in the following sections whereby Italo-Romance dominates as a source of contact-induced changes across all linguistic domains, with English playing a much more modest role, largely restricted to lexicon and associated inflectional morphology.

3 Contact-induced changes

3.1 Phonology

3.1.1 Consonants

3.1.1.1 Additions to the native phonemic inventory

One of the most salient – and uncontroversially contact-induced – innovations in Maltese phonology is the addition of at least five (arguably seven) consonant phonemes.³ This came about through the transfer (presumably borrowing) of Italo-Romance and English lexical items without subsequent adaptation to the original native inventory (compare, e.g., Maltese *pulizija* with unadapted initial [p] and Cairene Arabic *bulīs* 'police'). The five uncontroversial additions are /p/, /v/, /ts/, /tʃ/ and /g/ (orthographically: ⟨p⟩, ⟨v⟩, ⟨z⟩, ⟨ċ⟩ and ⟨g⟩; see Table 2), as in *evaporazzjoni* 'evaporation' and *granċ* 'crab'. One can also make a case for an innovative borrowed phoneme /dʒ/. There are no minimal pairs demonstrating a phonemic distinction between /dʒ/ and /ts/ (and both are represented by ⟨z⟩ in the orthography), but Borg & Azzopardi-Alexander (1997: 301) point out that /dʒ/ occurs in environments not requiring a voiced obstruent, as in *gazzetta* /gɐ'dʒ:ɛ:tɐ/ 'newspaper'. More marginal is /z/, which Mifsud (2011) and Borg & Azzopardi-Alexander (1997: 303) point out can be found in recent loanwords from English, such as *televixin* 'television' and *bex* 'beige', though whether all speakers voice the ⟨x⟩ in these items is uncertain.

Proto-Semitic *g, represented as ⟨ġ⟩ in Arabic script, and usually rendered [dʒ] when Standard Arabic is spoken, is reflected as /dʒ/ (orthographic ⟨ġ⟩) in Maltese. This appears to be a retention of the original Maghrebi realization of this phoneme, other Maghrebi varieties having in general deaffricated it to /z/ (cf. Heath 2002: 136). Unlike some other Maghrebi varieties, however, the Maltese reflex of ⟨ġ⟩ does not become /g/ before sibilants (cp. Maltese *ġewż* vs. Casablanca

³For useful overviews of the phonology of Maltese, see Borg (1997) and Cohen (1966; 1970).

Table 2: Inventory of consonants. Symbols are Maltese orthography.

	<i>Labial</i>	<i>Alveolar</i>	<i>Postalveolar</i>	<i>Palatal</i>	<i>Velar</i>	<i>Laryngeal</i>
Plosive	p b	t d			k g	q
Affricate		z	č g̣			
Fricative	f v	s ž	x			ħ
Nasal	m	n				
Trill		r				
Lateral		l				
Approximant	w			j		

gūz ‘walnuts’).⁴ Similarly, Proto-Semitic *q (on which more below), is never reflected as /g/ (orthographic ⟨g⟩) in Maltese (cf. Vanhove 1998: 99), meaning that the presence of /g/ in the Maltese phonemic inventory is certainly due to its occurrence in numerous lexical borrowings. The majority of these are from Italo-Romance (e.g. *gwerra* ‘war’), but some are from Berber (e.g. *gendus* ‘calf’ < Berber *agenduz*; Naït-Zerrad 2002: 827), suggesting that /g/ as an independent phoneme has been present in Maltese since the earliest days of Arabic speech on the Maltese islands.⁵

3.1.1.2 Losses, mergers and shifts

Alongside these additions, the Maltese consonant phoneme inventory has also witnessed a number of losses and mergers. Clearly it is not possible to establish with certainty whether or not these changes were due to contact, but various considerations make it reasonable to assume that contact at least accelerated these changes. For example, the inherited emphatic (pharyngealized/uvularized) consonants – *ḡ, *ṭ and *ḏ – have all merged with their non-emphatic counterparts,

⁴An exception is *gżira* ‘island’ < Arabic *ḡazīra*, perhaps to be explained by direct contiguity with the sibilant.

⁵There are also some sporadic examples of /g/ < *k in Arabic roots, e.g. *gideb* ‘to lie’. See Cohen (1966: 14–15) for further details.

as in *šhāb* /šhē:b/ ‘clouds’ < *saḥāb*, and also ‘companions’ < *ʔaṣḥāb*. Note in this connection that among other Arabic varieties, it is only a handful of those most strongly affected by contact (such as pidgins and creoles, as well as Cypriot Maronite Arabic; see Avram, this volume; Walter, this volume) that have merged the emphatic consonants in this way. This suggests that non-native acquisition of Maltese by Italo-Romance speakers precipitated this change (i.e. that it involves source-language agentivity in Van Coetsem’s 1988; 2000 terms).

In addition to the loss of the emphatic consonants, Maltese has undergone significant losses and mergers among the velar and laryngeal phonemes.

Perhaps most saliently, an earlier version of what is today Standard Maltese merged and then lost the voiced uvular/velar fricative *ɣ and the voiced pharyngeal fricative *ʕ. In Maltese’s rather etymologizing orthography, these historic phonemes are given the digraph symbol ⟨gh⟩. In general, this symbol either has no phonetic correlate, as in *ghajn* /ɛm/ ‘eye, spring’ and *ghonq* /ɔnʔ/ ‘neck’, or otherwise corresponds to the lengthening of a vowel in morphological patterns where the vowel would ordinarily be short, as in the stem I CaCeC verb *ghamel* /ɛ:mɛl/ ‘to do’. That the two original phonemes first merged and were then lost in Standard Maltese can be inferred from the behaviour of ⟨gh⟩ + ⟨h⟩ sequences. These are realised as /h/ in roots where ⟨gh⟩ reflects *ʕ (e.g. *semagh-ha* /sɛ'məħ:v/ hear.PRF.3SG.M-3SG.F, ‘he heard it’ < *samaʕ* ‘to hear’), where other Arabic varieties behave similarly (cf. Woidich 2006: 18), but also, unlike other Arabic varieties, in roots where ⟨gh⟩ reflects *ɣ (e.g. *ferragh-ha* /fɛr'rəħ:v/ pour.PRF.3SG.M-3SG.F, ‘he poured it out’ < *farray* ‘to empty’). This merger and subsequent loss did not take place in all varieties of Maltese. To this day, there are apparently speakers of dialectal Maltese whose speech preserves both *ɣ as a velar fricative, and *ʕ as a pharyngeal fricative (Klimiuk 2018). The fact that the merger and loss of these two phonemes is more advanced in the standard language of the major conurbations and less so in the dialects of more isolated villages suggests that contact-induced change played an important role here, with non-native speakers of Maltese presumably being the principal agents of change.

Arguably the most interesting set of mergers and losses concerns the voiceless fricatives, which represent a case of considerable phonemic reorganization despite relatively little change at the phonetic level. The phonemic changes in this domain are as follows. First, *h, while maintained in the orthography (as ⟨h⟩), has merged with /h/ in codas (e.g. *ikrah* /ik'rəħ/ ‘ugly’) and sporadically in onsets (e.g. *nahaq* /nəħɛʔ/ < *nahaq* ‘to bray (of donkeys)’), and is otherwise lost altogether (e.g. *hemm* /ɛm:/ ‘there’). The Maltese phoneme /h/ thus represents the continuation of the voiceless pharyngeal fricative *h, as well as the partial merger of *h. Moreover, original *ħ, the voiceless uvular/velar fricative, has also merged with

/ħ/, as in *ħajt* ‘thread’ < *ħayt*, and also ‘wall’ < *ħāyiṭ*. Strikingly, however, the single Maltese phoneme /ħ/ exhibits considerable inter- and intra-speaker variation in its precise realization, such that glottal, pharyngeal, and velar/uvular voiceless fricative realizations may commonly be heard (Borg & Azzopardi-Alexander 1997: 301), and it is in this sense there has been little phonetic change despite the considerable phonological reorganization.

Like the loss of the emphatic consonants, the loss or merger of *h (as well as one or more of the pharyngeal and velar/uvular fricatives) is restricted to a handful of Arabic varieties that have been very strongly affected by contact (see, e.g., Walter, this volume). As such, these changes too are suggestive of imposition by non-native speakers lacking these sounds in their native phonemic inventory (as was the case for speakers of the Romance varieties with which Maltese has had the most intense contact, cf. Loporcaro 2011: 141–142). On the other hand, the preservation of the glottal and pharyngeal fricatives as allophones of /ħ/ complicates this picture, such that the role of contact in bringing about these particular changes must remain uncertain for now.

It is similarly hard to diagnose the causes of the shift of *q to glottal stop (nevertheless written as <q> in Maltese orthography) and the stopping of the interdental fricatives *θ and *ð. In both cases, however, we can at least rule out with confidence any suggestion that these are ancient changes that predate the arrival of Arabic in Malta, or are historically connected to similar realizations in the Arabic dialects of urban centres in the Maghreb, Egypt, and the Levant. Written records of earlier Maltese clearly show that a dorsal realization of *q, as well as the interdental fricative realization of *θ and *ð, survived until at least the late eighteenth century (Avram 2012; 2014). It is at least plausible, therefore, that contact with Italo-Romance played a role in these changes too, but firm evidence on this point is so far lacking.

Finally, a well-known feature of contemporary Maltese (and Maltese English) phonology is the devoicing of word-final obstruents, as in *ħadd* [ħet:] ‘nobody’. Avram (2017) shows that devoicing gradually diffused across the Maltese lexicon over the course of about two centuries from the late sixteenth century onwards, and he makes a strong case that the initial trigger for this development was imposition by native speakers of Sicilian and Italian, since word-final obstruent devoicing has been shown by various studies (e.g. Flege et al. 1995) to be a frequent feature of the L2 speech of L1 speakers of Romance languages.

3.1.2 Vowels

Maltese has a much richer vowel phoneme inventory than typical Maghrebi Arabic dialects, with, among the monophthongs, five short-vowel qualities /ɪ, ε, ɐ, ɔ, ʊ/ (orthographic ⟨i, e, a, o, u⟩), and six long-vowel qualities /i:, ɪ:, ε:, ɐ:, ɔ:, u:/ (orthographic ⟨i, ie, e, a, o, u⟩), as well as seven distinct diphthongs (with a number of different orthographies – see Borg & Azzopardi-Alexander 1997: 299 for details): /ɪʊ, εɪ, εʊ, ɐɪ, ɐʊ, ɔɪ, ɔʊ/. Compare this with the three-vowel-quality system of Tunis Arabic, which also lacks diphthongs (Gibson 2011).

Since the Italo-Romance languages have vowel systems of a similar richness to Maltese, one might assume that this proliferation of vowel phonemes is a straightforward case of transfer. This is, in general, not the case, however. The majority of new phonemic distinctions are at least partially the result of the loss of emphatic consonants and of *ʔ,⁶ which led to the phonemicization of vowel qualities that were previously merely allophonic. Note also that the innovative lax close front long vowel /ɪ:/ is apparently an entirely internal development – the outcome of an extreme raising of the front allophone of *ā (so-called *imāla*), as in *ktieb* /kɪɪ:b/ ‘book’ < *kitāb*.

Following Krier (1976: 21–22), we can nevertheless point to three innovations in this domain which do seem to be the direct result of lexical borrowing from Italo-Romance.

Krier (1976: 21) points out first of all that, of the five short vowels, only four /ɪ, ε, ɐ, ɔ/ appear in all positions in Arabic-derived lexicon. In contrast, /ʊ/ occurs only in final position in unstressed syllables in this portion of the lexicon, with the single exception of *kull* ‘all’. Were it not for the (extensive) Italo-Romance component of the Maltese lexicon, therefore, we can say that the distinction between [ɔ] and [ʊ] would remain allophonic, as it is in Tunis Arabic. As it is, the two sounds should probably be considered phonemically distinct in Maltese. Although minimal pairs are hard to find, possible examples include *punt* ‘point’ vs. *pont* ‘bridge’ and *lotto* ‘lottery’ vs. *luttu* ‘mourning’.⁷

Among the long vowels, the presence of /ε:/ and /ɔ:/ phonemes in Maltese is also largely attributable Italo-Romance loans containing these sounds. Although /ē/ and /ō/ do occur in certain Tunisian Arabic varieties (Gibson 2011; Herin & Zammit 2017), these are the result of historical monophthongization of the original *ay and *aw diphthongs. The Maltese reflexes of these sounds remain diphthongs, as in *sejf* /sɛɪf/ ‘sword’ and *lewn* /lɛʊn/ ‘colour’. Other than in cases of compensatory lengthening in items where the consonants represented by ⟨gh⟩

⁶These latter changes are themselves, however, arguably contact-induced – see §3.1.1.2.

⁷Our thanks to Michael Spagnol for suggesting these examples.

and ⟨h⟩ have been lost (see §3.1.1.2), /ɛ:/ and /ɔ:/ only occur in the non-Arabic component of the Maltese lexicon, as in *żero* /'zɛ:rɔ/ 'zero' and *froġa* /'frɔ:ɖɤ/ 'omelette'.

To these three contact-induced monophthongal innovations we can add one new contact-induced diphthong: /ɔɪ/. Mifsud (2011) points out that this occurs only in non-Arabic lexical items (e.g. *vojt* /vɔɪt/ 'empty space') in Standard Maltese.

In summary, then, the majority of innovative vowel phonemes in Maltese are not the direct result of transfer, but the three new monophthongal phonemes whose emergence is (at least partially) contact-induced, combine to create a near-symmetrical system in which all five short vowel phonemes have a long counterpart.

3.1.3 Intonation

Despite pioneering work by Alexandra Vella (e.g. Vella 1994; 2003; 2009; Grice et al. 2019), the study of intonation in Maltese, as in most non-Indo-European languages, remains in its infancy (cf. Hellmuth, this volume). Impressionistically speaking, the tunes that can be heard in Maltese (and Maltese English) speech are highly distinctive, and often quite unlike those of the Mediterranean Arabic dialects. Several studies have demonstrated that intonation patterns are highly susceptible to transfer in language contact situations, especially through imposition by source-language-dominant speakers (see the studies of Spanish intonation by O'Rourke 2005; Gabriel & Kireva 2014). Interestingly, however, this appears to be less true for the tunes associated with polar interrogatives, at least in the varieties of Spanish described by the aforementioned authors, presumably because of the importance of intonation in establishing interrogative force in the absence of syntactic cues in this language. What data we have on this issue for Maltese fits rather neatly into this larger picture. According to Vella (2003), the intonational patterns of Maltese late-focus declaratives on the one hand, and wh-interrogatives on the other, pattern with Palermo Sicilian and Tuscan Italian respectively, while that of Maltese polar interrogatives more closely resembles counterparts in Arabic dialects.

It seems safe to assume that imposition by native speakers of Italo-Romance varieties is the primary cause of the similarities in intonation between Maltese and Italo-Romance, but borrowing by Maltese-dominant bilinguals should not be ruled out as an additional factor.

3.2 Morphology

3.2.1 Nouns and adjectives

3.2.1.1 Inflection

It has been shown (e.g. Gardani 2012; Seifart 2017) that plural affixes are, with case affixes, the most widely transferred inflectional morphemes. Maltese conforms neatly to the general crosslinguistic picture: it has acquired plural morphemes from Sicilian and English and little in the way of other inflectional morphology (but see §3.2.2).⁸

In addition to a rich array of stem-altering (so-called “broken”) plural patterns, most of which also serve as the plurals of at least some items of Italo-Romance or, more rarely, English origin (see Spagnol 2011 for details), Maltese has six plural suffixes: *-in*, *-a*, *-iet*, *-ijiet*, *-i*, and *-s*.⁹ Of these, *-in*, and *-iet* are straightforward retentions from Arabic (nevertheless extended to numerous non-Arabic items), *-i* and *-s* are straightforward cases of indirect affix borrowing (in the sense of Seifart 2015), and *-a*, and *-ijiet* arguably involve a subtle interplay of internal and externally-caused developments.

The most recently borrowed plural suffix is the English-derived *-s*. This occurs exclusively with bases borrowed from English, and may be considered only partially integrated into monolingual Maltese (to the extent that such a thing exists; see §2.2), in that it often alternates optionally with *-ijiet* in items such as *kejk* ‘cake’ (pl. *kejkijiet* ~ *kejks*). There are, however, a number of reasonably frequent items (e.g. *friżer* ‘freezer’) which appear never to take a plural suffix other than *-s*.

The Sicilian-derived suffix *-i* can mark the plural of a far higher proportion of Maltese nouns than can *-s*, and is demonstrably better integrated into the Maltese inflectional system. In addition to marking the plural of Sicilian-derived nouns which also take *-i*, e.g. *xkupa* ‘broom’ < Sicilian *scupa* (pl. *scupi*), *ffakk* ‘weak’ < Sicilian *fiaccu* (pl. *fiacchi*), it has also been extended to: Italian-derived nouns, including those with a plural in *-e* in Italian, e.g. *statwa* ‘statue’ < Italian *statua* (pl. *statue*); nouns from other Romance languages, e.g. *pitrava* ‘beetroot’ < French *betterave* with \emptyset -plural (orthographic *-s*); English-derived nouns, e.g. *jard* ‘yard (unit of distance)’; and even a few Arabic-derived nouns, e.g. *saġf* ‘layer’ < *ṣaġf* ‘row’, *samm* ‘very hard’ < *ṭaṣamm* ‘deaf, hard’.

⁸One should note also, however, the appearance in a couple of items of a singulative suffix *-u*, apparently borrowed from Sicilian. Borg (1994: 57) cites *wizz-u* ‘geese-SING’, *dud-u* ‘worms-SING’, and *ful-u* ‘beans-SING’.

⁹There are also one or two examples of zero plurals, e.g. *martri* ‘martyr(s)’.

Arabic and Sicilian coincidentally have an identical less frequently used plural (or collective) suffix *-a*, as in Arabic *mārra* ‘passers-by’ (singular *mārr*) and Sicilian *libbra* ‘books’ (singular *libbru*). A plural suffix of this form also occurs in Maltese, with nouns of both Arabic and Italo-Romance origin (e.g. *kittieba* ‘writers’ < Arabic *kattāb*; *nutara* ‘notaries’ < Italian *notaro*). Evidence that this is perceived and treated as a single morpheme rather than two homophonous items comes from the fact that the restriction of this suffix to groups of people in Arabic applies also to the Italo-Romance part of the Maltese lexicon (Mifsud 2011).

A curious feature of Maltese plural morphology from a comparative Arabic perspective is the very frequent suffix *-ijiet* (*-jiet* after certain vowel-final stems), as in *postijiet* ‘places’ (singular *post*) and *ommijiet* ‘mothers’ (singular *omm*). While clearly based on the Arabic-derived suffix *-iet* (< Arabic *-āt*, with characteristic Maltese *imāla*), the provenance of the initial *-ij-* is not obvious. Mifsud (2011) plausibly suggests that *-ijiet* as a whole is “derived from the plural of verbal nouns with a weak final radical, like *tigrijiet* ‘races’, *tiswijiet* ‘repairs’”, but Geary (2017) makes a strong case that the large influx into Maltese of Italo-Romance nouns whose singulars ended in *-i* (e.g. *affari* ‘affair, matter’ < Sicilian *affari* or Italian *affare*) was instrumental in the emergence of this morpheme. On this account Maltese speakers originally pluralized such words with *-iet*, with glide-insertion an automatic phonological consequence of the juncture of a vowel-final stem and a vowel-initial suffix. Later, according to Geary, the whole string *-ijiet* was reanalysed as constituting the marker of plurality, and this new plural suffix was extended to consonant-final stems, including Arabic-derived items of basic vocabulary such as *omm* ‘mother’ and *art* ‘land’.¹⁰

3.2.1.2 Derivation

Maltese displays a rich array of derivational suffixes borrowed (presumably initially as part of polymorphemic lexical items) from Italo-Romance. A definitive list of these has not been provided to date, but Saade (2019) offers a detailed typology of such items, of which we present a simplified version here, drawing also

¹⁰Geary’s contact-induced scenario for the emergence of this suffix may not be the whole story, however. Evidence on this point comes from Arabic loanwords in Siwa Berber. Souag (2013: 74) lists a number of examples of Arabic-origin nouns whose plural is formed by adding a suffix *-iyyat* (e.g. *shilfa* ‘turtle’, pl. *shilfiyyat*), despite the fact that both Classical Arabic and present-day Egyptian Arabic lack plurals of this type. Siwa Berber must therefore have borrowed these items and their pluralization strategy from some early form of (eastern) Maghrebi Arabic, suggesting that the presence in Maltese of the *-ijiet* suffix is, at least to some extent, an Arabic-internal development that predates the large-scale borrowing of Italo-Romance nouns into Maltese.

on examples from Brincat & Mifsud (2015), and focusing just on the nominal, adjectival and adverbial domains (see §3.2.2.2 for borrowed participial morphology).

First of all, there are at least twenty suffixes, such as the nominalizer *-zzjoni*, which, though relatively frequent, only occur in items clearly borrowed wholesale from Italo-Romance (e.g. *dikjarazzjoni* ‘declaration’ < Italian *dichiarazione*) or in coinages which, in a process that is relatively common in Maltese, represent borrowings from English that are adapted to fit the phonology and morphology of Romance-influenced Maltese, as in *esplojtazzjoni* ‘exploitation’ (cf. Gatt & Fabri 2018). Given this restriction, there must be some doubt as to whether one can regard the suffixes themselves as borrowed, or only the polymorphemic items in which they occur.

Secondly, there are a number of borrowed suffixes which are sufficiently well integrated that they can attach to Arabic-derived bases. Examples include:

-ata, e.g. *xemxata* ‘sunstroke’ (*xemx* ‘sun’)

-ezza, e.g. *mqarebezza* ‘naughtiness’ (*mqareb* ‘naughty’)

-un (< Sicilian *-uni*, Italian *-one*), e.g. *ħmarun* ‘great fool’ (*ħmar* ‘donkey’)

Finally, there is at least one borrowed suffix: *-tura*, which forms single-instance verbal nouns. The integration of this morpheme can be seen from the fact that it attaches to productively to English bases, as in *čekkjatura* ‘an instance of checking’ or *weldjatura* ‘an instance of welding’.

3.2.2 Verbs

3.2.2.1 Loaned verbs

Maltese has borrowed a large number of verbs from Sicilian and Italian, and more recently a smaller number from English. The chief interest in these borrowings lies in the way in which they have been integrated into the Maltese inflectional and derivational verbal paradigms. An in-depth study of this phenomenon was provided by Mifsud (1995), who distinguished the following four types of loaned verbs:

Type A: Full integration into Semitic Maltese sound verbs

Type B: Full integration into Semitic Maltese weak-final verbs

Type C: Undigested Romance stems with a weak-final conjugation

Type D: Undigested English stems

Mifsud (1995: 58) points out that most (perhaps all) Type A verbs are so-called “second generation” loans, whereby a nominal or adjectival form has been borrowed, a root extracted from it, and a verb formed on this root, as in *pitter* ‘to paint’ – a denominal derivation from *pittur* ‘painter’, borrowed from Sicilian *pitturi* (and supported by Italian *pittore*). Such items do not, therefore, represent genuine cases of transfer of verbs, and are reminiscent of similar coinages in other Arabic varieties (e.g. *fabrak* ‘to fabricate’). In Arabic as in Maltese, such items are overwhelmingly restricted to the denominal verbal stems II and V of trilateral roots and I and II of quadrilateral roots (CVCCVC and tCVCCVC).

In contrast to Type A, Mifsud’s Types B and C are genuine cases of loaned verbs. Mifsud (1995: 110–116) shows that the imperative (rather than the homophonous 3SG present, or any other verb forms) was the most likely base form of the Romance models on which the Maltese loaned verbs were created.¹¹ In both Italian and Sicilian all verbs in the imperative end in either *-i* or *-a*. As it happens, Maltese weak-final verbs (in which the final radical element is a vowel rather than a consonant) also all end in either /ɪ/ or /ɛ/ in the imperfect and imperative singular, depending on which of the two weak-final conjugation classes they fall into. This coincidence resulted in borrowed Romance verbs being integrated into one of these two weak-final classes, as in *kanta* ‘he sang’, *jkanta* ‘he sings’ (< Sicilian/Italian imperative *canta*); and *serva* ‘he served’, *jservi* ‘he serves’ (< Sicilian/Italian imperative *servi*).

The difference between verbs of Types B and C is that the former are analysed as having root-and-pattern morphology, with a trilateral or quadrilateral root, whereas Type C are borrowed as a concatenative stem without a root. This can be seen from the fact that Type B verbs can give rise to new verbs with the same root in other verbal stems, as in *kompla* ‘to continue’, *tkompla* ‘to be continued’ (< Sicilian *cumpliri* ‘to finish’), whereas Type C verbs cannot.

Another difference between Types B and C is that no Type C verb begins with a single (ungeminated) consonant, whereas most Type B verbs do. In fact, apart from certain well-defined exceptions (see Mifsud 1995: 152), all Type C verbs begin with a geminate consonant, as in *ffolla* ‘to crowd’ < Italian *affollare*. What exactly was the combination of historical factors that gave rise to this synchronic state of affairs is a complex matter (see Mifsud 1995: 158–168 for discussion), but the key point to note is that at least some of the instances of initial gemination in Type C verbs are apparently not attributable to phonological properties of the source item (e.g. *pprova* ‘to try’ < Italian *provare*). It seems that speakers of Maltese came to feel that all loan verbs must have an initial geminate consonant, whether or not this was actually true of the item being borrowed.

¹¹This parallels the situation in Arabic-based pidgins and creoles, for which Versteegh (2014) shows that verbs generally appear to derive from imperatives in the lexifier varieties.

This state of affairs manifests itself rather spectacularly in more recent borrowings from English (Type D verbs), in which initial consonants are duly geminated (despite this never being the case in the English source items), but which also fall into the conjugation class of weak-final verbs, as in *ddawnlowdja* ‘to download’. What underlies this treatment of loans from English seems to be a type of reanalysis, which we can sketch as follows. In the initial stage, verbs without roots (not necessarily identifiable to speakers as loans from Italo-Romance) are analysed as falling into the weak-final conjugation class because they have a stem-final vowel. But since all verbs without roots (at this pre-English stage) have a stem-final vowel, it is possible to view the lack of a root, not the presence of a stem-final vowel, as the reason that loan verbs obligatorily fall into the weak-final conjugation class; and it seems that speakers indeed made this reanalysis. In a parallel development, initial consonant gemination also came to be seen an obligatory feature of the class of verbs lacking a root. As a result of these developments, when a verb is borrowed from English, because it lacks a root its initial consonant is geminated and it is conjugated as a weak-final verb, regardless of whether it has a stem-final vowel.¹²

3.2.2.2 Participles

Unsurprisingly, one of the additional ways in which Type A verbs differ from the remaining three classes of loaned verbs is the formation of passive participles: in Type A verbs, passive participles are formed in accordance with the Semitic pattern for the respective derived stem, e.g. *pejjep* ‘to smoke’ (stem II, from Italian *pipa* ‘pipe’) produces *mpejjep* ‘smoked’ (Mifsud 1995: 70). In contrast, some Type B verbs allow for the formation of a passive participle using Romance suffixes (Mifsud 1995: 127–133), and this is the sole option for Type C and even Type D verbs: for Type C verbs, the choice of the actual suffix depends on the original form of the verb and, in some cases, the path of transfer (see below). For Type D verbs borrowed from English, the suffix *-at* is the only productive way to form a passive participle (e.g. *inxurjat* ‘insured’) with *spellut* ‘spelled’ as the only exception (Mifsud 1995: 248).

And finally, there are two distinct classes of Type B and C verbs which can each derive two passive participles. In the first class, one participle is derived from the weak (regular) form root and the other derived from the strong one, e.g.

¹²In addition, virtually all Type D verbs insert a palatal glide between the borrowed stem and the added weak-final vowel, as in *pparkja* ‘to park’. Similarly to the initial gemination and weak-final inflection of Type D verbs, this glide insertion must be the result of analogical extension from numerous glide-final borrowed Romance verbs, e.g. *rdoppja* ‘to double’ < Italian *raddoppiare*. See Mifsud (1995: 225–236) for a detailed discussion.

konfondut ‘confused’ vs. *konfuż* (Mifsud 1995: 134). In the second class, one participle is derived using the Sicilian suffix *-ut*, the other using the Italian-derived suffix *-it*, e.g. *preferut* ‘preferred’ vs. *preferit* (Mifsud 1995: 230). The reason for these doublets is largely sociolinguistic: the variability of the first class echoes a similar situation in Italian dialects (Mifsud 1995: 134); that of the second class reflects a situation whereby the loaned verb effectively has two sources, spoken Sicilian and Standard (Tuscan) Italian.

3.3 Syntax

3.3.1 Phrase syntax

3.3.1.1 Word order

The expansion of Maltese lexicon with items borrowed from Sicilian and Italian had a profound effect on the syntax of Maltese. The primary example of this is word order within the noun phrase, involving the order of adjectives and their heads. In Arabic, adjectives (with the exception of comparatives, superlatives and a number of specific cases) follow their heads. This is largely true of Italian adjectives as well, with the exception of a small subclass some grammars term “specificational adjectives” (e.g. Maiden & Robustelli 2007: 55–56), such as *stesso* ‘same’ and *certo* ‘certain’, which precede their head. Such adjectives borrowed into Maltese retained their syntactic properties, as with the pre-nominal *ċertu* (< Sicilian *certu*) in (3).

- (3) [BCv3: it-torca.8685]
Kien bniedem ta’ ċerta personalità.
be.PRF.3SG.M person GEN certain.F personality
‘He was a person with a certain personality.’

In Italian, specificational adjectives to a large extent overlap with a class of adjectives that perform double duty as quantifiers (or perhaps determiners) and vary their position according to their respective roles: Adj–N for quantifiers, N–Adj for adjectives. One could argue that it is in the former function that they were borrowed into Maltese and thus should be considered quantifiers or determiners rather than adjectives, especially in light of the fact that they are (for the most part) in complementary distribution with the definite article, as determiners and quantifiers are. Determiners and quantifiers in Maltese precede their heads (as with the definite article *il-*, *kull* ‘all’, *xi* ‘some’ etc.).

There are three arguments against such an account: first of all, borrowed pre-nominal specificational adjectives actually fall into two classes, where members

of the first, such as *ċertu* ‘certain’, *diversi* ‘diverse’ (< Italian *diverso*) or *varju* ‘various’ (< Sicilian *varju*), do not (for the most part) allow the definite article. In contrast, words in the second class such as *stess* ‘same’ (< Italian *stesso*) or *uniku* ‘unique’ (< Sicilian *uniku*) predominantly co-occur with the definite article when pre-nominal. The same, incidentally, is true of the etymologically Arabic pre-nominal quantifier *ebda* ‘no, none’.

Secondly, there are morphological considerations: pre-nominal specificational adjectives of both types mark gender and/or number (*varju* for the first, *uniku* for the second) like Maltese adjectives do; Maltese determiners and quantifiers do not inflect for either gender or number.¹³

The final argument against considering borrowed pre-nominal specificational adjectives as being borrowed into the slot for determiners involves ordinal numerals. In Italian, these also fall into the subclass of prenominal specificational adjectives (Maiden & Robustelli 2007: 55) and thus precede their head. The same is invariably true of Maltese ordinal numerals, as with *ewwel* in (4).

- (4) [BCv3: l-orizzont.64586]
 wara l-ewwel sena
 after DEF-first year
 ‘after the first year’

In North African Arabic, ordinal numerals can either precede or follow their heads, but when they precede them, they never take the definite article, even when the noun phrase is semantically definite (see e.g. Ritt-Benmimoun 2014: 284 for Tunisian Arabic). In contrast, Maltese never allows its ordinal numerals to follow their heads, and the definite article is obligatory.

All these arguments, including the comparison with related Arabic varieties, suggest that the pre-nominal position of some adjectives and ordinal numerals in Maltese is due to transfer under recipient-language agentivity from Italian.

3.3.1.2 The analytical passive

As with adjectives (§3.3.1.1), lexical borrowings from Italo-Romance have also had a significant impact on the syntax of Maltese verbs. One of the most conspicuous consequences of this development involves the passive voice: as Romance-origin verbs cannot generally form one of the passive derived verbal stems (but see §3.2.2.1), they brought with them their Romance syntax and thus a new type of passive construction arose in Maltese – the analytical passive.

¹³With the exception of the very specific category of demonstrative pronouns where gender and number are marked not by affixes, but rather a form of suppletion.

In Maltese, there are two types of analytical passive construction containing a passive participle: the so-called “dynamic passive” (Vanhove 1993: 321–324; Borg & Azzopardi-Alexander 1997: 214), which combines passive participles with the passive auxiliary *gie* ‘to come’; and the so-called “stative passive” (Borg & Azzopardi-Alexander 1997: 214, Vanhove 1993: 318–320), which has the same structure as copular clauses (see §3.3.2.3), the only difference being that stative passive constructions can feature an agentive NP introduced by the preposition *minn* ‘from’ (see Čéplö 2018: 104–107 for a detailed analysis).

The stative passive can be viewed as an extension of the structurally identical construction which is sporadically attested already in Classical Arabic (Ullmann 1989: 76–84), but becomes quite prominent in Christian Arabic documents at least as early as tenth century, where, incidentally, it gained prominence under influence from Aramaic and Greek (Blau 1967: 424).

The dynamic passive (5), on the other hand, is a straightforward calque on either Italian or Sicilian, where a construction featuring a verb semantically equivalent to *gie* ‘to come’ – *venire* in Italian – combines with a past participle (see also Manfredi, this volume).

- (5) [MUDTV1: 30_01P05]
 Kif diġà għedt, gie ppreżentat il-kuntratt.
 as already say.PRF.1SG come.PRF.3SG.M present.PTCP.PASS DEF-contract
 ‘As I already said, the contract was presented.’

While the dynamic passive must have originally functioned to fill a hole in the verbal system of Maltese by providing a way to passivize Romance verbs, it has meanwhile spread to include native verbs as well, as with *ta* ‘to give’ (< $\sqrt{\text{t}y}$) in (6).

- (6) [BCv3: inewsmalta-ott.29.2013.1257-11045]
 It-tagħrif gie mogħti mill-Ministru
 DEF-information come.PRF.3SG.M give.PTCP.PASS from.DEF-minister
 Konrad Mizzi.
 Konrad Mizzi.
 ‘The information was given by Minister Konrad Mizzi.’

3.3.1.3 Modality

Another clear-cut example of grammatical calquing comes from the domain of modality and involves the pseudoverb *għand-*. In Maltese, its primary function is that of a possessive (7), as is the case with its cognates *find-/sand-* in many Arabic varieties.

- (7) [MUDTV1: 22_02J03]
 M' għandi xejn kontri-hom.
 NEG have.1SG nothing against-3PL
 'I have nothing against them.'

In addition to this, however, the Maltese *għand-* has also taken on a function as a deontic modal of weak obligation 'should, ought' taking verbal complement, as in (8).¹⁴

- (8) [MUDTV1: 22_02J03]
 Naqbel li għandhom jivvutaw aktar nies.
 agree.IMPF.1SG COMP have.3PL vote.IMPF.3PL more people.
 'I agree that more people should vote.'

The use of *għand-* in this kind of modal function appears to be unique to Maltese; not even Cypriot Maronite Arabic with its many parallels to Maltese (on which see below) exhibits the same behavior for its cognate *šint-* (Borg 2004: 346) and uses a different verb, *salah/pkyislah* (Borg 2004: 323), as the default deontic modal. The Maltese development must therefore be another calque, since the basic possessive verb of Sicilian, *aviri*, also doubles as a deontic modal, as in (9).

- (9) Sicilian (Piccitto 1977: 340)
 Cci l' àiu a-ddiri a-tto patri.
 DAT.3SG.M OBJ.3SG.M have.PRES.1SG to-say.INF DAT-2SG.M father
 'I have to say it to your father.'

3.3.2 Sentence syntax

3.3.2.1 Differential object marking

Differential object marking (DOM) is a phenomenon whereby direct objects are marked according to some combination of the semantic and pragmatic properties of the object in question. In Spanish, for example, objects denoting humans (and equivalent entities) are marked by the particle *a*, originally a directional preposition. DOM is a phenomenon attested cross-linguistically (see Khan 1984 for Semitic languages), including in varieties of Arabic such as Levantine, Iraqi (Coghill 2014 and references therein), and Andalusí (University of Zaragoza 2013: 108).

¹⁴ *għand-* is the only Maltese pseudoverb (and verb) which exhibits a three-way distinction between present (*għand-*), past (*kell-*) and future/habitual (*ikoll-*) forms; all can occur in the modal function.

DOM is a well-documented feature of Maltese morphosyntax and largely conforms to the Spanish prototype: in general, both pronominal and nominal direct objects denoting entities high in the “animacy hierarchy” (Borg & Azzopardi-Alexander 1997: 55) take the object marker *lil* (10), which also does double duty as the indirect object marker for all objects. Inanimate direct objects do not take *lil* (11).

- (10) [BCv3: ilgensillum.2011-Mejju-22.8230]
 Min jara lili jara lil Missier-i.
 who see.IMPF.3SG.M OBJ.1sg see.IMPF.3SG.M OBJ father-OBL.1SG
 ‘Who looks at me, looks at my Father.’
- (11) [BCv3: l-emigrant]
 Min jara orrizzonti godda u min baħħ.
 who see.IMPF.3SG.M horizon.PL new.PL and who void.
 ‘Some see new horizons, some see a void.’

Döhla (2016) examines DOM in Maltese in some detail and arrives at the conclusion that while there is “a certain predisposition for object marking in general within pan-Arabic grammar” (2016: 169), Maltese DOM cannot be ascribed to purely internal developments within Arabic. A striking feature of the Arabic varieties that exhibit DOM is that they were all in prolonged contact with other languages: Aramaic for Levantine and Iraqi Arabic (and, by extension, for Cypriot Maronite Arabic, cf. Borg 2004: 412), Romance for Andalusí Arabic and Maltese. In the case of Maltese, the Romance variety in question is Sicilian, where the object marker *a* performs the same double duty as the Maltese *lil*, and DOM in both languages shows a number of remarkable similarities: in both Sicilian and Maltese, DOM is primarily triggered “by humanness along with definiteness/referentiality” (Iemmolo 2010: 257, in reference to Sicilian), it is obligatory with personal pronouns, but optional with plural “kinship terms and human common nouns” and disallowed with “(in)animate and indefinite non-specific nouns” (Iemmolo 2010: 257, again in reference to Sicilian), as exemplified by the non-specific Maltese *nies* ‘people’ in (12).

- (12) [BCv3: l-orizzont.41390]
 Min irid jara nies jghixu hekk?
 who want.IMPF.3SG.M see.IMPF.3SG.M people live.IMPF.3PL.M thus
 ‘Who wants to see people live like that?’

In Maltese DOM, then, we have an instance of what Manfredi (this volume) labels “calquing of polyfunctionality of grammatical items inducing syntactic

change”: Maltese acquired a rule of DOM as a result of the indirect object marker *lil* inheriting the dual function of its Sicilian equivalent *a*. It is clear that this is a contact-induced change. But since with this and the similar changes discussed below there is no transfer of lexical matter, it seems impossible at present to judge whether they are the result of borrowing or imposition, or whether they were actuated by speakers for whom neither the source language nor the recipient language were dominant, in the process that Lucas (2015) calls “convergence”.

3.3.2.2 Clitic doubling (proper)

The existence of various reduplicative phenomena associated with direct and indirect clitic pronouns in Maltese has been noted at least since Sutcliffe (1936: 179), who identifies what classical tradition refers to as *nominativus pendens*. This analysis has been elaborated on by Fabri (1993), Borg & Azzopardi-Alexander (1997) and Fabri & Borg (2002), primarily in the context of pragmatically determined constituent order variation, especially topicalization. Building on these works and the analysis of Maltese clitics by Camilleri (2011), Čéplö (2014) notes that in addition to these phenomena, which in one way or another entail dislocation, there exists in Maltese another related phenomenon, where lexical objects and clitic pronouns co-occur, but without the dislocation of the lexical object. This phenomenon, termed Clitic Doubling Proper to distinguish it from similar constructions (see Krapova & Cinque 2008 for a detailed analysis), involves the co-occurrence of a lexical object and the clitic with the object in situ, which in Maltese is after the verb (see Čéplö 2018). Maltese Clitic Doubling Proper occurs with both direct (13) and indirect objects (14).

- (13) [BCv3: l-orizzont.36758]
 Ftit nies jafu-**ha** l-istorja marbuta ma'
 few people know.IMPF.3PL.M-3SG.F DEF-history connected.SG.F with
 dan il-proġett tant sabiħ.
 DEM.SG.M DEF-project such beautiful
 ‘Few people know the history connected with such a beautiful project.’
- (14) [BCv3: 20020313_714d_par]
 Hekk qed nġhidu-**lhom** lil dawn in-nies f’ pajjiż-na.
 thus PROG say.IMPF.1PL-DAT.3PL DAT DEM.PL DEF-people in country-1PL
 ‘This is what we say to these people in our country.’

Unlike various types of dislocation with resumptive clitic pronouns which are quite common in European languages (see e.g. de Cat 2010), Clitic Doubling

Proper is a much rarer phenomenon; in Europe, it is largely confined to the Balkan *Sprachbund* (Friedman 2008) and some Romance languages outside of the Balkans, like Spanish (Zagona 2002: 7) and varieties of Italian (Russi 2008: 231–233). The phenomenon is also attested in Semitic languages (Khan 1984), including Arabic, where it was studied in detail by Souag (2017). Comparing Clitic Doubling Proper in various varieties of Arabic including Maltese, Souag (2017: 57) notes parallels between Maltese and some varieties of Algerian Arabic, especially in regard to the doubling of indirect objects. Ultimately, however, he arrives at the conclusion that Maltese Clitic Doubling Proper “has little in common with any other Arabic variety examined, but closely resembles that found in Sicilian” (Souag 2017: 60). This suggests that here too we have a contact-induced change, this time of the sort that Manfredi (this volume) labels “narrow syntactic calquing”, that is, without any accompanying calque of lexical items.

3.3.2.3 Copular constructions

In Maltese, there are four types of copular clauses (Borg & Azzopardi-Alexander 1997: 53):¹⁵

Type 1: No copula

Type 2: The verb *kien* as the copula

Type 3: Personal pronoun as the copula

Type 4: Present participle *qiegħed* as the copula

Type 1 describes what traditional grammars of Semitic languages refer to as nominal sentences; copular clauses with an explicit verbal copula (*kien*) then fall into Type 2. Types 3 and 4, while not without parallel in other varieties Arabic,¹⁶ feature much more prominently in Maltese. This is especially true of Type 3 copular clauses, which involve the use of a personal pronoun as the copula (15).

- (15) [BCv3: 2010 Immanuel Mifsud - Fl-Isem tal-Missier (U tal-Iben)]
Din hi omm-ok.
this.F 3SG.F mother-2SG
'This is your mother.'

¹⁵In addition to these, Borg (1987–1988) and Borg & Spagnol (2015) also describe the copular function of the verb *jinsab* ‘to be found’. This being a finite verb, both Borg & Azzopardi-Alexander (1997: 53) and Čéplö (2018: 99–104) exclude this type of clause, as well as similar ones, such as those featuring the verb *sar* ‘to become’, from the category of copular clauses.

¹⁶See the analysis of Type 4 copulas in Camilleri & Sadler (2019).

Similar copular constructions to that illustrated in (15) have been described for several Maghrebi varieties (cf. Vanhove 1993: 355), but Maltese stands apart in terms of the frequency with which Type 3 constructions occur: in MUDTv1, for example, 110 non-negative copular clauses are of Type 1; 181 are Type 3. In this, Maltese Type 3 copular clauses are comparable to equivalent copular constructions in Anatolian Arabic (see Lahdo 2009: 172–173 for Tillo Arabic and the references therein, as well as Akkuş, this volume), Andalusi Arabic (University of Zaragoza 2013: 105), and especially Cypriot Maronite Arabic (Borg 1985: 135; Walter, this volume), where they are but one piece of evidence linking Cypriot Maronite Arabic to *qaltu* dialects (Borg 2004: 31). The conclusion to be drawn here is the same as for DOM and Clitic Doubling Proper above: it is no coincidence that these copular constructions are in wide use and the copular construction of choice especially in varieties of Arabic which have been under contact influence from languages with a mandatory copula – Turkish for Anatolian Arabic, Spanish for Andalusi Arabic, Greek for Cypriot Maronite Arabic, and Italian for Maltese. Whether the origin of such constructions can be traced to a feature in (one of) these dialects’ Old Arabic ancestors, or whether they came about through parallel development, contact undoubtedly triggered the widespread adoption of such constructions in these varieties of Arabic.

3.4 Lexicon

3.4.1 Major sources

That Maltese contains large numbers of loanwords from Romance and English is a fact immediately obvious to even the most casual observer. Over the years, there have been a number of attempts to quantify the influence of other languages on Maltese by providing a classification of lexemes by their origin. The earliest, Fenech (1978: 216–217), compiled such statistics for journalistic Maltese, but also provided a comparison to literary and spoken Maltese (albeit using a very small data sample). Brincat analyzed the etymological composition of entries in Aquilina’s dictionary, first examining the origin of 34,968 out of all 39,149 headwords (Brincat 1996: 115) and then applying the same analysis to the entire list (Brincat 2011: 407); Mifsud & Borg (1997) did the same with the vocabulary contained in an introductory textbook of Maltese as a foreign language. In 2006, Bovingdon & Dalli (2006) analyzed the etymology of lexical items in a 1000-word sample obtained from a corpus of Maltese and, most recently, Comrie & Spagnol (2016: 318) did the same on a list of 1500 “lexical meanings” within the framework of the *Loanwords in the world’s languages* project (Haspelmath & Tadmor 2009). Figure 1 summarizes all these findings.

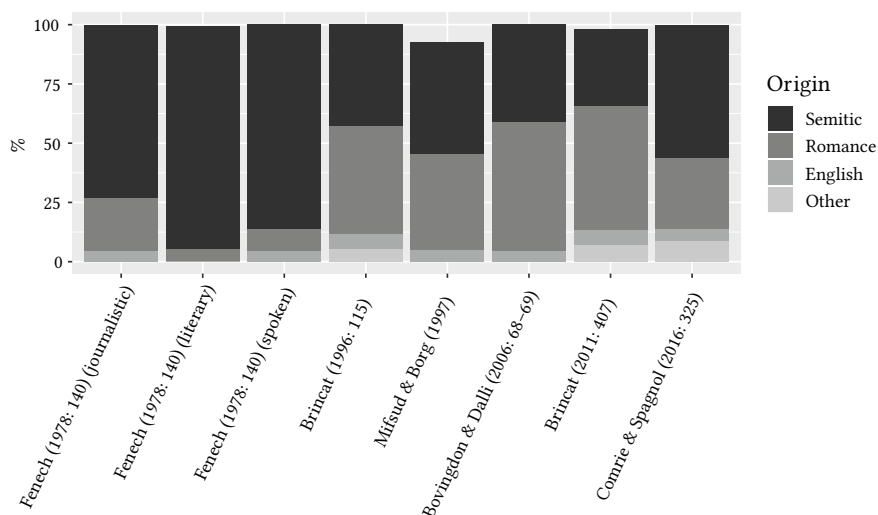


Figure 1: A summary of previous studies of the composition of the Maltese lexicon

The primary explanation for the sharp differences between these analyses is methodology: while Fenech (1978) analyzes entire texts and thus counts tokens, Brincat (1996) (including its updated version in Brincat 2011) and Bovingdon & Dalli (2006) analyze lists of unique words, i.e. types. The later is also true of Mifsud & Borg (1997) and Comrie & Spagnol (2016), except where Brincat (1996) uses dictionary data and Bovingdon & Dalli (2006) corpus data, Mifsud & Borg (1997) employ a list of lexical items with high frequency of use in daily communication and Comrie & Spagnol (2016) base their analysis on a list compiled for the purposes of cross-linguistic comparison. The high ratio of words of Semitic origin in token-based analyses is thus due to the prevalence of function words, which are overwhelmingly Arabic. The type-based analyses then provide a somewhat more accurate picture of the lexicon as a whole, even though they are not without their problems. Chief among these is the issue of what exactly counts as type, especially with regard to productive derivational affixes, e.g. whether all the words with the prefix *anti-* count as distinct types or not.

In addition to general analyses, both Bovingdon & Dalli (2006) and Comrie & Spagnol (2016) also provide breakdowns for individual parts of speech. Unfortunately, these analyses are not comparable, as each has a different focus: Bovingdon & Dalli (2006: 71) are interested in the composition of each etymological stock by word class (Table 3).

Table 3: Source language component of Maltese by word class (Bovingdon & Dalli 2006: 71).

Origin	Function words	V	Adj	N	Adv	Prn
Semitic	3%	70%	2%	21%	2%	2%
Romance	0%	38%	11%	48%	3%	0%
English	0%	29%	8%	63%	0%	0%

In contrast, Comrie & Spagnol (2016: 328) focus on the composition of individual word classes by their origin (Table 4).¹⁷

Table 4: Word class composition by source language (Comrie & Spagnol 2016: 328)

Word class	Arabic	Romance	English	Misc.
Function words	84.7%	6.2%	0%	9.1%
Verbs	75.3%	14.1%	1.3%	9.2%
Adjectives	65.2%	28.5%	0.3%	6.0%
Nouns	44.7%	39.6%	7.2%	8.6%

Comrie & Spagnol (2016) also provide a breakdown of their data by semantic field, permitting a comparison of the domains in which Romance versus English loans are more or less prominent. A number of generalizations can be made here (see Table 5 for a summary), though ultimately they all follow naturally from the fact that contact with English was more recent, and less intensive, than contact with Sicilian and Italian.

Unsurprisingly, English is best represented in the category of items relating to the modern world, but even here Romance dominates. Examples include English-derived *televixin* ‘television’ and Italian-derived *kafè* ‘coffee’.

The domain of animals divides rather neatly as follows. Common animals (especially land animals) of the Mediterranean area are largely Arabic-derived (e.g.

¹⁷The details of Comrie & Spagnol’s (2016) methodology mean that loans in their dataset come from Romance and English but not from any other languages. The category we label “Misc.” in Tables 4 and 5 encompasses those meanings in the *Loanwords in the world’s languages* 1500-item set which have no corresponding single-word Maltese lexical item, and those where the etymology is at present unknown, or where the item in question is an innovative Maltese-internal coinage.

Table 5: Composition of semantic fields by source language (Comrie & Spagnol 2016: 327)

Semantic field	Arabic	Romance	English	Misc.
Modern world	3.0%	65.3%	22.8%	9.0%
Animals	47.8%	29.1%	13.9%	9.1%
Clothing and grooming	38.7%	47.2%	10.4%	3.8%
Warfare and hunting	28.8%	65.0%	2.5%	3.8%
Law	36.0%	50.0%	0.0%	14.0%
Social and political relations	48.4%	48.4%	0.0%	3.2%

fenek ‘rabbit’ < Maghrebi Arabic *fanak* ‘fennec fox’), while well-known non-indigenous animals are largely Romance-derived (e.g. *ljunfant* ‘elephant’ < Sicilian *liufanti*, the additional /n/ perhaps the result of influence from *ljun* ‘lion’). More exotic animals, if there is a corresponding Maltese item at all, derive from English (e.g. *tapir* ‘tapir’). Clothing and grooming presents a similar picture, with Arabic-derived *suf* ‘wool’, Sicilian-derived *ngwanta* ‘glove’, and English-derived *fer* ‘fur’, as does warfare and hunting, with Arabic-derived *sejf* ‘sword’, Sicilian-derived *xkubetta* ‘gun’, and English-derived *senter* ‘shotgun’ (< *centre-breech-loading shotgun*).

The total lack of English loans in the domains of law and social and political relations, at least in Comrie and Spagnol’s sample, is remarkable, given the extent to which the English language dominated public life in Malta in the twentieth century. A generalization that underlies this finding is that while English influence is strongest in the spheres of commerce, consumerism and, especially in the twenty-first century, popular culture (e.g. *vawċer* ‘voucher’, *ċċettja* ‘to chat’),¹⁸ at least as far as Maltese lexicon is concerned, it has not supplanted Italian in the domains of high culture and the affairs of state (e.g. *gvern* ‘government’ < Italian *governo*, *poeżija* ‘poem’ < Italian *poesia*).

¹⁸Until at least 1991, when the Maltese government opened up television broadcasting rights to more than just the single state broadcaster TVM, Italian television stations, whose broadcasts from Sicily could be received in Malta, were very widely watched, and there was consequently considerable Italian influence on Maltese popular culture (Sammut 2007). This influence has waned considerably at the expense of English and American culture since the advent of broadcast pluralism in Malta, and especially with the rise of cable television and online video streaming.

3.4.2 Minor sources

Considering its location and the nature of population movements in the Mediterranean, it is hardly surprising that the Maltese lexicon also contains borrowings from languages other than Sicilian, Italian and English. The most obvious of these are borrowings from other Romance languages. First among them, as in other European languages, stands Latin, which provided a large chunk of Maltese scientific and technical vocabulary, whether as terminology (e.g. *ego*, *rektum* or *sukkursu* ‘underground water’), biological nomenclature (*fagu* ‘European beech, *Fagus sylvatica*’, *mirla* ‘brown wrasse, *Labrus merula*’) or set phrases and expressions (*ex cathedra*, *ibidem*). Curiously for a Catholic country, Latin is the source of very little religious vocabulary in Maltese; in this area, Maltese continues to rely almost exclusively on words of Arabic origin. Those Latin words related to religious matters employed in modern Maltese therefore typically refer to minutiae of Catholic Church rituals and procedures, such as *ekseat* ‘a bishop’s permission for a priest to leave the diocese’ (< *exeat*) or *indult* ‘a Pope’s authorization to perform an act otherwise not allowed by canon law’. Of the few Latin terms related to religion still in common use, *nobis* stands out as a rather curious lexical item: in Maltese, it is used as a (post-nominal) modifier indicating intensity or size, as in *tkaxkira nobis* ‘a sound thrashing’ or *tindifa nobis* ‘a thorough cleaning’.

Before the Order of Saint John gained control of Malta, the islands were for more than two centuries a part (whether officially or not) of the Crown of Aragon. As such, one would expect that speakers of Maltese during that era found themselves exposed to the languages of the Crown like Catalan, Spanish and Occitan, and that this was then reflected in the Maltese lexicon. In truth, however, there are only a few Maltese words that can clearly be traced to Ibero-Romance. Biosca & Castellanos (2017) identify a number of lexical items with Catalan or Occitan origins, but note that many of them can also be found in Sicilian, which in most cases can be clearly determined as the origin of the loan. On the other hand, there are Maltese words of obviously Romance origin whose current shape cannot be easily explained by any of the processes by which Sicilian or Italian words were made to conform to Maltese phonology, and where the Catalan or Occitan origin postulated by Biosca & Castellanos (2017) may offer a better explanation than that of “local formation” resorted to by previous works. These may include: *boxxla* ‘compass’ < Catalan *búixola* vs. Italian *bussola*; *frixa* ‘pancreas’ < Catalan *freixura* ‘entrails’ and even the very frequent *zgur* ‘certain’, which, due to its phonology, especially the /g/ (see §3.1.1.1), points to an origin in Catalan *segur* or Spanish *seguro*, rather than to its (Tuscan) Italian or Sicilian cognates, which both feature a /k/ in its place. These and other lexical items, onomastics (see Biosca &

Castellanos 2017: 46), and even usage (such as the ubiquitous Maltese swear word *l-ostja*, literally ‘the host, sacramental bread’, which is very atypical for Italian or Sicilian, but has a counterpart in the Spanish *la hostia*) suggest some influence of Ibero-Romance on Maltese which is yet to be thoroughly researched.

The much shorter French occupation of the Maltese islands left very little linguistic trace, and so it is internationalisms in the semantic field of culture (*bonton* ‘high society’, *etikett* ‘etiquette’), fashion (*manikin* ‘manequin’) and the culinary arts (*fundan* ‘fondant’, *ragu* ‘ragout’) where French borrowings in Maltese can be found. The few notable exceptions include *berġa* (< *auberge*), the term used for the residences of langues (chapters) of the Order of Saint John. The most prominent of these palaces, *Berġa ta’ Kastilja*, now houses the office of the Prime Minister of Malta, for which the term *Berġa* is often used metonymically. The other two Maltese words of French origin still in frequent daily use both happen to be connected to transportation: *xufier* (< *chauffeur*) ‘driver’ and *xarabank* (< *char à bancs*) ‘bus’. The latter is particularly interesting due to its pronunciation /ʃerəbɛnk/, which indicates that it was borrowed directly from French and not from English (which would give /ʃerəbɛnk/, as well as for its connection to the French-speaking Maghreb, where the same word was in use; this indicates the possibility that it was brought from there by Maltese expatriates.

In addition to Romance languages, post-classical Greek, with its ubiquitous presence all across the Mediterranean (including the neighboring Sicily), could not help but leave a trace on Maltese vocabulary, small though it is. Aquilina (1976: 23) gives *Lapsi* ‘Feast of Ascension’ (< *análipsi*) as the solitary example of a Maltese religious term not inherited from Christian Arabic or borrowed from Romance languages. The other two examples of Greek loanwords involve a completely different sphere. The first is *hamallu* ‘lewd, vulgar person’, from Greek *xamális* (Dimitrakou 1958: 7781). This word may ultimately be traceable to Arabic (through Turkish), as is evident from its other meaning in Greek, namely ‘porter’ (< *hammāl*). However, the meaning in which it appears in Maltese is unique to the Greek word, indicating that it was borrowed into Maltese from Greek. The other such term is *vroma* ‘complete failure, fiasco’ which is quite straightforwardly traceable to the Greek *vróma* ‘dirt, filth’ (Dimitrakou 1958: 1506, 1516).

With regard to the debates on the origin and history of Maltese, borrowings from other Afro-Asiatic languages have long been at the centre of attention of Maltese etymological research. Berber is perhaps the most notorious example here, with a number of items cited as having Berber origins by Colin (1957) and Aquilina (1976: 25–39). Aquilina’s list is an expansion of Colin’s and thus both feature the same conspicuous items, which for the most part involve zoology, such as *fekruna* ‘tortoise’ (< *fekrun*; Naït-Zerrad 2002: 553) and *gendus* ‘bull’ (<

agenduz; Nait-Zerrad 2002: 827). Additionally, Aquilina postulates a Berber origin for a number of lexical items where this seems questionable. In some cases the items in question are obviously Arabic loanwords in Berber (as with *bilhaqq* ‘by the way’, quite transparently from Arabic *b-il-ḥaqq* ‘in truth’). In other cases subsequent research has argued against a Berber origin. For example, while Aquilina identifies *ženbil* ‘a large carrying basket’ as having a Berber origin, Borg (2004: 261) notes that it can also be found in the Arabic dialect of Aleppo and Arbil, and traces its ultimate origin to Akkadian through Aramaic. A large group of similarities between Maltese and Berber identified by Aquilina involve “Berber nursery language”, containing items like Berber *papa* ‘bread’ and Maltese *pappa*, Berber *ppspps* or *ppssi* ‘urine’ and Maltese *pixxa*, and Berber *kakka/qaqah* and Maltese *kakka* (both having to do with defecation). These forms are actually attested cross-linguistically (Ferguson 1964) at least as far north as Slovak (Ondráčková 2010) and cannot thus be considered loans from Berber. Nevertheless, the fact that there is a Berber lexical component in Maltese is well established, and Souag (2018) has shown that it may be larger than previously thought (e.g. his case for the Berber etymology of the frequent adjective *čekjen* ‘small’).

Finally, in addition to Berber, Maltese also contains a small number of words that can be reasonably traced back to Aramaic. Along with obsolescent lexical items such as *ženbil* given above or *andar* ‘threshing floor’ (Behnstedt 2005: 116–117), this small list includes the frequent verb *xandara* ‘to broadcast, to spread (news)’, otherwise unattested in any other variety of Arabic (Borg 1996: 46). This verb is presumably derived from the common Aramaic root $\sqrt{\text{šdr}}$ ‘to dispatch, send’ with cognates in Mandaic (Drower & Macúch 1963: 450), Jewish Babylonian Aramaic (JBA; Sokoloff 2002: 1112–1113) and Christian Neo-Aramaic (Khan 2008: 1179). The insertion of [n] reflects the dissimilation of the geminated [dd] into [nd] (Lipiński 1997: 175–176); the same phenomenon involving the original geminated [bb] can also account for *ženbil* (cf. JBA *zabbilā*; Sokoloff 2002: 397). These borrowings could on the one hand strengthen the case for a Levantine substrate in (if not origin of) Maltese, as Borg (1996) insists; on the other hand, some of them can also be found in other North African varieties (Behnstedt 2005).

4 Conclusion

This chapter has reviewed the extensive changes that have taken place in Maltese as a result of contact with Sicilian, Tuscan Italian, English, and other languages. The changes due to contact with Italo-Romance languages are so striking, especially but by no means only with respect to lexicon, that it is almost misleading

to speak of these contacts having changed “Maltese”. Rather it might be argued that it was a Maghrebi Arabic dialect like any other that was subjected to these changes, and that Maltese, the distinct language that its speakers now feel it to be, was what emerged only once these changes were complete. The result is a language in which typically Semitic and typically Indo-European elements exist side-by-side at all linguistic levels.

The elements of contemporary Standard Maltese that are the result of contact, summarized in this chapter, are now relatively well understood. But the language has naturally also evolved in numerous ways that owe little or nothing to the effects of contact with other languages. With a few notable exceptions (e.g. Borg 1978; Vanhove 1993), these changes have received far less attention. A desideratum for future historical linguistic work on Maltese is therefore to redress this imbalance.

Concerning contact-induced change specifically, future research could fruitfully include comparative work on the differential effects of contact on standard versus dialectal Maltese. And to the extent that it is possible, the field would benefit greatly from a detailed history of the sociolinguistic effects of language contact in Malta in the early modern period.

Further reading

- Krier (1976) is a short monograph on the influence of Italo-Romance on Maltese phonology, morphology, syntax, and lexicon.
- Mifsud (1995) gives an in-depth description of Maltese loaned verbs.
- Comrie & Spagnol (2016) examine lexical borrowing in Maltese in the context of loanword typology crosslinguistically.
- Drewes (1994) and Stolz (2003) explore the question of whether Maltese is properly labeled a “mixed language”.

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Abbreviations

1, 2, 3	1st, 2nd, 3rd person	L1, L2	1st, 2nd language
Adj	adjective	M	masculine
Adv	adverb	MUDTv1	Maltese Universal Dependencies Treebank v1
BCE	before Common Era	N	noun
BCv3	Bulbulistan corpus malti v3	NEG	negative (particle)
CE	Common Era	NP	noun phrase
COMP	complementizer	OBJ	object
DAT	dative	OBL	oblique
DEF	definite article	PASS	passive
DEM	demonstrative	PL	plural
DEP	dependent form	PRF	perfect (suffix conjugation)
DOM	differential object marking	Prn	pronoun
F	feminine	PROG	progressive
JBA	Jewish Babylonian Aramaic	PTCP	participle
GEN	genitive	SG	singular
IMPF	imperfect (prefix conjugation)	SING	singulative
INF	infinitive	V	verb
PRG	pragmatic marker		

Primary sources

Maltese examples above are primarily cited from the general corpus of Maltese *bulbulistan corpus malti v3* (accessible at www.bulbul.sk/bonito2, login: guest, password: Ghilm3), as well as from the *Maltese Universal Dependencies Treebank v1* (accessible at www.bulbul.sk/annis-gui-3.4.4/), both described as to their composition and annotation in Čěplö (2018). Each citation is accompanied by an abbreviation identifying the source (BCv3 and MUDTv1, respectively), as well as the specific document where it can be found.

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Chapter 14

Arabic in the diaspora

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This paper offers an overview of contact-induced change in diasporic Arabic. It provides a socio-historical description of the Arab diaspora, followed by a sociolinguistic profile of Arabic-speaking diasporic communities. Language change is analyzed at the phonological, morphological, syntactic and lexical level, distinguishing between contact-induced change and internal developments caused by reduced input and weakened monitoring. In the course of the description, parallels are drawn between diasporic Arabic and other contemporary or extinct contact varieties, such as Arabic-based pidgins and Andalusí Arabic.

1 Current state and historical development

The terms *ARABIC IN THE DIASPORA* and *ARABIC AS A MINORITY LANGUAGE* have been used to designate two distinct linguistic entities, namely *Arabic Sprach-inseln* outside the Arabic-speaking world and Arabic in contemporary migration settings. The two situations correspond to the two major social processes that give rise to language contact: conquest and migration. In the former case, speakers of Arabic were isolated from the central area in which the Arabic language is spoken, exposed to a different dominant language, and consequently underwent a slow process of language erosion (and eventually shift) usually spanning across several generations. This situation often gives rise to long periods of relatively stable bilingualism, where contact-induced change is more noticeable (Sankoff 2001: 641). In migration contexts, on the contrary, language shift occurs at a faster pace, sometimes within the lifespan of the first generation and usually no later than the third (Canagarajah 2008: 151).

This chapter analyzes contact-induced change in migration contexts. Arab migration to the West started in the late nineteenth century, with the first wave of



migrants who left Greater Syria to settle in the United States and Latin America. The first migrants were mostly Christian unskilled workers, followed by more educated Lebanese, Palestinians, Yemenis and Iraqis after World War II. During the 1950s and 1960s, more migrants continued to settle in the US, while the unstable political situations in Palestine, Lebanon and Iraq resulted in a fourth wave in the 1970s and 1980s (Rouchdy 1992a: 17–18). Because of the events that took place during the last two decades and that resulted in a further destabilization of the entire Middle East, immigration toward the US has never stopped, even though recent American policies have considerably reduced the intake of refugees and immigrants. In 2016, however, 84,995 refugees were resettled in the US, with two Arabic-speaking countries (Syria and Iraq) featuring among the top five states that make 70% of the total intake.¹

Large-scale migration to western Europe from Arabic-speaking countries began in the wake of the decolonization process during the 1960s and mainly involved speakers from North Africa (Morocco, Algeria and Tunisia). Following a common trend in labor migration, men arrived first, followed by their wives and children. In 1995, a total of 1,110,545 Moroccans, 655,576 Algerians and 279,813 Tunisians lived in Europe, mostly in France, the Netherlands, Belgium, Germany and Italy (Boumans & de Ruiter 2002: 259–260). The socioeconomic profile of the first immigrants mainly consisted of unskilled laborers, usually with low education rates. After six decades from the first wave of immigration, however, most communities consist today of a first, second and third generation, while the political upheaval which started at the end of 2010 resulted in a new wave of young immigrants. Both old and new immigrants had to face the economic crisis that hit Europe in the early 1990s and, again, in 2007, with particularly harsh consequences for the immigrant population (Boumans & de Ruiter 2002: 261).

The sociolinguistic profile of Arabic-speaking communities in the diaspora is quite diverse in different parts of the world and can be analyzed using the ethno-linguistic vitality framework, according to which status, demographics, and institutional support shape the vitality of a linguistic minority (Giles et al. 1977; Ehala 2015). Arabic-speaking immigrants do not usually enjoy a particularly high status, while the level of institutional support is variable. The first waves of immigration to the US, for instance, had to face an environment that was generally hostile to foreign languages. The English-only movement actively worked to impose the exclusive employment of English in public places, while the immigrants themselves committed to learning and using English to integrate into mainstream

¹Data come from the US Department of State. <https://www.state.gov/j/prm/releases/factsheets/2017/266365.htm>, accessed April 2, 2019.

American life. Only in the aftermath of 9/11 did American policymakers begin to re-evaluate the importance of Arabic (and other heritage languages), considering it a resource for homeland security (Albirini 2016: 319–320). Other countries, such as the Netherlands, provided higher levels of formal institutional support, including Arabic in school curricula. These efforts did not achieve the desired goals, however, mostly because the great linguistic diversity of the Moroccan community living in the Netherlands cannot be adequately represented in the teaching curricula. Moroccans in the Netherlands, in fact, speak different Arabic dialects, alongside three main varieties of Berber, namely Tashelhiyt, Tamazight and Tarifiyt (Extra & de Ruiter 1994: 160–161). The voluntary home language instruction program, however, provides instruction in Modern Standard Arabic, even though writing skills are only taught starting from third grade (Extra & de Ruiter 1994: 163–165). This is not, of course, the language students are exposed to at home, but attempts to introduce Moroccan dialect or Berber are generally opposed by parents, who value Classical Arabic for its religious and cultural relevance. Similar Home Language Instruction programs are found in most European countries, even though their implementation is sometimes carried out by local governments (in the Netherlands and Germany), private organizations (in Spain) or even by the governments of the origin country (in France) (Boumans & de Ruiter 2002: 264–265). The Italian town of Mazara del Vallo in Sicily represents an extreme case, since the members of the Tunisian community obtained from the Tunisian government the opening of a Tunisian school, where a complete Arabic curriculum is offered and Italian is not even taught as a second language. Until the end of the 1990s, this school, opened in 1981, was the first choice for Tunisian families, who hoped for a possible return to Tunisia. When it eventually became clear that this was unlikely to happen, enrollments consequently declined, which means that Arabic teaching is no longer available to the community in any form (D’Anna 2017a: 73–77). Issues of diglossia and language diversity thus undermine Home Language Instruction programs, which usually occupy a marginal position within school curricula.

Given the generally low status of, and insufficient institutional support for, Arabic-speaking communities in the diaspora, demographic factors are often decisive in determining the ethnolinguistic vitality of the community. While speakers of Arabic are usually scattered in large areas where the dominant language is prevalently spoken, in some Dutch towns Moroccan youth make up 50% of the population of certain neighborhoods (Boumans 2004: 50). At the other end of the continuum, we find closely-knit communities, living in the same neighborhood, such as in Mazara del Vallo, where Tunisians hailing from the two neighboring towns of Mahdia and Chebba constitute up to 70% of the population of the

old town (D'Anna 2017a: 27). All things being equal, given the low status of the Tunisian community and the mediocre institutional support they receive, it is primarily demographic factors which have resulted in the preservation of Arabic in this community beyond the threshold of the third generation.²

In the light of what has been said above, and despite some notable exceptions, Arabic diasporic communities are characterized by relatively rapid processes of language shift, both in the US (Daher 1992: 29) and in Europe (Boumans & de Ruiter 2002: 282). This means that the processes of contact-induced change observed in diasporic communities of Arabic are generally the prelude to language loss. The importance of studying language change in migrant languages, however, also resides in the fact that the same changes usually take place, at a much slower rate, in the standard spoken in the homeland. Internally motivated change in diasporic varieties, from this perspective, often represent an accelerated version of language change in the homeland. Contact-induced change, on the other hand, sometimes suggests parallels with the socially different process of pidginization (Gonzo & Saltarelli 1983: 194–195). The study of Arabic-speaking diasporic communities, thus, can help us shed light on the more general evolution of the language, with regard to both contact-induced and internally-motivated change.

2 Contact languages

Contact languages for diasporic Arabic-speaking communities include, but are not restricted to, American (Rouchdy 1992b) and British English (Abu-Haidar 2012), Portuguese in Brazil (Versteegh 2014: 292), French (Boumans & Caubet 2000), Dutch (Boumans 2000; 2004; 2007; Boumans & Caubet 2000; Boumans & de Ruiter 2002), Spanish (Vicente 2005; 2007) and Italian (D'Anna 2017a; 2018). Some contact situations are better described than others, as in the case of English, French and Dutch. At the other end of the continuum, research on the outcome of contact between Italian and Arabic is extremely recent, and data on Portuguese are scarce.

In the following sections, we will draw from the sources so far cited to describe the main phenomena of language change occurring in diasporic Arabic at the phonological, morphological, syntactic and lexical level, highlighting possible parallels with comparable changes in other non-diasporic varieties of Arabic.

²Other factors also played a minor role in the preservation of Arabic in Mazara del Vallo (D'Anna 2017a: 80–81).

3 Contact-induced changes in diasporic Arabic

Despite the great variety of contact languages, it is possible to individuate a number of phenomena that predictably occur in diasporic Arabic-speaking communities. It is not always easy, however, to assess whether an individual phenomenon is due to contact or whether it is, on the contrary, the result of internal development (Romaine 1989: 377). Gonzo & Saltarelli (1977: 177) put the matter as follows:

While it seems clear that some types of changes are due to interference from the dominant language, and others may be attributable to sociological and other external pressures, there are some changes which are language-internal. The latter type is in accordance with a principle of regularization and code reduction which one might expect when the language is acquired in a weakly monitored sociolinguistic environment.

The concept of WEAKENED MONITORING, a situation in which a generally accepted standard and the reinforcement of correct norms are lacking, is an effective tool of analysis when investigating language change in diasporic communities (Gonzo & Saltarelli 1977; 1983). In a situation of weakened monitoring, processes of language change that are occurring slowly in other varieties of the language can be sped up.

In the following sections, interference between languages will be referred to as TRANSFER, which occurs from the SOURCE LANGUAGE (SL) to the RECIPIENT LANGUAGE (RL). If the speaker is dominant in the SL, transfer is more specifically defined as IMPOSITION. If, on the contrary, the speaker is dominant in the RL, transfer is defined as BORROWING (Van Coetsem 1988; 2000; Lucas 2015). While the concept of linguistic DOMINANCE will be extensively used in this paper, one final caveat concerns the difficulty of individuating the dominant language (which may actually shift) in second-generation speakers. Lucas identifies a category of 2L1 speakers, who undergo the simultaneous acquisition of two distinct native languages (Lucas 2015: 525). The linguistic trajectory of most second-generation speakers, however, usually involves two consecutive stages in which first the heritage and then the socially dominant language function as the dominant language. While the heritage language is almost exclusively spoken at home during early childhood, in fact, second-generation speakers gradually shift to the socially dominant language when they start school and consequently expand their social network.

3.1 Phonology

In the domain of phonology, diasporic varieties of Arabic generally go in the direction of the loss of marked phonemes (Versteegh 2014: 293). It is generally the emphatic and post-velar phonemes that undergo erosion, though the loss is usually not systematic, featuring a great deal of inter and intra-individual variation. In non-diasporic communities, adults, peers and institutions provide corrective feedback to children during their process of language acquisition, while in immigrant communities, due to the weakened monitoring mentioned above, the chain of intergenerational transmission is less secure. Some phenomena of phonetic loss thus have a developmental origin, and are equally common in pidgins and dying languages (Romaine 1989: 372–373). Consider the following example:

- (1) Tunisian Arabic, Mazara del Vallo (D'Anna 2017a: 85)
- | | | | | | | | |
|------------|-----------------|-------|-----|-------------|--------------|-------|------|
| ʕala | ħātr-i | ʕarbi | u | nnəžžəm | naʕrəf | aktər | wāəd |
| on | thought-OBL.1SG | Arab | and | can.IMP.1SG | know.IMP.1SG | more | one |
| mia | lingua | | | | | | |
| POSS.1SG.F | language | | | | | | |
- ‘Because I’m an Arab and I can know above all my language.’

The speaker in sample (1) realizes the voiced pharyngeal fricative /ʕ/, one of the phonemes that are usually lost, but then fails to realize its voiceless counterpart /ħ/ in *wāəd* < *wāħəd* ‘one’.³ Similar phenomena also occur, as noted above, in Arabic-based pidgins and creoles, such as Juba Arabic (Manfredi 2017: 17, 21; cf. Avram, this volume).

In the process of phonological erosion, therefore, contact languages seem to have a limited impact. If the dominant language does not feature, in its phonemic inventory, the phoneme that is being eroded, it fails to reinforce whatever input young bilingual speakers receive in the other L1 in the contexts of primary socialization. Reduced input and weakened monitoring, however, play a bigger role, allowing forms usually observed in the earliest stages of language acquisition by monolingual children to survive and spread. It is relatively common, for instance, to observe the presence of shortened or reduced forms, such as *qe* < *lqe* ‘he found’, *ħal* < *nħal* ‘bees’, *ləd* < *uləd* ‘kid’, which sometimes give rise to phenomena of compensation, such as in *uləd* > *ləd* > *lədda* ‘kid’ (Tunisian

³Similar phenomena of phonetic simplification occur in peripheral varieties of Arabic and *Sprachinseln*, such as Nigerian Arabic (Owens 1993: 19–20; this volume), Cypriot Maronite Arabic (Borg 1985; Walter, this volume), Uzbekistan Arabic (Seeger 2013) and Maltese (Borg & Azzopardi-Alexander 1997: 299; Lucas & Čéplö, this volume). The single varieties here mentioned vary with regard to the phonological simplification they underwent.

diasporic Arabic, Mazara del Vallo, Italy; D'Anna 2017a: 85). In diasporic communities, reduced forms are more easily allowed to survive and spread, occurring in the speech of teenagers, as in the examples reported here. Once again, the same phenomenon also occurs in pidgin and dying languages:

In the case of dying and pidgin languages it may be that children have greater scope to act as norm-makers due to the fact that a great deal of variability exists among the adult community (Romaine 1989: 372–373).

In conclusion, the phonology of diasporic Arabic does not seem to be heavily influenced by borrowing from contact languages. The combined action of reduced input and weakened monitoring, on the other hand, is responsible for the unsystematic loss of marked phonemes and for the survival and spread of reduced forms.

3.2 Morphology

The complex mixture of concatenative and non-concatenative morphology in the domain of Arabic plural formation has been one of the main focuses of research in situations of language contact resulting from migration. Once again, borrowing from contact languages and independent developments occur side by side.

In Arabic, both concatenative and non-concatenative morphology contribute to plural formation. Concatenative morphology, which consists in attaching a suffix to the singular noun, yields the so-called sound plurals, that is, in spoken Arabic, the plural suffixes *-īn* and *-āt* respectively. It has been argued that sound feminine plural is the default plural form according to the morphological underspecification hypothesis, even though masculine is the default gender in all other domains of plural morphology (Albirini & Benmamoun 2014: 855–856). While sound masculine plural is specified for [+human], in fact, sound feminine plural has the semantic feature [±human]. Non-concatenative, or broken, plurals require a higher cognitive load, since they involve the mapping of a vocalic template onto a consonantal root.⁴ Sound feminine plurals are acquired by children by the age of three, while broken plurals involving geminate and defective roots are not mastered until beyond the age of six (Albirini & Benmamoun 2014: 857–858). After the age of five, however, heritage speakers of Arabic become increasingly exposed to their L2, which encroaches upon their acquisition of broken plurals. It has thus been convincingly demonstrated that heritage speakers display a better command of sound plurals and that, in the domain of broken

⁴The notion of root and pattern, which has long been at the core of the morphology of Arabic, has recently been criticized (Ratcliffe 2013), even though psycholinguistic studies seem to confirm the existence of the root in the mental lexicon of native speakers (Boudelaa 2013).

plurals, some are more affected by language erosion than others (Albirini & Benmamoun 2014: 858–859). Across different varieties of diasporic Arabic, therefore, plural morphology displays both contact phenomena due to borrowing and internal developments that are akin to what might be called RESTRUCTURING, that is:

changes that a speaker makes to an L2 that are the result not of imposition but of interpreting the L2 input in a way that a child acquiring an L1 would not (Lucas 2015: 525).⁵

Borrowing from the contact languages can take two forms. In rare cases, the suffix plural morpheme of the contact language is directly borrowed, as in the examples *ħuli-s* ‘sheep-PL’, *ħmar-s* ‘donkeys’ and *l-ħud-s* ‘the horses’⁶ collected from one Moroccan informant in the Netherlands (Boumans & de Ruiter 2002: 274). Sometimes, however, transfer works in a subtler way, which consists in the generalization of the sound masculine plural suffix *-in*,⁷ by analogy with the default form of the contact language, yielding *ħul-in* ‘sheep-PL’, *ħmār-in* ‘donkeys’, *ħewd-in* ‘horses’ (Boumans & de Ruiter 2002: 274). A study conducted by Albirini & Benmamoun (2014: 866–867) shows that L2 learners of Arabic usually tend to overgeneralize the sound masculine plural, wrongly perceived as a default form, while heritage speakers more often resort to the Arabic-specific default, i.e. sound feminine plural. The cases of borrowing reported above, therefore, represent an idiosyncratic exception.

On the other hand, the non-optimal circumstances under which Arabic is learned in diasporic communities often result in overgeneralization processes that cannot be directly attributed to contact. One of them is, as noted above, the generalization of the sound feminine plural *-āt*. In the domain of broken plurals, moreover, not all patterns are equally distributed. The iambic pattern, consisting of a light syllable followed by one with two moras (CVCVVC), is the most common among Arabic broken plurals (Albirini & Benmamoun 2014: 857). As a consequence, it is often generalized by heritage speakers of Levantine varieties (Syrian, Lebanese, Palestinian and Jordanian) living in the US, yielding forms such as: *fallāħ* ‘farmer’, pl. *aflāħ/fulūħ* (target plural *fallāħ-in*); *šubbāk* ‘window’,

⁵In this case, of course, the speaker would not be re-interpreting an L2, but an L1 learned under reduced input conditions and subject to language erosion.

⁶The target form here is *ħewd-an*, so that also vowel quality is not standard.

⁷The suffix for masculine plural *-in* is realized with a short vowel in the diasporic Moroccan varieties that are being discussed.

pl. *šubūk* (target plural *šabābīk*); *ṭabbāḥ* ‘cook’, pl. *ṭabāʔiḥ* (target plural *ṭabbāḥ-īn*) (Albirini & Benmamoun 2014: 865).⁸

Borrowing does not involve plural morphemes only, but other classes as well. In Mazara del Vallo, for instance, young speakers occasionally use the Sicilian diminutive morpheme *-eddru* with Arabic names, creating morphological hybrids of the kind illustrated in (2):

- (2) Tunisian Arabic, Mazara del Vallo (D’Anna 2017a: 107)
 Grazie safwani-ceddruu⁹
 thanks Safwan-DIM
 ‘Thanks little Safwan.’

This type of borrowing, quite widespread among young speakers, seems to replicate another instance of contact-induced change that occurred in an extinct variety of Arabic. Andalusī Arabic, in fact, borrowed from Romance the diminutive morpheme *-el* (e.g. *tarabilla* ‘mill-clapper’ < *ṭarab+ella* ‘little music’), incidentally etymologically cognate with the Sicilian *-eddru* (Latin *-ellum* > Sicilian *-eddru/-eddu*) (University of Zaragoza 2013: 60). The behavior of the young Tunisian speakers of Mazara del Vallo, who use these Sicilian diminutives in a playful mode, might represent the first stage of the same process that resulted in the transfer of this morpheme into Andalusī Arabic (D’Anna 2017a: 108).

While plurals represent one of the most common areas of change in diasporic Arabic, morpheme borrowing is a much rarer phenomenon, which probably occurs in situations of more pronounced bilingualism. The above two examples, however, provide a representative exemplification of the effect of language contact in the domain of morphology.

3.3 Syntax

Borrowing and restructuring also happen in the domain of syntax. As has been noted both for Moroccans in the Netherlands (de Ruiter 1989: 99) and Tunisians in Italy (personal research), second-generation speakers tend to use simpler clauses than monolingual speakers, namely main or subordinate clauses to which no other clause is attached, as evident from the following sample:

⁸The overgeneralization of some broken plural patterns indicates that the root and pattern system is still productive in heritage speakers, as opposed, for instance, to speakers of Arabic-based pidgins and creoles. Recent studies, however, have advanced the hypothesis that the iambic pattern involves operations below the level of the word, but without necessarily entailing the mapping of a template onto a consonantal root (Albirini et al. 2014: 112).

⁹The utterance appeared as a Facebook post in the timeline of one of my informants and was transcribed verbatim.

- (3) Tunisian Arabic, Mazara del Vallo (personal research)

m-baʔd əl-uləyyəd rqad u l-kaləb zāda u l-žrāna
 from-after DEF-boy.DIM sleep.PROF.3SG.M and DEF-dog also and DEF-frog
 ḥaržət mən əl-wāḥəd ēh dabbūsa
 exit.PROF.3SG.F from DEF-one HESIT bottle

‘Then the little boy slept and also the dog and the frog escaped from the hum bottle.’

Accordingly, they also display the effects of language erosion in establishing long-distance dependencies typical of more complex clauses (Albirini 2016: 305).

Palestinian and Egyptian speakers born in the US have also been found to realize overt pronouns in sentences that opt for the pro-drop strategy in the speech of monolinguals, which is probably due to the influence of English (Albirini et al. 2014: 283). Preliminary observations on second-generation Tunisians in Italy, in fact, do not show the same phenomenon. Since Italian is, like Arabic, a pro-drop language, the use of overt pronouns in American diasporic Arabic can be considered as a case of syntactic borrowing or convergence (Lucas 2015), depending on the speakers’ degree of bilingualism.

The syntax of negation is another area in which language erosion triggers phenomena that seem to be happening, albeit at a slower rate, in non-diasporic communities. Egyptian speakers in the US, for instance, seem to overgeneralize the monopartite negator *miš/muš* at the expense of the default discontinuous verbal negator *ma...-š*:

- (4) Egyptian Arabic in the US (Albirini & Benmamoun 2015: 482)

huwwa miš rāḥ l-kaftiria
 3SG.M NEG go.PROF.3SG.M to-cafeteria

‘He didn’t go to the cafeteria.’

Example (4) represents a deviation from the standard Cairene dialect spoken by monolinguals. In Egypt, however, the negative copula *miš~muš* represents a pragmatically marked possibility to negate the *b*-imperfect (Brustad 2000: 302), while in Cairo it is now the standard negation for future tense (*miš ḥa-...*, contrasting with *ma-ḥa-...-š* in some areas of Upper Egypt (Brustad 2000: 285). More generally, therefore, *miš~muš* is gaining ground at the expense of the discontinuous negation (Brustad 2000: 285), so that what we observe in diasporic Egyptian Arabic might just be an accelerated instance of the same process.

Another major area of language change, documented in most diasporic languages, is the erosion of complex agreement systems (Gonzo & Saltarelli 1983:

192). In diasporic Arabic, heritage speakers show relatively few problems with subject–verb agreement, but struggle with the subtleties of noun–adjective agreement (Albirini et al. 2013: 8). While subject–verb agreement involves a verbal paradigm with a relatively large number of cells, it is nevertheless simpler than noun–adjective agreement, since plural nouns can trigger adjective agreement in the sound or broken plural or in the feminine singular, depending on factors involving humanness, individuation, and the morphological shape of both the noun and the adjective, with marked dialectal variation (D’Anna 2017b: 103–104). Heritage speakers thus perform significantly better when default agreement in the masculine singular is required (Albirini et al. 2013: 8), but display evident signs of language erosion when more complex structures are involved:

- (5) Egyptian Arabic in the US (Albirini 2014: 740)
 wi-kamān baḥibb arūḥ l-Detroit ʔašān ʔinda-ha
 and-also love.IMP.F.IND.1SG go.IMP.F.1SG to-Detroit because at-3SG.F
 maṭāʕim *mumtaz-īn
 restaurant.PL excellent-PL.M
 ‘And I also like to go to Detroit because it has excellent restaurants.’

In (5), the speaker selects the sound masculine plural, while non-human plural nouns require either the broken plural or the feminine singular in Egyptian Arabic. Once again, language change in diasporic Arabic, where the language is learned under reduced input conditions, tends to replicate processes of language change that happened or are happening in the Arabic-speaking world. In the case of agreement, the standardization that the agreement system underwent in the transition from pre-Classical to Classical Arabic has been convincingly explained as emerging from the overgeneralization of frequent patterns by L2 learners (Belnap 1999).

Finally, isolated cases show syntactic borrowing or convergence¹⁰ at the level of word order, which is usually preserved in diasporic contexts, as in the example in (6).

- (6) Moroccan Arabic in the Netherlands (Boumans 2001: 105)
 u ʔtat l-u dya-l-u l-lḥem
 and give.PRF.3SG.F to-3SG.M GEN-3SG.M DEF-meat
 ‘And she gave it [i.e. the dog] its meat.’

¹⁰Once again, considering this phenomenon as syntactic borrowing or convergence depends on the speaker’s language dominance, which is not clear from the source and is not easily ascertained in second-generation speakers, whose dominant language is often subject to shift.

This example illustrates an extreme case of word order change, in which the possessive *dyal-u* 'its' precedes the head. Overgeneralization of permissible (but sometimes pragmatically marked) word orders, however, occur much more frequently. Egyptian heritage speakers in the US, for instance, use SVO order 77.65% of the time, vs. 52.64% for Egyptian native speakers (Albirini et al. 2011: 280–281).

In situations of stable bilingualism, such as in some Arabic *Sprachinseln*, convergence with contact languages can result in permanent alterations to word order. In Buxari Arabic, for instance, transitive verbs feature a mandatory SOV word order, with optional resumptive pronoun after the verb. Cleft sentences such as the following one are quite common in all Arabic dialects:

- (7) Egyptian Arabic (Ratcliffe 2005: 145)

il-fustān gībt-u
DEF-dress get.PRF.1SG-3SG.M
'I got the dress.'

In Bukhari Arabic, which has long been in contact with SOV languages (such as Persian and Tajik), this structure became the standard for transitive verbs, so that the resumptive pronoun can also be dropped, as in the following sample:

- (8) Bukhari Arabic (Ratcliffe 2005: 144)

fāt ŷūd ḥada
INDEF stick take.PRF.3SG.M
'He took a stick.'

3.4 Lexicon

In the domain of lexical borrowing, which has attracted considerable interest among scholars, the situation of bilingualism in diasporic contexts poses some methodological issues in the individuation of actual loanwords. The production of heritage speakers, in fact, is inevitably marked by frequent phenomena of code-switching, which makes difficult to distinguish between nonce-borrowings (Poplack 1980) and code-switching. If we define lexical borrowing as “the diachronic process by which languages enhance their vocabulary” (Matras 2009: 106), in fact, it is not clear which language is here enhancing its vocabulary, since diasporic varieties of Arabic are not discrete varieties and feature the highest degree of internal variability. A possible solution to this impasse consists in looking exclusively at the linguistic properties of the alleged loanword. In this vein, Adalar & Tagliamonte (1998: 156) have shown that, when foreign-origin nouns appear in contexts in which they are completely surrounded by the other language, they are treated like borrowings (in this case, nonce-borrowings) at the phonological, morphological and syntactic level. When, on the contrary, they appear

in bilingual (or multilingual) utterances, they represent cases of code-switching, patterning with the language of their etymology. The domain of lexical borrowing in diasporic varieties of Arabic, however, is an area that needs further research.

4 Conclusion

This chapter has offered an overview of the main phenomena of contact-induced change observed in Arabic diasporic communities, distinguishing them from internal developments due to reduced input and weakened monitoring. Diasporic communities rarely feature situations of stable bilingualism, so that language change usually corresponds to language attrition and is followed by the complete shift to the dominant language. The study of language change in diasporic communities, however, constitutes an interesting field of investigation, both in itself and for the insight it can give us into language change in monolingual communities. Change at the phonological, morphological and syntactic level finds parallels in comparable phenomena that have occurred in the history of Arabic (such as in the case of agreement) or that are occurring as we speak (such as in the case of the spread of the negator *miš* in Egyptian Arabic). Not by chance, similar phenomena also occur(red) in the Arabic-based pidgins of East Africa, such as Juba Arabic. Various scholars, in fact, have maintained that the mechanisms of change differ in the degree of intensity, but not in their intrinsic nature, from those operating in less extreme situations of contact (e.g. Miller 2003: 8; Lucas 2015: 528).

On the other hand, the analysis of contact phenomena in diasporic communities poses some methodological issues with regard to the categories of borrowing, imposition and convergence (Van Coetsem 1988; 2000). These categories, in fact, imply the possibility to define clearly the speaker's dominant language or, at least, to define him as a stable 2L1 speaker. This is rarely the case with heritage speakers, whose repertoires follow trajectories in which language dominance shifts, usually from the heritage language to the socially dominant one. This process is usually concomitant with the beginning of school education, but we lack theoretical and methodological tools to determine with accuracy the speaker's position on the trajectory.

Further avenues of research on this topic thus include a more rigorous investigation of emerging and shifting repertoires and the analysis of the complex relation between diasporic languages, pidginization and creolization, which has already been the object of a number of contributions (e.g. Gonzo & Saltarelli 1983; Romaine 1989).

Further reading

- Rouchdy (1992b) is the first description of Arabic in the US.
- Rouchdy (2002) analyzes more broadly language contact and conflict, with a section devoted to Arabic in the diaspora.
- Owens (2000) collects essays on Arabic as a minority language, focusing on both *Spracheninseln* and diasporic Arabic, but introducing also historical and cross-ethnic perspectives.

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Abbreviations

1, 2, 3	1st, 2nd, 3rd person	INDEF	indefinite
DEF	definite article	M	masculine
DIM	diminutive	NEG	negative
F	feminine	OBL	oblique
HESIT	hesitation	PL	plural
GEN	genitive	POSS	possessive pronoun
IMPF	imperfect (prefix conjugation)	PRF	perfect (suffix conjugation)
IND	indicative	SG	singular

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Chapter 15

Arabic pidgins and creoles

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The chapter is an overview of eight Arabic-lexifier pidgins and creoles: Turku, Bongor Arabic, Juba Arabic, Kinubi, Pidgin Madame, Jordanian Pidgin Arabic, Romanian Pidgin Arabic, and Gulf Pidgin Arabic. The examples illustrate a number of selected features of these varieties. The focus is on two types of transfer, imposition and borrowing, within the framework outlined by Van Coetsem (1988; 2000; 2003) and Winford (2005; 2008).

1 Introduction

This chapter aims to illustrate the emergence of Arabic-lexifier pidgins and creoles for which the contact situation – i.e. socio-historical context, the agents of change, and the languages involved – is at least relatively well known.

The varieties considered can be classified into two groups, in geographical, historical and developmental terms: the Sudanic pidgins and creoles, and the immigrant pidgins in various Arab countries. Geographically, the Sudanic varieties developed in Africa – in present-day South Sudan, Chad, Uganda, and Kenya. Historically, the varieties derive from a putative common ancestor, a pidgin that emerged in southern Sudan, in the first half of the nineteenth century. Various Turkish–Egyptian military expeditions between 1820 and 1840 opened southern Sudan for the slave trade. Permanent camps were set up soon after by slave traders in the White Nile Basin, Bahr el-Ghazal and Equatoria Province, inhabited by an Arabic-speaking minority and a huge majority of slaves from various ethnic and linguistic backgrounds. After 1850, the slave traders’ settlements were turned into military camps in which a military pidgin emerged, which is traditionally referred to as “Common Sudanic Pidgin Creole Arabic” (Tosco &



Manfredi 2013: 253). Two subgroups of Sudanic varieties are recognized: the western branch, consisting of Turku and Bongor Arabic (in Chad), and the eastern one, made up of Juba Arabic (in Sudan) and Kinubi (spoken in Uganda and Kenya).

Immigrant pidgins emerged in the eastern part of the Arab World, in Lebanon, Jordan, Iraq and the countries of the Arab Gulf. Historically, these do not go back more than 50 years. All these varieties are incipient pidgins.

The contact situations illustrated presuppose: (i) a source language (SL) and a recipient language (RL); (ii) agents of contact-induced change, who may be either SL or RL speakers; (iii) a psycholinguistically dominant language, which is not necessarily a socially dominant language (Van Coetsem 1988; 1995; 2000; 2003; Winford 2005; 2008). A distinction is made between two types of transfer: imposition and borrowing (Van Coetsem 1988; 2000; 2003). Imposition involves SL-dominant speakers as agents (SL agentivity), is typical of second-language (L2) acquisition, and induces changes mostly in phonology and syntax, although it may also include transfer of lexical items from the dominant SL into the non-dominant RL (Van Coetsem 1995: 18; Winford 2005: 376). Borrowing normally involves RL-dominant speakers as agents (RL agentivity), typically targets lexical items, but may also include transfer of morphological material from a non-dominant SL into the dominant RL.

In light of their sociolinguistic history, the varieties considered all emerged under conditions of untutored, short-term L2 acquisition by adults dominant in their socially subordinate SLs. L2 acquisition, *a fortiori* with adults, triggers processes such as imposition via SL agentivity (i.e. substrate influence), simplification (Trudgill 2011: 40, 101) – also known as restructuring (Lucas 2015: 529) – as well as language-internal (i.e. non-contact-induced) developments such as grammatical reanalysis (Winford 2005: 415).

As in Manfredi (2018), the focus of this chapter is on imposition and borrowing. It does not illustrate restructuring which does not involve any kind of transfer, but often involves a reduction in complexity (Lucas 2015: 529). In the case of Arabic pidgins and creoles, restructuring is manifest in the domain of morphology, in, for example, the loss of the Arabic verbal affixes and of the nominal and verbal derivation strategies (Miller 1993).

The examples are illustrative only of selected contact-induced features of Arabic pidgins and creoles and their number has been kept to a reasonable minimum. The examples from Arabic and the pidgins and creoles considered appear in a uniform system of transliteration.

The chapter is organized as follows. §2 and §3 are concerned with Sudanic pidgins and creoles. §4, on the other hand, deals with Arabic immigrant varieties. §5 summarizes the findings and introduces issues for further research.

2 Turku and Bongor Arabic

2.1 Current state and historical development

Turku is an extinct pidgin, formerly spoken in the Chari–Bagirmi region in western Chad (Muraz 1926). After the abolition of slavery by the Turkish–Egyptian government in 1879, the Nile Nubian trader Rabeh withdrew with his slave soldiers into Chad. From a sociolinguistic point of view, Turku was initially a military pidgin. However, it later became one of three trade languages in what was then French Equatorial Africa, along with Sango and Bangala (Tosco & Owens 1993: 183). Turku was a stable pidgin which does not appear to have creolized (Tosco & Owens 1993).

Bongor Arabic is spoken in southwestern Chad, in and around the town of Bongor, the capital of the Mayo–Kebbi Est region, at the border with Cameroon (Luffin 2013). Given the many structural features it shares with Turku, it is plausible to assume that Bongor Arabic developed from the former. Sociolinguistically, Bongor Arabic is a trade pidgin, used by the local Masa and Tupuri populations with Arabic-speaking traders. It is currently a stable pidgin, but it exhibits features indicative of depidginization under the influence of Chadian Arabic (ChA). No information about the number of speakers is available.

2.2 Contact languages

The lexifier language of Turku and Bongor Arabic is Western Sudanic Arabic. The substratal input was provided by languages of various genetic affiliations: Nilo-Saharan – e.g. Bagirmi, Mbay, Ngambay, Sar, Sara (Central Sudanic), Kanuri (Western Saharan); Afro-Asiatic – Hausa (West Chadic); Niger-Congo – Fulfulde. In the case of Turku, an additional contributor was the creole language Sango. Both in Turku and in Bongor Arabic there is also adstratal input from French. The adstrate of Bongor Arabic additionally includes two languages: Masa (Nilo-Saharan, Western Chadic) and Tupuri (Niger-Congo).

2.3 Contact-induced changes

2.3.1 Phonology

The substrate languages do not have /ħ/, which is generally replaced by [k]: Turku *kamsa* ‘five’ < ChA *ħamsa*; Bongor Arabic *kídma* ‘work’ < ChA *ħidma*. Many of the substrate languages do not have /f/, which is substituted with [p]

or perhaps [ɸ],¹ e.g. Turku *ɸfil* ‘elephant’ < ChA *fil*. In French loanwords, the reflexes of /v/ are either [b] or [w]: Bongor Arabic *boté* ‘to vote’ < French *voter*, *wotír* ‘car’ < French *voiture*.

The consonants [ɲ] and [ŋ] occur only in loanwords: Bongor Arabic *ngambáy* ‘Ngambay’ < Ngambay *ngàmbáy*; Turku *ngari* ‘manioc’ < Mbay *ngàrì*, *konpanye* ‘company’ < French *compagnie*; [v] and [ʒ] occur only in phonologically non-integrated words of French origin: Turku *sivil* ‘civilian’ < French *civil*; Bongor Arabic *žurnalíst* ‘journalist’ < French *journaliste*.

Variation affects several consonants. For instance, [f] occurs in variation with [b] or [p]: Turku *fīšan* ~ *bīšan* ‘because’; Bongor Arabic *máfi* ~ *mápi* ‘NEG’ < ChA *mā fī*, *sofér* ~ *sopér* ‘driver’ < French *chauffeur*. Most of the substrate languages do not have /š/, which accounts for [ʃ] ~ [s] variation, in words with either etymological /s/ or /ʃ/: Turku *gasi* ~ *gaši* ‘expensive’ < ChA *gāsī*, *birīš* ~ *biris* ‘mat’ < ChA *birīš*; Bongor Arabic *máši* ~ *mási* ‘go’. The usual reflexes of French /ʒ/, absent from the phonological inventories of the substrate languages, are [z], [dʒ] and [s] respectively: Turku *ģinenal* ‘general’ < French *général*, *suska* ‘until’ < French *jusqu’à*; Bongor Arabic *zúska* ‘when, during’ < French *jusqu’à* ‘until’.

Finally, vowel length is not distinctive: Turku, Bongor Arabic *kalam* ‘speech; speak’ < ChA *kalām* ‘speech’.

2.3.2 Morphology

On current evidence (Luffin 2013: 180–181), Bongor Arabic exhibits signs of de-pidginization under the influence of Chadian Arabic. The most striking instance of this is the use of pronominal suffixes, unique among Arabic-lexifier pidgins and creoles:

- (1) Bongor Arabic (Luffin 2013: 180)
 índi gáy árifu úsum-i
 2SG IMPF know name-POSS.1SG
 ‘You know my name.’

Also, verbal affixes are sporadically used:

- (2) Bongor Arabic (Luffin 2013: 181)
 a. ána ma n-árfa
 1SG NEG 1SG-know
 ‘I don’t know.’

¹Transcribed as ⟨ɸf⟩ by Muraz (1926: 168).

- b. anína rikíb-na wotír da sáwa
 1PL ride.PRF-1PL car PROX together
 ‘We took the car together.’

These cases might be analyzed as borrowing under *sui generis* RL agentivity, whereby morphological material from a non-dominant SL is imported into a non-dominant (second) RL.

2.3.3 Lexicon

A part of the non-Arabic vocabulary of Turku can be traced back to its substrate languages (Avram 2019). Most of the loanwords are from Sara-Bagirmi languages: *adinbang* ‘eunuch’ < Bagirmi *ádim mbàñ* ‘servant of the sultan’; *gao* ‘hunter’ < Sar *gáw*; *ngari* ‘manioc’ < Mbay *ngàrì*. The second most significant important contributor is Sango: *kay* ‘paddle’ < Sango *kâi*, *tipoy* ‘carrying hammock’ < *típóí*. A few words can be traced to Fulfulde and Kanuri: *kelkelbangi* ‘golden beads’ < Fulfulde *kelkel-banja*; *wélik* ‘lightning’ < Kanuri *wulak* ‘flash of lightning’. In a number of cases, the exact SL cannot be established: *koporo* ‘0.10 Francs’ < Fulfulde, Sango, Sara *koporo* ‘coin’; *gurumba* ‘hat’ < Hausa *gurúmba*, Kanuri *gurumbá*. As for Bongor Arabic, its African adstrate languages have contributed only a few loanwords, such as *bursdíya* ‘Monday’. There are also loanwords from French. In Turku most of these relate to the military (Tosco & Owens 1993: 262–263), e.g. Turku *itenan* ‘lieutenant’ < French *lieutenant*, *permišon* ‘permission’ < French *permission*. In addition to nouns, French loanwords include some verbs, such as Bongor Arabic *komandé* ‘order’ < French *commander*, and at least one function word, Turku *suska*, Bongor Arabic *zúska* ‘when, during’ < French *jusqu’à* ‘until’.

The substratal influence on Turku can also be seen in a number of compound calques (Avram 2019; Manfredi, this volume). Some of these are modelled on Sara-Bagirmi languages: *bahr gum* ‘rising water’, cf. Ngambay *màn-kàw*, lit. ‘river goes’; *nugra ana asal* ‘beehive’, cf. Ngambay *bòlè-tənji*, lit. ‘hole (of) honey’. Other calques have equivalents in several SLs, such as *nugra hağer* ‘cave’, lit. ‘hole mountain/stone’, cf. Kanuri *kûl kau-be* lit. ‘cavity mountain-of’, Ngambay *bòlò-mbàl* lit. ‘hole mountain’, Sango *dûtênë* lit. ‘hole stone’.

3 Juba Arabic and Kinubi

3.1 Current state and historical development

Juba Arabic is mainly spoken in South Sudan; there are also diaspora communities, mostly in Sudan and Egypt. Two main reasons make it difficult to estimate its number of speakers. Firstly, while Juba Arabic is spoken as a primary language by 47% of the population of Juba, the capital city of South Sudan, it is also used as a second or third language by the majority of the population of the country (Manfredi 2017: 7). Secondly, the long coexistence of Juba Arabic with Sudanese Arabic, its main lexifier language, has led to the emergence of a continuum ranging from basilectal, through mesolectal, to acrolectal varieties; delimiting acrolectal Juba Arabic from Arabic is no easy task, particularly in the case of the large diaspora communities in Khartoum and Cairo.

Juba Arabic emerged as a military pidgin. Sociolinguistically, it is today an inclusive identity marker for the ethnically and linguistically diverse population of South Sudan (Tosco & Manfredi 2013: 507). Developmentally, Juba Arabic is a pidgincreole.²

The Mahdist revolt, which started in 1881, eventually brought about the end of Turkish–Egyptian control over Equatoria, in southern Sudan. Following an invasion by Mahdist rebels, the governor fled to Uganda, accompanied by slave soldiers loyal to the central government. These soldiers subsequently became the backbone of the British King’s African Rifles. While some of the troops remained in Uganda, others were moved to Kenya and Tanzania. This led to the dialectal division between Ugandan and Kenyan Kinubi. Like Juba Arabic, therefore, Kinubi started out as a military pidgin, then underwent stabilization and expansion. Today, however, Kinubi is the only Arabic-lexifier fully creolized variety, that is, a native language for its entire speech community.

Kinubi is spoken in Uganda and in Kenya. The number of speakers of Kinubi is a matter of debate. Ugandan Kinubi was spoken by some 15,000 people, according to the 1991 census, and Kenyan Kinubi by an estimated 10,000 in 2005. However, other estimates put the combined number of speakers at about 50,000. The largest communities of Kinubi speakers are in Bombo (Uganda), Nairobi (the Kibera neighbourhood) and Mombasa (Kenya).

²A pidgincreole is “a former pidgin that has become the main language of a speech community and/or a mother tongue for some of its speakers” (Bakker 2008: 131).

3.2 Contact languages

The main lexifier language of Juba Arabic is Sudanese Arabic (SA), with some input from Egyptian Arabic (EA) and Western Sudanic dialects as well. The substrate is represented by a relatively large number of languages, belonging to super-phylums, Nilo-Saharan and Niger-Congo. The former includes Eastern Sudanic languages, such as Bari, Lotuho (Eastern Nilotic), Acholi, Belanda Bor, Dinka, Jur, Nuer, Pãri, Shilluk (Western Nilotic), Didinga (Surmic), and Central Sudanic languages, such as Avokaya, Baka, Bongo, Ma'di, Moru; the Niger-Congo super-phylum is represented by, for example, Zande and Mundu. The main substrate language is considered to be Bari, including its dialects Kakwa, Kuku, Pojulu, and Mundari.³

Given its sociolinguistic history, Kinubi shares much of its substrate with Juba Arabic. However, the substrate of Ugandan Kinubi additionally includes Eastern Sudanic languages, such as Alur, Luo (Western Nilotic), and Central Sudanic languages such as Mamvu, Lendu and Lugbara (Owens 1997: 161; Wellens 2003: 207), spoken in Uganda. Unlike Juba Arabic, Kinubi also exhibits the effects of the adstratal influence exerted by two Bantu languages, Luganda – particularly in Ugandan Kinubi – and Swahili – particularly in Kenyan Kinubi. One other language that should be mentioned is English, official both in Uganda and in Kenya.

3.3 Contact-induced changes

3.3.1 Phonology

A number of consonants found in Arabic, but absent from the phonological inventories of the substrate languages, are either deleted or substituted. Consider the reflexes of pharyngeals: *háfla* 'feast' < SA *ḥafla*; *árabi* 'Arabic' < SA *ʕarabī*. The pharyngealized consonants are replaced by their plain counterparts: *towíl* 'long' < SA *ṭawíl*; *dul* 'shadow' < SA *ḍull*; *súlba* 'hip' < SA *ṣulba*; *zúlum* 'to anger' < SA *ẓulum*. The velar fricatives of Arabic are always replaced by velar stops: *kábara* 'piece of news' < SA *ḥabar*; *śókol* 'work' < SA *ṣoḡol*, *gárib* 'west' < SA *ʕar(i)b*.

As in Juba Arabic, the pharyngeals of Arabic are either replaced or lost in Kinubi (Owens 1985: 10; Wellens 2003: 209–212). The earliest records of Ugandan Kinubi⁴ are replete with illustrative examples (Avram 2017a): *haǵa* 'thing' < SA *ḥāǵa*, *aram* 'thief' < SA *ḥarāmi*, *lib* < 'to play' < SA *liʕib*. The pharyngealized

³Sometimes considered to be separate languages (Wellens 2003: 207).

⁴The main ones are: Cook (1905), Jenkins (1909), Meldon (1913), and Owen & Keane (1915).

consonants are replaced by their plain counterparts, as in these examples from early Ugandan Kinubi: *towil* ‘long’ < SA *ṭawīl*; *dulu* ‘shadow’ < SA *ḍull*, *hisiba* ‘measles’ < SA *ḥiṣba*; *zulm* ‘to anger’ < SA *ẓulum*. Like Juba Arabic, Kinubi substitutes velar stops for the Arabic velar fricatives. Consider the following early Ugandan Kinubi forms: *kidima* ‘work’ < SA *ḥidma*; *šokolo* ‘work’ < SA *šoyol*, *balago* ‘commandment’ < SA *balāy* ‘message’. Substratal influence also accounts for consonant degemination, given that the substrate languages “lack these in all but a few morphologically determined contexts” (Owens 1997: 162).

Substratal influence can also be seen in the occurrence of certain consonants. Consider first /b/ and /d/: Juba Arabic *d’engele* ‘liver’ < Bari *denggele*; Juba Arabic *b’oŋgo* ‘pumpkin’ < Bongo *b’oŋgo*. The other consonants which occur only in loanwords from the substrate and/or adstrate languages are [p] [v], [tʃ], [ɲ], and [ŋ]: Kinubi *lípa* ‘to pay’ < Swahili *-lipa*; Kinubi *camp* ‘camp’ < English *camp*; Kinubi *víta* ‘war’ < Swahili *vita*; Juba Arabic *čam* ‘food’ < Acholi, Belanda Bor, Jur *čama*, Juba Arabic *čayniz* < English *Chinese*, Kinubi *čay* ‘tea’ < Swahili *chai*; Juba Arabic *nyékem*, Kinubi *nyékem* ‘chin’ < Bari *nyékem*, Kinubi *nyánya* ‘tomato’ < Swahili *nyanya*; Juba Arabic *ɲun* ‘divinity’ < Bari *ngun*. The integration of these phonemes is thus a result of borrowing (under RL agentivity) rather than of imposition.

The following instances of consonant variation are more common in Juba Arabic (Manfredi 2017: 25–27). The most frequent is [ʃ] ~ [s]: *geš* ~ *ges* ‘grass’. Further, [z] is in variation with [dʒ] before /o/ and /a/: *zówǵu* ~ *ǵówǵu* ‘to marry’, *záman* ~ *ǵáman* ‘time; when’. There is also [p] ~ [f] variation in word-initial position, including in loanwords: *poǵúlu* ~ *foǵúlu* ‘Pojulu’, *prótestan* ~ *frótestan* ‘protestant’. Finally, the phoneme /f/ may also be phonetically realized as [p]: *nédifu* ~ *nedipu* ‘to clean’. Of these cases of variation, the latter has been specifically attributed to substratal influence from Bari (Miller 1989; Manfredi 2017). It might be argued, however, that all these instances of consonant variation reflect the influence of the substrate languages, regardless of their genetic affiliations. The following do not have /ʃ/: Acholi, Avokaya, Baka, Bari, Belanda Bor, Bongo, Dinka, Jur, Lotuho, Ma’di, Moru, Mundu, Nuer, Pări, Shilluk, Zande. Of these, Acholi, Belanda Bor, Bongo, Dinka, Jur, Nuer, Pări and Shilluk do not have /s/ either. A number of substrate languages do not have /z/: Acholi, Bongo, Belanda Bor, Dinka, Jur, Lotuho, Nuer, Pări, and Shilluk. All of these, however, have /dʒ/. Finally, /f/ is not part of the phonological inventory of Acholi, Bongo, Dinka, Jur, Nuer, Pări, and Shilluk, which do, however, have /p/. Given the intricacies of the distribution of /ʃ/, /s/, /z/, /dʒ/, /f/, and /p/ across the substrate languages, the types of variation illustrated are not surprising.

As in Juba Arabic, [ʃ] is in variation with [s] in Kinubi (Owens 1985: 237; Owens 1997: 161; Wellens 2003: 38; Luffin 2005: 62; Avram 2017a): early Ugandan Kinubi *šabaka* ~ *sabaka* ‘net’. Although it is etymological /š/ which is typically subject to variation, occasionally this also applies to etymological /s/: early Ugandan Kinubi *sikin* ~ *šekin* ‘knife’ < SA *sikkīn* (Avram 2017a) and modern Kenyan Kinubi *fluš* ~ *flus* ‘money’ < SA *fulūs* (Luffin 2005: 63). Note that [š] ~ [s] variation also extends to loanwords from Swahili (Wellens 2003: 80; Luffin 2005: 63; Avram 2017a): early Ugandan Kinubi *šamba* ~ *samba* ‘field’ < Swahili *shamba*. Like Juba Arabic, Kinubi exhibits [z] ~ [dʒ] variation (Owens 1985: 235; Owens 1997: 161; Wellens 2003: 215; Luffin 2005: 63; Avram 2017a): early Ugandan Kinubi *ǧalan* ~ *zalan* ‘angry’ < SA *zawlān*. However, unlike Juba Arabic, in Kinubi the [z] ~ [dʒ] variation also occurs before the two front vowels /i/ and /e/: *ze* ~ *ǧe* ‘as’, early Ugandan Kinubi *anǧil* ~ *enzil* ‘descend’. According to Owens (1997: 161), this “is due perhaps to Bari substratal influence, since Bari has only *j*, not *z*.” In fact, as in the case of Juba Arabic, the same is true of several other substrate languages. Lastly, there are instances of [l] ~ [r] variation (Wellens 2003: 214; Luffin 2005: 65), affecting both etymological /l/ and etymological /r/ in Arabic-derived words, e.g. *tále* ~ *táre* ‘go out’, *gerí* ~ *gelí* ‘near’, and in borrowings, e.g. Ugandan Kinubi *čálo* ~ *čáro* ‘village’ < Luganda *e-kyalo*; Kenyan Kinubi *tumbíli* ~ *tumbíri* ‘monkey’ < Swahili *tumbili*. This variation seems to reflect the influence of Luganda and Swahili. In the former, [l] and [r] are in complementary distribution, with [r] occurring after the front vowels /i/ and /e/, and [l] elsewhere (Wellens 2003: 214), while in the latter [l] and [r] are in free variation (Luffin 2014: 79).

As in the substrate languages, there is no distinction between short and long vowels: Juba Arabic *sudáni* ‘Sudanese’ < SA *sudānī*, Kinubi *kabír* ‘big’ < SA *kabīr*.

3.3.2 Morphology

Apart from the Arabic-derived plural suffixes *-at* and *-in*, Juba Arabic uses the plural marker of Bari origin *-ǧín* (Nakao 2012: 131; Manfredi 2014a: 58), which is attached only to loanwords from local languages:

- (3) Juba Arabic (Manfredi 2014a: 58)
- a. kərəpə-ǧín (< Bari *kərəpə*)
leaf-PL
‘leaves’
 - b. beng-ǧín (< Dinka *beng*)
chief-PL
‘chiefs’

- c. b'angiri-ǵín (< Zande *b'angiri*)
cheek-PL
'cheeks'

Another phenomenon worth mentioning is the occurrence in the speech of young urban speakers of hybrid forms, which consist of the Bari relativizer *lo-* and a noun either from Arabic or from one of the substrate/adstrate languages (Nakao 2012: 131). Note, however, that there is a functional overlap between Bari *lo-* and Sudanese Arabic *abu*.

- (4) Juba Arabic (Manfredi 2017: 46)
- a. lo-beléde (< Bari *lo-* + SA *beled*)
REL-country
'peasant'
- b. lo-pómbe (< Bari *lo-* + Swahili *pombe*)
REL-alcohol
'drunkard'

Given that a relatively large number of Bari-derived words contain *lo-* (Miller 1989; Manfredi 2017: 46), the examples in (4) confirm the fact that morphological innovations are typically introduced through lexical borrowings via RL agentivity, and subsequently become productive in the RL.

Note, finally, that most of the speakers who use the plural marker *-ǵín* and the relativizer *lo-* are dominant in Juba Arabic. These cases therefore confirm the fact that RL monolinguals can be agents of borrowing (Van Coetsem 1988: 10).

A small number of Kinubi nouns borrowed from Swahili exhibit the Bantu nominal classifiers:

- (5) Kinubi (Wellens 2003: 57)
- a. **mu-zé wa-zé**
NC1-old.man NC2-old.man
'old man, old men'
- b. **mu-zukú wa-zukú**
NC1-grandchild NC2-grandchild
'grandchild, grandchildren'
- c. **m-zúngu wa-zúngu**
NC1-European NC2-European
'European, Europeans'

3.3.3 Syntax

Bureng Vincent (1986: 77) first noted the similarity between the prototypical passive construction in Juba Arabic and its Bari counterpart:

(6) Juba Arabic (Bureng Vincent 1986: 77)

- a. *bágará áyinu ma Wáni*
 cow see.PST with Wani
 ‘The cow has been seen by Wani.’
- b. Bari (Bureng Vincent 1986: 77)
kítzɨ a metà kò Wáni
 cow PST see with Wani
 ‘The cow has been seen by Wani.’

As can be seen, in both Juba Arabic and Bari the agent is introduced by the comitative preposition ‘with’. This is a case of lexico-syntactic imposition via identification of SL and RL lexemes (Manfredi 2018: 415): the Juba Arabic lexical entry *ma* is derived from Sudanese Arabic *maf*, but its semantics reflects the influence of Bari *kò*. The same is true of Kenyan Kinubi:

(7) Kinubi (Luffin 2005: 230)

- yal-á al akulú ma nas tomsá*
 child-PL REL eat.PST.PASS with PL crocodile
 ‘the children who were eaten by a crocodile’

Consider next the syntax of numerals in Kinubi (Wellens 2003: 90; Luffin 2014: 309). Their post-nominal placement is calqued on Swahili:

- (8) Kinubi (Luffin 2014: 309)
wéle kámsa ma baná árba
 boy five with girl.PL four
 ‘five boys and four girls’
- (9) Swahili (Luffin 2014: 309)
miti mia tatu
 tree hundred three
 ‘three hundred trees’

With cardinal numerals, the order is hundred + unit and thousand + unit respectively:

- (10) Kinubi (Luffin 2014: 309)
elf wáy
thousand one
'one thousand'

Kinubi thus follows the Swahili model:

- (11) Swahili (Luffin 2014: 309)
elfu moja
thousand one
'one thousand'

Consider also a case of syntactic change induced by lexical calquing. Juba Arabic (*fu*)*wata* 'ground' functions as an impersonal subject in weather expressions:

- (12) Juba Arabic (Nakao 2012: 141)
(fu)watá súkun
ground hot
'It is hot.'

Nakao (2012: 141) shows that this is also the case in Acholi and Ma'di:

- (13) Acholi (Nakao 2012: 141)
piiny lyeeet
ground warm
'It is warm.'
- (14) Ma'di (Nakao 2012: 141)
vu aci
ground hot
'It is hot.'

In fact, these types of sentences are widespread in Western Nilotic substrate languages, such as Dinka, Jur, Pári, and Shilluk:

- (15) Dinka (Nebel 1979: 202)
piny a-tuc
ground 3SG-warm
'It is warm.'

In both Juba Arabic and Kinubi *ras* 'head' also occurs in the complex preposition *fi ras* 'on':

- (16) a. Juba Arabic (Nakao 2012: 141)
 merísa fí fi ras terebéza
 beer EXS on head table
 ‘The beer is on the table.’
 b. Kinubi (Wellens 2003: 159)
 fi rás séder
 on head tree
 ‘on top of the tree’

Nakao (2012: 141) attributes this function of *ras* to substratal influence from Acholi and Ma’di:

- (17) Acholi (Nakao 2012: 141)
 cib wi-meja
 put head-table
 ‘Put it on the table.’

However, other possible sources include Western Nilotic languages such as Belanda Bor, Jur, Pāri and Shilluk:

- (18) Jur (Pozzati & Panza 1993: 342)
 kedh ŋo wi tarabesa
 put 3SG head table
 ‘Put it on the table.’

Moreover, a preposition ‘on’ derived from the noun ‘head’ is also attested in Bongo (Central Sudanic) and Zande (Niger-Congo):

- (19) Bongo (Moi et al. 2014: 39)
 ba **do** mbaa
 3SG on car
 ‘He is on a car.’
 (20) Zande (De Angelis 2002: 288)
 mo mai he ri ngua
 2SG put 3SG on wood
 ‘Put it on the wood.’

The verb *gal/gale/gali* ‘say’ is used in Juba Arabic and Ugandan Nubi as a complementizer, with *verba dicendi* and verbs of cognition:

- (21) a. Juba Arabic (Miller 2001: 469)
 úwo kélem gal úwo bi-ǵa
 3SG speak COMP 3SG IRR-come
 ‘He said that he would come.’
- b. Ugandan Kinubi (Wellens 2003: 204)
 úmon áruf gal fi difan-á al gi-ǵá
 3PL know COMP EXS guest-PL REL PROG-come
 ‘They know that there are are guests who are coming.’

The use of a *verbum dicendi* as a complementizer resembles the situation in Bari,⁵ where *adi* ‘say’ introduces direct speech (Owens 1997: 163; Miller 2001: 469):

- (22) Bari (Miller 2001: 469)
 mukungu a-kulya adi nan d’ad’ar kakitak merya-mukanat
 sub-chief PST-say COMP 1SG want worker fifty
 ‘The sub-chief spoke saying: I want fifty workers.’

3.3.4 Lexicon

Since Bari is the main substrate language of Juba Arabic, unsurprisingly it contributes most of its African-derived words: *gúgu* ‘granary’ < Bari *gugu*; *kení* ‘co-wife’ < Bari *köyini*; *lojumég* ‘hedghehog’ < Bari *lónyumöng*; *tónǵa* ‘pinch’ < Bari *tonǵa*. In several cases, the Juba Arabic form can be traced to a specific dialect: *d’oǵoǵ* ‘back of head’ < Pojulu *doǵoǵ*; *láǵa* ‘wander’ < Mundari *laǵa* ‘travel’; *nyéte* vs *ǵéte* ‘black-eyed pea leaf’ < Bari *nyete* vs Kakwa, Pojulu *ǵete*. Moreover, “more Bari lexical items are being borrowed” in Youth Juba Arabic (Nakao 2012: 131): *kapaparát* ‘butterfly’ < Bari *kapoportat*; *lukulúli* ‘bat’ < Bari *lukululi*. Several other substrate and adstrate languages have contributed to the lexicon of Juba Arabic (Nakao 2012; 2015): *adúngú* ‘harp’ < Acholi *aduǵu*; *b’oǵo* ‘pumpkin’ < Bongo *b’oǵo*; *báfura* ‘cassava’ < Dinka *bafora* ‘manioc, (sweet) cassava’; *káwu* ‘cowpea’ < Ma’di *kau*; *malangí* < bottle’ < Bangala/Lingala *molangi*; *kámbe* ‘belt’ < Swahili *kamba*; *imbíró* ‘palm tree’ < Zande *mbíró*. Some sixty lexical items found in the earliest records of Ugandan Kinubi can be traced back to various substrate languages (Avram 2017a): *lawoti* ‘neighbours’ < Acholi *lawoti* ‘fellow, friend’; *korufu* ‘leaf’ < Bari *korofu* ~ *kɔrɔpɔ* ‘leaves’; *lwar* ‘abscess’ < Dinka *luär*

⁵Unsurprisingly, in Juba Arabic “the use of *adi* as in Bari [is] the most frequent [...] in particular among speakers of Bari origin” (Miller 2001: 470; author’s translation).

‘pain of a swelling’; *seri* ‘fence’ < Lugbara *seri* ‘plant used for fencing’; *mukuta* ‘key’ < Pāri *mukuta*.

The influence of Luganda and Swahili as adstrate languages is already documented in early Ugandan Kinubi (Avram 2017a): Ugandan Kinubi *kibra* ~ *kibera* ‘forest’ < Luganda *e-kibira*, *nyinveza* ‘fix’ < Luganda *nyweza* ‘make firm, hold firmly’; *dirisa* ‘window’ < Swahili *dirisha*; *kibanda* ‘shed’ < Swahili *kibanda* ‘small shed’. The lexicon of modern Ugandan Kinubi is characterized by a large number of loanwords from Luganda and Swahili (Wellens 2003; Nakao 2012: 133–134), such as: *mé(é)mvu* ‘banana’ < Luganda *amaemvu* ‘bananas’; *ntulége* ‘zebra’ < Luganda *e-ntulege*; *karibísha* ‘welcome’ < Swahili *karibisha* ‘welcome’; *sangá* ~ *šangá* ‘be surprised’ < Swahili *shangaa*. In some cases, these loanwords have replaced previously attested compounds consisting of Arabic-derived elements:⁶ early Ugandan Kinubi *mária bitá murhúm* ‘widow’, lit. ‘wife of the deceased’ vs. modern Ugandan Kinubi *mamwánda* ‘widow’ < Luganda *nnamuwandu*. As for the lexicon of modern Kenyan Kinubi, it is strongly influenced by Swahili. Luffin (2004) lists some 170 loanwords from Swahili (out of approximately 1,400 words recorded), from a wide range of domains, for example: *barabára* ‘highway’ < Swahili *barabara*; *serikáli* ‘government’ < Swahili *serikali*; *tafaúti* ‘difference’ < Swahili *tafauti*; *úza* ‘sell’ < Swahili *ku-uza*. Swahili has also contributed several function words: *badáye* ‘after’ < Swahili *baadaye* ‘afterwards’; *íle* ‘these’ < Swahili *ile*; *na* ‘and, with’ < Swahili *na*. Kenyan Kinubi lexical items have occasionally undergone semantic shift or semantic extension under the influence of the meanings of their Swahili counterparts (Luffin 2014: 315): *destúr* ‘tradition’, cf. Swahili *desturi* ‘tradition’; *fáham* ‘to understand, to remember’, cf. Swahili *-fahamu* ‘to understand, to remember’.

In some cases, the exact origin of loanwords found in Juba Arabic cannot be established: *búra* ‘cat’ < Acholi, Bongo, Dinka, Pāri *bura*, Didinga *buura*; *daná* ‘bow’ < Bari, Jur *dan*, Didinga *d’anga*, Dinka *dhan*; *pondú* ‘cassava leaf’ < Bangala, Kakwa, Lingala *pondu*, Pojulu *pöndu*. The same holds for a number of loanwords attested in early Ugandan Kinubi (Avram 2017a): *bongo* ‘cloth’ < Acholi, Lendu, Lugbara, Zande *bongo*, Bari *bongo*; *godogodo* ‘thin from illness’ < Acholi, Avokaya, Bari, Baka, Lotuho, Moru, Zande *godogodo* ‘thin, sick(ly)’; *mukungu* ‘headman’ < Acholi *mukunju*, Bari *μσkυngυs*, Luganda *o-mukungu*, Lugbara *mukungu* ‘(sub-)chief’. This is also true of several Kinubi words attested in more recent sources (Wellens 2003; Nakao 2012: 133–134): *júju* ‘shrew’ < Bari *juju*, Ma’di *juju*; *kingílo* ‘rhinoceros’ < Avokaya *kiŋgili*, Moru *kingile*. In some cases, the occurrence of alternative forms is due to their different SLs: *banġa* ‘debt’ < Bari *banja*, Lugbara *banja*, Luganda *e-bbanja* vs. *banya* ‘debt’ < Acholi *banya*.

⁶See also Tosco & Manfredi (2013: 509).

Under the influence of the substrate and adstrate languages, some Arabic-derived lexical items have undergone semantic extension, thereby becoming polysemous in Juba Arabic (Nakao 2012: 136), e.g. *gówi* ‘hard; difficult’, cf. Acholi *tek*, Bari *logo*, Lotuho *gol*, Ma’di *okpo*, Swahili *kali*.

Juba Arabic “compensates its lexical gaps through the lexification of Arabic morphosyntactic sequences” (Tosco & Manfredi 2013: 509). A case in point are Juba Arabic compounds, formed via juxtaposition or with their two members linked by the possessive particle *ta* (Manfredi 2014b: 308–309). These include calques after several substrate languages (Nakao 2012: 136), e.g. *ída ta fil* ‘elephant trunk’, cf. Acholi *ciŋ lyec*, Bari *kōnin lo tome*, Dinka *ciin akɔɔn*, Jur *ciŋ lyec*, Lotuho *naam tome*, Shilluk *bate lyec*, lit. ‘arm (of) elephant’. Kinubi also exhibits a number of calques (Nakao 2012; Avram 2017a; Manfredi, this volume). Some of these compounds and phrases can be traced to several SLs, as in the following early Ugandan Kinubi examples (Avram 2017a): *gata kalam* ‘decide, judge’, cf. Acholi *ŋɔl kop* ‘decide, give judgment’, Bongo *ad’oci kudo*, Jur *ŋɔl lubo*, Pãri *ŋondi lubo*, lit. ‘cut word/speech’; Dinka *wèt tèm* ‘decide, give the sentence’, lit. ‘word cut’; *jua bita ter* ‘nest’, cf. Acholi *ot winyo*, Bari *kadi-na-kwen*, Belanda Bor *kwɔt winy*, Shilluk *wot winyo*, Zande *dumô zirê*, lit. ‘house (of) bird’. Other calques, presumably more recent ones, reflect the growing influence of Swahili on Kenyan Kinubi (Luffin 2014: 315): *bakán wáy* ‘together’, cf. Swahili *pamoja* ‘together’, lit. ‘place one’, *mára wáy wáy* ‘seldom’, cf. Swahili *mara moja moja* ‘seldom’, lit. ‘time one one’.

To conclude, SL agentivity accounts for the small number of loanwords and calques recorded in the earliest stage (i.e. pidginization) of Juba Arabic and Kinubi. At a later stage (i.e. after nativization), the larger number of loanwords and calques is a result of borrowing under RL agentivity.

4 Arabic-lexifier pidgins in the Middle East

4.1 Current state and historical development

Several Arabic-lexifier pidgins have emerged in the Middle East. These include Romanian Pidgin Arabic, Pidgin Madame, Jordanian Pidgin Arabic, and Gulf Pidgin Arabic. The first three can be classified as work force pidgins.⁷ Gulf Pidgin Arabic also started out as work force pidgin (Smart 1990: 83), but it is now an interethnic contact language (Avram 2014: 13).⁸

⁷These are pidgins which “came into being in work situations” (Bakker 1995: 28).

⁸That is, one which is “used not just for trade, but also in a wide variety of other domains” (Bakker 1995: 28).

Romanian Pidgin Arabic (Avram 2010) was a short-lived pidgin, formerly used on Romanian well sites in Iraq, in locations in the vicinity of Ammara, Basra, Kut, Nassiriya, Rashdiya and Rumaila. Romanian Pidgin Arabic emerged after 1974, when Romanian well sites started operating in Iraq. Romanians typically made up two thirds of the oil crews, with Arabs making up the final third. The first Gulf War and the subsequent withdrawal of the Romanian oil rigs put an end to the use of Romanian Pidgin Arabic.

Immigration of Sri Lankan women to Arabic-speaking countries is reported to have started in 1976 (Bizri 2010: 16), but the large influx into Lebanon came later, in the early 1990s. Pidgin Madame is spoken in Lebanon by Sri Lankan female domestic workers and their Arab employers, mostly in the urban centres of the country.

Jordanian Pidgin Arabic (Al-Salman 2013) is used in the city of Irbid, in the Ar-Ramtha district in the north of Jordan, in interactions between Jordanians and Southeast Asian migrant workers of various linguistic backgrounds. However, only Jordanian Pidgin Arabic as spoken by Bengalis is documented.

Gulf Pidgin Arabic is a blanket term designating the varieties of pidginized Arabic used in Saudi Arabia and the countries on the western coast of the Arab Gulf, i.e. Kuwait, the United Arab Emirates, Oman, Bahrain, and Qatar.

4.2 Contact languages

The main languages involved in the emergence of Romanian Pidgin Arabic are Romanian, Egyptian Arabic (spoken by immigrant workers), and Iraqi Arabic (IA). A small minority of the participants in the language-contact situation had some knowledge of English.

The other pidginized varieties of Arabic in the Middle East share the characteristic of having various Asian languages as their substrate.⁹ For Pidgin Madame, the main contact languages are Lebanese Arabic, as the lexifier language, and Sinhalese. Another language, with a much smaller contribution, is English. In the case of Jordanian Pidgin Arabic, the contact languages are mainly Jordanian Arabic (JA) and Bengali. The contribution of English is very limited. As for Gulf Pidgin Arabic, it emerged in a contact situation of striking complexity. On the one hand, Arabic, the lexifier language, is represented by several dialects, which are not all subsumed under what is known as Gulf Arabic (GA), in spite of what the name of the pidgin suggests. On the other hand, the number of languages spoken by the immigrant workers is staggering: for instance, in the United Arab

⁹Bizri (2014: 385) therefore suggests the cover term “Asian Migrant Arabic pidgins”.

Emirates the 200 nationalities and 150 ethnic groups speak some 150 languages. Adding to the complexity of the language-contact situation is the fact that these languages are typologically diverse. Last but not least, English also plays a role in interethnic communication, particularly in the service sector.

4.3 Contact-induced changes

4.3.1 Phonology

The phonology of all the pidginized varieties of Arabic in the Middle East exhibits the outcomes of SL agentivity, which also accounts for the occurrence of considerable intra- and inter-speaker variation (Avram 2010: 21–22; Bizri 2014: 393; Avram 2017b: 133).

Consider first Romanian Pidgin Arabic. The following are features characteristic of speakers with Romanian as their first language (L1). The pharyngeals are either replaced or deleted: *habib* ‘friend’ < IA/EA *ḥabīb*; *mufta* ‘key’ < IA/EA *muftāḥ*; *saa* ‘hour’ < IA/EA *sāʿa*. Plain consonants are substituted for pharyngealized ones: *halas* ‘ready’ < IA/EA *ḥalāṣ*. Both velar fricatives are replaced: *hamsa* ‘five’ < IA/EA *ḥamsa*; *šogol* ‘work (N)’ < IA *šuy(u)l*. Geminate consonants are degeminated: *sita* ‘six’ < IA/EA *sitta*. There is no distinction between short and long vowels, either in lexical items of Arabic origin or in those from English: *lazim* ‘must’ < IA/EA *lāzim*; *slip* ‘sleep’ < English *sleep*. A feature typical of speakers with Iraqi or Egyptian Arabic as L1 is the substitution of /b/ for Romanian or English /p/ and /v/: *bibul* ‘people, men’ < English *people*; *gib* ‘give, bring’ < English *give*.

Consider next several selected features, generally typical of Pidgin Madama, Jordanian Pidgin Arabic, and Gulf Pidgin Arabic. Pharyngeals are either replaced: Pidgin Madama *hareb* ‘war’ < LA *ḥareb*; Jordanian Pidgin Arabic *bisallih* ‘repair’ < JA *bišallih* ‘repair.IMP.F.3SG.M’; Gulf Pidgin Arabic *aksan* ‘best’ < GA *aḥsan*, *hut* ‘put’ < GA *ḥuṭṭ* ‘put.IMP.2SG.M’; or deleted: Pidgin Madama *ēki* ‘cry’ < LA *əḥki* ‘cry.IMP.2SG.F’; Jordanian Pidgin Arabic *arabi* ‘Arabic’ < JA *ʿarabi*; Gulf Pidgin Arabic *araf* ‘know’ < GA *ʿaraf*. The pharyngealized consonants are replaced by plain counterparts: Pidgin Madama *sarep* ‘envelope’ < LA *zaref*; Jordanian Pidgin Arabic *bandora* ‘tomato’ < JA *bandōra*; Gulf Pidgin Arabic *halas* ‘finish’ < GA *ḥalāṣ*; or they are realized as retroflex: Pidgin Madama *ṭawīle* ‘long’ < LA *ṭawīle* ‘long.F.SG’. The velar fricatives are replaced by velar stops or, less frequently, by /h/: Pidgin Madama *sokon* ‘warm’ < LA *suḥun* ‘warm’, *sogol* < LA *šəyəl* ‘work’; Jordanian Pidgin Arabic *kamsa* ‘five’ < JA *ḥamsa*, *sukul* ‘work (N)’ < JA *šuy*, *zagīr* ‘small’ < JA *šayīr*; Gulf Pidgin Arabic *kubus* ‘bread’ < GA *ḥubz*; *halas* ‘finish’ <

GA *ħalaş*; *yistokol* ‘work’ < GA *yištuɣul* ‘work.IMPF.3SG.M’, *şugl* ‘work’ < GA *şuɣl*. Geminate consonants generally undergo degemination (Næss 2008: 36; Avram 2014: 15): Jordanian Pidgin Arabic *sitin* ‘sixty’ < JA *sittin*; Gulf Pidgin Arabic *sita* ‘six’ < GA *sitta*.

Moreover, consonants not found in the L1s of the users of Gulf Pidgin Arabic may also be replaced. For instance, Indonesian, Javanese, Sinhalese and Tagalog speakers may substitute [p] for /f/: Pidgin Madame *palēpil* ‘falafel’ < LA *falēfil*; Jordanian Pidgin Arabic *pi* ‘in’ < JA *fī*; Gulf Pidgin Arabic *napar* ‘person’ < GA *nafar*; Indonesian and Sinhalese speakers may realize /z/ as [s] or [dʒ]: Pidgin Madame *esa* ‘if’ < LA *iza*; Gulf Pidgin Arabic *sēn* ~ *dʒēn* ‘good’ < GA *zēn* (Bizri 2014: 393; Avram 2017b: 133). Bengali and Sinhalese speakers may replace /š/ with [s]: Pidgin Madame *sū* ‘what’ < LA *šū*; Jordanian Pidgin Arabic *su* ‘what’ < JA *šū*.

Finally, although phonetically long vowels do occur, vowel length is not distinctive, as shown by the occurrence of variation, e.g. Gulf Pidgin Arabic *baden* ~ *badēn* ‘then’ < GA *baʃdēn*.

4.3.2 Syntax

There is relatively little that can be attributed to SL agentivity in the syntax of the Arabic-lexifier pidgins in the Middle East (Almoaily 2013; Al-Salman 2013; Avram 2014; Bizri 2014; Avram 2017b; Bakir 2017).

Since the substrate of these varieties, with the exception of Romanian Pidgin Arabic, consists of many SOV languages, e.g. Bengali, Hindi/Urdu, Malayalam, Punjabi, Persian, Sinhalese, Tamil, this word order is occasionally attested (Avram 2017b: 133–134; Bizri 2014: 403). For instance, direct objects may occur in pre-verbal position:

- (23) a. Pidgin Madame (Bizri 2010: 227)
 mīşter kilot sīli
 mister underwear take off
 ‘Mister takes off his underwear.’
- b. Gulf Pidgin Arabic (Avram 2017b: 133)
 ana čiko sūp
 1SG child see
 ‘I will see my children.’

In attributive possession constructions the order of constituents is possessor–possessee:

- (24) a. Pidgin Madame (Bizri 2010: 198)
kullu māmā benet
all mother girl
'All mother's girls.'
- b. Gulf Pidgin Arabic (Næss 2008: 87)
ana jawd bādēn ysīr Jakarta stokol
1SG husband then go Jakarta work
'Then my husband went to work in Jakarta.'

Adjectives generally precedes the nouns they modify:

- (25) Pidgin Madame (Bizri 2010: 119)
bīr bēt
big house
'A big house.'

Similarly, adverbs precede the adjectives they modify:

- (26) a. Pidgin Madame (Bizri 2010: 119)
ṭīr gūḍ
very good
'very good'
- b. Gulf Pidgin Arabic (Avram 2014: 25)
sem-sem kalām
same speak
'They speak in the same way.'

Occasional instances of postpositions are attested:

- (27) a. Pidgin Madame (Bizri 2010: 132)
mister **mayik** masārē
mister with money
'Mister has the money.'
- b. Gulf Pidgin Arabic (Avram 2014: 25)
zamal **fok**
camel above
'Above the camel.'

Interestingly, Pidgin Madame has a focalized negative copula, derived etymologically from English *no*:

- (28) Pidgin Madame (Bizri 2010: 133)
 māmā birūt **no**
 mother Beirut NEG.FOC
 ‘It’s not in Beirut that my mother is.’

This resembles the Sinhalese negator *nemiyi*, which “is used only in focalized phrases” (Bizri 2010: 69):

- (29) Pidgin Madame (Bizri 2010: 69)
 bat kāve mama **nemeyi**
 rice ate 1SG NEG.FOC
 ‘It is not I who ate the rice.’

4.3.3 Lexicon

Imposition under SL agentivity accounts for the fact that there are few instances of transfer of lexical items from the various SLs into the non-dominant RL (i.e. the pidgin).

The lexicon of Romanian Pidgin Arabic includes words of Romanian and English origin (Avram 2010: 32): *mašina* ‘car’ < Romanian *mașină*, *sonda* ‘oil rig’ < Romanian *sonda*; *spik* ‘speak, say, tell’ < English *speak*, *tumač* ‘much, many’ < English *too much*. Occasionally, non-Arabic words undergo semantic extension under the influence of phonetically similar Arabic words (Avram 2010: 32): *gib* ‘give; bring’ < English *give*, cf. EA *gīb* ‘bring.IMP.2SG.M’.

The lexicon of all the other pidginized varieties of Arabic spoken in the Middle East includes loanwords from English: Pidgin Madame *ambasi* ‘embassy’ < English *embassy*; *go* ‘go’ < English *go*, *kam* ‘come’ < English *come*, *no gūd* ‘bad’ < English *no good*, *oké* ‘OK’ < English *OK*; Jordanian Pidgin Arabic *bēbi* ‘child’ < English *baby*, *finiš* ‘finish’ < English *finish*, *fisa* ‘visa’ < English *visa*; Gulf Pidgin Arabic *hazband* ‘husband’ < English *husband*, *pēšent* ‘patient’ < English *patient*. However, as noted by Smart (1990: 113) concerning Gulf Pidgin Arabic, “it is difficult to say [...] whether they are a true part of the pidgin” or rather nonce borrowings.

Given the extreme diversity of the substrate, it is not surprising that only a few words from the SLs have made it into the lexicon of Gulf Pidgin Arabic (Avram 2017b: 134–135): *ača* ‘fine’ < Urdu *achā* ‘good, very well’, *ğaldi* ~ *ğeldi* < Hindi/Urdu *jaldī* ‘quick’.

Jordanian Pidgin Arabic and Gulf Pidgin Arabic exhibit light-verb constructions which may well be calques on Bengali (noun/adjective + *kara* ‘make’) and/

or Hindi/Urdu (noun/adjective + *karnā* ‘make’) and/or Persian – noun/adjective + *kardan* ‘make’): Jordanian Pidgin Arabic *sawwi zadīd* ‘renew’, lit. ‘make new’; Gulf Pidgin Arabic *sawwi suāl* ‘ask’, lit. ‘make a question’, *sawwi zalān* ‘upset’, lit. ‘make angry’.

5 Conclusion

This chapter has shown that Arabic-lexifier contact languages emerged primarily through imposition under SL agentivity, in line with the typology of contact languages (Winford 2005: 396; 2008: 128).

The effects of imposition are most obvious in the phonology, syntax and the syntax-semantics interface, and to a lesser extent in the morphology and the lexicon. In the phonology, SL agentivity induces the loss or replacement of certain phonemes not found in the SLs. However, there are also instances of imposition in the sense of transfer from the SLs. As seen, for example, in Turku and Bongor Arabic, some consonants occur only in loanwords from the substrate languages. The occurrence of such loanwords confirms the fact that imposition under SL agentivity may include transfer of lexical items into the RL. Borrowing under RL agentivity has generally played a far less significant role in the development of Arabic pidgins and creoles. As expected, it mostly involves transfer of lexical items; these may lead to the borrowing of certain consonant phonemes, as seen in, for example, Juba Arabic and Kinubi. Finally, borrowing has been shown to include transfer of morphological material as well.

A notable difference between Juba Arabic and Kinubi on the one hand, and the Arabic-lexifier pidgins in the Middle East on the other hand, resides in the relative weight of imposition under SL agentivity and borrowing under RL agentivity. As we have seen, Juba Arabic and Kinubi exhibit the effects of both imposition in their earliest stage (i.e. pidginization), and of borrowing in their latest stage (i.e. nativization). In contrast, imposition is pervasive in the Arabic-lexifier pidgins in the Middle East, given that these varieties have not undergone nativization.

There are still a number of issues awaiting resolution. For instance, the identification of the SLs is rendered difficult by their number and typological diversity. This difficulty is further compounded by the fact that some substrate languages are still under-researched. This is particularly the case of the substrate languages of Juba Arabic and Kinubi. Also, the distinction between substrate and adstrate languages is blurred (Nakao 2012: 132), particularly when varieties emerge and develop *in situ*, as, for example, with Juba Arabic. Further research also needs

to consider the effects of the existence of a creole continuum in Juba Arabic as well as of bilingual and monolingual speakers of the language on the relative importance of restructuring, imposition and borrowing. The extent of restructuring and imposition, for instance, is presumably much greater in basilectal and L2 varieties, as opposed to acrolectal and monolingual varieties of the language. The same holds for Bongor Arabic, which, as shown, appears to be undergoing de-pidginization. Last but not least, further investigations are necessary to establish whether Gulf Pidgin Arabic is evolving towards stabilization, possibly becoming closer to its lexifier via borrowing of morphological material, or is rather undergoing constant repidginization, essentially via imposition.

Further reading

- Miller (1993), Nakao (2012), and Luffin (2014) illustrate in detail substratal and adstratal influence on Juba Arabic and Kinubi.
- Avram (2019) analyzes the substratal input in the lexicon of Turku.
- Avram (2017b) and Bakir (2017) discuss the various sources of Gulf Pidgin Arabic.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person	NEG	negative
ChA	Chadian Arabic	PASS	passive
EA	Egyptian Arabic	PST	past
EXS	existential	PL	plural
FOC	focus	POSS	possessive
GA	Gulf Arabic	PRF	perfect (suffix conjugation)
IA	Iraqi Arabic	PROX	proximal
IMPF	imperfect (prefix conjugation)	REL	relative
JA	Jordanian Arabic	RL	recipient language
L1	first language	SA	Sudanese Arabic
L2	second language	SL	source language
N	noun	SG	singular
NC	noun class		

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Part II

Language change through contact with Arabic

Chapter 16

Modern South Arabian languages

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In the course of this chapter we will discuss what is known about the effects that contact with Arabic has had on the Modern South Arabian languages of Oman and Yemen. Documentation concerning these languages is not abundant, and even more limited is our knowledge of the history of their interaction with Arabic. By integrating the existing bibliography with as yet unpublished fieldwork materials, we will try to provide as complete a picture of the situation as possible, also discussing the current linguistic and sociolinguistic landscape of Dhofar and eastern Yemen.

1 History of contact between Arabic and the Modern South Arabian languages

Much to the frustration of modern scholars of Semitic, the history of the Modern South Arabian languages (henceforth MSAL) remains largely unknown.¹ To this day, no written attestation of these varieties has been discovered, and it seems safe to assume that they have remained exclusively spoken languages throughout all of their history. Since European researchers became aware of their existence in the first half of the nineteenth century (Wellsted 1837), and until very recently, the MSAL were thought by many to be the descendants of the Old (epigraphic)

¹§1 was authored by Simone Bettega, while §2 was authored by Fabio Gasparini. §3 and §4 are the result of the conjoined efforts of both authors. In particular, Gasparini was responsible for analyzing most of the primary sources and raw linguistic data, while Bettega worked more extensively on the existing bibliography.



South Arabian languages (Rubin 2014: 16). This assumption has been conclusively disproven by Porkhomovsky's (1997) article, which also contributed significantly to the re-shaping of the proposed model for the Semitic family tree. This modified version of the family tree (which finds further support in the recent works of Kogan 2015 and Edzard 2017) sets the MSAL apart as an independent branch of the West Semitic subgroup, one whose origins are therefore of considerable antiquity. This brings us to the question of when it was that the MSAL (or their forebears) first came into contact with Arabic. This might have happened at any time since Arabic-speaking people started to penetrate into southern Arabia, a process that – as we know from historical records – began in the second half of the first millennium BCE (Robin 1991; Hoyland 2001: 47–48). Roughly one thousand years later, almost the whole population of central and northern Yemen was speaking Arabic, and possibly a considerable portion of the southern population as well (Beeston 1981: 184; Zammit 2011: 295). It is therefore possible that Arabic and the MSAL have been in contact for quite some time, and it seems likely that the intensity and effects of such contact grew stronger after the advent of Islam (Lonnet 2011: 247). It is also possible, as some scholars have written, that the MSAL “represent isolated forms that were never touched by Arabic influence until the modern period” (Versteegh 2014: 127). Admittedly, evidence to support either one of these hypotheses is scarce, and at present it is probably safer to say that our knowledge of the history of contact between Arabic and the MSAL before the twentieth century is fragmentary at best. This is why studies on the outcomes of such contact are of particular interest, since they could help to shed light on parts of that history. This is also why, in the course of this chapter, we will refrain from addressing the question of how contact with the MSAL affected the varieties of Arabic spoken in Oman and Yemen, and focus solely on the influence of Arabic on the MSAL. Although there is plenty of evidence that South Arabian exerted a powerful influence on the Arabic of the area (see for instance Retsö 2000 and Watson 2018),² it is often difficult to assess whether this influence is the result of contact with forms of Old South Arabian or more recent interaction with the MSAL. Such a discussion, also because of space constraints, is beyond the scope of the present article.

As far as the interaction between Arabic and the MSAL in the twentieth and twenty-first centuries is concerned, Morris (2017: 25) provides a good overview of the multilingual environment in which the MSAL were and are spoken:

²To the point that so-called mixed varieties are reported to exist, whose exact linguistic nature seems difficult to pinpoint. See Watson et al. (2006) and Watson (2011) for discussion.

Speakers of [a Modern South Arabian] language always had to deal with speakers of other MSAL, as well as with speakers of various dialects of Arabic. The Baṭāḥirah, for instance, did nearly all their trade with boats from Ṣūr and other Arabic-speaking ports; they lived and worked with the Arabic-speaking Janaba, while being in contact with speakers of Ḥarāsīs and Mahra. The Ḥarāsīs interacted with the Arabic speakers surrounding their Jiddat al-Ḥarāsīs homeland, traded in the Arabic-speaking markets of the north, and in the summer months went to work at the northern date harvest. Mehri speakers lived beside and traded with Arabic-speaking Kathīri tribesmen in the Nejd region, Ṣḥeret speakers in the mountains, and Arabic speakers in the coastal market towns of Dhofar. Ṣḥeret speakers interacted with the Mahra, some of whom settled among them, and with Arabic-speaking peoples of the coast as well as the desert interior [...] There was marriage between Arabic-speaking men of the coastal towns and MSAL-speaking women of the interior, and over time, families of Mehri and Ṣḥeret speakers settled in or near the towns, with the result that even more Arabic speakers became familiar with these languages. (Morris 2017: 25)

2 Current state of contact between Arabic and the Modern South Arabian languages

Today, six Modern South Arabian languages exist, spoken by around 200,000 people in eastern Yemen (including the island of Soqatra) and western Oman. These six languages are: Mehri, Hobyōt, Ḥarsūsi, Baṭḥari, Ṣḥeret/Jibbāli and Soqoṭri. They are all to be regarded as endangered varieties, though the individual degree of endangerment varies remarkably. No exact census concerning the number of speakers is currently available (Simeone-Senelle 2011: 1075), but we know that Mehri is the most spoken language, with an estimated 100,000 speakers. It is followed by Soqoṭri (about 50,000 speakers), Ṣḥeret (25,000), Ḥarsūsi (a few hundred), Hobyōt (a few hundred) and Baṭḥari (less than 20 speakers). The main causes of endangerment are reckoned to be shift to Arabic and the disappearance of traditional local lifestyles. In addition, the current political situation in Yemen is having effects on the linguistic landscape of the region which are difficult to document or foresee: the area is currently inaccessible to researchers, and there is no way to know how the conflict will affect the local communities.

As far as Oman is concerned, the city of Salalah undoubtedly represents the major locus of contact between Arabic and the MSAL. The rapid growth the city has witnessed in recent years, and the improved possibilities of economic development that came with it, have led many Šheret speakers from the nearby mountains to settle in the city or its immediate surroundings, where they now employ Arabic on a daily basis as a consequence of mass education and media, neglecting other local languages. This has led to a split, in the speakers' perception, between "proper" Šheret, spoken in the mountains, and the "city Šheret" of Salalah, often regarded as a sort of "broken" variety of the language in which, among other things, code-switching with Arabic is extremely frequent. Unfortunately, data on this subject are virtually non-existent, given the extreme difficulty of documenting such an episodic phenomenon (aggravated by speakers' understandable reluctance to having their imperfect language proficiency evaluated and recorded).

Even outside the urban centers, however, contact with Arabic is on the rise. Even the most isolated variety, Soqotri, is apparently undergoing rapid change under the influence of Arabic: the existence of a koinéised variety of Soqotri, heavily influenced by Arabic, has been recently reported in Ḥadibo (Morris 2017: 27). This is not to say, of course, that all MSAL are being affected to the same degree: Watson (2012: 3), for instance, notes how "Mahriyōt [the eastern Yemeni variety of Mehri] [...] exhibits structures unattested in Mehreyyet [Mehri Omani variety] [...] and shows greater Arabic influence both in terms of the number of Arabic terms used, and the length and frequency of Arabic phrases within texts." However, no MSAL seems at present to be exempt from the effects of contact.

The case of Baḥari, which, as we have seen, is the most severely endangered of all the MSAL, exemplifies well the processes of morphological loss and erosion that a language undergoes in the final stages of endangerment. Morris (2017) reports how already in the 1970s Baḥari seemed to display many of the signs of a moribund language. In recent times:

[t]he younger generations showed little interest in their former language; they were eager to embrace Arabic and to feel themselves part of the wider Arabic Islamic community; and they were proud to call themselves 'ʿarab', with all that word's overtones of Bedouin ancestry and code of honour. (Morris 2017: 11)

In the following sections we will discuss several types of contact-induced changes in the MSAL. Although we will use material taken from all varieties, Baḥari will be in particular focus due to its singular status.

3 Contact-induced changes in the MSAL

As already noted, in the course of this chapter we will focus solely on the effects that contact with Arabic has had on the various MSAL. Therefore, Arabic will always be the source language of all the transfer phenomena considered in the next pages, while the recipient language will be, depending on the different examples, one or the other of the six MSAL. Obviously, this poses the question of who the agents of change are and were in the case of these particular phenomena, and what type(s) of transfer are we confronted with (cf. Van Coetsem 1988; 2000; Winford 2005). According to the overview of the MSAL's sociolinguistic status presented above, it should be clear by now that, while the two cases are extremely common of (a) mono- or multilingual MSAL speakers who acquire Arabic as an L2 and (b) bilingual MSAL–Arabic speakers, the opposite is not true (that is, monolingual Arabic speakers who come to acquire one or more MSAL as L2s later in life). In other words, all the transfer phenomena we will be considering in the next paragraphs are either instances of borrowing (brought about by speakers who are dominant in one or more MSAL) or convergence (brought about by speakers who are native speakers of Arabic and at least one MSAL; see Lucas 2015 for a definition of convergence).

3.1 Phonology

3.1.1 Phonetic adaptation of loanwords

As illustrated in §3.4, lexical borrowings from Arabic are extremely common in the MSAL. As Morris (2017: 13) remarks, such loanwords are often altered in order for them to acquire a “South Arabian flavour”, so to speak. The phenomenon is not one of simple adaptation dictated by difficulty of articulation, since the sounds that are replaced are present in the phonological inventory of the MSAL. In fact, the opposite appears to be true, these sounds normally being replaced by others which are typical of South Arabian but absent in Arabic. For Baḥari, Morris gives the example of Arabic pharyngealised dental fricative /ð/ (IPA [ð̤]) being replaced by the pharyngealised alveolar lateral fricative /š/ (mostly realised as IPA [ʃ̤], see §3.1.4), as in *rašš* ‘bruise’ (from Janaybi Arabic *raḏḏ*), or Arabic /š/ (IPA [ʃ]) being replaced by /s/, as in *men šān-k* ‘for you, for your sake’, in place of *men šān-k*, *šarray* ‘buyer’ for *šarray*, or *šāmāl* ‘inland, north’ for *šāmāl* (while Baḥari *šēmāl(i)* is normally used to refer to the left hand only).

Lexical borrowing can also be the cause of variation in the realisation of certain sounds, as is the case with the phonemes /g/ and /y/ (IPA [g] and [j] respectively), which represent different reflexes of Proto-Semitic *g in different Omani Arabic

dialects. It is possible to find traces of this variation in those MSAL that are in contact with more than one variety of Arabic, as is the case with Ḥarsusi: see for instance *fagr* and *fayr*, both meaning ‘dawn’, or the opposition between *yann* ‘madness’ and *genni* ‘jinni’, both from the same etymological root (Lonnet 2011: 299).

3.1.2 Affrication of /k/ > [tʃ]

It can also be the case that some phonetic processes regularly taking place in the local Arabic varieties but otherwise unknown to MSAL phonology are transferred to original MSAL vocabulary. This is what happens in Baḥari, where some speakers may show an affricate realisation of the voiceless occlusive [k] > [tʃ], which resembles the Janaybi Arabic realisation of the phoneme /k/ (whose complementary distribution with the voiceless plosive realisation [k] is still unclear). For example, some speakers regularly produce /yənkaʕ/ ‘come.3SG.M.SBJV’ as [jənʔaʕ] instead of [jənʔkaʕ].

3.1.3 Stress

The structural similarity of Arabic and the MSAL can sometimes cause stress patterns which are typical of the former to be applied to the latter, as is the case with ‘she began’: Soqotri *bédʔəh*, (local) Arabic *bədəʔat*, Soqotri with an Arabic stress *bədəʔəh* (Lonnet 2011: 299).

3.1.4 Realisation of emphatics

This is a topic that has attracted the attention of several scholars since the publication of Johnstone’s (1975) article on the subject, because of the realisation of the so-called Semitic “emphatics” as glottalised consonants. Glottalisation is a secondary articulatory process in which narrowing (creaky voice) or closure (ejective realisation) of the glottis takes place: the action of the larynx compresses the air in the vocal tract which, once released, produces a greater amplitude in the stop burst (Ladefoged & Maddieson 1996: 78).

Lonnet (2011: 299) notes a tendency for speakers of various MSAL to replace the ejective articulation of certain consonants (especially fricatives, see Ridouane & Gendrot 2017) with a pharyngealised realisation, typical of Arabic emphatics. Pharyngealisation is a kind of secondary articulation involving a constriction of the pharynx usually realised through tongue-root retraction, resulting in a backed realisation (Ladefoged & Maddieson 1996: 365). This process is well-documented across Semitic languages. Naumkin & Porkhomovsky (1981) note for

Soqotri an ongoing process of transition from a glottalised to a pharyngealised realisation of emphatics, with only stops being realised as fully glottalised items. Work by Watson & Bellem (2010; 2011) and Watson & Heselwood (2016) shows the co-occurrence of pharyngealisation and glottalisation in relation to pre-pausal phenomena in Şanʿāni Arabic, Mahriyōt and Mehreyyet (respectively the westernmost Yemeni and Omani varieties of Mehri). Dufour (2016: 22) states that “le caractère éjectif des phonèmes emphatiques ne fait aucun doute, en jibbali comme en mehri” (“the nature of the emphatic phonemes is undoubtedly ejective, in Jibbali as much as in Mehri”).³ Finally, in Baḥari only /k/ is realised as a fully ejective consonant [kʰ]. /t/ and the fricative emphatics, on the other hand, are described as mainly pharyngealised (and partially voiced, in the case of fricatives; Gasparini 2017).

Unfortunately, since there is no thorough phonetic description of any MSAL that predates the 1970s, it is impossible to ascertain whether these realisations (which, again, range from fully glottalised to fully pharyngealised) are the result of the influence of Arabic, or have arisen as the consequence of internal and typologically predictable developments. It is likely, though, that bilingualism and constant contact with Arabic have at least favoured this phonetic change. Evidence in support of this view may come from the fact that speakers who are poorly proficient in Arabic and live in rural and more isolated areas are more likely to preserve a glottalised realisation of the emphatics (as emerges from direct fieldwork observations).

3.2 Morphology

3.2.1 Nominal morphology

Morphological patterns which are typical of Arabic can enter a language through borrowing, as is the case with the passive participle pattern for simple verbs, which is *mVCCūC* in Arabic and *mVCCīC* in MSAL. Soqotri *maḥlāk*, for instance, is clearly derived from Arabic *maḥlūq* ‘human being’ (lit. ‘created’), while this is not the case for Ḥarsusi *mḥəlīk* (Lonnet 2011: 299). Also, in the realm of verbal derivational morphology, certain phenomena can be introduced into the recipient language through lexical borrowing: this is the case with gemination and prefixation of *t-* in Ḥarsusi, as in the participle *məṯḥaffi* ‘barefoot’ (from Omani Arabic *mithaffi*; Lonnet 2011).

In general, Arabic loanwords are normally well integrated in MSAL morphology, probably because of the high degree of structural similarity that exists be-

³Authors’ translation.

tween these languages. One example, reported by Lonnet (2011), is that of *bəkerēt* ‘cow’, a fully integrated loan from Arabic used in Ḥarsusi and Western Yemeni Mehri, which possesses its own plural and diminutive form (*bəkār* and *bəkərənōt*, respectively).

Arabic loans in several MSAL stand out because of their characteristic feminine ending in *-V(h)* instead of *-(V)t*, as in Šehri *saṣah* ‘watch’ and *ṭorəh* ‘revolution’ (but consider the more adapted *rišt* ‘trigger’ from Omani Arabic *rīšah*; Lonnet 2011).

It is also worth noting that the Arabic ending *-V(h)* is replaced by its MSAL equivalent when the noun is in the construct state, that is, final *-t* reappears. This would also happen in Arabic, but the alteration in the quality of the vowel is a clear signal that the suffix is to be considered an MSAL morpheme. Consider the following example from Morris’ Baṭḥari recordings:⁴

- (1) Baṭḥari
 mṣayš-it-həm bəss mṣayš-it-həm ḥawla ʕār ḥāmis
 sustenance-F.CS-3PL.M only sustenance-F.CS-3PL.M once only turtle
 w-ṣayd šālā mṣayš-ah ḥawil
 and-fish nothing sustenance-F once
 ‘Their sustenance, only that! Their sustenance was once only turtle and
 fish, there was nothing to eat in the past.’

The word *mṣayšah* ‘sustenance, food’ is a loanword from Arabic (as the *-ah* ending suggests). When suffixed with the possessive 3PL.M pronoun *-həm*, however, Baṭḥari *-it* replaces *-ah/-at* (note also, in the example, the use of the restrictive adverbial particle *bəss* ‘only’, which is a well-integrated loan from dialectal Arabic and occurs in alternation with Baṭḥari *ʕār*).

Finally, in Baṭḥari the Arabic definite article (*a*)-*l-* is occasionally used instead of the MSAL definite article *a-*: *bə-l-ḥarifēt* ‘during the rainy season’.

3.2.2 Pronouns

The influence of Arabic can be observed, to an extent, even in the pronominal system, especially in those MSAL that are more exposed to contact due to the limited size of their speech communities. Lonnet (2011), for instance, reports how,

⁴Audio file 20130929_B_B02andB04_storyofcatchingturtle recorded, transcribed and kindly shared with Fabio Gasparini by Miranda Morris. The recording was produced in the context of Morris’ and Watson’s “Documentation and Ethnolinguistic Analysis of the Modern South Arabian languages” project, funded by the Leverhulme Trust. More recordings are accessible at the ELAR archive of SOAS University of London. The transcription has been adapted.

despite the fact that in the MSAL the first person suffix pronoun is normally an invariable *-i*, in Ḥarsusi this can be replaced by *-ni* after verbs and prepositions (as is the case with Arabic; see also §3.3 for another interesting example concerning the marking of pronominal direct objects).

In addition, Baḥari relative pronouns (SG: *l-*, *lī* PL: *əlli*) are close to their equivalent in Janaybi Arabic (and diverge from the rest of MSAL, where a *ḏ-* element can be found). Baḥari has also borrowed the reflexive pronoun *ʕamr-* ‘oneself’ from the Arabic dialect of the Janaba, despite the existence of an original Baḥari term with the same meaning, *ḥanef-* (note that both terms must always be followed by a suffix personal pronoun). *ʕamr-* has also been given a plural form in Baḥari, based on MSAL derivational patterns, *ḥaʕmār-* (Morris 2017: 14).

3.2.3 Baḥari verbal plural marker *-uw*

Baḥari differs from the rest of the MSAL in that all 2/3PL.M verbal forms are marked by an *-uw* suffix, while in the other languages of the group these persons are marked by a *-Vm* ending and/or by internal vowel change (e.g. Mehri and Ḥarsusi *-kə(u)m* for the 2PL.M and *-ə(u)m/umlaut* for the 3PL.M of the perfective conjugation; *t...-ə(u)m* and *y/i...-ə(u)m* respectively for 2 and 3PL.M of the imperfective conjugation; Simeone-Senelle 2011: 1093–1094).

The origin of this suffix is uncertain. Its presence might well be connected to contact with Arabic (neighboring dialects have an *-u* or *-ūn* suffix in the 3PL.M person of the verb in both the perfective and imperfective conjugation) or to otherwise unattested stages of development internal to the MSAL verbal system. In this regard, Rubin (2017: 5) suggests for Mehreyyet the presence of a subjacent *-ə-* in 2nd/3rd plural masculine verbal suffixes which could therefore be somehow related to the Baḥari *-uw* marker. However, the optional simultaneous presence of apophony within the stem of 3PL.M verbal forms (similarly to what happens elsewhere in the MSAL), together with scarcity of data, prevents any conclusive assessment of the topic.

3.3 Syntax

At present, the syntax of the various MSAL has not been made the object of detailed investigation. The only scientific work dealing with this topic is Watson’s (2012) in-depth analysis of Mehri syntax. However, Watson’s thorough description provides only sporadic insights into the issue of language contact (as for instance the use in Mahriyōt, the eastern Yemeni variety of Mehri, of a *swē ~ amma... yā* construction to express polycoordination, probably to be regarded as

the result of Arabic influence; Watson 2012: 298). In general, though, the topic is left unaddressed in the literature, and more research is needed.

Gasparini's data on Baḥari offer an interesting example of Arabic influence on MSAL syntax. In Baḥari, as in the other MSAL, pronominal direct and indirect objects may require a particle *t-* to be inserted between them and the verb, depending on the morphological form of the verb itself. Masculine singular imperatives, for instance, require the presence of the marker, as shown in the following example:

- (2) Baḥari (Gasparini, unpublished data):

zum t-ī t-ih
 give.IMP ACC-1SG ACC-3SG.M
 'Give it to me.'

Example (3), in contrast, shows that the pronominal indirect object *-(ə)nī* is suffixed directly to the verb as it would be in Arabic (see §3.2.2).

- (3) Baḥari (Gasparini 2018: 66):

zəm-ənī θrɛh
 give.IMP-1SG two.M
 'Give me both (of them).'

In other words, the introduction of the Arabic form of the object pronoun has caused the Baḥari object marker to disappear. Note that informants judged the alternative construction *zum t-ī θrɛh*, (with the use of the object marker *t-* and the 1SG object pronoun marker *-ī*) to be acceptable, but this form was not produced spontaneously.

A peculiarity of the MSAL spoken in Oman is the use of circumstantial qualifiers, a type of clausal subordination well attested in Gulf Arabic (Persson 2009). Baḥari regularly introduces predictive and factual conditional clauses *asyndetically* by using the structure [SBJ.PRO w-SBJ.PRO]. Consider (4):

- (4) Baḥari (Gasparini, unpublished data)

hēt w-hēt aṣbaḥ-k aḥayr saḥīr-e t-ōk
 2SG.M and-2SG.M wake_up.PRF-2SG.M better brand.PTCP-PL.M ACC-2SG.M
 lā w ham aṣbaḥ-k aḥass hāmā-k? w-maraḏ zēd
 NEG and if wake_up.PRF-2SG.M worse hear.PRF-2SG.M and-illness huge
 l-ōk nḥā saḥīr-e t-ōk škīl-e t-ōk
 to-2SG.M 1PL brand.PTCP-PL.M ACC-2SG.M scar.PTCP-PL.M ACC-2SG.M

mən a-gab
because_of DEF-infection.

‘In case you wake up feeling better / (we) do not brand you but in case you wake up feeling worse / do you understand? And you are seriously ill / we brand you and scar you because of the infection.’

The first clause *hēt w-hēt ašbaḥ-k aḥayr* is an asyndetical circumstantial qualifier functioning as a predictive conditional clause. It contrasts with *w ham ašbaḥ-k aḥass*, in which the conjunction *ham* introduces a counterfactual conditional clause.

In Omani Mehri conditional clauses are commonly introduced through conjunction of pronouns (Watson et al. forthcoming: 211). This structure is unattested in Yemeni Mehri:

- (5) Mehri (Watson et al. forthcoming: 211)
 sēh wa-sēh t-ḥam-ah lā ḥib-sa yi-ḳal-am
 3SG.F and-3SG.F 3SG.F-want.IMPF-3SG.M NEG parents-3SG.F 3M-let.IMPF-PL
 t-ēs ta-ghōm š-ih lā
 ACC-3SG.F 3SG.F-go.SBJV with-3SG.M NEG
 ‘If she doesn’t want him, her parents won’t let her go with him.’

These uses closely resemble those of Gulf Arabic, where circumstantial qualifiers are widely attested to codify predictive and factual conditional and consecutive clauses.

3.4 Lexicon

In the case of the MSAL, it can often be difficult to clearly set apart the effects of Arabisation from those of modernisation and lifestyle changes (which is not surprising, since the two phenomena are interrelated). According to what the speakers themselves report,

it was only since the introduction of formal education, and the awareness of [Modern Standard Arabic] via the media, that Arabic became the second language for many of the MSAL speakers in Dhofar, and, in the case of younger speakers, often to the detriment of their proficiency in their MSAL variety (Davey 2016: 11).

As a consequence, phenomena of borrowing (such as code-switching and loan-words) are particularly common, especially in those varieties (and in the idiolects

of individuals) that are more exposed to Arabic. The following is a good example of code-switching in Baḥari (note that the speaker in question tended to employ Janaybi forms more than other informants):

- (6) Baḥari (Gasparini, unpublished data)
- mēt məssəlīm nə-šāhəd l-ök
 die.PRF.3SG.M muslim 1PL-say_šahada.IMPf for-2SG.M
 w-y-sabbah-uw w-y-kabbər-uw w-y-hälul-uw
 and-3M-pray.IMPf-PL and-3M-pray-PL and-3M-praise_allah-PL
 ‘(If) a Muslim dies / we say the *šahada* for you / and they pray and say
 ‘*allāhu ʔakbar*’ and praise Allah.’

In (6) the speaker makes use of several Arabic verbs related to the semantic field of religious practices, which are not lexically encoded in Baḥari. This might indirectly show the introduction of new ritual practices at a certain point of the history of the tribe. Note that C₂-geminate stems such as *ysabbahuw* and *ykabbəruw* represent verbal patterns not attested in MSAL morphology, and are therefore easily identifiable as loans.

Morris (2017: 15) makes the important remark that lexical erosion is directly connected with the loss of importance of a language in the eyes of its speakers. She gives the example of the Baḥari word for ‘home, living quarters’, for which speakers nowadays frequently resort to some version of Arabic *bayt*, while the many possible original synonyms are falling into disuse. Many of these (*kəḍöt*, *mōhen*, *maššar*, *mōḥayf*, and *ḥader*) are connected to traditional ways of living which have all but disappeared in the course of the last 40–50 years, so that speakers probably judge them inadequate to refer to modern built houses.

3.4.1 Numerals

Watson (2012: 3) reports that “[w]hile Mehri cardinal numbers are typically used for both lower and higher cardinals in Mehreyet, Mahriyöt speakers, in common with speakers of Western Yemeni Mehri, almost invariably use Arabic numbers for cardinals above 10.” This type of lexical substitution connected to numerals higher than ten is also mentioned by Lonnet (2011) and Simeone-Senelle (2011: 1088), who states that “[n]owadays the MSAL number system above 10 is only known and used by elderly Bedouin speakers.” Watson & Al-Mahri (2017: 90) note that it is mostly younger generations (especially in urban settings) who have lost the ability to count beyond ten. Interestingly, they point out that telephone numbers are given exclusively in Arabic, “possibly due to the lack of a single-word MSAL equivalent to Arabic *ṣufr* ‘zero’.”

3.4.2 Spatial reference terms

According to Watson & Al-Mahri (2017: 91) the MSAL employ topographically variable absolute spatial reference terms. In other words, these terms can differ depending on the language employed, the moment of the utterance and the position of the speaker in relation to absolute points of reference. For instance, in and around the city of Salalah in Dhofar, both in the mountains and on the coastal plain, the equivalents of the words for ‘sea’ and ‘desert’ are used to indicate south and north, respectively, in both Mehri (*rawram* and *nagd*) and Ṣ̌ehri (*ramnam* and *fagir*). This is because the sea lies to the south and the desert lies to the north (beyond the mountains). In other parts of the coastal plain, however, the word for ‘mountains’ (*ṣ̌her*) is used to indicate north instead. Another common way to describe south and north is to refer to the direction in which the water flows, with the result that the same word that means ‘south’ on the sea-side of the mountains can be used to indicate ‘north’ on the desert-side. However, all these rather complex sets of terms are being rapidly replaced, particularly in the speech of the younger generations and among urban populations, with the Arabic words for south and north (*ġanūb* and *šimāl* respectively).

3.4.3 Colour terms

The MSAL lexically encode four basic colour terms: white, black, red and green (Bulakh 2017: 261–262). For example, in Ṣ̌ehri one can find *lūn* for ‘white’, *ħor* for ‘black’, *ʕf̣ar* for ‘red’ (and warm colours in general, including brown) and *ṣ̌əẓṛor* for ‘green’ (and everything from green to blue). A fifth colour term, *ṣ̌of̣ṛor* ‘yellow’ (Mehri *ṣ̌āf̣ar*), is most probably an adapted borrowing from Arabic already present at the common MSAL level (Bulakh 2017: 271).

A preliminary field inquiry on the subject was conducted by Gasparini in 2017, with 6 young speakers from the city of Salalah and its immediate surroundings, all between 20 and 35 years old and all bilingual in Ṣ̌ehri and Arabic. The results of the tests showed a remarkable degree of idiolectal variation in the colour labeling systems employed by the informants, with different levels of interference from Arabic. Remarkably, when asked to label colours in Ṣ̌ehri from a printed basic colour wheel, which was shown to them during interviews, all the speakers used the Arabic word for ‘blue’, *azraq*, which seems to have replaced *ṣ̌əẓṛor* (traditionally used for both blue and green, but now confined to the latter). Two speakers also used *aħdar* for ‘green’, claiming that they could not recall the Ṣ̌ehri term. In addition, only one speaker used *ʕf̣ar* for ‘brown’, Arabic *bunnī* being preferred by the other interviewees. The three basic colours ‘white’, ‘black’

and ‘red’, however, were regularly referred to using the Ş̣ehri forms by all speakers. Summing this up, it would seem that the Ş̣ehri colour system (at least in urban environments, but see below) is undergoing a radical process of restructuring. The three typologically fundamental colour terms are retained in most contexts, and a distinction between blue and green is being introduced through reduction of the original semantic spectrum of *śəzrər*, adoption of the Arabic word for blue, and subsequent replacement of *śəzrər* with *aḥḍar* (which indicates only green in Arabic). Further distinctions are either being replaced with the corresponding Arabic terms, or introduced if not part of the original semantic inventory of the language.

On this matter, Watson & Al-Mahri (2017: 90) argue that colour terms (together with numbers) are often among the first lexical items to be lost in contexts of linguistic endangerment, and that this is precisely the case with the MSAL. They write that even children in rural communities are now employing Arabic terms to refer to the different breeds of cattle (which traditionally used to be referred to by use of the three basic colour terms ‘white’, ‘black’ and ‘red’). This is probably a result of the fact that even in villages younger generations are no longer involved in cattle herding. Examples include *aḥmar* ‘bay’ in place of Mehri *ōfar* or Ş̣ehri *fofer*, *aswad* ‘black’ in place of Mehri *ḥōwar*, and *abyaḏ* ‘white’ in place of Mehri *ūbōn*.

3.4.4 Other word classes

Watson & Al-Mahri (2017: 90) note that, since the introduction of a public school system in Arabic in the 1970s, a number of common lexical items and expressions in Mehri and Ş̣ehri have been replaced by the corresponding Arabic ones. Lonnet (2011) also remarks that borrowings from Arabic are particularly common among particles and function words. Examples include *nafs aš-ši* ‘the same thing’ for Ş̣ehri *gens*, Mehri *gans*; *lākin* ‘but’ in place of Ş̣ehri *du^hn* and *min du^hn*, Mehri *lahinnah*; *yaṣnī* ‘that is to say’ and *ṣabārah* in place of Ş̣ehri *yaḥīn*, Mehri *(y)ahah*; *tamām* ‘fine’ in place of Ş̣ehri *ḥaysōf* and Mehri *hīs taww* ~ *histaww*; Mehri and Ḥarsusi vocative *yā* ‘oh’ in place of MSAL *ṯā-*; Ş̣ehri *bdan*, Mehri *ṯabdan* ‘never, not at all’, against Mehri and Ḥarsusi *bəhaw?*, Ş̣ehri *bho?*. Consider also the case of Arabic *bəss* ‘only’, already mentioned in §3.2.1. In Mehri as in Baṭḥari, this particle appears now to be interchangeable with its equivalent *ār*, as example (7) shows:

- (7) Mehri (Sima 2009: 328, cited in Watson 2012: 371; transcription adapted)
 bass ta-ṯam-h kād aḥah ār ṯām ḏ-maḥḥ
 only 2SG.M-taste.IMPF-3SG.M INT fine only taste of-clarified_butter
 ‘Just taste it, like it is just the taste of clarified butter.’

As is predictable, also in this field Baṭḥari is the language most affected by Arabic: besides those already cited, we might add the expressions *zēn* ‘well’, (*a*)*barr* ‘outside’ (also in Mehri, as opposed to Soqotri *ter*), *ḥalaṣ* ‘and this is it’ (used to end a narrative). Finally, Watson (2012: 3) remarks how “Mahriyōt also exhibits structures unattested in Mehreyyet such as ‘What X!’ phrases reminiscent of Arabic, e.g. *maṭwalk* ‘How tall you (SG.M) are!’”

4 Conclusions

Throughout this chapter we have repeatedly pointed out how research on the MSAL, and in particular on the effects that contact with Arabic has had on their evolution, is still far from reaching its mature stage. Much remains to be done, in particular, in terms of sheer documentation, especially in the case of the most endangered varieties (Hobyōt, Ḥarsūsi, Baṭḥari). In addition to this, and although Watson’s (2012) work has greatly contributed to expanding our knowledge in this area, MSAL syntax remains a strongly neglected field of inquiry. Finally, our knowledge of the history of the MSAL prior to the twentieth century (and therefore the history of their contact with Arabic) is extremely poor.

It must also be remarked that, although the most widely spoken among the MSAL are undoubtedly better documented, very little is known about the effects that urbanisation has had on their speech communities in recent years. In particular, anecdotal evidence suggests that the varieties of Šehri and Soqotri spoken in Salalah and Ḥadibo are undergoing rapid change under the influence of Arabic (both the standard variety of the language, which children learn in school, and the dialects). Fieldwork conducted in the two abovementioned urban centres could provide extremely valuable information concerning the effects of contact between Arabic and Modern South Arabian.

Despite the far-from-complete state of research in this field, what we currently know is sufficient to say that contact has had a strong impact on the MSAL. Though this is more evident in the area of lexicon, where borrowings are legion, phonetics and phonology have also been affected (though to a different extent from one language to another). Morphology and syntax, on the contrary, appear to be more resistant to contact-induced change, though in the most endangered varieties one can notice a partial disruption of the original pronominal system and verbal paradigm, and though the seemingly high degree of resistance to external influence shown by MSAL syntax could actually be due to our limited knowledge of the subject.

One last note is due concerning another heavily neglected topic, namely the effects that contact with the MSAL have had on spoken Arabic. Though we have

not addressed the question in the course of this paper, evidence drawn from the existing literature (Simeone-Senelle 2002) suggests that this influence, too, is not completely absent, and that further research in this direction could produce interesting results.

Further reading

- Morris (2017) can be thought of as a general introduction to contact between MSAL and Arabic.
- Watson & Al-Mahri (2017) offer an intriguing account of how language change, contact with Arabic and changes to the traditional environment are all deeply interrelated.
- Lonnet (2011) – although limited in scope and extension due to its nature as an encyclopedic entry – offers interesting highlights on the effects of contact on the MSAL.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person	NEG	negative
ACC	accusative	MSAL	Modern South Arabian
BCE	before Common Era		languages
CS	construct state	PTCP	participle
F	feminine	PRO	pronoun
IMP	imperative	PRF	perfect (suffix conjugation)
IMPF	imperfect (prefix conjugation)	PL	plural
		SG	singular
INT	intensifier	VOC	vocative
M	masculine		

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Chapter 17

Neo-Aramaic

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This paper examines the impact of Arabic on the North-Eastern Neo-Aramaic dialects, a diverse group of Semitic language varieties native to a region spanning Iraq, Turkey, Syria and Iran. While the greatest contact influence comes from varieties of Kurdish, Arabic has also had considerable influence, both directly and indirectly via other regional languages. Influence is most apparent in lexicon and phonology, but also surfaces in morphology and syntax.

1 Current state and historical development

The Aramaic language (Semitic, Afro-Asiatic) has nearly three thousand years of documented history up to the present day. Once widely used, both as a first language and as a language of trade and officialdom, since the Arab conquests of the seventh century it has steadily shrunk in its geographical coverage. Today its descendants, the Neo-Aramaic dialects, only remain in pockets, especially in remoter regions, and are spoken almost exclusively by religious–ethnic minorities. Four branches of the language family exist today: due to diversification these cannot be considered a single language. Indeed, the largest branch, North-Eastern Neo-Aramaic (NENA), which is treated in this chapter, itself consists of many mutually incomprehensible dialects. Its closest relation is Turoyo/Şurayt, which is spoken by Christians, known as *Suryoye*, indigenous to the area immediately west of NENA's western edge in Turkey. Another member of this branch (Central Neo-Aramaic) was Mlaḥso, but this was nearly wiped out during the First World War, and its last speaker apparently died in the 1990s.

The NENA dialects are, or were, spoken in a contiguous region stretching across northeastern Iraq, southeastern Turkey, northeastern Syria and north-western Iran. The majority ethnicity in this region is the Kurds. NENA's native



speakers are exclusively from Christian and Jewish communities. The Christians belong to a variety of churches: the Church of the East, the Chaldean Catholic Church (which split off from the Church of the East when it came into communion with Rome), and (in fewer numbers) the Syriac Orthodox Church and its uniate counterpart, the Syriac Catholic Church. The Christians' traditional religious-ethnic endonym is *Surāye* and they call their language *Sūraθ* or *Sūrət* (depending on dialectal pronunciation). In other languages, and sometimes in their own, they identify mainly as Assyrians or Chaldeans.

The Jews are called *hudāye* or *hulāʔe* (depending on dialectal pronunciation), and they call their language *lišāna deni/nošan* 'our language' or *hulaula* 'Jewishness'. In Israel, where most now live, they are known as *kurdím*, reflecting their geographical origin in the Kurdish region, rather than their ethnic identity.

Historically, the NENA-speaking Christians usually lived in rural mono-ethnic villages and predominantly practiced agriculture, animal husbandry and crafts. Jews lived in both villages and towns, alongside other ethnic groups such as Kurds. They had diverse professions: tradesmen (pedlars, merchants and shopkeepers), craftsmen, peasants and landowners (Brauer & Patai 1993: 205, 212).

The region to which NENA is indigenous was, until, the twentieth century, highly diverse in terms of ethnicity, religion and language. Some of this diversity remains, but a great deal has been lost, due to the persecutions and ethnic cleansing that went on during that century and which were not unknown prior to it. During the First World War, Christian communities in Anatolia, being viewed as a fifth column in league with Russia, suffered murderous attacks and deportations. This affected not only Armenians and Greeks, but also the *Sūraθ*-speaking *Surāye* and *Ṭuroyo*-speaking *Suryoye*, as well as the many Arabic-speaking Christian communities in the region (the extirpation of some of these is documented in Jastrow 1978: 3–17).¹ By the 1920s, the Hakkari province of Turkey had been emptied of its many communities of *Surāye*: survivors ended up in Iraq and Iran. Some *Sūraθ*-speaking villages remained in the neighbouring *Şırnak* and *Siirt* provinces, but in the late twentieth century these too were mostly emptied of their inhabitants, during the conflict between the Turkish state and the Kurds.

In Iraq too the twentieth century was far from peaceful for the NENA-speaking communities. After a massacre in the 1930s, a proportion of the survivors of the genocide moved from Iraq to Syria, where they settled along the *Khabur* river, still in their tribal groups. Others remained in Iraq, in some places in their original

¹The relationship between language and ethno-religious identity was and remains complex. Many Christians belonging to the Syriac churches spoke and continue to speak yet other regional languages, including varieties of Turkish, Armenian and Kurdish.

communities, in other places in mixed communities, where a koiné form of Sūra⁰ arose. After the founding of Israel, there was a backlash against Jews in Iraq, and almost all Jews left the country for Israel during the 1950s. In Israel their heritage and language were for the most part not appreciated and the language was not passed on to younger generations. Most remaining speakers are now elderly and some dialects have already died out.

From the 1960s onwards, conflicts between Kurdish groups and the Iraqi state resulted in the destruction of numerous northern Iraqi villages, including many Christian ones. Other villages were appropriated by Kurdish tribes. The war in 1990–1991, the international sanctions and the invasion of 2003 and subsequent instability further affected these communities, as they did all Iraqis, and resulted in a dramatic shrinking of the Christian community in Iraq. In 2014, when ISIS captured large swathes of northern Iraq, many Christians and other non-Sunni minorities had to leave their villages overnight. These villages were later recaptured, but, in the absence of extensive rebuilding and due to fears of a recurrence, many inhabitants have not returned and seek to leave the country. The outlook is therefore bleak for these communities and for their language.

2 Contact languages

The main contact language for NENA is – and has been for long time – Kurdish (Iranian, Indo-European), in its many varieties, as Kurds are by far the largest ethnic group in the region as a whole, excepting Iranian Azerbaijan, where Azëris predominate.² Kurds have also been politically dominant: during the Ottoman period, Christians and Jews were in the power and under the protection of local Kurdish rulers, the aghas (see Sinha 2000: 11–12; Brauer & Patai 1993: 223). Most NENA speakers in the Kurdish-speaking areas at this time seem to have spoken the local Kurdish dialect.³ It is not surprising, therefore, that there is more influence from Kurdish than from any other language across most if not all of the NENA dialects, even if its extent varies from dialect to dialect.

²Small communities of Turkic-speaking Turkmens are also found within northern Iraq. Their dialects share features with both Anatolian Turkish varieties and Iranian Azeri (Bulut 2007).

³For such information we rely mainly on statements in grammatical descriptions, where the researcher asked their informants about this. For instance, Hoberman (1989: 9) states, “All my informants who grew to adulthood in Kurdistan report that they spoke fluent Kurdish (Kurmanji)”. Other references for Jews’ competence in Kurdish are: Sabar (1978: 216), Mutzafi (2004: 5), Khan (2007: 198) and Khan (2009: 11); for the Christians see Sinha (2000: 12–13) and Khan (2008: 18).

What role, then, has Arabic played? To summarize: there has been longstanding direct contact with small Arabic-speaking communities in what are otherwise Kurdish-speaking regions; there has been indirect contact through loans transmitted via Kurdish and Azeri varieties; finally, there has been intense contact more recently due to the establishment of states with Arabic as the national language, as well as various other modern developments. In the remainder of this section, we will go through these three types of contact in turn.

Although the region is not majority Arabic-speaking, there have been longstanding Arabic-speaking communities in certain parts of it: moreover many of these were Jewish and Christian, like the NENA-speakers, so one might well expect more social contacts with them. The Arabic dialects across the region are overwhelmingly of the *qəltu* Mesopotamian–Anatolian type (contrasted with the southern Iraqi/Bedouin *gəlat* type).⁴

Christian *qəltu* Arabic speakers could be found in the city of Mosul (alongside *qəltu* Arabic speakers of other religions) on the edge of the NENA-speaking Nineveh Plain (also known as the Mosul Plain). They are also present in two villages on the Nineveh Plain, namely Bəh̄zāni and Baḥ̄šīqa. Arabic-speaking Yazidis⁵ also live in these villages, as well as (in Baḥ̄šīqa) some Muslim Arabs (Jastrow 1978: 24). The Christian NENA speakers of the Nineveh Plain, therefore, had ample opportunity to come into contact with Arabic. To find more Christian Arabic-speaking communities in or near the NENA region, we have to travel quite far, to what are now the Turkish provinces of Şırnak, Siirt and Mardin. In this region there were many Christian *qəltu* Arabic-speaking communities living in villages and towns until the First World War; fewer afterwards. The settlements with such communities included Āzəḥ (Turkish *İdil*) and Ğazīra (*Cizre*) in Şırnak province, as well as provincial centres Siirt and Mardin (Jastrow 1978: 1–23). Thus, Christian Arabic speakers were in close proximity to speakers of NENA dialects in the Bohtan and Cudi regions of Şırnak province, as well as to speakers of Țuroyo/Şurayt in Mardin Province.

Jewish *qəltu* Arabic-speaking communities were also found in both northern Iraq and southeastern Turkey. In Iraq, Arabic was spoken by the Jews of Mosul, ʕAqra (Kurdish *Akre*) and Arbil (Erbil; Kurdish *Hawler*), as well as of the village

⁴The two types of Mesopotamian–Anatolian Arabic dialects are labelled by scholars according to the shibboleth of the form ‘I said’: *qəltu* vs. *gəlat* (Blanc 1964: 5–8). *qəltu* dialects realize *q as /q/, while *gəlat* dialects (such as Muslim Baghdadi), which are Bedouin or Bedouin-influenced, realize it as /g/. *Qəltu* dialects also preserve the 1SG inflection -u on the suffix-conjugation verb. See Talay (2011) for an overview of Mesopotamian–Anatolian Arabic varieties. Note that some Bedouin influence may be seen in the Muslim *qəltu* dialects spoken on the plain south of Mardin (Jastrow 1978: 30).

⁵Elsewhere, Yazidis are Northern Kurdish-speaking.

of Şəndor, near Duhok (Hoberman 1989: 9). These all left in the 1950s. Further afield, there were also some Jewish Arabic speakers in Urfa, Diyarbakır, Siverek and Çermik (Jastrow 1978: 4), who also migrated to Israel. There are known to have been contacts between NENA-speaking and Arabic-speaking Jews, through family connections and commerce. Mutzafi (2004: 6) reports such contacts involving the Jewish men of Koy Sanjaq and the Arabic-speaking Jews of Kurdistan. Sabar (1978: 216–217) relates that the Jews of Zakho would visit relatives who had moved to Mosul and Baghdad. On the other hand, Hoberman (1989: 9) stated that the Jews of ʿAmədyā knew no more than a few words of Iraqi Arabic.

To sum up, historically, Christian NENA speakers only had direct local contact with Arabic speakers (of their own faith) in Mosul and the Nineveh Plain in Iraq and Şırnak province in Turkey. The NENA-speaking Jews, on the other hand, had Arabic-speaking co-religionists not only in Mosul, but also within Iraqi Kurdistan itself.

While most NENA dialects show greatest influence from the majority languages of the region – Kurdish and (in Iranian Azerbaijan) Iranian Azeri – these also played a role in transferring Arabic influence to NENA. Arabic, as the language of Islam, has had a great influence on Kurdish varieties and Azeri, especially in the lexicon, and many originally Arabic words have been transmitted to NENA via these languages. Sometimes it is difficult to identify the immediate donor of such words, but phonetics and morphology can help (see §3.1.1).

During the twentieth century, with the founding of the states of Iraq and Syria, Arabic became the language of the states that most NENA-speakers found themselves in. They came into contact with it through education, officialdom, military service, radio and trade. Many Christians from the north of Iraq moved south to the major (Arabic-speaking) cities, Mosul, Baghdad and Basra, where, in some cases, they shifted to speaking Arabic, while keeping in close contact with relatives back in the north. By the end of the twentieth century most NENA speakers in Iraq and Syria would have been at ease in Arabic. Naturally these later developments did not affect speakers in Turkey and Iran, who, instead, developed greater competence in Turkish and Persian, respectively. Jewish speakers from Iraq, who had left the region by the end of the 1950s, would have had less exposure to Arabic through these means.

It should be mentioned that there has also been influence from European languages, namely from French (via the influence of the Catholic Church among the Chaldean Catholic communities) and from English (dating to the British Mandate period, as well as the period of globalization from the late twentieth century), though some lexical borrowings from these languages may have been mediated by Arabic.

3 Contact-induced changes in North-Eastern Neo-Aramaic

Contact influence on NENA⁶ seems to have arisen mainly through long-term bi- and multi-lingualism, rather than language shift. Indeed, if any shift has taken place, it is more likely to have involved NENA speakers who converted to Islam and shifted to Kurdish.⁷ Furthermore, much of Iraq was in earlier times Aramaic-speaking, so it can be assumed that over the centuries a shift took place from Aramaic to Arabic. Some Aramaic substrate features can indeed be seen in Iraqi Arabic dialects, such as a kind of differential object marking (Coghill 2014: 360–361).

Using Van Coetsem's (1988; 2000) distinctions between changes due to borrowing (by agents dominant in the recipient language) and imposition (by agents dominant in the source language), the contact influences from Arabic attested in NENA are clearly of the first kind, namely borrowing.

Borrowing from Arabic into NENA is of interest particularly as a case of transfer between related and typologically similar languages, as both are Semitic. Like Arabic and other Semitic languages, NENA has in its verbal morphology, and to a lesser extent in its nominal morphology, a non-concatenative root-and-pattern system, complemented by affixes. Thus, with the triradical root $\sqrt{šql}$, we get such forms as *k-šāqəl* 'he takes', *šqəl-lə* 'he took', *šqāla* 'taking', *šaḡāla* 'taker', *šqila* 'taken', and so on.

⁶Sources for the main contact languages, if not indicated, are as follows: Iraqi Arabic (specifically Muslim Baghdadi): Woodhead & Beene (1967); Northern Kurdish (i.e. Kurmanji/Bahdini): Chyet (2003). Although Muslim Baghdadi Arabic is not the dialect in closest contact with NENA, as a Mesopotamian dialect it shares much lexicon with more northerly varieties (which do not have a dictionary). The transcription of Northern Kurdish words is based on the conventional orthography, as given in Chyet (2003: xxxix–xl): an IPA transcription is also given. The source for the Christian Alqosh and Christian Telkepe data is the author's own fieldwork. Other sources are referenced in the text. The author's own NENA data is transcribed in IPA except as follows: *č* [tʃ], *j* [dʒ] (equivalent to Arabic *ǧ*), *y* [j], *h* [h], *x* between [x] and [χ], and *ḡ* between [ɣ] and [ʁ]. Apart from *h*, consonants with a dot under are the emphatic (velarized/pharyngealized) versions of the undotted consonant; for instance, the symbol *ḡ* represents [ḡ]. Some dialects have emphasis extending across whole words: such words are conventionally indicated with a superscript cross, e.g. **sadra* (equivalent to *šaḡḡra*). The schwa symbol *a* is used to transcribe a NENA vowel that is, in non-emphatic contexts, typically pronounced as [ɪ]. Phonemically contrastive length in vowels is indicated with a macron, e.g. *ā* [a:]. The vowels /i/, /e/ and /o/ are usually realized long: [i:], [e:] and [o:]. NENA words from other sources have had their transcription adjusted in some cases to bring them closer to this system: the original transcription may be checked in the referenced sources.

⁷It often happened that Christian girls were (occasionally by arrangement, but often unwillingly) kidnapped by Kurds for the purpose of marriage. Any children would have been considered Kurds.

Arabic influence in NENA is considerable in the realm of the lexicon, but this has very often occurred via other contact languages, rather than directly. (All the contact languages show great influence from Arabic, at least in the lexicon). Direct lexical borrowing or morphological and structural borrowing from Arabic are less common: they are however well attested in the Christian dialects of the Nineveh Plain, as well as some Jewish dialects of the Lišāna Deni branch in northern Iraq, including the dialects of Zakho, Nerwa and ʿAmədyā (Kurdish *Amēdi*, Arabic *al-ʿAmādiyya*).

It is difficult to establish with any certainty which contact influences entered the dialects at which time. The earliest Christian and Jewish NENA texts (from the 16th and 17th centuries)⁸ already show considerable contact influence from Kurdish and Arabic. The extent of Arabic influence in the early Jewish Lišāna Deni texts (Sabar 1984) is quite surprising. The towns in which these texts originate lie deep in Kurdistan, relatively far from the Arabic speaking part of Iraq. As we have seen in §2, however, Jews in Kurdistan had contacts with Arabic-speaking co-religionists. Some contact influence in the NENA dialects is clearly of recent date, such as loanwords from English, which probably date to the twentieth century. The prospective construction of the Christian Nineveh Plain dialects, which appears to be a structural borrowing from vernacular Arabic (see §3.4), seems to have developed only in the last hundred years or so (Coghill 2010: 375).

By the end of the twentieth century, Arabic was having an immense influence on the speech of Christian Aramaic-speaking communities living in northern Iraq, especially those close to Mosul, such as the town of Qaraqosh. Khan (2002: 9) found that most people from Qaraqosh introduced Arabic words and phrases into their Neo-Aramaic without adaptation. Khan attributes this to the policy of Arabicization in Iraq, which meant that schoolchildren were only educated in Arabic. He found significantly greater influence from Arabic in the younger generation's speech. In Christian Qaraqosh, as in the neighbouring dialects of Christian Alqosh and Christian Telkepe (author's fieldwork), a large number of Arabic loanwords have recently been absorbed into the lexicon. Nevertheless, as Khan remarks, "the proportion of Arabic loans that have penetrated the core vocabulary of the dialect and replaced existing Aramaic words are relatively few." This may, however, not be the case with speakers who have grown up in Arab-majority cities such as Baghdad. In my admittedly limited experience with such

⁸The Jewish manuscripts date to the 17th century, but the texts may have been composed earlier (Sabar 1976: xxix, xliii–xlvi). The Christian manuscripts date to the 18th century but the composition of the texts can be dated to the 16th and 17th centuries (Mengozi 2002: 16).

speakers, they use a noticeably greater proportion of Arabic loanwords, even sometimes for basic vocabulary, e.g. Iraqi Arabic *ḏēṣa* for *māṭv* ‘village’ (heard from a Christian Telkepe speaker who grew up in Baghdad before settling in the US).

3.1 Lexicon

3.1.1 Introduction

All NENA dialects have adopted a large number of loanwords. While Kurdish predominates among these, Arabic loanwords are also common, especially among the Christian dialects of the Nineveh Plain and the Jewish Lišāna Deni dialects.

Khan (2002: 516) makes a useful distinction for Christian Qaraqosh between “(i) loan-words that do not have any existing Aramaic equivalent and (ii) those for which a native Aramaic substitute is still available in the dialect.”⁹ These two types seem to reflect two layers of borrowing, an earlier one and a recent one, which, in many cases, is akin to code-switching. Most Kurdish loans belong to the first type, while Arabic loans are most common in the second, though earlier loans do exist. Borrowed Arabic nouns of the second type show little or no adaptation to native morphology, Khan finds. Verbs, however, are always adapted to NENA verbal morphology. Most are slotted into the existing NENA verbal derivations (see §3.1.4).

Khan (2002: 516) remarks that speakers of Christian Qaraqosh are generally aware of the Aramaic alternatives to these Arabic loans and can give them if asked. It could be, however, that subsequent generations will have had little exposure to the older synonyms.¹⁰ Khan notes that some of these older synonyms are themselves loanwords, in some cases from Arabic, but so integrated and long-standing that many speakers may not be aware of this. Examples include the recent Arabic loan *fəkr* (< Arabic *fīkr*) and the older loan *taxmanta* (f. infinitive of NENA \sqrt{txmn} Q ‘to think’, denominal < Arabic *taḥmīn* ‘estimation’; see §3.1.4), both meaning ‘thought’.

Many loanwords are common to several languages of the region, especially words specific to local culture or to technologies. While the ultimate source can usually be identified, it can sometimes be hard to determine the immediate donor of the loan.

⁹Note, however, that apparent synonyms are not always identical in meaning. Christian Alqosh *šəbbakiya* (< Ar. *šubbāk*) is used for a modern glass window, while the inherited lexeme *kāwə* is used for the traditional type of window.

¹⁰The fieldwork for the monograph on this dialect was carried out around the year 2000.

Nevertheless, there is sometimes evidence that can establish the immediate donor. This is the case, for example, for Arabic words ending in the feminine suffix *tāʔ marbūʔa* (Standard Arabic *-a(t)*). The Arabic morpheme is realized with the final /t/ in suffixed forms and in the construct (i.e. followed by a possessor). When borrowed into NENA, the /t/ is not realized in the absolute (isolated) form of the word, as in Arabic, e.g. Alqoṣh *sāʔa* ‘hour’ (Ar. *sāʔa*). This contrasts with Kurdish, which has the /t/ in all forms, e.g. N. Kurd. *saʔet* [sa:ʔæt] ‘hour’. In some NENA dialects, in certain words, the /t/ appears as *-ət-* in suffixed forms, replicating a pattern in (*qaltu*) Arabic. Sometimes this leads to back-formations (see §3.3.1). In other items the *tāʔ marbūʔa* is realized as *-at* in all contexts, as it typically is in Kurdish, and this suggests it was borrowed via Kurdish. An example of the latter is Jewish Betanure/Jewish Challa *ʕaširat* ‘tribe’, pl. *ʕaširatte* (Mutzaḡi 2008: 103; Fassberg 2010: 270). This is borrowed from Northern Kurdish *ʕeširet* [ʕæʃi:ræt], which borrowed it from Ar. *ʕašira(t)* ‘tribe’, almost certainly via Persian and/or Ottoman Turkish. Another example, *ʕādat* ‘custom’, is given by Maclean in his grammar of “Vernacular Syriac” (Maclean 1895: 35), where he states that nouns ending in *-at* are feminine.¹¹ Fox (2009: 91), writing of Christian Bohtan, also views Arabic loans ending in *-at* as having been borrowed via Kurdish. Examples in this dialect are: *sahat* ‘hour’, *hakowat* ‘tale’, *qəṣṣat* ‘story’, *kəflat* ‘family’ (< N. Kurd. *kuflet* [kɒf'læt] ~ *k'ulfet* [kʰɒl'fæt] ‘wife, family’ < Ar. *kulfa* ‘trouble’) and *məllat* ‘nation’ (< N. Kurd. *milet* [mɪ'læt] < Ar. *milla*). Some of the same examples (*məllat* and *qəṣṣat*) may also be found in Christian ʕUmra: Hobrack (2000: 108) takes these to have been borrowed via Turkish, but, given the overwhelming influence of Kurdish in the region, it seems more plausible that they were borrowed via Kurdish.¹²

Sometimes there are other indications in the word’s form that it was borrowed via Kurdish: the common NENA word *šūla* ‘work’ derives ultimately from Arabic

¹¹In Maclean’s dictionary (Maclean 1901: 235), he gives *ʕādat* (orthography adjusted) as the form in the Christian Urmia dialect and as one of the variants in “Alqoṣh”, by which he means the Nineveh Plain dialects (the other variant being *ʕāde*, which, lacking the final /t/, appears to be directly borrowed from Arabic). He gives *ʕādəta*, on the other hand, for his “Ashirat” dialect group, which was spoken in “central Kurdistan” (today’s Hakkari province of Turkey). This looks like the back-formations from direct Arabic loans discussed in §3.3.1, which is a little surprising, as one would not expect much direct contact with Arabic in that region. It is, however, a large and diverse group of dialects, and he does not specify in which precise dialect it was attested.

¹²The Kurdish forms attested in dictionaries are not always what we would expect as the sources of these forms, however. Thus we find *ħekyat* [ħækja:t] ~ *ħikyet* [ħik'jæt] ‘story’ and *qise* [qi:sæ] ‘story’ (not *qiset*). A variant of the latter ending in /t/, however, is found in a nineteenth-century dictionary cited in Chyet (2003: 490–491).

şuyî. Northern Kurdish has also borrowed this word, as *şuxul* [ʃuˈxul] with a variant *şûl* [ʃu:l]. It is perhaps the latter which is the immediate origin of the NENA word.

The gender in NENA can also suggest the immediate source of a loanword. For instance, *qalam* ‘pen’ in Arabic has masculine gender, but, loaned into Northern Kurdish as *qelem*, it may have feminine or masculine gender (Rizgar 1993: 322; Chyet 2003: 478). That *qalāma* ‘pen’ has feminine gender in certain NENA dialects (e.g. Alqosh; Coghill 2004: 199) suggests that it was borrowed via Kurdish, not directly from Arabic.

It is difficult to date loanwords in a predominantly unwritten language. Nevertheless, we do have written texts in both the Christian Nineveh Plain and the Jewish Lišāna Deni dialects going back at least four hundred years, and even in early texts the proportion of lexemes that were borrowed was high. Arabic loans are conspicuous in both sets of texts. Sabar (1984: 208) found that in a typical Jewish text from Nerwa, 30% of lexemes are ultimately of Arabic origin (whether directly or via another language).

Loanwords may be adapted to varying degrees and in varying ways to the recipient language. §§3.1.2–3.1.5 deal with the ways in which loans in different word classes may be integrated, as well as the ways in which they retain characteristics of the donor language, focusing on Arabic loans.

3.1.2 Integration of nouns

Most NENA nouns end in the nominal suffix *-a* (usually, but not exclusively, masculine nouns) or *-ta~θa* (feminine nouns). Older borrowed nouns usually have one of these endings, e.g. Christian Alqosh *šamma* ‘paternal uncle’ (< Ar. *šamm*), *šašāya* ‘dinner’ (< Iraqi Ar. *šaša*) *hadāda* ‘blacksmith’ (< Ar. *ḥaddād*), *šāšərta* ‘early evening’ (< Iraqi Ar. *šašir*) and *mašwəlta* ‘axe (or similar tool)’ (< Iraqi Ar. *mašwal* ‘pickaxe’). Even if they do not, they are adapted to NENA stress patterns. Thus Ar. *ḥayawān* ‘animal’ is borrowed (possibly via N. Kurd. *ḥeywan* [ḥejˈwɑ:n]) as *ḥewan* in Christian Alqosh, which has penultimate stress (Coghill 2004: 81).

More recent loans, on the other hand, may be used without any such modifications, e.g. Christian Alqosh *šamal* ‘thing’ (< Ar. *šamal* ‘work’), *xām* ‘linen’ (Iraqi Ar. *ḥām* ‘raw; cotton cloth’), and *sāša* ‘hour’ (f., < Ar. *sāša* f.). They often occur also in their original Arabic plural forms, e.g. Christian Alqosh *fallāḥīn* ‘farmers’ and *ʔašdād* ‘(large) numbers’.

Many Arabic loanwords come with the Arabic feminine marker *tāʔ marbūṭa* (Standard Arabic *-a*). In *qəltu* Arabic dialects this usually has two realizations:

-a after emphatic or back consonants, otherwise a high vowel such as -e or -i.¹³ Such loans in NENA usually also have the same distribution, that is -e (or the dialectal variant -ə), except after an emphatic or back consonant, when it is -a (Telkepe -v), e.g. Christian Alqosh *baṭālə* ‘idleness’ and *rawḡa* ‘kindergarten’ and Christian Telkepe *ṣādə* ‘custom’ and *qəṣṣv* ‘story’ (see also §3.3.1).

Some loans appear to have come from Standard Arabic and have the -a regardless, e.g. Christian Telkepe *lahjp* ‘dialect’ and *madrasv* ‘school’. Christian Qaraqosh seems to always represent the *tāʔ marbūṭa* as -a (Khan 2002: 204).

Borrowed nouns are quite commonly given Aramaic derivational suffixes. For instance, Jewish Azerbaijani *amona* ‘paternal uncle’ has a borrowed stem, *am-*, from Ar. *ʕamm* ‘paternal uncle’ via Kurdish or Azeri, but an Aramaic derivation, *-ona*, originally with diminutive function (Garbell 1965: 165). An example from the early Lišāna Deni texts is *ḡaribūṭa* ‘foreignness’, from Arabic *ḡarīb* ‘foreign, strange’ and the NENA abstract ending *-ūṭa* (Sabar 1984: 205).

NENA often adopts the gender of the donor language, where that language has nominal genders (as in the case of Arabic and Northern Kurdish, which both have masculine–feminine gender systems). Thus, the following Christian Alqosh words share the same gender as their Arabic source: *ṣašāya* ‘dinner’ (m., like Iraqi Ar. *ṣaša*) and *daʔwa* ‘wedding party’ (f., like Arabic *daʕwa* ‘invitation, party’). The loanword *ṣaṣərta* ‘early evening’ is, however, feminine (as indicated by the NENA feminine ending *-ta*), while the Arabic source (Iraqi Ar. *ṣaṣir*) is masculine. In Northern Kurdish, however, it is feminine (‘*esir* [ʕæˈsɪr]), and this may have influenced the gender, which, in turn, motivated the adding of the feminine suffix.

In Christian Telkepe, some Arabic loanwords of the structure *CaCC have, when not suffixed, an epenthetic vowel between the final two consonants. This is absent when a suffix beginning with a vowel is added, i.e. the construct suffix *-əd* or a possessive pronominal suffix. This follows the rules in the donor language: those Arabic dialects which have the epenthetic vowel (including Baghdadi and some *qəltu* dialects, such as Mosul) also lose it under similar conditions.¹⁴ Examples include *ṣaqəl* ‘mind’: *ṣaq-l-əd=baxtv* [mind-CSTR=woman] ‘a woman’s mind’; and *ḡarub* ‘war’: *p-ḡarb-əd=sawāstipūl* [in-war-CSTR=Sebastopol] ‘in the Crimean war’. It is interesting to note that the same rule is also found for Arabic loanwords in Kurdish (Thackston 2006: 5).

Occasionally, loanwords are adapted to the native root-and-pattern templates, following the selection of a root. This frequently occurs when the root is also bor-

¹³See Jastrow (1979: 40) for the conditioned *imāla* (raising of a-vowels) in the *tāʔ marbūṭa* in the Arabic dialect of Mosul, and Jastrow (1990: 70) for the same in the Jewish Arabic dialect of ʕAqra and Arbīl.

¹⁴For Baghdadi Arabic, see Erwin (1963: 56–58).

rowed as a verb. Thus we find Christian Qaraqosh *ʔəjbona* ‘a will, wish’ (Khan 2002: 517), alongside the verb $\sqrt{ʔjb}$ I ‘to please’ (< Ar. $\sqrt{ʔǧb}$ IV), by analogy with native words on the pattern CəCCona, e.g. *ʔəqðona* ‘a burn’ (< $\sqrt{ʔqð}$ I ‘to burn’). Sabar (1984: 205) gives further examples from the early Lišāna Deni texts. More often, however, borrowed nouns are not adapted to native templates, e.g. Alqosh *ḥanafiya* ‘tap’ (< Ar. *ḥanafiyya*), or only coincidentally follow a native noun pattern (Arabic and NENA share many similar patterns), e.g. Alqosh *qahwa* ‘coffee’ (< Ar. *qahwa*), which fits into the common Aramaic pattern CaCCa.

NENA dialects all have a variety of plural suffixes, the most common being perhaps *-e* (or its dialectal variant *-ə*). Loanwords, like inherited words, take a wide variety of native plural suffixes, but certain suffixes may be preferred or dispreferred for loanwords, in combination with other factors. For instance in Christian Alqosh feminine loanwords are not attested with the Aramaic plural suffixes *-wāθa* and *-awāθa*, while the loan-plural *-at* (< Ar. *-āt*) is almost exclusively found with loanwords (Coghill 2005: 347). Recent Arabic loans in Christian Nineveh Plain dialects often occur, unadapted, in their Arabic plural form (see §3.3.1).

3.1.3 Integration of adjectives

Like nouns, loan adjectives may occasionally be adapted to the native root-and-pattern templates, after the selection of a root. For instance, Arabic *ʔazraq* ‘blue’ ($\sqrt{ʔzrq}$) is borrowed by Christian Alqosh as *zroqa* ‘blue’, by analogy with certain inherited colour adjectives of the form CCoCa, such as *smoqa* ‘red’. Another example is Christian Alqosh *ʔadola* ‘straight’ (cf. Iraqi Ar. *ʔadil* ‘straight’ and Christian Qaraqosh which has borrowed it simply as *ʔadəl*).¹⁵ More often the stem of the loan adjective is borrowed more or less unchanged, as in Christian Alqosh *ʔaqira* ‘poor’ (Ar. *ʔaqīr*), coincidentally fitting the inherited adjectival pattern CaCiCa. Adapted loan adjectives tend to take NENA inflection (e.g. f. *-ta~θa*, pl. *-ə*). Unadapted loan adjectives usually take no inflection at all, e.g. Christian Telkepe *qərməzi* ‘purple’ (Ar. *qirmizī* m. ‘crimson’) and *ḥəʔif* ‘thin’ (Iraqi Ar. *ḥəʔif* m. ‘thin, weak’).

Loan-adjectives of a certain group including colours and bodily traits behave in a special manner in some NENA dialects: they take Aramaic inflection for masculine and plural, but a special inflection *-ə* (identical to the plural ending) for the feminine. This occurs in Christian Qaraqosh particularly with Arabic loan

¹⁵ Attested inherited words of the pattern CaCoCa are all in fact nouns in Christian Alqosh, e.g. *ʔalola* ‘street’. The pattern CaCūCa might be more expected, being found with several common adjectives, e.g. *xamūša* ‘sour’.

adjectives, e.g. *tarša* ‘deaf’ (f./pl. *taršə*, < Ar. m. *ṭaršaš*, f. *ṭaršāʔ*) and *zarqa* ‘blue’ (f./pl. *zarqə*, < Ar. m. *ṭazraq*, f. *zarqāʔ*), see Khan (2002: 219). It appears to come from a dialectal reflex (-ē) of the Arabic -āʔ feminine ending, found especially with adjectives of these semantic groups.¹⁶ In Christian Alqosh it is also found with loanwords of Northern Kurdish origin, e.g. *kačal-a* ‘bald’ (f./pl. *kačal-ə*, from N. Kurd. *k'eçel* [k^hæʔfæɫ]).

In Arabic and Kurdish, adjectives normally follow the head noun, as in NENA. There are, however, a few pseudo-adjectival modifiers borrowed from Arabic which precede the noun in Arabic and are uninflected. These show the same behaviour when borrowed into NENA. One is *ṭawwal* ‘first’ in Christian Alqosh (a synonym to the inherited adjective *qamāya* ‘first’), as in *ṭawwal-ga* ‘the first time’ – compare Arabic *ṭawwal marra* ‘the first time’. Another is *ger* ‘other’ (< Iraqi Ar. *yēr*), which is attested in Jewish Betanure, e.g. *ger-məndi* ‘something else’ (Mutzafi 2008: 105) – compare Iraqi Arabic *yēr yōm* ‘another day’. Another loanword, *xoš* ‘good’, invariably precedes the noun, e.g. Christian Telkepe *xoš-ṭixālb* ‘good food’. This seems to originate in Iranian (Persian or Kurdish), but is also common in Iraqi and Anatolian Arabic dialects (as *ḥōš*), as well as in Turkic varieties (as *hoş* [hof] or *xoş* [xof]). In all these languages it precedes the noun, regardless of the usual word order.

3.1.4 Integration of verbs

The borrowing of verbs has been identified as potentially more complicated than the borrowing of other lexemes, due to their tendency to be morphologically complex (Matras 2009: 175). The borrowing of verbs in a Semitic language presents particular issues, due to the unusual root-and-pattern system. In Semitic languages verb lexemes are composed of a root (typically consisting of three – occasionally four – consonants or semi-vowels) and a derivation (also known as “stem”, “form”, “measure”, “binyan” or “theme”). NENA dialects mostly have three triradical derivations (I, II and III) and at least one quadriradical derivation (Q). A borrowed verb will usually be integrated into this system. Three main strategies have been identified for the borrowing of verbs in NENA. One, common also in other Semitic languages (Wohlgemuth 2009: 173–180), is root extraction, whereby from the phonological matter of the source verb a tri- or quadriradical root is selected. This is usually then allocated to a verbal derivation. A

¹⁶Oddly enough, however, the realization as -ē seems to be restricted to Anatolian *qəltu* Arabic dialects (where it is stressed, e.g. *Āzəḥ lālē* ‘dumb’), and not found in the dialects in Iraq (Jastrow 1978: 76). Other words ending in *-āʔ have -ē (unstressed) in *qəltu* Arabic dialects, but only as cases of *imāla* (raising of a-vowels) conditioned by a neighbouring high vowel.

second is the borrowing of not only the root but also some of the morphology of the Arabic derivation: see below and §3.3.2. A third is the light verb strategy, whereby the loanverb consists of a light verb (with meanings such as ‘become’ or ‘make’) and a (verbal) noun, the latter containing the main semantic content.

The light verb strategy is found in some NENA dialects, but usually with Kurdish or Turkish verbs, which already consist of a light verb plus noun. It is not used to integrate Arabic loanverbs, although sometimes the noun in the predicate ultimately comes from Arabic.

The root-extraction strategy is well attested across NENA dialects and is particularly common with Arabic loanverbs. This is unsurprising, as these already have a root, which in many cases can simply be adopted as it is. For instance, Arabic $\sqrt{y}lb$ I ‘to win’ (*yalaba* ‘he won’) is borrowed as Christian Telkepe $\sqrt{g}lb$ I ‘to win’. Sometimes the root is adapted, to conform to the rules of root formation in NENA. For instance, ‘geminate’ roots, where the final two radicals are identical ($\sqrt{C_1C_2C_3}$, where $C_2=C_3$), are rare in NENA, and apparently absent altogether in derivation I. Just as inherited geminate roots were converted into middle-*y* roots ($\sqrt{C_1yC_3}$), so too are Arabic geminate roots. Thus, Arabic \sqrt{sdd} I ‘to close, stop up’ is borrowed as Christian Alqosh \sqrt{syd} I ‘to close, seal’ (compare inherited \sqrt{qyr} I ‘to be cold’ < \sqrt{qrr}).

Sometimes derivational affixes are adopted as radicals, often replacing a weak radical. For instance, Arabic derivation VIII verb *ittafaqa* (\sqrt{wfq}) is borrowed by Christian Alqosh as \sqrt{tfq} I ‘to meet’, with the VIII derivational infix *-t-* reanalysed as a radical. Frequently the root is borrowed not from a true verb but from a (verbal) noun or adjective. Thus, the NENA verb \sqrt{txmn} Q (found, e.g., in Jewish Betanure and Christian Qaraqosh, and as \sqrt{txml} Q in Alqosh) is borrowed from the Arabic noun *tahmīn* (possibly via Northern Kurdish *t'exmīn* [tʰæx'mi:n] ‘supposition, guess’), itself a derivation of Arabic \sqrt{hmn} II ‘to guess’ (*hammana* ‘he guessed’). The /t/ of the NENA root is not found in the Arabic root, but can only come from the verbal noun. This is an extension of an inherited Semitic strategy of deriving verbs from nouns. See Sabar (1984; 2002: 52) and Garbell (1965: 166) for more on the creation of verbal roots from non-Aramaic verbs.

The process of integration does not end with the establishment of a root, however. Every verb lexeme must also have a derivation. Tendencies can also be identified for this (Coghill 2015). Arabic loanverbs already have a derivation, but the majority of Arabic derivations have no cognate or functional equivalent in NENA. Where there is a cognate, there are also some formal and functional similarities, and thus such cases are usually loaned into the cognate derivation. Thus, for instance, Arabic \sqrt{sdl} II (*saddala*) ‘to put in order’ is borrowed as Christian Telkepe \sqrt{sdl} II ‘to fix, tidy’ (e.g. *mšudalli* ‘I tidied’), Telkepe derivation II being the cognate of the Arabic derivation of the same number.

Verbs in Arabic derivations that have no cognate are sometimes allocated to derivations that bear some similarity in form or function to the original derivation. For instance, the NENA derivation most closely resembling Arabic derivation III in form is derivation II (the two share the template -CvCvC-, as opposed to -vCCvC-). Thus Arabic \sqrt{hgr} III (*hāğara*) ‘to emigrate’ is borrowed as Christian Telkepe \sqrt{hjr} II ‘to emigrate’ (e.g. *mhujera* ‘they emigrated’).

Arabic derivations VIII and X may be treated differently: in Christian Iraqi dialects, in particular those of the Nineveh Plain, the derivational morphology may itself be borrowed along with the lexeme (see §3.3.2).

3.1.5 Grammatical words and closed classes

NENA has freely borrowed grammatical words such as prepositions, conjunctions and particles of various functions, and some of these are Arabic, though most are Kurdish. In some cases, the original Arabic items may have been borrowed via Kurdish. In Christian Alqosh we find the preposition *şob* ‘towards, near’ (< Ar. *şawba* ‘towards’, cf. Iraqi Ar. *şōb* ‘direction’) and *bağās* ‘about, concerning’ (< N. Kurd. *beħis* [bæħs] ‘discussion (about)’ < Ar. *baħθ*). Another example is *m-badal* ‘instead of’ (< *m-* ‘from’ + Iraqi Ar. *badāl*; Coghill 2004: 300). In Jewish Challa we also find *m-badal* and, in addition, *mābayn* ‘between, among’ (< Ar. *mā bayn*; Fassberg 2010: 149, 151). Even in Jewish Arbel, which generally shows less Arabic influence, we find *didd* ‘against’ (< Ar. *didd*; Khan 1999: 188).

Loan prepositions are not a new phenomenon in NENA, but are already attested in the early Jewish Lišāna Deni texts (Sabar 1984: 208), e.g. *şann-id* ‘about’ (< Ar. *şan* ‘about’), *şōb* ‘beside’ (< Ar. *şawba*). By analogy with certain native prepositions, some have been extended with the construct suffix *-əd*, e.g. *şann-id*.

A particle that has been commonly borrowed is *bas* ‘only; but’ (cf. Iraqi Ar. *bass* ‘enough; only; but’). This may have been borrowed via Northern Kurdish *bes* [bæs] ‘enough; but’.

Many dialects, including Christian Alqosh and Christian Telkepe, use *kabira* to express ‘much’ or ‘very’. This derives from Arabic *kabīr* ‘big’. In Christian Qaraqosh (Khan 2002: 284–5) they use another Arabic loan for the same meaning: *hel* ~ *helə* (cf. Iraqi Ar. *hēl* ‘with force’).

Other particles commonly borrowed are *fa* (roughly ‘and so’ in both Arabic and NENA) and *lo* ‘or; either’ (Iraqi Ar. *lō*). The adverb *başdēn* ‘then; later’ (< Ar. *başdēn*) is attested frequently in the Christian dialects of Alqosh, Telkepe and Qaraqosh, despite the presence of an inherited synonym, *baθər=dəx* [after=how] ‘then; later’.

In Christian Alqosh and Christian Qaraqosh, a particle *də-* is used with imperatives to give the command a sense of urgency or encouragement. This is already

attested in the early Jewish Lišāna Deni texts (Sabar 1976: xl). This appears to come from Northern Kurdish *de* [dæ] with the same function. A similar participle (*dē-*, *də-*) is found in both *qəltu* and Baghdadi Arabic (Jastrow 1978: 310–311).

3.2 Phonology

Two types of phonological contact influences in NENA will be considered here: new phonemes adopted through contact, and allophonic alternations influenced by contact.

3.2.1 New phonemes

NENA dialects have gained several new phonemes through language contact. These phonemes have entered the dialects via loanwords that were not fully adapted to Aramaic phonology. Some new phonemes are restricted to loanwords, while others have developed also in native words, through processes such as combination (creating affricate phonemes) and assimilation. As might be expected, Kurdish loanwords are responsible for the majority of the borrowed phonemes, but Arabic has also played a role, especially in those dialects closest to the Arabic-speaking region, i.e. the Christian dialects of the Nineveh Plain. The examples given below are from the Christian Alqosh dialect of this group (Coghill 2004: 11–25, with adapted transcription).

Some of the borrowed phonemes in NENA dialects have been introduced by both Kurdish and Arabic loanwords. These include /j/ [dʒ] and /č/ [tʃ]. The latter is not found in Standard Arabic, but is found in Mesopotamian dialects of Arabic. The phoneme /f/ seems to be borrowed predominantly from Arabic, although this phoneme also exists in Kurdish. Examples of loanwords with these three phonemes are: *ješ* ‘army’ (< Iraqi Ar. *ǧēš*), *jullə* ‘clothes’ (< N. Kurd. *cil* [dʒil]), *čārək* ‘quarter’ (< N. Kurd. *čarêk* [tʃaːreːk]) *√čyk* I ‘to pierce’ (< Iraqi Ar. *√čkk* I), and *faqira* ‘poor’ (< Ar. *faqīr*).

The phoneme /č/ is also found in certain native Aramaic words, as a result of the combination of /t/ and /š/, e.g. *čeri* in *čeri qamāya* ‘October’ (< *tšeri, cognate with Christian Qaraqosh *təšri* and CSyr *tešri* ~ *tešrin* ‘Tishrin’).

The Arabic phoneme /ð/ [ðʰ] is found in many loanwords in Iraqi NENA dialects, e.g. *√hðr* III ‘to prepare’ (< Iraqi Ar. *√hðr* II). In most Mesopotamian dialects of Arabic in contact with NENA, /ð/ is rarely found, as it has merged with /ð/. Nevertheless, one loanword in Alqosh and Qaraqosh has the /d/ phoneme, namely *ʔoda* ‘room’, which originally comes from Turkish *oda*. While Turkish is not considered to have emphatic consonants, it does have vowel harmony, and

words with back vowels have been interpreted as having emphatic consonants, when borrowed into *qaltu* (and other) Arabic dialects (Jastrow 1978: 51–52). Thus the *qaltu* dialect of Qarṭmin, in which *ḏ and *ḡ have merged as /ḡ/, also has *ʔōda* ‘room’ (Jastrow 1978: 70). NENA *ʔōda* was borrowed from Turkish either via a local Arabic variety or directly, in which case its speakers must have also interpreted back-voweled Turkish words as emphatic.¹⁷

The pharyngeals /ʕ/ and /ħ/, which in most inherited Aramaic lexemes have shifted to /ʔ/ and /x/ respectively, have been reintroduced through loanwords from both Arabic and the Classical Syriac used in the church. Examples for /ʕ/ are: *ʕamma* ‘uncle’ (< Ar. *ʕamm*), *ʕyʕ* I ‘to live’ (< Ar. *ʕyʕ* I), *ʕaddāna* ‘time’ (CSyr *ʕeddānā*). Examples for /ħ/ are: *ʕrħ* I ‘to get injured’ (< Ar. *ʕrħ* I ‘to injure’), *ʕħōr* III ‘to prepare’ (< Iraqi Ar. *ʕħōr* II), *mšihā* ‘Christ’ (< CSyr *mšihā*), and *ħaṭṭāya* ‘sinner’ (< CSyr *ħaṭṭāyā*). In some Arabic loans, however, /ʕ/ has shifted to /ʔ/, perhaps indicating that they belong to an earlier stratum, e.g. Christian Alqosh *daʔwa* ‘wedding party’ (Ar. *daʕwa*). Some cases of /ʕ/ and /ħ/ in Alqosh, as in other NENA dialects, are original: the shift to /ʔ/ and /x/ respectively has been blocked in certain phonetic environments, particularly in the neighbourhood of emphatic consonants or /q/, e.g. *raħūqa* ‘far’ (< *raħḥūqa), see Khan (2002: 40–41). Furthermore, /ħ/ has arisen in the third person singular possessive suffixes, as a shift from original *h. This appears to be a strategy of disambiguating these suffixes from the phonetically similar nominal endings (see Coghill 2008: 96–97).

The voiced uvular fricative was an allophone of the voiced velar stop /g/ in earlier Aramaic. In NENA it merged with *ʕ and shifted to a glottal stop /ʔ/. Like the pharyngeals, it has been reintroduced into NENA through loanwords from both Arabic and Classical Syriac, e.g. *ʕlb* I ‘to win, defeat’ (< Ar. *ʕlb* I) and *pağra* ‘body’ (< CSyr *pağrā*). It has also arisen in native words through regular assimilation of /x/ to a following voiced consonant. In the case of the verb *ʕzd* I ‘to reap’ (< *ʕzd < *ʕsd < *ħsd), the voiced allophone, originally only found in certain forms, has spread by analogy throughout the paradigm (Coghill 2004: 20).

The cases of /č/, the pharyngeals, and /ğ/ show how new phonemes may arise through borrowing, while being assisted by internal developments.

¹⁷Northern Kurdish also has this word, but Chyvet’s (2003) dictionary only gives variants without emphasis (e.g. *ode*), although Iraqi Kurdish dialects do often preserve emphasis in Arabic loanwords (Chyvet 2003: viii; see also Öpengin, this volume).

3.2.2 Allophonic sound alterations

Some NENA dialects, such as Christian Alqosh (Coghill 2004: 27), exhibit word-final devoicing of consonants, e.g. *mjāwəb* [m'dzæup] 'answer!' (cf. *mjawobə* 'to answer' with [b]) and *qapaḡ* [ˈqapɛχ] 'lid' (cf. *qapaḡəd-dəstiθa* 'saucepan lid', with [ɸ]). There is also a strong tendency towards word-final devoicing in both *qəltu* Arabic (Jastrow 1978: 98) and the Kurdish dialects of Iraq (MacKenzie 1961: 49), so it seems to be an areal feature (see also Akkuş, this volume, on contact-induced devoicing in Anatolian Arabic, and Lucas & Čéplö, this volume, on the same phenomenon in Maltese).

3.3 Morphology

NENA dialects have borrowed a variety of morphemes from regional languages via lexical loans. As these become more integrated into the language, they may be found not only in the original loanwords but also with new words, including inherited lexemes. NENA being a Semitic language, it is possible for morphological borrowings to be a templatic pattern rather than a single phonetic chunk: indeed, some verbal derivational patterns have been borrowed from Arabic, as will be shown in §3.3.2.

3.3.1 Nominal inflection

A grammatical suffix that has been borrowed by some Iraqi dialects is the Arabic feminine sound plural suffix *-āt*. In Christian Alqosh and Christian Qaraqosh, as well as the Jewish Lišāna Deni dialects of northern Iraq, it has been integrated into the native morphology: as these dialects have penultimate stress in nouns, the suffix itself is not stressed in these dialects as it is in Arabic (Coghill 2004: 272–273; 2005; Khan 2002: 193–194). Accordingly it has also been shortened to *-at*, e.g. Christian Alqosh *makina* 'machine', pl. *makinat*, *maḥallə* 'town quarter', pl. *maḥallat*. In Alqosh and Qaraqosh it is only attested with feminine nouns. It is not, however, restricted to Arabic loans, but has been extended to other foreign words, e.g. Alqosh *pošiya* 'turban' (N. Kurd. *p'ošî* [p'ɔ:'ʃi:]) pl. *pošiyat*. In Alqosh and Qaraqosh it is even found with some native Aramaic words, e.g. Christian Qaraqosh *ʔarnuwa* 'rabbit', pl. *ʔarnuwat* 'rabbits'; *ʔilāna* 'tree', pl. *ʔilānat* 'trees'.

In some words, probably borrowed during the more recent and more intense period of contact with Arabic, the original stress and length of the ending is preserved, e.g. Christian Alqosh *holāt* 'halls' and Christian Qaraqosh *badlāt* 'suits' and *gadlāt* 'tresses' (Khan 2002: 194). (Note, however, that the latter is an Aramaic word). This is always the case in Telkepe, e.g. *jəddə* 'midwife', pl. *jəddāt*

and *traktar* ‘tractor’, pl. *traktarāt*. Note that in Telkepe, as in Arabic, this plural is sometimes found with masculine nouns, e.g. *mez* (m.) ‘table’, pl. *mezāt* or *primuz* (m.) ‘primus stove’, pl. *primuzāt*.

Apart from the Christian Nineveh Plain dialects, *-at* is attested regularly as a plural in some of the Jewish Lišāna Deni dialects, spoken further to the north. As mentioned in §2, these Jewish communities would have had contact with spoken Arabic through connections with their co-religionists.

In the modern Jewish dialect of Zakho, *-at* is used with the following types of nouns (Sabar 2002: 44–45): feminine Arabic loans ending in *-a* or *-e* (i.e. the dialectal version of the Arabic feminine suffix *tāʔ marbūṭa*; see §3.1.2), some nouns of Kurdish origin ending in *-e* (perhaps by analogy with Arabic loans ending in *-e*), and nouns ending in certain borrowed suffixes, namely the diminutive suffix *-ka* (f. *-ke*) borrowed from Kurdish, the professional suffix *-či* borrowed from Turkish, and the ending *-o*. It is also one of the two most common plurals for European loanwords, e.g. ⁺*pākētat* ‘packets (of cigarettes)’ (Sabar 1990: 57). This suggests it is particularly associated with loanwords, regardless of origin. In Jewish Duhok (also Lišāna Deni), however, it is attested with a native Aramaic word, *raʔolat* ‘brooks’ (Sabar 2002: 45). It seems therefore that the morpheme has been extended far beyond its original distribution.

The plural *-at* does not seem to have spread to all Lišāna Deni dialects, however: it is not mentioned in the grammars of Jewish Challa (Fassberg 2010) and Jewish Betanure (Mutzafi 2008). It has, nevertheless, an early origin: it is found in the late seventeenth-century manuscripts originating in the towns of ʕAmədyā and Nerwa. I found one example of it in the grammar of the modern ʕAmədyā dialect (Greenblatt 2011: 70), namely *maymonke* (f.) ‘monkey’, pl. *maymonkat*, probably because it has the Kurdish diminutive suffix (see above).

Across the border in Turkey, another Christian dialect has this plural ending, that is the dialect of ʕUmra (Turkish name *Dereköyü*), close to the town of Cizre. In this region of Turkey there are or were several Arabic-speaking communities, including Christian Arabic speakers in Cizre (until the First World War; see Jastrow 1978: 17), so it is not surprising that there should be influence from Arabic. In this dialect, *-at* is mostly attested with borrowed feminine nouns ending in *-e*, though there are also a couple ending in *-a*, both masculine and feminine (Hobrack 2000: 114). The majority have the Kurdish diminutive suffix *-ka* (f. *-ke*) mentioned above in relation to Jewish Zakho.

In the Christian dialects of Iraq, as spoken currently, it is common to use Arabic words with their original plural morphology, probably because almost all speakers speak Arabic with native or near-native competence and many con-

cepts are more familiar or only available to them in this language.¹⁸ Thus, apart from the *-āt* plural, we also find the masculine sound plural suffix *-in* and the non-concatenative broken plurals, e.g. Christian Alqosh *fallāh-in* ‘farmers’, and *barāmīl* ‘barrels’ (sg. *barmīl*) (Coghill 2004: 273). We even find such examples in the late seventeenth-century manuscripts written in Jewish Lišāna Deni dialects, e.g. *ḡāfilīn* ‘fools’ and *?arwāḥ* ‘spirits’ (Sabar 1984: 205–206).

Many Arabic loanwords come with the Arabic feminine marker *tā? marbūṭa*, either the *qaltu* Arabic variants or the Standard Arabic *-a* (§3.1.2). In some dialects of the Nineveh Plain, the *tā? marbūṭa* is borrowed along with its connecting allomorph *-ət*. In Arabic the /t/ is only realized in construct state (as the head of a genitive phrase) or before possessive suffixes.

In Christian Qaraqosh the isolated form of such loans ends in *-a*, like inherited masculine nouns, although the gender is feminine (as in the source words). When possessive suffixes are added, however, the /t/ is realized, as in Arabic (Khan 2002: 204–206). Thus Qaraqosh *badla* ‘suit of clothes’ (cf. Iraqi Arabic *badla*) becomes *badl-ətt-əḥ* [suit-F-3SG.M] ‘his suit of clothes’. The gemination of the /t/ is not found in the Arabic forms, but can be explained as follows. In Mosul Arabic, unlike in many Arabic dialects, the *tā? marbūṭa* takes the stress, when any possessive suffix is added: *bāṣali* ‘onion’, *baṣal-ət-ak* [onion-F-2SG.M] ‘your onion’ (Jastrow 1983: 105). It is likely that the /ə/ vowel in the NENA morpheme *-ətt-* imitates the vowel of the Arabic morpheme. The stress pattern fits well into NENA, which has penultimate stress. However, in NENA /ə/ is dispreferred in an open syllable, especially when stressed. The /t/ is probably geminated in order to close the syllable so as to conform to this preference.¹⁹ This mechanism has parallels elsewhere in NENA.

These same loanwords take the Arabic plural *-at* discussed above. Even some Aramaic feminine words in Christian Qaraqosh have acquired both *-ətt-* and *-at*, e.g. *?arnuwa* (f.) ‘rabbit’, *?arnuwəttəḥ* ‘his rabbit’, *?arnuwat* ‘rabbits’. But *-ətt-* is also found with some Aramaic feminine words that have native plurals, e.g. *bira* (f.) ‘well’, *birāṭa* ‘wells’, *birəttəḥ* ‘his well’. In exceptional cases *-ətt-* may also be used with feminine words with the Aramaic f. ending *-ta~θa*, e.g. *šwiṭa* ‘bed’, *šwiyāṭa* ‘beds’, *šwiṭəttəḥ* ‘his bed’. It seems, therefore, that in Qaraqosh this is now a morphological borrowing independent of the loanwords it was originally borrowed with.

¹⁸Younger NENA speakers who have grown up in the Kurdish-controlled region since 1991 may have less competence in Arabic, however.

¹⁹Khan (2002: 206) gives two other possible derivations: a combination of Arabic f. *-ət* and Aramaic f. *-ta* (though the latter is not found on the isolated form) or the NENA independent genitive particle *did-*. The explanation above seems to me to be simpler, however.

In Christian Telkepe, vernacular Arabic nouns with *tāʔ marbūʔa* are borrowed ending in either *-ə* or *-v*, matching the two realizations of the *tāʔ marbūʔa* in *qəltu* Arabic (§3.1.2). As in Qaraqosh, these nouns retain their feminine gender in Telkepe. They also have the *-ətt-* allomorph before possessive suffixes, e.g. *ʂəḥḥv* (f.) ‘health’, *ʂəḥəttux* [*ʂəḥ-ətt-ux* health-F-2SG.M] ‘your (m.) health’; *qubbə* (f.) ‘room’, *qubbətte* [*qubb-ətt-e* room-F-3SG.M] ‘his room’. The suffix seems to be used productively with Arabic words, as and when they are used. One example in Telkepe is not borrowed from a feminine with *tāʔ marbūʔa*, namely *čāyi* (f.) ‘tea’ (cf. Iraqi Ar. *čāy* (m.)). This word is, however, feminine in Northern Kurdish (*çay* [ʧa:j]), whence it may have been borrowed.

Christian Alqosh seems to have gone a step further, creating back-formations from the suffixed forms. Thus the unsuffixed forms also have *-ətt-*, e.g. *ʂəḥəttə* ‘health’, *qaʂəttə* ‘story’ and *məlləttə* ‘religious community’. When the plural suffix (always the feminine plural *-yāθa*) is added, one /t/ alone is preserved, suggesting that the second is now analysed as part of the feminine singular ending *-ta*, while *-ətt-* is analysed as part of the stem: *qaʂətt-ta* ‘story’, *qaʂətt-yāθa* ‘stories’; *məllətt-ta* ‘community’, *məllətt-yāθa* ‘communities’.

Similar forms are also attested in Jewish Challa (Lišāna Deni), but without the gemination of the /t/, e.g. *məlləta* ‘ethnic group’, *ʕādəta* ‘custom’ (Fassberg 2010: 52). Rather than explaining the /t/ as originating in the Arabic suffixed stem, as I have done above, Fassberg suggests that the /t/ is present because the words were borrowed via (Northern) Kurdish, which realizes the *tāʔ marbūʔa* as a final /t/ even when the noun is unsuffixed: *milet* [mɪlæt] and *ʕadet* [ʕa:dæt] (Chyet 2003: 387). Khan (2002: 206) also suggests this route for Qaraqosh. This explanation would not explain why the unaffixed forms in Qaraqosh do not end in /t/, nor why the preceding vowel in all these dialects is /ə/ rather than /a/ (the nearest phonetic equivalent to Kurdish <ə>). In fact, there are some clear loans of Arabic words via Kurdish which end in *-at* in the singular unsuffixed form (see §3.1.1). The Kurdish route would furthermore not explain the close association in Qaraqosh of this morpheme with words taking an *-at* plural, which seems to have been borrowed directly from Arabic. It seems more likely, therefore, that the Qaraqosh, Telkepe, Alqosh and Challa feminine nouns with suffixed *-ətt-* have been borrowed directly from Arabic and are influenced by the Arabic suffixed forms, which have a similar form.

3.3.2 Verbal derivation

The NENA verbal system consists of both synthetic and analytic verb forms. The synthetic verb forms are formed from two stems, the Present Base and the Past Base, e.g. Christian Alqosh *k-ʂaqł-i* [IND-take.PRES-3PL] ‘they take’ and *ʂqəl-le*

[take.PAST-3PL] ‘they took’. Analytic forms involve auxiliary verbs or verboids combined with non-finite verb forms, such as the infinitive or participles, or, less often, with finite verb forms. Like Arabic, NENA has a verbal system based on the root-and-pattern system. As also in Arabic, a verb lexeme typically has a triconsonantal root and a verbal derivational class (see §3.1.4). While Standard Arabic has ten fairly common triradical verbal derivations, NENA dialects typically have only three or four inherited verbal derivations.

Morphological loans may be found in the verbal system. Christian NENA dialects of the Nineveh Plain and elsewhere have partially borrowed Arabic verbal derivations along with borrowed verb lexemes. NENA and Arabic have some cognate verbal derivations and the relationships are relatively transparent. Most Arabic loanverbs are allocated to a NENA derivation that is formally or functionally similar to the donor derivation (and often cognate). See §3.1.4 for discussion of this. In the case of Arabic verbal derivations VIII and X, however, this is not possible, as no NENA derivations have the characteristic affixes *-t-* and *(i)st-*. In some cases, the affix may instead be analysed as a radical (§3.1.4). In others, loanverbs in these derivations are borrowed with this derivational morphology, i.e. with the affixes. This has, in effect, created new derivations, the Ct- and St-derivations.

Table 1 gives all hitherto attested examples of verbs in the new derivations from Christian Telkepe, but additional verbs are attested in Christian Qaraqosh (Khan 2002: 130).

Table 1: Arabic loanverbs borrowed into the new NENA derivations

NENA verb	Source verb
√ <i>h</i> rm Ct- ‘to respect’	Ar. √ <i>h</i> rm VIII (<i>iḥtarama</i>)
√ <i>x</i> lf Ct- ‘to differ’	Ar. √ <i>h</i> lf VIII (<i>iḥtalafa</i>)
√ <i>h</i> fl Ct- ‘to celebrate’	Ar. √ <i>h</i> fl VIII (<i>iḥtafala</i>)
√ <i>ʃ</i> ml St- ‘to use’	Ar. √ <i>ʃ</i> ml X (<i>istaʃmala</i>)
√ <i>g</i> ll St- ‘to exploit’	Ar. √ <i>y</i> ll X (<i>istayalla</i>)

When Arabic verbs in derivations VIII and X are borrowed as they are, their characteristic consonantal clusters *-Ct-* and *-st-* are preserved and not broken up by an epenthetic vowel, even if this results in a syllabic structure that is dispreferred in the NENA dialect (such as a stressed short vowel in an open syllable), e.g. *k-maḥtarəm* [IND-respect.PRES.3SG.M] ‘he respects’. This may be in order to preserve a salient characteristic of the original Arabic forms.

The vowel pattern in these derivations is, on the other hand, variable, even within the speech of one speaker. For instance, in the Present Base of the St-derivation, we find *məstaCaCC-*, *məstaCCəC-* and *məstaCəCC-* (e.g. *məstaʕaml-*, *məstaʕməl-*, *məstaʕəml-* ‘use’) as variants of one and the same form. What are the reasons for this variability? Firstly, Arabic derivations VIII and X are morphophonemically more complex than the native Aramaic derivations. The consonant clusters bring the necessity of epenthetic vowels: this leads to at least one short vowel in an open syllable, which is disfavoured in Telkepe. Where the epenthetic vowel is placed is still optional and in flux. Secondly, there is a conflict between the characteristic vowels of the Iraqi Arabic source and the vowels typical of Aramaic derivations. Sometimes the former may be more influential and sometimes the latter.

The new Ct- and St- derivations in NENA have not been extended to inherited roots nor used productively, unlike some Arabic derivations in Western Neo-Aramaic. See Coghill (2015) for full details of the new derivations found in NENA, Western Neo-Aramaic and other Neo-Aramaic varieties.

3.4 Syntax and pattern borrowings

A syntactic borrowing attested only in the Christian Nineveh Plain dialects is the grammaticalization of a prospective auxiliary (and, as a further step, uninflected particle) on the model of the vernacular Arabic prospective future particle *rah-*, which is attested in nearby Mosul Arabic (author’s fieldwork), as well as more widely across the Syrian and Mesopotamian Arabic dialects (Jastrow 1978: 304). Example (1) shows the Neo-Aramaic construction (with the particle) and example (2) shows the Arabic construction.²⁰

- (1) Christian Telkepe NENA (author’s fieldwork)
 zi-napl-ə
 PRSP-fall.PRES-3SG.F
 ‘She’s going to fall.’
- (2) Christian Mosul Arabic (author’s fieldwork)
 ʔāḥ-təqaʕ š-šəḡaya!
 PRSP-fall.IMPF.3SG.F DEF-tree
 ‘The tree’s going to fall!’

²⁰All glosses in the present chapter are the author’s own.

In both cases the gram has developed from a verb ‘to go’ in a form with imperfective or imperfective-like functions.²¹ Such a development is of course extremely common in the world’s languages and does not need a contact explanation. Nevertheless, there is evidence that contact played a role. The construction is only found in NENA dialects close to the Arabic-speaking zone of Iraq, i.e. near to Mosul. Furthermore, the most mature versions of the gram (formally and functionally) are found in the villages closest to Mosul. The gram seems to have developed only in the last 100 years or so, as it is not attested in texts or mentioned in grammars of those dialects before then. See Coghill (2010; 2012) for more details.

NENA shares a number of idiomatic expressions with neighbouring languages. Among these are formulae used regularly in specific contexts, such as telling a story or expressing thanks, congratulations or condolences. One that is widespread in NENA dialects, as well as several neighbouring languages, is the opening formula to a fictional story, which begins ‘there was (and) there wasn’t’: see also Chyet (1995: 236–237). It is attested in various dialects of NENA, ʤuroyo, Kurdish, Azeri, Persian and Arabic, e.g.:

- (3) a. Christian Alqosh NENA (Coghill 2009: 268)
ʔəθwa=w laθwa
- b. Christian Bohtan NENA (Fox 2009)
ətwa lətwa
- c. Akre Kurdish (MacKenzie 1962: 288)
hebo nebo [hæ’bo: næ’bo:]
- d. Iranian Azeri (Garbell 1965: 175)
(bir) vārmiš (bir) jóxmuš
- e. Christian Bəhžāni Arabic (Jastrow 1981: 404)
*kān w ma kān*²²

²¹In the case of the Nineveh Plain dialects, it originates in a verb that originally had perfect aspect, e.g. *zil-ən* ‘I have gone’, possibly with the implication of ‘I am on my way’. It had also acquired a meaning of imminent future ‘I am about to go’, in effect ‘I am in the process of just leaving’, hence “imperfective-like functions”.

²²This is a variant (along with *kān ma kān*, attested in Palestinian Arabic) of the well-known formula *kān yā ma kān* ‘once upon a time’. While *kān w ma kān* clearly means ‘there was and there was not’, *kān yā ma kān* has been interpreted in different ways both by scholars and native speakers. Taking *yā ma* in its meaning of ‘how much’, it can be understood as ‘there was, how much there was!’ Alternatively, the *ma* is understood as a negator, as is found in the formula in the other languages. See Lentin (1995) for a discussion of *kān yā ma kān* and similar expressions.

When such formulae are shared by multiple regional languages, it is difficult to say for certain which language NENA borrowed them from. Kurdish is usually the assumed donor, simply because it is the language most in contact with NENA and which has had the greatest influence at all levels. Given, however, that many speakers knew other regional languages as well, they may have heard such expressions in several languages.

Proverbs are another area in which there are shared expressions across the regional languages (Segal 1955; Garbell 1965: 175; Chyet 1995: 234–236). An example is ‘He who knows, knows. He who doesn’t know, says “a handful of lentils”’. This stems from a folktale and means something like ‘looks can be deceiving’ (Chyet 1995: 235–236). It is attested in Kurdish, Iraqi Arabic, and NENA, as illustrated in (4–5).

- (4) Iraqi Arabic (Chyet 1995: 235)

il-yidrī yidrī w-il ma yidrī
REL-know.IMPF.3SG.M know.IMPF.3SG.M and-REL NEG know.IMPF.3SG.M
gaḡbit ḡadas
handful.cs lentils

‘He who knows knows, he who doesn’t know (says) “a handful of lentils”’

- (5) Jewish Zakho NENA (Segal 1955: 262, adapted transcription)

aw d-k-iʔe k-iʔe aw d-lá
3SG.M REL-IND-know.PRES.3SG.M IND-know.PRES.3SG.M 3SG.M REL-not
k-iʔe g-mēnūx bi-ṭloxe
IND-know.PRES.3SG.M IND-look.PRES.3SG.M at-lentils

‘He who knows knows, he who doesn’t know looks at a handful of lentils.’

Sabar (1978), who lists proverbs used by the Jews of Zakho, states also that many proverbs were not translated into NENA, but used in the original language, whether Kurdish or Arabic.

There are also some areas of structural convergence in the region’s languages, where the donor language cannot be definitely identified. For instance, all the languages (NENA, Sorani, Northern Kurdish, Persian, Turkish, Azeri, Iraqi Turkmen and *qaltu* Arabic) have enclitic copulas, as illustrated in (6–8).

- (6) Akre Kurdish (MacKenzie 1961: 175)

ew kī-e [æw 'ki:æ]
DEM who=PRS.COP.3SG

‘Who is that?’

- (7) Christian Telkepe NENA (author's fieldwork)
man=ilə
who=PRS.COP.3SG.M
'Who is he?'
- (8) Jewish Arbel Arabic (Jastrow 1990: 37, 46)
mani=we
who=3SG.M
'Who is he?'

Another shared structure is the use of finite subordinate clauses in subjunctive mood, rather than infinitives, as complements. In earlier Aramaic varieties, such as Classical Syriac, both were used (Nöldeke 1904: 224–226), but in NENA only finite verbs are used, as in example (9).

- (9) Christian Telkepe NENA
k-əbə d-āxəl
IND-want.PRES.3SG.M COMP-eat.PRES.3SG.M
'He wants to eat.'

Finite verbs in an irrealis mood are also used in such subordinate clauses in *qəltu* (and other vernacular) Arabic (e.g. Jastrow 1990: 65), Northern Kurdish (MacKenzie 1961: 208–209), Sorani (MacKenzie 1961: 134–135), Iraqi Turkmen (Bulut 2007: 175–176), and Iranian Azeri (Fariba Zamani, personal communication). The development in Turkic is attributed to Iranian influence (Bulut 2007: 175–176). This parallels the loss of the infinitive and its replacement by finite verb forms in the Balkan Sprachbund (see, e.g., Joseph 2009).

The existence of markers in the noun phrase to specify for indefiniteness (and in many cases specificity, e.g. 'a certain man') is widespread in the area, being found in NENA (*xa-* 'one, a (certain)'), Northern Kurdish (*-ek* [ɛk] < *yek* 'one'), Sorani (*-ək* [e:k] < *yek*), *qəltu* Arabic (*faḡəd* < *fard* 'individual'), Baghdadi Arabic (*fadd* < *fard*) and Turkish/Azeri (*bir* 'one').

4 Conclusion

Though not the dominant contact language, Arabic has influenced NENA dialects considerably, especially those in close contact with Arabic-speaking population centres, namely the Christian Nineveh Plain dialects, the Jewish Lišana Deni dialects and the Christian dialects in Şırnak province in Turkey.

The influence from Arabic is manifested mostly in lexicon, phonology and morphology, and less in syntax.

Arabic influence has occurred in different phases. Earlier Arabic influence was mostly indirect, via Kurdish loans, but direct borrowing seems to have occurred too.

In the twentieth and twenty-first centuries, Arabic influence has increased dramatically in the dialects spoken in Iraq, due to mass education exclusively in Arabic, as well as national media, military service, improved transport, and migration to the Iraqi cities. Most NENA speakers are bilingual and speak Arabic with native competence, and this has affected how they use Arabic words within their own language. Typically, recent loans are unadapted and close to code-switching.

As much of the fieldwork on which this description depends was undertaken in the late twentieth century or first few years of the twenty-first century, in future research it would be interesting to look at the speech of young people today and see whether much has changed. It would also be worth comparing the speech of communities in their ancestral villages with diaspora communities living in (or who have recently left) Baghdad or Basra.

Further reading

Most work on NENA and language contact has focused on contact with Kurdish. To my knowledge, only three works are dedicated to contact with Arabic, none of which is an overview: Sabar's (1984) study of Arabic influence in the early texts in Jewish Lišana Deni; Coghill's (2010; 2012) research into a prospective construction found in the Christian Nineveh Plain dialects, which has apparently grammaticalized under influence from Arabic; and Coghill's (2015) study of new verbal derivations borrowed from Arabic into various Neo-Aramaic languages, including NENA.

Khan's (2002) grammar of Christian Qaraqosh contains a great deal of information, scattered through the volume, about contact influences from Arabic, Qaraqosh being one of the dialects most affected by such influence.

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Abbreviations

1, 2, 3	1st, 2nd, 3rd person	N. Kurd.	Northern Kurdish
Ar.	Arabic	NENA	North-Eastern Neo-Aramaic
COMP	complementizer	NEG	negator
COP	copula	PAST	NENA Past Base
CS	construct state	PL/pl.	plural
CSyr	Classical Syriac	PRES	NENA Present Base
DEM	demonstrative	PRS	present
F/f.	feminine	PRSP	prospective
IMPF	Imperfect (prefix conjugation)	REL	relativizer
IND	indicative	SG	singular
M/m.	masculine		

Symbols

I, II, III etc.	Arabic verbal derivations
I, II, III, Q	NENA verbal derivations
=	links two words or morphemes in a phrase with a single stress on the second component (including but not limited to proclitics)
=	links two words or morphemes in a phrase with a single stress on the first component (including but not limited to enclitics)

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Chapter 18

Berber

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Arabic has influenced Berber at all levels – not just lexically, but phonologically, morphologically, and syntactically – to an extent varying from region to region. Arabic influence is especially prominent in smaller northern and eastern varieties, but is substantial even in the largest varieties; only in Tuareg has Arabic influence remained relatively limited. This situation is the result of a long history of large-scale asymmetrical bilingualism often accompanied by language shift.

1 Current state and contexts of use

1.1 Introduction

Berber, or Tamazight, is the indigenous language family of northwestern Africa, distributed discontinuously across an area ranging from western Egypt to the Atlantic, and from the Mediterranean to the Sahel. Its range has been expanding in the Sahel within recent times, as Tuareg speakers move southwards, but in the rest of this area, Berber has been present since before the classical period (Múrcia Sánchez 2010). Its current discontinuous distribution is largely the result of language shift to Arabic over the past millennium.

At present, the largest concentrations of Berber speakers are found in the highlands of Morocco (Tashelhiyt, Tamazight, Tarifiyt) and northeastern Algeria (Kabyle, Chaoui). Tuareg, in the central Sahara and Sahel, is more diffusely spread over a large but relatively sparsely populated zone. Across the rest of this vast area, Berber varieties constitute small islands – in several cases, single towns – in a sea of Arabic.

This simplistic map, however, necessarily leaves out the effects of mobility – not limited to the traditional practice of nomadism in the Sahara and trans-humance in parts of the Atlas mountains. The rapid urbanisation of North Africa



over the past century has brought large numbers of Berber speakers into traditionally Arabic-speaking towns, occasionally even changing the town's dominant language. The conquests of the early colonial period created small Berber-speaking refugee communities in the Levant and Chad, while more recent emigration has led to the emergence of urban Berber communities in western Europe and even Quebec.

1.2 Sociolinguistic situation of Berber

In North Africa proper, the key context for the maintenance of Berber is the village. Informal norms requiring the use of Berber with one's relatives and fellow villagers, or within the village council, encourage its maintenance not only there but in cities as well, depending on the strength of emigrants' (often multigenerational) ties to their hometowns. In some areas, such as Igli in Algeria (Mouili 2013), the introduction of mass education in Arabic has disrupted these norms, encouraging parents to speak to their children in Arabic to improve their educational chances; in others, such as Siwa in Egypt (Serreli 2017), it has had far less impact. Beyond the village, in wider rural contexts such as markets, communication is either in Berber or in Arabic, depending on the region; where it is in Arabic, it creates a strong incentive for bilingualism independent of the state's influence. For centuries, Berber-speaking villages in largely Arabic-speaking areas have sporadically been shifting to Arabic, as in the Blida region of Algeria (El Arifi 2014); the opposite is also more rarely attested, as near Tizi-Ouzou in Algeria (Gautier 1913: 258).

In urban contexts, on the other hand, norms enforcing Berber have no public presence – quite the contrary. There one addresses a stranger in Arabic, or sometimes French, but rarely in Berber, except perhaps in a few Berber-majority cities such as Tizi-Ouzou (Tigziri 2008). Even within the family, Arabic takes on increasing importance; in a study of Kabyle Berbers living in Oran (Algeria), Ait Habbouche (2013: 79) found that 54% said they mostly spoke Arabic to their siblings, and 10% even with their grandparents. In the Sahel, Arabic is out of the picture, but there too family language choice is affected; 13% of the Berber speakers interviewed by Jolivet (2008: 146) in Niamey (Niger) reported speaking no Tamasheq at all with their families, using Hausa or, less frequently, Zarma instead.

Bilingualism is widespread but strongly asymmetrical. Almost all Berber speakers learn dialectal Arabic (as well as Standard Arabic, taught at school), whereas Arabic speakers almost never learn Berber. There are exceptions: in some contexts, Arabic-speaking women who marry Berber-speaking men need to learn

Berber to speak with their in-laws (the author has witnessed several Kabyle examples), while Arabic speakers who settle in a strongly Berber-speaking town – and their children – sometimes end up learning Berber, as in Siwa (Egypt). Nevertheless, most Arabic speakers place little value on the language, and some openly denigrate it; in Bechar (Algeria), anyone expressing interest in Berber can expect frequently to hear the contemptuous saying *aš-šalḥa ma-hu klam wə-d-dhən ma hu l-idam* ‘Shilha (Berber) is no more speech than vegetable oil is animal fat’. To further complicate the situation, French remains an essential career skill (except in Libya and Egypt), since it is still the working language of many ministries and companies; in some middle-class families, it is the main home language spoken with children.

On paper, Berber (Tamazight) is now an official language of Morocco (since 2011) and Algeria (since 2016), while Tuareg (Tamasheq/Tamajeq) is a recognised national language of Mali and Niger. In practice, “official language” remains a misleading term. Official documents are rarely, if ever, provided in Berber, and there is no generalised right to communicate with the government in Berber. However, Berber is taught as a school subject in selected Algerian, Moroccan, and (since 2012 or so) Libyan schools, while some Malian and Nigerien ones even use it as a medium of education. It is also used in broadcast media, including some TV and radio channels. Both Morocco and Algeria have established language planning bodies to promote neologisms and encourage publishing, with a view towards standardisation. The latter poses difficult problems, given that each country includes major varieties which are not inherently mutually intelligible.

Berber varieties have been written since before the second century BC (Pichler 2007) – although the language of the earliest inscriptions is substantially different from modern Berber and decipherable only to a limited extent – and southern Morocco has left a substantial corpus of pre-colonial manuscripts (van den Boogert 1997); many other examples could be cited from long before people such as Mammeri (1976) attempted to make Berber a printed language. Nevertheless, writing seems to have had very little impact on the development of Berber as yet. Awareness of the existence of a Berber writing system – Tifinagh – is widespread, and often a matter of pride. However, most Berber speakers have never studied Berber, and do not habitually read or write in it in any script – with the increasingly important exception of social media and text messages, typically in Latin or Arabic script depending on the region. Efforts to create a standard literary Berber language have not so far been successful enough to exert a unifying influence on its dispersed varieties. In the North African context, this is often understood as implying that Berber is not a language at all – “language” (Arabic *luya*) being popularly understood in the region as “standardised written language”.

1.3 Demographic situation of Berber

No reliable recent estimate of the number of Berber speakers exists; relevant data is both scarce and hotly contested. The estimates brought together by Kossmann (2011: 1; 2013: 29–36) suggest a range of 30–40% for Morocco, 20–30% for Algeria, 8% for Niger, 7% for Mali, about 5% for Libya, and less than 1% for Tunisia, Egypt, and Mauritania. Selecting the midpoint of each range, and substituting in the mid-2017 populations of each of these countries (CIA 2017) would yield a total speaker population of about 25 million, 22 million of them divided almost evenly between Morocco and Algeria.

2 Contact languages and historical development

2.1 Across North Africa

Berber contact with Arabic began in the seventh century with the Islamic conquests. For several centuries, language shift seems to have been largely confined to major cities and their immediate surroundings, probably affecting Latin speakers more than Berber speakers. The invasion of the Banū Hilāl and Banū Sulaym in the mid-eleventh century is generally identified as the key turning point: it made Arabic a language of pastoralism, rapidly reshaping the linguistic landscape of Libya and southern Tunisia, then over the following centuries slowly transforming the High Plateau and the northern Sahara in general. This rural expansion further reinforced the role of Arabic as a lingua franca, while the recruitment of Arabic-speaking soldiers from pastoralist tribes encouraged its spread further west to the Moroccan Gharb.

The resulting linguistic divide between rural groups and towns remained a key theme of Maghrebi sociolinguistics until the twentieth century. In several cases, a town spoke a different language than its hinterland; in much of the Sahara, Berber-speaking oasis towns such as Ouargla or Igli formed linguistic islands in regions otherwise populated by Arabic speakers, and in the north, towns such as Bejaia or Cherchell constituted small Arabic-speaking communities surrounded by a sea of Berber-speaking villages. Even in larger cities such as Algiers or Marrakech, the dominance of Arabic was counterbalanced by substantial regular immigration from Berber-speaking regions further afield.

Today all Berber communities are more or less multilingual, usually in Arabic and often also in French; outside of the most remote areas, monolingual speakers are quite difficult to find. Even in the nineteenth century, however, monolingual Berber speakers were considerably more numerous (Kossmann 2013: 41).

Alongside the coexistence of colloquial Maghrebi Arabic with Berber, Classical Arabic also had a role to play as the primary language of learning and in particular religious studies. Major Berber-speaking areas such as Kabylie (northern Algeria) and the Souss (southern Morocco) developed extensive systems of religious education, whose curricula consisted primarily of Arabic books (van den Boogert 1997; Mechehed 2007). The restriction of Classical Arabic to a limited range of contexts, and the relatively small proportion of the population pursuing higher education, gave it a comparatively small role in the contact situation; even in the lexicon, its influence is massively outweighed by that of colloquial Arabic, and it appears to have had no structural influence at all.

2.2 In Siwa

Examples of contact-induced change in this chapter are often drawn from Siwi, the Berber language of the oasis of Siwa in western Egypt. Sporadic long-distance contact with Arabic there presumably began in the seventh or eighth century with the Islamic conquests, and increased gradually as Cyrenaica and Lower Egypt became Arabic-speaking and as the trade routes linking Egypt to West Africa were re-established. During the eleventh century, the Banū Sulaym, speaking a Bedouin Arabic dialect, established themselves throughout Cyrenaica.

In the twelfth century, al-Idrīsī reports Arab settlement within Siwa itself, alongside the Berber population. Later geographers make no mention of an Arab community there, suggesting that these early immigrants were integrated into the Berber majority. Several core Arabic loans in Siwi, such as the negative copula *qačči* < *qaṭṭ šayʔ* and the noon prayer *luli* < *al-ʔülē*, are totally absent from surrounding Arabic varieties today; such archaisms are likely to represent founder effects dating back to this period (Souag 2009).

The available data gives nothing close to an adequate picture of the linguistic environment of medieval Siwa. We may assume that, throughout these centuries, most Siwis – or at least the dominant families – would have spoken Berber as their first language, and more mobile ones – especially traders – would have learned Arabic (but whose Arabic?) as a second language. Alongside these, however, we must envision a fluctuating population of Arabic-speaking immigrants and West African slaves learning Berber as a second language. In such a situation, both Berber-dominant and Arabic-dominant speakers should be expected to play a part in bringing Arabic influences into Siwi.

The oasis was integrated into the Egyptian state by Muhammad Ali in 1820, but large-scale state intervention in the linguistic environment of the oasis only took effect in the twentieth century; the first government school was built in

1928, and television was introduced in the 1980s. An equally important development during this period was the rise of labour migration, taking off in the 1960s as Siwi landowners recruited Upper Egyptian labourers, and Siwi young men found jobs in Libya's booming oil economy. It has then grown further since the 1980s with the rise of tourism and the growth of tertiary education. The effects of this integration into a national economy include a conspicuous generation gap in local second-language Arabic: older and less educated men speak a Bedouin-like dialect with *q > g, while younger and more educated ones speak a close approximation of Cairene Arabic.

3 Contact-induced changes in Berber

3.1 Introduction

As noted above, bilingualism in North Africa has been asymmetrical for many centuries, with Berbers much more likely to learn Arabic than vice versa. This suggests the plausible general assumption that the agents of contact-induced change were typically dominant in the (Berber) recipient language rather than in Arabic. However, closer examination of individual cases often reveals a less clear-cut situation; as seen above in §2.1, the history of Siwi suggests that Berber- and Arabic-dominant speakers both had a role to play, and *post facto* analysis of the language's structure seems to confirm this assumption. The loss of feminine plural agreement, for example (§3.3 below), can more easily be attributed to Arabic-dominant speakers adopting Berber than to Berber-dominant speakers. In the absence of clear documentary evidence, caution is therefore called for in the application of Van Coetsem's (1988; 2000) model to Berber.

3.2 Phonology

The influence of Arabic on Berber phonology is conspicuous; in general, every phoneme used in a given region's dialectal Arabic is found in nearby Berber varieties. Almost all Northern Berber varieties have adopted from Arabic at least the pharyngeals /ʕ/ and /ħ/, a series of voiceless emphatics: /s̥/, /h̥/, non-geminate /q/, and either /d̥/ or /t̥/. These phonemes presumably reached Berber through loanwords from Arabic, but have been extended to inherited vocabulary as well, through reinterpretation of emphatic spread or through their use in "expressive formations" (Kossmann 2013: 199), e.g. Kabyle *θi-ħəðmər-θ* 'breast of a small animal' < *iðmar-ən* 'breast'.

In Siwi (Souag 2013: 36–39; Souag & van Putten 2016), at least nine phonemes were clearly introduced from Arabic. The pharyngealised coronals /ʂ/, /ʃ/, /r/ and /d/ have no regular source in Berber, and occur in inherited vocabulary almost exclusively as a result of secondary emphasis spread (with the isolated exception of *das* ‘to laugh’). The order of borrowing appears to be *l*, *r* > *ʂ* > *d*; in a few older loans, Arabic *ʂ* is borrowed as *z* (e.g. *zaffar* ‘to whistle’ < *ʂaffar*), and in all but the most recent strata of loans, Arabic *d/ð* is borrowed as *t* (e.g. *a-ʃriṭ* ‘broad’ < *ʃarīd*). The pharyngeals /ħ/ and /ʕ/ (e.g. *ħabba* ‘a little’ < *ħabba* ‘a grain’, *ʃammi* ‘paternal uncle’ < *ʃamm-ī* ‘uncle-OBL.1SG’) likewise have no regular source in Berber, although 1SG -*y*- has become -*ʃ*- for some speakers (an irregular sound change specific to this morpheme). *ʃ* is lost in a number of older loans (e.g. *annaʃ* ‘bier’ < *an-naʃs*), but *ħ* is always retained as such rather than being dropped or adapted (unlike Tuareg, where it is typically adapted to *h*). This suggests that Siwi continued to adapt Arabic loans to its phonology by dropping *ʃ* up to some stage well after the beginning of significant borrowing from Arabic, but started accepting Arabic loans with *ħ* too early for any adapted to survive, implying an order of borrowing *ħ* > *ʃ*. Among the glottals, /h/ (e.g. *ddhan* ‘oil’ < *dihān* ‘oils’) appears in inherited vocabulary only in the distal demonstratives, where comparison to Berber languages that do have *h* suggests that it is excrecent, while /ʕ/ only rarely appears even in recent loanwords (e.g. *ʔaǧǧar* ‘to rent’ < *ʔaǧǧar*). The mid vowel /o/ has been integrated into Siwi phonology as a result of borrowing from Arabic; having been established as a phoneme, however, it went on to emerge by irregular change from original **u* in two inherited words (*allon* ‘window’, *agroz* ‘palm heart’), and from irregular simplification of **ayu* in some demonstratives (e.g. *wok* ‘this.SG.M’ < **wa yur-ək* ‘this.SG.M at-2SG.M’). The interdental /θ/ and /ð/ have a more marginal status, but are used by some speakers even in morphologically well-integrated loans, e.g. *a-θqil* or *a-tqil* ‘heavy’ < *θaqil*. Arabic influence may also be responsible for the treatment of [ʒ] and [dʒ] as free variants of the same phoneme /ǧ/ (Vycichl 2005), so that e.g. /taǧlaʃt/ ‘spider’ is variously realised as [tʰæʒlʰasʰt] ~ [tʰædʒlʰasʰt] (Naumann 2012: 152); other Berber languages with phonemic *ǧ* normally have [dʒ] as a conditioned allophone (e.g. when geminated) or as a cluster.

Arabic influence has also massively affected the frequency of some phonemes. /q/ and /ħ/ were marginal in Siwi before Arabic influence, while **e* had nearly disappeared due to regular sound changes, but all three are now quite frequent. Conversely, the influx of Arabic loans has helped make labiovelarised phonemes such as *g^w* and *q^w* rare.

3.3 Morphology

Berber offers numerous examples of the borrowing of Arabic words together with their original Arabic inflectional morphology, a case of what Kossmann (2010) calls Parallel System Borrowing. This phenomenon is most prominent for nominal number marking, but sometimes attested in other contexts too.

In Berber, most nouns are consistently preceded by a prefix marking gender (masculine/feminine), number (singular/plural), and often case/state. Nouns borrowed from Arabic normally either get assigned a Berber prefix, or fill the prefix slot with an invariant reflex of the Arabic definite article: compare Figuig *a-gʃud* vs. Siwi *lə-gʃud* ‘young camel’ (< *qaʃūd*). The Berber plural marking system prior to Arabic influence was already rather complex, combining several different types of affixal marking with internal ablaut strategies; many Arabic loans are integrated into this system, e.g. Kabyle *a-bellar* ‘crystal’ > pl. *i-bellar-en* (< *billawr*), Siwi *a-kəddab* ‘liar’ > pl. *i-kəddab-ən* (< *kaððāb*). However, in most Berber varieties, Arabic loans have further complicated the system by frequently retaining their original plurals, e.g. Kabyle *l-kayəd* ‘paper’ > *le-kwayəd* (< *kāyid*), Siwi *al-gənfud* ‘hedgehog’ > pl. *lə-gnafid* (< *qunfuð*). (The difference correlates fairly well with the choice in the singular between a Berber prefix and an Arabic article, but not perfectly; contrast e.g. Siwi *a-fruḥ* ‘chick, bastard’ < *farḥ*, which takes the Arabic-style plural *lə-fraḥ*.) Berber has no inherited system of dual marking, instead using analytic strategies. Nevertheless, for a limited number of measure words, duals too are borrowed, e.g. Kabyle *yum-ayen* ‘two days’ < *yawm-ayn* (although ‘day’ remains *ass!*), Siwi *s-sən-t* ‘year’ > *sən-t-en* ‘two years’ < *san-at-ayn*. Arabic number morphology may sporadically spread to inherited terms as well, e.g. Kabyle *berdayen* ‘twice’ < *a-brid* ‘road, time’, Siwi *lə-g^wrazən* ‘dogs’ < *a-g^wərzni* ‘dog’ (Souag 2013).

Whereas nouns are often borrowed together with their original inflectional morphology, verbs almost never are. The only attested exception is Ghomara, a heavily mixed variety of northern Morocco. In Ghomara, many (but not all) verbs borrowed from Arabic are systematically conjugated in Arabic in otherwise monolingual utterances, a phenomenon which seems to have remained stable over at least a century: thus ‘I woke up’ is consistently *faq-ah*, but ‘I fished’ is equally consistently *ʃsað-iθ* (Mourigh 2016: 6, 137, 165). However, the borrowing of Arabic participles to express progressive aspect is also attested in Zuwara, if only for the two verbs of motion *mašəy* ‘going’ (pl. *mašy-in*) and *žay* ‘coming’ (pl. *žayy-in*), contrasting with inherited *fəl* ‘go’, *asəd* ‘come’ (Kossmann 2013: 284–285).

Prepositions are less frequently borrowed; in some cases where this does occur, however – including Igli *mənyir-* ‘except’, Ghomara *bin* ‘between’ (Kossmann 2013: 293) – they too occasionally retain Arabic pronominal markers, e.g. Siwi *msabb-ha* ‘for her’ < *min sababi-hā* ‘from reason.OBL-OBL.3SG.F’ (Souag 2013: 48). In Awjila, more unusually, two inherited prepositions somewhat variably take Arabic pronominal markers, e.g. *dit-ha* ‘in front of her’ (van Putten 2014: 113).

A rarer but more spectacular example of morpheme borrowing is the borrowing of productive templates from Arabic. Such cases include the elative template əCCəC in Siwi, used to form the comparative degree of trilateral adjectives irrespective of etymology – thus *əmləl* ‘whiter’ < *a-məllal* alongside *ətwəl* ‘taller’ < *a-ṭwil* < Arabic *ṭawīl* (Souag 2009) – and the diminutive template CCiCəC in Ghomara (Mourigh 2016), e.g. *aḏwiyyər* ‘little root’ < *aḏar* alongside *ləmwiiyyəs* ‘little knife’ < *l-mus* < Arabic *al-mūsā* ‘razor’ (gemination of *y* is automatic in the environment i_V). As the latter example illustrates, borrowed derivational morphology sometimes becomes productive.

The effects of Arabic on Berber morphology are by no means limited to the borrowing of morphemes. There is reason to suspect Arabic influence of having played a role in processes of simplification attested mainly in peripheral varieties, such as the loss of case marking in many areas. In Siwi, where Arabic influence appears on independent grounds to be unusually high, the verbal system shows a number of apparent simplifications targeting categories absent in sedentary Arabic varieties: the loss of distinct negative stems, the near-complete merger of perfective with aorist, the fixed postverbal position of object clitics, and so on. It is tempting to explain such losses as arising from imperfect acquisition of Siwi by Arabic speakers.

Structural calquing in morphology is also sporadically attested. Siwi has lost distinct feminine plural agreement on verbs, pronouns, and demonstratives, extending the inherited masculine plural forms to cover plural agreement irrespective of gender. Within Berber, this is unprecedented; plural gender agreement is extremely well conserved across the family. However, it perfectly replicates the usual sedentary Arabic system found in Egypt and far beyond.

3.4 Syntax

Syntactic influence is often difficult to identify positively. Nevertheless, Berber offers a number of examples, and relative clause formation is one of the clearest (Souag 2013: 151–156; Kossmann 2013: 369–407). Relative clauses in Berber are normally handled with a gap strategy combined with fronting of any stranded prepositions, as in (1).

- (1) Awjila (Paradisi 1961: 79)
 ərrafəqa-nnəs wi iżin-an-a nettin id-sin ksum
 friend.PL-GEN.3SG REL.PL.M divide-3PL.M-PRF 3SG.M with-OBL.3PL.M meat
 ‘his friends with whom he divided the meat’

In subject relativisation, a special form of the verb not agreeing in person (the so-called “participle”) is used, as in (2); such a form is securely reconstructible for proto-Berber (Kossmann 2003).

- (2) Awjila (Paradisi 1960: 162)
 amədən wa tarəv-ən nettin ŷayyan
 man REL.SG.M write.IPFV-PTCP 3SG.M ill
 ‘The man who is writing is ill.’

In several smaller easterly varieties apart from Awjila, however, both of these traits have been lost. The strategy found in varieties such as Siwi – resumptive weak (affixal) pronouns throughout, and regular finite agreement for subject relativisation – perfectly parallels Arabic:

- (3) Siwi (Souag 2013: 151–152)
 tālti tən dəzz-γ-as ġğəwab
 woman REL.SG.F send-1SG-DAT.3SG letter
 ‘the woman to whom I sent the letter’
- (4) Siwi (field data)
 āgg^wid wənn i-ŷəmmar iməgran
 man REL.SG.M 3SG.M-make.IPFV sickle.PL
 ‘the man who makes sickles’

In the case of verbal negation, an originally syntactic calque has often been morphologised in parallel in Arabic and Berber. A number of varieties – especially the widespread Zenati subgroup of Berber, ranging from eastern Morocco to northern Libya – have developed a postverbal negative clitic *-š(a)* from **kāra* ‘thing’, apparently a calque on Arabic *-š(i)* from *šay?*; however, some instead use the direct borrowings *ši* or *šay* (Lucas 2007; Kossmann 2013: 332–334).

3.5 Lexicon

Lexical borrowing from Arabic is pervasive in Berber. Out of 41 languages around the world compared in the Loanword Typology Project (Tadmor 2009), Tarifiyt

Berber was second only to (Selice) Romani in the percentage of loanwords – more than half (51.7%) of the concepts compared. More than 90% of loanwords examined in Tarifiyt were from Arabic, almost all from dialectal Maghrebi Arabic. There is little reason to suppose that Tarifiyt is exceptional in this respect among Northern Berber languages; to the contrary, Kossmann (2013: 110) finds its rate of basic vocabulary borrowing to be typical of Northern Berber, whereas Siwi and Ghomara go much higher. The rate of borrowing from Arabic, however, is considerably lower further south and west; on a 200-word list of basic vocabulary, Chaker (1984: 225–226) finds 38% Arabic loans in Kabyle (north-central Algeria) vs. 25% in Tashelhiyt (southern Morocco) and only 5% in Tahaggart Tuareg (southern Algeria).

This borrowing is pervasive across the languages concerned, rather than being restricted to particular domains. Every semantic field examined for Tarifiyt, including body parts, contained at least 20% loanwords, and verbs or adjectives were about as frequently borrowed as nouns were (Kossmann 2009). Numerals stand out for particularly massive borrowing; most Northern Berber varieties have borrowed all numerals from Arabic above a number ranging from ‘one’ to ‘three’ (Souag 2007).

The effects of this borrowing on the structure of the lexicon remain insufficiently investigated, but appear prominent in such domains as kinship terminology. Throughout Northern Berber, a basic distinction between paternal kin and maternal kin is expressed primarily with Arabic loanwords (*ṣammi* ‘paternal uncle’ vs. *ḥali* ‘maternal uncle’ etc.), whereas in Tuareg that distinction is not strongly lexicalised. Nevertheless, borrowing does not automatically entail lexical restructuring; Tashelhiyt, for example, kept its vigesimal system even after borrowing the Arabic word for ‘twenty’ (*ṣšrin*), cf. Ameer (2008: 77).

The borrowing of analysable multi-word phrases – above all, numerals followed by nouns – stands out as a rather common outcome of Berber contact with Arabic. Usually this is limited to the borrowing of numerals in combination with a limited set of measure words, such as ‘day’; thus in Siwi we find forms like *sbaṣ-t iyyam* ‘seven days’ rather than the expected regular formation **səbṣa n nnhar-at* (Souag 2013: 114). In Beni Snous (western Algeria), the phenomenon seems to have gone rather further: Destaing (1907: 212) reports that numerals above ‘ten’ systematically select for Arabic nouns. Souag & Kherbache (2016), however, explain this as a code-switching effect, rather than a true case of one language’s grammar requiring shifts into another.

4 Conclusion

The influence of Arabic on Berber has come to be better understood over the past couple of decades, but much remains to be done. Synchronically, Berber–Arabic code-switching remains virtually unresearched; rare exceptions include Hamza (2007) and Kossmann (2012). Sociolinguistic methods could help us better understand the gradual integration of new Arabic loanwords; the early efforts of Brahim (2000) have hardly been followed up on. Diachronically, it remains necessary to move beyond the mere identification of loanwords and contact effects towards a chronological ordering of different strata, an approach explored for some peripheral varieties by Souag (2009) and van Putten & Benkato (2017). While linguists are belatedly beginning to take advantage of earlier manuscript data to understand the history of Berber (van den Boogert 1997; 1998; Brugnatelli 2011; Meouak 2015), this data has not yet been used in any systematic way to help date the effects of contact at different periods. For many smaller varieties, especially in the Sahara, basic documentation and description are still necessary before the influence of Arabic can be explored. The unprecedented degree of Arabic influence revealed in Ghomara by recent work (Mourigh 2016), extending to the borrowing of full verb paradigms, suggests that such descriptive work may yet yield dividends in the study of contact.

Despite all these gaps, the work done so far is more than sufficient to establish a general picture of Arabic influence on Berber. Throughout Northern Berber, Arabic influence on the lexicon is substantial and pervasive, bringing with it significant effects on phonology and morphology. Structural effects of Arabic on morphology, and Arabic influence on Berber syntax, are less conspicuous but nevertheless important, especially in smaller varieties such as Siwi. Looking at these results through Van Coetsem's (1988; 2000) framework, this suggests that speakers dominant in the recipient languages have had an especially prominent role in Arabic–Berber contact in larger varieties, whereas the role of speakers dominant in the source language is more visible in smaller varieties. However, this *a priori* conclusion should be tested against directly attested historical data wherever possible.

Further reading

- The key reference for Arabic influence on Northern Berber is Kossmann (2012), frequently cited above; this covers all levels of influence including the lexicon, phonology, nominal and verbal morphology, borrowing of morphological categories, and syntax.

- ▶ The most extensive in-depth study of Arabic influence on a specific Berber variety is Souag (2013), effectively a contact-focused grammatical sketch of Siwi Berber.
- ▶ Mourigh (2016) is a thorough synchronic description of by far the most strongly Arabic-influenced Berber variety, Ghomara, giving a uniquely clear picture of just how far the process can go without resulting in language shift.

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Abbreviations

1, 2, 3	1st, 2nd, 3rd person	OBL	oblique
DAT	dative	PL/pl.	plural
F	feminine	PRF	perfect (suffix conjugation)
GEN	genitive	PTCP	participle
IPFV	imperfective	SG	singular
M	masculine		

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Chapter 19

Beja

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This chapter argues for two types of outcomes of the long-standing and intense contact situation between Beja and Arabic in Sudan: borrowings at the phonological, syntactic and lexical levels, and convergence at the morphological level.

1 Current state and historical development

1.1 Historical development of Beja

Beja is the sole language of the Northern Cushitic branch of the Afro-Asiatic phylum. Recent archaeological discoveries show growing evidence that Beja is related to the extinct languages of the Medjay (from which the ethnonym Beja is derived; Rilly 2014: 1175), and Blemmye tribes, first attested on Egyptian inscriptions of the Twelfth Dynasty for the former, and on a Napatan stela of the late seventh century BCE for the latter. For recent discussions, see Browne (2003); El-Sayed (2011); Zibelius-Chen (2014); Rilly (2014); and Rilly (2018). The Medjays were nomads living in the eastern Nubian Desert, between the first and second cataracts of the River Nile. The Blemmyes invaded and took part in defeating the Meroitic kingdom, fought against the Romans up to the Sinai, and ruled Nubia from Talmis (modern Kalabsha, between Luxor and Aswan) for a few decades, before being defeated themselves by the Noubades around 450 CE (Rilly 2018). In late antiquity, the linguistic situation involved, in northern Lower Nubia, Cushitic languages, Northern Eastern Sudanic languages, to which Meroitic and Nubian belong, also Coptic and Greek to some extent, and in the south, Ethio-Semitic. It is likely that there was mutual influence to an extent that is difficult to disentangle today.



1.2 Current situation of Beja

The Beja territory has shrunk a lot since late antiquity, and Beja (*biḏawije:t*) is mainly spoken today in the Red Sea and Kassala States in eastern Sudan, in the dry lands between the Red Sea and the Atbara River. The 1993 census, the last one to include a language question, recorded some 1,100,000 Beja speakers, and there is probably at least double that figure today. There are also some 60,000 speakers in northern Eritrea, and there may be still a few speakers left in Egypt, in the Nile valley at Aswan and Daraw, and along the coast towards Marsa Alam (Morin 1995; Wedekind 2012). In Sudan today, Beja speakers have also settled in Khartoum and cities in central and western Sudan (Hamid Ahmed 2005a: 67).

All Bejas today are Muslims. They consider themselves Bedouins, and call themselves *arab* 'Arab';¹ they call the ethnic Arabs *balawje:t*. Before the introduction of modern means of transportation, they were traditionally the holders of the caravan trade in the desert towards the west, south and north of their territory, and they still move between summer and winter pastures with their cattle. They also produce sorghum and millet for daily consumption, and fruits and vegetables in the oases. The arrival of Rashaida migrants from Saudi Arabia in the nineteenth century created tensions in an area with meagre resources, but the first contemporary important social changes took place during the British mandate with the agricultural development of the Gash and Tokar areas, and the settlement of non-Beja farmers. The droughts of the mid-1980s brought about a massive exodus towards the cities, notably Port Sudan and Kassala, followed by job diversification, and increased access to education in Arabic, although not generalized, especially for girls, who rarely go beyond primary level (Hamid Ahmed 2005a).

Beja is mostly an oral language. In Eritrea, a Latin script was introduced in schools after independence in 1993, but in Sudan no education in Beja exists. Attempts made by the Summer Institute of Linguistics and at the University of the Red Sea to implement an Arabic-based script did not come to fruition. On the other hand, in the last few years school teachers in rural areas have begun to talk more and more in Beja in order to fight illiteracy (in Arabic) and absenteeism (Onour 2015).

¹In Sudan the term *ṣarab* is widely used for referring to nomad groups in general, and not only to ethnically defined Arabs. Thanks to Stefano Manfredi for this information..

2 Arabic–Beja contact

Contact between Bejas and Arabs started as early as the beginning of Islamization, and through trade relations with Muslim Egypt, as well as Arab incursions in search of gold and emerald. Evidence of these contacts lies in the early Arabization of Beja anthroponyms (Záhořík 2007). The date of the beginning of Islamization differs according to authors, but it seems it started as early as the tenth century, and slowly expanded until it became the sole religion between the eighteenth and nineteenth centuries (Záhořík 2007).

We have no information concerning the onset and spread of Beja–Arabic bilingualism. It is thus often impossible to figure out if a transfer occurred through Beja-dominant speakers or was imposed by fluent Beja–Arabic bilingual speakers, and consequently to decide whether a contact-induced feature belongs to the borrowing or to the imposition type of transfer as advocated by Van Coetsem (1988; 2000) and his followers. What is certain though, is that socio-historical as well as linguistic evidence speaks in favour of Beja–Arabic bilingualism as an ancient phenomenon, but in unknown proportion among the population. With the spread of Islam since the Middle Ages, contact with Arabic became more and more prevalent in Sudan.

In this country, which will be the focus of this chapter, bilingualism with Sudanese Arabic is frequent, particularly for men, and expanding, including among women in cities and villages, but to a lesser extent. Bejas in Port Sudan are also in contact with varieties of Yemeni Arabic. Rural Bejas recently settled at the periphery of the big cities have the reputation of being more monolingual than others, which was still the case fifteen years ago (Vanhove 2003).

The Beja language is an integral part of the social and cultural identity of the people, but it is not a necessary component. Tribes and clans that have switched to Arabic, or Tigre, such as the Beni Amer, are considered Bejas. Beja is prestigious, since it allows its speakers to uphold the ethical values of the society, and is considered to be aesthetically pleasing due to its allusive character. The attitude towards Arabic is ambivalent. It is perceived as taboo-less, and thus contrary to the rules of honour, nevertheless it is possible to use it without transgressing them. Arabic is also prestigious because it is the language of social promotion and modernity (Hamid Ahmed 2005b). Language attitudes are rapidly changing, and there is some concern among the Beja diaspora about the future of the Beja language, even though it cannot be considered to be endangered. Some parents avoid speaking Beja to their children, for fear that it would interfere with their learning of Arabic at school, leaving to the grandparents the transmission of Beja

(Wedekind 2012; Vanhove 2017). But there is no reliable quantitative or qualitative sociolinguistic study of this phenomenon. Code-switching between Beja and Arabic is spreading but understudied.

This sketch of the sociolinguistic situation of Beja speaks for at least two types of transfer: (i) borrowing, where the agents of transfer are dominant in the recipient language (Beja); (ii) convergence phenomena, since the difference in linguistic dominance between the languages of the bilingual speakers tends to be really small (at least among male speakers today, and probably earlier in the history of Beja; see Van Coetsem 1988: 87). Imposition has probably also occurred of course, but it is not always easy to prove.

3 Contact-induced changes in Beja

3.1 Phonology

The few contact-induced changes in Beja phonology belong to the borrowing type.

The phonological system of Beja counts 21 consonantal phonemes, presented in Table 1.

Table 1: Beja consonants

	<i>Bilabial</i>	<i>Labio-dental</i>	<i>Alveolar</i>	<i>Retroflex</i>	<i>Palatal</i>	<i>Velar</i>	<i>Labio-velar</i>	<i>Laryngeal</i>
Plosive		f	t	ʈ		k	k ^w	ʔ
	b		d	ɖ		g	g ^w	
Affricate					ɟ			
Fricative			s		ʃ			h
Nasal	m		n					
Trill			r					
Lateral			l					
Approximant	w				j			

The voiced post-alveolar affricate ɟ (often realized as a voiced palatal plosive [ʃ] as in Sudanese Arabic) deserves attention as a possible outcome of contact

with Arabic. Since Reinisch (1893: 17), it is usually believed that this affricate is only present in Arabic loanwords and is not a phoneme (Roper 1928; Hudson 1976; Morin 1995). The existence of a number of minimal pairs in word-initial position invalidates the latter analysis: *ɟi:k* ‘rooster’ ~ *ʃi:k* ‘chewing tobacco’; *ɟhar* ‘chance’ ~ *dhar* ‘bless’; *ɟaw* ‘quarrel’ ~ *daw* ‘jungle’ ~ *ʃaw* ‘pregnancy’ ~ *gaw* ‘house’ (Vanhove 2017). As for the former claim, there are actually a few lexical items such as *bʔaɟi* ‘bed’, *gʷaɟi* ‘one-eyed’ (*gʷad* ‘two eyes’), that cannot be traced back to Arabic (the latter is pan-Cushitic; Blažek 2000). Nevertheless, it is the case that most items containing this phoneme do come from (or through) (Sudanese) Arabic: *a:laɟ* ‘tease’, *aɟi:n* ‘dough’, *aɟib* ‘please’, *ʔaɟala* ‘bicycle’, *ʔiɟir* ‘divine reward’, *ɟa:hil* ‘small child’, *ɟabana* ‘coffee’, *ɟalla:j* ‘because of’, *ɟallab* ‘fish’, *ɟanna* ‘paradise’, *ɟanta:ji* ‘djinn’, *ɟarika:n* ‘jerrycan’, *ɟe:b* ‘pocket’, *ɟhali*: ‘coal’, *ɟimʔa* ‘week’, *ɟins* ‘sort’, *ɟuwwa* ‘inside’, *ʃaɟil* ‘morning’, *ʃinɟa:n* ‘cup’, *hanɟar* ‘dagger’, *hiɟ* ‘pilgrimage’, *maɟaʔa* ‘famine’, *maɟlis* ‘reconciliation meeting’, *siɟin* ‘prison’, *tarɟima:l* ‘translator’, *waɟɟa* ‘appointment’, and *xawaɟa* ‘foreigner’. It is clear that *ɟ* is not marginal anymore. However *ɟ* is unstable: it has several dialectal variants, *ʃ*, *g* and *d*, and may alternate with the dental *d* or retroflex *ɟ*, in the original Beja lexicon (*ɟiwʔo:r/diwʔo:r* ‘honourable man’) as well as in loanwords (*aɟi:n/aɟi:n* ‘dough’) (Vanhove & Hamid Ahmed 2011; Vanhove 2017). In my data, which counts some 50 male and female speakers of all age groups, this is rarely the case, meaning that there is a good chance that this originally marginal phoneme will live on under the influence of (Sudanese) Arabic.

There are two other consonants in Arabic loanwords that are regularly used by the Beja speakers: *z* and *x*, neither of which can be considered phonemes since there are no minimal pairs.

Blažek (2007: 130) established a regular correspondence between Beja *d* and Proto-East-Cushitic **z*. In contemporary Beja *z* only occurs in recent loanwords from Sudanese Arabic such as *ɟaza* ‘wage’, *ɟo:z* ‘pair’, *rizig* ‘job’, *wazʔ* ‘offer’, *xazna* ‘treasure’, *zama:n* ‘time’, *zirʔa* ‘field’, *zu:r* ‘visit’. It may alternate with *d*, even within the speech of the same speaker as free variants, e.g. *dama:n*, *dirʔa*, *du:r*. The fricative alveolar pronunciation is more frequent among city dwellers, who are more often bilingual. It is difficult to ascertain whether Beja is in the process of re-acquiring the voiced fricative through contact with Sudanese Arabic, or whether it will undergo the same evolution to a dental stop as in the past.

A few recent Arabic loanwords may also retain the voiceless velar fricative *x* (see also Manfredi et al. 2015: 304–305): *xazna* ‘treasure’, *xawaɟa* ‘foreigner’, *xadda:m* ‘servant’, *xa:tar* ‘be dangerous’, *a:xar* ‘last’. In my data, this is usually the

case in the speech of fluent bilingual speakers. We thus have here a probable imposition type of transfer. In older borrowings, even among these speakers, Arabic *x* shifted to *h* (*xajma* > *he:ma* ‘tent’). It may be because these older loans spread in a community which was at that time composed mainly of Beja-dominant speakers, but we have no means of proving this hypothesis.

3.2 Morphology

3.2.1 General remarks

Most Cushitic languages only have concatenative morphology, the stem and pattern schema being at best highly marginal (Cohen 1988: 256). In addition to Beja, Afar and Saho (Lowland East-Cushitic branch), Beja’s geographically closest sisters, are exceptions, and all three languages use also non-concatenative morphology. In Afar and Saho it is far less pervasive than in Beja; in particular they do not use vocalic alternation for verbal derivation, this feature being restricted to the verb flexion of a minority of underived verbs.

Even though Beja and Arabic share a similar type of morphology, the following overview shows that each language has developed its own system. Although they have been in contact for centuries, neither small-scale nor massive borrowing from Arabic morphological patterns can be postulated for the Beja data. An interpretation in terms of a convergence phenomenon is more relevant, both in terms of semantics and forms.

Non-concatenative morphology concerns an important portion of the lexicon: a large part of the verb morphology (conjugations, verb derivations, verbal noun derivations), and part of the noun morphology (adjectives, nouns, “internal” plurals, and to a lesser extent, place and instrument nouns). In what follows, I build on Vanhove (2012) and Vanhove (2017), correcting some inaccuracies.

3.2.2 Verb morphology

Only one of the two Beja verb classes, the one conjugated with prefixes (or infixes), belongs to non-concatenative morphology. This verb class (V1) is formed of a stem which undergoes ablaut varying with tense–aspect–mood (TAM), person and number, to which prefixed personal indices for all TAMs are added (plural and gender morphemes are also suffixes). V1 is diachronically the oldest pattern, which survives only in a few other Cushitic languages. In Beja V1s are the majority (57%), as against approximately 30% in Afar and Saho, and only five verbs in Somali and South Agaw (Cohen 1988: 256). Table 2 provides examples in the perfective and imperfective for bi-consonantal and tri-consonantal roots.

Table 2: Perfective and imperfective patterns

	Bi-consonantal <i>dif</i> ‘go’	Tri-consonantal <i>kitim</i> ‘arrive’
PFV	<i>i-dif</i> ‘he went’ <i>i-dif-na</i> ‘they went’	<i>i-ktim</i> ‘he arrived’ <i>i-ktim-na</i> ‘they arrived’
IPFV	<i>i-n-di:f</i> ‘he goes’ <i>e:-dif-na</i> ‘they go’	<i>k<an>ti:m</i> ‘he arrives’ <i>e:-katim-na</i> ‘they arrive’

Prefix conjugations are used in Arabic varieties and South Semitic languages but their functions and origins are different. In South Semitic, the prefix conjugation has an aspectual value of imperfective, while in Cushitic it marks a particular morphological verb class. The Cushitic prefix conjugation (in the singular) goes back to auxiliary verbs meaning ‘say’ or ‘be’, while the prefix conjugation of South Semitic has various origins, none of them including a verb ‘say’ or ‘be’ (Cohen 1984). Although different grammaticalization chains took place in the two branches of Afro-Asiatic, this suggests that the root-and-pattern system might have already been robust in Beja at an ancient stage of the language. It is noteworthy that there are at least traces of vocalic alternation between the perfective and the imperfective in all Cushitic branches (Cohen 1984: 88–102), thus reinforcing the hypothesis of an ancient root-and-pattern schema in Beja. In what proportion this schema was entrenched in the morphology of the proto-Cushitic lexicon is impossible to decide.

Verb derivation of V1s is also largely non-concatenative. Beja is the only Cushitic language which uses qualitative ablaut in the stem for the formation of semantic and voice derivation. The ablaut can combine with prefixes.

Table 3 presents the five verb derivation patterns with ablaut, and Table 4 shows the absence of correspondence between the Beja and Arabic (Classical and Sudanese) patterns. Sudanese patterns are extracted from Bergman (2002: 32–34), who does not provide semantic values.

Among the Semitic languages, an intensive pattern similar to the Beja one is only known in some Modern South Arabian languages spoken in eastern Yemen (not in contact with Beja), where it is also used for causation and transitivization (Simeone-Senelle 2011: 1091). The Modern South Arabian languages are close relatives of Ethio-Semitic languages and it is usually considered that the latter were brought to the Horn of Africa by South-Arabian speakers (Ullendorf 1955). However, this ablaut pattern was not retained in Ethio-Semitic. It is also unknown in Cushitic. In Classical Arabic, the plurisyllabic pattern does not have an intensive value, but a goal or sometimes reciprocal meaning.

Table 3: V1 derivation patterns with ablaut

	Monosyllabic V1	Plurisyllabic V1
INT	<i>bo:s</i> (<i>bis</i> ‘burry’)	<i>ka:tim</i> (<i>kitim</i> ‘arrive’)
MID	<i>faf</i> (<i>fi</i> ‘pour’)	<i>rimad</i> (<i>rimid</i> ‘avenge’)
PASS	<i>a:to:-ma:n</i> (<i>min</i> ‘shave’)	<i>at-daba:l</i> (<i>dibil</i> ‘gather’) <i>am-he:jid</i> (<i>hajid</i> ‘sew’)
RECP	<i>amo:-ga:d</i> (<i>gid</i> ‘throw’)	<i>am-gara:m</i> (<i>girim</i> ‘be inimical’)
CAUS		<i>si-katim</i> (<i>kitim</i> ‘arrive’)

Table 4: Comparison between Beja and Arabic derivation patterns

	Beja Plurisyllabic V1	Classical Arabic	Sudanese Arabic
INT	Ca:Ca <i>ka:tim</i> < <i>kitim</i> ‘arrive’	CaCCaCa, Ca:CaCa	CaCCaC, Ca:CaC
MID	CiCaC <i>rimad</i> < <i>rimid</i> ‘avenge’	CuCiCa, iC<t>aCaCa, ta-CaCCaCa, ta-Ca:CaCa, in-CaCaCa, tas-CaCaCa, ista-CaCaCa	it-CaCCaC, it-CaCaC
PASS	at-CaCa:C <i>at-daba:l</i> < <i>dibil</i> ‘gather’ am-Ce:CaC <i>am-he:jid</i> < <i>hajid</i> ‘sew’	CuCiCa, iC<t>aCaCa, ta-CaCCaCa, ta-Ca:CaCa, in-CaCaCa, ista-CaCaCa	it-Ca:CaC, it-CaCaC, CiCiC, in-CaCaC
RECP	am-CaCa:C <i>am-gara:m</i> < <i>girim</i> ‘be inimical’	Ca:CaCa , ta-Ca:CaCa, iC<t>aCaCa	Ca:CaC, it-Ca:CaC
CAUS	si-CaCiC <i>si-katim</i> < <i>kitim</i> ‘arrive’	CaCCaCa, ?a-CCaCa	CaCCaC, a-CCaC

Beja is the sole Cushitic language which differentiates between active and middle voices by means of vocalic alternation. Remnants of this pattern exist in some Semitic languages, among them Arabic, in a fossilized form.

In Cushitic, qualitative ablaut for the passive voice only occurs in Beja. Passive formation through ablaut exists in Classical and Sudanese Arabic, but with different vowels. Bergman (2002: 34) mentions that “a handful of verbs in S[udanese] A[rabic]” can be formed this way. For Stefano Manfredi (personal communication) it is a productive pattern in this Arabic variety.

Like the passive voice, the reciprocal is characterized by a qualitative ablaut in *a*: in the stem, but the prefix is different and consists of *am(o):-*. *m* is not used for verbal derivation in Arabic, which uses the same ablaut, but for the first vowel of disyllabic stems, to express, marginally, the reciprocal of the base form. Most often the reciprocal meaning is expressed by other forms with the *t-* prefixed or infixes to the derived form or the base form. In some other Cushitic languages *-m* is used as a suffix for passive or middle voice (without ablaut). In Beja *m-* can also marginally be used as a passive marker, together with ablaut, for a few transitive intensive verbs: *ame:-saj* ‘be flayed’, *ame:-biḏan* ‘be forgotten’.

Although a suffix *-s* (not a prefix as in Beja) is common in Cushitic, Beja is once more the only Cushitic language which uses ablaut for the causative derived form. Neither ablaut nor the *s-* prefix exist in Arabic. Arabic uses different patterns for the causative: the same as the intensive one, i.e. with a geminated second root consonant, and the (ʔ)a-CcaC(a) pattern.

This brief overview shows that Beja has not borrowed patterns from (Sudanese) Arabic, but has at best similar, but not exact, cognate patterns which are marginal in both Classical and Sudanese Arabic.

Beja also has four non-finite verb forms. The simultaneity converb of V1s is the only one with non-concatenative morphology. The affirmative converb is marked for both verb classes with a suffix *-e*: added to the stem: *gid* ‘throw’, *gid-e* ‘while throwing’; *kitim* ‘arrive’, *kitim-e* ‘while arriving’. In the negative, the negative particle *ba:-* precedes the stem, and V1s undergo ablaut in the stem (Ci:C and CaCi:C), and drop the suffix; it has a privative meaning: *ba:-gid* ‘without throwing’; *ba:-kati:m* ‘without arriving’. No similar patterns exist in Arabic or other Cushitic languages.

3.2.3 Verbal noun derivation

In the verbal domain, non-concatenative morphology concerns only V1s. With nouns, it applies to action nouns (*maṣḏars*) and agent nouns.

There are several *mašdar* patterns, with or without a prefix, with or without ablaut, depending mostly on the syllabic structure of the verb. The most frequent ones with ablaut are presented below.

The pattern $m(i(:)/a)$ -CV(:)C applies to the majority of monosyllabic verbs. The stem vowel varies and is not predictable: *di* ‘say’, *mi-ja:d* ‘saying’; *dir* ‘kill’, *ma-dar* ‘killing’; *s?a* ‘sit down’, *ma-s?a:* ‘sitting’; *ak* ‘become’, *mi-kti* ‘becoming’; *hiw* ‘give’, *mi-jaw* ‘gift, act of giving’. A few disyllabic V1s comply to this pattern: *rik^wij* ‘fear’, *mi-rk^wa:j* ‘fearing’; *jiwid* ‘curl’, *mi:-wad* ‘curling’. Some V1s of the CiC pattern have a Ca:C pattern for *mašdars*, without a prefix: *gid* ‘throw’, *ga:d* ‘throwing’. In Classical Arabic, the marginal *mašdars* with a prefix concern trisyllabic verbs, none showing a long vowel in the stem or the prefix, nor a vowel *i* in the prefix.

CiCiC and HaCiC² disyllabic verbs form their *mašdars* by vocalic ablaut to *u:*: *kitim* ‘arrive’, *kitu:m* ‘arriving’; *?abik* ‘take’, *?abu:k* ‘taking’; *hamir* ‘be poor’, *hamur* ‘being poor’. CiCaC V1s, and those ending in *-j*, undergo vocalic ablaut to *e:*: *dig^wag^w* ‘catch up’, *dig^we:g^w* ‘catching up’; *biqaj* ‘yawn’, *biqe:j* ‘yawning’. In Classical Arabic, the *mašdar* pattern with *u:* has a different vowel in the first syllable, *a* (in Beja *a* is conditioned by the initial laryngeal consonant), and it is limited almost exclusively to verbs expressing movements and body positions (Blachère & Gaudefroy-Demombynes 1975: 81).

Bergman (2002: 35) provides no information about verbal nouns of the base form in Sudanese Arabic except that they are “not predictable”.

As for agent nouns of V1s, they most often combine ablaut with the suffix *-a:na*, the same suffix as the one used to form agent nouns of V2 verbs, whose stems do not undergo ablaut. The ablaut pattern is the same as with the verbal intensive derivation: *bir* ‘snatch’, *bo:r-a:na* ‘snatcher’; *gid* ‘throw’, *ge:d-a:na* ‘thrower, a good shot’; *dibil* ‘pick up’, *da:bl-ana* ‘one who picks up’. Some tri-consonantal stems have a suffix *-i* instead of *-a:na*: *fibib* ‘look at’, *fa:bb-i* ‘guard, sentinel’. Some have both suffixes: *kitim* ‘arrive’, *ka:tm-a:na/ka:tim-i* ‘newcomer’.

These patterns are unknown in Arabic.

3.2.4 Noun morphology

3.2.4.1 General remarks

The existence of verbal noun derivation patterns and nominal plural patterns are well recognized in the literature about Beja morphology; for a recent overview, see Appleyard (2007). It is far from being the case for adjective and noun patterns.

²Where H stands for the laryngeals ? and *h*.

All noun and adjective patterns linked to V1s are listed below. Vanhove (2012) provides an overview of these patterns which are summed up below.

3.2.4.2 Adjective patterns

There are eight adjective patterns, two of which are shared with nouns. Most are derived from V1 verbs, but the reverse is also attested. A corresponding verb form is inexistent in a few cases. All patterns are based on ablaut, in two cases with an additional suffix *-a*, or gemination of the medial consonant. Arabic has no dedicated adjective pattern (but the active participle pattern of the verbal base form Ca:CaC may express properties). Table 5 provides the full list of patterns with examples. It is remarkable that none of them is similar to those of Classical Arabic or colloquial Sudanese Arabic (Bergman 2002: 17).

Table 5: Adjective patterns

Pattern	Adjective	Verb form
aCa:C	<i>ama:g</i> ‘bad’	<i>mig</i> ‘do evil’
CaCCa	<i>marʔa</i> ‘wide’	<i>mirʔ</i> ‘be wide’
Ca:Ca(C)	<i>na:k^wis</i> ‘short’	<i>nik^wis</i> ‘be short’
	<i>daji</i> ‘good’	∅
CaCa(C)	<i>dawil</i> ‘close’	<i>diwil</i> ‘be close’
CaCa:C	<i>tak^wa:k^w</i> ‘prepared’	<i>tik^wik^w</i> ‘prepare’
CaCa:C-a	<i>raga:g-a</i> ‘long’	<i>rigig</i> ‘stand up’
CaCa:C	<i>fik^wa:n</i> ‘aromatic’	<i>fik^wan</i> ‘emit pleasant odour’
CaCCiC	<i>fallik</i> ‘few’	<i>filik</i> ‘be few’

3.2.4.3 Nouns

There are eleven basic noun patterns related to V1 verbs. Most of the patterns for triconsonantal roots resemble those of Arabic (but are not strictly identical), a coincidence which is not surprising since both languages have a limited number of vowels. Table 6 provides the full list of these patterns. The CaCa pattern is shared with adjectives. The CaCa(C) pattern does not undergo ablaut.

Table 6: Noun patterns

Pattern	Noun	Verb form
CaC	<i>nak^w</i> ‘pregnancy’	<i>nik^wi</i> ‘become pregnant’
CiCa	<i>nisa</i> ‘advise’	<i>nisa</i> ‘advice’
CaCi	<i>sari</i> ‘wakefulness’	<i>sir</i> ‘keep awake’
CaCa	<i>nada</i> ‘dew’	<i>nidaj</i> ‘sweat, exude water’
CiCi(C)	<i>mirʔi</i> ‘width’	<i>mirʔ</i> ‘be wide’
	<i>rifid</i> ‘wealth’	<i>rifid</i> ‘raise, tend crops or cattle’
CaCi:C	<i>ʃaɖi:ɖ</i> ‘strip’	<i>ʃiɖiɖ</i> ‘strip off’
	<i>ʃak^wi:n</i> ‘fragrance’	<i>ʃik^wan</i> ‘emit pleasant odour’
CaCi:C-a	<i>rafi:d-a</i> ‘cattle’	<i>rifid</i> ‘raise, tend crops or cattle’
Ci:Ca:C	<i>tila:l</i> ‘stride’	<i>tilil</i> ‘stride far away from home’
CaCo:C	<i>tabo:k</i> ‘double handful’	<i>tibo:k</i> ‘fill scoop with cupped hands’
CiCu:C-a	<i>tilu:l-a</i> ‘exile’	<i>tilil</i> ‘stride far away from home’

3.2.4.4 Nouns with prefix *m(V)*-

A few other semantic types of nouns, mostly instrument and place names, are formed through ablaut and a prefix *m(V)*-, like in Arabic. Contrary to Arabic where these patterns are productive, they are frozen forms in Beja (some are not loanwords from Arabic, see the last three examples): *ʔafi* ‘prevent, secure’, *m-ʔafaj* ‘nail, rivet, fastener’; *himi* ‘cover’, *m-himme:j* ‘blanket’; *ginif* ‘kneel’, *mi-gnaf* ‘camp’; *mo:k* ‘take shelter’, *ma-k^wa* ‘shelter’; *rifif* ‘drag an object on the ground’, *mi-rfaf* ‘reptile’.

3.2.5 Plural patterns

The so-called “internal” plural patterns are common and frequent in Arabic (and Ethio-Semitic). Beja also has a limited set of internal plural patterns, but it has developed its own system. Ablaut patterns for plural formation mainly concern non-derived nouns containing either a long vowel or ending in a diphthong. Both *i:* and *u:* turn to *i* in the plural, and *a:*, *e:* and *o:* turn to *a*, sometimes with the addition of the plural suffix *-a*; nouns ending in *-aj* turn to a long vowel *-e:j*: *ang^wi:l*, pl. *ang^wil* ‘ear’; *lu:l*, pl. *lil* ‘rope’; *asu:l*, pl. *asil* ‘blister’; *hasa:l*, pl. *hasal/hasal-a* ‘bridle’; *me:k*, pl. *mak* ‘donkey’; *bo:k*, pl. *bak* ‘he-goat’; *ganaj*, pl. *gane:j* ‘gazelle’ (Vanhove 2017).

(6) Beja (03_camel_192)

ʔakir-a ɖab ɖa:b-i:n=e:=na:-ji sabbi:
 be_strong-CVB.MNR run.AC run-AOR.3PL=REL=thing-GEN because
 ‘Because it was running so fast...’

sabbi: can also be used after a noun or a pronoun in the genitive case: *ombarijo:k sabbi:* ‘because of you’.

Terminative adverbial clauses are expressed with a borrowing from Arabic, *hadi:d* ‘limit’. Again the borrowing is the head of the relative clause.

(7) Beja (BEJ_MV_NARR_51_camel_stallion_026-030)

o:n i=ka:m=o:k he:=he:b
 PROX.SG.M.ACC DEF.M=camel=POSS.2SG.ACC give[.IMP.SG.M]=OBJ.1SG
 i-ndi e:n baru:k o:=bu:n
 3SG.M-say.IPFV DM 2SG.M.NOM DEF.SG.M.ACC=coffee
 g^wʔa-ti=e:b hadi:d
 drink-AOR.2SG.M=REL.M until
 ‘Leave your camel with me, he says, until you have drunk your coffee!’

hadi:d can also be used as a postposition after a noun, in which case it can be abbreviated to *had:* *fadžil-had* ‘until morning’.

3.4 Lexicon

The study of the Beja lexicon lacks research on the adaptation of Arabic loan-words and their chronological layers. There are no statistics on the proportions of lexical items borrowed from Arabic or Ethio-Semitic as compared to those inherited from Cushitic, not to mention Afro-Asiatic as a whole or borrowed from Nilo-Saharan. Phonetic and morphological changes are bound to have blurred the etymological data, but what is certain is that massive lexical borrowings from Arabic for all word categories took place at different periods of time, and that the process is still going on. Lexicostatistical studies (Cohen 1988: 267; Blažek 1997) have shown that Beja shares only 20% of basic vocabulary with its closest relatives, Afar, Saho and Agaw.

In this section I mainly concentrate on verbs, because they are often believed to be less easily borrowed in language contact situations (see Wohlgemuth 2009 for an overview of the literature on this topic), which obviously is not the case for Beja.

Cohen (1988) mentions that tri-consonantal V1s contain a majority of Semitic borrowings. I conducted a search of Reinisch’s (1895) dictionary, the only one to

mention possible correspondences with Semitic languages. It provided a total of 225 V1s, out of which only nine have no Semitic cognates (four are cognates with Cushitic, one is borrowed from Nubian, and one cognate with Egyptian). Even if some of Reinisch's comparisons are dubious, the overall picture is still in favour of massive borrowings from Semitic (96%). It is not easy to disentangle whether the source is an Ethio-Semitic language or Arabic, but until a more detailed study can be undertaken, the following can be said: 55 verbs (20%) have cognates only in Ethio-Semitic (Tigre, Tigrinya, Amharic, and/or Ge'ez); out of the remaining 161 (72%), 85 are attested only in Arabic, 76 also in Ethio-Semitic. Because of the long-standing contact with Arabic for a large majority of Beja speakers in Sudan, and the marginality of contact with Tigre limited to the south of the Beja domain, it is tempting to assume that almost 3/4 of the 76 verbs are of Arabic origin. They may have been borrowed at an unknown time when the new suffix conjugation was still marginal. However, there are also tri-consonantal verbs (V2) which are conjugated with suffixes, albeit less numerous: 164. 141 have cognates with Semitic languages (95 Arabic, 31 Ethio-Semitic, and 15 attested in both branches), six are pan-Cushitic, one is pan-Afro-Asiatic, one Nubian, six are of dubious origin, and nine occur only in Beja. Does this mean that these borrowings occurred later than for V1s? In the current state of our knowledge of the historical development of Beja, it is not possible to answer this question.

On the other hand, Cohen (1988: 256), in his count of consonants per stem in eight Cushitic and Omotic languages, showed that biconsonantal stems are predominant in six of the languages. By contrast, they form 52.8% of the 770 Beja stems in Roper's (1928) lexicon, and 42.7% of the 611 Agaw stems, almost on a par with bi-consonantal stems (42.2%). What this shows is that massive borrowings from Arabic (or from Ethio-Semitic for Agaw) helped to preserve tri-consonantal stems, which still form a majority of the stems in Beja, unlike in other Cushitic languages.

4 Conclusion

This overview has shown that massive lexical borrowings from Arabic in Beja have helped to significantly entrench non-concatenative morphology in this language. Whether this is a preservation of an old Cushitic system, or a more important development of this structure than in other Cushitic languages under the influence of Arabic, is open to debate, but what is certain is that it is not incidental that this system is so pervasive in Beja, the only Cushitic language to have had a long history of intense language contact with Arabic, the Semitic

language where non-concatenative morphology is the most developed. What is important to recall is that Beja non-concatenative morphology shows no borrowings of Arabic patterns (unlike in Modern South Arabian languages; see Bettega and Gasparini, this volume), leading to the conclusion that we are dealing with a convergence phenomenon. Lexical borrowings and morphological convergence are not paralleled in the phonological and syntactic domains where Arabic influence seems marginal.

Much remains to be done concerning language contact between Beja and Arabic, and we lack reliable sociolinguistic studies in this domain. We also lack a comprehensive historical investigation of the Beja lexicon, as well as a sufficiently elaborated theory of phonetic correspondences for Cushitic (Cohen 1988: 267). Even though important progress has been made, in particular for Beja in the comparison of its consonant system with other Cushitic languages and concerning the etymology of lexical items in some semantic fields, thanks to Blažek (2000; 2003a; 2003b; 2006a; 2006b), the absence of a theory of lexical borrowings in Beja (and other Cushitic languages) is still an impediment for a major breakthrough in the understanding of language contact between Beja and Arabic.

Further reading

- Apart from Vanhove (2012) on non-concatenative morphology already summarized in §3.2, we lack studies on contact-induced changes in Beja.
- Vanhove (2003) is a brief article on code-switching in one tale and two jokes based on conversational analysis.
- Wedekind (2012) is an appraisal of the changing sociolinguistic situation of Beja in Egypt, Sudan and Eritrea.

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Abbreviations

AC	action noun, <i>mašdar</i>	LOC	locative
ACC	accusative	M	masculine
AOR	arist	MID	middle
BCE	before Common Era	MNR	manner
CAUS	causative	NEG	negation
CE	Common Era	NOM	nominative
COM	comitative	OBJ	object
COORD	coordination	OPT	optative
CSL	causal	PASS	passive
CVB	converb	PFV	perfective
DEF	definite	PL	plural
DM	discourse marker	POSS	possessive
F	feminine	PROX	proximal
GEN	genitive	RECP	reciprocal
GNRL	general	REL	relator
IMP	imperative	SG	singular
INDF	indefinite	SMLT	simultaneity
INT	intensive	TAM	tense–aspect–mood
IPFV	imperfective		

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Chapter 20

Iranian languages

Dénes Gazsi

Iranian languages, spoken from Turkey to Chinese Turkestan, have been in language contact with Arabic since pre-Islamic times. Arabic as a source language has provided phonological and morphological elements, as well as a plethora of lexical items, to numerous Iranian languages under recipient-language agentivity. New Persian, the most significant member of this group, has been a prominent recipient of Arabic language elements. This study provides an overview of the historical development of this contact, before analyzing Arabic elements in New Persian and other New Iranian languages. It also discusses how Arabic has influenced Modern Persian dialects, and how Persian vernaculars in the Persian Gulf region of Iran have incorporated Arabic lexemes from Gulf Arabic dialects.

1 Current state and historical development

1.1 Iranian languages

Iranian languages, along with Indo-Aryan and Nuristani languages, constitute the group of Indo-Iranian languages, which is a sizeable branch of the Indo-European language family. The term “Iranian language” has historically been applied to any language that descended from a proto-Iranian parent language spoken in Asia in the late third to early second millennium BCE (Skjærvø 2012).

Iranian languages are known from three chronological stages: Old, Middle, and New Iranian. Persian is the only language attested in all three historical stages. New Persian, originally spoken in Fārs province, descended from Middle Persian, the language of the Sasanian Empire (third–seventh centuries CE), which is the progeny of Old Persian, the language of the Achaemenid Empire (sixth–fourth centuries BCE). New Persian is divided into Early Classical (ninth–twelfth centuries CE), Classical (thirteenth–nineteenth centuries) and Modern Persian (from the nineteenth century onward), the latter considered to be based on the dialect of Tehran (Jeremiás 2004: 427).



Today, Iranian languages are spoken from the Caucasus, Turkey, and Iraq in the west to Pakistan and Chinese Turkestan in the east, as well as in a large diaspora in Europe and the Americas. New Iranian languages are divided into two main groups: Western and Eastern Iranian languages. The focus of this study is New Persian, the most significant member among Iranian languages, but a brief overview of Arabic influence on other New Iranian languages will also be provided. Below is a list of the most important members and their geographical distribution (Schmitt 1989: 246).

1.1.1 Western Iranian languages

1.1.1.1 Southwestern group

Persian (*Fārsī*) (spoken throughout Iran and adjacent areas), Tajik (the variety of New Persian in Central Asia), Darī Persian (Afghanistan), Kumzārī (Musandam Peninsula). Persian dialects in this group include Dizfūli (Khuzestan province), Lurī (ethnic group along the Zagros mountain range), Baḥtiārī (nomadic tribe in the Zagros mountains), Fārs dialects (Fārs province), Lāristānī dialects (Lāristān region of Fārs province), Bandarī (dialects spoken around Bandar ʿAbbās in the Persian Gulf region, to which Finī also belongs).

1.1.1.2 Northwestern group

Kurdish, Zazaki (in eastern Turkey), Gurānī (in eastern Iraq and western Iran), Balūčī (Balochi, spoken chiefly in Iranian and Pakistani Baluchistan, and parts of Oman). Non-literary languages and dialects: Tātī, Tālišī and Gilakī (on the shores of the Caspian Sea), Central dialects (spoken in a vast area between Hamadān, Kāšān and Iṣfahān), Kirmānī (south of the Dašt-i Kawīr).

1.1.2 Eastern Iranian languages

1.1.2.1 Southeastern group

Pashto (Afghanistan, Pakistan, eastern border region of Iran), Pamir languages (Pamir Mountains along the Pānj River).

1.1.2.2 Northeastern group

Yaḡnōbi (Zarafšān region of Tajikistan), Ossetic (central Caucasus).

1.2 Historical development of Arabic–Persian language contact

Language contact between Arabic and Persian has been a reciprocal process for the past 1500 years. During the pre-Islamic and early Islamic era (sixth–seventh centuries CE), Middle Persian, being embedded in the well-established and sophisticated Iranian culture, provided many loanwords to pre-Classical and Classical Arabic (Gazsi 2011: 1015; see also van Putten, this volume) under RL (recipient-language) agentivity (Van Coetsem 1988; 2000). With the collapse of the Sasanian Empire and expansion of Islam and the Arabic language over vast territories outside Arabia, Classical Arabic began to exercise an unprecedented impact on the emerging New Persian language. Arabic never took root in the everyday communication of the ethnically Persian population, although it gained some dominance as a written vehicle in the administrative, theological, literary and scientific domains in the eastern periphery of the Abbasid Caliphate. Instead, spoken Middle Persian (*Darī*) flourished as a vernacular language. In the middle of the ninth century CE, it was in this part of Iran, specifically in Fārs province, that *Darī* emerged in a new form as it repositioned itself in the culture and literature of the local populace. This new literary language, the revitalization of the Persian linguistic heritage, would be called New Persian. Since its earliest phase, New Persian has borrowed a staggering number of loanwords. Initially, these loanwords were borrowed from various northwestern and eastern Iranian languages, such as Parthian and Sogdian. Despite this relatively large group of loans, the most versatile lenders were the Arabs. Whereas in the pre-Islamic era Arabic had almost exclusively taken lexical items from Middle Persian (in the fields of religion, botany, science and bureaucracy among others), New Persian also incorporated Arabic morphosyntactic elements.

The first Arabic loanwords began to permeate New Persian in the ninth–tenth centuries CE (20–30%). This process was not even diminished by the Iranian *šūfīyya* movement, the major output of which was all conducted in Arabic. In subsequent centuries, Persian continued to absorb an ever-expanding set of Arabic lexemes. By the turn of the twelfth century, the proportion of Arabic loans increased to approximately 50%. The majority of Arabic loans had already been integrated into New Persian by that time and have shown a remarkable steadiness until recently.

After the fall of Baghdad in 1258 CE, Arabic lost its foothold in the eastern provinces of the Caliphate, thereby drawing the final boundary between the use of Arabic and Persian (Danner 2011). The Mongol Ilkhānids, who as non-Muslims were not dependent on Arabic, introduced Persian as the language of education and administration in Iran and Anatolia. Despite the significant de-

struction the Mongols caused to northern Iran during their conquest, this period (thirteenth and fourteenth centuries CE) is considered to be the zenith of Persian literature. This is also the epoch when literary Persian is, in an excessive way, inundated with Arabic language elements. This phenomenon is easily detectable in the works of one of the most significant personalities in Classical Persian literature, and a pre-eminent poet of thirteenth-century Persia, Saʿdī of Shiraz. Following the norms of Persian prose writing and poetry of his time, Saʿdī flooded his writings with a bewildering array of Arabic language elements. To illustrate this, here is a typical sentence from Saʿdī's *Gulistān* 'Rose Garden' (completed in 1258 CE), where words of Arabic origin are highlighted in boldface (Yūsifi 2004: 77).

- (1) اگر رای عزیز فلان ، أحسن الله خلاصه ، به جانب ما التفات کند در رعایت خاطرش هرچه تمامتر سعی کرده شود واعیان این مملکت به دیدار او مفتقرند و جواب این حروف را منتظر *agar rāy-i ʿazīz-i fulān, aḥsana allāhu ḥalāṣahu, ba ġānib-i mā iltifāt kunad dar riʿāyat-i ḥāṭiraš har čī tamāmtar saʿī karda šawad wa aʿfān-i īn mamlakat ba dīdār-i ū muftaqirand wa ġawāb-i īn ḥurūf rā muntaẓir.*

'If the precious mind of that person, may God make the end of his affairs prosperous, were to look in our direction, the utmost efforts would be made to please him, because the nobles of this realm would consider it an honor to see him, and are waiting for a reply to this letter.'¹

It is easy to ascertain that, apart from verbs and adverbs, almost every lexical item in the sentence is of Arabic origin. But writers of this era, such as Saʿdī, not only inundated their works with Arabic elements, but even used Arabic morphology and semantics freely by coining new and innovative meanings, e.g. *ṣaʿṣa* 'lightning' < MSA/MSP *ṣāʿiqa* or *baṭṭāl* 'liar' < MSA/MSP 'inactive, unemployed person',² < MSA *mubṭil* 'liar'. The Persian and Arabic language use of Saʿdī and other literary figures in the Classical Persian period came closest to what Lucas (2015) calls convergence under the language dominance principle. As reflected in the purely Arabic and Arabic-infused Persian segments of his oeuvre, Saʿdī was equally dominant in both Classical Arabic and Classical Persian along with the dialect of Shiraz.

¹Persian transcription in this chapter follows the Arabic phonological conventions to avoid using two disparate systems.

²In this chapter, references are made to Modern Standard Arabic (MSA) and Modern Standard Persian (MSP) as a comparison to dialectal forms in both languages. This seemed more straightforward as it is not always feasible to determine at what point in time a lexeme was borrowed from Arabic into Persian.

Modern Persian is still deeply rooted in Arabic. Arabic loanwords constitute more than 50% of its vocabulary, but in elevated styles (religious, scientific, literary) Arabic loans may exceed 80% (Jeremiás 2011). Although the proportion of these loanwords fluctuates according to age, genre, social context or idiolect, any style in Modern Persian deprived of Arabic influence is almost impossible. An endeavor similar to Atatürk's to purge Turkish of foreign language elements would be unrealistic in Modern Persian, even with recurring efforts by linguistic purists and the Academy of Persian Language and Literature (*Farhangistān-i zabān wa adab-i fārsī*).³ It is noteworthy that when the need arose for new terminology to describe fledgling political concepts in Iran, for instance during the Constitutional Revolution in the early twentieth century, as Elwell-Sutton (2011) phrased it, "politicians and journalists instinctively turned to Arabic rather than Persian". Frequently, however, these "Arabic" words were new coinages in the recipient language, e.g. *mašrūta* 'constitution', *mawqifiyyat* 'situation, position'. After the Islamic Revolution in 1979, another wave of Arabic lexemes related to the new religious governing system surfaced, e.g. *mustazʿifīn* 'the needy, the enfeebled' (< MSA *mustaḍʿafūna/mustaḍʿafīna*).

Primary and secondary schools in contemporary Arabic-speaking countries do not offer language education in Persian. In Iran, compulsory Classical Arabic instruction is part of the curriculum. However, the language is taught for religious purposes only, with no intention to utilize MSA as a means of acquiring communication skills.

2 Contact languages

This section briefly describes the linguistic impact of Standard Arabic on several New Iranian languages. A more detailed analysis of contact-induced language change in New Persian will follow in §3.

2.1 Arabic influence on New Iranian languages

2.1.1 Tajik (*Tōǧīkī*)

Tajik, written in a modified Cyrillic script, is the variety of New Persian spoken throughout Central Asia, most notably in Tajikistan, Uzbekistan, and northern Afghanistan. Similarly to all varieties of Persian, Arabic borrowings constitute the earliest layer of foreign vocabulary in Tajik (Perry 2009). This lex-

³An example of their activity is the publication (by Rāzī 2004) of a dictionary that lists "pure" Persian words.

icon was transferred under RL agentivity. Although Arabic lexical items have a firm hold in Tajik, their pattern of distribution differs from that of New Persian. For instance, Tajik uses *pēš* ‘before’ and *pas* ‘after’ rather than MSA/MSP *qabl* and *baʿd*, but *ōid ba-/ōid-i* (< MSA *ʔāʔid* ‘returning’) ‘concerning, relating to’ in lieu of MSP *rāǧiʔ ba-* (< MSA *rāǧiʔ* ‘recurring’). Also, *madaniyyat* ‘civilization’ (< MSA *madaniyya* ‘civilization’; cf. MSA/MSP *tamaddun* ‘civilization’), *hōzir* ‘now’ (< MSA *hādir* ‘present; ready’, MSP *hāzir* ‘present’), *ittifōq* ‘(labor) union’ (< MSA *ittifāq* ‘agreement; contract’; cf. MSP *ittiḥād* ‘[labor] union’).

Arabic plural forms, both sound feminine plural and broken plural, were lexicalized with collective or singular meanings: *hašarōt* ‘insect’, with regular plural ending *hašarōthō* ‘insects’ (< MSA/MSP *hašarāt* ‘insects’), *talaba* ‘student’, pl. *talabagōn* (< MSA/MSP *ṭalaba* ‘students’), *šarōit* ‘condition, stipulation’ (< MSA/MSP *šarāʔiṭ* ‘conditions’).

2.1.2 Kurdish

A characteristic feature of Kurdish, the change of postvocalic /m/ > /v/ or /w/, also occurs frequently in words of Arabic origin: *silāv* ‘greeting’ (< MSA/MSP *salām*; Paul 2008).

2.1.3 Gurānī

The phonological system of Gurānī dialects is similar to Kurdish in the occurrence of Arabic pharyngeal and emphatic sounds /ʕ/, /ħ/, /ʕ/ (MacKenzie 2012).

2.1.4 Ossetic

Ossetic has incorporated terms related to Islam from Arabic and Persian through neighboring Caucasian languages (Thordarson 2009).

2.2 Arabic-speaking communities in Iran

Arabic-speaking communities are known to be present within the boundaries of the Islamic Republic of Iran, but their exact number is not readily discernible from official statistics. It is estimated that 3% of Iran’s 80 million citizens are Arabs, which would put the Arab population at approximately 2.5 million. The majority of Arabs live in the western parts of Khuzestan province (see Leitner, this volume), but also along Iran’s Persian Gulf coast and parts of Khorasan in eastern Iran (Oberling 2011). Already during the Sasanian era, several Arab tribes, including the Bakr ibn Wāʔil and Banū Tamīm, settled in the area stretching from

the Šaṭṭ al-ʿArab to the Zagros Mountains (Daniel 2011). At the end of the sixteenth century, the Banū Kaʿb, originating from present-day Kuwait, settled in Khuzestan. During subsequent centuries, more Arab tribes moved from southern Iraq to the province. As a result, Khuzestan, which until 1925 was called ʿArabistān, became extensively Arabized. Members of these Arab tribes live on either side of the Iran–Iraq border. In the same way as Iraqi Arabic vernaculars, Khuzestan Arabic has been influenced by Persian. However, Khuzestan Arabic can most easily be distinguished from Iraqi dialects by its wide-ranging transfer of Persian lexemes (Ingham 1997: 25; see also Leitner, this volume).

Arab presence has a well-documented history on the Iranian coastline of the Persian Gulf, in what now constitutes Būšīhr and Hurmuzgān provinces. According to travelogues from the eighteenth to the twentieth centuries CE, as well as British archival materials dating back to the British Residency of the Persian Gulf, Arab tribes inhabited most fishing and pearling villages, as well as islands and coastal towns with strategic importance (e.g. Bandar ʿAbbās). The most significant tribes in this area were, and in some cases still are, the Qawāsīm, Marāzīq, Āl Ḥaram, Āl ʿAlī, Āl Naṣūr, Banī Tamīm, Banī Ḥammād, Banī Bišr, among others. In contrast to most Persians and Khuzestani Arabs who are primarily Shiite, these tribes are Sunni Muslims. A widespread exonym to designate Arabs on the Iranian coast, but shunned by the local population, is *hōla* (variously referred to as *hula*, *huwala* or *hawala*). Local tribes prefer the endonym ‘Arabs of the Coast’ (*ʿArab as-sāḥil*) (Gazsi 2017: 110).

Most Khuzestani and Iranian Persian Gulf Arabs are bilingual, speaking Arabic as their mother tongue and Persian as a second language. Although Khuzestan and the two Persian Gulf provinces are geographically part of Iran, linguistically their Arab populations form a continuum with the southern Mesopotamian Muslim *gilit* dialects, and the dialects of the eastern coast of the Arabian Peninsula, respectively. In the spoken and written code, ‘Arabs of the Coast’ often engage in tetra-glossic switching between MSA, Gulf Arabic (GA), MSP, Colloquial Persian and one of its local dialects such as Bandarī. In their speech, Persian phonological and lexical elements are borrowed into GA under RL agentivity.

3 Contact-induced changes in New Persian and modern Persian dialects

Language contact between Arabic and New Persian is most evidently detectable in the New Persian lexicon, and to a lesser extent in phonology and morphosyntax. This section summarizes the characteristics of this contact. In addition to

standard New Persian, and its contemporary variant MSP, Arabic has also influenced modern Persian dialects. This influence is slightly different, and in several ways more far-reaching, particularly in the realm of phonology and lexicon.

Persian dialects developed separately from and parallel to Classical Persian and MSP. Modern Persian dialects retain several Early Classical and Classical Persian phonological and morphosyntactic features that are not present in MSP. Additionally, they were in direct contact with the Arabic language through Arab tribes that settled across Persia immediately after the Islamic conquest or in later centuries. Although most Arab tribes have long been integrated into the Persian-speaking population, the Arabic language in the areas currently dominated by ethnic Arabs is still in contact with the surrounding Persian dialects. Unlike Arabic influence on the standard version of New Persian, Arabic influence on modern Persian dialects is an understudied field that does not allow for providing an exhaustive list of contact-induced changes at this point. Instead, below is a preliminary description of salient examples of how Arabic phonological and lexical elements were transferred to New Persian, both its standard and dialectal variations.

3.1 Phonology

3.1.1 New Persian

The initial step in the adoption of Arabic lexemes was the adoption of the Arabic script. New Persian began to use a modified Arabic script in the ninth century CE; it has 32 letters, 28 acquired from Arabic and 4 new letters added to represent Persian phonemes (/p/, /č/, /ž/, /g/). Arabic /θ/ and /s/ collapse to Persian /s/, Arabic /ð/, /d/, /ḏ/ collapse to Persian /z/, and Arabic /t/ becomes Persian /t/. The phonemic inventory of Early Classical Persian was augmented with the glottal stop, which originated in the two separate Arabic phonemes /ʔ/ and /ʕ/.

3.1.2 Modern Persian dialects

This section highlights phonological features of modern Persian dialects that were the result of contact-induced language change under RL agentivity, either with Arabic or with Classical Persian, and subsequently MSP.

3.1.2.1 Adoption of Arabic pharyngeal sounds

The two Arabic pharyngeal sounds undergo phonological integration in New Persian: the voiceless pharyngeal fricative /ħ/ is pronounced as a voiceless glottal fricative /h/, and the voiced pharyngeal fricative /ʕ/ as a glottal stop /ʔ/. The

dialects of Dizfūl and Šūštar have acquired pharyngeal sounds directly from Arabic, which occur in Arabic loanwords: *šaḡīb* ‘strange’, *baʿd* ‘after’ (MacKinnon 2015). The dialect of Jarkūya shares this feature: *ḥasūd* ‘jealous’, *ḡimʕa* ‘Friday’ (Borjian 2008).

The dialect of Kulāb in Tajikistan also borrows Arabic pharyngeal sounds in words of Arabic origin: *ʕaib* ‘flaw’, *daʕvō* ‘claim’, *miʕalim* ‘teacher’, *ḥikimat* ‘wisdom’, *sōḥib* ‘owner’. Arabic pharyngeal sounds also occur in a few Persian/Tajiki words (*ʕasp* ‘horse’, *ḥamsōya* ‘neighbor’). Interestingly, the pharyngealized form for ‘horse’ occurs far and wide within the Iranian linguistic domain, as *ʕasb* in the Lurī dialect of Šūštar, in Ḥānsāri and Caucasian Tāti. In the Arab Gulf states, the *ʕAḡam*, ethnic Persians holding Kuwaiti, Emirati and other Gulf citizenship, pronounce Arabic loanwords in their Persian speech with pharyngeal sounds.

3.1.2.2 Dropping of Arabic pharyngeal sounds

In several modern Persian dialects, the voiceless pharyngeal fricative /ħ/ is absent. The preceding vowel is lengthened or the subsequent vowel disappears too, e.g. *mūtāḡ* ‘in need, destitute’ < MSA/MSP *muḥtāḡ* (Īzadpanāh 2001: 190), *šārā* ‘desert’ < MSA/MSP *šaḥrā* (Sarlak 2002: 15), *šāb* ‘owner’ < MSA/MSP *šāḥib* (Šarrāfi 1996: 135), *mulāza* ‘consideration, observation’ < MSP *mulāḥiza*, cf. MSA *mulāḥaḏa* (Šarrāfi 1996: 188), *šul* ‘peace’ < MSA/MSP *šulḥ* (Stilo 2012), *ēsās* ‘feeling’ < MSA/MSP *iḥsās* (Salāmī 2004: 160–161). In Kirmān, the sound change /uħ/ > /ā/ is attested, e.g. *fāš* ‘insult’ < MSA/MSP *fuhš* (Borjian 2017).

The voiced pharyngeal fricative /ʕ/, pronounced as a glottal stop in MSP, can also be dropped. This may result in vowel lengthening: *māṭal* ‘idle’ < MSA/MSP *muʕaṭṭal* (Šarrāfi 1996: 184), *māmila* ‘transaction’ < NewP *muʕāmila*, cf. MSA *muʕāmala* (Šarrāfi 1996: 184; Sarlak 2002: 15), *rubbi sāt* ‘quarter hour’ < MSP *rubʕ sāʕat*, cf. MSA *rubʕ sāʕa* (Šarrāfi 1996: 108), *mānī* ‘meaning’ < MSP *maʕnī*, cf. MSA *maʕnā* (Sarlak 2002: 15), *mōḡiza* ‘miracle’ < MSA/MSP *muʕḡiza* (Īzadpanāh 2001: 190), *tāḡub* ~ *tāḡuv* ‘surprise, wonder’ < MSA/MSP *taʕaḡḡub* (Salāmī 2004: 162–163), *rāyat* ‘regard’ < MSP *riʕāyat*, cf. MSA *riʕāya* (Šarrāfi 1996: 107).

3.1.2.3 Dropping of the Arabic voiceless glottal fricative /h/

The voiceless glottal fricative disappears in closed syllables in many Persian dialects, resulting in occasional vowel lengthening: *tārat* ‘cleanliness’ < MSP *ṭahārat*, cf. MSA *ṭahāra* (Sarlak 2002: 76), *nāal* ‘impolite’ < MSP *nāahl* (Īzadpanāh 2001: 192).

3.1.2.4 Miscellaneous sound changes

A range of additional consonant developments and shifts can be attested in Persian dialects. Some of these developments include:

/ʕ/ > /ħ/:

In Lurī and the dialect of Jarkūya, a shift occurs from the voiced to the voiceless pharyngeal: *ħilāğ* ‘cure’ < MSA/MSP *ʕilāğ* (Īzadpanāh 2001: 207), *taħna* ‘sarcasm’ < MSA/MSP *taʕna* (Borjān 2008).

/ħ/ > /ʔ/ occurring with occasional metathesis:

taʔr ‘plan’ < MSA/MSP *tarħ* (Şarrāfi 1996: 137), *maʔla* ‘city quarter’ < MSA/MSP *maħalla* (Şarrāfi 1996: 188), *maʔala* ‘city quarter’ (Nağībī Finī 2002: 133).

/h/ > /ʔ/:

muʔlat ‘deadline, respite’ < MSP *muhlat*, cf. MSA *muhla* (Şarrāfi 1996: 190).

/θ/ > /t/:

This shift is also common in several Arabic dialects, e.g. in Egypt and Morocco: *mīrāt* ‘heritage’ < MSP *mīrās*, cf. MSA *mīrāθ* (Īzadpanāh 2001: 190).

Word-final /b/ and /f/ > /m/:

nağīm ‘noble’ < MSA/MSP *nağīb* (Īzadpanāh 2001: 193), *nişm* ‘half’ < MSA/MSP *nişf* (Īzadpanāh 2001: 195).

/r/ > /l/:

in Kirmān, *zilar* ~ *zilal* ‘damage, loss’ < MSP *zarar*, cf. MSA *darar* (Şarrāfi 1996: 136; Dānişgar 1995: 163), *haşil* ‘straw mat’ < MSA/MSP *haşir* (Şarrāfi 1996: 85), *qulfa* ‘small room for summer resting’ < MSA *γurfa* ‘room’ (Fāzilī 2004: 151).

Arabic voiceless dental emphatic /t̤/ > /d/:

mudbaħ ~ *madbaħ* ‘kitchen’ < MSA *maṭbaħ* (Şarrāfi 1996: 186; not attested in MSP), *mudbaq* in Baħtiārī (Sarlak 2002: 251).

/b/ > /f/:

muftilā ‘afflicted’ < MSP *mubtilā*, cf. MSA *mubtalā* (Borjān 2017).

Medial and word-final /b/ > /v/:

in Baħtiārī, *ādāv* ‘customs’ < MSA/MSP *ādāb* (Sarlak 2002: 15), *ʕajīv*

‘strange’ < MSA/MSP *ʕajīb* (Sarlak 2002: 25), *qavīla* ‘tribe’ < MSA/MSP *qabīla* (Sarlak 2002: 199).

Word-initial /ħ/ > /h/:

in northern Lurī and Baḥtiārī, *hāla* ‘aunt’ < MSA/MSP *ḥāla* (Īzadpanāh 2001: 204).

/q/ > /k/:

kabīla ‘tribe’ < MSA/MSP *qabīla* (Naḡībī Finī 2002: 21).

/ʕ/ > /q/:

šūql ‘occupation’ < MSP/MSA *šūyl* (Stilo 2012).

/ğ/ > /y/:

direct borrowing from Khuzestan Arabic dialects, *mailis* ‘council’ < MSA/MSP *mağlis* (Sarlak 2002: 260; Fāzili 2004: 165).

Metathesis:

qulf ‘lock’ < MSA/MSP *qufl* (Salāmī 2004: 84–85; Imām Ahwāzī 2000: 146), *šuhb* ‘morning’ < MSA/MSP *šubḥ* (Dānišgar 1995: 161; Naḡībī Finī 2002: 23).

The full /t/ of the *tāʔ marbūʔa* appears on words where it is absent in MSP: *ḥalmat* ‘attack’ < MSA/MSP *ḥamla* (Īzadpanāh 2001: 207), *ḥağāmat* ‘cupping’ < MSA/MSP *ḥağāma* (Salāmī 2004: 92–93). This was a typical feature of Classical Persian literature.

3.2 Morphosyntax

Several Arabic morphosyntactic features were transferred to New Persian in the realm of nominal morphology under RL agentivity. These features encompass sound and broken plural forms (*musāfirīn* ‘passengers’, *tabliyāt* ‘propaganda’, *dihāt* ‘villages’, *ḥuqūq* ‘rights’), possessive constructions (*fāriy ut-taḥṣil* ‘graduate’, *wāğib ul-iğrā* ‘peremptory’) and occasional gender agreement in lexicalized expressions (*quwwa-yi darrāka* ‘perceptive power’). Word formation has been an active method of transferring Arabic lexical elements into New Persian from early on, either by way of derivation (*dihālat* ‘interference’ < MSA *mudāḥala*, *awlā-tar* ‘superior’ < MSA *awlā*, *raqsīdan* ‘to dance’ < MSA *raqs*, *akṣaran* ‘most, generally’ < MSA *akṯar* ‘more, most’) or compounding. Compounding is a highly developed process of enlarging the New Persian vocabulary. It is manifest in lexical compounds (*tayzia-šinās* ‘nutritionist’, *ḥiānat-kārāna* ‘perfidiously’) and phrasal compounds (*iṭāʕat kardan* ‘to obey’, *ʕadam-i wuğūd* ‘non-existence’, *ʕala l-ḥuṣūṣ* ‘particularly’).

3.3 Lexicon

3.3.1 Arabic lexicon in New Persian

Contact-induced language change manifests itself most strikingly in the lexicon transferred from Arabic to New Persian under RL agentivity. The earliest loanwords entered New Persian during the ninth–tenth centuries. This process occurred smoothly, as the phonological inventory of Early Classical Persian was likely close to that of Middle Persian and also close to that of Classical Arabic.⁴ The influx of Arabic loanwords has unabatedly continued over the centuries until now. To showcase a recent example of Arabic vocabulary in Modern Persian, below are titles of articles from *Hamšahrī* ‘Fellow Citizen’, a major Iranian national newspaper, taken from its 29th January 2018 edition. Arabic words are highlighted in boldface:

- (2) a. **kulliyāt-i** **lāyiḥa-yi** **būdḡa-yi** **sāl-i** **97-i** **kull-i**
 total.PL-GEN bill-GEN budget-GEN year-GEN 97-GEN whole-GEN
kišwar **radd** **šud**
 country reject be.PST.3SG
 ‘The total budget bill of the year 2018 for the whole country was rejected.’
- b. **dašwat** **az** **tihrānīhā** **barā-yi** **iḥdā-yi** **ḥūn** **asāmī-yi**
 call from Tehrani.PL for-GEN donation-GEN blood name.PL-GEN
marākiz-i **faššāl**
 center.PL-GEN active
 ‘Calling the residents of Tehran to donate blood. Names of active centers.’
- c. **iḥrāz-i** **huwīyyat** **dar** **mušāmilāt-i** **milki**
 authentication-GEN identity in transaction.PL-GEN proprietary
bā **kārt-i** **hūšmand-i** **millī** **aṅḡām** **mī-šaw-ad**
 with card-GEN smart-GEN national complete PRS-be-3SG
 ‘Personal authentication in real estate transactions is done with the national smart card.’

In the Arabic lexicon of New Persian, further characteristics can be observed, such as phonetic changes (NewP *maʔnī* ‘meaning’ < MSA *maʔnā*, NewP *madrīsa* ‘school’ < MSA *madrāsa*, NewP *šikl* ‘shape, form’ < SA *šakl*), where in some cases

⁴In Early Classical Persian, short vowels were likely pronounced as /u/ and /i/, and the *alif* as /ā/. In MSP, the pronunciation is /o/, /e/ and /v/.

the Persian pronunciation may follow Arabic dialectal forms, semantic changes (NewP *kitābat* ‘writing’ and *kitāba* ‘inscription’ < MSA *kitāba* ‘writing’, NewP *ṣuḥbat* ‘speech’ < MSA *ṣuḥba* ‘companionship’), and occasional *imāla* in elevated or poetic style (NewP *ḥiḡīz* < MSA *ḥiḡāz*).

3.3.2 Arabic lexicon in Persian dialects

Arabic loanwords affect Persian dialects in two ways that differ from MSP: i) semantic changes, where Arabic lexemes assume new meanings unattested in both MSA and MSP: in Kirmān *ḡāt* ‘age’ (Şarrāfi 1996: 106) < MSA/MSP ‘self, soul, essence, nature’, *ḡātī* ‘old’ < MSA/MSP ‘own, personal’; ii) lexemes and expressions directly borrowed from Arabic, and not attested in MSP: in Šūstar, *ḥaya* ‘snake’ < MSA *ḥayya*, MSP *mār* (Fāzili 2004: 140), *ṭayyāra* ‘airplane’ < Arabic dialects *ṭayyāra*, MSA *ṭāʔira*, MSP *hawāpaimā* (Fāzili 2004: 150), *ṣaḥn* ‘bowl, dish’ < MSA *ṣaḥn*, MSP *buṣqāb* (Fāzili 2004: 150), *ṭabaq* ‘plate, tray’ < MSA *ṭabaq*, MSP *sīnī* (Fāzili 2004: 150), in Fīn, *mismāl* ‘nail’ < MSA *mismār*, MSP *mīḥ* ‘nail’ (Naḡībī Fīnī 2002: 133), in Kirmān, *aḡad un-nās* ‘nobody, somebody’ < MSA *aḡad un-nās*, MSP *hīčkas* ‘nobody’, *kasī* ‘somebody’ (Şarrāfi 1996: 33).

On the Persian Gulf coast of Iran, due to linguistic, economic and commercial connections with the Arabian Peninsula, Persian dialects have incorporated from Gulf Arabic a number of Arabic technical terms relating to pearling, fishing and traditional shipbuilding: *muḥār* ‘shellfish, oysters’ (cf. MSA *maḥār*), *giyās* ‘measure, gauge’ (< GA *giyās*, cf. MSA *qiyās*), *mīdāf* ‘helm (boat)’ (< GA *mīdāf*, cf. MSA *miḡdāf*), *māčila* ‘meal (on a boat)’ (< GA *māčila*, cf. MSA *maʔkūl*). Two neighborhoods in the town of Bandar Linga (opposite Dubai, 180 km west of Bandar ʔAbbās) are called *Maḥalla-yi Bahrainī* ‘Bahraini Quarter’ and *Maḥalla-yi Sammāčī* ‘Fishers’ Quarter’ (< GA *sammāč*, cf. MSA *sammāk*) (Baḥtiyārī 1990: 137–138).

4 Conclusion

Although Arabic–Persian language contact has been a well-known phenomenon for centuries, academic research dedicated to this topic is far from abundant. Throughout the centuries, Persian writers and poets used Arabic lexical elements in new meanings or coined non-standard Perso-Arabic lexemes based on Arabic derivational patterns. Idiosyncratic features of individual Persian writers should be examined separately before compiling a comprehensive review of this contact-induced language change. Substantial fieldwork needs to be conducted to describe the bilingualism of ethnic Arab communities of Iran and ethnic Persians

in Arabic-speaking countries. Additionally, it is essential for linguists to look into Arabic influence on Modern Persian dialects and Iranian languages other than New Persian. This will help scholars understand the scale and depth of how Arabic has shaped Iranian languages for the past thousand years.

Contact-induced language change in New Iranian languages primarily transpired under RL agentivity. It should be noted, however, that medieval Persian literati were so well-versed in Arabic due to its prestige and dominance, that their bilingualism may have enabled convergence in Arabic–Persian language contact.

Further reading

- Asbaghi (1987) gathers eight hundred Persian words of Arabic origin in twenty-three groups and analyzes the semantic changes they underwent when transferred from Arabic to New Persian.
- Gazsi (2011) gives an overview of Arabic–Persian language contact from pre-Islamic times up to the modern era, also touching on Arabic dialects in Iran. A brief analysis of Arabic morphosyntactic features in New Persian is also provided.
- Šādeqī (2011) discusses a range of Arabic phonological, grammatical and semantic elements in New Persian.

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Abbreviations

BCE	before Common Era	NewP	New Persian
CE	Common Era	PL	plural
GA	Gulf Arabic	PRS	present
GEN	genitive	PST	past
MSA	Modern Standard Arabic	RL	recipient language
MSP	Modern Standard Persian		

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Chapter 21

Kurdish

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This chapter provides an overview of the influence of Arabic on Kurdish, especially on its Northern and Central varieties spoken mainly in Turkey–Syria–Iraq and Iraq–Iran, respectively. It summarizes and critically assesses the limited research on the contact-induced changes in the phonology and syntax of Kurdish, and proposes several new dimensions in the morphology and syntax, in addition to providing a first treatment of lexical convergence in Kurdish through borrowings from Arabic.

1 Kurdish and its speech community

Kurdish is a Northwestern Iranian language spoken by 25 to 30 million speakers in a contiguous area of western Iran, northern Iraq, eastern Turkey and north-eastern Syria. There are also scattered enclaves of Kurdish speakers in central Anatolia, the Caucasus, northeastern Iran (Khorasan province) and Central Asia, with a large European diaspora population. The three major varieties of Kurdish are: (i) Southern Kurdish, spoken under various names near the city of Kermanshah in Iran and across the border in Iraq; (ii) Central Kurdish (also known as Sorani), one of the official languages of the autonomous Kurdish region in Iraq, also spoken by a large population in western Iran along the Iraqi border; (iii) Northern Kurdish (also known as Kurmanji), spoken by the Kurds of Turkey, Syria and the northwestern perimeter of Iraq, in the province of West Azerbaijan in northwestern Iran and in pockets in the west of Armenia (cf. Haig & Öpengin 2014 for a discussion on defining “Kurdish”). Of these three, the largest group in terms of speaker numbers is Northern Kurdish. The Kurdish population in respective states is difficult to reliably determine since none of the sovereign countries make the relevant census information available. Table 1 provides some



cautious estimates based on various sources (especially Sirkeci 2005; Zeyneloğlu et al. 2016; and Ethnologue).^{1,2}

Table 1: Estimates of Kurdish population numbers

Country	Population size
Turkey	c. 15,000,000
Iraq	c. 6,000,000
Iran	c. 8,000,000
Syria	c. 2,000,000

2 The history of Kurdish–Arabic contact

Information about the pre-Islamic history of the Kurds and their language is scarce. According to early Islamic sources, at the time of the Islamic conquest of the Near East (Upper Mesopotamia, Iran, and Armenia) in the seventh century (Bois et al. 2012: 451), the communities designated with the term *Kurd* were already living in most of the present-day Kurdish-inhabited areas, namely from Mosul to the north of Lake Van, and from Hamadan to the Jazira region situated around the intersection of present-day Syria, Iraq and Turkey (James 2007: 111). The Kurds have thus been living in contact with various Aramaic-speaking Christian and Jewish communities as well as Arabic-speaking communities since at least the early Islamic period, though the contact of Iranian-speaking populations with Aramaic dates back to the fifth century BCE (cf. Utas 2005: 69, citing also Folmer 1995 and Kent 1953). Kurdish differs from other Iranian languages such as Persian in sharing the same or close geographical spaces with Arabic-speaking populations, especially in Upper Mesopotamia. The historical socio-cultural contact between Kurdish and Arabic-speaking communities requires a more refined treatment than is currently possible, but there are a number of medieval Arabic sources which attest to the interaction and mobility of Kurdish and Arabic communities in some regions (e.g. Erbil, Mosul), as well as language shift of some Kurdish communities to Arabic and vice versa (cf. Bois et al. 2012: 449, 452, 456; James 2007: 115–120).

¹See <https://www.ethnologue.com/language/kur> (accessed 31/01/2020; Eberhard et al. 2019).

²The population figures should not be taken as equivalent to “number of speakers”, since especially in Turkey a significant portion of the Kurdish population grow up with no or very limited knowledge of Kurdish (cf. Öpengin 2012; Zeyneloğlu et al. 2016).

Given the unquestionably prestigious status of Arabic in administration and sciences in the Islamicized Near East, consolidated especially under Abbasid rule (which included most of the Kurdish-inhabited areas), Kurdish was heavily dominated by Arabic. Even in several of the important medieval Kurdish dynasties such as that of the Marwānids (10th–11th centuries), Arabic enjoyed the high status of being the administrative and literary language (cf. James 2007: 112), since the coins bore Arabic script, while *qaṣīda* reading ceremonies or contests would feature primarily Arabic, but to a limited extent also Persian pieces (Ripper 2012: 507–528). With the conquest of the Kurdish-inhabited regions by Turkic peoples and Mongols from tenth century onwards, which led also to the final overthrowing of the Abbasid state in 1248 by the Mongols, the Arabic-speaking populations may have started to diminish and retreat. Although at this stage Persian attained a firm status as the literary language in the Islamic East (Perry 2012: 73), Arabic preserved its higher status in administration and, later on, especially in education, well into the end of the nineteenth century. Thus, Kurdish developed a literary tradition only starting from the sixteenth century, but its limited usage was largely restricted to writing verse throughout the following several centuries. The literature in this period is heavily dominated by the vocabulary and literary formulas and metaphors of the two dominant languages, Arabic and Persian (cf. Öpengin forthcoming).

In the early twentieth century, with the dissolution of the Ottoman Empire, Kurdish in Iraq and Syria again came into primary direct contact with Arabic. In Iraq, up until 1991, with the establishment of a Kurdish autonomous region, the language configuration was one in which Arabic was the prestigious language of higher domains. Not being in possession of any official status, the Kurds in Syria have been in a highly asymmetric language-contact situation with Arabic. In Turkey, especially in Mardin and Siirt provinces, Kurds have been in contact with Arabic-speaking communities, but as the lingua franca of the communities of cultural–historical Kurdistan (cf. Edwards 1851: 121), Kurdish must have been the dominant language of interaction between these communities (cf. Lentin 2012), and it is indeed possible to observe important influences from Kurdish on the local Arabic dialects (cf. Jastrow 2011 and §3.1 below.).

As a result of these differing degrees and modalities of contact with Arabic, the influence of Arabic should be viewed as consisting of at least two layers, and viewed separately for different country contexts where Kurdish is spoken. Of the two layers, there should be assumed a deeper contact influence, shared in larger portions of Kurdish-speaking areas, dating to before the twentieth century; and a more shallow layer that is the result of the more recent societal bilingualism in Iraq and Syria. Likewise, while in Syria and Iraq the Arabic influence

on Kurdish continues, this influence is largely replaced by influence from the dominant state languages in Turkey and Iran. Naturally, the intensity of Arabic influence on Kurdish shows a great deal of variation across Kurdish varieties and dialects within varieties. Accordingly, the historically deeper-layer Arabic influence on Kurdish is characterized by its being restricted mostly to lexicon and being shared in the majority of Kurdish dialects. This has been the result of borrowing under recipient-language agentivity in the sense of Van Coetsem (1988; 2000). On the other hand, the relatively advanced Arabic influence on the Kurdish spoken in the historical Jazira region (including Mosul, northeast Syria, and Mardin province in southeast Turkey), as well as the more recent Arabic influence on the Kurdish spoken in Syria, but also – albeit more restrictedly – in Iraq, concerns also grammatical constructions and at least some of that contact influence could be due to imposition under source-language agentivity.

3 Contact-induced changes in Kurdish

3.1 Phonology

The consonant inventory of Kurmanji is given in Table 2.³

In cells of doublets/triplets, the voiceless phonemes come first. The apostrophe on plosive and fricative phonemes indicates aspiration, which marks a phonemic distinction in Kurmanji. In addition to these consonants with indisputable phonemic status, there are the so-called emphatic or pharyngealized variants of the obstruents /p, b, t, d, s, z/. These variants are transcribed in the text with a dot beneath the characters.

The consonant inventory of Sorani is basically identical with Table 2, except: (i) it does not have unaspirated stop phonemes; and (ii) it has velar nasal and velarized lateral phonemes (Öpengin 2016: 27).

Arabic (or more generally Semitic) influence on the phonology of Kurdish is most clearly observed in the presence of the two pharyngeal phonemes *ħ* [ħ] and *ʕ* [ʕ] (cf. Kahn 1976; Haig 2007; Anonby 2020; Barry 2019), as well as the series of emphatic obstruents *ṭ*, *ḍ*, *ṣ*, and *ẓ* (Haig & Öpengin 2018), respectively. The precise Semitic source language for these sounds cannot be determined, since Kurdish (or rather its ancestor languages) must have been in close contact with

³Kurdish data are transcribed in the standard Kurdish Latin alphabet with some additions for emphatics and pharyngeals, mostly consonant with the Library of Congress approach for the romanization of Kurdish: <https://www.loc.gov/catdir/cpsd/romanization/kurdish.pdf> (accessed 31/01/2020).

Table 2: Consonant phonemes in Kurmanji

	<i>Bilabial</i>	<i>Labio-dental</i>	<i>Alveolar</i>	<i>Palatal</i>	<i>Velar</i>	<i>Uvular</i>	<i>Pharyngeal</i>	<i>Glottal</i>
Plosive	p' p b		t' t d		k' k g	q		'
Fricative		f v	s z	ʃ j	x ɣ		ħ ʕ	h
Affricate				ç' ç c				
Nasal	m		n					
Trill			ṛ					
Flap			r					
Approximant	w			y				
Lateral			l					

various Semitic languages for more than two millennia (Utas 2005: 69). However, these phonemes set the consonant inventory of Kurdish clearly apart from other West Iranian languages such as Persian, with the only other West Iranian languages possessing both pharyngeals and emphatic consonants being Zazaki, and the Kumzari language spoken mainly in Oman (Anonby 2020). In what follows, I illustrate the presence and interactions of the pharyngeal and emphatic consonants in Kurdish, and provide a brief discussion of their paths of development.⁴

The pharyngeal phonemes are found in varying degrees in both Central Kurdish and Northern Kurdish. They are retained in most of the Arabic loanwords originally bearing them, a list of which is given in Table 3.⁵

Some loanwords with original pharyngeals are reanalysed as containing their non-pharyngeal counterparts. Such is the word *haq* from Arabic *ḥaqq* 'right', or

⁴The Kurmanji lexical items presented in this section are based on my native-speaker knowledge of the Şemdinan (Şemdinli) dialect, and my knowledge of Kurmanji-internal dialectal variation, drawing also on (Chyet 2003), (Öpengin & Haig 2014), and the Manchester Database of Kurdish Dialects presented in Matras & Koontz-Garboden (2016). The Sorani lexical items are from Öpengin (2016) and the popular press.

⁵Note that all through the article, unless stated otherwise, the Arabic data represents Classical Arabic, giving an approximation of the ultimate Arabic etyma of the items without necessarily implying that these are the immediate source of the Kurdish items (as they may have been borrowed from local Arabic dialects as well as through the intermediary languages such as Persian or Ottoman). Furthermore, the glosses in tables are for Kurdish items, as sometimes the meanings of the Arabic etyma are not completely identical.

Table 3: Loanwords with retained pharyngeals in Kurdish

Arabic	Northern Kurdish	Central Kurdish	Gloss
<i>ʕarab</i>	<i>‘ereb</i>	<i>‘ereb</i>	‘Arab’
<i>maʕlūm</i>	<i>me‘lūm</i>	<i>me‘lūm</i>	‘evident’
<i>ʕadāla(t)</i>	<i>‘edalet</i>	<i>‘edalet</i>	‘justice’
<i>ṭābiʕ</i>	<i>tabi/ṭabi‘</i>	<i>ṭabi‘</i>	‘dependent’
<i>maḥall</i>	<i>miḥele</i>	<i>meḥel</i>	‘neighborhood’
<i>maḥṣar</i>	<i>meḥşer</i>	<i>meḥşer</i>	‘resurrection (day)’
<i>ḥākim</i>	<i>ḥakim</i>	<i>ḥakim</i>	‘judge, governor’
<i>ḥammām</i>	<i>ḥemam</i>	<i>ḥemam</i>	‘bath’
<i>baḥr</i>	<i>beḥr</i>	<i>beḥr</i>	‘sea’

the Arabic word *ṭaʕm* ‘taste’ that is seen in eastern dialects of Northern Kurdish and in Central Kurdish without the voiced pharyngeal as *ṭam* and *tam*, respectively.

Furthermore, an original pharyngeal in a loanword may be substituted with the alternative pharyngeal sound, so, for example, the voiced pharyngeal of the Arabic *ṭamaʕ* ‘greed’ may be realized as either of the pharyngeals in different Kurdish dialects. Such indeterminate or alternative use of pharyngeals may exist within a single dialect (cf. Kahn 1976: 25). For instance, in the Mukri dialect of Central Kurdish, (Öpengin 2016: 41–42) the following Arabic-origin words can be found in both of the form pairs: *sa‘ib* ~ *saḥib* ‘owner’, *erz* ~ *ḥerz* ‘honour’, *cema‘et* ~ *cemaḥet* ‘community’.

Finally, a pharyngeal may develop in loanwords that have no pharyngeal in the source language. Thus, in most of Northern Kurdish the Arabic word *ʔarḍ* ‘earth’ appears with a non-etymological pharyngeal as *‘erd*, while the Arabic word *ḡāḥil* ‘naïve, young’ is seen with a pharyngeal as *caḥêl* (but also *cahil*).

Although the pharyngeals in Kurdish occur mostly in Arabic loanwords, they have expanded also into inherited native Iranian lexicon, especially in Northern Kurdish. However, unlike in Arabic loanwords, fluctuation between pharyngeal and non-pharyngeal uses of such words among the dialects (sometimes in immediate geographic proximity) is readily apparent. Table 4 presents some native Iranian words of this kind. Where relevant, the non-pharyngeal forms are also noted, while Persian cognates are included for comparison.

More striking, however, is the emergence of a voiced pharyngeal in a subset of words with similar structure in the northern dialects of Northern Kurdish that are

Table 4: Pharyngeal sounds in native Iranian lexical items

Persian	Northern Kurdish	Central Kurdish	Gloss
<i>abr</i>	‘ <i>ewr</i>	<i>hewr</i>	‘cloud’
<i>zabān</i>	‘ <i>ezman</i> ~ <i>ziman</i>	<i>ziman</i>	‘language’
<i>āsemān</i>	‘ <i>esman</i>	<i>asman</i> ~ <i>hasman</i>	‘sky’
<i>hošk</i>	‘ <i>hišk</i> ~ <i>hišk</i>	<i>wišk</i>	‘dry, hard’
<i>haft</i>	‘ <i>heft</i> ~ <i>heft</i>	<i>hewt</i>	‘seven’
<i>hašt</i>	‘ <i>hešt</i> ~ <i>hešt</i>	<i>hešt</i>	‘eight’
<i>bahašt</i>	‘ <i>bihešt</i> ~ <i>bihišt</i>	<i>behešt</i>	‘paradise’

geographically farthest from direct Arabic/Semitic contact but close to Caucasian languages which also possess pharyngeals. Thus, the native words such as *masî* ‘fish’, *çav* ‘eye’, *mar* ‘snake’ (in Central Kurdish and in central and southern dialects of Northern Kurdish) appear in the northern dialects of Northern Kurdish with a pharyngeal, as *me’sî*, *çe’v*, *me’r*. These are obviously the result of language-internal processes, though nested in an initial introduction of the phonemes into the language via contact with either Arabic or Caucasian languages, or both.

As for their distribution, the pharyngeal phonemes are most robustly present in the central areas of the Northern and Central Kurdish speech zones. Their presence in Arabic loanwords is weakened towards the extreme northern and southern peripheries in heavy contact with Turkish and Persian (cf. Map 1.27 in the Manchester Kurdish Database, which illustrates such weakening of pharyngeals at the peripheries through the distribution of the Arabic loanword *heywan* ‘animal’).⁶

We turn now to the series of emphatic (pharyngealized) obstruents *t*, *d* and *s*, *z*. Table 5 gives a list of Arabic loanwords in which the original emphatic consonant is retained in Kurdish.

In the deeper-layer loanwords, the Arabic interdental and voiced alveolar emphatics are merged into the voiced emphatic alveolar phoneme *z* in Kurdish. But in present-day Iraqi and Syrian Kurdish speech, especially those speakers with formal education may also pronounce the interdental phoneme, especially in the case of nonce borrowings and code-mixing.

On the other hand, quite a number of Arabic loanwords are pronounced without their original emphatic consonants, and thus reanalysed as the corresponding plain phonemes (similarly to Persian), as in the items in Table 6.

⁶See <http://kurdish.humanities.manchester.ac.uk/pharyngeal-retentionloss-animal/> (accessed 31/01/2020).

Table 5: Arabic loanwords with emphatic consonants in Kurdish

Arabic	Northern Kurdish	Gloss
<i>ṭaṣm</i>	<i>ṭam</i> ~ <i>te‘m</i>	‘taste’
<i>ṭāʿir</i>	<i>ṭeyr</i>	‘bird’
<i>baṭṭāl</i>	<i>beṭal</i>	‘empty, cancel’
<i>ḍulm</i>	<i>zūlm</i>	‘oppression’
<i>ḍābit</i>	<i>zabit</i>	‘clerk’
<i>ṣūfī</i>	<i>şofî</i>	‘devotee, Sufi’
<i>şāfī</i>	<i>şaf</i> ~ <i>şafî</i>	‘clear’

Table 6: Arabic loanwords with lost emphatics in Kurdish

Arabic	Northern Kurdish	Central Kurdish	Gloss
<i>ḥāṭir</i>	<i>xatir</i>	<i>xatir</i>	‘mind’
<i>ṭaraf</i>	<i>teref</i>	<i>teref</i>	‘side, direction’
<i>şayṭān</i>	<i>şeytan</i>	<i>şeytan</i>	‘devil’
<i>ḍaʿīf</i>	<i>ze‘îf</i>	<i>ze‘îf</i>	‘weak’
<i>ḥāḍir</i>	<i>hazir</i>	<i>hazir</i>	‘ready’
<i>qaşşāb</i>	<i>qesab</i>	<i>qesab</i>	‘butcher’
<i>fasîḥ</i>	<i>fesîḥ</i>	<i>fesîḥ</i>	‘clear’
<i>şabr</i>	<i>sebr</i> ~ <i>şebr</i>	<i>sebr</i>	‘patience’

On the reverse side, some Arabic loanwords with no original emphatic consonants are pronounced with emphatic consonants in Kurdish, such as *zelal* (~ *zelal* and *zelal*) from Arabic *zulāl* ‘clear’ (dialectal *zalāl*), or *zelam* ‘man’ from Syrian Arabic *zalame*.

Finally, just as with the pharyngeal consonants, emphatic sounds also appear in inherited native Iranian words, as illustrated in Table 7.

Of the emphatic obstruents, the fricative pair (*ʒ*, *ʒ*) are found both in Northern and Central Kurdish (though less often in the latter), while the stops (*t*, *d*) are found only in Northern Kurdish, with the voiced counterpart being extremely rare. The fact that the voiceless emphatic stop is widespread only in Northern Kurdish most probably has to do with the presence of two series of aspirated and unaspirated voiceless stops in the language (cf. Table 2). The unaspirated stops are probably intermediary in the development of emphatics. This is fur-

Table 7: Emphatic consonants in native Iranian lexical items

Northern Kurdish	Central Kurdish	Gloss
<i>mezin</i>	-	'big'
<i>ziman</i>	<i>ziman</i>	'language'
<i>zik ~ zik</i>	<i>zig</i>	'stomach'
<i>ažad</i>	<i>azad</i>	'free'
<i>zava</i>	<i>zawa</i>	'groom'
<i>bežîn</i>	-	'to run'
<i>pež</i>	<i>pez</i>	'sheep'
<i>şal</i>	<i>şal</i>	'year'
<i>şed ~ sed</i>	<i>şed</i>	'hundred'
<i>şe</i>	<i>şeg</i>	'dog'
<i>beş ~ bes</i>	<i>bes</i>	'enough'
<i>şawa</i>	<i>sawa</i>	'very young, newborn'
<i>şotin</i>	<i>sûtan</i>	'to burn'
<i>şîşt</i>	-	'loose'
<i>tarî</i>	<i>tarîk</i>	'dark'
<i>tezî</i>	<i>tezî</i>	'cold'
<i>teng</i>	<i>teng</i>	'narrow'
<i>term</i>	<i>term</i>	'dead body'
<i>tirş</i>	<i>tirş</i>	'sour'
<i>daş(ik)</i>	<i>das</i>	'sickle'
<i>dirî</i>	-	'blackberry bush'

ther reinforced by the fact that in Northern Kurdish the bilabial voiceless stop *p* also has an emphatic version, as in the native words *pež* 'sheep' and *penîr* 'cheese' (in some dialects; cf. Kahn 1976: 27). Within Northern Kurdish, they are found in more southerly dialects, and are noted to be particularly frequent in both the Kurdish and Neo-Aramaic of Duhok and Hakkari provinces (Blau 1989: 329). They tend to be less present moving northwards (Erzurum–Kars) while MacKenzie (1961: 43) notes that they are altogether absent in the Yerevan dialect. This distribution is of course consistent with a language-contact scenario, in the sense that in the northern dialects away from Semitic influence the language either did not develop emphatics or lost them as a result of contact with and bilingualism in Armenian, Turkic and Caucasian languages that do not possess such emphatics.

Given the shallow history of written Kurdish, it is not possible to determine the historical period of the introduction of the emphatics and pharyngeals into the language. However, they are found abundantly even in the earliest Kurdish texts, especially in the Arabic component, but also in inherited lexical items, such as *şal* ‘year’, *şar* ‘cold’, *şed* ‘hundred’, *mezîn* ‘big’, *hemyan* ‘all of them’ (items taken from *Şêxê Sen‘aniyan* by the early seventeenth-century poet Feqiyê Teyran, cf. Teyran 2011).

Three studies have treated the pharyngeals and emphatics in Kurdish, namely Kahn (1976), Anonby (2020) and Barry (2019). Barry (2019) suggests that the pharyngeal sounds (including emphatics) in Kurdish are the result of contact influence from Arabic with a phonetic basis. The phonetic basis consists in the re-categorization of vowels and the *h* sound within syllables with “flat” consonants (including pharyngeals, rhotics, grooved fricatives, and labials). Thus, initially, through extensive language contact with and bilingualism in Arabic, the speakers attained an active category of pharyngeals. Then the (inherited or loan) vocabulary with sounds that have pharyngeal-like effects on neighbouring vowels led to the reanalysis of the given vocabulary items as pharyngeal. In this account, the whole syllable is pharyngeal rather than individual sound segments. This account is particularly appropriate since, while it acknowledges the role of language contact with Arabic in the initial stage, it posits a phonetic mechanism of language-internal development of pharyngealization that captures an expansion of pharyngeals into historically non-pharyngeal lexical items that would be impossible to explain on purely language-contact grounds. It is, for instance, consistent with the fact that, in the above-presented data, the emphatics, but not pharyngeals in loan words, are restricted to the environment of more open vowels: *e*, *a*, *o*, and *i* [ɪ]. Furthermore, although not stated in the source study, the assumed subsequent development of a phonetic basis for the propagation of the pharyngeals into items originally without pharyngeal sounds is consonant with the facts of different stages or layers of borrowing. For instance, from the Arabic root $\sqrt{g\dot{m}\ell}$ we have three forms in Kurmanji: *civat* ‘community, company’, *cimat* ‘the assembly of prayers in a funeral’, and *cemaşet* ‘community’. The first form is probably the result of an early borrowing right after the initial Islamicization of the Kurds, as the fricativization of the bilabial nasal was active then (as seen also in *silav* ‘greeting’ from Arabic *salām*; Paul 2008). The second form with a slightly specialized semantic difference may have originated in a dialect where the mentioned fricativization did not occur. In any case, the first two forms, which are clearly early borrowings, did not retain the original pharyngeal, whereas in a later borrowing from the same root, when one can assume that the pharyngeals

were better tolerated in the language (and that the fricativization of bilabial nasal was not active), the pharyngeal sound did survive.

However, this account fails to explain why, in the great majority of the vocabulary with the relevant phonetic environment (syllables with “flat” consonants and low and back vowels), pharyngealization has not occurred. If the phonetic mechanism is integrated into the phonological system of the language, then pharyngealization would be expected in all relevant contexts. In this sense, although there is a phonetic ground to the propagation of the pharyngeals and emphatics in Kurdish, it may be safer not to postulate it as integrated into the phonological system of the language. Rather, the pharyngeals and emphatics should still be considered as peripheral to the phonological system (cf. Haig 2007; Anonby 2020), since, as noted by Haig (2007: 167), they are restricted to individual lexical items, their functional load is very limited, and there is considerable cross-speaker and cross-dialectal variability in the extent of their presence.

Although it is not the main focus of this chapter, a note on the reverse direction of contact influence is in order at this point. The Arabic dialects of Anatolia or Upper Mesopotamia (Mardin, Siirt, Kozluk, Sason, and the plain of Muş) have adopted some consonant and vowel phonemes via loanwords from Kurdish and Turkish, which do not exist in mainstream Arabic dialects (Jastrow 2011: 84; Akkuş, this volume: §3.1.1). The phonemes and example words with their sources are given in Table 8.

These additions into the phoneme inventory of the Anatolian Arabic are evidently the result of contact with Kurdish and Turkish. The introduction of these new phonemes has, as noted by Jastrow (2011: 84), on the one hand re-established the lacking symmetry caused by historical sound changes in Old Arabic, while on the other hand causing further sound shifts in the inherited Arabic vocabulary.

3.2 Morphology

It is usually assumed that Arabic influence on Kurdish is absent in the grammar (e.g. Edwards 1851), being largely restricted to phonology and lexicon. This is indeed to a large extent true. There are, however, several potential grammatical features that may be related to such contact influence.

Matras (2010: 75) suggests that the presence of aspect–mood prefixes in the languages of the Eastern Anatolian linguistic zone, namely Persian, Kurdish, Neo-Aramaic, Arabic and Western Armenian, is an outcome of language contact. Accordingly, all of these languages have a progressive–indicative aspectual prefix (in turn: *mī-*, *dī-*, *gə-*, *ko-*, *ba-/a-*), while subjunctive is marked either by the absence of the indicative prefix (Armenian and Neo-Aramaic) or by a specialized

Table 8: Borrowed phonemes in Arabic dialects of Anatolia

Phoneme	Example
bilabial stop /p/	<i>parčāye</i> ‘piece’ < Tr. <i>parça</i>
voiced labio-dental fricative /v/	<i>davare</i> ‘ramp’ < Kr. <i>dever</i> (F) ‘place’
voiceless affricate /č/	<i>čəqmāq</i> ‘lighter’ < Tr. <i>çakmak</i> ^a
voiced palatal fricative /ž/ ^b	<i>taşzi</i> ‘greyhound’ < Kr. <i>taşî</i>
voiced velar stop /g/	<i>gōmlak</i> ‘shirt (modern)’ < Tr. <i>gömlek</i>
mid long front vowel /ē/	<i>tēl</i> ‘wire’ < Tr. <i>tel</i> (via Kr. <i>têl</i>)
mid long back vowel /ō/ ^c	<i>hōrt</i> ‘young man’ < Kr. <i>xort</i>

^aIt is more probable that this word (and others attributed to Turkish) is borrowed via Kurdish, since the uvularization (/k/ > /q/) in loanwords and the change in the vowel of the first syllable (cf. also *qeymāx* ‘cream’, from Tr. *kaymak*) are typical of Kurmanji spoken in the region.

^bNote that the reflex of Arabic <ç> in this variety is /ğ/, not /ž/.

^cNote also that the original Arabic diphthongs *ay and *aw are preserved in this variety, not monophthongized to /ē/ and /ō/.

subjunctive prefix (Persian, Kurdish, Arabic). Since such aspect–mood prefixes are considered typical of Iranian languages of the region, they would have diffused from Kurdish and Persian into the other languages of the zone, including Arabic (which in its standard grammar does not have such forms; cf. Ryding 2014: 46–47). However, assessing the validity of Eastern Anatolia being a linguistic area, Haig (2014: 20–25) casts doubt on this claimed contact scenario, primarily since: (i) the feature exists in Arabic dialects outside the region; and (ii) it is absent in the two major languages of Anatolia, namely Turkish and Zazaki. Jastrow (2011: 92), on the other hand, although acknowledging the source of such verbal prefixes grammaticalizing from Old Arabic verb forms, hypothesizes – though without providing supporting arguments – that they may have developed under Turkish and Kurdish influence. Assessing also the grammaticalization of such formatives in various languages and rejecting a contact scenario behind their frequent occurrence in the languages of Anatolia, Haig (2014: 26) concludes that the present indicative prefixes found in Kurmanji, and in certain varieties of Aramaic and Arabic in Anatolia, could be interpreted as reflexes of an inherited morphological template, which is well-attested in the related Northwest Iranian and Semitic languages outside Anatolia.

Another (not previously discussed) candidate for Arabic influence on Kurmanji Kurdish relates to gender assignment in more recent loanwords from European languages. In Kurmanji, like Arabic, nouns are assigned to feminine and

masculine genders. The gender of inanimate nouns is largely arbitrary, with limited morpho-phonological basis in both languages. In Arabic, words carrying the *-a* ending are feminine, while in Kurmanji abstract nouns ending in *-î* are feminine, while the rest may be of either gender. Now, when Arabic borrows modern vocabulary items from European languages, items ending in *-a* are assigned to feminine gender, while the rest are assigned to masculine gender (Ibrahim 2015: 5). The default gender assigned to new lexical borrowings is masculine in Arabic. There is as yet no research on the gender assignment of borrowings in Kurmanji. However, it is easily observed that Kurmanji spoken in Turkey mostly favors feminine, while the Kurmanji of Iraq uses masculine gender for integrating modern vocabulary items into the language. The modern lexical borrowings (boldface) in (1) are all assigned to masculine gender in Badini Kurmanji of Iraq. Note that the gender of the nouns is visible in the *ezāfe* (see §3.3) and oblique case suffixes.

(1) Badini dialect of Kurmanji in Iraq (from media outlets)

- a. **sistem**-ê endroyd-ê
system-EZ.M android-OBL.F
'Android system'
- b. serok-ê **parleman**-î
president-EZ.M parliament-OBL.M
'the president of the parliament'
- c. **form**ê têgehiştin-ê
form-EZ.M understanding-OBL.F
'the form of understanding'
- d. **moral**-ê diyalog
moral-EZ.M dialogue
'the moral of dialogue'
- e. **proj(e)**-ê av-ê
project-EZ.M water-OBL.F
'the water project'
- f. **prensîp**-ê hevvelatîbûn-ê
principle-EZ.M citizenship-OBL.M
'the principle of citizenship'

All of these lexical borrowings exist also in Kurmanji as spoken in Turkey, but they are systematically used with feminine gender. For instance the phrase in

(1b) would be realized as *serok-ê parleman-ê* (president-EZ.M parliament-OBL.F), with the feminine form of the oblique case suffix.

As was stated above, the majority of such modern lexical borrowings in Arabic are assigned to masculine gender. The masculine gender assignment in Kurmanji in Iraq is thus most probably motivated by the Arabic gender assignment pattern. This is all the more plausible when we consider that Arabic, as the dominant state language for the Iraqi Kurds for almost a century, serves also as the intermediary language via which such lexical items are normally borrowed into Kurmanji in Iraq. However, this contact influence must have been established relatively recently, since earlier technical borrowings in Kurmanji in Iraq such as *têlevizyon* and *radyo* are treated as feminine nouns, despite being masculine in Arabic.

3.3 Syntax

Although several studies have dealt with the outcomes of language contact between Kurdish and (Neo-)Aramaic in the grammar of these languages – especially on such topics as alignment (Coghill 2016), word order (Haig 2014), and noun phrase morphology (Noorlander 2014) – as far as I am aware, the only study on Arabic–Kurdish contact in grammar is the short note of Tsabолоv (1994) about the distinctive position of the possessor in a multiple-modifier noun phrase in Northern Kurdish.

As is well known, a number of West Iranian languages (Middle and contemporary Persian, Kurdish, Zazaki, etc.) employ a bound morpheme for linking post-head modifiers in a noun phrase, called *ezāfe* or *izāfe* (from Arabic *ʔidāfa* ‘joining, addition’), as in (2) and (3).

- (2) Persian (personal knowledge)
ḥāna-e bozorg
house-EZ big
‘(the) big house’
- (3) Northern Kurdish (personal knowledge)
xanî-yê mezin
house-EZ.M big
‘the big house’

The *ezāfe* in Northern Kurdish differs from its cognates in, for instance, Central Kurdish and Persian, as it inflects for gender (masculine *-ê* vs. feminine *-a*) and number (singular *-ê/-a* and plural *-ên/-êd*), in addition to having secondary or pronominal forms used in chain *ezāfe* constructions with multiple modifiers (and

some other predicative functions; cf. Haig 2011; Haig & Öpengin 2018). In most West Iranian languages, noun phrases with multiple modifiers have their head noun first, followed by qualitative then possessive modifiers, as in (4) and (5). This is also the order in Middle Persian, as in (6), where Tsabolov (1994: 122) considers such constructions may be regarded as prototypes of the *ezāfe* constructions of modern West Iranian languages.

- (4) Persian (personal knowledge)
 ḥāna-e bozorg-e Malek
 house-EZ big-EZ PN
 ‘Malek’s big house’
- (5) Central Kurdish (personal knowledge)
 kurr-î gewre-y Karwan
 son-EZ big-EZ PN
 ‘my friend’s beautiful daughter’
- (6) Middle Persian (Tsabolov 1994: 122)
 pus ī mas ī Artavān
 son EZ big EZ PN
 ‘Artavan’s elder son’

However, in Northern Kurdish the order of modifiers is reversed, such that a possessor of the head noun in the noun phrase comes before attributive modifiers, as in (7), where the secondary linking element is glossed as *SEC*.

- (7) Northern Kurdish (personal knowledge)
 xanî-yê Malik-î (y)ê mezin
 house-EZ.M PN-OBL.M EZ.M.SEC big
 ‘Malik’s big house’

Tsabolov observes that these syntactic particularities of Northern Kurdish have no parallels in other Kurdish varieties and Iranian languages as a whole, but that they correspond to the word order in noun phrases in Arabic, as can be seen in the comparison of (8) and (9).

- (8) Arabic (Tsabolov 1994: 123)
 miḥfaḍātu ṭ-ṭālibi l-ḡadidatu
 bag.NOM DEF-student.GEN DEF-new.F.NOM
 ‘the student’s new bag’

(9) Northern Kurdish (Tsabolov 1994: 123)

çent-ê şagirt-î taze
bag-EZ.M student-EZ.M.SEC new
'the student's new bag'

Note that although in standard Kurmanji (Northern Kurdish) the forms of the primary and secondary *ezāfes* are identical, with the difference being in the latter's status either as enclitics or independent particles, in the northern dialect of Northern Kurdish considered by Tsabolov, the singular forms of the secondary *ezāfe* are different (with masculine *-î* and feminine *-e*). In Tsabolov's view, the centuries-old close contacts between Kurdish and Semitic dialects, especially Arabic, have not only resulted in the above-described change of noun-phrase-internal word order (syntactic) but also in the development of secondary forms of *ezāfe* through the "weakening" of the primary ones (morphological), because, he argues, such distinct forms "were necessary for correlating each attribute in an [*ezāfe*] chain with the ruling noun they refer to" (1994: 123).

On closer scrutiny, however, the motivation Tsabolov puts forward for the morphological change may not be entirely correct, since, on the one hand, *ezāfe* forms in Northern Kurdish distinguish gender and number, which already correlate the modifiers with their head nouns, and on the other hand, in the majority of Northern Kurdish dialects the primary and secondary *ezāfes* are formally identical. The change in form is an instance of vowel raising ($a > e$, $\hat{e} > \hat{i}$) that is also observed elsewhere in the morphology of noun phrase (cf. Haig & Öpengin 2018).

As for Tsabolov's main claim regarding word-order change leading to the initial positioning of a possessor modifier in the noun phrase, here too the role of language contact might require revision, since it might have more to do with language-internal organization of morphological material: Zazaki (geographically contiguous with Kurmanji but from a separate historical source to Kurdish), which, like Kurmanji, has gender/number-marking *ezāfe* forms and a case distinction in its nominal system, follows precisely the same word order pattern as Kurmanji in the noun phrase (cf. Todd 2002: 95), while Sorani, which has lost gender/number-marking in *ezāfes* and case distinctions in its nominal system, differs from them and instead follows the Persian and Middle Persian pattern (cf. Öpengin 2016: 61–64). That is, the determining factor seems to be the presence or absence of gender/number-marking *ezāfe* forms, which enable reference tracking between heads and dependents in a noun phrase independently of word order.

Despite the scepticism one may have towards Tsabolov's hypothesis, there is a rather parallel more recent syntactic change in progress stemming from the

Arabic influence on the Kurdish of Iraq. This change concerns especially the naming of institutions, such as schools and airports. Recall that in Central Kurdish the possessor in a chain *ezāfe* construction is positioned at the end of the noun phrase, as illustrated in (5). However, in the case of these examples, the proper name occurs right after the head noun and before the qualitative modifier, as in (10) and (11).

- (10) Central Kurdish (official signage)
 qutabxane-y Qemeryan-î seretayî
 school-EZ PN-EZ primary
 ‘Qamaryan primary school’
- (11) Central Kurdish (official signage)
 firokexane-y Hewlêr-î nêwdewletî
 airport-EZ PN-EZ international
 ‘Hawler international airport’

If the proper name is understood as having the function of possessor here, this is an order that is rather different from the typical Central Kurdish syntax of chain *ezāfe* constructions. But this is precisely the order described for multiple modifier noun phrases of Arabic, as in (8). Thus the order in (11) is the exact replication of the Arabic version of the same name illustrated in (12).

- (12) Arabic (official signage)
 maṭār arbīl ad-dawlī
 airport PN DEF-international
 ‘Erbil international airport’

This is clearly a recent imposition from Arabic which does not seem to have gone much beyond naming institutions, especially official signage: the Arabic-like ordering of the name of the airport appears only half as frequently as the inherited order in a Google search. Furthermore, there is no trace of such a word order pattern in the use of Central Kurdish in Iran.

3.4 Lexicon

Arabic influence on Kurdish and all other Near Eastern languages is observed most clearly and abundantly in the vast number of loanwords. According to Perry (2005: 97), the process of lexical convergence initially took place in Persian between the ninth and thirteenth centuries, when a large number of learned terms

were borrowed into literary Persian, and thence transmitted to the other languages of the region. This scenario explains some of the similarities of loanword integration in the two languages (e.g. the borrowing of *tāʔ marbūta* as *-at/-et* (rather than *a*) in a number of words, such as *hukūmat* ‘government’, Persian *hokūmat*, and *quwet* ‘strength’, Persian *qovvat*). However, being spoken in a region that is closer geographically to Arabic-speaking communities, and having had its own educational and religious institutions where Arabic served as the high literary language, Kurdish must have also followed its own course of contact with Arabic. Despite this, there are no studies of lexical borrowing from Arabic into Kurdish. Given the vastness of the topic, with its layers of time-depth and substantial extra-linguistic aspects, I can only propose here to sketch the major lexical domains of borrowing, and note some observations on the word class and morpho-phonological integration of the borrowings.

The three major varieties differ in their proportions of borrowing from Arabic. Impressionistically, Northern Kurdish seems to have borrowed most extensively. There is, however, a deeper layer of lexical borrowings shared throughout Kurdish (some of which are common to all or most of the Near Eastern languages), such as the following (cited in their Northern Kurdish forms):⁷

- | | |
|-------------------------------|---|
| (13) <i>xerab</i> ‘bad’ | < Ar. <i>ḥarāb</i> ‘ruins’ |
| <i>xelk/xelq</i> ‘people’ | < Ar. <i>ḥalq</i> (\sqrt{xlq} ‘to create’) |
| <i>xiyanet</i> ‘betrayal’ | < Ar. <i>ḥiyāna</i> |
| <i>xizēm</i> ‘nose-ring’ | < Ar. <i>ḥizām</i> |
| <i>xizmet</i> ‘service’ | < Ar. <i>ḥidma</i> |
| <i>‘eql/aqil</i> ‘reason’ | < Ar. <i>ʕaql</i> (<i>qəltu</i> Ar. <i>ʕaḡəl</i>) |
| <i>qelem</i> ‘pen’ | < Ar. <i>qalam</i> |
| <i>quwet</i> ‘strength’ | < Ar. <i>quwwa</i> |
| <i>kitêb</i> ‘book’ | < Ar. <i>kitāb</i> |
| <i>xiyal</i> ‘thought, grief’ | < Ar. <i>ḥayāl</i> ‘imagination’ |
| <i>hevîr</i> ‘dough’ | < Ar. <i>ḥamîr</i> |
| <i>fîkr</i> ‘thought, idea’ | < Ar. <i>fîkr</i> |
| <i>fêkî/fêqî</i> ‘fruit’ | < Ar. <i>fākiḥa</i> |
| <i>ḥal</i> ‘condition’ | < Ar. <i>ḥāl</i> |
| <i>ḥazir</i> ‘ready’ | < Ar. <i>ḥādir</i> |
| <i>şol/şuxul</i> ‘work’ | < Ar. <i>şuyl</i> |
| <i>terk</i> ‘abandonment’ | < Ar. \sqrt{trk} ‘to abandon’ |

⁷The main source for the lexical items in this section, together with the information regarding their Arabic origin, is Chyet (2003). However, I have supplied the interpretation and the discussion of the material and as such only I am responsible for any shortcomings.

Within varieties too, the dialect zones where the communities have had historically closer contact with Arabic-speaking areas show greater Arabic influence in vocabulary. Thus, the dialect of Northern Kurdish named as Southern Kurmanji by Öpengin & Haig (2014), spoken around Mardin and Diyarbakir provinces in Turkey, the Jazira province of northeast Syria, and the Sinjar region of Iraq, is the dialect with most extensive Arabic lexical borrowings. Thus, the following items are restricted to this dialect of Northern Kurdish: *tefa-ndin* ‘extinguish-TR.INF’ (from dialectal Ar. *tafa* or standard *tafiʔa*), *şitexl-în* ‘speak-INTR.INF’ (from dialectal Ar. *iştayal* ‘to work’), *hersim* ‘unripe and sour grapes’ (from Ar. *hişrim*), *siʔud* ‘good luck’ (Ar. *suʔud*, pl. of *saʔd*), *şîret* and *şêwr* ‘advice, counsel’ (Ar. $\sqrt{šwr}$).

Arabic loanwords in Kurdish belong to various semantic fields, such as kinship, body parts, animals, agriculture, basic tools, temporal concepts and religion. Regarding kinship terms, while the terms for the members of the nuclear family are all inherited, the four second-degree kin terms are all borrowed from Arabic: *met* ‘paternal aunt’ (cf. Ar. *ʕamma(t)*; this item does not exist in Sorani), *xalet/xaltî* ‘maternal aunt’ (Ar. *ḥāla*), *mam* ~ *am* ‘paternal uncle’ (Ar. *ʕamm*), *xal* ‘maternal uncle’ (Ar. *ḥāl*). Considering that the language had its own kin terms before its contact with Arabic, the borrowing of such kin terms constitutes a case of prestige borrowing, probably motivated by the use of such kin words as address forms in the cultures of the region (cf. Haig & Öpengin 2015).

Similarly, while words for basic animals are inherited, the animals not indigenous to the mountainous region of core Kurdistan are borrowed from Arabic, such as *tîmseḥ* ‘crocodile’ (Ar. *timsāḥ*), *fil* ‘elephant’ (Ar. *fīl*), *xezal* ‘gazelle, deer’ (Ar. *yaʕāl*). Likewise, the generic term for ‘bird’ or ‘large birds’ is the Arabic loanword *teyr* (Ar. *ṭayr*), while the category word *ferx* ‘young bird/chicken’ is also from Arabic *farḥ*. Several agricultural terms are also borrowed from Arabic, such as *zad* ‘grain, food’ (Ar. *zād* ‘provisions’), *simbil* ‘spike (of corn or wheat)’ (Ar. *sunbul*), *xox* ‘peach’ (Ar. *ḥawḥ*), *dims* ‘grape molasses’ (Ar. *dibs*). Various terms for spaces and tools of daily life are also borrowed from Arabic, such as *saʕet* ‘hour’ (Ar. *sāʕa*), *sifre* ‘tablecloth’ (Ar. *sufra* ‘dining table’), *qefes* ‘cage’ (Ar. *qafaş*), *ḥubr* ‘ink’ (Ar. *ḥibr*), *ḥemam* ‘bath’ (Ar. *ḥammām*), *ḥewş* ‘yard’ (Ar. *ḥawş*), *meşmer* ‘velvet’ (Ar. *muḥmal*). Some occupational terms from Arabic are *neqş* ‘embroidery’ (Ar. *naqş* ‘painting, drawing’), *ḥedad* ‘blacksmith’ (Ar. *ḥaddād*), *esker* ‘soldier’ (Ar. *ʕaskar* ‘army’), *tucar* and its older form *têcirvan* (Ar. *tuğğār* ‘traders’, sg. *tāğir*).

The older layer of administrative and legal terms are predominantly derived from Arabic – though they may have mostly entered via Persian and Ottoman Turkish – such as *sultan* ‘monarch’ (Ar. *sulṭān*), *walî* ‘provincial governor’ (Ar. *wālî*), *muxtar* ‘village chief’ (Ar. *muḥtār*), *ḥukûmet* ‘government’ (Ar. *ḥukūma*),

mehkeme ‘court’ (Ar. *maḥkama*), *de‘wā* ‘request, court case’ (Ar. *daʿwa* ‘request, invitation’ and *daʿwā* ‘court case’), *qanûn* ‘law’ (Ar. *qānūn*), *mekteb* ‘school’ (Ar. *maktab* ‘office, desk’).

As for religious terms, similar to the Persian case (cf. Perry 2012: 72), a number of basic Islamic concepts are inherited, such as the words for god, prophet, angel, devil, heaven, purgatory, prayer, fasting, and sin. In some instances, the Arabic equivalents of these terms exist alongside the inherited ones, restricting the use of the latter, as in the cases of *şeytan* ‘devil’ and *cehennem* ‘hell’, from Arabic *şayṭān* and *ġahannam*, replacing the Iranian *dêw* and *dojeh*. Many other basic and more peripheral concepts are borrowed from Arabic, such as the following: *xêr* ‘good’ (Ar. *ḥayr*), *xezeb* ‘wrath’ (Ar. *yaḍab*), *civat/cema‘et* ‘society, gathering’ (Ar. *ġamā‘a*), *hec* ‘pilgrimage’ (Ar. *ḥaġġ*), *şeytan* ‘devil’ (Ar. *şayṭān*), *we‘z* ‘(Islamic) sermon’ (Ar. *wa‘ḏ*), *helal* ‘permitted’ (Ar. *ḥalāl*), *heram* ‘forbidden’ (Ar. *ḥarām*), *ruh* ‘soul, spirit’ (Ar. *rūh*), *tizbî* (Sorani *tezbêh*) ‘prayer beads’ (Ar. *tasbîḥ*).

Finally, there are also a large number of concepts (temporal, moral, cosmological) that originate from Arabic roots, such as *sibe(h)* ‘morning, tomorrow’ (Ar. *şabāḥ*), *heyam* ‘period’ (Ar. *ayyām* ‘days’), *hêsîr* ‘prisoner’ (Ar. *ʿasîr*), *dinya* ‘world’ (Ar. *dunyā*), *hesab* ‘count, calculation’ (Ar. *ḥisāb*), *hîle* ‘trick, ruse’ (Ar. *ḥīla*), *hel* ‘solution’ (Ar. *ḥall*), *eşq* ‘love’ (Ar. *ʿişq*), ‘*erz* ‘honor, esteem’ (Ar. *ʿird*). Note also that the word *dinya* is used corresponding to the English expletive subject *it* in time and weather expressions, as in *dinya esr e* ‘it is late afternoon’ or *dinya ewr e* ‘it is cloudy’. This usage is noted to exist also in colloquial Arabic (Chyvet 2003: 155).

Some other interesting developments with Arabic material in Kurdish lexicon may be noted here. The Arabic *daʿwa* ‘invitation’ has resulted in two related but different concepts: *dawet/dewat* ‘wedding ceremony’ and *de‘wet* ‘invitation’. While the latter meaning is shared in Ottoman/Turkish and Persian, the former is a Kurdish-internal semantic expansion of the source meaning. The Kurdish (in all three varieties) word for ‘home’ *mal*, in the sense of family and familial belongings, rather than the house as a structure, is probably derived from the Arabic word *māl* ‘goods, property’. The generic term in Kurdish that designates Christians regardless of their ethnicity and confession is *fileh/file* which derives from Arabic *fallāḥ* ‘peasant, farmer’. Finally, there is the word *mixaletî* ‘the son of the maternal uncle or aunt’ in the southern Kurmanji dialect of Northern Kurdish that can probably be analysed as *mi* (< *ben* ‘son’) + *xalet* ‘aunt’ (< Ar. *ḥāla*) + *i* ‘my’.

Turning now to the word class categories of the loanwords, as has been seen from the presentation of semantic domains above, most Arabic loanwords in Kurdish are nouns. However, many Arabic noun loans are incorporated into

Kurdish verb forms. This takes place either through morphological integration or syntactic composition. In morphological integration, the Arabic root (whether nominal or verbal) is taken as the stem onto which the Kurdish verbal suffixes *-în/-îyan* for intransitives and *-andin* for transitives are added. Thus the Arabic noun *ilm* ‘knowledge’, apart from being used in its nominal sense, serves as the stem for the derivation of the intransitive *‘elimîn* (*‘elim-în*) ‘to learn’ and transitive *‘elimandin* ‘to teach, educate’. The following verbs are further examples of using Arabic roots (whether the original borrowings are nouns or verbs is not always clear) in the derivation of verbs in Kurdish: *tefandin* ‘to extinguish’ (Ar. *tafa/tafiʔa*), *fetisandin* ‘to suffocate’ (Ar. *faṭṭas*), *fetilîn* ‘to turn around’ (?Ar. *fatala* ‘to twist together’), *qulibîn* ‘to be overturned’ (Ar. *qalaba* ‘to overturn’), *sekinîn* ‘to stand, stop’ (Ar. \sqrt{skn} ‘calm, rest’), *fikirîn* ‘to think; to look at’ (Ar. *fikr* ‘thought’).⁸ The verb *qelandin* ‘to roast; to uproot’ has two sources as Ar. *qalā* and *qalaṣa*, respectively, which explains its polysemy in Kurdish.

In syntactic composition, on the other hand, a compound verb⁹ is obtained by combining an Arabic root with an inherited auxiliary light verb, such as *kirin* ‘do’ or *dan* ‘give’ for transitives, and *bûn* ‘to be’ for intransitives. Thus, the combination of Arabic adjective loanword *xerab* ‘bad’ (< Ar. *ḥarāb* ‘ruin’) with *kirin* yields the verbal meaning ‘to destroy’ while its combination with *bûn* means ‘to go bad, be spoiled’. Some example compound verbs with Arabic roots are given in (14).

- (14) *qedr* ‘respect’ (Ar. *qadr*) + *girtin* ‘to hold’ = ‘to respect’
silav ‘greeting’ (Ar. *salām* ‘peace’) + *dan* ‘to give’ = ‘to greet’
te’n/ṭan ‘scolding’ (Ar. *ṭaṭn* ‘piercing’) + *dan* = ‘to criticize’
qedexe ‘forbidden’ (Ar. *qadaḥa* ‘to rebuke’) + *kirin* ‘to do’ = ‘to forbid’
qesd ‘intention’ (Ar. *qaṣd*) + *kirin* = ‘to head for’
ze’îf ‘weak’ (Ar. *ḍa’îf*) + *bûn* ‘to be’ = ‘to become slim’

What motivates the choice between the morphological versus syntactic technique in the integration of Arabic loan roots in forming verbs in Kurdish is not

⁸Kurdish possesses a number of preverbs such as *ve-* and *ra-*. When inflected with tense–aspect–mood prefixes, these preverbs are detached from the verb stem, as with the verb *ve-kirin* ‘to open’ in *ve-di-ki-m* (PVB-IND-do.PRS-1SG) ‘I open (it)’. Now, the initial syllable of the verbs *sekinîn* and *fekirin*, which are based on Arabic loan roots, resemble such Kurdish preverbs. As a result, in some dialects, they are treated as preverbal elements detaching from the verb stem, as with *fe-di-ki-m-ê* ‘I look at it’ (own data, Şirnak area) or *se-di-kin-e* ‘s/he stands’ (own data, from Gevaş), where the initial syllables of originally Arabic roots are reanalysed as preverbs.

⁹Here the term *compound verb* is employed in a pre-theoretical sense, regardless of whether or not the given complex verb is considered to form a compound. See Haig (2002) for a discussion of complex verbs in Kurdish.

yet clear. While a few such verbs are found to be used in both synthetic and analytic forms, such as *ceribandin* and *cerebe kirin* ‘to try’ (Ar. < *ğarraba*), most verbs are used in just one of the two forms. However, there is a great deal of dialectal differentiation as to whether a verb is analytically or synthetically integrated. Thus, the morphologically integrated verbs of most Northern Kurmanji dialects such as *emilandin* ‘to use’ (dialectal Ar. *ʕimil* ‘to do’), *şuxulîn* (Ar. *şuyil* ‘work’), *fikirin* (Ar. *fikr* ‘thought’) are seen in the southeastern Badini dialect in synthetic form, with a nominal base combining with a light verb, as *emel kirin*, *şol kirin*, *fikr kirin*.

There are also various function words (discourse markers, conjunctions, adverbs) which are either borrowed from Arabic or developed in Kurdish based on material borrowed from Arabic. Thus, the conjunction *xeyrî* (also seen as *xeyr ji* and *xêncî*) ‘apart from, besides’ is based on Arabic *ğayr* ‘other than’, while the adversative *emā* ‘but’ is derived from Arabic *ʔammā* ‘however’. The similative *şibî* (also *şubhetî* and *şitî*) is derived from the Arabic root \sqrt{sbh} ‘resemblance’. The classifiers *heb* (and the adverbial *hebekî* ‘a little’) and *lib* are derived from Arabic *ħabb* ‘grain(s)’ and *lubb* ‘kernels’, respectively. Finally, some discourse and verbal adverbs resulting from Arabic sources are as follows: *meselen* ‘for instance’ and *helbet* ‘of course’ are from Arabic *maθalan* and *al-batta*; in the eastern section of the Badini dialect of Kurmanji, there is the use of the discourse marker *sehî* ‘apparently, that means’, which is derived from the Arabic *aşahh* ‘more correct’ – which separately exists in wider Kurdish as *esseh* ‘certainly’; while, finally, the Arabic adjective *qawî* ‘strong’ has evolved into an adverb *qewî* ‘very; very much’ (though this is more literary than spoken).

All of these lexical borrowings illustrate matter transfer (in the sense of Matras & Sakel 2007). In the following we have two instances of pattern transfer. First, there is a particular adverbial form *nema* ‘no longer’, found only in the southeastern dialect of Kurmanji, spoken in the Mardin region of Turkey and Jazira region of northeast Syria. This can be analysed as *ne-ma*, consisting of the negative prefix *ne-* and the past tense 3SG conjugation of the verb *man* ‘to stay’, as in (15).

- (15) Southern dialect of Northern Kurdish (Media)¹⁰
nema *di-kar-im* *veger-im* *welêt*
 no.longer IND-be.able.PRS-1SG return.PRS.SBJV-1SG country.OBL
 ‘I can no longer return to the homeland’

¹⁰From a poem by an author from Syria, available online at: <http://avestakurd.net/blog/2016/10/26/romanivs-kurd-jan-dost-lal-b-ye-vdyo/> (accessed 31/01/2020).

There is an immediately-corresponding adverbial form *mā fād* ‘no longer’ in Arabic, which is based on the negative form of the semantically similar verb *fād* ‘to return, keep doing’. This is obviously not a very recent development as it is shared in the whole dialect area across country borders, but seemingly not so deep either as to be shared by all Kurdish varieties, not even by all Northern Kurdish dialects, further strengthening the particular status of the Jazira region in Arabic–Kurdish language contact.

Second, there is a particular lexical construction *bi X rabûn* ‘to do; to complete; to achieve’ in Northern Kurdish and *hellsan be X* in Central Kurdish, where *X* stands for any activity or task (usually in the form of an infinitive verb). The construction is based on the verb for ‘to rise, stand’ and a preposition in both varieties, as illustrated in (16) and (17).

- (16) Central Kurdish (Media)¹¹
 polîs hellsa be kokirdinewe-y zanyarî
 police rise.PST.3SG with collecting-EZ information
 ‘The police undertook (the task of) collecting information.’

- (17) Northern Kurdish (Media)¹²
 Mîr Celadet (...) bi kar-ê dewlet-ek-ê rabû
 Emir Celadet with work-EZ.M state-INDF-OBL.F rise.PST.3SG
 ‘Emir Celadet undertook the work of a state.’

This lexical construction also has a parallel in Modern Standard Arabic, based on the verb *qāma* ‘to stand (up)’ and the preposition *bi* ‘with’, with the collocation *qāma bi* meaning ‘to undertake’. This is obviously a recent influence on Kurdish, as it is seen only in Iraq and Syria, and in a manner cross-cutting the broad variety borders between Sorani and Kurmanji.

4 Conclusion

Contact with Arabic, which started in the early medieval period (approx. 7th–8th centuries) with the arrival of Islam in the Near East, has had a profound impact on Kurdish, particularly on its lexicon and phonology. Given the total absence of any substantial previous study on the matter, the present chapter provides a

¹¹URL of article: <http://www.kurdistan24.net/so/news/5ca67132-7a7f-4840-bfb4-dea5bf25ea2e> (accessed 31/01/2020).

¹²URL of article: <http://portal.netewe.com/mir-celadet-bedirxan-bi-tene-sere-xwe-bi-kare-dewleteke-rabu/> (accessed 31/01/2020).

first assessment of the influence of Arabic on Kurdish, primarily as represented in Kurdish phonology and lexicon but also, albeit more restrictedly, in morphology and syntax. Kurmanji Kurdish seems to be the variety that is most affected by contact with Arabic, which is understandable considering the geographical continuity of the Kurdish and Arabic communities, especially in the historical Jazira region and more widely in Upper Mesopotamia (in Mardin–Diyarbakir, Mosul–Sinjar, and Haseke province). There are thus areas which show more intensive Arabic influence within the speech zones of major Kurdish varieties, while the outcomes of the contact reflect different layers in terms of time depth. Accordingly, the deeper-layer influence comes in the form of lexical convergence with Arabic, sometimes through the intermediary of Persian and/or Ottoman Turkish. This contact has repercussions in the expansion of the phonological inventory of the language, and is shared across most Kurdish varieties. There are no unquestionably demonstrated changes in the morphosyntax resulting from contact with Arabic at this layer. At the relatively shallower layer, the influence is mainly seen in Syria and Iraq, and in the form of further expansion of the phonological inventory and a vocabulary heavily lexified by Arabic roots incorporated also into the verbal domain. There are also several cases illustrating morphosyntactic and lexicosyntactic change, such as the default gender assignment and word order in complex noun phrases, as well as certain phrasal and adverbial lexical items.

In terms of “cognitive dominance”, in the sense of Van Coetsem (1988; 2000) and Lucas (2015), in these instances of contact influence, the deeper-layer influence, which is restricted to, or related to, lexical borrowing, takes place with the speakers being cognitively dominant in the recipient language, Kurdish. The more recent instances of heavy lexification, and morphosyntactic and lexicosyntactic changes may, however, be the result of imposition, where the speakers are dominant in the source language.

These outcomes may also be related to bilingualism and language configuration in historical perspective. That is, the absence of imposition (in the form of morphosyntactic changes) in the deeper historical layer, and the restriction of the influence to lexicon, point to the absence of widespread Arabic–Kurdish bilingualism among the speakers of Kurdish at those historical stages. Some imposition of this kind is observed in the Kurmanji of the Jazira region, which is known to have had greatest speaker contact between Kurdish and Arabic speech communities. By contrast, the widespread bilingualism and Arabic-dominant linguistic configuration in Syria and Iraq for at least a century has led to instances of imposition where the morphosyntactic and lexical patterns of Arabic are replicated in Kurdish. These outcomes are also mostly consonant with the predictions of Van Coetsem’s (1988; 2000) “stability gradient”, which argues that lexicon is

less stable than syntax and phonology, which require dominance in the source language in order to be affected by contact-induced change.

Given the limitations of a first attempt, much is yet to be explored regarding Kurdish–Arabic language contact. In particular, the precise paths of development of pharyngeals and emphatics in Kurdish should be analysed through fieldwork-based comparative dialect data, while, in the domain of lexicon, it is important to analyse the morphophonological integration of borrowings into Kurdish. It is also of interest to be able to develop diagnostics to disentangle direct Arabic influence on Kurdish from influence via other major languages such as Persian and Ottoman Turkish. Finally, a detailed account of the history of Kurdish–Arabic socio-political and cultural contact is required in order to complement the linguistic data and enable a more fine-grained analysis of the agentivity of contact-induced change in Kurdish.

Further reading

- Barry (2019) is a comprehensive and theoretically grounded treatment of the introduction and further propagation of pharyngeal sounds in Kurdish.
- Chyet (2003) is the most comprehensive Kurdish–English dictionary, providing information on the source language of most loanwords in Kurdish, including those from Arabic.
- Tsabolov (1994) is the only work published so far on Arabic influence on the grammar of Kurdish.

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Abbreviations

Ar.	Arabic	dial.	dialectal
BCE	before Common Era	EZ	<i>ezāfe</i>
ca.	circa	F	feminine
DEF	definite	GEN	genitive
DRCT	directional	Kr.	Kurdish

IND	indicative	POSS	possessive
INDF	indefinite	PRS	present
INF	infinitive	PST	past
INTR	intransitive	PVB	preverb
IPFV	imperfective	SBJV	subjunctive
M	masculine	SEC	secondary or pronominal <i>ezāfe</i> /linking element
NEG	negative	SG/sg.	singular
NOM	nominative	TR	transitive
OBL	oblique	Tr.	Turkish
PL/pl.	plural		
PN	proper noun		

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Chapter 22

Northern Domari

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This chapter provides an overview of the linguistic outcomes of contact between Arabic and Northern Domari. Northern Domari is a group of dialects spoken in Syria, Lebanon, Jordan and Turkey. It remained until very recently largely unexplored. This article presents unpublished first-hand linguistic data collected in Lebanon, Syria, Jordan and Turkey. It focuses on the Beirut/Damascus variety, with references to the dialects spoken in northern Syria and southern Turkey.

1 Current state and historical development

Domari is an Indic language spoken by the Doms in various countries of the Middle East. The Doms are historically itinerant communities who specialize in service economies. This occupational profile led the lay public to call them the Middle Eastern Gypsies. Common occupations are informal dentistry, metalwork, instrument crafting, entertainment and begging. Most claim Sunni Islam as their religion, with various degrees of syncretic practices. Although most have given up their semi-nomadic lifestyle and settled in the periphery of urban centres, mobility is still a salient element in the daily lives of many Doms.

The ethnonym Dom is mostly unknown to non-Doms, who refer to them with various appellations such as *nawar*, *qurbāt* or *qarač*. The Standard Arabic word *yağar* for ‘Gypsy’ is variably accepted by the Doms, who mostly understand with this term European Gypsies. All these appellations are exonyms and the only endonym found across all communities is *dōm*. Only the Gypsies of Egypt, it seems, use a reflex of *yağar* to refer to themselves.

From the nineteenth century onwards, European travellers reported the existence of Domari in the shape of word lists collected in the Caucasus, Iran, Iraq and the Levant (see Herin 2012 for a discussion of these sources). The first full-length



grammatical description of a dialect of Domari is by Macalister (1914), who described the dialect spoken in Palestine in the first years of the twentieth century. At present, the language is known to be spoken in Palestine, Jordan, Lebanon, Syria and Turkey. No recent account can confirm that it is still spoken in Iraq and Iran. There are roughly two dialectal areas: Southern Domari, spoken in Palestine and Jordan, and Northern Domari, spoken in Lebanon, Syria and southern Turkey. This geographical division is not clear cut, as I have recorded speakers of Southern varieties in Lebanon and speakers of Northern dialects in Jordan. The main isogloss separating these two groups is the maintenance of a two-way gender system. Southern dialects have maintained the gender distinction, whereas it has mostly disappeared in the north. Compare Northern *gara* '(s)he went' vs. Southern *gara* 'he went' and *garī* 'she went'. These are sufficiently different to allow us to posit an early split. Mutual intelligibility appears to be very limited. A case in point is kinship terminology, which is largely divergent in both groups. Within Northern Domari, the Beirut/Damascus dialect stands out because of the glottal realization [ʔ] of etymological /q/ and the loss of the differential subject marker *-ən*.

No general statement can be made about language endangerment. Jerusalem Domari is reported to have only one fluent speaker left (Matras, this volume), but the presence of speakers of Palestinian Domari in other places may not be excluded. Young fluent speakers of Southern dialects are easy to find in Jordan. As far as Northern Domari is concerned, the language is no longer transmitted to the young generation in Beirut but it is in Damascus. In northern Syria, intergenerational transmission is quite solid. The situation in southern Turkey is, according to some consultants, more precarious, but I have personally witnessed quite a few children fully conversant with the language. In any case, bilingual Doms acquire both Domari and Arabic in early childhood, making both languages equally "dominant" in Van Coestem's (1988; 2000) terms.

Many Dom groups are also found in Eastern Anatolia. These groups have shifted to Kurdish but maintained an in-group lexicon based on Domari, locally called Domani. According to what I could personally observe on the ground and what well-informed local actors reported to me, full-fledged Domari is not spoken beyond Urfa. East of Urfa, the shift to Kurdish is complete and even the in-group lexicon is only remembered by elderly individuals.

There are no reliable figures on the number of speakers of Domari. The language has often been mistaken for a variety of Romani but this claim has no linguistic grounds, except that they are both classified as Central Indo-Aryan Languages with a possible Dardic adstrate.

2 Contact languages

Besides a Central Indic core and a Dardic adstrate, the language exhibits various layers of influence. Easily identifiable sources of contact are Persian, Kurdish, Turkish and finally Arabic. This suggests, quite logically, that the ancestors of the Doms left the Indian subcontinent, and then travelled into Persian-speaking lands, before reaching Kurdish- and Turkish-speaking areas (most probably in eastern Anatolia), before venturing into Arab lands. It is striking to see that the Iranian and Turkic elements in Domari are not uniform across Northern and Southern varieties, which suggests an early split in eastern Anatolia between speakers of both groups. The impact of Arabic is also not uniform both across Southern and Northern Domari, nor even within Northern Domari. What this means is that the validity of any discussion of the Arabic component in Domari is limited to the varieties considered.

The Beirut/Damascus dialect is undoubtedly the most Arabized one within the Northern group, pointing to an earlier settlement of the community in an Arabic-speaking environment. Bilingualism (Domari–Arabic) is general in Lebanon and Syria. Except perhaps for very young children who have not yet acquired any other language, monolinguals in Domari are not to be found.

As far as Turkey is concerned, trilingualism in Domari, Turkish and Kurdish is not uncommon, especially in southern Turkey around Gaziantep. In Hatay province, many speakers above the age of forty are trilingual Domari–Arabic–Turkish. The generations born here in the eighties onwards did not acquire Arabic.

According to personal recollection from various consultants, the community of Beirut/Damascus used to spend the winter in Lebanon, and would go back to Damascus in the summer. This semi-nomadic way of life seems to have stopped when the civil war in Lebanon began. Although movements between Beirut and Damascus remained frequent, this phenomenon ceased to be seasonal. In Damascus, they settled in the area of Sayyida Zaynab, in the suburbs of the city, and in Beirut many of them settled in Sabra. Since the civil war started in Syria, virtually all the Damascus community have moved to Lebanon and settled in refugee camps in the Bekaa Valley close to the Syrian border.

3 Contact-induced changes in Northern Domari

As noted above, Domari speakers in Lebanon and Syria are also fully proficient in Arabic, to the point that I have never encountered or heard of any monolingual adult. The Dom community, although largely endogamous and socially isolated, cannot afford monolingualism, primarily because of their peripatetic profile. As far as one can judge, their proficiency in Arabic is that of any monolingual native speaker of Arabic. Their pronunciation, however, is often not fully congruent with the local dialect spoken in the immediate vicinity of their settlements. This is, as usual, due to the variety of inputs and migration after acquisition. The Doms of Beirut for instance, do not speak Beirut Arabic and their speech is immediately perceived as Syrian by Lebanese because they do not raise /ā/. Raising of /ā/ towards [e:] is the hallmark of Lebanese Arabic in perceptual dialectology. Proficient speakers of Domari all exhibit Arabic–Domari bilingualism. On the whole, there is a general license to integrate any Arabic lexeme in Domari speech, even when a non-Arabic morpheme exists. Code-switching is also very common and there seems to be no conservative ideology about linguistic practices, leading to a very permissive environment for language mixing.

3.1 Phonology

All the segmental phonology of Arabic has made its way into Domari. Arabic stands out cross-linguistically because of its series of back consonants such as the pharyngeals /ħ/ and /ʕ/, the post-velars /q/, /ħ/ and /ɣ/, and a set of velarized consonants whose number varies from dialect to dialect. Typically, sedentary varieties in the Levant minimally exhibit contrast between /d/, /z/, /t/ and /s/. In Domari, the pharyngeals /ħ/ and /ʕ/ are commonly found in loans from Arabic: *ħdər* *h-* ‘watch’ (from Levantine Arabic *ħidir* ‘he watched’). The same goes for /ʕ/: *ʕammər* *kar-* ‘build’ (from Arabic *ʕammār* ‘he built’). An oddity surfaces in the word for coffee, realized *ʔaħwa* from Arabic *ʔahwe*. These pharyngeals are also common in Kurdish-derived items such as *ħazār* ‘thousand’, *moʕōri* ‘ant’ and also in the inherited (Indic) stock in *ʕaqqōr* ‘nut’. Post-velar /q/, /ħ/ and /ɣ/ are found in all the layers of the language: *qāla* ‘black’ (inherited), *qāpī* ‘door’ (Turkish), *sāy* ‘alive’ (Kurdish), *yarīb* ‘strange’ (Arabic). The most striking innovation of the Beirut/Damascus dialect is the glottal realization [ʔ] of /q/: *ʔər* ‘son’ (< *qər*), *ʔāyīš* ‘food’ (< *qāyīš*). This innovation is very likely contact-induced because it is commonly found in the Arabic dialects of both Damascus and Beirut and beyond.

Velarized consonants mostly surface in the Arabic-derived stock as in *naḏḏəf* *kar-* ‘clean’ (< Arabic *naḏḏaf* ‘he cleaned’), but also in pre-Arabic items: *dāwat*

‘wedding’ (borrowed from Kurdish but ultimately from Arabic *daḥwa* ‘invitation’), *pāṣ* ‘at him’ (< Old Indo-Aryan *pārśvá* ‘side’). It is still unclear to what extent velarization in Domari continues Indo-Aryan retroflexion (Matras 2012: 64). Domari also kept a contrast between /p/ and /b/, not found in Arabic: *bīrōm* ‘I feared’ vs. *pīrōm* ‘I drank’.

As far as vowels are concerned, Levantine Arabic exhibits either a two-way distinction in the short vowel system (/a/ and /ə/) or a three-way distinction (/a/, /i/ and /u/). In Northern Domari, only the two short vowels /a/ and /ə/ are contrastive: *kārī* ‘house’ vs. *karī* ‘pot’. Such a paucity of contrastive short vowels is probably due to contact with Arabic varieties which exhibit a two-way system (/a/ vs. /ə/), such as many Lebanese and Syrian dialects. Most Arabic dialects in the area have a five-way system of long vowels because of the monophthongization of /ay/ and /aw/: /ā/, /ī/, /ū/, /ē/ and /ō/. In addition to these long vowels, Domari displays another contrast between /ā/ and a back /ā/ (IPA [ɑ:]): *māsī* [ma:si:] ‘meat’ (< Old Indo-Aryan *māmsá*) vs. *mās-i* [mɑ:si:] ‘month-PL’ (< Old Indo-Aryan *māsa*).

Domari has also preserved distinct suprasegmental features, such as final syllable stress assignment. Arabic-derived items are fully integrated into this pattern and bear final primary stress, whether common nouns or proper nouns: Domari [fa:dja] vs. Arabic [fa:dja] (personal name *Fādyā*). An interesting phenomenon is that Arabic epenthetic vowels in final-syllable position are reinterpreted as plain vowels and bear primary stress. Compare Domari [s^haʔab] and Arabic [s^haʔab] ‘difficult’; Domari [wa:d^haʔ] and Arabic [wad^həʔ] ‘situation’.

3.2 Morphology

Northern Domari has not borrowed any derivational or inflectional morphemes from Arabic. This is of course due to the fact that Arabic morphology is mostly non-concatenative. Borrowed morphology mostly comes from Kurdish and Turkish, whose morpheme segmentation is much more transparent. These borrowed morphemes must have entered Domari when Kurdish and Turkish were contact languages of Domari. A case in point is the Kurdish diminutive *-ək*, which has made its way into all layers of the lexicon: *panč-ək* ‘tail’, *ḥar-ək* ‘bone’ (both Indic), *taḥt-ək* ‘wood’, *qannīn-ək* ‘bottle’ (both derived from Arabic: *taḥt* ‘bed’ and *qannīne* ‘bottle’). The dialects of northern Syria and southern Turkey have also borrowed from Kurdish the comparative suffix *-tar*, the Turkish conditional marker *-sa* and the Turkish superlative marker *ān*. These constructions are not available in the Beirut/Damascus dialect, which relies entirely on Arabic-derived material. Compare the translation of the Arabic sentence *inte aḥsan minni* ‘you are better than me’ into Sarāqib Domari (1) and Beirut/Damascus Domari (2):

- (1) Sarāqib Domari
 tō dēšōm bhēz-tar ištōre
 2SG 1SG.ABL good-CMPR COP.2SG
 ‘You are better than me.’
- (2) Beirut/Damascus Domari
 tō aḥsan wēšōm ištōr
 2SG better 1SG.ABL COP.2SG
 ‘You are better than me.’

Sarāqib is located in northern Syria and the dialect spoken by the Doms of Sarāqib is a good representative of the Domari of northern Syria and southern Turkey. Three differences are immediately apparent. The first is morphological, whereby there are different forms for the ablative of the first-person pronoun. The second difference is syntactic: in (1) the standard of comparison precedes the comparative adjective (*dēšōm bhēz-tar*) and in (2) it follows it (*aḥsan wēšōm*).¹ The Beirut/Damascus Domari syntax exhibits full congruence with the Arabic syntax. The third difference is lexical. Because Beirut/Damascus Domari does not have at its disposal the morpheme *-tar*, speakers are obliged to draw on Arabic for the comparative. This phenomenon, labelled “bilingual suppletion” by Matras, is described at length for Jerusalem Domari (Matras 2012: 379–382; see also Matras, this volume: §3.5).

Beirut/Damascus Domari also relies entirely on Arabic material for the expression of time and date, as shown in (3). In northern Syria, speakers favour the use of inherited numerals, as exemplified in (4).

- (3) Beirut/Damascus Domari
 mānane mi-s-sāʿa ʿašra la s-sāʿa sabʿa tmāne oṭanta sa
 stay.IPFV.1PL from-DET-hour ten to DEF-hour seven eight there all
 čāy-an-sa
 children-OBL.PL-COM
 ‘We stay there with the all the kids from ten o’clock to seven or eight
 o’clock.’
- (4) Sarāqib Domari
 ḥatta saʿat štār ēwar mānde ē čōrt-ə-ma
 until hour four evening stay.PFV.3SG DEM.OBL wasteland-OBL-IN
 ‘He stayed until 4pm in this wasteland.’

¹Comparative constructions typically involve two noun phrases (NPs). Stassen (2013) labels the object of comparison the “comparee NP” and the other the “standard NP”.

Some speakers of Beirut/Damascus Domari also extend the use of Arabic to higher numerals because, according to their own judgment, they have difficulties retrieving the pre-Arabic options. A look at their distribution reveals that the main parameter that triggers the use of Arabic items is not so much high numerals, but rather the complexity of the numeral. Compare in this regard (5) and (6). In (5), the speaker uses Arabic for the more complex numeral ‘95000’ but uses Domari items for simpler ‘2000’, ‘3000’ and ‘4000’.

- (5) Beirut/Damascus Domari

pārda abōs šaʔʔ-āka ši ḥamse u tisʕīn alf dolar
 buy.PFV.3SG 3SG.BEN flat-INDF about five and ninety thousand dollar
 ‘He bought a flat for her, about ninety-five thousand dollars.’

- (6) Beirut/Damascus Domari

načīš-a-ki dī ḥazār trən ḥazār štār ḥazār dfaʕ
 dancing-OBL-ABL two thousand three thousand four thousand pay
 kaštand dādōs kē
 do.PROG.3PL her.mother BEN
 ‘They give two, three, four thousand (dollars) to her mother from dancing.’

As noted above, it appears that the use of Arabic numerals is closely linked to language dominance. Speakers themselves are aware of it and when asked why they do not use Domari numerals, they justify it claiming a lack of proficiency. Looking at the distribution of inherited and Arabic numerals is therefore a good way to assess whether language attrition is incipient or not.

The impact of Arabic is also apparent in some morphological differences between the Beirut/Damascus variety and the dialects of northern Syria. For instance, the verb *sək-* means ‘to learn’. The Beirut/Damascus dialect adds the passive suffix *-yā/-ī*. The corresponding verb in Arabic *tʕallam* is marked with the valency-decreasing prefix *t-*. What the speakers of the Beirut/Damascus dialect have done is to replicate the valency-decreasing prefix *t-* of *tʕallam* by means of the Domari passive suffix *yā/-ī*: *skə-rd-ōm* (learn-PFV-1SG; northern Syria) vs. *sk-ī-r-ōm* (learn-PASS-PFV-1SG; Beirut/Damascus) ‘I learnt’.

Unlike Southern Domari, Northern Domari does not normally transfer Arabic plurals. Speakers simply use the singular form and add the Domari plural marker *-ī(n)*: *azʕar-īn* ‘thugs’ instead of the Arabic plural *zuʕrān*. Arabic plurals do surface at times, but only when they exhibit a high degree of independence within the lexicon. Examples are *ʔarāyb-ē-mā* (relatives-PL-1PL) ‘our relatives’, *ǧīrān-ē-mā* (neighbors-PL-1PL) ‘our neighbors’, from Arabic *qarāyib* and *ǧīrān*. Although

these items have singular forms (respectively *qarīb* and *ǧār*), they are arguably lexicalized plurals and independent entries in the Arabic lexicon.

3.3 Syntax

3.3.1 Constituent order

The impact of Arabic in the realm of syntax is not uniform across Domari dialects. Dialects of northern Syria and southern Turkey show a strong tendency towards a head-final constituent-order typology, both within the NP and the clause. This feature is areal, so its presence in Domari may well be contact-induced. The canonical syntax of the NP is (demonstrative) (numeral) (adjective) (noun) noun. Complex NPs could only be retrieved through elicitation (examples (7) to (10)) and hardly occur in spontaneous speech. Example (7) illustrates the canonical syntax, where all the modifiers appear to the left of the head. Speakers of Beirut/Damascus Domari, however, tend to dislocate some modifiers to the right of the head, converging towards the Arabic syntax, as in (8), (9) and (10).

- (7) Sarāqīb Domari
ē štār lāfty-ən-ki dād-ō-sā
DEM four girl-OBL.PL-ABL mother-SG-3PL
'the mother of these four girls'
- (8) Beirut/Damascus Domari
dād-ō-sā štār lāfty-an-ki
mother-SG-3PL four girl-OBL.PL-ABL
'the mother of the four girls'
- (9) Beirut/Damascus Domari
nām-ē-sā ǧəwr-an-ki tərən-an-ki
name-PL-3PL woman-OBL.PL-ABL three-OBL.PL-OBL
'the names of the three girls'
- (10) Beirut/Damascus Domari
dōm-an-sa ēr-an-sa štār-an-sa
dom-OBL.PL-COM DEM-OBL.PL-COM four-OBL.PL-COM
'with these four Doms'

In (9), the speaker also dislocates to the right the numeral *trən* 'three' which normally appears to the left giving the expected order *trən ǧəwr-an-ki nām-ē-sā* (three woman-OBL.PL-ABL name-PL-3PL). The numeral remains unmarked for

case when it appears to the left of the head. When it is placed to the right, it agrees in case with the head. This is also the case with the demonstrative in (10). Here the normal order would be *ē štār dōm-an-sa* (DEM four Dom-OBL.PL-COM). The fact that speakers replicate case marking on right-dislocated modifiers suggests that they feel the need to strengthen constituency in case of non-canonical syntax.

The influence of Arabic also surfaces in the Beirut/Damascus dialect in the syntax of the quantifier *sa* ‘all’. This is normally located to the right of the head: *ammāt sa* ‘all the people’ (‘people all’). In Beirut/Damascus, *sa* consistently surfaces to the left, like the Arabic quantifier *kull*: *sa ammat* (Arabic *kull in-nās*).²

3.3.2 Internal object

Domari speakers regularly replicate Arabic constructions and idioms, but tend to do so by recruiting inherited or pre-Arabic material – they do not borrow Arabic material. For instance, all dialects have replicated the so-called internal object construction, commonly used in Arabic as a predicate-modifying construction. Consider for instance (11) in Jordanian Arabic, where the speaker narrows the scope of the predication using the verbal noun *ʕirāf* ‘knowledge’, derived from the verb *ʕirif* ‘he knew’, and modifies it with the adjective *ṭayyib* ‘good’. In (12), the speaker has used the deverbal derivation *kūš* from the root *kū-* ‘throw’ and coded it as an object, as evident from the accusative marker *-əs*. This replicates the Arabic internal object construction as illustrated in (11).

(11) Jordanian Arabic

baʕrif-hum ʕirāf ṭayyib
know.IMPF.1SG-3PL knowledge good
‘I know them well.’

(12) Sarāqib Domari

dād-ōs ibnḥarām e ē kūš-əs
mother-3SG son.of.illicit COP DEM throwing-ACC
ktōs-s-e
throw.PFV.3SG-OBJ.3SG-PRS
‘His mother is heartless for having thrown (her baby) in such a way.’

3.3.3 Impersonal construction

Speakers also replicate the Arabic impersonal construction with the indefinite pronoun *il-wāḥad* by way of the inherited noun *mānəs* ‘individual, people’. Exam-

²Arabic *kull* can also appear to the right as in *in-nās kull-ha ~ kull-hum* ‘all the people’ but this is a marked syntax.

ple (13) illustrates the use of *il-wāḥad* in (Jordanian) Arabic. In (14), the sequence *gzare māns-as* corresponds to Arabic *biṣiḍḍ il-wāḥad*, literally ‘it bites one’. The fact that *māns-as* replicates *il-wāḥad* is also apparent from the accusative marking in Domari, which normally surfaces only with definite objects. The referent here is by nature indefinite and non-referential, so accusative marking in Domari can only be explained by the presence of the definite article *il-* in Arabic *il-wāḥad*.

- (13) Jordanian Arabic

kān ʕēb il-wāḥad yrūḥ ʕala ʔutēl
 be.PRF.3SG.M shameful DEF-one go.IMPV.SBJV.2SG.M to hotel
 ‘One was ashamed to spend the night in a hotel.’

- (14) Beirut/Damascus Domari

ašti ši hana lli baḥr-a-ma e gzare māns-as
 EXS too DEM REL sea-OBL-IN COP bite.IPFV.3SG man-ACC
 ‘There is this thing in the sea, it bites you.’

3.3.4 Auxiliaries

Probably the most striking difference between Southern and Northern Domari as far as the Arabic component is concerned is the absence of Arabic inflected material in the latter. Only the dialect of Beirut/Damascus has borrowed the auxiliaries *kān* (with its imperfect form *bikūn*), *ṣār* and *ḥalli*.

- (15) Beirut/Damascus Domari

ṣār ǧahhəz lakand lāfty-a kē bḥēr
 become.PRF.3SG prepare do.SBJV.3PL girl-OBL BEN well
 ‘They prepare the girl well now (for the wedding).’

- (16) Beirut/Damascus Domari

ḥaḍra kān məǧnār-a
 Khadra be.PRF.3SG.M breastfeed.IPFV.3SG-PST
 ‘Khadra was breastfeeding.’

- (17) Beirut/Damascus Domari

āwande bikūn krēnde mā kē kyāmōr
 come.IPFV.3PL be.IMPV.3SG do.PRF.3PL 1SG BEN something
 ‘(My kids) would come and they would have done something (naughty).’

In (15), the subject is in the 3PL but *ṣār* remains invariable, as the 3PL is *ṣāru*. In (16), the subject is feminine so if there was agreement one would expect *kānat*,

not masculine *kān*. A further intriguing feature in (16) is the redundancy in past marking, first with *kān* and second with the past suffix *-a*, which in northern Syria and southern Turkey Domari suffices to mark past tense. The same invariability is apparent in (17) where the 3PL of *bikūn* should be *bikūnu*. These auxiliaries have the same semantic load as in Arabic. The morpheme *šār* puts emphasis on the inception of the event, *kān* followed by the imperfect places the event in the past and gives it an iterative/habitual aspect and *bikūn* describes a possible state of affairs not attested at the time of utterance. Arabic *šār*, *kān* and *bikūn* are absent in the dialects of northern Syria and southern Turkey. The only auxiliary that has been replicated here is *šār*. These dialects, however, have only replicated the structure, not the substance, that is they rely on inherited morphemes, as exemplified in (18). The speaker simply translates Arabic *šār* with the Domari equivalent *hər*, replicating the Arabic structure *šār* + subjunctive (see Manfredi, this volume). A further difference is word order, with the verb placed clause-finally in the subordinate clause.

- (18) Sarāqib Domari
 hər wārsinda lwār
 become.PFV.3SG rain hit.SBJV.3SG
 ‘It started raining.’

As noted above, in these dialects the functions of Arabic *kān* are expressed by the inherited past suffix *-a*. The functions covered by Arabic, *bikūn*, however do not seem to be encoded in the grammar of these dialects.

In Levantine Arabic, the imperative form *ħalli* ‘let’ of *ħalla* ‘he let’ is often used to soften an order and allows the speaker to avoid using an imperative, flagging a suggestion or an invitation, as shown in (19):

- (19) Jordanian Arabic
 ħalli ibn-ak yrūħ la ġ-ġēš
 let son-2SG.M go.IMP.3SG.M to DEF-army
 ‘Let your son serve in the army.’

This auxiliary has been borrowed into Beirut/Damascus Domari with the exact same function, as illustrated in (20). In this case too, *ħalli* remains invariable and does not surface as *ħallī-(h)un* (let.IMP.2SG-3PL) as it would in Beirut/Damascus Arabic. Here again, the dialects of northern Syria and southern Turkey have borrowed the structure, but not the substance, and use the inherited root *māk* ‘let’, as exemplified in (21).

- (20) Beirut/Damascus Domari
ḥalli ġānd dfən lakrand-əs
let go.SBJV.3PL bury do.SBJV.3PL-3SG
'Let them go and bury him.'
- (21) Aleppo Domari
mæk pāvər pāšōr
let come.SBJV.3SG 2SG.AD
'Let him come to your place.'

3.3.5 Negation

Only two Arabic negators have made their way into the grammar of Northern Domari: Damascus Arabic *mū* and the contrastive negative coordination markers *lā...walā* 'neither...nor'. Arabic *mū* is only available in the dialect of Beirut/Damascus. Its distribution and functions, however, only partially match those of Damascus Arabic. The primary function of *mū* in Damascus Arabic is to negate non-verbal predicates. This is not attested in Domari, which relies for this purpose only on inherited *nye*. *mū* surfaces first when negation has scope over non-clausal constituents, as shown in (22), and second when the predicate is in a non-indicative mood (subjunctive, jussive and imperative) as in (23):

- (22) Beirut/Damascus Domari
səff (h)ra wāšya mū wāšōm
side become.PFV.3SG 3PL.COM NEG 1SG.COM
'He took sides with them, not with me.'
- (23) Beirut/Damascus Domari
biğūz mū māntyar wāš məşrī
possible NEG stay.SBJV.3SG 3SG.COM money
'He might not have any money left.'

The Arabic structure *lā...walā* is readily available in all varieties, but whereas it is the only option in Beirut/Damascus, it competes with the inherited structure *nə...nə* in northern Syria and southern Turkey. Interestingly, this clash has led to a mixed form *nə...walā*, as shown in (24). The Domari syntax is also reminiscent of the Turkish possessive predication syntax with possessive marking on the noun and an existential morpheme.

- (24) Antioch Domari (southern Turkey)
 nə lawr-ōs ašti wala šarš-ōs ašti
 NEG tree-3SG EXS NEG root-3SG EXS
 ‘It doesn’t grow on a tree nor has it roots.’

3.3.6 Complex sentences

Complex sentences minimally include coordinated and subordinate clauses. The Arabic coordinators *w* ‘and’, *aw* ‘or’, *walla* ‘or’, *bass* ‘but’ and others have all made their way into Domari. Originally, Domari seems to have distinguished clausal coordination from phrasal coordination, a not so frequent feature from a typological point of view. Nominal categories are coordinated with the Turkish-derived morpheme *la* and clauses are coordinated with the Kurdish-derived enclitic *-ši*. The intrusion of Arabic *w*, which in Arabic is used indiscriminately for both kinds of coordination, has led to the marginalization of the original system in Beirut/Damascus Domari, which now tends to favour the use of Arabic *w*.

- (25) Beirut/Damascus Domari
 illi mangar tōre māṣṭ-a-ma w illi mangar
 REL want.IPFV.3SG put.IPFV.3SG yoghurt-OBL-IN and REL want.IPFV.3SG
 ʔār-s-e nāšif
 eat.IPFV.3SG-OBJ.3SG-PRS dry
 ‘Some eat it in yoghurt, some eat it dry.’

As far as phrasal coordination is concerned, some alternation between Arabic *w* and Turkish-derived *la* is still observed: *dōmwārī w ʔāt wārī* ‘Domari and Arabic’ ~ *dōm la šarabi* ‘Domari and Arabic’.

Virtually all the conjunctions of subordination found in Domari are borrowed from Arabic. This includes the relativizer *illi*, the complementizer *inno* and potentially all the adverbial conjunctions found in Levantine Arabic: *lamma* ‘when’, *qabəl-mā* ‘before’, *baʕəd-mā* ‘after’, *ša-bēn-mā* ‘by the time’, and many more. Pre-Arabic constructions are attested for relativization and conditional clauses, but these only survive in the dialects of northern Syria and southern Turkey, and tend to be replaced by Arabic material (except in the varieties spoken in Turkey). A case in point is conditional clauses. Arabic *iza* and *law* are available everywhere, even in Turkey, as shown in (26), recorded in Antioch. In this example, the speaker uses the Arabic morpheme *aza* (< *iza*) in the first sentence of the utterance, and no overt marking in the protasis, making parataxis a possible means to express condition. As far as counterfactual conditions are concerned, it appears

that the dialect of Beirut/Damascus is fully congruent with Arabic in having borrowed also the morpheme *kān* in both the protasis and the apodosis, as shown in (27). The dialects of northern Syria and southern Turkey exhibit a native strategy using subjunctive mood and past marking in the protasis and perfective and past marking in the apodosis. The two clauses are coordinated with the Kurdish derived enclitic *ši* (28).

- (26) Antioch Domari
 aza kām karne qāne kām nə-karne nə-qāne
 if work do.IPFV.1PL eat.IPFV.1PL work NEG-do.IPFV.1PL NEG-eat.IPFV.1PL
 ‘If we work, we eat, (if) we don’t work, we don’t eat.’
- (27) Beirut/Damascus Domari
 law kān nəčnār-sā bāb-ōm kān
 if be.PRF.3SG make.dance.IPFV.3SG-OBJ.3PL father-1SG be.PRF.3SG
 abşar kaki (h)re
 not.know what become.PFV.3SG
 ‘If my father had put them to dance, I don’t know what would have happened.’
- (28) Sarāqib Domari
 all-əs byātyənd-a nə-ktēnd-s-a ši
 God-ACC fear.SBJV.3PL-PST NEG-throw.PFV.3PL-OBJ.3SG-PST and
 ‘Had they feared God, they would not have thrown him.’

3.4 Lexicon

3.4.1 Function words

Arabic prepositions do occur in Domari, but these are mostly non-core prepositions such as *qabəl* ‘before’, *başad* ‘after’, *minşān* ‘for’, *yēr* ‘other’. Some have made their way into Domari only recently, and still alternate with pre-Arabic options, such as the Iranian equative morpheme *war*, which tends to be replaced by Arabic *mitəl* ‘as, like’ especially in the dialect of Beirut/Damascus. Currently, *war* and *mitəl* are in a quasi-complementary distribution, with *war* being used with full NPs and *mitəl* with pronouns, as shown below in (29) and (30):

- (29) Beirut/Damascus Domari
 tō ?r-ōm war iştōr
 you son-1SG like COP.2SG
 ‘You are like my son.’

- (30) Beirut/Damascus Domari
 tāni ʔər gēna mitl-ōs kām karre
 second son also like-3SG work do.IPFV.3SG
 ‘My second son has the same job.’

The Arabic core preposition *b-* ‘in, with’ occurs in Domari, but it appears to be restricted to certain constructions and idioms such as *gāl b-gāl* ‘discussion’ (word in-word), *ārāt əb-dīs* ‘night and day’ (night in-day), *b-rəbʕ-āk* ‘for a quarter of a pound’ (with-quarter-INDF). The preposition *min* ‘from’ also sporadically occurs in Beirut/Damascus Domari:

- (31) Beirut/Damascus Domari
 min ši šēš mās ġərsa krōm dāwat-ōs
 from about six month wedding do.PFV.1SG wedding-3SG
 ‘Some six months ago I married him off.’

Domari also borrows high-frequency adverbs, fillers, connectors and all kinds of discourse-structuring devices, such as *masalan* ‘for instance’, *abadan* ‘at all, never’, *yaʕni* ‘I mean’, *aywa* ‘yes, so’, *walla* ‘I swear’, *inno* (complementizer and discourse marker) and many more. One finds also common adverbial phrases such as *ʔul in-nhār* ‘all day long’, *ʔul il-waʔət* ‘all the time’, and *ʕala ʔul* ‘immediately’. The very common Domari phrase *tika tika* ‘slowly’ replicates Arabic *šwayy ašwayy*.

3.4.2 Content words

In Syria and Lebanon, Arabic is the *de facto* lexical reservoir of Domari, so there is a general licence to integrate any element from Arabic if no pre-Arabic option exists. The issue is the replacement of pre-Arabic options with Arabic material. There is of course a certain amount of variation in lexical knowledge across speakers, but it seems possible to differentiate several levels of replaceability. Some items have long been replaced by Arabic words, and only a handful of speakers are able to retrieve them, such as *lōrga* ‘tomato’ or *pīsənga* ‘bulgur’, replaced respectively by Arabic *bandōra* and *bəryəl*. Other items tend to be replaced by Arabic equivalents but may still surface in the speech of some speakers, such as *čātīn* ‘hard’, *čirkī* ‘bird’, *alčāḥ* ‘low’ replaced by Arabic *šaʕab*, *ʔər/ʕaʕfūr* and *wāʔi*. Some items seem stable but are sporadically replaced with Arabic-derived items such as *drəs kar-* ‘study’ instead of inherited *sək-*. Finally, other items such as *ġawwəz h-* ‘get married’ and *ġirsāwī h-* freely alternate. It appears therefore that every pre-Arabic item is somewhere on a continuum of replaceability from

“very unlikely” to “completely disappeared”. To illustrate the variability in replaceability judgment, I remember an elicitation session in Aleppo with a father and his son. One of the sentences contained the Arabic word *başal* ‘onion’. The son simply translated the sentence with the Arabic word *başal* but the father strongly objected to this answer, stating that the proper Domari word is *pīwāz*.

As noted above, Arabic nouns are integrated in their singular form, except in the case of lexicalized plurals. Adjectives are borrowed in their masculine form and never agree in gender, as shown in (32). Other than the past copula *a*, all the words in this example are Arabic. Two features, however, allow its identification as Domari. First, *hāla* is realized without raising (also stressed on the last syllable [ħa:ˈla]), unlike Levantine Arabic *hāle*, and second *taʕbān* does not agree in gender with *hāla* and surfaces in its masculine form, instead of feminine *taʕbāne*, as it would normally occur in Arabic.

- (32) Beirut/Damascus Domari
 ʔabəl hāla taʕbān a
 Before situation tired COP.PST
 ‘Before, the situation was bad’

Arabic verbs are easily integrated into Domari, because Domari has a light verb strategy. Roughly, transitive verbs tend to be integrated with the light verb *kar-* ‘do’: *rabbī kar-* ‘raise’ from Arabic *rabba*, *yrabbi* ‘raise’. Intransitive verbs are integrated with *h-* ‘become’: *ʕīs h-* ‘live’ from Arabic *ʕāš*, *yʕīš* ‘live’. While all the verbs that are integrated with *kar-* are transitive, some verbs integrated with *h-* are not intransitive: *lməs (h)rōs-s-e* ‘he has touched it’ (touch become.PFV.3SG-3SG-PRS) from Arabic *lumas*, *yilmis* ‘touch’. This seems to happen with transitive verbs that are lower on the transitivity scale, or at least perceived to be so. In the case of *lumas*, *yilmis*, its integration into Domari by way of the light verb *h-* suggests that speakers perceive it as less transitive. Formally, speakers isolate the imperfect stem of the verb, and apply a vocalism in /i/: *nāsī kar-* ‘forget’ and *stannī kar-* ‘wait’, from the Arabic imperfect stems of *nasa* ‘forget’ and *stanna* ‘wait’.³ An exception to this tendency occurs with the so-called hollow roots in Arabic whose imperfect stem is CūC. In this case, speakers simply extract the imperfect stem and leave it unchanged: *zūr h-* ‘visit’, *dūr h-* ‘turn’, *ʕūz h-* ‘need’, from the Arabic imperfect stems *zūr*, *dūr* and *ʕūz*.

Some English-derived items were also recorded in the Beirut/Damascus dialect, such as *mōmari* ‘memory card’, *hambarga* ‘hamburger’ and, more surprisingly, *tōmanğire* ‘Tom and Jerry’ [to:mandʒiˈre], expectedly stressed on the last syllable.

³These verbs are only available in Beirut/Damascus, other dialects use respectively *ziwra kar-* and *akī kar-*.

3.4.3 Speech sample

Probably the best way to capture how Arabic integrates into Domari is to consider a piece of spontaneous speech, reproduced below in (33). It is part of a recorded discussion I had with a consultant in her mid-thirties in Beirut. It illustrates the level of endangerment of Beirut/Damascus Domari. The consultant belongs to the last generation of fluent speakers. Her children did not acquire the language. According to what she reports, she was unable to speak to her children in their early childhood because her husband, who is a semi-speaker of Domari, prevented her from transmitting the language. Her daughter-in-law, aged twenty-one at that time, is also a fluent speaker of Domari because she grew up in Damascus, where language transmission was more solid than in Lebanon. Both of them use Domari in the household. Her son reacts negatively when he hears it, and even labels it *aḡnabi* ‘foreign, non-Arabic’. Linguistically, the text illustrates some of the features discussed above. Arabic-derived items are marked in boldface.

(33) Beirut/Damascus Domari

nā n-ḡib karre pānḡi gāl karre gāl karre
 no NEG-tongue do.IPFV.3SG 3SG word do.IPFV.3SG word do.IPFV.3SG
 dōm wāšōm mā gāl kame wāši **ʔādi** **bass** əʔr-ōm ʔzīn
 Dom 1SG.COM 1SG word do.IPFV.1SG 3SG.COM normal but son-1SG shout
 karre wat ftyare ma-gāl ka **aḡnabi**
 do.IPFV.3SG 3SG.SUPR say.IPFV.3SG NEG-word do.SBJV.2SG foreign
 nə-fōmm (h)ōme watōr, gāl karse
 NEG-understand become.IPFV.3SG 2SG.SUPR word do.IPFV.2PL
ʔarabiy-a-ma **yaʔni** ma-gāl k(a) ēhāni **laʔanno**
 Arabic-OBL-IN I.mean NEG-word do.SBJV.2SG so because
 n-fōmm (h)ōre watī **bass** mā l pānḡi ḡib
 NEG-understand become.IPFV.3SG 3SG.SUPR but 1SG and 3SG tongue
 kane **ṭūl** **il-waʔət** kəry-a-ma **yaʔni** iza mā l pānḡi
 do.IPFV.1PL length DEF-time house-OBL-IN I.mean if 1SG and 3SG
 štēn kəry-a-ma **ṭūl** **in-nhār** gāl kane dōm-a-ma
 COP.1PL house-OBL-IN length DEF-day word do.IPFV.1PL Dom-OBL-IN
yaʔni ʔr-ōm wāri **ʔəmr-ōs** **wāḡad u** **ʔišrīn** sane akbar
 I.mean son-1SG bride age-3SG.F one and twenty year bigger
 ʔr-ōm-ki **b-trən** wars **mū** **ʔādi** **ʔādi** nye amīn **lāzīm**
 son-1SG-ABL with-three year NEG normal normal COP.NEG 1PL must

lpāran azyar wēšōma bass bxēz e u ādami e u
 take.SBJV.1PL smaller 1PL.ABL but good COP and humane COP and
maḥšūm e mā ēhāny-a xr-a kē pārdōm-əs ʔr-ōm
 respectful COP so so-OBL heart-OBL BEN take.PFV.1SG-OBJ.3SG son-1SG
 kē u ḡamāʔt-ēm kē skīr(a) ēta baʔdēn skīra
 BEN and folks-1SG BEN learn.PFV.3SG here then learn.PFV.3SG
mahná baʔdēn kām əkra wars-ā wars-ā nīm **makanīk**
 profession then work do.PFV.3SG year-INDF year-INDF half mechanic
baʔdēn wəndrārda u īsa nə-kām kištar wala kkyā
 then fire.PFV.3SG and now NEG-work do.PROG.3SG nor thing
 wēsre kəry-a-ma
 sit.PFV.3SG house-OBL-IN

‘No, [my son] doesn’t speak [Domari], [my daughter-in-law] does, she speaks with me, I speak with her normally but my son shouts at her and tells her: “Don’t speak foreign, I don’t understand you, you all speak in Arabic, don’t speak like this”, because he doesn’t understand her. But me and her we speak all the time in Domari, that is, if both of us are in the house, all day long we speak in Domari. The bride of my son, she is twenty-one years old, three years older than my son, it’s not usual, we [women] have to take someone older, but she is a good person, humane and respectful. That’s why I took her for my son and my family. [My son] studied here [in the school]. After that he went for vocational training and worked for a year a year and a half as a mechanic – then he quit. And now he doesn’t do anything, he stays at home.’

4 Conclusion

Multilingualism seems to have been a normal state of affairs amongst the Doms for a very long time, probably since the genesis of the community. The reason for this is mostly because the sociolinguistics of Domari has in likelihood remained unchanged throughout the centuries: Domari is a community language whose use is restricted to in-group communication. Out-group interactions imply the use of the majority language. Due to the very nature of their occupational profile, peripatetic groups are forced to have frequent interactions with outsiders. This involves *de facto* high levels of bilingualism. Although it is hard to assess whether the dominant language is the insider code or the outsider code, it makes sense to suspect that balanced bilingualism was the norm, as much in the past as in the present.

Van Coetsem (1988; 2000) uses the term “transfer” generically for any kind of contact-induced phenomenon. If the transfer is triggered by speakers who are dominant in the source language, he uses the term “imposition”. If it originates from recipient-language dominance, it is called “borrowing”. Lucas (2015: 525) further introduces two categories, the first of which he calls “restructuring”, defined as a “type of change [...] brought about by speakers for whom the changing language is an L2, but it does not involve transfer”. He notes that for individuals who acquired two languages simultaneously (in early childhood), “the distinction between borrowing and imposition breaks down”. In this case, both languages typically undergo “convergence”, that is the fourth category of contact-induced change. Because I posit balanced Arabic–Domari bilingualism as the norm, the question that needs to be answered is whether all the contact-induced changes happening in Domari are the product of convergence, or whether there are changes that can be attributed to Arabic dominance (source-language agentivity or imposition). Another problem concerns the sociolinguistic limits of the model. Speakers with two first languages are expected to initiate changes that target both languages. When languages exhibit unbalanced sociolinguistic statuses (minority versus majority), one wonders how changes originating from minority language agentivity can diffuse to the majority. Although it cannot be ruled out, it remains very unlikely. Consequently, convergence will always happen in the direction of the minority language. And this is indeed what is happening between Arabic and Domari: they become more and more similar at all levels, but only Domari is moving towards Arabic.

In the realm of phonology, it was shown that Domari has kept a distinct inventory from Arabic, although convergence with Arabic is almost complete for short vowels. A possible consonantal imposition is found in Beirut/Damascus Domari where etymological /q/ is realized as /ʔ/, as in neighbouring Arabic dialects. As far as morphology is concerned, eligible candidates for imposition are the Kurdish diminutive *-ək*, the Turkish conditional clitic *sa* and superlative *ān*. An evident case of imposition is the phenomenon that seems the most sensitive to dominance: so-called “bilingual suppletion” (Matras 2012). Bilingual suppletion in Northern Domari can be observed only in the dialect of Beirut/Damascus in the case of comparatives, and incipiently in the case of numerals. As far as syntax is concerned, cases of imposition are probably the transfer of Arabic auxiliaries and the negator *mū*. The transfer of utterance modifiers such as fillers, adverbs, conjunctions and virtually all discourse structuring devices is so prone to replication in contact situations (Matras 1998) that it is difficult to assess the source of agentivity. Other features discussed in this paper, such as constituent

order, the internal object and the impersonal construction are clear instances of convergence.

As noted above, the main direction of change in Domari is towards convergence with Arabic, as expected in cases of absence of dominance. The dialect of Beirut/Damascus is the most convergent of all the Northern dialects, which in itself suggests that Arabic–Domari bilingualism is older in that variety. The Arabic component in Domari is largely uneven cross-dialectally and no overall statement about its nature can be made. The general picture that arises is that the impact of Arabic gradually increases from north to south, with the dialects of northern Syria and southern Turkey being the least Arabized, the Southern dialects spoken in Palestine and Jordan being the most influenced by Arabic, and the dialect of Beirut/Damascus exhibiting an intermediary stage. It was also shown that the main difference between Northern and Southern Domari as far as Arabic is concerned is the reluctance in Northern Domari to transfer Arabic inflections and the general tendency to favour the transfer of structures without substance.

Further reading

- For a general account of the Arabic component in all the varieties of Domari documented so far, see Herin (2018). The paper discusses the Arabic component in Southern and Northern dialects. This is the only paper that tackles extensively the issue of contact-induced change in Domari from a global perspective.
- For a description of the Domari dialect of Aleppo, readers can refer to Herin (2012).
- Herin (2014) identifies the grammatical features that make Northern Domari a coherent dialectal group.
- Herin (2016) investigates the full extent of variation in Domari as a whole, drawing on data from both Northern and Southern Domari.
- Readers can refer to Matras (this volume) for a number of references relating to Jerusalem Domari.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person	CMPR	comparative
ABL	ablative	COM	comitative
ACC	accusative	COP	copula
AD	adessive	DEF	definite article
BEN	benefactive	DEM	demonstrative

EXS	existential	OBL	oblique
F	feminine	PFV	perfective
IMPF	imperfect (prefix conjugation)	PL	plural
IPA	International Phonetic Alphabet	PRS	present
IN	inessive	PRF	perfect (suffix conjugation)
IND	indicative	PROG	progressive
INDF	indefinite	PST	past
IPFV	imperfective	REL	relative
M	masculine	SBJV	subjunctive
NEG	negation	SG	singular
NP	noun phrase	SUPR	superessive
OBJ	object		

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Chapter 23

Jerusalem Domari

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Jerusalem Domari is the only variety of Domari for which there is comprehensive documentation. The language shows massive influence of Arabic in different areas of structure – quite possibly the most extensive structural impact of Arabic on any other language documented to date. Arabic influence on Jerusalem Domari raises theoretical questions around key concepts of contact-induced change as well as the relations between systems of grammar and the components of multilingual repertoires; these are dealt with briefly in the chapter, along with the notions of fusion, compartmentalisation of paradigms, and bilingual suppletion.

1 Historical development and current state

Domari is a dispersed, non-territorial minority language of Indo-Aryan origin that is spoken by traditionally itinerant (peripatetic) populations throughout the Middle East. Fragmented attestations of the language place it as far north as Azerbaijan and as far south as Sudan. The self-appellation *dōm* is cognate with those of the *řom* (Roma or Romanies) of Europe and the *lom* of the Caucasus and eastern Anatolia. All three populations show linguistic resources of Indo-Aryan origin (which in the case of the Lom are limited to vocabulary), as well as traditions of a mobile service economy, and are therefore all believed to have descended from itinerant service castes in India known as *dom*. Some Domari-speaking populations are reported to use additional names, including *qurbāṭi* (Syria and Lebanon), *mitrip* or *karači* (Turkey and northern Iraq) and *bahlawān* (Sudan), while the surrounding Arabic-speaking populations usually refer to them as *nawar*, *yağar* or *miṭribiyya*. The language retains basic vocabulary of Indo-Aryan origin, and shows elements of lexical phonology that place its early development within the Central Indo-Aryan group of languages. It retains conservative derivational as well as present-tense inflectional verb morphology that goes back to late Middle Indo-Aryan, alongside innovations in nominal and past-tense verb inflection



that suggest that the language was contiguous with the Northwestern frontier languages (Dardic) during the transition to early modern Indo-Aryan (cf. Matras 2012).

The first attestation of Palestinian Domari is a list of words and phrases collected by Ulrich Jasper Seetzen in 1806 in the West Bank and published by Kruse (1854). It was followed by Macalister's (1914) grammatical sketch, texts and lexicon, collected in Jerusalem in a community which at the time was still nomadic, moving between the principal West Bank cities of Nablus, Jerusalem and Hebron. This community settled in Jerusalem in the early 1920s, the men taking up wage employment with the British-run municipal services. In the 1940s they abandoned their makeshift tent encampment and moved into rented accommodation within the Old City walls, where the community still resides today. Between 1996 and 2000 I carried out fieldwork among speakers in Jerusalem and published a series of works on the language, including two descriptive outlines (Matras 1999; 2011), annotated stories (Matras 2000), an overview of contact influences (Matras 2007), and a descriptive monograph (Matras 2012).

A number of sources going back to Pott (1907), Newbold (1856), Paspati (1870), Patkanoff (1907), and Black (1913) provide language samples collected among the Dom of Lebanon, Syria, Iraq and the Caucasus. These are supplemented by a few more samples collected by ethnographers (cf. Matras 2012: 15ff.) and subsequently by data collected in Syria and Lebanon by Herin (2012). That documentation allowed me to identify a number of differences that appeared to separate a Northern group of Domari dialects from a Southern group, which latter includes the data recorded in Palestine as well as a sample from Jordan (see Matras 2012: 15ff.). That tentative classification has since been embraced by Herin (2014), who goes a step further and speculates about an early split between two branches of the language. To date, however, published attestation of Northern varieties remains extremely fragmented, notwithstanding recent work by Herin (2016; this volume), while the only comprehensive overview of a Southern variety remains that from Jerusalem.

Outside of Jerusalem and its outskirts there are known communities of Palestinian Doms in some of the refugee camps on the West Bank and Gaza, as well as in Amman, where a few families sought refuge in 1967. Numbers of speakers were very low in all these communities already in the mid 1990s and the language was only in use among the elderly. During my most recent visit to the Jerusalem community, in January 2017, it appeared that there was only one single fluent speaker left, who, for obvious reasons, no longer had any practical use for the language, apart from flagging the odd phrase to younger-generation semi-speakers. Jerusalem Domari, and most likely Palestinian Domari in general, must therefore now be considered to be nearly extinct.

2 Contact languages

Given the migration route that the Dom will have taken to reach the Middle East from South Asia, it is plausible that the language was subjected to repeated and extensive contact influences. Kurdish influences on Jerusalem Domari, some of them attributable specifically to Sorani Kurdish, and some Persian items, are apparent in vocabulary, while some of the morpho-syntactic structures (such as extensive use of person affixes, and the use of a uniform synthetic marker of remote tense that is external to the person marker) align themselves with various Iranian languages. There is also a layer of Turkic loans, some of which may be attributable to Azeri varieties, while others are traceable to Ottoman rule in Palestine; such items are numerous in the wordlists compiled by Seetzen and Macalister during the Ottoman period, but are much less frequent in the materials collected a century later (for a discussion of etymological sources see Matras 2012: 426–429).

The circumstances under which speakers of Domari first came into contact with Arabic are unknown. There are some indications of a layered influence: Domari tends to retain historical /q/ in Arabic-derived words, as in *qahwa* ‘coffee’, *qabil* ‘before’, *qaddēš* ‘how much’, as found in the rural dialects of the West Bank (and elsewhere), whereas contemporary Jerusalem Arabic (also used by Doms when speaking Arabic) shows a glottal stop, as in *ʔahwe*, *ʔabl*, *ʔaddēš*; the word for ‘now’ is *hessaʔ*, while Jerusalem Arabic has *hallaʔ*. It appears that the community has been fully bilingual in Arabic and Domari at least since the early 1800s, with knowledge of Turkish having been widespread among adults during the Ottoman rule. Due to the nature of the Doms’ service economy, Arabic was an essential vehicle of all professional life, whether metalwork, hawking, begging, or performance, but Domari remained the language of the household until the introduction of compulsory school education under Jordanian rule in the 1950s–60s, at which point parents ceased to pass on the language to children. By the 1990s, use of Domari was limited to a small circle of perhaps around forty–fifty elderly people. Due to the multi-generational structure of households it was rare even then for conversations to be held exclusively among Domari speakers. Domari–Arabic bilingualism has always been unidirectional, with Arabic being the language of commerce and public interactions for all Doms, and more recently also of education and media, eventually replacing Domari as a home and community language.

3 Contact-induced changes in Jerusalem Domari

As a result of ubiquitous bilingualism among all Domari speakers, Domari talk is chequered not only with expressions that derive from Arabic, but also with switches into Arabic for stylistic and discourse-strategic purposes such as emphasis, direct quotes, side remarks, and so on. The structural intertwining of Domari and Arabic, and the degree to which active bilingual speakers maintain a license to incorporate Arabic elements into Domari conversation, pose a potential challenge to the descriptive agenda. In the following I discuss those structures that derive from Arabic, and are shared with Arabic (in the sense that they are employed by speakers both in the context of Domari conversation and in interactions in Arabic) but constitute a stable and integral part of the structural inventory of Domari without which Domari talk cannot be formed, and for which there is no non-Arabic Domari alternative. All examples are taken from the Jerusalem Domari corpus described in Matras (2012). Examples from Arabic are based on colloquial Palestinian Arabic as spoken in Jerusalem.

3.1 Phonology

The entire inventory of Palestinian Arabic phonemes is available in Domari; Arabic-derived words that are used in Domari conversation (whether or not they have non-Arabic substitutes) do not undergo phonological or phonetic integration, except for the application of Domari grammatical word stress on case-inflected nouns (e.g. *lambá* ‘lamp.ACC’, from Arabic *lám̄ba*). The pharyngeals [ħ] and [ʕ] are limited to Arabic-derived vocabulary. The sounds [q], [ɣ] and [l] as well as [z] and [f] appear primarily in Arabic-derived vocabulary, but there is evidence that they entered the language already through contact with Turkic and Iranian languages. Less clear is the status of the pharyngealised dental consonants /d̄, t̄, s̄/. These are largely confined to Arabic-derived vocabulary, but they can also be found in inherited words of Indo-Aryan stock, where they often represent original (Indo-Aryan) retroflex sounds (cf. *d̄óm* ‘Dom’, *p̄ēt̄* ‘belly’). An ongoing phonological innovation that is shared with Jerusalem Arabic is the simplification of the affricate [dʒ] to the fricative [ʒ] in inherited lexemes, e.g. *džami* ‘I go’ > *žami*. This triggers a corresponding simplification of [tʃ] to [ʃ], as in *lači* ‘girl’ > *laši*.

3.2 Morphology

Domari has not adopted productive word-derivational templates from Arabic. Arabic inflectional morphology, however, is productive with some Arabic-de-

rived word forms, resulting, in effect, in a compartmentalised morphological structure. Arabic-derived plural nouns tend to retain Arabic plural inflection, but indigenous (inherited, Indo-Aryan) plural inflections are added to the word: thus *muslim* ‘Muslim’, plural *musilmīn-e* Muslims-PL ‘muslims’; *madrāse* ‘school’, dative plural *madāris-an-ka* (schools-PL.OBL-DAT) ‘to the schools’. While Jerusalem Domari retains inherited plural marking with nouns derived from both Indo-Aryan and Arabic, in the closely related variety of the nomadic Doms of Jordan the Arabic plural ending *-āt* is often used with inherited nouns: thus *putur* ‘son’, Jerusalem Domari plural *putr-e*, Jordanian Domari plural *putr-āt*.

Arabic person agreement inflection is retained with Arabic-derived modal and aspectual auxiliaries. The auxiliaries *kān* ‘be’, *šār* ‘begin’, and *baqa* ‘continue’ take Arabic verbal inflection, while *bidd-* ‘want’, *ḡall-* ‘continue’, and *ḡalli-* ‘allow’ take Arabic nominal-possessive marking:

- (1) a. *kān-at par-ar-m-a wāšī-s*
 be.PRF-3SG.F take-3SG-1SG-PST with-3SG
 ‘She used to take me with her.’
- b. *dōm-e kān-u kam-k-ad-a ḡaddādīn-e*
 dom-PL be-.PRF-3PL work-TR-3PL-PST blacksmiths-PL
 ‘The Dom used to work as blacksmiths.’
- (2) a. *šār qaft-ar-i min boy-os*
 begin.PRF.3SG.M steal-3SG-PROG from father-3SG
 ‘He started to steal from his father.’
- b. *šār-u kar-and-i ḡafl-e*
 begin.PRF-3PL do-3PL-PROG party-PL
 ‘They started to have parties.’
- (3) a. *š-ird-i ama-ke bidd-ha qumn-ar*
 say-PFV-F 1SG-BEN want-3SG.F eat-SBJV.3SG
 ‘She said to me that she wants to eat.’
- b. *bidd-i par-am itḡawwiz-om-is*
 want-1SG take-1SG.SBJV marry-1SG.SBJV-3SG.OBL
 ‘I want to take her and marry her.’
- (4) a. *ḡalli-hum naḡḡif-k-ad-i ehe marn-an*
 let.IMP.2SG-3PL clean-TR-3PL-PROG these.PL dead-OBL.PL
 ‘Let them clean up these corpses.’

- b. ḥalli-h rfi-k-ar hundar
 let.IMP.2SG-3SG graze-TR-3SG.SBJV there
 ‘Let it graze there.’

Inflected Arabic-derived auxiliaries include the existential verb *kān-* ‘to be’, which is used in Domari, as in Arabic, as a past- and future-tense copula, supplementing the Domari remoteness or external past-tense marker *-(y)a*, which follows the lexical predication or predicate object:

- (5) ihi illi par-d-om-is kān-at yaṭīm-ēy-a
 this.F REL take-PST-1SG-3SG.OBL be.PRF-3SG.F orphan-PRED.SG-PST
 ‘The one [woman] whom I married [her] was an orphan.’

Arabic-derived auxiliaries are also inflected for tense following Arabic paradigms:

- (6) lāzem tkūnu itme mišaṭṭaṭ-hr-es-i
 must be.IMP.F.SBJV.2PL 2PL dispersed-ITR-2PL-PROG
 ‘You must remain dispersed.’

This amounts, in effect, to a functional compartmentalisation in verbal morphology: both inherited and Arabic-derived lexical verbs take inherited Indo-Aryan inflection, while Arabic-derived modal and aspectual auxiliaries take Arabic inflection (for further discussion see Matras 2015).

Arabic person inflection is also found with the Arabic-derived secondary pronominal object marker *iyyā-*, complementiser *inn-*, and conjunction *liʔann-* ‘because’:

- (7) ple illi t-or-im iyyā-hum
 money.PL REL give.PST-2SG-1SG.OBL OBJ-3PL
 ‘the money that you gave [it] to me’
- (8) aylabiyi-osan š-ad-i inn-hom min šamāl-os-ki
 majority-3PL say-3PL-PROG COMP-3PL from north-3SG-ABL
 hnūd-an-ki
 india-OBL.PL-ABL
 ‘Most of them say that they are from northern India.’
- (9) na kil-d-om barra liʔann-ha wars-ar-i
 NEG exit-PFV-1SG out because-3SG.F rain-3SG-PROG
 ‘I did not go out because it was raining.’

- (10) payy-os liʔinn-o ʔāt-i kân
 husband-3SG because-3SG.M Arab-PRED.SG be.PRF.3SG.M
 ‘Because her husband was an Arab.’

Note that in example (9) the agreement is in the feminine singular, corresponding to the grammatical mapping of the Jerusalem Arabic construction ‘it rains’ where the (underlying) subject is the feminine noun *dunya* ‘the world’, while in (7), resumptive pronoun agreement with ‘money’, a plural noun, is in the plural.

Domari is seemingly an exception to the frequently cited generalisation that derivational morphology is more likely to be borrowed than inflectional morphology (cf. Moravcsik 1978; Field 2002; Matras 2009: §6.2.2). In fact, the constraint on the borrowing of word-derivational morphology results from the clash with the principle of the transparency of morphemes (cf. Matras 2009: §6.2.2): Arabic has few if any word-derivational morphemes that can be isolated, relying instead on complex morphological templates into which lexical roots are inserted. Nominal plural morphemes have both inflectional function (relevant to other elements in the clause) and derivational function (having independent meaning in standalone expressions). As shown above, they are replicated in Jerusalem Domari as an integral part of Arabic plural word forms. On the other hand, the replication of inflectional material on auxiliaries is not productive, in that it is not incorporated into the general lexicon, not even with lexical words of Arabic origin, but remains confined to the near-wholesale adoption of modal and aspectual auxiliaries from Arabic. In this respect, Arabic-derived inflectional paradigms in Domari constitute a case of both FUSION as defined in Matras (2009) – the wholesale non-separation of language systems around a particular functional category – and at the same time a case of functional compartmentalisation as defined in Matras (2015) – the distinct treatment of functional sub-components of a category, here the verbal category, in regard to grammatical inflection.

3.3 Syntax

Generally, Jerusalem Domari shows full congruence with Palestinian Arabic in most syntactic functions. This includes word order rules and the formation of both simple and complex clauses. It also includes configurations such as mapping of tenses and modality to complement and conditional clauses, and the mapping of semantic relations onto case markers. The latter can be adpositional or inflectional. For nominal possessive constructions, Domari has two options. The first of those options, illustrated in (11a), is what we might call canonical Domari. It corresponds to the inherited Indo-Aryan pattern. The second option, illustrated

in (11b), corresponds to the common Palestinian Arabic construction, which is presented in (11c). Here Domari replicates the role of the Arabic dative preposition *la* by means of the inherited Domari ablative/possessive inflectional ending *-ki*:

- (11) a. Canonical Domari
 bɔy-im kuri
 father-1SG house
- b. Convergent Domari
 kury-os bɔy-im-ki
 house-3SG father-1SG.OBL-ABL
- c. Arabic
 bēt-o la-ʔabū-y
 house-3SG.M to-father-OBL.1SG
 ‘my father’s house’

The canonical position of adjectives in Domari is, as in other Indo-Aryan languages, before the noun (12a), while in Arabic adjectives follow the noun. However, speakers show an overwhelming preference for avoiding pre-posed adjectives and instead make use of the non-verbal predication marker in order to allow the adjective to follow the noun (12b), thereby replicating Arabic word order patterns (12c):

- (12) a. Canonical Domari
 er-i qištoṭ-i šōni
 come.PFV-F little-F girl
 ‘A little girl arrived.’
- b. Convergent Domari
 er-i šōni qištoṭ-ik
 come.PFV-F girl little-PRED.SG.F
 ‘A little girl arrived.’ [= ‘A girl arrived, being little.’]
- c. Arabic
 ʔižat bint zyire
 come.PRF.3SG.F girl little.F
 ‘A little girl arrived.’

The emergence of nominal clauses, facilitated by the availability of non-verbal predication markers, might be regarded as an innovation for an Indo-Iranian language, which reinforces sentence-level convergence between Arabic and Domari:

- (13) a. Domari
wuda bizzot-ək
old.M poor-PRED.SG
- b. Arabic
l-ḥityār miskīn
DEF-old.man poor
'The old man is poor.'

Domari, like Arabic, shows a strong tendency toward SVO word order in categorical sentences in which a thematic perspective is established by linking to a known topical entity:

- (14) mām-om putur yāsir gar-a swēq-ē-ta
uncle-1SG son Yassir go.PFV-M market-OBL.F-DAT
'My (paternal) cousin Yassir went to the market.'

By contrast, as seen in example (12), Domari shows consistent convergence with Arabic in regard to the position of the subject after the verb when new topical entities are introduced, especially with verbs that convey movement and change of state and in presentative constructions. Drawing on inherited morphology, this convergence in word order patterns also allows for the encoding of the pronominal experiencer-recipient through a person affix that is attached to an intransitive verb in presentative constructions, matching the Arabic construction:

- (15) a. Domari
er-os-im ḥabar
come.PFV-3SG-1SG.OBL notice
'I received notification'
- b. Arabic
ʔažā-ni ḥabar
come.PRF.3SG.M-1SG notice

Complex clauses are also congruent with Arabic. Like Arabic, Domari shows three distinct co-temporal adverbial constructions. In the first, the subordinate clause is introduced by the conjunction 'and' and the verb is finite and indicative:

- (16) a. Domari
kahind-ad-i ū pandži našy-ar-i
look-3PL-PROG and 3SG dance-3SG-PROG
- b. Arabic
b-yitfarražu w hiyye b-turʔuṣ
IND-look.IMPF.3PL and 3SG.F IND-dance.IMPF.3SG.F
'They watch her dance.'

In the second, the subordinated predicate appears in the present participle:

- (17) a. Domari
 lah-erd-om-is mindir-d-ĕk
 see-PFV-1SG-3SG.OBL stand-PFV-PRED.SG.M
- b. Arabic
 ŝuft-o wāʔef
 see.PRF.1SG-3SG.M standing
 ‘I saw him standing.’

The final option shows a nominalised verb, whose possessive inflection indicates the subject/agent, introduced by the preposition ‘with’ in the subordinate position alongside a finite main clause:

- (18) a. Domari
 maʕ ŝuŝ-im-ki tiknaw-ar-m-i gurg-om
 with sleep-1SG.OBL-ABL hurt-3SG-1SG-PROG neck-1SG
- b. Arabic
 maʕ nōmt-i b-tūžaʕ-ni raʔbt-i
 with sleep-OBL.1SG IND-3SG.F-hurt.IMP.3SG.F-1SG neck-OBL.1SG
 ‘As I sleep, my neck hurts.’

Relative clauses follow the format of Arabic relative clauses: they employ the Arabic-derived post-nominal relativiser *illi* and show the same distribution rules for pronominal resumption as in Arabic:

- (19) ihi illi par-d-om-is kān-at yaʔim-ĕy-a
 this.F REL take-PST-1SG-3SG.OBL be.PRF-3SG.F orphan-PRED.SG-PST
 ‘The one [woman] whom I married [her] was an orphan.’

Factual (indicative) complements are introduced by the Arabic-derived complementiser *inn-*, which carries Arabic-derived inflection (as in example 8 above), and show comparable clause structure as in Arabic:

- (20) a. Domari
 dʒan-ad-i in-na dōm
 know-3PL-PROG COMP-1PL Dom
- b. Arabic
 b-yiʔrafu in-na dōm
 IND-know.IMP.3PL COMP-1PL Dom
 ‘They know that we are Dom.’

Modal complements and same-subject purpose clauses show, as in Arabic, a subjunctive complement, without a complementiser:

- (21) a. Domari
 bidd-i dža-m ɣaram-ka ʃalli-k-am
 want-1SG go-1SG.SBJV mosque-DAT pray-TR-1SG.SBJV
- b. Arabic
 bidd-i arūḥ ʔa-l-ɣaram aʃalli
 want-1SG go.IMP.F.SBJV.1SG to-DEF-mosque pray.IMP.F.SBJV.1SG
 ‘I want to go to the mosque to pray.’

Adverbial clauses employ Arabic-derived adverbial subordinators, including *lamma* ‘when’, as in (22), or composite conjunctions consisting of a preposition and complementiser, such as *baʔd mā* ‘after’ and *qabil mā* ‘before’, as in (23) and (24), and generally follow Arabic sentence organisation and tense and modality distribution patterns.

- (22) *lamma* lak-ed-a ɣāl-os inɣann-ahr-a bɔy-om
 when see-PFV-M uncle-3SG crazy-TR.PFV-M father-1SG
 ‘When he saw his uncle, my father went crazy.’
- (23) *baʔd mā* ɣallaʃ-k-ed-a kam-os gar-a kury-is-ta
 after COMP finish-TR-PFV-M work-3SG go.PFV-M house-3SG.OBL-DAT
 ‘After he finished his work he went home.’
- (24) *qabil mā* dža-m ɣallaʃ-k-ed-om kam-as
 before COMP go-1SG.SBJV finish-TR-PFV-1SG work-OBL.M
 ‘Before I left I finished my work.’

Conditional clauses similarly draw on the Arabic conjunctions *iza* and *law*, both ‘if’, and show similar distribution of tense and aspect categories, including the Arabic-derived impersonal marker of counter-factuality *kān*, literally ‘was’:

- (25) a. Domari
 law er-om ɣuʒoti kān lah-erd-om-s-a
 if come.PFV-1SG yesterday was see-PFV-1SG-3SG-PST
- b. Arabic
 law ʒit mbāreḥ kān ʃuft-o
 if come.PRF.1SG yesterday be.3SG.M see.PRF.1SG-3SG.M
 ‘If I had come yesterday, I would have seen him.’

3.4 Lexicon

Jerusalem Domari shows extensive impact of Arabic on the grammatical lexicon, including almost wholesale reliance on Arabic-derived material for entire categories. In the pronominal domain, Domari employs, in addition to the secondary pronominal object marker *iyyā-* discussed above, also the Arabic reflexive pronoun *ḥāl-*, derived from the word ‘state’, combined with person/possessive inflection, and the Arabic reciprocal pronoun *baṣḍ-*:

- (26) naḍḍif-k-ad-a ḥāl-os
 clean-TR-PFV-M REFL-3SG
 ‘He cleaned himself.’
- (27) tʃarraḥ-h-r-ēn baṣḍ-ē-man-ta
 meet-TR.PFV-1PL RECP-PL-1PL-DAT
 ‘We met one another.’

Indefinite expressions draw on Arabic-derived forms of category determination including negative *wala*, free choice *ayy* and universal *kull*, which may be combined with inherited ontological markers, as well as on the ontological specifiers *ḥāḡ-* for thing and *maḥall* for location. Indefinite expressions that derive entirely from Arabic include temporal *wala marra* ‘never’, *dāyman* ‘always’, and universal-thing *kullši* ‘everything’. Arabic-derived focus particles are *barḍo* ‘also, too’ and *ḥatta* ‘even’ and quantifiers are *kull* ‘every, each’ and *akamm* ‘a few’. Interrogatives are generally inherited (Indo-Aryan), with the exception of *qaddēš* ‘how much’. Numerals are all derived from Arabic with the exception of the lowest numeral forms (‘one’ to ‘five’ in citation function and ‘one’ to ‘three’ in attributive role) (see Tables 1–2); all ordinal numerals (*awwal* ‘first’, *tāni* ‘second’ etc.) are from Arabic.

Alongside a very small number of inherited prepositions that are used exclusively with pronominal (person-inflected) forms, most prepositions are derived from Arabic (Table 3).

Arabic-derived grammatical operators at verbal clause level include a series of modality adverbs such as *masalan* ‘for example’, *yimken* ‘perhaps’, *atāri* ‘well’, time adverbs such as *hessaḥ* ‘now’ and *baṣḍēn* ‘then, afterwards’, and the phasal adverbs *lissa* and *lāyzāl*, both ‘still’. As discussed above, Domari adopts Arabic modal and aspectual auxiliaries wholesale, i.e. along with their Arabic-derived inflection. This covers almost the full category of modal and aspectual auxiliaries including habitual/iterative *kān* ‘be’, *šār* ‘begin’, and *baqa* ‘continue’, *bidd-* ‘want’, *ḍall-* ‘continue’, and *ḥallī-* ‘let’, as well as the impersonal form *lāzem* ‘must’. The

Table 1: Jerusalem Domari numerals

Numeral	Citation	Attribute
1	<i>ikak</i>	<i>-ak</i>
2	<i>diyyes</i>	<i>di</i>
3	<i>taranes</i>	<i>taran</i>
4	<i>štares</i>	<i>ʔarbaʕ</i>
5	<i>pandžes</i>	<i>ħamis</i>
6	<i>sitt-ək-i</i>	<i>sitt</i>
7	<i>sabʕ-ak-i</i>	<i>sabaʕ</i>
8	<i>tamāni-ak-i</i>	<i>tamānye</i>
9	<i>tisʕ-ak-i</i>	<i>tisʕa</i>
10	<i>das</i> ‘ten’, <i>ʕašr-ak-i</i>	<i>ʕašr</i>
20	<i>ʕišrīn-i, wīs-i</i>	<i>ʕišrīn</i>
21	<i>ʕišrīn ū ekak-i</i>	<i>wāħed w ʕišrīn</i>
22	<i>ʕišrīn-i ū diyyes-i</i>	<i>tnēn w ʕišrīn</i>
23	<i>ʕišrīn-i ū taranes-i</i>	<i>talāte w ʕišrīn</i>
24	<i>ʔarbaʕ ū ʕišrīn</i>	<i>ʔarbaʕ w ʕišrīn</i>
100	<i>miyyək hi, siyy-ak-i</i>	<i>miyye</i>
1000	<i>alf-ak-i</i>	<i>alf</i>

Table 2: Jerusalem Domari higher numerals

Numeral	Form
30	<i>talātīn</i>
40	<i>ʔarbaʕīn</i>
50	<i>ħamsīn</i>
60	<i>sittīn</i>
70	<i>sabʕīn</i>
80	<i>tamanīn</i>
90	<i>tisʕīn</i>

Table 3: Arabic-derived prepositions in Jerusalem Domari

<i>ʕan</i>	‘on, about’	<i>ʕašān</i>	‘because’	<i>nawāḥi</i>	‘toward’
<i>maʕ</i>	‘with’	<i>minšān</i>	‘for’	<i>qabil</i>	‘before’
<i>min</i>	‘from’	<i>min yēr</i>	‘without’	<i>baʕd</i>	‘after’
<i>la, ʕala</i>	‘to’	<i>min/bi dūn</i>	‘without’	<i>layāyet</i>	‘until’
<i>fi</i>	‘in’	<i>bēn</i>	‘between’	<i>bi</i>	‘in, for’
<i>zayy</i>	‘like’	<i>ḥawāli</i>	‘around’	<i>ḍidd</i>	‘against’
<i>ʕind (ʕand)</i>	‘at’	<i>min ḍamn</i>	‘among’	<i>žamb</i>	‘next to’
<i>badāl</i>	‘instead of’	<i>ʔilla yēr</i>	‘except for’		

only modal for which an Indo-Aryan form is retained is *sak-* ‘to be able to’. Past-tense finite predications take the Arabic negator *mā* (alongside inherited *na*) while in non-finite predications the Arabic negation particle *miš* is used:

- (28) *mā lak-ed-om-is*
 NEG see-PFV-1SG-3SG.OBL
 ‘I didn’t see him/her.’
- (29) *bay-os miš kury-a-m-ēk*
 wife-3SG NEG house-OBL.F-LOC-PRED.SG
 ‘His wife is not at home.’

Clause combining relies exclusively on Arabic-derived material (connectors and conjunctions) (see Table 4).

Likewise, the inventory of discourse particles and interjections is adopted in its entirety from Arabic: We find the interjection, tags and fillers *yabayyi*, *yaʕlla*, *xalaš*, *walla*, and *yafni*, as well as segmental markers with a lexical meaning such as *l-muhimm* ‘anyway’, *l-ḥāšil* ‘finally’, *ṭayyib* ‘well’, *w ʔiši* ‘and the like’, *w hāda* ‘and so on’, *abšar* ‘whatever’, and the filler *hāy* ‘that’. The quotation particle *qal/ḥal*, from Arabic ‘say’, is not found in Jerusalem Arabic and appears to represent an older layer of Arabic influence (as indicated also by its phonological structure; see §2).

The content lexicon equally shows massive impact of Arabic. In the Jerusalem Domari corpus of narrational and conversational talk as well as sentence elicitation recorded in the 1990s (Matras 2012), almost two thirds of lexical items are Arabic-derived; the count includes single-word insertions from Arabic, including attributive nominal compounds (noun–possessor and noun–adjective), but excludes phrases containing a finite lexical verb that is Arabic-derived (which latter

Table 4: Arabic-derived conjunctions in Jerusalem Domari

<i>w</i>	‘and’	<i>qabil mā</i>	‘before’
<i>wala</i>	‘and not’, ‘(n)either’	<i>baʕd mā</i>	‘after’
<i>yā</i>	‘or’	<i>min-yōm-mā</i>	‘since’
<i>willa</i>	‘or (else)’	<i>iza</i>	‘if’
<i>bass</i>	‘but’, ‘only’	<i>law</i>	‘if’
<i>illi</i>	relative pronoun	<i>bi-r-rayim</i>	‘despite’
<i>inn-</i>	‘that’	<i>ʕašān</i>	‘for’, ‘in order to’
<i>liʔann</i>	‘because’	<i>minšān</i>	‘for’, ‘in order to’
<i>lamma</i>	‘when’	<i>ta</i>	‘in order to’
<i>kull mā</i>	‘whenever’		

are regarded as optional code-switches). Both Arabic-derived nouns and adverbs outnumber inherited (Indo-Aryan) counterparts by around 65% to 35%, while for verbs and adjectives the numbers are roughly equal. Around 26% of items of both the Swadesh 100-item list and the Leipzig–Jakarta 100-item list (Haspelmath & Tadmor 2009) are Arabic-derived. This puts Domari in the range of languages considered to be “high borrowers” by the Leipzig Loanword Typology Project (Haspelmath & Tadmor 2009). Meanings on the list that are replaced by Arabic loans in Domari include a number of animals (‘ant’, ‘bird’, ‘fish’), activities (‘to run’, ‘to fly’, ‘to crush’), elements of nature (‘star’, ‘soil’, ‘shade’, ‘ash’, ‘leaf’, ‘root’), and some body parts (‘knee’, ‘navel’, ‘liver’, ‘thigh’; also ‘wing’, ‘tail’). On the whole, the meaning and usage of Arabic-derived lexemes matches that of Jerusalem Arabic. Creative processes are marginal and include such processes as the phonological volatility of /q/ (as [q], [x], [qx] and [g]), the alternation between *farġik-* ‘to show’ (Arabic $\sqrt{frġ}$) and *warġik-*, and the occasional creative derivation such as *bisawahr-* ‘to get married’, from Arabic *bi-sawa* ‘together’.

Arabic verbs are integrated into Domari through a light verb construction that draws on the inherited verb stems *-k-* ‘to do’ and *-h-* ‘to become’, which are grammaticalised into loan-verb adaptation markers (see Matras 2012: 240–244) that are sensitive to valency. This follows a strategy for the adaptation of loan verbs that is widespread across a geographical area stretching from the Balkans and the Caucasus through Anatolia and Western Asia and on to the Indian Subcontinent. For some verbs, alternating adaptation markers can indicate change in valency: *ġawwiz-h-r-i* (marry-ITR-PFV-F) ‘she got married’, *ġawwiz-k-am-is* (marry-TR-1SG.SBJV-3SG.OBL) ‘I shall marry her off’. The core of integrated Arabic verbs generally derives from the Arabic subjunctive–imperative form, which in Arabic

never occurs in isolation from its person inflection in the prefix conjugation, as in *ḡawwiz-* ‘marry’, from *ḡawwiz ‘marry (off)!’ or *tḡawwiz ‘get married!’. Note, however, that the vowel structure of the core does not always correspond to the subjunctive–imperative form of contemporary Palestinian Arabic, which is quite possibly a further indication of the layered historical influence of Arabic. Thus we find *s’il-k-ed-om* (ask-TR-PFV-1SG) ‘I asked’, from *s’il- ‘ask’, while Palestinian Arabic has *isʔal* ‘ask!’, and *rawwah-ah-r-a* (go-ITR-PFV-M) ‘he travelled’, while Palestinian Arabic has *rawwiḥ* ‘go away!’.

3.5 Cross-category interplay

A typologically curious case of contact-induced change is offered by the use in Jerusalem Domari of three construction types that cut across structural categories. The first pertains to the comparative form of adjectives. In the absence of a structurally transparent, isolated and replicable marker of adjective comparison (comparative and superlative), Domari draws on Arabic word forms for all comparative adjective forms, even when an inherited (non-Arabic) word form is used for the positive form of the adjective, as illustrated in (30) (cf. Herin, this volume: §3.2).

- | | | |
|------|---------------------------------|----------------------------|
| (30) | a. Domari | c. Arabic |
| | atu qaštot-ik | inti zyīre |
| | YOU.SG small-PRED.SG.F | 2SG.F small.F |
| | ‘You are small.’ | ‘You are small.’ |
| | b. Domari | d. Arabic |
| | atu azyar mēšī-m-i | inti azyar minn-i |
| | YOU.SG smaller from-1SG-PRED.SG | 2SG.F smaller from-OBL.1SG |
| | ‘You are smaller than I.’ | ‘You are smaller than I.’ |

This formation involves essentially the recruitment of an alternative, Arabic-derived item from the category of lexical items in order to carry out a grammatical procedure that is derivational–inflectional by nature (derivational in that it modifies meaning, inflectional in that it is inherently embedded into a syntactic relationship at the phrase level); thus we have a case of cross-category interplay.

A further case is that of lexical suppletion around Arabic-derived numerals. Domari and Arabic differ typologically in respect of numeral agreement: with Indo-Aryan numerals, the Domari noun appears in the default singular form, while in Arabic, numerals up to ‘ten’ take plural agreement. The clash is resolved in Domari in such a way that Arabic-derived numerals under ‘ten’ invariably trigger an Arabic-derived lexical item even when an inherited form of the corresponding lexeme is available:

- (31) a. *ħkum-ke-d-os taran wars maħkame*
 sentence-TR-PFV-3SG three year court
 ‘The court sentenced him to three years.’
- b. *eh-r-a ħumr-om sitte snīn*
 become-PFV-M age-1SG six year.PL
 ‘I turned six years old.’

Such alternation is systematic (see further examples in Table 5) and might be regarded as a case of bilingual suppletion, where every countable noun in the language for which an inherited (Indo-Aryan) word form exists also has an Arabic-derived counterpart that is used with numerals between ‘three’ and ‘ten’.

Table 5: Some phrases from the corpus containing numerals and nouns

Inherited numeral and singular noun	Arabic numeral and plural noun
<i>di dīs taran dīs</i> ‘two days three days’	<i>sabaṣ-t-iyyām</i> ‘seven days’
<i>taran mas</i> ‘three months’	<i>ħamas-t-ušhur</i> ‘five months’
<i>taran wars</i> ‘three years’	<i>sitte snīn</i> ‘six years’
<i>taran zard</i> ‘three pounds’	<i>ħamas līrāt</i> ‘five pounds’

Finally, while Domari lacks a definite article, the Arabic definite article *l-* is employed with definite noun phrases where both the noun and the numeral-attribute are derived from Arabic:

- (32) *mar-d-e l-ʔarbaṣ ħurfān*
 kill-PFV-3PL DEF-four lamb.PL
 ‘They slaughtered the four lambs.’
- (33) *dīr-os it-tānye eh-r-i muhandis-ēk*
 daughter-3SG DEF-second.F become-PFV-F engineer-PRED.SG.F
 ‘Her other daughter became an engineer.’

4 Conclusion

The comparison with Macalister’s (1914) materials offers some scope for observations in respect of the historical development of contact-induced change over the past century in at least two areas of structure, namely the loss of Turkish-derived vocabulary as well as of some of the inherited Indo-Aryan vocabulary (around 55 words are attested in Macalister’s materials that were not familiar

to the speakers I interviewed), and the adoption of fully-inflected modal and aspectual auxiliaries, compared to their use as impersonal forms in Macalister's material. One has to bear in mind, however, that Macalister's corpus is based on work with just a single speaker. Nevertheless, these changes provide some indication that the impact of Arabic continued to expand during the last century in which the language was spoken, a period during which the Doms lost much of their distinct culture and lifestyle as a result of the shift from a semi-nomadic service economy to a settled, wage-based but still socially isolated and stigmatised community.

The impact of Arabic on Domari prompts a theoretical challenge around identifying a form of the language that is structurally inseparable from Arabic. This can be illustrated by the following two examples:

- (34) a. Domari
 aktar min talātīn ḥamsa w talātīn sana mā lak-ed-om-is
 more from thirty five and thirty year NEG see-PFV-1SG-3SG.OBL
- b. Arabic
 aktar min talātīn ḥamsa w talātīn sana mā šuft-ha
 more from thirty five and thirty year NEG see.PRF.1SG-3SG.F
 'I haven't seen her for more than thirty, thirty five years.'
- (35) a. Domari
 kān ḥumr-om yimken sitte snīn sabḥa snīn
 be.PRF.3SG.M age-1SG maybe six years seven years
- b. Arabic
 kān ḥumr-i yimken sitte snīn sabḥa snīn
 be.PRF.3SG.M age-OBL.1SG maybe six years seven years
 'I was maybe six or seven years old.'

Both (34a) and (35a) are unambiguously identifiable to speakers as Domari utterances; moreover, their meaning cannot be conveyed in Domari in any other way. Yet they each differ in just one single element from their respective counterpart Arabic utterances in (34b) and (35b): the use of the lexical verb with subject and object agreement (Domari *lak-ed-om-is* 'I saw her', Arabic *šuf-t-ha*) in the first, and the use of the 1SG possessive marker (Domari *-om*, Arabic *-i*) with the word *ḥumr* 'age' in the second. Despite being isolated examples, (34)–(35) illustrate the considerable extent of structural overlap between the two languages. Furthermore, the examples discussed above of bilingual suppletion in number agreement and adjective comparison, and the productive use of Arabic person

agreement inflection with auxiliaries and with some complementisers and secondary object markers, mean in effect that active command of Arabic is a prerequisite for speaking Domari.

It follows that Domari provides us with an opportunity to reconsider the taxonomy of contact-induced language change phenomena. It is not a Mixed Language by conventional definitions (cf. Bakker & Matras 2013; Matras 2009: chapter 10) since the Indo-Aryan source of grammatical inflection in all word classes is overwhelmingly consistent with the source of basic lexical vocabulary and of deictic and anaphoric elements (demonstrative and personal pronouns, interrogatives, and spatial adverbs). Impressionistically speaking, it is a language with “heavy borrowing” in that it shows the adoption of Arabic-derived material in a wide range of different structural categories. But the distribution of some of this material, taking into account the ubiquitous active bilingualism among Domari speakers, lends itself to the postulation of several particular types of contact-induced structural change, which I have labeled above fusion (wholesale non-separation of languages around a particular structural category, e.g. clause connectors and modal auxiliaries), inflectional compartmentalisation (the use of Arabic inflectional paradigms with particular functional categories, notably modal and aspectual auxiliaries), and bilingual suppletion (activation of speakers’ full command of Arabic vocabulary and inflection for creative formations around number agreement and adjective comparison).

Further Reading

- Matras (2007) outlines contact influences on Jerusalem Domari in the context of a collection of chapters on contact-induced change in a sample of different languages.
- Matras (2012) provides a descriptive and historical overview of Jerusalem Domari and includes extensive discussion of contact-induced change in the individual chapters as well as a chapter devoted to the impact of Arabic.
- Matras (2009) is a general theoretical discussion of contact-induced change in functional-typological perspective and includes many examples from Jerusalem Domari.
- Finally, Matras (2015) discusses patterns of morphological borrowing and their theoretical implications and gives as one of the examples the compartmentalisation of modal and aspectual auxiliaries in Jerusalem Domari.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person	PFV	perfective
ABL	ablative	PRED	predication (non-verbal)
BEN	benefactive	PRS	present
COMP	complementiser	PRF	perfect (suffix conjugation)
DAT	dative	PROG	progressive
F	feminine	PST	past
IMP	imperative	RECP	reciprocal
IMPF	imperfect (prefix conjugation)	REFL	reflexive
IND	indicative	REL	relativiser
ITR	intransitive	SBJV	subjunctive
LOC	locative	SG	singular
M	masculine	TR	transitive
OBL	oblique		

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Chapter 24

Mediterranean Lingua Franca

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This chapter explores the effect of Arabic contact on Lingua Franca, an almost exclusively oral pidgin spoken across the Mediterranean and along the North African coastline from the seventeenth to the nineteenth centuries. The chapter highlights the phonological and lexical impact Arabic appears to have had on Lingua Franca.

1 Overview and historical development

Today, LINGUA FRANCA is a term describing a language used by two or more linguistic groups as a means of communication, often for economic motives. Typically, none of the groups speak the chosen language as their native tongue. The original and eponymous Lingua Franca, however, was a trading language, used among and between Europeans and Arabs across the Mediterranean (Kahane & Kahane 1976). Its exact historical and geographical roots – as well as its precise lexifier languages – prove elusive. Hall (1966) dates Lingua Franca's birth to the era of the crusades, while other linguists (Minervini 1996; Cifoletti 2004) suggest that it took root on the North African Barbary Coast (in the Regencies of Algiers, Tunis and Tripoli) at the close of the sixteenth century.

Contention extends to its very name. There are several discrete etymological suggestions for the term *Franca*. Some linguists interpret *Franca* as meaning 'French' (e.g Hall 1966: 3). Hall claims that France's regional significance in the medieval era meant that its languages, specifically Provençal, were adopted across the Mediterranean, and were a key constituent of the original Lingua Franca. In their etymological study of Lingua Franca, Kahane & Kahane (1976: 25), on the other hand, assert that the name *Lingua Franca* is rooted in the East and the Byzantine tradition, stemming from the Greek word *phrangika*, which denoted Venetian as much as Italian, or indeed, as any Western language (Kahane



& Kahane 1976: 31). An alternative etymology for *Lingua Franca*, espoused by Schuchardt (1909: 74) among others, is from the Arabic, *lisān al-faraṅġ* ‘language of the Franks’. This initially referred to Latin and then to describe a trading language employed largely by Jews across the Mediterranean. It later came to encompass the languages of all Europeans, but particularly Italians (Kahane & Kahane 1976: 26).

Evolving from its maritime origins, by the late sixteenth century *Lingua Franca* was the language of pirates of the North African Barbary coast and their captured slaves, and, as such, the subject of legend and myth. Indeed, the variation found in the accounts of *Lingua Franca*, and descriptions of its linguistic makeup lead some linguists (Minervini 1996; Mori 2016) to suggest that there may have been multiple *Lingua Francas* or that it was simply second-language Italian. As Schuchardt (1909: 88), identified, *Lingua Franca* – perhaps above all in its resistance to theoretical classification – adheres to Heraclitus’ philosophy of *panta rei* ‘everything is in flux’.

Contemporaneous descriptions of *Lingua Franca* detailing its lexifiers and, in some cases, its salient features, come mostly from the North African Barbary Regencies and from the Levant. While the writers of these descriptions often identify Italian and Spanish as lexifiers, there are also, if fewer, mentions of Portuguese, French, Provençal, Arabic, Turkish and Greek (see below for further detail). This speaks to the hypothesis that there were multiple *Lingua Francas*, or perhaps more appropriately *lingua francas*. It also raises the frequent subjectivity of the source’s writer and their consequent interpretation of *Lingua Franca*. Their native language appears to have a bearing on the makeup of the *Lingua Franca* recorded. It may influence the lexicon they hear, as well as the orthography they employ in their account. Equally, there is the subjectivity of the researcher to bear in mind. The assumption that a French source, for example, has represented *Lingua Franca* in a particular manner overlooks the fact that the European residents, particularly of port cities across the Mediterranean, most likely would have been multilingual, with an ability to adapt their lexicon to maximize understanding and communication with their interlocutor.

The most widespread documentation of *Lingua Franca* comes from the Levant and northwest Africa. Algiers, and to a lesser extent, Tunis and Tripoli, had long been the crucible of Mediterranean piracy, and as the slave trade of Barbary pirates increased – with over a million European slaves held there between the sixteenth and nineteenth centuries (Davis 2004: 23) – so too did the domains and usage of *Lingua Franca*. The sixteenth–seventeenth century Spanish Abbot Diego del Haedo described it as follows:

La que los Moros e Turcos llaman Franca ... siendo todo una mexcla de lenguas cristianas y de vocablos, que son por la mayor parte Italianos e espanoles y algunos portugueses ... Este hablar Franco es tan general que non hay casa do no se use

‘that which the Arabs and Turks call Franca ... being a mix of Christian languages and words, which are in the majority Italian and Spanish and some Portuguese, this Franca speech is so widespread that there isn’t a house [in Algiers] where it isn’t spoken’ (Haedo 1612: 24; author’s translation).

Despite its alleged profusion in the Barbary coast, and numerous references in various contemporary sources, the corpus of Lingua Franca is remarkably limited. The exclusively European documentary sources (from diplomats, travellers, priests and slaves) provide mostly phrases and individual words and a handful of short dialogues. The most fulsome examples come from literature, and, as such, only provide indirect, and potentially less authentic, evidence of the contact vernacular.

For example, the alleged earliest record of Lingua Franca comes from an anonymous poem, *Contrasto della Zerbitana*, found by Grion (1890) in a fourteenth-century Florentine codex, and apparently written in the late thirteenth or early fourteenth century on the island of Djerba, off the coast of Tunisia. The sixteenth-century *La Zingana* (Giancarli 1545) has an eponymous Arabic-speaking heroine whose language features hallmarks of Lingua Franca, while the speeches of the Turkish characters in Molière’s *Le Sicilien* (1667) and *Le Bourgeois gentilhomme* (1798 [1670]) also appear to share a number of its defining linguistic traits.

The first detailed description and documentation of Lingua Franca comes in Haedo’s (1612) *Topographia*, a comprehensive study of Algiers, with a chapter devoted to the languages spoken there. Haedo spent several years in Algiers at the close of the sixteenth century and was even imprisoned for a number of months. His *Topographia* details the urban features, social makeup and linguistic mix of Algiers, creating an impression of Lingua Franca’s ubiquity across multiple domains, and indispensability to daily commercial, and even domestic, life.

Other early sources are predominantly French. A Trinitarian priest, Pierre Dan, was almost contemporary with Haedo in Algiers; in the mid-seventeenth century the diplomat Savary de Brèves travelled to Tripoli; and Chevalier D’Arvieux, King Louis XIV’s envoy to the region, and advisor to Molière on Turkish and Arabic matters, visited both Algiers and Tunis. All these men offered excerpts of Lingua Franca in their writings, as well as descriptions of its character and lexifiers (Savary de Brèves 1628; Dan 1637; D’Arvieux 1735).

Certainly seventeenth-century Algiers and the other two Barbary Regencies of Tunis and Tripoli provided the conditions for what had previously been a pre-pidgin – with limited lexicon and a lack of stability – to evolve into the language of daily life, permeating all echelons of society and facilitating contact among and between the plurilingual populations of the urban centres. The Barbary states were, from the late sixteenth century, under the *de jure* but not *de facto* control of the Ottoman empire, whose support was needed to shore up the rule of the Greek Barbarossa brothers who had ousted Spanish forces from North Africa. The two brothers (named for their red beards), Aruj and Hizir, gradually brought much of North Africa under Turkish sovereignty through a series of naval challenges and, later, city sieges securing power over coastal areas. The indigenous population rallied to the brothers' cry and although the elder, Aruj, was slain, Hizir assumed control of Algiers in the early sixteenth century (Tinniswood 2010: 8; Weiss 2011: 10). He immediately offered the Ottoman Empire control over the brothers' conquests in order to bolster his own position and ward off threats from Spain. Ottoman rule was compounded over the following decades (Clissold 1977: 27).

In reality, however, the Regencies had unstable political systems with local elites vying for power. Their economy was driven by corsairing, and the real power lay in the hands of the mostly European renegades who carried out raids on land and at sea, seizing cargo and most importantly human booty, sold as slaves on their return (Plantet 1889).

The huge influx of captured Europeans swelled the urban population and created multinational, multid denominational and notably multilingual societies. The Flemish diplomat D'Aranda, imprisoned in Algiers in the 1660s, wrote of hearing twenty-two languages in the slave quarters of the city (D'Aranda 1662). Lingua Franca emerged as a contact language accessible to the majority of slaves (though not all), given its Romance-influenced lexicon. Although the elites were predominantly Arabic-speaking, Europeans permeated the upper levels of Barbary society through their economic sway as corsairs and high levels of inter-marriage of Arabs and Europeans. Lingua Franca quickly became the default language within the slave quarters, known locally as *bagnios*, seemingly a Lingua Franca term, and in master–slave relationships. Authors who detail the use of Lingua Franca across more than 250 years and throughout the regencies, including Pananti (1841) and Broughton (1839), report the regular use of Lingua Franca by Arabic-speaking slave owners, including the Pashas, Beys and various dignitaries of the ruling households.

As noted above, Lingua Franca also elicits various opinions regarding its key lexifiers, though one common point of agreement among its contemporary wit-

nesses and speakers is that Italian¹ and Spanish are mentioned repeatedly as principal sources. Descriptions mostly include at least three lexifying languages, though not always the same three: while Italian and Spanish are consistently named, Provençal also features (D'Arvieux 1735: vol. 5, p.235) as does Portuguese (Haedo 1612: 24; D'Aranda 1662: 22). A much later account from the Italian merchant Pananti, briefly imprisoned in Algiers, mentions Arabic as a lexifier: *la Lingua franca è una mistura d'italiano, di arabo e di spagnolo* 'Lingua Franca is a mix of Italian, Arabic and Spanish' (Pananti 1841: 201). Within the same memoir, however, Pananti refers to African rather than Arabic as one of three lexifiers of Lingua Franca (the other two being Italian and Spanish). Such inconsistency is the hallmark of many of the sources, compounding an already confused and often contradictory picture of the language. As Selbach (2008: 18) observes, "lexical variants were as much a part of the language as variant lexifiers."

The contribution of multiple languages to Lingua Franca is borne out by its lexicon: there are often several alternatives for a single meaning, as listed in the *Dictionnaire* (Anonymous 1830), the sole comprehensive lexical record of the language. For example, 'to do' is translated by *far* (from the Italian *fare*), *fazir* (from Portuguese *fazer*), and *couchiar* (likely from Sicilian *cunzari*; Cifoletti 2004: 316). Lingua Franca – as substantiated by its corpus of written attestations – is always labelled as such by a non-speaker. The European authors of descriptions of Lingua Franca, its diffusion and its usage, present it as, if not foreign, certainly removed and remote from their own languages, and attribute the speaking of Lingua Franca to the Arabs and Turks (even if it is clearly a language that lexically is much closer to European, and specifically Romance, languages).² In her comprehensive if subjective account and an analysis of Lingua Franca, Dakhliia highlights how citations, often expressing insults and aggressive warnings, and usually introduced into the texts by witnesses to Lingua Franca in direct speech, punctuated with exclamation marks, underline what she terms *le choc linguistique de l'altérité et de la barbarie* 'the linguistic shock (or jolt) of otherness and barbarism' (Dakhliia 2008: 351). This choice of words is important. Dakhliia's association of otherness and barbarism suggests that Lingua Franca, according to the European documentary sources, was the language of the Arab oppressor. While this may apply to the corsairs and slave-masters, speaking Lingua Franca

¹Italian is a catch-all term, used by contemporary authors in Barbary, as well as linguists today, as identified by Trivellato (2009: 178): "I write "Italian", "Portuguese" and "Spanish", but recall that European written languages in the epoch were not fully standardized." Venetian and Tuscan were both described as Italian, for example.

²See, for example, the exchange between Louis Bonaparte and Hyde Clarke across several issues of the periodical *Athenaeum* in 1877.

to their European captives, there are other instances within the corpus of written attestations where Arabic-speaking elites use Lingua Franca in diplomatic, even philosophical, exchanges. For example, Louis Frank, the Bey of Tunis' doctor, comments on the deemed impropriety of the Bey speaking formal Italian, and his consequent use of Lingua Franca, which permeated all levels of society (Frank 1850: 70):

la langue franque, c'est à dire cet italien ou provençal corrompu qu'on parle dans le Levant, lui est également familière; il avait même voulu essayer d'apprendre à lire et à écrire l'italien pur-toscan: mais les chefs de la religion l'ont détourné de cette étude, qu'ils prétendaient être indigne d'un prince musulman.

'Lingua Franca, or rather this bad Italian or Provençal spoken in the Levant, is equally familiar to him; he had actually wanted to learn to read and write pure Tuscan Italian; but his religious chiefs had warned him off such study, which they claimed was unworthy of a Muslim prince' (author's translation).

Frank wrote of the intriguing linguistic, socio-political, cultural and even religious conflation evidenced in Lingua Franca, describing an encounter with a Muslim beggar, who implored: "*Donar mi meschino la carità d'una carrouba³ per l'amor della Santissima Trinità e dello gran Bonaparte*", 'Please to give miserable me the charity of a penny for the love of the most holy Trinity and the great Bonaparte' (Frank 1850: 101; author's translation). In just this one Lingua Franca sentence, multiple lexifiers are represented: *meschino* is from the Arabic, *miskīn*, and there is Spanish in *carrouba* 'penny', *donar* 'give', and *amor* 'love', with the Italian Catholic reference of *Santissima Trinità* 'most holy Trinity', and French *Bonaparte*. The latter would have still been Emperor and possibly at the height of his power. Bonaparte is qualified by *gran* 'great', from the Italian or even Venetian. It suggests how cosmopolitan, multicultural and multilingual Tunis and its population had become that a beggar should speak this way. Even Frank was struck by the incongruity of the beggar's words: "*sa supplique en ces termes, bien étranges dans la bouche d'un Musulman*", 'his petition in these terms, very odd in the mouth of a Muslim' (Frank 1850: 101; author's translation).

Lingua Franca's demise dates from 1830, as a consequence of the outlawing of slavery and the start of the French colonization of North Africa. Lingua Franca

³Until 1891 a *carrouba* was worth 1/16 of a Tunisian *piaster*, according to Rossetti (1999).

became known alternatively as Sabir (HSA 1882: Letter 6-7473), with a later incarnation which Schuchardt dubbed Judeo-Sabir (Schuchardt 1909: 87). Residual elements seem to persist, however, in other contemporary jargons and languages. The pidgin spoken in Algeria, Pataouète, while largely lexified by French and Arabic, also features a significant number of words that are identified by Lanly (1962) as Lingua Franca in origin. Duclos' (1992) Pataouète dictionary enumerates at least thirty words whose etymology she specifies as Lingua Franca. These include *baroufa* 'quarrel', *fantasia* 'pride, delusion', *mercanti* 'merchant', and *rabia* 'rage'.

2 Contact with Arabic

As mentioned above, a substantial proportion of Lingua Franca speakers appear to have had Arabic as their first language. Inevitably, there would have been transfer when they spoke Lingua Franca, although, given the shared history of Arabic and European cultures in Sicily, Spain and other parts of the Mediterranean, it is perhaps hard to state unequivocally whether lexical influences stem from the contact of Arabic with Lingua Franca directly, or its earlier contact with Romance languages. Pellegrini (1972) identified the many Arabic loanwords integrated into Italian, particularly in the realms of trade, conflict and exploration. A number of these are included in the *Dictionnaire* (1830), including *magazino* 'shop' from the Arabic, *maḥāzīn* 'storage facility', and *fondaco* 'trading post' from the Arabic *funduq* 'hotel, inn'. Both would already have been in use in Italian, thus complicating further an etymological study of Lingua Franca's lexicon.

3 Contact-induced changes in Lingua Franca

Contact-induced changes in Lingua Franca with regard to Arabic are relatively limited, evident predominantly in its lexicon but also, to some extent, in its phonology. It is perhaps even an overstatement to consider Arabic's influence as contact-induced change; rather it might be viewed simply as an additional lexicifier.

3.1 Phonology

The relative lack of written record and potential unreliability of the sources' excerpts of Lingua Franca makes the identification of a definitive phonemic inventory both difficult, and at times, inconclusive. Overall, Lingua Franca follows the

phonology of Romance languages, predominantly Tuscan Italian, though with elements of Venetian and Spanish. Venetian influence is also evident in the Lingua Franca tendency to omit final vowels following sonorants /l/, /n/ and /r/, as in *colazion* instead of *colazione* ‘breakfast’. Both Venetian and Lingua Franca exhibit examples of degemination (e.g. *tuto* ‘all’ vs. Tuscan *tutto*) and voicing of intervocalic stops – *segredo* ‘secret’ rather than *segreto* (Ursini 2011). The voicing of intervocalic *t is also consistent with Spanish, which appears also to have had an influence on elements of Lingua Franca phonology. An example from the *Dictionnaire* (1830: 63) that illustrates both the plosive voicing and the final vowel omission is *padron* ‘master’, an epithet that recurs throughout the corpus of attestations. However, in terms of the language’s vocalic system, Arabic appears to exert some influence. Cifoletti (2004) suggests that Arabic influence on the realization of vocalic elements can be seen in the *Dictionnaire*: *bonou* from the Italian *buono* ‘good’ evidences a simplification of the diphthong *uo*. Camus Bergareche (1993: 444) confirms this simplification; for example Italian *uovo* ‘egg’, *duole* ‘hurt’, *buono* ‘good’ are reduced in their Lingua Franca counterparts: *obo*, *dole*, *bono*.

There is some evidence in the *Dictionnaire* of a reduction in the number of qualities for short vowels in Lingua Franca from a typical five-vowel Romance system to the more impoverished systems found in North African Arabic varieties, seen, for example in the frequent realization of final /e/ as ⟨a⟩, as in *scoura* from *scure* ‘axe’ or *gratzia* from *grazie* ‘thanks’, or ⟨i⟩, as in *sempri* from *sempre* ‘always’ or *grandi* from *grande* ‘big’. Camus Bergareche (1993: 444) reinforces this, citing the Lingua Franca words *mouchou* ‘much, many’, *poudir*, ‘to be able’, and *inglis* ‘English’, with their roots in Spanish (*mucho*, *poder*, *inglés*) as evidence of a reduction in vowel qualities as a result of contact with Arabic.

Unlike most (non-sonorant-final) words in Lingua Franca that have a typical Romance vowel ending, Arabic-derived words generally retain their consonant ending, as in *rouss* from *ruzz* ‘rice’ and *maboul* from *mahbūl* ‘stupid’ (Cifoletti 2004: 38). Non-Romance influence on Lingua Franca is also evidenced in the regular substitution of /b/ for /p/, which is lacking in the phonemic inventory of most Arabic varieties. The *Dictionnaire* features a number of replacements of this type (Cifoletti 2004: 38), as in *esbinac* ‘spinach’ and *nabolitan* ‘Neapolitan’. Minervini (1996: 257–60) analyses the speech of the eponymous heroine of Giancarli’s (1545) *La Zingana*, and comments on the frequent substitution of /b/ for /p/ and /v/, offering examples such as *cattiba* (*cattiva* ‘nasty’ in Italian), *bericola* (*pericolo* ‘danger’ in Italian), the native Arabic of the character allegedly influencing her pronunciation. Given, however, that these examples come from a work of fiction, they do not provide conclusive evidence of influence.

Perhaps given that Lingua Franca as attested is replete with abbreviation, elipsis and omissions, it predictably features examples of aphaeresis. For example, many Romance-derived items beginning with a syllable that resembles the Arabic definite article see this omitted in Lingua Franca. Examples include *bassiator* for *ambasciatore* ‘ambassador’, *bastantza* for *abbastanza* ‘enough’, and *rigar* for *irrigare* ‘to water’. As with many other linguistic features, however, the similarity between Lingua Franca and Venetian dialect must be considered, as some of these words exist in a similarly abbreviated form in Venetian (Schuchardt 1909).

3.2 Lexicon

From my quantitative analysis of the material in the *Dictionnaire* and other available sources, it is apparent that there were very few Arabic lexemes in Lingua Franca’s lexicon. Of the more than 2,100 entries in the *Dictionnaire*, 32 are of Arabic origin, and of the 176 additional Lingua Franca lexemes identified in the corpus of attestations, only nine have an Arabic etymology. However, a number of the individual items are regularly repeated in the corpus, and, as such, Arabic appears a more influential lexifier on a token than on a type basis.

Romance/non-Romance (often Arabic) doublets feature particularly in terms of place names, and officialdom within the Regencies. The port of Tunis was known by its French, Italian and Arabic names, seemingly interchangeably: *La Goulette*, *La Goletta*, and *Wādi l-Ḥalq* ‘the gullet’. In his manual for future consuls, the outgoing English consul of Tripoli, Knecht, enumerates the hierarchies within the Pasha’s household and city administration. Many of these involve a combination of Arabic or Turkish and Italian, or perhaps Lingua Franca. Key positions include a *hasnadawr Grande ed un hasnadawr Piccolo* – ‘a senior treasurer and a junior treasurer (Pennell 1982: 97; author’s translation). *Hasnadawr* comes from the Ottoman Turkish *hazinedar* or *haznadar* (from Arabic *ḥāzin ad-dār*) ‘Lord treasurer of the household’ (Gilson 1987).

Another example is *Kecchia Grande* and *Kecchia Piccolo* ‘chief administrator and assistant administrator’ (Pennell 1982: 104). In the letters written by members of the household of Richard Tully, British Consul to Tripoli at the close of the eighteenth century, there is a reference to the “Great Chiah and the Little Chiah” (Tully 1819: 70), surely an anglicization of the title. *Kecchia* appears to derive from the Tunisian Arabic *kāhiya* ‘chief officer of an administrative district’ – *kecchia* is an italianised (or, again, possibly Lingua Franca-influenced) orthography and pronunciation. Similarly, *sotto rais* (from the Italian and Arabic literally meaning ‘under captain’) denoted the second in command of the harbour (Pennell 1982: 97, 100). The commander is referred to separately as the *rays de la marina* ‘chief of the

port' (Pennell 1982: 92). Again, one finds the combination of Arabic and Italian. (*Rays* is spelt in two different ways,⁴ which highlights how, pre-standardisation of European languages, orthography was erratic, even within a single document.) Another example is a proverb regarding the eradication of plague by the Day of St. John. Two variations on the proverb are cited – by Poiret (1802) and Rehbinder (1800):

- (1) (Poiret 1802)
Saint Jean venir, Gandouf andar
'[The day of] St. John comes, the plague leaves.'
- (2) (Rehbinder 1800)
Saint Jean venir, buba andar
'[The day of] St. John comes, the plague leaves.'

Selbach (2008: 44) remarks on how such varied nomenclature in *Lingua Franca* "allowed for much room to manoeuvre, and for speakers to mark their religious, political and cultural identity". *Buba* 'plague' appears to come originally from the Greek, *βουβών* (*boubōn*) 'groin', suggesting yet another potential lexifying influence on *Lingua Franca*, while *Gandouf* plausibly derives from Arabic *yunduba* ~ *yundūb* 'swollen tonsils' (Schuchardt 1909: 72; cf. Selbach 2008: 45).

This example raises the issue of words already common to Arabic and Romance languages, since contact between them, as discussed above, had been prolonged and extensive. Similarly, the French (and possibly Italian or even *Lingua Franca*) word *avanie* 'fine, insult, affront' occurs often in the corpus of attestations (e.g. Pananti 1841 and Grandchamp 1920). Grandchamp (1920: xiii) defines it thus:

les avanies étaient des sommes d'argent que les pachas réclamaient aux marchands des échelles sous les prétextes les plus divers, prétextes la plupart du temps injustes, parfois extrêmement bizarres

'the fines were sums of money the Pashas demanded of the Levant merchants on various pretexts, pretexts that were for the most part unfair, and at times extremely strange' (author's translation).

Although this word would appear to be derived from French, or at least a Romance language, given that it was the creation of Ottoman elites, it seems more likely that its origins are Turkish. This is confirmed by Pihan (1847) who suggests that it actually originally derives from the Arabic *hawān* 'contempt',⁵ but who also states (Pihan 1847: 46):

⁴The standard Arabic form is *raʿīs*.

⁵This etymology is also favoured by *Le Trésor de la langue française informatisé* (Dendien 1994).

se dit également des impôts énormes que les Turcs font peser sur les Chrétiens dans le but de les humilier

‘it applies equally to the enormous taxes the Turks impose on Christians with the goal of humiliating them’ (author’s translation).

Additionally, there are words that appear to have etymologies in multiple languages that are rarely translated, at least by English sources such as Tully (1819). Two terms with similar meanings, *firman* ‘pass, decree’ and *teschera* ‘pass, edict’, both issued by Ottoman or Arabic rulers, also bear remarkable similarity to Italian words with comparable meanings. *Firman* is from Arabic: *firmān* ~ *faramān*, though originally Persian, and would have come into Arabic through Ottoman Turkish, once again reinforcing how the languages spoken in the region were far from discrete entities. However, *firmare* in Italian means ‘to sign’, and the Lingua Franca translation of the French *seing* ‘signature’ and *signature* ‘signature’ in the *Dictionnaire* is *firmar*. A decree or pass (allowing free passage or safe conduct) would necessarily require an official signature. *Teschera* ‘pass, edict’ might appear to come from the Italian *tessera* ‘pass, ticket’ but there is also the Arabic word *taḍkira* ~ *taḍkara* ~ *tazkira* ~ *tazakara* (all variant realizations of the same item), which also means ‘permit’ or ‘ticket’. Both words seem integral to Barbary life, and are not translated. Tully (1819: 258) writes:

It is still affirmed that he has a teskerra, or firman, with him for this unfortunate Bashaw. A teskerra is a written order from the Grand Signior, and is held so sacred that every Musulman who receives it must obey its mandate, even to death.

Perhaps the most iconic word in Lingua Franca is *fantasia*. It is mentioned by multiple sources spanning more than two centuries (e.g. Haedo 1612; Broughton 1839). Although it appears to be a Romance word, Schuchardt (1909: 71) points out that it is used in the Arabic sense of pride, arrogance, as in, for example, Egyptian Arabic *itfantaz* ‘to give oneself airs’.

Collections in the UK National Archives provide some limited evidence of borrowings from Lingua Franca (as opposed to other Romance languages) into Arabic. Hopkins’ (1982) research in these archives focuses on two sets of English (and later British) state papers relating to the Barbary regencies and Morocco, including correspondence in Arabic, from the late sixteenth to late eighteenth centuries.

Hopkins adds a glossary to his translations that demonstrates the extent to which the Arabic letters from the Barbary States disproportionately feature loans

from Romance languages. Hopkins (1982: x) comments that “[f]oreign words are very common and seem to be used quite unselfconsciously”, and many of those words Hopkins isolates are also listed in the *Dictionnaire* (1830) as Lingua Franca words. Three such items – *justisiya* ‘justice’, *markānti* ‘merchant’ and *zabantut* (*sbendout* in Lingua Franca, presumably from the Italian *bandito*) ‘pirate’ – occur in a single letter of unspecified provenance but written to the King of England in 1730 by a man claiming to be an Algerine trader in Tripoli (TNA: SP 71/23/51). The incidence of three non-Arabic, Romance words, is noteworthy and it seems plausible that these were Lingua Franca terms in such common usage that they would be borrowed as a native language alternative, an example of *mot juste* switching (Gardner-Chloros 2009: 32).

4 Conclusion

As demonstrated, the available corpus of writing in Lingua Franca – both documentary texts written by European visitors to the Barbary states and the dramatic works produced by contemporary authors – offers limited evidence of both lexicon and grammar. This makes description of Lingua Franca challenging, and, likewise, any concrete and substantiated analysis of its relationship with other, particularly non-European, languages.

Nevertheless, this chapter has suggested how Arabic and Romance languages influenced the emergence of Lingua Franca, specifically in terms of its lexicon and phonology. Authors throughout the era of Lingua Franca’s existence, from Haedo (1612) to Broughton (1839) and Frank (1850) reiterate that, despite its overwhelming Romance base, Lingua Franca was spoken predominantly by the often Arabic-speaking slavemasters and rulers of the Barbary states. The plurilingual character of the population of this region, both collectively and individually, compounds an already unclear picture, however, as the fluidity of Barbary society led to European (and often Romance-language speaking) corsairs and diplomats alike permeating its upper echelons (Haedo 1612: 9; Garcès 2011: 129).

The lexical influence of Arabic is most evident in the Romance/Arabic doublets used in official terms and place names. These are often compound terms, such as *ra’īs de la marina* ‘captain of the port’. Warrington, English Consul to Tripoli in the late eighteenth century, uses an Anglicised version of the phrase, *rays marina*, suggesting the ubiquity of such doublets (TNA: FO 161/9) Further evidence from the National Archives (Hopkins 1982) demonstrates that Lingua Franca words were borrowed in correspondence from Arabic-speaking dignitaries in the Barbary Regencies to the English Secretary of State, showing evidence of Lingua Franca borrowings in the written as well as the oral domain.

In terms of phonology, there seems to be evidence offered by the *Dictionnaire* (1830) and the observation of Haedo (1612) of the influence of Arabic on Lingua Franca. Haedo (1612: 24) also stated, with regard to the “Moors and Turks” that “*no saben ellos variar los modos, tiempos y casos*”, ‘they don’t know about gender, tenses and cases’ (author’s translation). Given that Lingua Franca lacks for the most part any verbal inflection and an absence of cases, this might be, as Haedo says, a result of contact, but it is typical of most pidgins and cannot be attributed solely to contact with Arabic. Such lack of certainty applies more generally. Arabic evidently exerted some influence on the evolution of Lingua Franca in North Africa, but not to the extent that it can straightforwardly be classified as contact-induced change.

Further reading

- Nolan (2018) gives a comprehensive English-language introduction to Lingua Franca.
- Corré (2005) compiles a substantial number of texts featuring Lingua Franca, offering translations from the original European languages and a selection of articles analysing and contextualising Lingua Franca. He also provides a glossary, largely derived from the *Dictionnaire* (1830) and Schuchardt’s seminal (1909) work.
- Schuchardt (1909) offers the earliest detailed historical and linguistic analysis of Lingua Franca.
- More recent in-depth texts include Dakhlija’s (2008) rather subjective book, Minervini’s (1996) comprehensive article that focuses predominantly on Italian and French sources, and Cifoletti’s (2004) forensic biography and analysis of Lingua Franca, again based almost exclusively on Romance language sources.
- The key source authors are inevitably Haedo (1612), Broughton (1839), Pananti (1841), and Frank (1850).

Abbreviations

HSA Hugo Schuchardt Archiv
 TNA The National Archives

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Part III

Domains of contact-induced change across Arabic varieties

Chapter 25

New-dialect formation: The Amman dialect

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One fascinating outcome of dialect contact is the formation of totally new dialects from scratch, using linguistic stock present in the input dialects, as well as creating new combinations of features, and new features not present in the original input varieties. This chapter traces the formation of one such case from Arabic, namely the dialect of Amman, within the framework of the variationist paradigm and the principles of new-dialect formation.

1 Contact and new-dialect formation

1.1 Background and principles

The emergence of new dialects is one of the possible outcomes of prolonged and frequent contact between speakers of mutually intelligible but distinct varieties. The best-known cases of varieties that emerged as a result of contact and mixture of linguistic elements from different dialectal stock are the so-called colonial varieties, namely those varieties of English, French, Spanish and Portuguese which emerged in the former colonies in the Southern Hemisphere and the Americas.¹ In addition to colonial situations, the establishment of new towns can also lead to the development of new dialects; a case in point is Milton Keynes (UK), which was investigated by Paul Kerswill.² For Arabic, similar situations of contact are abundant, largely due to voluntary or forced displacement of populations, growth of existing cities and the establishment of new ones. To date, however,

¹Among the studies that investigated such varieties are: Trudgill (2004), Gordon et al. (2004), Sudbury (2000) and Schreier (2003) for English; Poirier (1994; cited in Trudgill 2004) for French; Lipski (1994) and Penny (2000) for Spanish; and Mattoso (1972) for Portuguese.

²See Kerswill & Williams (2005).



the only study of a brand new dialect is the on-going investigation of the dialect of Amman, the capital city of Jordan, which is anticipated to provide a model for the study of dialect contact and koinéization in other burgeoning conurbations elsewhere in the Arab World. The bulk of this chapter will be dedicated to the details of this case.

Several other studies in Arab cities have focused on contact as a primary agency through which innovations permeate the speech of migrant groups. Although no new dialects emerge in such situations, new patterns and interdialectal forms are common. For instance, Al-Essa (2009) reports that among the residents of the city of Jeddah, those who originally emigrated from various locations in Najd generally converge to the dialect of Jeddah, but also use innovations that do not occur in the target dialect, such as the second person singular feminine suffix *-ki* in words ending in a consonant, as in *ʔumm-ki* for Najdi *ʔummit*s and Jeddah *ʔumm-ik* ‘your (SG.F) mother’. Similarly, Alghamdi (2014) found interdialectal forms of the diphthongs /ay/ and /aw/ (viz. narrow diphthongal variants [ɛi], [ɔʊ]), as well as the monophthongs [ɛ:] and [ɔ:], in the speech of Ghamdi migrants who originally came to Mecca from Al-Bāḥa in the southwest of Saudi Arabia. In Casablanca, rapid urbanization led to immigration of large numbers of groups from all over Morocco, and subsequent contact between different dialects. Hachimi (2007: 97) suggests that this situation resulted in “the disruption of the rural/urban dichotomy that once dominated Moroccan dialects and identities”, and the emergence of new categories of identification, which are symbolized through the usage of a mixture of features from different dialects.

In this context, it is worth pointing out some methodological challenges concerning the measurement of contact as an independent variable in quantitative sociolinguistics, and some improvements that have been made in research on Arabic. Contact is often invoked as an explanatory factor in contact linguistics in general, and has indeed been incorporated in theoretical formulations (e.g. Thomason & Kaufman 1988). In quantitative sociolinguistics, however, analysis of contact as a constraint on linguistic variation requires treating it as a variable from the outset of research, and finding ways to quantify it, in essentially the same way that social categories such as age, gender and class are factored into the analysis. But how can contact be quantified? Recognizing the crucial role that (dialect) contact plays in the structure of variation and mechanisms of change, a number of quantitative studies have tested various methods of quantification. Al-Essa’s (2009) study, mentioned above, was the first known quantification of contact in studies of this sort. In order to do this, she measured the speakers’ level of exposure to the target features through an index, consisting of a four-point scale, which gave a numerical value to each speaker’s level of

contact. Four criteria were used to determine the numerical value assigned to each speaker: friendships at school and work; involvement in neighbourhood affairs; friendship with speakers of the target dialect; kinship and intermarriage in the family (Al-Essa 2009: 208). Alghamdi's (2014) study in Mecca utilized and adapted Chambers' (2000) concept of regionality, by devising a regionality index based on the speakers' date of arrival in the city and place of residence. In Al-Wer (2002a), I suggested that in some cases level of education may be treated as an indication of level of contact with outside communities; and Horesh (2014) elicited information that was indicative of levels of contact between the speakers' L1 Arabic and L2 Hebrew, which were later converted into factor groups, one of which was language of education, thus demonstrating that type of education can also be used to measure contact.³

1.2 Theoretical framework

The study of the formation of new dialects is credited particularly to the work of Peter Trudgill. In his *Dialects in contact* (1986) he laid the theoretical foundations of research in the field, arguing that "face-to-face interaction" is a prerequisite for linguistic adaptation and diffusion of linguistic innovations.⁴ Focusing on the formation of New Zealand English, Trudgill (2004) suggests a three-stage approach to dialect formation, which roughly corresponds to three successive generations of speakers.⁵ These stages are very briefly summarized below, and illustrated using examples from Amman in §2.3.⁶

Stage I (first generation): rudimentary leveling.

This stage stipulates that at the initial point of contact and interaction between adult speakers of different regional and social varieties, minority and very localized linguistic features are leveled out.

Stage II (second generation): variability and mixing.

At this stage, the first locally-born generation of children are presented with a plethora of features to choose from. Their speech contains considerable inter-individual and intra-individual variability, and new combinations of features.

³Several additional doctoral theses completed at the University of Essex address this issue.

⁴Trudgill (1986) integrated insights from Accommodation Theory (Giles 1973) in the study of dialect contact.

⁵In the same year, and based on the same data, the team working on the Origins of New Zealand English (ONZE) project, in which Peter Trudgill participated, also published a co-authored book on the topic (see Gordon et al. 2004).

⁶Trudgill (2004: 83–128) discusses and illustrates each stage with data from the ONZE corpus.

Stage III (third generation): emergence of stable and relatively uniform dialect.

At this stage, focusing (Le Page & Tabouret-Keller 1985; see §1.3.2) gives rise to a crystalized dialect.

Trudgill (2004: 149)⁷ concludes that the processes of dialect mixture and new-dialect formation are not haphazard but “deterministic in nature”, “mechanical and inevitable”, and that, in *tabula rasa* situations, social and attitudinal factors do not play a role in the formation of new dialects.⁸ “Determinism” in new-dialect formation and “the minor role that social factors, such as identity, play in *tabula rasa* situations” have instigated a wide and interesting debate among scholars. For instance, Tuten (2008: 261) proposes that “community identity formation and koiné formation are simultaneous and mutually dependent processes”. Mufwene (2008: 258) agrees that common identity “is not part of the processes that produce new dialects”; but rather a by-product of it. Schneider (2008) elaborates on two issues: the relationship between accommodation and identity, and “the changing role of identity” in different colonial and postcolonial phases (2008: 262), pointing out cases of features from colonial varieties where the origins and spread of these features coincided with “a heightened national or social awareness” (2008: 266). Bauer (2008) contests Trudgill’s implicit suggestion that accommodation leads directly to dialect mixing, on the basis that individuals vary in the extent to which they accommodate to others, and vary depending on the context; and in some cases no accommodation takes place, that is, accommodation is sporadic. He maintains that “it is not the accommodation as such that leads to dialect mixing; rather, it is the use that accommodation is put to by the next generation that leads to dialect mixing” (2008: 272). On the role of identity, Bauer contends that the very choice of a particular variant over another is indirectly an expression of “complex kinds of identity” (2008: 273).⁹

1.3 Mechanisms

The mechanisms involved in new-dialect formation fall under two broad headings: *koinéization* and *focusing*. Below are brief explanations of these mechanisms, to be followed by illustrations from data from Amman in the relevant sections.

⁷See also Trudgill et al. (2000) and Trudgill (2008).

⁸Cf. Labov’s (2001) principle of density.

⁹For more details, see Bauer (2008); and for Trudgill’s responses to these points, see the discussion and rejoinder in *Language in Society*, 2008, vol. 37.

1.3.1 Koinéization

Trudgill (2004: 84–88) uses *koinéization* as an umbrella term to refer to five processes, which operate at the same or different stages in the formation of new dialects: (i) mixing, which, as the name suggests, involves the use of features which originally came from different dialects; (ii) leveling, which involves gradual reduction and ultimate loss of minority features, that is, features that have least representation in the dialect mix; (iii) unmarking, a sub-type of leveling, which refers to the survival of unmarked and more regular forms even if they are not the majority forms; (iv) interdialect development, which are forms that arise out of interaction between different forms in the original mix, and can include phonetically, morphologically and syntactically intermediate forms; (v) reallocation, which refers to the survival of more than one variant of the same feature, which then undergoes reallocation in the new system; reallocation can be linguistic, social or stylistic.

1.3.2 Focusing

This term was introduced into sociolinguistics by Le Page & Tabouret-Keller (1985) to refer to the process whereby the new system “acquires norms and stability”. A focused dialect contrasts with a diffuse (or non-focused) linguistic situation, where there is no consensus over norms, and no stability of usage.¹⁰

2 Dialect formation in Amman

2.1 History and demographics

Amman has no traditional dialect simply because until relatively recently it had no indigenous inhabitants. Though an important centre in ancient times, it remained largely deserted until the early years of the twentieth century.¹¹

In 1921, it was designated as the capital of Transjordan (the land east of the River Jordan), which became the Kingdom of Jordan in 1946. It thus attracted migrants from other parts of the country, as well as from Palestine, Syria and Lebanon. By the 1930s, the population had grown to 10,000 inhabitants, and by

¹⁰See Le Page & Tabouret-Keller (1985: 181–182).

¹¹Amman’s ancient history is traced to the Ammonites (eighth century BCE), who called it *Rabbath Ammon* ‘the great (or royal) city of the Ammonites’; the Romans changed its name to *Philadelphia*; the Arab Ummayyads took over in the seventh century CE and restored its Semitic name, *Amman*.

1946 it stood at 65,000. The early migrants consisted of two groups: (i) the majority were economic migrants (traders and shop keepers as well as labourers) or civil servants, who were appointed in the state administration; (ii) the rest were political activists (mostly individuals from Syria and Lebanon, which were then still under French colonialist rule). The first group included families from both sides of the River Jordan, namely indigenous Jordanians from the east side, and Palestinians from all parts of historical Palestine. Statistics regarding numbers from each group are unavailable, but I was able to collect fairly reliable information, through ethnographic interviews, about the provenance of a large sector of the first generation of migrants. According to my research, the vast majority came from two particular locations: the Jordanian city of Sult (20 kilometres northwest of Amman), and the Palestinian city of Nablus (110 kilometres from Amman).

The city continued to receive waves of migrants from other locations in Jordan and from Palestine, especially following the two wars in 1948 and 1967, which resulted in the occupation of historical Palestine, and the displacement of well over three million Palestinians over the years, most of whom sought refuge in Jordan. Between 1950 and 1990, the population of Amman doubled more than fifteen times, to reach approximately two million by 2004. According to the 2018 census estimate, the city is home to 2,554,923 Jordanian nationals, and 1,452,603 non-Jordanians, that is, a total of over four million people live in the city currently.¹² Given the political situation in the region, the population of Amman is forecast to reach six million by 2025.

Against this demographic background, there are three important points to note:

1. There is no geographically neutral variety of spoken Jordanian Arabic. All speakers therefore use some form of local dialect, regardless of social class.
2. Whereas in neighbouring countries (Syria, Egypt, Lebanon, Palestine), the dialect of the capital acts as a standard prestigious norm, Jordan never had a linguistic centre of its own.
3. Jordanians, and Palestinians, generally identify themselves with the area in which their forebears lived, rather than the locality in which they were born and bred. However, recently a growing number of inhabitants of Amman (particularly third and fourth generations) have begun to identify themselves as “Ammanis”.

¹²Department of Statistics, Jordan: http://dosweb.dos.gov.jo/DataBank/Population_Estimares/PopulationEstimates.pdf (accessed 06/01/2020).

The emergence of a distinctive and focused dialect of Amman, in tandem with the emerging Ammani identity, represents a radical shift in the sociolinguistic patterns from a plethora of local varieties to a situation similar to that described for neighbouring states in §1.

2.2 The Amman Project

This research traces the formation of this new dialect from inception to stabilization over three generations, spanning a period of approximately the last eighty years. It initially focused on generational differences, by investigating the developments in the speech of three generations of families who originally came from the Jordanian city of Sult and the Palestinian city of Nablus; this initial investigation confirmed the following hypotheses:

- A new dialect has emerged and its usage has stabilized.
- This dialect is unique – it grew as an outcome of the contact between Jordanian and urban Palestinian dialects, but is distinct from these input varieties.
- The formation of a distinctive dialect in Amman is closely associated with relative stabilization in the population, possibly during 1970–1990, and the development of an Ammani community with its own identity.¹³

The second phase of the research focused on the younger generation from affluent West Amman; and the final phase, ongoing, expands the sample to include speakers from less affluent East Amman. Altogether, the research aims to collect data from approximately 120 speakers, from both sides of the city. The project on Amman itself is complemented by past and ongoing research (by myself and others) on sociolinguistic trends in areas outside Amman, which provide two valuable types of relevant information: (i) further evidence of the input varieties; (ii) spreading of innovative features of the Amman dialect to other parts of the country.

The framework of analysis adopted here is the Variationist Sociolinguistic Paradigm, as described in Labov's trilogy (1994; 2001; 2010). More specifically, the project is guided by the principles of dialect contact and new-dialect formation, as outlined in §1. As discussed earlier, one of the dominant issues in the study of the formation of new dialects is the debate over the types of factors which determine it. The Amman project offers an opportunity to investigate these issues

¹³Full details can be found in Al-Wer (2002a, 2003).

in detail, particularly because it is still possible to trace the different stages of formation over the three generations of native inhabitants.

2.3 Formation over three generations

Based on the analysis of speech samples from three generations of Ammanis, the formation of the dialect is a textbook case. Many of the processes of koinéization explained above are operative, as will be demonstrated presently.

2.3.1 Stage I: first generation

The first generation arrived in Amman during the 1930s as adults. The most noticeable aspect of their speech is that it can easily be identified with the original dialects of the places from which they migrated, while localized features are leveled out (cf. rudimentary leveling; Trudgill 2004). The features which are lost at this stage are summarized below.

Jordanian input. Traditional Jordanian dialects, including the dialect of Sult, are known to affricate /k/ to [tʃ] in front-vowel environments generally, as in /ke:f/ > [tʃe:f] > ‘how’. This feature is still widely used, especially in northern varieties, as well as in Sult¹⁴ – where most of the early migrants in Amman came from. Already in the first generation, this feature is completely lost; all instances of this variable were rendered with [k]. In other words, first-generation speakers deaffricate /k/.¹⁵ Although conditional affrication of /k/ is fairly widespread in the region’s rural dialects, and is certainly not a minority feature in Jordanian dialects, its use is heavily stigmatized, and none of the urban dialects have it. Stigmatization is the likely reason that motivates the loss of this feature.

Also characteristic of the traditional dialects is the maintenance of a gender distinction in the second and third person plural pronouns, and pronominal, verbal and nominal suffixes. For example: *?intu* ‘you (PL.M)’, *?intin* ‘you (PL.F)’, *?ummhum* ‘their (M) mother’, *?ummhin* ‘their (F) mother’, *rāhu* ‘they (M) have left’, *rāhin* ‘they (F) have left’, *hīlwīn* ‘pretty (PL.M)’, *hīlwāt* ‘pretty (PL.F)’. What we find in Amman is gender neutralization in these forms, such that the masculine form is used to refer to both genders. The traditional system is currently variable in all major Jordanian cities, and seems to be giving way to a neutralized form, as in Amman, which is an indication that Amman has become a focal point from which linguistic innovations radiate. No particular social value is attached

¹⁴On this feature in Traditional Jordanian dialects, see Al-Hawamdeh (2015), Herin (2010) and Herin & Al-Wer (2013).

¹⁵See Al-Wer (2007) for more details.

to the traditional feature (maintenance of gender distinction), although there is awareness that it is characteristically found in provincial towns and villages. The observation that it has become variable in many cities and towns means that it is also becoming a minority feature in urban areas in particular. The change affecting this feature in Jordanian dialects in general may be described as a form of simplification, where the number of distinct forms in the paradigm as a whole is reduced. Additionally, none of the urban Palestinian dialects maintain a gender distinction in these categories. In contact situations especially, the direction of change is normally towards the simpler system (the “Simplification Preference”; Lass 1997: 253).¹⁶

Palestinian input. In urban Palestinian, the high-frequency terms *mbāriḥ* ‘yesterday’ and *sāfa* ‘hour/time’ are pronounced with raised vowels: *mbēriḥ* and *sēfa*. This is an extremely marked pronunciation in the context of Jordan, as no Jordanian dialect has it. It is also a feature that is overtly commented upon, and often used to mimic dialects that have it. Extreme raising of /ā/ generally is a hallmark of many urban Palestinian dialects, most notably in the dialect of Jerusalem; as will be explained later, third-generation speakers with urban Palestinian heritage use considerably lower variants than first- and second-generation speakers from the same group. It is possible that lowering in these high-frequency items in the first generation is the onset of the change that escalated in successive generations. In the first generation of this group, the speakers change their pronunciation in these items only, but continue to use noticeably higher variants of /ā/ in other items, for example, ‘Amman’ is pronounced as [ʔəmmə:n]; *fālit* ‘loose’ is pronounced as [fɛ:lit].

2.3.2 Stage II: second generation

This is the first locally-born generation; the majority of the speakers in the sample fall in this category, or arrived as very young children (under ten). The speech of members of this generation shows extreme inter-speaker and intra-speaker variability, and a mixture of features from both norms (Jordanian and urban Palestinian). For example, the same speaker is found to use the second person plural pronominal suffixes *-ku* (Jordanian) and *-kon* (Palestinian), e.g. *kēf ḥāl-ku* ~ *kīf ḥāl-kon* ‘how are you (PL)’. In this example, we also find alternation in the vowel of the item *kēf* ~ *kīf* ‘how’; the former is Jordanian while the latter is typical

¹⁶It should be pointed out that the urban Palestinian dialect, similarly to all city dialects in the region, has the *-on* and *-kon* endings, which are used with both genders, rather than masculine *-um* and *-ku*, which are the koiné forms in modern Jordanian dialects; see Al-Wer (2003) for more details about this feature.

of urban Palestinian (and urban Levantine in general). The data also contained a mixture of Jordanian and Palestinian third person plural suffixes *-hum* and *-hon*, e.g. *šift-hum* ~ *šift-hon* ‘I have seen them’. At the level of phonology, speakers in this generation use a mixture of Jordanian [g] and urban Palestinian [ʔ], which are variants of historical /q/; and a mixture of interdental and stop counterparts of /θ/, /ð/ and /ð̣/. Importantly, in this generation there is a complication in sociolinguistic correlations: whereas in the first generation there is a one-to-one relationship between origin and the dialect used, in the second generation certain groups from both backgrounds use features characteristic of the other group’s dialect. The particular sub-groups that do this are the Jordanian women, who in this generation use Palestinian [ʔ] almost consistently, as well as a high rate of the stop variants of interdentals (see above), and use both Jordanian *ʔihna* and Palestinian *nihna* ‘we’. The second most divergent group (from their heritage dialect) is Palestinian men; they use Jordanian [g] at a rate of 50%, or more in some cases. The remaining groups, Jordanian men and Palestinian women, are considerably more conservative with respect to their heritage variants, although they too are variable. What this pattern shows is that gender emerges as an important social factor in this generation, in addition to dialectal heritage, which continues to influence individuals’ behaviour, but interacts with gender at the same time.

2.3.3 Stage III: third generation

Third-generation Ammanis were all born in the city (in the 1970s). They diverge from their parents’ and grandparents’ dialects, and speak a clearly distinct dialect, regardless of their own dialectal heritage. The mixture and variability we saw in the second generation is much reduced in the third generation; there is, instead, stability in the usage of many features, including intermediate fudged forms, new patterns, and new features that were not present in the input varieties. The third generation agree on the characteristics of Ammani, and have intuitions as to what you can and cannot say in this dialect. Importantly, they express affiliation with the city; for instance, they identify themselves as “Ammanis”, by which they mean that they are native to the city. In other words, the formation of the dialect is simultaneously a formation of a community.

In this generation, gender emerges as a major organizing category; for instance, all the women in this generation, regardless of dialectal heritage, use [ʔ] consistently, while the men continue to use both [g] and [ʔ]. The variability in men’s speech is constrained by context and interlocutor for the most part;

whereas the speech of women is not subject to these constraints.¹⁷ The development in the use of variants of the variable (q), as explained above, is a clear example of a variable that has undergone social and stylistic reallocation (see §1 above) in the sense that both variants [g] and [ʔ], which originally come from different dialects in the input varieties, have survived the koinéization process but no longer signify ethnicity or dialectal background straightforwardly; the use of one or the other is now subject to layers of constraints. As far as the interdental sounds are concerned, both gender groups use the stop variants more often than the interdental variants. But while the men vary between affricate [dʒ] and fricative [ʒ] of the variable (ǧ), the women use [ʒ] almost consistently.

In addition to the features listed under stage III, the following features are at an advanced stage of focusing in the new dialect:

- ▶ The feminine ending *-a*. The input varieties differ in the phonology and phonetics of the realization of the feminine ending in the unbound state. In traditional Jordanian, the low vowel [a] is the default choice, except after coronal sounds, where it is raised to [ɛ]. In urban Palestinian dialects, the default choice is [e], or raised [e̞], except after pharyngeal and emphatic consonants in general.¹⁸ In Amman, the third generation consistently use a fudged form made up of urban Palestinian phonology and the Jordanian phonetic property of the raised vowel, such that they raise /a/ to [ɛ] except after back sounds, e.g. *mukinse* ‘broom’, *hilwe* ‘pretty’, *šasbe* ‘difficult’, but *rāyha* ‘has gone/is going’; *žāmsa* ‘university’; *šulṭa* ‘authority’.
- ▶ In morphophonology, a new form of the second person plural suffix has emerged, and is used consistently. The input forms are: Jordanian *-ku*, as in *gultilku* ‘I have told you (PL)’; and urban Palestinian *-kon*, as in *šmiltikon* ‘I have made for you (PL)’. The form that has been focused in Amman is *-kum*, thus *šindkum* ‘you (PL) have’; *hakētilkum* ‘I have told you (PL)’. The success of this form, rather than one from the input varieties, is explained with reference to markedness and simplification.¹⁹
- ▶ In morphology, the input varieties differ in the conjugation of the third person masculine imperfect verb form. In both dialects, Jordanian and Palestinian, the imperfect takes a *b-* prefix, but whereas in Jordanian dialects

¹⁷Details about this feature can be found in Al-Wer & Herin (2011).

¹⁸A preceding /r/ blocks raising in general unless there is an /i/-type vowel in the environment; for a complete account of the phonology of the feminine ending, see Al-Wer et al. (2015).

¹⁹For analysis of this development, see the full details in Al-Wer (2003).

yod is dropped from the stem in the *b*-imperfect in all environments, in Palestinian dialects it is dropped in open syllables only. For example: Jordanian *biḥki* ‘he talks’, *binuṭṭu* ‘they jump’; urban Palestinian *byiḥki*, *binuṭṭu*. Ammanis (third generation) drop *yod* everywhere except where it carries person information, namely in glottal-initial verbs *?akal* ‘to eat’, and *?axaḏ* ‘to take’; thus we get *biḥki*, *binuṭṭu*, but *byākul* ‘he eats’ (stem *?akal* ‘to eat’), *byāḥdu* ‘they take’ (stem *?aḥaḏ* ‘to take’).²⁰

3 Conclusion

The formation of the Amman dialect is simultaneously the formation of a community; and the social factors involved in the formation of the dialect evolve and realign accordingly. One of the most interesting aspects of this process is that none of the factors become totally irrelevant. For instance, dialectal heritage – which, in the case in hand, coincides with ethnicity (Jordanian/Palestinian) – is the most important predictor in the speech of the first generation. In the second generation, gender emerges as an important factor, but the linguistic developments at this stage can only be understood as an interaction between the old and new social constraints; for instance, in stage II, it is not merely women who use [ʔ] rather than [g], but it is *Jordanian* women who diverge from their heritage variant; and it is not the behaviour of men in general that explains the evolution in the re-distribution of these variants, but specifically the behaviour *Palestinian* men. These two sub-groups (Jordanian women and Palestinian men) are responsible for the diversification of, firstly, their respective group’s linguistic repertoire and consequently the repertoire of the linguistic system that is passed on to the next generation. In stage III, the third generation’s behaviour responds to two riders: the system inherited from their parents and the changes in the socio-political environment around them. A further realignment of social factors occurs in response, and new constraints are added to the old pile; at this stage, the inherited identifications of the variants involved – that is, [g] is Jordanian and appropriate for men, [ʔ] is Palestinian and appropriate for women – are reformulated through the addition of further new constraints, namely context and interlocutors. Consequently, the usage of the variants involved is redistributed according to style,²¹ they acquire additional identifications and social

²⁰There are further complications and variations in the conjugations of these verbs; for these details see Al-Wer (2014).

²¹Style as a correlate of linguistic usage can mean different things; here I use it to refer to context (as in Labov 1972), and audience or interlocutor (as in Bell 1984). For details of how style evolved as a sociolinguistic correlate, see Eckert & Rickford (2001).

meanings, and the social constraints are realigned, such that the role of ethnicity becomes subsidiary, while gender and style are the major organizing factors. The younger generation now define [ʔ] as “Ammani”, and [g] as “authentic Jordanian”. The meaning of “Jordanian” itself is often negotiated and expanded beyond the limits of ethnicity to denote a regional identity, recognizing citizenship as the primary defining component of membership in this group, although the old meaning (those whose roots lie on the east side of the river) is not obliterated altogether.²² A further realignment of social factors in Amman involves type of profession, which is emerging as a constraint. This may have been precipitated by the expansion of the private sector over the past two decades or so, especially banking and the service industry in general, and the tourism industry. According to preliminary analysis of recently collected data, different types of employment, within and across the two sectors, fall within the realms of different linguistic markets.

The context in which the Amman dialect was formed was *tabula rasa* in the sense that there was no pre-existing Amman dialect. The obvious difference from, say the *tabula rasa* colonial situations, is that the early settlers in Amman were not isolated from their original communities or from Arabic speakers in the surrounding areas; social factors definitely play a role in the formation of the dialect in this case. The question therefore is not whether social and attitudinal factors are involved, but rather which social factors, how they evolved, and their relative importance.

Further reading

- Al-Wer (2011) provides a brief description of the Amman dialect.
- Al-Wer (2007) summarizes the processes and dynamics of the formation of the dialect of Amman, along with a list of thirteen linguistic features that have been focused in this dialect.
- Al-Wer (2002b) focuses on the long vowels and the realization of the feminine ending in the newly formed dialect of Amman.

²²The question of “who is Jordanian” is, for many, a sensitive issue, which has often caused heated debates on various media platforms.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person
F	feminine
L1	first language
L2	second language
M	masculine
ONZE	Origins of New Zealand English project
PL	plural
SG	singular

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Chapter 26

Dialect contact and phonological change

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This chapter examines phonological and phonetic changes that have been documented and analyzed in spoken Arabic varieties, occurring as a result of dialect contact. The factors contributing to dialect contact in Arabic-speaking communities vary, from economic migration which has encouraged individuals to move into new dialect areas seeking work, to migration that stems from political violence and upheaval. These diverse factors have contributed to the large-scale migration of Arabic speakers to other parts of the Arabic speaking world. As a result, dialect contact is rampant, and decades of Arabic sociolinguistic research have shown that the phonological and phonetic effects of these contact situations have been quite profound.

1 Introduction

In this chapter, I discuss research that has examined the outcomes of Arabic dialect contact and the influence of contact on phonological change in spoken Arabic varieties. This chapter also discusses the interface between phonology and phonetics, and the effect of contact on these areas of the linguistic system. Given space constraints, I discuss only a portion of the published work in these areas, giving some priority to recent doctoral dissertations that have contributed to this body of research. Further, I exclude work that has investigated the effects of contact on the morphology and syntax of Arabic (e.g. Al-Wer et al. 2015; Gafter & Horesh 2015; Leddy-Cecere, this volume; Lucas, this volume; Manfredi, this volume).

Although Arabic sociolinguistics is an increasingly robust area of linguistic research, limiting my discussion to cases of contact-induced phonological and phonetic change is perhaps unsurprising, given the scholarly history of dialect-contact research and its place within sociolinguistics. Sociolinguistics has made



great progress towards the goal of analyzing the full scope of variation in languages around the world. However, historically, and to some extent still today, examinations of variation and change in the realms of phonology and phonetics have been the meat and potatoes of sociolinguistic work. I would argue that this is true of Arabic sociolinguistic work as well.

From Labov's (1963) early work on Martha's Vineyard, phonetics and phonology have been at the heart of analyses of dialect contact. As a result, much of what we know about Arabic dialect contact has stemmed from earlier foundational research on dialect contact in the English-speaking world. Within this work on English, research by Milroy (1987), Trudgill (1986; 2004), Britain (2002), and Britain & Trudgill (2009), among many others, has shown how dialect contact often plays out, and how that contact influences language variation and change.

However, research on Arabic has moved beyond simply testing the hypotheses put forward by scholars of English dialect contact, playing its own role in refining sociolinguistic theory. Notably, Arabic sociolinguistics has refined our understanding of diglossia (Ferguson 1959). Ibrahim (1986) and Haeri (2000) have reoriented our understanding of Arabic diglossia from Ferguson's High-Low dichotomy to one that draws on locally meaningful understandings of linguistic prestige. In doing so, this work has moved our discussion away from analyzing Arabic through the lens of "standard" or "nonstandard" varieties or variants, setting the stage for decades of research that has examined contact-induced change in Arabic varieties.

Before moving on to a discussion of a number of specific cases of Arabic dialect contact, I briefly address the potential limitations of Van Coetsem's (1988; 2000) framework for discussions of dialect contact, as opposed to language contact. After discussing Van Coetsem's approach, I shift my focus to discuss Arabic dialect contact through a theoretical lens that has proven productive in earlier sociolinguistic work (Trudgill 1986; 2004).

In analyzing phonological change as a result of dialect contact, Van Coetsem's framework presents a number of possible challenges. One specific issue is that in many cases, a clear distinction between the borrowing or imposition of linguistic forms is challenging to establish in cases of Arabic dialect contact. Scholars may encounter challenges in attempting to assert the agentivity of the recipient language in making a case for the borrowing of, for example, aspects of a dialect's phonology into the phonology of another dialect. Asserting the agentivity of the source language in making the case for imposition is similarly challenging. These challenges stem from the cognitive orientation of Van Coetsem's

framework, which, as Lucas (2015: 521) notes, is not based on social realities or variation in the power and prestige that a given dialect or language may hold.

The approach that many scholars within sociolinguistics and allied fields like linguistic anthropology have taken is, in contrast, inherently social. We concern ourselves with the social life of language, and although we do not discredit cognitive approaches to language acquisition and use, in much of the work on dialect contact, we have foregrounded social factors in our analyses of language change. However, it is worth noting that within sociolinguistic research on second dialect acquisition, researchers have highlighted the role of social factors, as well as the constraints placed on acquisition by the linguistic system (e.g. Nycz 2013; 2016).

With the above discussion in mind, I argue that Van Coetsem's framework is less readily applicable to the cases that I describe in this chapter. Instead, I suggest that outcomes of Arabic dialect contact are better analyzed through the framework advocated for within sociolinguistics. It is to that framework that I now turn.

As Trudgill (2004) notes in discussing new dialect formation, dialect contact often progresses in stages. One of the earliest stages in this process is *LEVELING* (Trudgill 2004: 83), which results in the reduction of forms from a given dialect. These forms may be, but do not have to be, socially marked, e.g. affrication of /k/ to [č] in certain Arabic dialects. Most importantly for Trudgill, during leveling certain variants of a given feature will supplant others (Trudgill 2004: 85). As a result, forms that are socially marked may be leveled out, while unmarked forms may survive even if they were not a majority variant. In those cases where socially marked forms are present, they are often reduced across generations. Trudgill also describes processes of interdialect development, where forms arise out of the interaction between dialects, such as reallocation, where surviving forms are reallocated in some way, and focusing, whereby a new variety born out of contact begins to stabilize (Trudgill 2004).

What I feel that this framework offers in discussions of Arabic dialect contact is an acknowledgement of the social issues that may influence linguistic change, especially in situations of contact. In the remainder of this chapter I discuss cases of contact-induced change in Arabic varieties. In doing so, I draw on sociolinguistic understandings of how contact-induced changes take hold and progress.

2 Contact-induced changes in the phonology of Arabic dialects

When discussing Arabic dialect contact, a brief discussion of the typology of Arabic is useful, as it provides a shared lexicon for discussing the outcomes of contact. Cadora (1992) offers an ecolinguistic taxonomy of Arabic, describing a continuum of Arabic varieties containing linguistic features ranging from what he describes as Bedouin in provenance, to those that can be considered sedentary. In presenting a related contrast, Cadora describes features that situate dialects as being urban versus those that are rural.

However, what Cadora offers is not a hard and fast classification of Arabic varieties. Instead, his typology highlights linguistic features that typically group together within dialect types, providing a way to conceptualize the similarities and differences across these varieties. Importantly for this chapter, sites of contact between Arabic dialects are also often sites of contact between *types* of dialects as well.

In my own work on Palestinian Arabic this has been the case, with Gaza City offering one example of contact between different Palestinian Arabic dialects. Today, the dialect of Gaza City has both Bedouin and urban sedentary features, dialect types that likely came into contact in Gaza as a result of Palestinian refugee migration (see de Jong's 2000 discussion of Gaza City). This contact is undeniable given Gaza's current demographic reality, which suggests that its population is roughly 70% refugee.¹ It is also unsurprising given that Gaza has long been a site of contact. This history of contact has resulted in a city dialect that looks different than other urban Palestinian varieties spoken in major cities like Jerusalem or Nablus.

The above example serves as a way of framing the linguistic discussion of contact-induced phonological change provided below. I begin by covering documented consonantal changes that have grown out of contact, before moving on to vocalic changes and the need for additional research in this area as studies of Arabic contact move forward.

¹This figure has been reported by the United Nations Relief Works Agency for Palestinian Refugees but only reflects refugees that have actually registered with the U.N. (<https://www.unrwa.org/where-we-work/gaza-strip>, accessed 07/01/2020). Other estimates place the percentage of Gaza's population that are refugees as closer to 80%.

2.1 Consonantal changes

One of the most widely discussed linguistic features within work on Arabic dialect contact has been the variable realization of the voiceless uvular stop /q/. Motivation for the scholarly interest in /q/ likely stems from a number of factors. First, the phoneme has a wide range of dialectal variation, with dialectal realizations including a true voiceless uvular [q], as well as [k, g, ʔ] and an additional [k] variant articulated between a velar and uvular (Shahin 2011). Second, interest in /q/ is also likely due to the high social salience of its variation in many Arabic-speaking communities (see Hachimi 2012; Cotter & Horesh 2015).

The result is that /q/ has been one of the most heavily studied features in Arabic sociolinguistics. Variation and change in /q/ has been discussed in a number of different communities throughout the Arabic speaking world, including: Palestine (Abd El-Jawad 1987; Al-Shareef 2002; Cotter & Horesh 2015; Cotter 2016); Egypt (Haeri 1997); Iraq (Blanc 1964; Abu-Haidar 1991);² Jordan (Abd El-Jawad 1981; Al-Wer 2007; Al-Wer & Herin 2011); Morocco (Hachimi 2007; 2012); and Bahrain (Holes 1987), among others.

What these cases suggest are robust processes of linguistic change in the realization of /q/ coming as a result of factors such as migration and dialect contact. While the social patterning of these changes (e.g. stratified along age, gender, or sectarian lines) has been as diverse as the communities in which /q/ has been analyzed, across these contexts we see regular patterns of change in /q/ over time.

Taking the case investigated by Cotter (2016) as an example, we can see how patterns of change in /q/ may progress over time. In the speech of Jaffa Palestinian refugees in the Gaza Strip, Cotter (2016) showed that across three generations Jaffa refugees in Gaza showed progressively lower use of their traditional [ʔ] realization of /q/, instead beginning to favor the voiced velar [g] variant that is common in Gaza City Arabic. Within the oldest generation of this community, Jaffa refugees showed near categorical retention of the glottal variant, and little rudimentary leveling. However, the second generation of Jaffa refugees showed substantial variability between [ʔ] and [g], while in the third generation in the study, speakers showed higher rates of usage of the [g] variant that is native to the Gaza City dialect.

However, as Cotter & Horesh (2015) discuss, variability in /q/ is often situated within broader identity projects that speakers and communities have under-

²Both Abu-Haidar and Blanc's analyses are dialectological and descriptive in scope, however both ultimately discuss what appear to be processes of change taking place for /q/ within what Blanc termed "communal" (i.e. religio-sectarian) varieties of Arabic in Baghdad.

taken. It is important then that analyses of Arabic dialect contact also consider the broader ethnographic context in which this contact takes place.

Another area of interest for researchers examining dialect contact has been the interdental fricatives /θ, ð, ð̣/. Across Arabic varieties, these phonemes quite often vary between realizations as true interdental fricatives [θ, ð, ð̣] and their stop counterparts [t, d, ḍ] (Al-Wer 1997; 2003; 2011). In addition to descriptive work that has documented the realization of the interdentals across Arabic varieties, they have also been examined as sociolinguistic variables in cases of dialect contact.

For example, Holes (1987; 1995) investigated sociolinguistic variation in the realization of /θ, ð, ð̣/ roughly split along sectarian lines in the speech of Arab and Baḥārna speakers in Bahrain. In Bahrain, in the dialect of Sunni Arabs these phonemes are traditionally pronounced as [θ, ð, ð̣], whereas in the dialect of Shi'i speakers they are pronounced as [f, d, ḍ]. Holes (1995: 275) details that in the speech of young literate speakers in Manama, intercommunal dialect realizations of the interdentals have emerged that are generally centered on the Sunni Arab realizations of these phonemes. More recently, Al-Essa (2008) examined the interdentals in the speech of Najdi Arabic speakers living in Jeddah, Saudi Arabia, an Urban Hijazi Arabic dialect area. Although Najdi Arabic typically retains the interdental realization of these phonemes, Al-Essa concluded that degree of contact with Urban Hijazi speakers was a significant factor influencing whether Najdi speakers adopted the stop realizations common in Urban Hijazi Arabic.

Additionally, Alghamdi (2014) investigated the interdentals through the lens of migration and contact in the Saudi Arabian city of Mecca. Alghamdi describes what may be the beginning of a change from the traditional interdental realization of these phonemes in the direction of their stop counterparts. As Alghamdi (2014: 112) notes, if it is the case that an incipient change in the interdentals exists in Mecca, the results of her study suggest that female speakers may be leading this change. This finding supports earlier sociolinguistic work, which has highlighted that female speakers are often at the vanguard of linguistic change.

Change in the interdentals has also been examined as part of new dialect formation in the Jordanian capital of Amman. As Al-Wer (2007) describes (see also Al-Wer, this volume), Amman Arabic has grown out of contact between speakers of two different dialect types: urban Palestinian and traditional Jordanian varieties, which differ in their realizations of the interdentals. Urban Palestinian dialects typically favor non-interdental realizations [t, d, ḍ], while, in contrast, traditional Jordanian dialects retain the interdentals [θ, ð, ð̣]. Al-Wer describes the case of the interdentals in Amman as a process of focusing (Trudgill 2004) that has arisen out of contact. In Trudgill's terms (drawing on Le Page

& Tabouret-Keller 1985), focusing is one part of the process of new-dialect formation, whereby features of input dialects are leveled and stability emerges, resulting in new shared linguistic norms. Al-Wer describes that, in Amman, focusing of the interdental in the direction of their stop counterparts [t, d, ð] has taken place (Al-Wer 2007: 66). In addition, Al-Wer notes that, as a result of contact, Amman Arabic has also focused towards the common Palestinian [ʒ] realization of /ǧ/ at the expense of the traditional Jordanian [ǧ] (Al-Wer 2007: 66).

In addition to the work by Al-Essa (2008) and Alghamdi (2014) discussed above, a more recent case of contact-induced change in Saudi Arabia has been identified: the voiced lateral fricative [kʰ] realization of <ح>. Al-Wer & Al-Qahtani (2016) investigate /kʰ/ as a variable in the dialect of Tihāmat Qaḥtān. What this work shows is that in the Tihāmat Qaḥtān variety, the lateral [kʰ] represents a conservative, traditional variant of the phoneme, whereas the voiced interdental fricative [ð] represents the innovative variant. As a result of dialect contact, Al-Wer & Al-Qahtani (2016) describe an intergenerational process of change towards the voiced emphatic interdental [ð], with use of the historic [kʰ] variant receding over time.

Another area of interest in dialect contact research has been affrication. As descriptive work has shown, affrication of certain phonemes, notably /k/ in the direction of [č], is common in Arabic dialects. As an example of this process, Shahin (2011) notes that in rural varieties of Palestinian Arabic, /k/ palatalizes to become an affricate [č] (e.g. *čīfak* ‘how are you (SG.M)?’ < *kīfak*). While typologically this affrication is common, processes of affrication or de-affrication have also been noted as the outcome of contact.

Al-Essa (2008) investigated affrication of /k/ and /g/ in the speech of Najdi Arabic migrants in Jeddah, and found that the affrication that is a common feature of this variety had been almost completely undone in this migrant community. Examining this change in light of dialect contact, Al-Essa concludes that this de-affrication represents the leveling out of marked regional dialect forms as a result of contact (Trudgill 1986; Kerswill & Williams 2000). More recently, Al-Wer et al. (2015) note that the conditional, root-based distribution of the affricate [č] for /k/ in the Sult variety of Arabic in Jordan, which, although it has receded (Al-Wer 1991), now interacts with other innovative features in Sult that show potential stratification along religious lines.

Elsewhere in Jordan, notably in Amman, Al-Wer (2007) describes the leveling of the affricate [č] across generations. The city dialect that has emerged in Amman, which has Sulti Arabic as one of its input varieties, underwent rudimentary leveling (Trudgill 2004) within the first generation. This leveling resulted in the loss of this affricate variant of /k/ in the speech of Sulti migrants. In this case,

Al-Wer describes the deaffrication of [č] as stemming from its status as a marked feature of Horani Arabic varieties like that of Sult. This marked status makes it a primary candidate for the kinds of leveling that sociolinguists have identified in other cases of contact.

2.2 Vocalic changes

In general, the Arabic vocalic system remains understudied within research on Arabic varieties. However, multiple cases of change linked to dialect contact have been identified. One of the most well studied cases of contact-induced vocalic change in Arabic is perhaps better thought of as a morphophonological change: the Arabic feminine gender marker. The feminine gender marker is a word final vocalic morpheme that is realized variably across Arabic varieties. The realization of this vowel varies from an unraised [a] to [æ, ε, e], or even as high as [i] (e.g. Al-Wer 2007; Naïm 2011; Shahin 2011; Woidich 2011).

Even within one region, the full range of variation in this morpheme can be seen. Taking the Levant as an example, the Lebanese capital, Beirut, is known for raising this vowel to [e] or even [i] (Naïm 2011). The Syrian capital, Damascus, is known to raise to [e] (Lentin 2011). Urban Palestinian (Rosenhouse 2011; Shahin 2011) is also often described as raising to [e], while Amman (Al-Wer 2007) raises this vowel to [ε]. These city varieties can be contrasted with, for instance, the variety of Cairo (Woidich 2011), which does not raise this vowel, leaving it as [a].

This morpheme is particularly interesting within a discussion of dialect contact because raising of this vowel is phonologically conditioned. The phonological factors that constrain raising vary across dialects, with urban Levantine Arabic (e.g. Syria, Palestine, Lebanon) providing one example of these factors. In urban Levantine, the following rules constrain the raising of this vowel (Grotzfeld 1980: 181; Levin 1994: 44–45; Al-Wer 2007: 68):

1. The default realization of the vowel is raised: [e]
2. The vowel is unraised, realized as [a], when:
 - a) it occurs after back consonants (i.e. pharyngeal, glottal, post-velar, emphatic/pharyngealized): /ħ, ʕ, ʔ, h, ʂ, d/ð, ħ, ʁ, q/;
 - b) it occurs after /r/, but only when preceding /r/ there is no high front vowel. In cases where a high front vowel does precede /r/, raising is allowed, e.g. [kbi:re] ‘big (F)’.

Below I provide two specific documented examples of contact and change in the feminine gender marker. First, Cotter & Horesh (2015) investigated change in

the feminine gender marker in the speech of refugees originally from the Palestinian city of Jaffa who now live as refugees in the Gaza Strip. This sample included both speakers who were expelled from Jaffa after the creation of the state of Israel in 1948 and their descendants. Their traditional urban Palestinian dialect (Horesh 2000; Shahin 2011) is one that raises the feminine gender marker to [e], subject to the phonological conditioning mentioned above. In contrast, based on the available dialectological information, the dialect of Gaza City does not raise this vowel (Bergsträßer 1915).

Cotter & Horesh (2015) highlight a process of contact-induced change that has taken place in this community. Across generations, the realization of this vowel appears to be lowering and backing, moving from [e] in the direction of [a]. The result is that younger Jaffa refugee speakers realize the vowel closer to the [a] common in Gaza City. This type of change is perhaps unsurprising in a city like Gaza, given that the population of Gaza is overwhelmingly comprised of refugees, including large communities who are of [a] dialect types for this feature. This diversity and the high numbers of refugees in Gaza means that the city, and the territory generally, is a site where many dialects of Palestinian Arabic are in intimate contact. What remains to be determined is whether or not new linguistic norms are emerging in the dialect of Gaza City more generally as a result of this contact.

One other case, which is discussed in more detail by Al-Wer (this volume), provides a succinct example of the intersection between phonetics, phonology, and Arabic dialect contact. In discussing the formation of Amman Arabic, Al-Wer (2007) notes the centrality of vocalic change to the formation of the dialect. The feminine gender marker represents one feature that has helped to define the variety of Amman.

As Al-Wer (2007) describes, through contact between Palestinian and Jordanian Arabic dialects in Amman, the realization of the feminine gender marker has focused on [ɛ], the indigenous Jordanian realization (as in e.g. the Horani dialect of Sult, see Herin 2014). However, although Amman Arabic has focused on the Jordanian phonetic realization of this vowel, it has retained urban Palestinian phonology, which blocks raising in the environment of back consonants as defined above (Al-Wer 2007: 69). This is less restrictive than in Horani Arabic, where raising is also blocked in the environment of velar consonants such as /k/ and the labiovelar /w/ (Al-Wer et al. 2015: 77).

Finally, I mention one other case of vocalic change that has been documented as an outcome of dialect contact: the diphthongs [ay] and [aw]. Alghamdi (2014) investigated monophthongization of the traditional Arabic diphthongs /ay/ and

/aw/ in the speech of Ghamdi migrants in Mecca. Alghamdi found that the diphthongs common in the dialect spoken by this migrant community were monophthongizing, reflecting a change towards the norms of Mecca Arabic, which lacks diphthongs. Alghamdi's analysis of the diphthongs provides an example of dialect leveling borne out of contact, noting two additional aspects of this variable in the speech of this migrant community: i) Alghamdi describes the high degree of social salience that the diphthongs have in this community and their possible stigmatization in Mecca, and ii) that retention of the diphthongs is uncommon in Saudi Arabic, making the Ghamdi realization a minority realization in Saudi Arabia generally. These two facts create an environment conducive to change.

3 Conclusion

In examining Arabic dialect contact, a growing body of research highlights that the phonology and phonetics of Arabic represent rich sites for linguistic change. As the examples that I have provided throughout this chapter, and those discussed elsewhere throughout this volume suggest, we can identify a number of cases where dialect contact has influenced the directionality and extent of change in Arabic dialects. With the findings of this selection of work in mind, a number of areas remain open for future investigation.

Perhaps the most pressing of these is the reality that, although I have highlighted work here that investigates vocalic change, the vocalic system of Arabic varieties remains drastically understudied. Although phonetic research on the vocalic system of Arabic varieties continues to grow (see e.g. Hassan & Heselwood 2011; Khattab & Al-Tamimi 2014; Al-Tamimi & Khattab 2015), we know little about sociophonetic changes that may take place in cases of contact like those discussed in this chapter. Given the scope of dialect contact in the Arabic-speaking world, much of which has come as a result of mass migration throughout the region, investigating the potential for processes such as vocalic chain-shifting (Al-Wer 2007) represents an important next step for research on language variation and change in Arabic. I would argue that more robust investigation of vocalic change in Arabic dialects represents a pressing area of concern for Arabic sociolinguistics.

In addition, examples like the feminine gender marker in Amman (Al-Wer 2007) open the door for future work that investigates the potential for blending of the phonetics and phonology of different Arabic varieties as a result of contact. Although Amman is a somewhat different case, given that it represents an example of new dialect formation, a close examination of phonetics and phonology

together in contact situations will provide us with an opportunity to examine how dialect focusing and leveling takes place, and how the linguistic systems of multiple different Arabic varieties interact and regularize through contact.

Additional research that looks more closely at change in the vocalic system of Arabic dialects will go a long way towards enriching the depth of Arabic socio-linguistic research. This is especially true of work that examines cases of dialect contact. However, beyond sociolinguistics, a closer examination of the vocalic system will contribute to the description and documentation of Arabic dialects, which will further enrich linguistic research that investigates the varieties of Arabic spoken around the world.

Further reading

- As I have discussed throughout this chapter, Al-Wer's (2007) work details a number of aspects of how the dialect of Jordan's capital, Amman, emerged as a result of contact between Jordanian and Palestinian dialects. It offers a clear picture of how contact has played out in Amman with respect to a number of linguistic features, and how the city's dialect emerged over successive generations.
- Cotter & Horesh's (2015) article examines contact in the Gaza Strip, one of the more understudied areas within Arabic linguistic research. The article draws on sociolinguistic fieldwork conducted in Gaza City, as well Jaffa and the West Bank, to analyze change in three specific features of Palestinian Arabic.
- Holes' (1987) work on Bahrain provided one of the early accounts of socio-linguistic variation and change in Arabic. In addition, this work provides a clear example of variation in Arabic that has been stratified on sectarian, or religious, lines.

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Chapter 27

Contact and variation in Arabic intonation

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Evidence is emerging of differences among Arabic dialects in their intonation patterns, along known parameters of variation in prosodic typology. Through a series of brief case studies, this chapter explores the hypothesis that variation in intonation in Arabic results from changes in the phonology of individual Arabic varieties, triggered by past (or present-day) speaker bilingualism. If correct, variation in intonation should reflect prosodic properties of the specific languages that a particular regional dialect has had contact with.

1 Introduction

1.1 Rationale

The hypothesis explored in this chapter is that observed synchronic variation in intonation across Arabic dialects is contact-induced. In this scenario, differences between dialects would result from changes in the intonational phonology of individual varieties triggered by speaker bilingualism in Arabic and one or more other languages (Lucas 2015), either in the past, or up to and including the present day. To achieve this, I outline a framework for analysis of variation in intonation (§1.2), summarise recent research on the effects of bilingualism on the intonational phonology of bilingual individuals and the languages they speak (§1.3), and sketch the types of language contact scenario which may be relevant for Arabic (§1.4). In §2 I present case studies of prosodic features which appear to be specific to a particular dialect, on current evidence at least, and discuss which of the potentially relevant contact languages might have served as the potential



source of the feature in question, considering also possible endogenous (internal) sources of the change. The chapter closes (§3) with suggestions for future research.

1.2 Cross-linguistic variation in intonation

Any attempt to delimit the nature and scope of variation in intonation depends on the model of intonational phonology adopted. The analyses explored in §2 below are framed in the Autosegmental-Metrical (AM) theory of intonation (Ladd 2008), and the parameters of intonational variation explored are thus influenced by this choice.

A basic debate in the analysis of intonation is whether the primitives of the system are whole contours (defined over an intonational phrase), or some sub-component of those contours (Ladd 2008). In AM theory, intonation is modelled as interpolation of pitch between tonal targets; these tonal targets are the primitives of the system and are of two types: pitch accents are associated with the heads of metrical domains (e.g. stressed syllables), boundary tones are associated with the edges of metrical domains (e.g. prosodic phrases). In AM, tonal targets are transcribed using combinations of high (H) or low (L) targets, which reflect significant peaks and valleys, respectively, in the pitch contour of the utterance; association of these events to landmarks in the metrical structure is marked using “*” for pitch accents (associated with stressed syllables) and “%” for boundary tones (associated with the right edge of prosodic phrases of different sizes). A typical AM analysis yields an inventory of the pitch accents and boundary tones needed to model the contours in a corpus of speech data, supported by a description of the observed contours (Jun & Fletcher 2015).

Ladd’s (2008) taxonomy of possible parameters of cross-linguistic variation in intonation (based on Wells 1982) envisages four broad (inter-related) categories of variation: systemic (differences in the inventory of pitch accents or boundary tones); semantic (differences in the meaning or function associated with a particular contour, pitch accent or boundary tone); realisational (differences in the phonetic realisation of otherwise parallel pitch accents or boundary tones); and phonotactic (differences in the distribution of pitch accents and boundary tones, or in their association to metrical structure).

Comparison of AM analyses across a typologically distinct set of languages (Jun 2005; 2015) has highlighted systematic cross-linguistic variation of a systemic and/or phonotactic nature, in terms of prosodic phrasing (with relatively smaller or larger domains involved in structural organization of intonation patterns), the distribution of tonal events relative to prosodic constituents (marking

either the edges or the metrical heads of phrases or both), and the size and composition of the inventory of tonal events regularly observed (pitch accents and boundary tones). There is also a large body of research on cross-linguistic variation in the phonetic realisation of pitch accents, in particular on peak alignment (Atterer & Ladd 2004; Ladd 2006) and scaling (Ladd & Morton 1997), confirming the existence of realisational cross-linguistic variation. The most advanced work on semantic variation to date has been on Romance languages, facilitated by a concerted effort to develop descriptions of these languages' intonation patterns within a common annotation system (Frota & Prieto 2015).

For Arabic, evidence is emerging of variation along similar lines. Recent review articles have highlighted clear differences in the size and composition of the inventory of pitch accents and boundary tones across Arabic dialects (Chahal 2011; El Zarka 2017), and in the association of pragmatic meanings with contours (cf. the case study in §2.1). Initial evidence suggests a difference between Jordanian and Egyptian Arabic in the mapping of prosodic phrases to syntax (Hellmuth 2016) similar to that reported across Romance languages (D'Imperio et al. 2005). Recent research suggests that Moroccan Arabic is a non-head-marking language in contrast to other Arabic dialects which are head-marking (see §2.2), mirroring the cross-linguistic variation captured in Jun's (2005) typology, and among the head marking dialects, there appears to be variation in the density of distribution of pitch accents (Chahal & Hellmuth 2015; see §2.3).

1.3 Contact-induced variation in intonation

A growing body of research has explored contact-induced prosodic change in the speech of bilingual communities and individuals. The initial focus of most studies was on second-language (L2) learners' intonation patterns, or studies of individual bilinguals (Queen 2012), and early L2 studies focused on realisational effects of a speaker's L1 on their L2, and vice versa (Atterer & Ladd 2004; Mennen 2004). More recent studies reveal a complex array of prosodic effects, both in terms of the features involved in the change (taking in all four of Ladd's categories of possible variation), and also in the directionality of effects (L1 on L2, L2 on L1, or hybrid effects).

Bullock (2009) characterizes the general contact-induced language change literature (e.g. Weinreich et al. 1968; Thomason & Kaufman 1988) as having made the assumption that segmental effects would "precede" prosodic effects, thus predicting prosodic effects would be seen only in contexts of widespread or sustained community bilingualism. As Bullock notes, however, there is no logical

structural reason why this should be the case; her own study of English-like prosodic patterns in heritage French speakers in Pennsylvania confirms an effect of the dominant language in the prosodic domain (specifically in the realisation of focus) in speakers who in other respects maintain French segmental patterns.

Another example of prosodic properties of a dominant language affecting prosodic realisation of a heritage or second language, is that of immersion Gaelic learners in Scotland (Nance 2015). Nance demonstrates a structural change in progress in Gaelic, from lexical pitch accent – still used by older English–Gaelic bilinguals – to a purely post-lexical system, used by younger bilinguals in immersion education who produce Gaelic with English-like intonation. Similar effects of the dominant language on the non-dominant language are reported for Spanish in contact with Quechua (O'Rourke 2004).

The reverse effect has also been found in a number of studies, however, where prosodic properties of a non-dominant or heritage language have an effect on the prosodic realisation of the dominant language, in the speech of an individual or of the whole community. Fagyal (2005) studied a group of bilingual French–Arabic adolescents in Paris; instead of a typical French phrase-final rise, these speakers produce a phrase-final rise–fall contour in declaratives, similar to the contour observed in Moroccan Arabic (MA) in parallel contexts. Simonet (2011) shows that the steep (“concave”) final fall in Majorcan Catalan declaratives is now widely observed in Majorcan Spanish, replacing the typical gradual (“convex”) fall in Majorcan Spanish, but that each individual bilingual’s usage closely mirrors their reported language dominance. Colantoni & Gurlekian (2004) observe patterns of peak alignment in pre-nuclear accents and pre-focal downstep in Buenos Aires Spanish which differ from neighbouring varieties of Spanish but resemble those in Italian, and ascribe them to high levels of Spanish–Italian bilingualism in the city in the late nineteenth and early twentieth centuries. In this last case, the period of community bilingualism which triggered the change is now long past, but the effect on the prosodic patterns of the dominant language (in this case, Spanish) persists.

Finally, Queen (2001; 2012) reports a case of “fusion”: Turkish–German bilinguals in Germany display phrase-final intonation contours which are never used by monolinguals in either language, but are found only in the speech of bilinguals, in a new variety of German known as “Türkisch-Deutsch”.

This emerging literature suggests that contact-induced prosodic change is a frequent phenomenon, arising in varied forms and across diverse contact situations. Bullock (2009) suggests that prosody and intonation are especially prone to change for three reasons. First, because the acoustic parameters involved – pitch, intensity and duration – are part of the linguistic encoding of all languages, albeit

in different constellations, and are thus readily adapted. Second, because, perceptually, all languages make use of prosodic parameters to convey some aspects of utterance-level meaning, thus the mapping of form to meaning is also readily adapted. Third, and perhaps most persuasively, because the form–meaning mapping in intonation is generally not fixed, but displays considerable inter- and intra-speaker variation (Cangemi et al. 2015; 2016) as well as contextual variation (cf. Walker 2014), and it is pockets of structural ‘indeterminacy’ of this kind which are prone to change in bilingual grammars (Sorace 2004). Queen (2001: 57) also suggests that the intertwining of form and function in intonation makes it a fruitful sphere for investigation of contact-induced change, because “intonation is one of the few linguistic elements that comments simultaneously on grammar, context and culture”. Indeed, Simonet’s (2011) work shows that speakers are able to adopt the intonation of a contact language without actually being proficient in the source language. Finally, Matras (2007) argues that the separate nature of prosody, which is processed separately from segmental phonology, and can be interpreted independently of the propositional content of the utterance, renders prosody more “borrowable” than other aspects of the grammar.

In sum, there is strong evidence that intonation patterns are highly porous, being transferred between dominant and non-dominant languages in either direction; intonation is thus a fruitful area for investigation of contact-induced language change. Among the literature reviewed here, the paper by Colantoni & Gurlekian (2004) most closely resembles the type of work which is needed in future for Arabic; they investigate present-day intonational variation in closely related varieties, and provide evidence from historical migration patterns to support the claim that the present-day variation can be ascribed to an earlier period of widespread bilingualism, in a language which is a plausible source of the feature in question. In the next section we outline a similar line of investigation for Arabic.

1.4 Contact-induced variation in Arabic

The time depth of descriptions of intonation patterns is shallow, due to the lack of historical audio recordings, and a general tendency that traditional grammars do not include detailed descriptions of prosody. It is thus difficult to reliably determine when changes in intonation may have happened, and the range of languages to be considered as the source of any putative intonational change is rather broad.

One set of potential source languages is the substrate languages spoken in a particular region before the arrival of Arabic, for example Amazigh (Berber)

in North Africa, and Egyptian–Coptic in Egypt. We might also see influence from the external languages which these indigenous languages were in contact with prior to the arrival of Arabic, such as Greek and Latin, or of other external languages whose influence was felt throughout the Arab world in later periods, such as Persian and Ottoman. Other possible source languages are European languages spoken along the northern coast of the Mediterranean, since large areas of southern Europe were under Arab rule for extended periods (7th–15th centuries CE), and contact through sea-borne trade is likely to have continued after that time. Conversely, large areas of the Arab world were under direct or indirect European control also (19th–20th centuries CE), and the influence of these languages is still felt today. Finally, we might also consider the potential effects of contact with global languages such as English, and with the L1 languages of migrant workers and long-term displaced language communities.

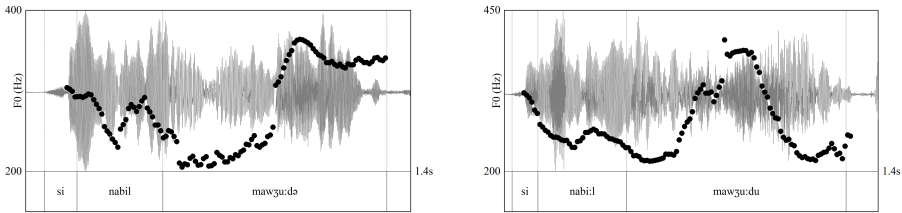
The decision to treat observed present-day variation as the result of change does not entail assuming that any one variety of Arabic was the ancestor of all dialects. Instead, the approach here will be to identify prosodic features which are seen in one Arabic dialect (or group of dialects), but not (yet) documented in any other dialects, as the most likely cases of potential contact-induced change. In each case study we evaluate the hypothesis by looking for evidence of the same feature in the relevant contact languages for the dialect in question, with comparison to possible language-internal sources of the change.

2 Contact-induced variation in Arabic intonation

2.1 Tunisian Arabic question marking

Tunisian Arabic (TA) polar questions are typically associated with a salient rise–fall pitch contour at the end of the utterance: speakers from southeast Tunisia produce a complete rise–fall in which pitch rises over the stressed syllable of the last word in the utterance to a peak, then falls to low; in contrast, speakers from Tunis produce a rise–plateau contour, in which, after the peak, pitch falls slightly then levels out. These patterns are illustrated in Figure 1 (Bouchhioua et al. 2019). The rise–fall prosodic contour is frequently accompanied by a segmental question marker, in the form of a vowel added to the end of the last word in the utterance. The quality of the epenthesised vowel is influenced partly by vowels earlier in the word (in a form of vowel harmony) and partly by regional dialect, though these vowel quality patterns require further investigation.

The rise–fall yes/no-question contour in TA differs from the rise seen in yes/no questions in most Arabic dialects (Hellmuth in preparation) and, in terms of dis-



si nabil /maw'zud/ [maw'zudə/u]
 Mr Nabil present
 'Is Mr Nabil there?' (tuno-arc1-f1/tuse-arc1-f1)

Figure 1: Pitch trace of yes/no questions from a Tunisian Arabic speaker from Tunis (left) and from the southeast (right).

tribution, from the rise–fall contour observed in Moroccan Arabic (MA) across all utterance types (not only in yes/no questions). The vowel epenthesis marker appears to be unique to TA, thus far.

A pattern of utterance-final vowel epenthesis has been observed in a number of Romance languages spoken along the northern edge of the Mediterranean, including Bari Italian (Grice et al. 2015), and different varieties of Portuguese (Frota et al. 2015). These cases of utterance-final vowel epenthesis are interpreted as text–tune adjustment, where segmental material is added to accommodate a complex prosodic contour. For example, in Standard European Portuguese, a more general rule of utterance-final vowel deletion is blocked in utterances bearing a complex prosodic contour, such as the fall–rise (H+L* LH%) on yes/no questions (Frota et al. 2015). In Bari Italian, epenthesis is seen on a range of utterance types, but – like Portuguese – its occurrence can be ascribed to tonal crowding (i.e. that the complex contour requires more segmental material to be realised). This is reflected in higher incidence of epenthesis on utterance-final monosyllables than on longer words, and on words in which the final sound is an obstruent than on words with a final sonorant (Grice et al. 2015).

Investigation of utterance-final vowel epenthesis in TA yes/no questions, in a corpus of data collected in Tunis, shows a very different pattern, however. In TA the incidence of epenthesis is not affected by the number of syllables in the utterance-final word nor by the type of final sound. In addition, whereas in the other Romance languages epenthesis occurs on a range of utterance types, in TA epenthesis occurs only in yes/no questions, and predominantly in yes/no questions which are produced with a complex rise–plateau or rise–fall contour (Hellmuth forthcoming). The effects which in the Romance languages are taken

as evidence of text–tune adjustment are lacking in TA, which appears to rule out a language-internal (endogenous) source of the TA pattern of vowel epenthesis.

The TA epenthetic vowel is in fact best characterized as an optional question marker comprising the vowel itself plus an accompanying fall in pitch. The segmental marker is well-known among Tunisian linguists, being described as “the pan-Tunisian question marker clitic [ā]” (Herin & Zammit 2017: 141), but the accompanying prosodic contour has received little attention in the literature until recently. This traditional question-marking strategy may however be in decline, since it now alternates with realisation of a yes/no question using a simple rise contour similar to that found in most other Arabic dialects, and without an utterance-final epenthetic vowel. The picture is complicated by the fact that there is a somewhat higher incidence of epenthesis among young female speakers, who might be expected to use the traditional form less, rather than more (Hellmuth forthcoming).

The epenthesis + complex contour strategy in TA yes/no questions stands out from other Arabic dialects and may thus be due to contact-induced prosodic change. Italian was spoken in Tunisia more widely than French, in the late nineteenth century (Sayahi 2011), and is thus a potential source of the contour, since rise–falls occur in yes/no questions in a number of Italian dialects (Gili Fivela et al. 2015). However, the conditioning environments of epenthesis reported for Bari Italian are very different, suggesting that contact with Italian is not a likely source of the epenthesis component of the TA pattern.

An alternative source of the vowel epenthesis pattern is French, since Tunisia has seen very high levels of bilingualism in TA and French from the late nineteenth century up to the present day, despite concerted efforts to reduce usage of French (Daoud 2007). Utterance-final schwa epenthesis has been reported as an emerging phenomenon in French (Hansen 1997), but its distribution is again much broader, being seen across a range of utterance types, and not restricted to yes/no questions. Despite clear evidence of contact-induced effects of French on TA in other domains, such as lexical borrowing, and a general trend towards use of French by female speakers (Walters 2011), the different distribution of final epenthesis in French suggests it is not the most likely source of the TA segmental question-marking strategy.

The other major contact language with TA is Tunisian Berber (TB). Although levels of TA–Berber bilingualism in Tunisia are now low, other than in certain regions (Gabsi 2011), there was a sustained period of TA–TB bilingualism from the eleventh century, and TB is an important substrate of TA (Daoud 2007). Although there are no studies of the prosody of TB, to our knowledge, a recent detailed study of Zwara Berber, spoken close to the Tunisian border in western

Libya, documents a polar question marking clitic /a/ which is obligatorily accompanied by a rise–fall contour (Gussenhoven 2017). The match of this description to the TA pattern is so close that it seems plausible that the TA question-marking pattern arose due to contact with TB during the period of sustained TA–TB bilingualism. The greater use of the epenthesis + contour strategy by female speakers than male speakers, as well as regional variation, makes this feature of TA ripe for further detailed sociolinguistic study.

2.2 Moroccan Arabic word prosody

Variation in word stress patterns across Arabic dialects has inspired much phonological investigation (Watson 2011), but the Moroccan Arabic (MA) stress system has defied analysis until recently. Mitchell (1993: 202) notes that “in contrast with all the other vernaculars [...], the place of prominence in a word in isolation is not carried over to its occurrence in the phrase and sentence”, and this characterization was confirmed experimentally by Boudlal (2001). A range of positions have emerged, with some authors claiming that MA does have word stress (Benkirane 1998; Burdin et al. 2014), and others that it does not (El Zarka 2012; Maas 2013).

It is now clear that MA is indeed typologically different from most other Arabic dialects in its word prosody. Whereas the majority of Arabic dialects have salient word-level stress and are thus clearly “head-marking” languages, in the typology proposed by Jun (2005), MA is a non-head-marking language in which tonal events mark the edges of prosodic phrases only. Bruggeman (2018) provides acoustic evidence that there are no consistent cues to lexical prominence in MA, and perceptual evidence that MA listeners display the same type of “deafness” to stress as has been reported for listeners in languages which also lack head marking such as French (Dupoux et al. 2001) and Persian (Rahmani et al. 2015).

Can this stark variation in prosodic type between MA and other dialects of Arabic be attributed to contact-induced change? The Arabic language has been in sustained contact with Amazigh (Moroccan Berber, MB) since the seventh century, but also with Latin, French and Spanish (Heath, this volume). Maas & Procházka (2012) argue from corpus data that MA and MB share a common phonology, across a range of segmental and suprasegmental features. Bruggeman (2018) confirms that there is no difference between MA and Tashlhiyt MB: both lack acoustic cues to word-level prominence in production and both groups of listeners display stress deafness.

Since French is also an edge-marking language, without lexical stress, can we rule out French as an alternative source of this prosodic feature of MA? The main evidence comes from the fact that MA and MB also share other prosodic

features which are not found in French, such as the shape of the tonal contour used to mark the edges of phrases, which is a rise in French (Delais-Roussarie et al. 2015), but a rise–fall in both Tashlhiyt MB (Grice et al. 2015; Bruggeman et al. 2017) and MA (Benkirane 1998; Hellmuth in preparation). The contrast is also exemplified in Faygal’s (2005) study of French–MA bilinguals in Paris who use an MA rise–fall contour in French.

2.3 Egyptian Arabic accent distribution

Cairene Egyptian Arabic (EA) displays a rich distribution of sentence accents, with a pitch accent typically observed on every content word. This has been noted independently by different authors (Rifaat 1991; Rastegar-El Zarka 1997), and is observed in both read and spontaneous speech styles (Hellmuth 2006). Initial studies suggest that the same may be true also of some other dialects, such as Emirati (Blodgett et al. 2007) or Ḥiġāzi (Alzaidi 2014), but these observations await corroboration across different speech styles.

Dense accent distribution has been noted in some languages on the northern coast of the Mediterranean also, including Spanish and Greek (Jun 2005), although, in Spanish, the rich accent distribution seen in laboratory speech is reduced in spontaneous speech (Face 2003). Portuguese dialects vary in accent distribution: most varieties typically have an accent on every content word, but Standard European Portuguese shows an accent on the first and last words in an utterance only (Frota et al. 2015).

Rich accent distribution is not observed in Moroccan Arabic (Benkirane 1998), nor in Tunisian Arabic (Hellmuth in preparation). If the EA accent distribution pattern were due to contact between EA and the southern European languages on the other side of the Mediterranean which share the tendency towards rich accent distribution, we might expect the pattern to be found all across North Africa.

There is strong documentary evidence from written sources of historical sustained multilingualism in Egypt. Greek arrived in Egypt in the fourth century BCE, serving as a formal administrative language alongside Egyptian for several centuries, and with the country reaching a state of “balanced societal bilingualism” in Greek and Egyptian in the sixth and seventh centuries CE (Papaconstantinou 2010: 6). Egyptian evolved into Coptic, and its prestige continued to increase from the sixth century CE onwards. After the Arab conquest in the seventh century CE, Arabic began to take over from Greek as the language of administration, eventually replacing Coptic in daily use (Papaconstantinou 2012).

Is it possible that Egyptian–Coptic or Greek is the source of the rich accent distribution observed in EA (and indeed in Romance languages in southern Europe)?

The distribution of full and long vowels in Coptic indicates that it had word-level prominence (Peust 1999: 270), but it is not possible to determine from written texts the nature or distribution of any tonal contours which may have been associated with prominent syllables. Anecdotal evidence suggests that the intonation patterns used in surviving liturgical forms of Coptic are very different from those in EA (Peust 1999: 32), though this difference may owe more to the liturgical setting than to properties of the languages in spoken form.

Ancient Greek is generally thought to have had a pitch accent system in which the primary marker of culminative accent in each word was pitch (Devine & Stephens 1985). The Koiné Greek dialect used in Egypt is thought to have lost pitch accent in favour of a stress accent system, however, by the fourth century BCE (Benaissa 2012).

Support for the hypothesis that Greek is the original source of the rich accent distribution would come from a match between the historical spread of Koiné Greek around the Mediterranean with the location of languages in which rich accent distribution is also found. This would predict that eastern varieties of Libyan (Cyrenaican) Arabic might also be found to display rich accent distribution. If rich accent distribution is confirmed in dialects of Arabic (such as Emirati or Ḥiǧāzi) which did not have sustained contact with Greek, or with EA more recently, this would argue against Greek as the original source. Although Nubi (Gussenhoven 2006) and Juba Arabic (Nakao 2013) display hybrid properties between stress and lexical tone, the most likely explanation of their prosodic patterns is direct contact with local tonal languages. A potential endogenous trigger for development of rich accent distribution would be the absence of other forms of phonological marking of word domains, which are indeed somewhat reduced in EA, in comparison to other dialects (Watson 2002), though the direction of causality of this correlation is not easily determined.

Accent distribution has only recently been added to the parameters of variation explored in work on prosody (Hellmuth 2007), and thus included in descriptions of the intonation systems of languages (e.g. Frota & Prieto 2015). As further descriptions emerge of more dialects of Arabic it will be important to include documentation of accent distribution, across genres and speaking styles, in future research.

3 Conclusion

There is much that we do not yet know about variation in intonation in Arabic, which leaves scope for investigation of further potential cases of contact-induced prosodic change. One such case may be the Syrian Arabic utterance-final rising intonation, sometimes known as “drawl”, which is found in yes/no questions but also across other utterance types (Cowell 1964), and which is an identifiable feature of the Damascus dialect (Kulk et al. 2003). Although the full geographical range of the pattern has not been investigated in detail, and may be diffused to other dialects in the Levant, this rising declarative intonation pattern stands out from most other Arabic dialects, and is thus another potential case of contact-induced change.

Another potential outlier pattern is the rise–fall intonation contour seen in yes/no questions in Yemeni Arabic from Ṣan‘āʾ (Hellmuth 2014). The full areal reach of this prosodic question-marking strategy is also not yet fully known, and may extend into Ḥiǧāzi Arabic and western dialects of Oman. However, we do know that a rise–fall is seen in both Tunisia and Morocco, though in these places the pattern may be due to contact with varieties of Berber. Nevertheless, it is tempting to speculate how a pattern found in Yemen might also be found in Tunisia and Morocco, and thus to explore the potential role of contact-induced variation due to ancient migrations between the eighth and fourteenth centuries (Holes 2018).

Finally, the intonation of Modern Standard Arabic (MSA) and of other formal registers may prove to be a fruitful domain of future research. As our knowledge of the intonational phonology of spoken Arabic dialects improves, this will facilitate investigation of the extent to which the intonation patterns of a speaker’s regional dialect can be observed and/or perceived in their MSA speech, building on the findings of prior studies (El Zarka & Hellmuth 2009). An important goal would be to determine the extent to which a separate intonational system can be described for MSA, and to document the differential contribution to this system of specific genres of MSA discourse versus contact-induced influence due to widespread community mastery of multiple registers of the language.

All these investigations would benefit from improved documentation of the time depth of present-day surface intonation patterns. For the quasi-unique features explored in §2, we do not know whether these are the result of recent or much more distant historical change. This situation might be rectified through analysis of archive audio materials, though dialect studies have often worked on oral narratives, which yield only a limited range of prosodic expression (i.e. usually few questions, and no information about turn-taking). A more viable

strategy to gauge the time depth of contact-induced variation in Arabic intonation would be for future sociolinguistic studies to include prosodic features as variables in apparent-time studies with participants in different age ranges, or for pre-existing corpora of apparent-time data to be made available for prosodic analysis.

Further reading

There are two key reference works, so far, on intonation in Arabic dialects, based on secondary analysis of prior published work: Chahal (2011) and El Zarka (2017). Hellmuth (2019) suggests prosodic variables for inclusion in studies of variation and change in Arabic.

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Abbreviations

AM	Autosegmental-Metrical theory	L1, L2	1st, 2nd language
BCE	before Common Era	MA	Moroccan Arabic
CE	Common Era	MB	Moroccan Berber
EA	Egyptian Arabic	MSA	Modern Standard Arabic
H	high tone	TA	Tunisian Arabic
L	low tone	TB	Tunisian Berber

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Chapter 28

Contact-induced grammaticalization between Arabic dialects

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This chapter describes the phenomenon of contact-induced grammaticalization between Arabic dialects and its significance in accounting for the development of future tense markers across modern Arabic varieties. After an introduction to theoretical aspects of general grammaticalization theory and contact-induced grammaticalization in particular, discussion shifts to the identification of specific contact-induced grammaticalization processes leading to the modern distribution of future tense-marking forms across the Arabic-speaking world. Finally, the significance of these findings to broader inquiry in Arabic dialectology and theoretical contact linguistics is considered.

1 Introduction & theory

1.1 Overview

This chapter presents evidence for the occurrence of contact-induced grammaticalization processes between dialects of Arabic over the course of the language's history. The critical role of dialect contact as a source of synchronic variation and diachronic change across Arabic varieties is well recognized, and the description of its outcomes a long-standing occupation of Arabic dialectologists (e.g. Behnstedt & Woidich 2005; Miller et al. 2007). Representing a fairly recent theoretical development in the field of contact linguistics – following largely from the proposals of Heine & Kuteva (2003; 2005) and Dahl (2001) – contact-induced grammaticalization as a model has not been applied to the analysis of Arabic dialect data on a large scale. As will be seen, however, the phenomenon displays significant merit as an account for the evolution and diffusion of a number of morphosyntactic features across the modern Arabic dialects.



In the following subsections, I begin with a review of the current state of research in grammaticalization theory and in contact-induced grammaticalization (CIG) specifically. I then proceed to an illustrative example of CIG in the Arabic context, demonstrating the model's power as an explanatory mechanism in interpreting the distribution of future tense markers across the modern dialects. I conclude the chapter with a brief discussion of the broader significance of CIG in the analysis of Arabic and the potential role for Arabic data in advancing general theoretical knowledge of the phenomenon at large.

1.2 Grammaticalization

Most linguists agree that it is possible to synchronically classify the majority of linguistic forms along a cline from “more lexical” to “more grammatical”, in a manner roughly consistent with the progression as conceived by Hopper & Traugott (2003):

CONTENT WORD > GRAMMATICAL WORD > CLITIC > INFLECTIONAL AFFIX

Historical linguists would add to this synchronic observation the diachronic reflection that it is common to observe a single etymological item advancing through the successive stages of this cline as it develops as part of a linguistic system over time. In fact, the sheer frequency of examples indicating such a trajectory of evolution has led to the identification of a cross-linguistically attested phenomenon known as grammaticalization. The following definition provided by Hopper and Traugott is indicative of several currently referenced in the field, which – though differing in emphasis and points of detail – broadly subscribe to a similar central principle:

[Grammaticalization is] the change whereby lexical items and constructions come in certain linguistic contexts to serve grammatical functions and, once grammaticalized, continue to develop new grammatical functions (Hopper & Traugott 2003: 18).

Though useful for purposes of general definition, this largely intuitive formulation of grammaticalization and the cline which it follows must be further deconstructed if they are to be operationalized as part of a rigorous analysis. Andersen (2008) summarizes the issue succinctly in observing that the grammaticalization cline so articulated conflates numerous discrete dimensions of language change by presenting them as unified steps in a chain: the shift from lexical to grammatical word is one of semantic content, while that from word to clitic to affix

involves morphosyntax and any associated loss of phonological material is best understood as phonological change. Since the early stages of grammaticalization research, more complex approaches to the description of the phenomenon have been proposed based on the concurrent evaluation of multiple parameters (e.g. Lehmann 1985). Other authors opt instead to define analogous parameters in terms of diachronic processes, thereby rendering them more directly relatable to the modes of historical linguistic analysis which underlie the bulk of investigations in grammaticalization research. The latter approach is adopted here, largely following the account proposed by Heine (2004).

Heine views grammaticalization as defined by the simultaneous progression of four distinct but interrelated diachronic processes: desemanticization, extension, decategorialization, and erosion. Desemanticization involves the loss of concrete lexical (“content”) meaning and a corresponding rise in abstract grammatical function associated with the use of an item in particular contexts. This often represents the first observable stage of grammaticalizing change, and, as its name suggests, primarily concerns the semantic content of the item rather than its distribution, form, or syntactic behavior. Closely coupled with desemanticization is extension, namely the novel use of the grammaticalizing item in contexts in which it was not previously employed; extension is thus defined as a change in incidence. The hand-in-hand advance of these two processes is demonstrated in the evolution of the French negative element *pas*: having shed its content semantics as a noun meaning ‘step’ and developed grammatical function as a marker of verbal negation, *pas* is extended in contemporary usage to contexts involving none of the implied motion of its lexical source (Hansen & Visconti 2009: 137–138).

The third process described by Heine, that of decategorialization, consists of the changes by which a grammaticalized item comes to lose the morphosyntactic properties characteristic of its source’s original word class, such as word order freedom or agreement inflection; an example may be found in the gradual development of the English adverbial marker *-ly* from a morphosyntactically free substantive meaning ‘body, form’ to a bound derivational suffix (Ramat 2011: 505). Erosion, the fourth process considered by Heine, refers to the gradual reduction and lenition of phonological form beyond what is accounted for by regular sound change, as observed in the irregular changes deriving the Jewish Babylonian Aramaic continuous aspect marker *qā ~ kā* from earlier **qā?ē* ‘standing’ (Rubin 2005: 134).

Theories of grammaticalization have also been strongly linked to the notion of unidirectionality, the proposal that change along the above-described cline occurs only from more lexical to more grammatical and not vice versa (Lehmann

2015). Though the absolute formulation of this hypothesis has been the subject of much debate (e.g. Norde 2009), recognition of a strong unidirectional tendency remains integral to understandings of grammaticalization on both empirical and theoretical grounds (Haspelmath 1998; Heine 2004). It has been proposed that the impetus for such a tendency lies in a universal set of cognitive and communicative principles common to the human mental faculty (Claudi & Heine 1986; Bybee 2003; Lehmann 2015); these would provide an account for the pervasive occurrence of grammaticalization as a worldwide phenomenon, and may be seen to bias the results of grammatical change in the directions entailed by the four processes described above.

The concomitant advancement of these processes is discernible in one of the few cases of Arabic grammaticalization for which a reasonably complete chain of historical development is attested: that of the Egyptian Arabic future tense marker *ħa-*. Documented in sixteenth- and seventeenth-century sources as *rāyih*, this item already shows evidence of desemanticization and extension, departing from the semantics of its lexical source as an active participle ‘going’ to indicate intention and imminent futurity of action, consequently allowing its extension to usage contexts devoid of actual motion: *ʔanā rāyih aḡannī ʔalēh* ‘I am going to sing about it [and proceeds to sing]’ (Davies 1981: 241). In its nineteenth-century incarnation *rāħ* ~ *raħ* ~ *ħa-*, the form shows further desemanticization and extension as its value changes from an imminent to a general future and it comes to be employed in previously unacceptable circumstances, such as in the presence of a non-immediate temporal adverb: *rāħ yiġi bukra* ‘he’ll come tomorrow’ (Elias & Elias 1981: 157; for earlier usage constraints, see Davies 1981: 241-243). These increasingly modern forms also attest decategorialization, as the once-obligatory adjectival agreement marking of the participial original becomes optional – *raħ* (SG.M)/*raħa* (SG.F)/*raħīn* (PL) ~ *raħ* (invar.) (Vollers 1895: 40) – and eventually ceases to exist altogether in the tightly bound modern clitic *ħa-* ~ *ha-* (Abdel-Massih et al. 2009: 268). Fourthly, progressive phonetic erosion is visible throughout the item’s history, as none of the loss or lenition of phonetic material through the stages *rāyih* > *rāħ* > *raħ* > *ħa-* > *ha-* attested above is attributable to regular sound change. Taken together, these combined processes chart the grammaticalization of lexical *rāyih* ‘going’ through its gradual development into the modern future tense clitic *ħa-*.¹

¹On sources referenced in the preceding paragraph: Davies (1981) is a study of colloquial elements in the seventeenth century Egyptian text *Hazz al-quḡūf fī ʔarḡ qaʔid Abī ʔādūf*; Vollers (1895) is a descriptive grammar of Egyptian Arabic at the close of the nineteenth century, and Elias & Elias (1981) an English–Egyptian Arabic vocabulary and phrasebook first released ca. 1899; Abdel-Massih et al. (2009) is a reference grammar of modern Egyptian Arabic.

Having established these understandings of grammaticalization and its component processes, we now turn to the proposal that specific grammaticalization pathways are able to be shared between interacting languages and dialects: the aforementioned CIG.

1.3 Contact-induced grammaticalization

The most fully elaborated theoretical model proposed for CIG is that of Heine & Kuteva (2003; 2005). This model represents the phenomenon by which “a grammaticalization process [...] is transferred from the model (M) to the replica language (R),” without corresponding transfer of any actual phonological form (2003: 539). As paraphrased and clarified by Law (2014: 215), this occurs when one language, “the ‘replica language,’ develops a feature observed in another language, the ‘model’ language, but goes through a path of universal development using resources internal to the replica language.” The result is such as that seen in the Basque innovation of an allative preposition from the noun *buru* ‘head’ and a perfect tense formed with the lexical verb *ukan* ‘have’, apparently influenced by parallel grammaticalizations in neighboring varieties of Romance (Haase 1992 *apud* Heine & Kuteva 2003: 550). Such an effect is proposed to be actuated according to the following model (Heine & Kuteva 2003: 539):

1. Speakers of language R notice that in language M there is a grammatical category M_x .
2. They develop an equivalent category, R_x , using material available in their own language (R).
3. To this end, they replicate a grammaticalization process they assume to have taken place in language M, using an analogical formula of the kind $[M_y > M_x] = [R_y > R_x]$.
4. They grammaticalize R_y to R_x .

This proposal for the diffusion of parallel grammaticalization trajectories between linguistic varieties is presaged by Bisang’s (1998) observation of the potential synergy between grammaticalization, which he considers to be a primarily construction-based process, and previously observed forms of contact-induced structural convergence. The phenomenon has also been influentially described by Dahl in the form of “gram families”, consisting of groups of “grams [grammaticalized items] with related functions and diachronic sources that show up

in genetically and/or geographically related groups of languages, in other words, what can be assumed to be the result of one process of diffusion” (Dahl 2001: 1469). Heine & Kuteva draw heavily on Dahl’s theorizations, though they diverge from him in a few critical ways. First, they are significantly more conservative than Dahl in identifying examples of the phenomenon, insisting on corroborating evidence of language contact in order to posit CIG rather than inductively inferring its occurrence given genetic relatedness or proximity. Second, they do not necessarily attempt to link multiple replications of the same grammaticalization pathway into “one process of diffusion,” but instead prefer to treat them as individual instances of contact between participating languages.

Further, Heine & Kuteva’s model is primarily situated in the context of contact between genetically distinct languages. Regarding the occurrence of CIG between related language varieties or dialects, Dahl sees such scenarios as generating the bulk of evidence for the phenomenon: “in the majority of all such cases [of areally diffused grams], the languages involved are more or less closely related” (2001: 1469). Heine & Kuteva are wary of such identifications. Critically, however, their reasons for being so are methodological rather than theoretical. In their analysis, they choose to rely on the principle of genetic patterning as “an empirically well-founded tool for identifying cases of contact-induced linguistic transfer” (2005: 33–34), meaning that examples of CIG between unrelated languages are often easiest to identify and defend and thus have been favored in the effort to present an unambiguous account. Regarding the broader occurrence of the phenomenon, however, they state that “genetic relationship is entirely irrelevant” (2005: 184) and that CIG may occur between related languages just as it does between unrelated ones. They remain, though, more careful than Dahl to set apart cases attributable to inheritance of any stage of the grammaticalization chain from a common ancestor, which could lead to a superficially similar result not in fact dependent on any degree of contact. Along the same lines, Law (2014) reminds us that when dealing with closely related languages the possibility of drift or typological poise precipitating parallel development rises dramatically in likelihood. Thus, the analyst must be stringent in linking proposed cases of CIG to cross-linguistically attested paths and parameters of grammaticalization and not to the local idiosyncrasies of a given language family or subgroup.

To Heine & Kuteva, CIG is unambiguously situated in terms of Van Coetsem’s (1988; 2000) dichotomy between source language (SL) and recipient language (RL) agentivity: the four-stage model of replication presented above clearly identifies speakers of the RL as the agents of contact-induced change in this instance. This judgment has opened the proposal to major critique, as several key theorists maintain that structural pattern replication of the kind required for CIG

is only possible in a scenario of SL agentivity. Ross (2007), for example, views the phenomenon as part of a broader process of bilingual calquing (cf. Manfredi, this volume), involving the subconscious imposition of the functional range of an SL item onto its RL equivalent, followed secondarily by the processes Heine & Kuteva attribute to grammaticalization but which Ross views as the natural result of increases in frequency and automatization stemming from the RL item's new functionality. Ross asserts that "one cannot reasonably argue" for Heine & Kuteva's construal of CIG as an RL-agentive direct replication of a grammaticalization process because of his conviction that the phenomenon is "largely driven by effort reducing practices of which speakers are only marginally aware" (2007: 135).

Matras (2009; 2011), however, supports Heine & Kuteva's initial characterization by arguing for RL-agentivity in his own recent accounts of CIG, which provide more attention to the role played by the individual bilingual in the phenomenon's actuation. He cites the individual's communicative imperatives and creative impulse as the primary force driving the replication of grammaticalization processes, as speakers actively borrow from constructions they control in one of their languages, as a source of expressive innovation in the other, limiting this transfer solely to "pattern" out of respect for the norms of the distinct speech communities in which they operate. Matras' account thus has the benefit of aligning with the motivating forces theorized to obtain for grammaticalization processes more generally. As described by Lehmann in his consideration of grammaticalization's communicative/pragmatic dimension:

To the degree that language activity is truly creative, it is no exaggeration to say that languages change because speakers want to change them ... they do not want to express themselves the same way they did yesterday, and in particular not the way that somebody else did yesterday (Lehmann 1985: 315).

Building upon this position, it holds that in scenarios of language or dialect contact innovating speakers may very well wish to express themselves the same way somebody else did yesterday if the means of expression involved are novel to a distinct speech community with which they are interacting today. This synergy with less controversial understandings of grammaticalization outside the context of language/dialect contact provides a viable counterpoint to the skepticism voiced by Ross, and strongly recommends the association of CIG with RL-agentivity.

In the case of contact between closely related varieties, this characterization of CIG may be further qualified. Under Matras' RL-agentive formulation, pattern replication occurs in the presence of constraints against the usage of an SL's forms due to speaker expectation and "language loyalty" among members of the RL community (2011: 283). In the broader language contact literature, such sociolinguistic constraints have been noted to play a role in pattern diffusion (e.g. Epps 2005), and presumably interact with speakers' judgments of interlocutors' perceived bilingual competency in favoring or disfavoring matter-based mixing or borrowing (cf. Grosjean 2001). In contexts where mutual comprehensibility is a less salient concern, the drivers of pattern vs. matter-based innovation would be expected to be almost purely sociolinguistic and pragmatic, and are perhaps most fruitfully understood through the lenses of indexicality (Silverstein 2003) and focus at the level of the speech community (Le Page & Tabouret-Keller 1985) rather than as a desire to adhere to a reified linguistic code. Such is the state of affairs most likely to obtain in the case of CIG between neighboring varieties of Arabic, to which we now turn in detail.

2 CIG in the development of Arabic future tense markers

2.1 Methods of investigation

In the following subsections, I present evidence for the role of CIG as the primary mechanism underlying the development and distribution of future tense markers in the modern Arabic dialects. The data considered is drawn from a survey of eighty-one geographic sample points spanning the contiguous Arabic-speaking world, based on a total of eighty-eight descriptive sources.² This sample was constructed as part of the broader investigation of CIG between Arabic dialects presented by Leddy-Cecere (2018), which investigates the role of CIG in the development of a number of morphosyntactic features in modern Arabic varieties, including future tense markers, genitive exponents, and temporal adverbs meaning 'now'. A discussion of data and findings for the first of these features is the focus of this chapter, and these shall be seen to argue strongly for the identification of CIG as a key force in shaping the evolution of modern Arabic dialects. Readers are encouraged to refer to Leddy-Cecere (2018) for additional examination and expansion of the points to follow.

²Details of sample composition and sources consulted, as well as the selection criteria for each, may be found in Leddy-Cecere (2018: 34–35, 43–46).

To begin, I first examine the complete set of specific grammaticalizations of future tense markers attested by the Arabic dialect data. These have been identified via the observation of concurrent processes of desemantization, extension, decategorialization and erosion (as described in §1.2). These individual instances are further sorted into higher level groupings by grammaticalization path: future tense markers deriving from motion verbs meaning ‘go’, for example, as against those deriving from purposive constructions, etc. Special attention is paid to those specific grammaticalization paths represented by multiple evolutions involving distinct etyma, thus identifiable as potential candidates for the products of replication through CIG. As a final step in the evaluation, the geographic incidence of forms representing such multiply attested paths is considered to assess whether their modern distribution is consistent with a historical account of diffusion via contact. This latter portion of the analysis will be presented in §2.3, following the complete accounting of grammaticalized forms provided in §2.2 immediately below.³

2.2 Grammaticalizations of Arabic future tense markers by grammaticalization path

2.2.1 Futures from ‘go’ (FUT < GO)

Grammaticalizations of future tense markers from forms of lexical verbs meaning ‘go’ are well represented in the Arabic data. This grammaticalization path is widely attested cross-linguistically, providing one of the major sources for the development of future tense markers worldwide (Bybee et al. 1994; Heine & Kuteva 2002). Grammaticalizations of specific items observed in the cross-dialectal Arabic sample are described below.

*rāyih:

Future markers representing grammaticalized forms of an active participle *rāyih ‘going’ are found across a broad east-west swath of the Arabic-speaking world, extending from southern Iraq in the east to Algerian territory in the west. Differing degrees of grammaticalization are attested, with some forms maintaining full phonological integrity and categorial membership (e.g. Basra *rāyih*; Mahdi 1985, which displays adjectival gender/number agreement with its subject) and others showing dramatic erosion and of loss of morphosyntactic autonomy (including Cairo *ha- ~ ha-*,

³For further discussion and justification of each stage of this heuristic, see Leddy-Cecere (2018: 36–43, 209–214).

as described in §1.2). Semantically, some forms, such as Algiers *rāḥ* and Jerusalem *rāyih* ~ *rāḥ* ~ *ḥā-*, are recorded as expressing a value of immediate future or future intent (Boucherit 2011; Rosenhouse 2011), while the majority are associated with a meaning of general futurity.

**yādī*:

Grammaticalized forms of the active participle **yādī* ‘going’ are common future markers throughout much of Morocco and adjacent regions. Reduced and invariant forms often co-exist alongside less grammaticalized reflexes, thereby attesting discrete links in an increasingly advanced grammaticalization chain, as seen in Casablanca *yādī* ~ *ya-* (Caubet 2011).

**māšī*:

Grammaticalized future markers deriving from the active participle **māšī* ‘going’ occur in two distinct geographic pockets, one centered in north-central Morocco and the other in Tunisia and eastern Algeria. In addition to more predictable effects of phonetic erosion and decategorialization, several forms from the latter area display a further example of irregular sound change with the sporadic denasalization of */m/ > /b/, as in Sousse *māš* ~ *bāš* (Talmoudi 1980).

**sāyir*:

Alone in the sample, Maltese attests a future marker deriving from a grammaticalized form of the active participle **sāyir* ‘going’. This can be found in both an inflecting form *sejjer* (SG.M)/*sejra* (SG.F)/*sejrin* (PL) and as the more grammaticalized, invariant forms *ser* and *se* (Vanhove 1993).

2.2.2 Futures from ‘want’ (FUT < WANT)

Grammaticalizations from source constructions indicating desire or volition are another cross-linguistically common origin for future tense markers (Bybee et al. 1994; Heine & Kuteva 2002), and are similarly widespread to their FUT < GO counterparts in the Arabic dialect data. Specific grammaticalizations are discussed below.

**yabyā* ~ *yabyī*:

Grammaticalized forms of the imperfect verb **yabyā* ~ *yabyī* ‘want’ serve as future markers across a large portion of the Arabic-speaking world, stretching from the Arabian Peninsula across the Red Sea to the greater Sudanic area, and then northward through present-day Libya. While many Arabic varieties attest only a highly grammaticalized, reduced form of the

item (e.g. Abu Dhabi *b-*; Qafisheh 1977), other dialects display direct evidence of multiple stages of the grammaticalization chain, e.g. Ḥarb *yabyā* ~ *yabā* ~ *ba-* (Il-Hazmy 1975).

*biddu ~ widdu:

Future tense markers arising from grammaticalizations of *biddu ~ widdu ‘want’ are found throughout the broader Levantine area. In their most phonetically reduced forms (e.g. Soukhne *b-*; Behnstedt 1994), they are often superficially indistinguishable from the highly grammaticalized products of *yabyā ~ yabyī discussed above; several dialects, however, provide clear evidence for a distinct chain of development, such as Jebel Ansariye *baddo* ~ *bado* ~ *b-* (Lewin 1969) and Cilicia *baddu* ~ *baddi-* ~ *bad-* (Procházka 2011). In some varieties, grammaticalizations of *biddu ~ widdu operate alongside other markers of future tense to designate a more specified value: Damascus *bəddo* ~ *b-* is often reported to denote a modal value of possible or planned future, as opposed to the *rāyih- derived forms *rah* ~ *ħa-* which indicate a higher degree of certainty or expectation (cf. Lentin 2011). In other dialects, these forms would appear to have further desemantized and extended to a value of more general futurity. Future investigation is needed into the degree to which reduced reflexes of *biddu may have merged in mental representation with the continuous aspect marker *b-* present in many of the same varieties; relevant parallels might be drawn with scenarios of near homophony like that found in the dialect of Dhofar, in which continuous *bi-* exists alongside future *bā-* (< *yabyā ~ yabyī; Davey 2016).

*yišā:

In a number of Yemeni dialects, the future tense marker may be traced to a grammaticalized form of *yišā ‘want’. It is notable that in cases such as Sana’a *ša-* this form is used only with the first person singular verb (Watson 1993); in such circumstances, it is possible that its ultimate source should be more properly identified with *ašā ‘I want’.

*ydawr:

Varieties belonging to the Ḥassāniyya dialect complex of Mauritania and neighboring Mali are recorded as utilizing a grammaticalized form of the verb *ydawr ‘want’ with a following imperfect verb to denote a value of intentional future. This grammaticalization is relatively light, consisting primarily of desemantization and extension with little in the way of de-categorialization or erosion: Nouakchott *ydo:r*, for example, denotes future intent while continuing to operate morphosyntactically as a fully inflected finite verb (Taine-Cheikh 2011).

*byā:

Dialects of southern Morocco and southwestern Algeria occasionally attest grammaticalized forms of *byā ‘want’ expressing a future tense value. Though lexically similar in origin to the grammaticalizations based on *yabyā ~ yibbā ~ yibbī discussed above, the phonological shape of these items (e.g. Marrakech *bya*: ~ *ba*-; Sánchez 2014) recommends an identification of their source in the perfect stem *byā, which is the typical means for expressing ‘want’ in this area.

2.2.3 Futures from ‘come’ (FUT < COME)

Another cross-linguistically common path of future tense grammaticalization, that involving verbs meaning ‘come, return’ (Bybee et al. 1994; Heine & Kuteva 2002), is represented in the Arabic data by markers originating from a single source etymon, *ʕād ‘return’.

*ʕād: Future tense markers traditionally identified as grammaticalized forms of *ʕād ‘return’ are attested in three locations in the cross-dialectal survey: Yemen, Upper Egypt and interior Tunisia. The forms found in Tunisia and Egypt, Tozeur *ʕa*- and Aswan *ʕa*- (Saada 1984; Schroepfer 2019), are highly reduced, and thus difficult to ascribe definitively to a specific source. It is notable that in both of these dialects the markers in question vary with a ‘go’-derived future *ha*- and could thus plausibly represent an erosion of the latter in the form of a sporadic lenition of /ħ/ > /ʕ/ (not to mention that Aswan *ʕa*- on its own might be linked to local *ʕāyiz* ~ *ʕāwiz* ‘want’). At least in the case of the Yemeni forms, however, an origin in *ʕād seems clear, as reduced forms such as Sana’a *ʕā*- display an allomorph *ʕad*- in prevocalic contexts (Watson 1993).

2.2.4 Futures from purposive constructions (FUT < PURP)

A further source of future tense markers in the Arabic data involves the grammaticalization of purposive operators. This path is not widely discussed in the cross-linguistic grammaticalization literature, though intriguingly the reverse trajectory, that of PURP < FUT, is noted (Bybee et al. 1994). The primary difficulty would seem to rest in the identification of a clear process of desemanticization, as it is difficult to judge precisely which function between FUT and PURP is more concrete/abstract than the other. Despite this, the occurrence of extension, decategorialization and erosion in the Arabic forms seems to recommend their identification as products of a grammaticalization process.

*ḥattā:

Grammaticalizations of *ḥattā ‘in order to’ are used to indicate future tense in areas of northern Mesopotamia, the coastal Levant, and Oman. In terms of geographic distribution and the specific path of phonetic erosion followed, it may be possible to recognize Levantine and Mesopotamian forms like Cypriot Maronite *tta-* and Mosul *dā-* (Jastrow 1979; Borg 1985) as representing a single historical innovation, though Oman *ḥa-* ~ *ha-* is more likely an independent development. In the Omani case, the attested use of *ḥa-* with purposive meaning recommends a source in *ḥattā rather than GO-future *rāyih: *šrab ḥa-turwe!* ‘Drink so your thirst be quenched!’ (Reinhardt 1894: 276).

2.2.5 Futures from ‘to busy oneself with’ (FUT < VERB OF ACTIVITY/PREPARATION)

A small number of Arabic dialects utilize a future tense marker seeming to derive from a grammaticalized form of a verb meaning ‘to busy oneself’. Such a path of development is not discussed in the cross-linguistic literature on grammaticalization, but perhaps has a counterpart in the use of grammaticalized Southern American English *fixing to* ~ *fixin’ a* ~ *fi’na* to express proximate futurity (cf. Wolfram & Schilling-Estes 1998). In any case, obvious desemanticization, extension, decategorialization and erosion of the source form indicate a clear example of grammaticalization here.

*lāhi:

In the Ḥassāniyya dialects of Mauritania, Mali and far southern Morocco, the future tense marker derives from a grammaticalized form of *lāhi, itself the active participle form of the verb *lha* ‘to busy oneself’. Decategorialization is attested in all cases by the lack of adjectival agreement marking predicted for the original participial, and in at least some varieties phonetic erosion is evidenced as well: Mali *lāhi* ~ *lā* (Heath 2003).

2.3 Evidence of replication and diffusion via contact

Of the five grammaticalization paths for Arabic future markers presented above, two merit closer examination in the search for evidence of CIG: those of FUT < GO and FUT < WANT. These paths are identified due to the fact that each is represented in the data by multiple, parallel realizations arising from etymologically distinct but semantically and functionally analogous sources. Such a state of

affairs plausibly reflects the result of continued processes of replication, whereby a grammaticalization process occurring in one Arabic variety is transferred to another and recreated using native etymological material.

Both paths identified, however – together representing the great majority of future tense markers attested in the sample – are also extremely common cross-linguistically, and could, in principle, have fed multiple independent developments instantiated across the modern Arabic dialect continuum. Key to selecting between an analysis of CIG and one of repeated, internally-motivated grammaticalization is the factor of geography, as in the absence of fine-grained historical sociolinguistic data (see §1.3) this is perhaps the most reliable proxy in positing the feasibility of historical contact between dialects. In the case of CIG, analogous grammaticalization processes ought to be positioned in a geographically contiguous (or near contiguous) bloc, consistent with a history of diffusion via contact between speakers of neighboring dialects. In a scenario of independent development, on the other hand, one should expect the various grammaticalizations to be more or less randomly distributed across the map, equally likely to occur in any individual dialect considered.

The geographic incidences of the members of the FUT < GO and FUT < WANT paths both clearly align with the contiguous profile anticipated for the results of CIG. All realizations of FUT < GO future tense markers described connect geographically with other members of the bloc. The large eastern and central zone of *rāyih futures, encompassing southern Mesopotamia, much of the Levant, and the Nile Valley, stretches westward across Libya (where *rāyih-derived forms are recorded alongside *yibbi-based WANT-futures) to include most of Algeria. Directly adjacent to this North African arm of the *rāyih forms are found grammaticalizations of *yādī in Morocco and of *māšī in Tunisia. Further neighboring or co-territorial with the latter two areas are a second set of *māšī-based forms in northern Morocco and the Maltese *sāyir-derived future tense marker, thus completing the connected geographic trend. Future markers representing the path FUT < WANT display a similar spatial contiguity. Grammaticalizations of *biddu ~ widdu in the Levant stretch to reach those of *yabyā ~ yabyī present in the Arabian Peninsula. These in turn span the Red Sea across to the greater Sudanic area and northward through the central Sahara into Libya. Moving to the west and southwest of this zone, the next future markers encountered include grammaticalizations of *byā and *ydawr, respectively. Rounding out the set, forms derived from *yišā exist in close proximity to analogous *yabyā ~ yabyī futures in Yemeni territory. While the integrity of this WANT-future bloc may seem to be challenged by natural features such as the Red Sea and the Sahara Desert, historical and anthropological investigations of the regions in question have rather

shown persistent social and cultural connectivity across these would-be barriers (Lydon 2009; Power 2012). This evaluation is supported by the distribution of additional Arabic dialectological isoglosses extending beyond the discussion of CIG.

The geographic contiguity displayed by the representatives of both the FUT < GO and FUT < WANT pathways favors an interpretation of areal diffusion over one of independent, internally motivated occurrence (of the type perhaps evidenced by the more scattered distributions of the sole representatives of FUT < COME and FUT < PURP). The optimal account for the development of the modern Arabic GO- and WANT-futures, together representing the greater part of future tense markers attested in the data, is thus one by which grammaticalization processes leading to the development of new future tense markers have repeatedly been subject to transfer and replication between speakers of neighboring dialects. A CIG-driven analysis such as this has the benefit of accounting for both the development of individual dialect forms and more global trends in source semantics and geographic incidence, and offers a theoretically unified interpretation of the Arabic data obtaining on multiple scales.

3 Conclusion

The analysis summarized above has demonstrated the significant explanatory power of CIG as an account for the development of Arabic future tense markers. Additional proposed occurrences of CIG between Arabic dialects, pertaining to genitive exponents and temporal adverbs meaning ‘now’, are identified and examined in Leddy-Cecere (2018). Together with the future tense data discussed here, these call for corroboration and refinement at the hands of future investigators.

Should further examination provide evidence for a widespread history of CIG between Arabic dialects, this finding could prove instrumental in satisfactorily accounting for a number of so-called “pluriform” developments which have repeatedly vexed students of Arabic dialectology. Defined by Versteegh as functionally analogous but etymologically disparate developments for which “a general trend ... has occurred in all Arabic dialects, and an individual instantiation of this trend in each area,” dialect contact has most often been dismissed as a causal mechanism for these innovations due to a belief that “typically dialect contact leads to the borrowing of another dialect’s markers, not to the borrowing of a structure, which is then filled independently” (2014: 146). CIG provides a theoretical mechanism by which precisely such borrowing and filling may occur, and as such offers the dialectologist a novel analytical tool in the elucidation of structural transfer and diffusion between Arabic varieties.

A critical open question in the application of CIG to the Arabic context, as well as in study of the phenomenon more generally, lies in the problem of agentivity and actuation (as discussed in §1.3). Here, too, further accrual of Arabic data has the potential to inform broader domains of inquiry. If Arabic is established as a productive ground for the study of CIG and significant cases of the historical transfer of grammaticalization pathways between dialects are brought to light, it stands to reason that the same societal and linguistic forces which have motivated these to take place may still be in force, and that observation of synchronic Arabic dialect interaction represents a singular opportunity to catch newly occurring instances of CIG “in the act” and to observe their progress in real time (for at least one such attempt already presented, see Abuamsha 2016). Studies of this type will enable linguists to add critically lacking synchronic data to their sociolinguistic and psycholinguistic analyses of CIG, and so elaborate and strengthen ongoing theorizations of a revelatory new dimension of contact-induced language change.

Further reading

For a complete theoretical discussion of contact-induced grammaticalization, see Heine & Kuteva (2003; 2005). The former work is an article-length sketch of the proposal and is valuable as a direct and concise reference, while the latter provides a more elaborated description with additional linguistic examples. Matras (2009) provides valuable commentary and critique of Heine & Kuteva’s work while simultaneously extending exploration to the psycholinguistic and sociolinguistic dimensions of CIG.

For an overview of grammaticalization processes in the development of Arabic future tense markers (though without reference to contact) see Stewart (1998). A more detailed treatment of CIG processes in the development of the Arabic future markers and other morphosyntactic features may be found in Leddy-Cecere (2018).

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Abbreviations

CIG	contact-induced grammaticalization	PL	plural
F	feminine	PURP	purposive
FUT	future	RL	recipient language
invar.	invariant	SG	singular
M	masculine	SL	source language

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Chapter 29

Contact and calquing

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The notion of calquing refers to the transfer of semantic and syntactic patterns deprived of morphophonological matter. By providing examples of lexical and grammatical calques in a number of Arabic dialects and Arabic-based contact languages, this chapter identifies ways to relate the process of calquing to Van Coetsem's psycholinguistic principle of language dominance.

1 Introduction

In its simplest definition, CALQUING is a type of contact-induced change in which a word or sentence structure is transferred without actual morphemes (Thomason 2001: 260). Calques are sometimes called loan translations, as they typically represent a word-by-word (or morpheme-by-morpheme) translation of a lexeme or a sentence from another language. Heath (1984: 367) labels this process “pattern transfer” and distinguishes it from “matter borrowing” which is instead linked to the integration of morphophonological material. Ross (2007), for his part, points out that that calquing can also have important grammatical effects, and he considers it a necessary precondition for contact-induced morphosyntactic restructuring (what Ross calls “metatypy”).

Broadly speaking, we can distinguish two types of calquing: lexical calquing, which entails the transfer of semantic properties of lexical items, and grammatical calquing, which instead implies the transfer of the functional properties of morphemes and syntactic constructions. Using Ross's words (2007: 126), lexical calquing consists of remodelling lexical “ways of saying things”, whereas grammatical calquing consists of remodelling grammatical “ways of saying things”. Despite this fundamental difference, lexical and grammatical calquing share a



single cause: bilingual speakers' need to express the same meaning in two languages (Sasse 1992: 32). This also means that everything that expresses meaning (i.e. morphemes, lexemes, and constructions) can, in principle, be a source of calquing.

Focusing mainly on the transfer of linguistic matter, Van Coetsem (1988) does not overtly mention the possibility of transfer of lexical and grammatical meanings through calquing. The present chapter thus aims at relating contact-induced changes produced by calquing to the principle of language dominance as postulated by Van Coetsem.

2 Contact-induced changes and calquing

2.1 Lexical calquing

According to Haspelmath (2009: 39), a lexical calque is a lexical unit that was created by an item-by-item translation of the source unit. This type of contact-induced change occurs as bilingual speakers reorganise the lexicon of one of their languages to match the semantic organisation of the other (Ross 2007: 132). Adopting the psycholinguistic standpoint of language dominance, Winford (2003: 345) regards lexical calquing as a subtype of lexical borrowing, which is a combination of recipient language (RL) lexemes in imitation of source language (SL) semantic patterns. In contrast, I will show that, though lexical calquing can easily be triggered by RL-dominant speakers, it can also be a product of imposition via SL agentivity. In order to do this, I will mainly focus on calquing of compound nouns. A compound noun is here defined as a series of two or more lexemes, which is semantically conceived as a single unit. Each component of the compound can function as a lexeme independent from the other(s), and may show some phonological and/or morphological constraints within the compound when compared to its isolated syntactic usage (Bauer 2001). Against this backdrop, I will specifically discuss noun-noun compounds, as they represent the more uniform phenomenon of nominal compounding in the world's languages Pepper (forthcoming). As we will see, the transfer of the semantics of compound nouns does not imply any morphosyntactic change in Arabic, as calqued compounds are typically adjusted to fit RL morphosyntactic patterns.

Generally speaking, lexical calquing through borrowing can occur in indirect contact situations characterized by a very low degree of bilingualism. This is because RL monolinguals can also be agents of lexical borrowing (Van Coetsem 1988: 10). Typical instances of lexical calquing via RL agentivity are related to the transfer of the semantic patterns of English compound nouns in modern Arabic

dialects. This kind of transfer is linked to the expansion of the non-core Arabic lexicon for expressing previously unknown concepts. A prime example is the English calque *lōhit il-mafatīh* ‘keyboard’ (lit. ‘the board of keys’) in Egyptian Arabic (Wilmsen & Woidich 2011: 9). Here, it can be clearly seen that the transfer of the semantic organization of the SL compound noun does not affect the morphosyntax of the RL, as the word order of the English nominal juxtaposition is reversed to fit the Arabic construct state.

Lexical calquing can also take place in prolonged contact situations, as testified by numerous Italian compounds in Maltese. A singular case of mixed calquing is that of *wicċ tost* ‘shameless person’ (lit. ‘tough face’) deriving from the Italian compound *faccia tosta* ‘shameless person’ (lit. ‘tough face’) (Aquilina 1987). On the one hand, the first lexical item of the compound presents an Arabic phonological form while expressing semantic properties associated with the lexeme ‘face’ in Italian. On the other hand, the second lexical item clearly results from the borrowing of the adjective *tosto* ‘hard, tough’ retaining both the Italian phonological matter and semantic properties. The mixed nature of this compound brings to the fore the complementary relationship between RL and SL agentivity and shows that it is not always a trivial matter to distinguish between imposition and borrowing. However, Maltese also gives evidence of genitive compounds in which both lexical components have an Arabic phonological form coupled with Italian semantic properties. This is the case of the compound nouns *saba’ ta’ sieq* ‘toe’ calqued on the Italian *dito del piede* ‘toe’ (Pepper forthcoming). Such instances of lexical calquing clearly mirror semantic properties of SL lexemes and they most plausibly result from borrowing via RL agentivity (cf. Lucas & Čeplö, this volume).

Ḥassāniyya Arabic, for its part, presents many compound nouns that are traditionally analysed in terms of substratum interference from Zenaga Berber (Taine-Cheikh 2008; 2012). Also in this case, the transfer of the semantic properties of the SL does not produce any morphosyntactic change in Arabic, as we can see in the pairs of examples in (1) and (2).

- (1) a. Ḥassāniyya Arabic (Taine-Cheikh 2008: 126)
 kɾaʃ lə-ɣɾab
 foot DEF-crow
 ‘aquatic herbaceous plant’ (lit. ‘crow’s foot’)
- b. Zenaga Berber (Taine-Cheikh 2008: 126)
 aḏaʔɾ ən tayyaʃ
 foot GEN crow
 ‘aquatic herbaceous plant’ (lit. ‘crow’s foot’)

- (2) a. Ḥassāniyya Arabic (Taine-Cheikh 2008: 126)
sayllāl lə-ʕrāgib
ripper DEF-ankle.PL
'honey badger' (lit. 'ripper of ankles')
- b. Zenaga Berber (Taine-Cheikh 2008: 126)
aməssäf ən ũrʒan
ripper GEN ankle.PL
'honey badger' (lit. 'ripper of ankles')

Taine-Cheikh (2008: 126) stresses that it is somewhat difficult to trace back the origin of these compounds. Accordingly, she speaks of a process of convergence between the two languages, rather than determining the direction of the semantic transfer. However, it should be observed that these compound nouns are not attested in other spoken varieties of Arabic. Furthermore, since at least the mid-twentieth century, Berbers in Mauritania have been gradually losing competence in Zenaga, in favour of Arabic (Taine-Cheikh 2012: 100), while Zenaga is rarely acquired as second language by Ḥassāniyya Arabic speakers. In such a context, the most probable agents of contact-induced change were former Berber-dominant speakers who gradually shifted to Arabic. Thus, it seems plausible that the transfer of the semantic properties of Zenaga compounds has been achieved through imposition, rather than through borrowing.

Nigerian Arabic also shows interesting instances of lexical calquing as a consequence of a longstanding contact with Kanuri, a Nilo-Saharan language widely spoken in the Lake Chad area. Owens (2015; 2016) gives evidence of the transfer of the semantic properties of numerous compound nouns including the lexeme *rās* 'head'. Similar to the previous instances of compound calquing, the integration of Kanuri semantic patterns does not affect the Arabic morphosyntax, as we can see in the pairs of examples in (3) and (4).

- (3) a. Nigerian Arabic (Owens 2016: 69)
rās al-bēt
head DEF-house
'roof' (lit. 'head of house')
- b. Kanuri (Owens 2016: 69)
kəla fato-be
head house-GEN
'roof' (lit. 'head of house')

- (4) a. Nigerian Arabic (Owens 2016: 65)
 řās al-qalla
 head DEF-corn
 ‘tassel’ (lit. ‘head of corn’)
- b. Kanuri (Owens 2016: 65)
 kəla argəm-be
 head corn-GEN
 ‘tassel’ (lit. ‘head of corn’)

According to Owens (2016: 65), Kanuri–Arabic bilingualism, with Arabic being a minority language, would have been the foremost factor underlying the transfer of these compound nouns into Nigerian Arabic. He further stresses that Kanuri is the main source of compound nouns in a number of other minority languages in the area (e.g. Kotoko, Glayda, and Fulfulde) and that there is little evidence of Kanuri to Arabic shift in the region (Owens 2014: 147). However, the fact that Kanuri represents the majority language of northeastern Nigeria, does not shed light on the transfer mechanism lying behind lexical calquing in Nigerian Arabic. This is because speakers can be linguistically dominant in a socially subordinate language (Winford 2005: 376). In fact, such contact settings are closely tied to SL agentivity, as the youngest bilingual generations tend to impose semantic features from their dominant language (i.e. Kanuri) onto the ancestral language (i.e. Arabic). It is only at a later stage that these innovations are borrowed by older bilingual speakers who are still dominant in Arabic.

The fact that Nigerian Arabic speakers have gradually developed a high bilingual proficiency in Kanuri is also testified by the transfer of a number of idiomatic expressions. In this regard, Ross (2007: 122) observes that calquing of meaning is not only reflected in word compounding, but also in lexical collocations of idiomatic expressions. These are combinations of lexical items that are semantically idiosyncratic as they have a pairing of form and meaning that cannot be predicted from the rest of the grammar. The pair of examples in (5) provide evidence of an idiomatic Kanuri calque in Nigerian Arabic.

- (5) a. Nigerian Arabic (Ritt-Benmimoun et al. 2017: 77)
 řuqul řāl řās-i
 something carry.PRF.3SG.M head-OBL.1SG
 ‘Something distracted me.’ (Lit. ‘Something carried my head.’)
- b. Kanuri (Ritt-Benmimoun et al. 2017: 77)
 awode kəla gō-zə-na
 something head carry-3SG-PRF
 ‘Something distracted me.’ (Lit. ‘Something carried head.’)

Given that idiomatic expressions are syntactically compositional (i.e. their lexical components behave syntactically as they do in non-idiomatic expressions), it is not only the meanings expressed by the lexeme ‘head’ which correspond between Nigerian Arabic and Kanuri, but also their idiomatic collocations, which align between the two languages (Owens 2014: 157). Besides, it is worth noting that also idiomatic expressions are adjusted to fit RL morphosyntactic patterns. This is evidenced by the inalienable possession of body parts in Nigerian Arabic (*rās-i* ‘my head’), which is instead unattested in the SL (*kəla* ‘head’). Even if we cannot exclude the possibility that these kinds of calques are a product of borrowing, it is evident that their integration needs a high proficiency in the SL for individuating the single idiomatic collocations of lexical items. Furthermore, differently from borrowed calques, imposed idiomatic expressions can significantly affect the lexical semantics of the RL created by SL-dominant bilinguals, and thus produce grammatical changes in the long run.

Finally, lexical calquing via SL agentivity can also take place in extreme contact situations such as creolization. For instance, Juba Arabic, the Arabic-based pidgincreole spoken in South Sudan, shows numerous calques in which Arabic-derived lexemes are compounded according to the semantic patterns of Bari, the main substrate language of Juba Arabic (Nakao 2012; Manfredi 2017: 50; Avram, this volume) As we can see in (6) and (7), the word order in Juba Arabic compounds follows the order of Bari compounds. However, this cannot be seen as an innovative morphosyntactic development, as the possessed–possessor order matches also with the Arabic lexifier.

- | | | |
|-----|---|---|
| (6) | a. Juba Arabic (Nakao 2012: 136)
éna ta séjera
eye GEN tree
‘fruit’ (lit. ‘eye of tree’) | b. Bari (Nakao 2012: 136)
koŋe lo-ködini
eye GEN-tree
‘fruit’ (lit. ‘eye of tree’) |
|-----|---|---|

- | | | |
|-----|--|--|
| (7) | a. Juba Arabic (Nakao 2012: 137)
ída ta fil
hand GEN elephant
‘trunk’ (lit. ‘hand of elephant’) | b. Bari (Nakao 2012: 137)
könin lo-tome
hand GEN-elephant
‘trunk’ (lit. ‘hand of elephant’) |
|-----|--|--|

Given that the asymmetric contact situation leading to creole formation limits access to the superstrate language (i.e. Sudanese Arabic), the semantic patterns of substrate languages (i.e. Bari) can be easily carried over into the creole in ways peculiar to imposition via SL agentivity.

All things considered, unlike lexical borrowing, lexical calquing allows for a semantic overlapping of RL and SL lexical entries and it can also produce important structural changes.

2.2 Grammatical calquing

Grammatical calquing brings about a match between the grammatical categories of two languages and the memberships of these categories (Ross 2007: 132). Heine & Kuteva (2005) suggest that the grammatical changes induced by calquing can be better analysed in terms of contact-induced grammaticalization (cf. Leddy-Cecere, this volume). In fact, the calquing of the semantic properties of lexical and grammatical items may lead to the grammaticalization of innovative syntactic structures in the RL matching with those of the SL. From the traditional sociohistorical perspective of contact-induced change (Thomason & Kaufman 1988), grammatical calquing is basically seen as a product of language shift. In contrast, Ross (2007: 131) argues that grammatical calques can widely occur in situations of language maintenance. Actually, the different grammatical outputs of calquing mainly depend on the way in which they are transferred from the SL into the RL and, by extension, on different kinds and degrees of bilingualism.

For the purposes of this chapter, I distinguish between three different types of grammatical calquing:

1. Calquing of polyfunctionality of lexical items without syntactic change;
2. Calquing of polyfunctionality of grammatical items leading to syntactic change;
3. Narrow syntactic calquing (without calquing of polyfunctionality of lexical/grammatical items).

Being lexical in nature, the first of these three types of grammatical calquing can be triggered by both imposition via SL agentivity and borrowing via RL agentivity, whereas the two latter types are likely to result only from imposition via SL agentivity.

Calquing of polyfunctionality patterns of lexical items is by far the most common type of grammatical calquing, and it can be exemplified by the comparison of reflexive anaphors in different Arabic dialects. As is well known, Classical and Standard Arabic express a reflexive meaning either by means of agent-oriented derived verbs lacking an overtly expressed patient (e.g. *istaḥamma* ‘he washed himself’) or by anaphoric constructions in which the syntagm *nafs-PRO.POSS*

‘soul-PRO.POSS’ marks coreferentiality between the agent and the patient of the predicate (e.g. *qatala nafsa-hu* ‘he killed himself’). Nevertheless, as a result of contact with different languages, a number of modern Arabic dialects have grammaticalized other lexical sources for expressing a reflexive meaning. Western Maghrebi dialects are a case in point. As we can see in (8)–(9), both Moroccan and Ḥassāniyya Arabic have grammaticalized the nominal syntagm *ṛās=PRO.POSS* ‘head-PRO.POSS’ as default reflexive anaphor.

- (8) Moroccan Arabic (D. Caubet, personal communication)

qtəl ṛās-o
kill.PRF.3SG.M head-3SG.M

‘He killed himself.’ (Lit. ‘He killed his head.’)

- (9) Ḥassāniyya Arabic (Taine-Cheikh 2008: 16)

ktəl ṛāṣ-u
kill.PRF.3SG.M head-3SG.M

‘He killed himself.’ (Lit. ‘He killed his head.’)

This reflexive use of the lexeme ‘head’ has generally been interpreted as substrate interference from Berber languages (El Aissati 2011: 197), in which the same grammaticalization path is attested, as shown in the following examples from Tarifiyt and Zenaga:

- (10) Tarifiyt Berber (Kossmann 2000: 95)

yətšaθ iḥəf nnəs
beat.PRF.3SG.M head POSS.3SG.M

‘He beats himself.’ (Lit. ‘He beats his head.’)

- (11) Zenaga Berber (Taine-Cheikh 2008: 126)

yəʔna iʔf-ən-š
kill.PRF.3SG.M head-GEN-3SG.M

‘He killed himself.’ (Lit. ‘He killed his head.’)

Lexemes for ‘head’ are the second most common source of grammaticalization of reflexive anaphors worldwide (König et al. 2013) and its occurrence is particularly common in West Africa (Heine 2011: 50). In this scenario, it should be stressed that the reflexive function of the lexeme ‘head’ is an innovative feature of both Arabic and Berber varieties of northwestern Africa. Other Berber languages typically use the reflexive anaphor *iman-POSS* ‘soul-POSS’, as we can see in the following example from Kabyle.

- (12) Kabyle (Mettouchi 2012)
 n-səlk-dd iman-ntəy
 1PL-sparg.PRF-PROX soul.ABS.SG.M-POSS.1PL.F
 ‘We saved ourselves.’

In addition, the known Arabic–Berber contact situation, in which second language acquirers of Berber only played a marginal role in triggering contact-induced change in Arabic, suggests that the contact induced grammaticalization of ‘head’ in westernmost Arabic dialects resulted from an imposition enacted by former Berber-dominant speakers.

A similar instance of calquing in the domain of anaphoric reflexive constructions is found in Kordofanian Baggara Arabic, a Western Sudanic dialect spoken in the Nuba Mountains area, in central Sudan. In this case, the source of the reflexive anaphor is the lexeme for ‘neck’, as we can see in (13).

- (13) Kordofanian Baggara Arabic (Manfredi 2010: 176)
 abrahīm gaṣṣa ragabt-a
 Ibrahim cut.PRF.3SG.M neck-3SG.M
 ‘Ibrahim cut himself.’ (Lit. ‘Ibrahim cut his neck.’)

Different from ‘head’, the grammaticalization of ‘neck’ as a reflexive anaphor is quite rare in Africa (Heine 2011: 50), but it is attested in a number of Niger-Kordofanian languages spoken in the same region. Such is the case of Tagoi (14) and Koalib (15).

- (14) Tagoi (Alamin 2015: 26)
 t-ágám t-ùrúŋ ínní
 NC-neck NC-POSS.3 kill.PRF.3
 ‘He killed himself.’ (Lit. ‘He killed his neck.’)
- (15) Koalib (N. Quint, personal communication)
 èŕnyé r-ókwɾè r-ùŋwún
 kill NC-neck NC-POSS.3
 ‘to kill oneself’ (lit. ‘to kill one’s neck’)

Similarly to the situation described with reference to western Maghrebi dialects, Arabic-speaking groups in the Nuba Mountains have hardly developed any bilingual competence in local Niger-Kordofanian languages. Therefore, it seems likely that the calquing of the polyfunctionality patterns of ‘neck’ has been imposed by Arabized populations who were dominant in the SL.

Maltese also provides remarkable examples of calquing of polyfunctionality of lexical items. This is particularly evident in the domain of auxiliary verbs (Vanhove 1993; Vanhove et al. 2009). A well-known example is that of the lexical verb *gie* ‘come’ used as an auxiliary for expressing a dynamic passive (16) in the same way as Italian (17).

- (16) Maltese (Borg & Azzopardi-Alexander 1997: 214)
it-tabib gie afdat bi-l-każ
DEF-doctor come.PRF.3SG.M trust.PTCP.PASS with-DEF-case
‘The doctor was entrusted with the case.’ (Lit. ‘The doctor came entrusted with the case.’)
- (17) Italian (own knowledge)
non venne creduto
NEG come.PST.3SG.M trust.PTCP.PST
‘He was not trusted.’ (Lit. ‘He did not come trusted.’)

Even if imposition played a role in the emergence of Maltese (Lucas & Čeplö, this volume), it is generally accepted that intertwined languages emerge mainly from a widespread process of borrowing in Van Coetsem’s terminology (Winford 2005: 397; Manfredi 2018). This suggests that, unlike the aforementioned grammaticalization of reflexive anaphors in Arabic dialects, the calquing of polyfunctionality of lexical verb ‘come’ in Maltese was most likely triggered by agentivity of RL dominant speakers.

Regardless of the different contact situations, what unites all the previous instances of grammatical calquing is the fact that the transfer of patterns of grammaticalization did not produce any syntactic change in Arabic. In contrast to the above, the calquing of polyfunctionality of grammatical items can be accompanied by important typological changes. This is the case of the grammaticalization of prototypical passive constructions in Juba Arabic (Manfredi 2017: 92; 2018: 415). As we can see in (18), the South Sudanese pidgincreole presents an innovative passive construction in which the patient occupies the syntactic slot of a preverbal subject, whereas the oblique-marked agent is introduced by the comitative preposition *ma-* ‘with’.

- (18) Juba Arabic (Manfredi 2017: 86)
bab de kasurú ma-jón
door PROX.SG break.PASS with-John
‘This door has been broken by John.’ (Lit. ‘This door has been broken with John.’)

Interestingly, this prototypical passive construction is not attested in the lexifier language of Juba Arabic (i.e. Sudanese Arabic), which instead makes use of impersonal passive constructions with a default 3PL.M subject.

- (19) Sudanese Arabic (own knowledge)
 kassaru-hu
 break.PRF.3PL.M-3SG.M
 ‘It got broken.’ (Lit. ‘They have broken it.’)

Indeed, the grammaticalization of this complex syntactic structure is the result of the calquing of the functional properties associated with the comitative preposition of the main substrate language, Bari. Bari presents the same kind of prototypical passive construction in which an oblique-marked agent is introduced by the preposition *ko-* ‘with’.

- (20) Bari (Owen 1909: 65)
 niena wuret a-wur-ö ko-nan
 PROX.SG book 3SG.PST-write-PASS with-1SG
 ‘This book has been written by me.’ (Lit. ‘This book has been written with me.’)

If we assume that the emergence of creole languages is always induced by the disruption of the transmission of the lexifier language (Comrie 2011), we can conclude that Bari speakers have imposed the semantics of their dominant language on a grammatical item derived from Arabic, and thus induced profound changes in the word order of the creole when compared to its lexifier language.¹ In light of the above, the contact dynamics lying behind the calquing of polyfunctionality of grammatical items are quite restrictive as they are most likely a product of imposition via SL agentivity.

The third kind of grammatical calquing is linked to the transfer of syntactic patterns without transfer of polyfunctionality of either lexical or grammatical items. This narrow type of syntactic calquing can be exemplified by possessor doubling in Central Asian Arabic (Ratcliffe 2005). Clitic doubling is a construction in which a clitic co-occurs with a full nominal phrase in argument position, forming a discontinuous constituent with it. Various forms of clitic doubling have arisen in a number of Arabic varieties as a result of contact with different substrate/adstrate languages (Souag 2017). In regard to possessive constructions, Arabic typically presents a possessed–possessor order. In contrast, Central Asian Arabic (21) gives evidence of the opposite order with obligatory possessor doubling in the same way as Tajik (22).

¹This kind of syntactic change accompanied by the calquing of semantic properties of substrate items in creole languages is traditionally labelled “relexification” (Lefebvre 1998).

- (21) Central Asian Arabic (Ratcliffe 2005; Souag 2017: 56)

amīr wald-u
prince son-3SG.M
'the prince's son'

- (22) Tajik (Souag 2017: 56)

buḥoro universitet-aš
Bukhara university-3sg
'Bukhara University'

Souag (2017: 157) states that double possessor constructions in Central Asian Arabic are instances of grammatical calquing, accommodated through the re-interpretation of pre-existing topicalized constructions. This means that, unlike the syntactic changes induced by the calquing of polyfunctionality of morphemes, the emergence of double possessor constructions in Bukhara Arabic would have been favoured by a formal congruence between SL and RL syntactic structures. As such, this instance of contact-induced morphosyntactic restructuring (metatypy) does not derive from a direct copying of a double possessor construction. Rather, it consists in speakers expressing a possessive meaning in Arabic by using a construction which they equate with the construction in adstratal languages (Ross 2007: 128). If we consider that the youngest speakers of Central Asian Arabic are gradually losing competence in their ancestral language in favour of socially dominant languages (Chikovani 2005: 128), it is plausible to assume that this kind of syntactic restructuring can only be a result of imposition via SL agentivity. Still, given our limited diachronic knowledge, we cannot exclude the hypothesis of an early process of borrowing enacted by former Arabic-dominant speakers.

3 Conclusion

Van Coetsem (1988: 20) suggests that the variable outcomes of language contact are primarily a reflex of the “stability gradient” of language, which induces speakers to preserve the domains of their dominant language that are less affected by change. As lexicon is the most unstable linguistic domain, it is likely to be transferred via RL agentivity. In contrast, morphosyntax and phonology are considered to be relatively stable domains and they are expected to be transferred only via SL agentivity. Against this background, it is unclear how the transfer of semantic features deprived of morphophonological matter should be understood in relation to the linguistic dominance of the agents of contact-induced change.

If we look at the previously analysed instances of lexical calquing (§2.1), it is evident that the transfer of the semantic features of nominal compounds can take place within speech communities with a very low degree of bilingualism, as in the case of Egyptian-Arabic-dominant speakers borrowing the semantics of English compounds. But it is also true that compound calquing can be a product of imposition resulting from ongoing language shift or pidginization, and the transfer of semantic features of single lexical items within idiomatic expressions always requires a widespread proficiency in the SL, as in the case of Arabic-Kanuri bilingualism in northern Nigeria.

As far as grammatical calquing is concerned (§2.2), I have shown that calquing of the polyfunctionality of lexical items can be triggered either by imposition, as in the case of substrate interference in Ḥassāniyya and Baggara dialects, or by borrowing in the emergence of intertwined languages such as Maltese. Calquing of polyfunctionality of grammatical items, for its part, requires a higher degree of linguistic abstraction for the identification of a functional overlap between morphemes. Accordingly, this type of transfer will typically occur via imposition by SL-dominant speakers in deep contact situations such as creolization. In the same manner, narrow syntactic calquing requires high bilingual proficiency, as it necessitates the recognition of some formal congruence between the SL and the RL, as shown by the emergence of possessor doubling in Central Asian Arabic.

To stay somewhat in line with the stability gradient principle, we could argue that, in absence of the transfer of linguistic matter, the semantic properties of morphemes and syntactic constructions are more stable than those of lexical items. However, such a generalization would be misleading without an in-depth knowledge of the sociolinguistic circumstances underlying a specific instance of second language acquisition (i.e. symmetric bilingualism, asymmetric bilingualism, multilingualism, pidginization/creolization). Thus, it becomes evident that the recognition of different patterns of bilingualism within the same community remains the only way to identify the transfer type at play in a given contact situation, regardless of its different structural outputs.

Drawing on the available literature, this chapter has surveyed only a few instances of calquing induced by contact between Arabic and other languages. This is mainly because we lack information about calquing in dialect contact situations. Indeed, it is regrettable that studies dealing with dialect contact and new dialect formation are still exclusively focused on the diffusion of few lexical and morphophonological features, while disregarding the transfer of semantic and syntactic patterns. Fine-grained analyses of semantic changes induced by dialect contact thus remain a major desideratum for the development an aggregate variationist Arabic dialectology.

Further reading

- ▶ Keesing (1988) adopts the notion of calquing and describes the transfer of semantic properties of Oceanic morphemes in Melanesian Pidgin.
- ▶ Meyerhoff (2009) focuses on the notions of replication, transfer, and calquing, thereby strengthening connections between variationist sociolinguistics and contact linguistics.
- ▶ Zuckermann (2009) provides numerous instances of calquing in Modern Hebrew and analyses them in the light of the Congruence Principle.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person	POSS	possessive pronoun
DEF	definite article	PRG	pragmatic marker
F	feminine	PRF	perfect (prefix conjugation)
GEN	genitive	PRO	pronoun
M	masculine	PROX	proximal
NC	noun class	RL	recipient language
OBL	oblique	REFL	reflexive
PASS	passive	SG	singular
PST	past	SL	source language
PL	plural	ABS	absolute state

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Chapter 30

Contact and the expression of negation

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This chapter presents an overview of developments in the expression of negation in Arabic and a number of its contact languages, focusing on clausal negation, with some remarks also on indefinites in the scope of negation. For most of the developments discussed in this chapter, it is not possible to say for certain that they are contact-induced. But evidence is presented which, cumulatively, points to widespread contact-induced change in this domain being the most plausible interpretation of the data.

1 Overview of concepts and terminology

1.1 Jespersen's cycle

Historical developments in the expression of negation have been the subject of increasing interest in the past few decades, with particular attention given to the fact that these developments typically give the appearance of being cyclical in nature. We can date the beginning of this sustained interest to Dahl's (1979) typological survey of negation patterns in the world's languages, in which he coined the term *JESPERSEN'S CYCLE*¹ for what is by now the best-known set of developments in this domain: the replacement of an original negative morpheme with a newly grammaticalized alternative, after a period in which the two may co-occur, prototypically resulting in a word-order shift from preverbal to postverbal negation. The best-known examples of Jespersen's cycle (both supplied, among

¹The name was chosen in recognition of the early identification of this phenomenon by the Danish linguist Otto Jespersen in a (1917) article, though others did identify the same set of changes earlier: Meillet (1912), for example, but also, significantly for the present work, Gardiner (1904), who observed a parallel set of changes in Coptic and Arabic as well as French (cf. van der Auwera 2009).



others, by Jespersen himself in his 1917 work) come from the history of English (1), and French (2).

(1) English (Jespersen 1917: 9)

a. Stage I – Old English

ic **ne** secge
1SG NEG say.PRS.1SG

‘I do not say.’

b. Stage II – Middle English

I **ne** seye **not**.
1SG NEG say.PRS.1SG NEG

‘I do not say.’

c. Stage III – Early Modern English

I say **not**.

(2) French (Jespersen 1917: 7)

a. Stage I – Old French

jeo **ne** di
1SG NEG say.PRS.1SG

‘I do not say.’

b. Stage II – contemporary written French

Je **ne** dis **pas**.
1SG NEG say.PRS.1SG NEG

‘I do not say.’

c. Stage III – contemporary colloquial French

Je dis **pas**.
1SG say.PRS.1SG NEG

‘I do not say.’

More recently, Jespersen’s cycle has come to be the subject of intensive investigation, especially in the languages of Europe (e.g. Bernini & Ramat 1992; 1996; Willis et al. 2013; Breitbarth et al. 2020), but also beyond (e.g. Lucas 2007; 2009; 2013; Lucas & Lash 2010; Devos & van der Auwera 2013; van der Auwera & Vossen 2015; 2016; 2017), with a picture emerging of a marked propensity for instances of Jespersen’s cycle to be areally distributed, as we will see below in the discussion of Jespersen’s cycle in Arabic and its contact languages (§2).

While Jespersen's cycle is the best known, best studied, and perhaps cross-linguistically most frequently occurring set of changes in the expression of negation, two other important types of changes must also be mentioned here: Croft's cycle, and changes to indefinites in the scope of negation.

1.2 Croft's cycle

In a typologically-oriented (1991) article, Croft reconstructs from synchronic descriptions of a range of languages a recurring set of cyclical changes in the expression of negation. Unlike Jespersen's cycle, in which the commonest sources of new negators are nominal elements expressing minimal quantities, such as 'step' or 'crumb', or generalizing pronouns like '(any)thing', CROFT'S CYCLE (named for Croft by Kahrel 1996), involves the evolution of new markers of negation developed from negative existential particles. Croft (1991: 6) distinguishes the following three types of languages:

- Type A: the verbal negator is also used to negate existential predicates.
 Type B: there is a special negative existential predicate distinct from the verbal negator.
 Type C: there is a special negative existential predicate, and this form is also used to negate verbs.

For Type A, Croft (1991: 7) cites the example of Syrian Arabic *mā fī* 'there is not' and *mā baʃref* 'I do not know' among others. For Type B he cites (1991: 9), among other examples, the contrast between the Amharic negative existential *yälläm* (affirmative existential *allä*) and regular verbal negation *a(l)...-əm*. For Type C he cites (1991: 11–12) Manam (Oceanic) among other languages, giving the example in (3).

(3) Manam (Croft 1991: 11–12; Lichtenberk 1983: 385, 499)

a. Verbal negation

tágo u-lónjo
 NEG(.EXS) 1SG.REAL-hear
 'I did not hear.'

b. Negative existential predicate

anúa-lo tamóata tágo [*i-sóaʔi]
 village-in person NEG.EXS [3SG.REAL-EXS]
 'There is no one in the village.'

A number of languages also exhibit variation between two of the types: $A \sim B$, $B \sim C$, and $C \sim A$. This indicates a cyclical development $A > B > C > A$, in which a special negative existential predicate arises in a language ($A > B$), comes to function also as a verbal negator ($B > C$), and is then felt to be the negator proper, requiring supplementation by a positive existential predicate in existential constructions ($C > A$).

While Croft's cycle is less common than Jespersen's cycle, and has not been shown to have occurred in its entirety in the recorded history of any language, I mention it here because recent work by Wilmsen (2014: 174–176; 2016), discussed below in §2.1.2, argues for several instances of Croft's cycle in the history of Arabic.

1.3 Changes to indefinites in the scope of negation

The final major set of common changes to be dealt with here involve indefinite pronouns and quantifiers in the scope of negation. Here too cyclical patterns are commonplace, and these changes have been labelled “the argument cycle” (Ladusaw 1993) or “the quantifier cycle” (Willis 2011). What we find is that certain items, typically quantifiers such as ‘all’ or ‘one’ or generic nouns such as ‘person’ or ‘thing’, are liable to develop restrictions on the semantic contexts in which they can occur, namely what are referred to as either downward-entailing or non-veridical contexts (see Giannakidou 1998 for details and the distinction between the two). In essence, this means interrogative, conditional, and negative clauses, as well as the complements of comparative and superlative adjectives, but not ordinary affirmative declarative clauses. Items that are restricted to appearing in such contexts, such as English *ever* (consider the ungrammaticality of, e.g., **I've ever been to Japan*), are generally termed NEGATIVE POLARITY ITEMS. Often, however, we find negative polarity items whose appearance is restricted to a subset of these contexts, and much the most common restriction is to negative contexts only. Items with this narrower distribution, such as the English degree-adverbial phrase *one bit*, are generally termed strong negative polarity items and those with the wider downward-entailing/non-veridical distribution may be termed weak negative polarity items in contrast.

A commonly recurring diachronic tendency of such items is that they become stronger over time. That is, an item goes from having no restrictions, to being a weak negative polarity item, to being a strong negative polarity item, to eventually being itself inherently negative. The best-known instance of this progression comes from French *personne* ‘nobody’ and *rien* ‘nothing’. These derive from the ordinary, unrestricted Latin generic nouns *persona* ‘person’ and *rem* ‘thing’ and still behaved as such in medieval French, as in (4).

- (4) Medieval French (Hansen 2013: 72; Buridant 2000: 610)

Et si vous dirai une rien.
 and so 2PL say.FUT.1SG INDF.SG.F thing
 ‘And so I’ll tell you a thing.’

In later medieval French they grammaticalized as indefinite pronouns and began to acquire a weak negative polarity distribution, as in the interrogative example in (5).

- (5) Thirteenth-century French (Hansen 2013: 72; Buridant 2000: 610)

As tu rien fet?
 AUX.2SG 2SG anything do.PTCP.PST
 ‘Have you done anything?’

In present-day French these items have become essentially inherently negative, as shown in (6). They can no longer appear in interrogative, conditional or main declarative clauses with an affirmative interpretation (Hansen 2013: 73), though an affirmative interpretation remains possible in comparative complements, albeit largely in frozen expressions, as in *rien au monde* ‘anything in the world’ in (7).

- (6) Contemporary French (Hansen 2013: 68)

Qui t’ a vu? Personne!
 who 2SG.OBJ AUX.3SG see.PTCP.PST nobody
 ‘Who saw you? Nobody!’

- (7) Contemporary French (Hansen 2013: 73)

J’ aime le vin mieux que rien au monde.
 1SG like.PRS DEF.SG.M wine better than anything in+DEF.SG.M world
 ‘I like wine better than anything in the world.’

Note that French *rien* ‘nobody’ and *personne* ‘nothing’, like their equivalents in many other Romance varieties (e.g. Italian *niente* and *nessuno*), are not straightforward negative quantifiers like English *nobody* and *nothing*, even disregarding their behaviour in contexts such as (7). This is because French, like many other languages but unlike Standard English, Standard German, Classical Latin etc., exhibits NEGATIVE CONCORD. This refers to the fact that when two (or more) elements which express negation on their own co-occur in a clause, the result is not logical double negation (i.e. a positive) but a single logical negative, as illustrated in (8).

- (8) Contemporary French (Hansen 2013: 69)
Personne n' a rien dit.
nobody NEG AUX.PRS.3SG nothing say.PTCP.PST
'Nobody said anything.'

Items which have this unstable behaviour are distinguished from straightforwardly negative items by the term *N-WORD* (coined by Laka 1990; see also Giannakidou 2006). We will see in §3 that these distinctions and terminology are helpful in understanding developments in varieties of Arabic and its contact languages that directly parallel those described above for French.

2 Developments in the expression of clausal negation

2.1 Arabic

2.1.1 Synchronic description

One of the most striking ways that a number of spoken Arabic varieties differ from Classical and Modern Standard Arabic is in the expression of negation. In Classical and Modern Standard Arabic, and in the majority of varieties spoken outside of North Africa, negation is exclusively preverbal, with the basic verbal negator in the spoken varieties being *mā*, as in the Damascus Arabic example in (9).

- (9) Damascus Arabic (Cowell 1964: 328)
hayy masʔale **mā** baḍḍaḥḥək
DEM.F matter NEG laugh.CAUS.IMPF.IND.3SG.M
'This is not a laughing matter.' (lit. 'does not cause laughter')

But in the varieties spoken across the whole of coastal North Africa and into the southwestern Levant, as well as in parts of the southern Arabian Peninsula (see Diem 2014; Lucas 2018 for more precise details), negation is bipartite, with preverbal *mā* joined by an enclitic *-š* which follows any direct or indirect pronominal object clitics, as in (10).

- (10) Cairo Arabic (advertising slogan)
banda **ma** yitʔal-lahā-š laʔ
Panda NEG say.PASS.IMPF.3SG.M-DAT.3SG.F-NEG no
'You don't say "no" to Panda.' (lit. 'Panda, "no" is not said to it.')

Finally, in a subset of the varieties that permit the bipartite construction in (10), a purely postverbal construction is also possible, as in the Palestinian Arabic example in (11).

- (11) Palestinian Arabic (Seeger 2013: 147)
 badah_hin¹-š
 smoke.IMPF.IND.1SG-NEG
 ‘I don’t smoke.’

2.1.2 Jespersen or Croft?

There is near unanimous agreement among those who have considered the matter that the bipartite construction illustrated in (10) arose from the preverbal construction via grammaticalization, phonetic reduction, and cliticization of *šay?* ‘thing’, and that the purely postverbal construction in (11) in turn arose from the bipartite construction via omission of the original negator *mā*. As such, Lucas (2007; 2009; 2018) and Diem (2014), among many others, view this as a paradigmatic case of Jespersen’s cycle.

The only dissenting voice is that of Wilmsen (2013; 2014), who describes the parallels between the Arabic data and that of well known cases of Jespersen’s cycle such as French as being “dutifully mentioned by all” (2014: 117) who write on the topic. Wilmsen (2014) turns the agreed etymology of negative *-š* on its head by arguing: (i) that the original form in Arabic was *šī*, not *šay?*;² (ii) that at an early stage this form had the full range of functions that we observe for it in different Arabic dialects today (existential predicate, indefinite determiner, interrogative particle; see Wilmsen 2014: ch. 3, 122–123); (iii) that this element was then reanalysed as a negative particle; and (iv) *šī/šay?* as a content word ‘thing’ is a later development of the function word – an instance of degrammaticalization. For a discussion of some of the numerous difficulties with these proposals, see Al-Jallad (2015), Pat-El (2016), Souag (2016) and Lucas (2018).

A specific element of Wilmsen’s proposals that we need to consider in some detail here before we proceed is his suggestion that, while in his view we should not see the developments in Arabic as an instance of Jespersen’s cycle, we can discern in them an instance of Croft’s cycle. As we will see below, this suggestion involves a distortion or misunderstanding of both the Arabic data and the sorts

²Wilmsen (2014) also attempts to trace his etymology back further to the Proto-Semitic third-person pronouns. Apart from the implausibility of the putative semantic shift from definite pronoun to indefinite determiner, this reconstruction is untenable on phonological grounds (see Al-Jallad 2015 for details).

of patterns that constitute genuine instances of Croft's cycle, but the proposal has some *prima facie* plausibility, because of the existence in some dialects of the south and east of the Arabian Peninsula of an existential predicate *šī/šē/šay*, as in (12).

- (12) Northern Omani Arabic (Eades 2009: 92)
ħmīr šē l-ħmīr barra
donkey.PL EXS DEF-donkey.PL outside
'There were donkeys... the donkeys were outside.'

Note that a similar element *šī* [ʃi:], with the same existential function, is found in the Modern South Arabian languages (MSAL) of Yemen and Oman, as in (13), from Mehri of Yemen.

- (13) Mehri of Yemen (Watson 2011: 31)
šī fšē
EXS lunch
'Is there any lunch?'

Though Wilmsen (2014: 126; 2017: 298–301) seems to view Arabic *šī* and Modern South Arabian *šī* as cognates, it is more likely that the presence of this item in the one set of varieties is the result of transfer from the other (cf. Al-Jallad 2015). The direction of transfer is unclear, however. At first glance, the fact that *šī* as an affirmative existential is found in essentially all of the MSAL spoken on the Arabian Peninsula, which have a long history of intensive contact with Arabic, but not in Soqotri, spoken on the island of Soqatra, where contact with Arabic is more recent and less intensive (Simeone-Senelle 2003), would appear to suggest that this is an innovation within Arabic originally, which was then transferred to just those MSAL with which there was most contact. On the other hand, the precise situation in Soqotri is perhaps instructive. Here the affirmative existential predicate is a unique form *ino*, while the negative existential predicate is *bīši* (Simeone-Senelle 2011: 1108). It is conceivable that the latter is a borrowing from Arabic, since affirmative existentials in *b-* are widespread in the Arabic dialects of Yemen. But a negative existential predicate *bīši* or similar is completely unattested in the Yemeni data provided by Behnstedt (2016: 346–348). This suggests, therefore, that: (i) existential *šī* is an original feature of MSAL; (ii) Soqotri is an example of a Type B language in Croft's typology, having innovated a new affirmative existential predicate *ino*, such that there is a special negative existential predicate that is neither identical to the verbal negator, nor simply a combination

of the verbal negator with the affirmative existential predicate; and (iii) *šī* as an existential predicate in Arabic dialects is the result of transfer of MSAL *šī*.

This scenario is supported by the distribution of existential *šī* within Arabic varieties: the only clear cases are in dialects of Yemen and Oman with a history of contact with MSAL, and dialects of the Gulf whose speakers are known to have migrated there from Yemen or Oman (such as Šihhī, §2.4). In various places Wilmsen tries to make a case for existential uses of *šī* outside this region, but this appears to be the result of confusion on his part between *šī* as a *bona fide* existential predicate and the existential presupposition that will inevitably be associated with the use of *šī* as an indefinite determiner (see, e.g., Heim 1988 on the semantics of indefinite noun phrases). For example, Wilmsen (2014: 123) cites Caubet's (1993a: 123, 1993b: 280) Moroccan Arabic examples in (14) as evidence of an existential use of *šī* as far west as Morocco. But there is no justification for Wilmsen's contradicting Caubet's uncontroversial analysis of *šī* as an indefinite determiner here: there are no existential predicates in these examples – the existence of the referents of the indefinite noun phrases is presupposed, not asserted.

(14) Moroccan Arabic (Caubet 1993a: 123, Caubet 1993b: 280)

- a. *ši nās kayāklu-ha*
 INDF people eat.IMPF.REAL.3PL-3SG.F
 'Some people eat it.'
- b. *ši nās kaybyēw əl-lbən*
 INDF people like.IMPF.REAL.3PL DEF-milk
 'Some people like milk.'

Nevertheless, *šī* does function as an existential predicate in a few Arabic varieties. The question, then, is whether a negated form of this predicate participates in a version of Croft's cycle, as Wilmsen maintains.

For the vast majority of Arabic varieties the answer is a clear no: these varieties straightforwardly belong to Type A of Croft's typology. The verbal negator (*mā*, *mā...-š*, or *-š*) is also used to negate existential predicates, as illustrated in (15) for Cairo Arabic.

(15) Cairo Arabic, personal knowledge

- | | |
|--|------------------------|
| a. <i>ma ʔamaltⁱ-š ḥāga</i> | b. <i>ma fī-š ḥāga</i> |
| NEG do.PRF.1SG-NEG thing | NEG EXS-NEG thing |
| 'I didn't do anything.' | 'There is nothing.' |

Wilmsen (2014: 173–175) suggests that Type B and Type C constructions can also be found, however. For Type B (“there is a special negative existential predicate, distinct from the verbal negator”; Croft 1991: 6), he cites Sana’a *māšī* and Moroccan *māši*. Sana’a *māšī* is certainly a negative existential predicate. But there is nothing special about it – it is a paradigmatic Type A construction, with the negation of the existential predicate (*šī*) performed by the verbal negator (*mā*). Moroccan *māši*, on the other hand, is the negator for nominal predicates (equivalent to *muš/miš/mū/mub* in dialects east of Morocco). It is not a negative existential predicate at all, and, as discussed above, the /š/ component of this item does not function as an existential in Moroccan, unlike in Sana’a and other southern Arabian varieties. The existence of *māši* in Moroccan Arabic is thus irrelevant to the question of whether this constitutes a Type B variety.³ Moroccan is a Type A variety: the positive existential predicate is *kāyn* and it is negated with the ordinary Moroccan verbal negator *ma...-š* (Caubet 2011).

Wilmsen’s identification of Arabic varieties of Type C (“there is a special negative existential predicate, which is identical to the verbal negator”; Croft 1991: 6) depends on the idea that the Arabic predicate negator *māši/muš/miš/mū/mub* is a negative existential predicate, which, as we have seen, it is not. If it were, it would be true that there are Arabic varieties that are optionally of Type C, since in Cairo Arabic, among other varieties, it is possible to negate verbs with *miš* instead of the usual *ma...-š*, as Mughazy (2003) and others have pointed out. But Cairo *miš* (and Moroccan *māši*) are not negative existential predicates, and there is no evidence to suggest they ever were. Moreover, since the Sana’a negative existential predicate *māšī* also does not seem to be able to function as a verbal negator, there is little apparent merit in Wilmsen’s (2014) attempt to recast the history of negation in Arabic as an instance of Croft’s cycle.⁴

³Van Gelderen (2018) argues that the definition of Croft’s cycle should be expanded to encompass cases in which new negators arise from the univerbation of verbal negators with copulas and auxiliaries, as well as existentials. Wilmsen’s (2014) presentation of Croft’s cycle makes no mention of any predicates other than existentials participating in the cycle, however.

⁴This is not to deny, however, that some Arabic dialects show some incipient Type B tendencies of a different kind. For example, Behnstedt (2016: 347) cites the northern Yemeni dialects of Rās Maḥall as-Sūdeh, Ḥammām ṢAlī and Afk, as varieties in which different morphemes are used in positive and negative existentials, albeit the negative construction used in each case is identical to that used for ordinary verbal negation. In a different context, Stefano Manfredi (personal communication) points out that many urban speakers of Sudanese Arabic use the item *māfiš*, borrowed from Egyptian Arabic, as a negative existential, while ordinary verbal negation is performed with preverbal *mā* alone (without postverbal *-š*).

2.1.3 Internal or external?

It is clear from the above discussion that there is no reason to doubt the majority view of the emergence of negative *-š* as an instance of Jespersen's cycle. What is less clear and more controversial is the question of whether language contact played a role in triggering these developments, or whether this was a purely internal phenomenon (cf. Diem 2014: 11–12). This is an issue about which it is impossible to be certain given our present state of knowledge. Lucas & Lash (2010) make the case that contact did play a triggering role, however, and also provide arguments against the widely held view that, in the words of Lass (1997: 209), “an endogenous explanation of a phenomenon is more parsimonious [than one invoking contact – CL], because endogenous change must occur in any case, whereas borrowing is never necessary” (cf. also Lucas 2009: 38–43). Aside from this generalized reluctance to invoke contact in explanations of linguistic change unless absolutely necessary, another factor that is likely operative in the preference for seeing the Arabic developments as a purely internal phenomenon is ignorance of the wider picture of negative developments in Arabic and its contact languages. It is scarcely an exaggeration to say that everywhere an Arabic variety with bipartite negation is spoken, there is (or was) a contact language that also has bipartite negation, and – just as importantly – wherever Arabic dialects have only a single marker of negation, the local contact languages do too. The picture is similar in Europe, Ethiopia (Lucas 2009), Vietnam (van der Auwera & Vossen 2015), and many other places besides. There can therefore be no doubt that negative constructions, and especially bipartite negation (and hence Jespersen's cycle more generally), are particularly prone to diffusing through languages in contact. In the following sections I will briefly survey apparent instances of transfer of bipartite or postverbal negation in Arabic and Coptic, Arabic and MSAL, Arabic and Kumzari, Arabic and Berber, and Arabic and Domari. For more details see Lucas (2007; 2009; 2013) and Lucas & Lash (2010).

2.2 Arabic and Coptic

Based on an examination of evidence from Judaeo-Arabic documents preserved in the Cairo Genizah, among other sources of evidence, Diem (2014) comes to the conclusion that the Arabic bipartite negative construction found across coastal North Africa originated in Egypt between the tenth and eleventh centuries. This chronology and point of origin conforms closely with the conclusions I have drawn on this point in my own work (Lucas 2007; 2009; Lucas & Lash 2010), except that I have argued that what triggered the development of bipartite negation in Egypt was contact with Coptic (the name for the Egyptian language from

the first century CE onwards), which, at the relevant period, had a frequently occurring bipartite construction *ən...an*, as illustrated in (16).

- (16) Coptic (Lucas & Lash 2010: 389)
en ti-na-tsabou an e-amənte
NEG 1SG-FUT-teach-3PL NEG on-hell
'I will not teach them about hell.'

The argument made in Lucas & Lash (2010) is that native speakers of Coptic acquiring Arabic as a second language must have encountered sentences negated with preverbal *mā* only, but which also contained after the verb *šī/šāy*, functioning either as an argument '(any)thing' or an adverb 'at all',⁵ and interpreted this as the second element of the bipartite negative construction that their first-language Coptic predisposed them to expect. If this is correct, then the initial transfer of bipartite negation from Coptic to Arabic in Egypt should be understood as an instance of imposition under source-language agentivity, in the terms of Van Coetsem (1988; 2000), while the presence of bipartite negation in the dialects spoken across the rest of coastal North Africa, and the southwestern Levant, should be understood as the result of contact between neighbouring dialects of Arabic.

2.3 Arabic and Modern South Arabian

Diem (2014: 73) – like Obler (1990: 148) and, following her, Lucas (2007: 416) – suggests that bipartite negation in the southern Arabian Peninsula must have spread there from Egypt. This is conceivable, but historical evidence of significant early migration flows in this direction is lacking. The alternative explanation offered by Lucas & Lash (2010) is that bipartite negation in the Arabic dialects of this region is an independent parallel development, here triggered by contact with MSAL, all mainland varieties of which have a bipartite negative construction of their own (or once had – some, such as Ḥarsūsi, have largely progressed to stage III of Jespersen's cycle and lost the original preverbal negator), as illustrated in (17) for Omani Mehri.

- (17) Omani Mehri (Johnstone 1987: 23)
əl təhələz b-ey laʔ
NEG neg.IMP.F.2SG.M with-1SG NEG
'Don't nag me!'

⁵Diem (2014) makes the case that *šī/šāy* had already developed an adverbial use at a very early stage, and that it is this adverbial use that should be seen as the form that was reanalysed as a negator.

If this is correct, then here too, exactly as with the Coptic–Arabic contact in the previous section, we must have had an instance of transfer under source-language agentivity, with MSAL-dominant acquirers of Arabic imposing a bipartite construction on their second-language Arabic by reanalysing *šī/šay* as a negator. The key point is that in all dialects in which *šī/šay* functioned as an indefinite pronoun or adverb ‘at all’, the potential was there for reanalysis as the second element in a bipartite negative construction. But aside from in the dialects of Egypt and the southern Arabian Peninsula (and latterly dialects adjacent to Egyptian) this reanalysis never took place. Why the reanalysis did take place in Egypt and the southern Peninsula can be understood as being the result of the catalysing effect of contact with languages which themselves had a bipartite negative construction.⁶

2.4 Arabic and Kumzari

Kumzari is an Iranian language with heavy influence from both Arabic and MSAL that has only recently been described in detail (see van der Wal Anonby forthcoming). It is spoken on the Musandam Peninsula of northern Oman, where its primary contact language of recent times has been the Šiḥḥī variety of Arabic (see Bernabela 2011 for a sketch grammar), which is clearly of the originally southern Arabian type described by Holes (2016: 18–32).

Šiḥḥī Arabic has no Jespersen stage II (bipartite) negative construction, but it has both a typical eastern Arabic stage I construction with *mā*, as in (18a), perhaps due to recent influence from other Gulf Arabic varieties, alongside a unique (for Arabic) stage III postverbal construction with *-lu*, as in (18b). The latter construction is apparently a straightforward transfer of the postverbal negator *laʔ/ləʔ* of MSAL (17).

(18) Šiḥḥī Arabic (Bernabela 2011: 87)

- a. *mā mšēt ḥaṣāb əl-yōm*
 NEG go.PRF.1SG Khasab DEF-day
 ‘I didn’t go to Khasab today.’
- b. *yqōl-lu bass il-kilmatēn*
 say.IMP.3SG.M-NEG only DEF-words.DU
 ‘He doesn’t just say the two words.’

⁶For further discussion of the details of these changes, including the issues of the semantics and positioning in the clause of the second negative element in each of the three languages, see Lucas & Lash (2010: 395–401).

The Kumzari negator is the typical Iranian (and Indo-Iranian) *na*. What is less typical is that *na* occurs postverbally in Kumzari, as shown in (19).

- (19) Kumzari (van der Wal Anonby forthcoming: 211)
mām-ō kōr bur na
mother-DEF blind become.3SG.REAL NEG
'The mother didn't become blind.'

It seems very likely that contact with Šiḥḥī Arabic has played a role in this shift to postverbal negation, though not enough is known about the historical sociolinguistics of these two speech communities to say with confidence which of the two languages the agents of this change were dominant in.

2.5 Arabic and Berber

Berber languages are spoken from the oasis of Siwa in western Egypt in the east, across to Morocco and as far south as Burkina Faso. The most southerly of the Berber varieties – Tashelhiyt, spoken in southern Morocco, Zenaga, spoken in Mauritania, and Tuareg, spoken in southern Algeria and Libya, Niger, Mali and Burkina Faso – have only preverbal negation, as illustrated by the Tuareg example in (20).

- (20) Tuareg (Chaker 1996: 10)
ur igle
NEG leave.PFV.3SG.M
'He didn't leave.'

These languages have, until recently, either had little significant contact with Arabic, or otherwise only with varieties such as Ḥassāniyya that have only preverbal negation with *mā*. All other Berber varieties which are in contact with Arabic varieties with bipartite negation also themselves have bipartite negation, illustrated for Kabyle (Algeria) in (21), or, in a few cases, purely postverbal negation, as in Awjila (Libya), illustrated in (22). The one exception is Siwa (23), which negates with preverbal *lā* alone – clearly a borrowing from a variety of Arabic, though which variety is not clear (see Souag 2009 for further discussion).

- (21) Kabyle (Rabhi 1996: 25)
ul ittaggad kra
NEG fear.AOR.3SG.M NEG
'He is not afraid.'

- (22) Awjila (Paradisi 1961: 82)
 akellim iššen-ka amakan
 servant know.PFV.3SG.M-NEG place
 ‘The servant didn’t know the place.’
- (23) Siwa (Souag 2009: 58)
 lā gā-nūsd-ak
 NEG FUT-come.1PL-DAT.2SG
 ‘We won’t come to you.’

Different Berber varieties have postverbal negators with a range of different forms, but in most cases they either derive from two apparently distinct Proto-Berber items *k^jāra and *(h)arā(t), both meaning ‘thing’ (Kossmann 2013: 332), or are transparent loans of Arabic *šay/ši*. This fact, when combined with the respective geographical distributions of single preverbal and bipartite negation in Arabic and Berber varieties, is sufficient to conclude that the presence of bipartite negation in Berber is in large part a result of calquing the second element of the Arabic construction, pace Brugnatelli (1987) and Lafkioui (2013a) (see also Kossmann 2013: 334; and see Lucas 2007; 2009 for more detailed discussion).⁷ Given that, until recently, native speakers of Arabic in the Maghreb acquiring Berber as a second language will always have been greatly outnumbered by native speakers of Berber learning Arabic as a second language, we must assume that the agents of this change were Berber-dominant speakers who made the change under recipient-language agentivity in a process akin to what Heine & Kuteva (2005) call polysemy copying and contact-induced grammaticalization (see also Leddy-Cecere, this volume; Manfredi, this volume; Souag, this volume).

2.6 Arabic and Domari

The final instance of contact-induced changes to predicate negation to be mentioned here concerns the Jerusalem variety of the Indo-Aryan language Domari, as described by Matras (1999; 2007; 2012; this volume).

Matras (2012: 350–351) describes two syntactic contexts in which negators borrowed from Palestinian Arabic are the only options in this variety of Domari. The first is with Arabic-derived modal auxiliaries that take Arabic suffix inflection, as in *bidd-* ‘want’ in (24). Here negation is typically with the Palestinian Arabic stage III construction -š (without *mā*), as it is would be also in Palestinian Arabic.

⁷Another postverbal negator – Kabyle *ani* – derives from the word for ‘where’ (Rabhi 1992), and so should perhaps be seen as more of an internal development, or at least less directly contact-induced. Tarifyt also has a postverbal negator *bu*, whose etymology is uncertain, but which has also been transferred to the Moroccan Arabic dialect of Oujda (Lafkioui 2013b).

- (24) Jerusalem Domari (Matras 2012: 351)
ben-om bidd-hā-š žawwiz-hōš-ar
sister-1SG want-3SG.F-NEG marry-VITR.SBJV-3SG
'My sister doesn't want to marry.'

The second is when the negated predicate is nominal, as in (25a), or, to judge from Matras's examples, when we have narrow focus of negation with ellipsis, as in (25b). Here the negator that would be used in these contexts in Arabic – *miš* – is transferred to Domari and functions in the same way.

- (25) Jerusalem Domari (Matras 2012: 350)
- a. bay-os **mišš** kury-a-m-ēk
mother-3SG NEG house-OBL.F-LOC-PRED.SG
'His wife is not at home.'
- b. day-om min ʕammān-a-ki **mišš** min ʕēl-oman-ki
mother-1SG from Amman-OBL.F-ABL NEG from family-1PL-ABL
day-om
mother-1SG
'My mother is from Amman, she's not from our family, my mother.'

In addition to these straightforward borrowings, Domari has a bipartite negative construction in which both elements involve inherited lexical material, as illustrated in (26).

- (26) Jerusalem Domari (Matras 2012: 117)
ʕašān ihne ama n-mang-am-san-eʔ l-ʕarab
because thus 1SG NEG-want-1SG-3PL-NEG DEF-Arabs
'Because of this I don't like the Arabs.'

In Lucas (2013: 413–414) I pointed out that the second element of this construction – *-eʔ* – was apparently not attested in varieties of Domari spoken outside of Palestine, and suggested that its presence in Jerusalem Domari could therefore be the result of influence from the Palestinian bipartite negative construction. Herin (2016; 2018), however, has since convincingly shown that this is incorrect, and that the Jerusalem Domari bipartite construction is an internal development with cognates in more northerly varieties, the latter being in contact with Arabic varieties that lack the bipartite negative construction. What is unique about the Jerusalem variety of Domari is that here a stage III construction with *-eʔ* alone is possible, omitting the original preverbal negator *n(a)* that appears in (25b). Herin

(2018: 32) argues that it is this stage III construction, not the stage II bipartite construction, that should be seen as the result of contact with Palestinian Arabic.

Overall, therefore, while the details naturally vary from one contact scenario to another, we see that negative constructions appear just as liable to be transferred between varieties of Arabic and neighbouring languages as they are between the languages of Europe and beyond.

3 Developments in indefinites in the scope of negation

3.1 Loaned indefinites

The organization and behaviour of indefinites in the scope of negation seem to be much more resistant to transfer between languages than is the expression of clausal negation, at least in the case of Arabic and its contact languages.⁸ Direct borrowing of individual indefinite items is rather common, however. I make no attempt at an exhaustive list here, but note the following two examples for illustrative purposes.

First, Berber varieties stand out as frequent borrowers of Maghrebi Arabic indefinites. The negative polarity item *ħadd/ħədd* ‘anyone’ is borrowed by at least Siwa (Souag 2009: 58), Kabyle, Shawiya, Mozabite (Rabhi 1996: 29), and Tashelhiyt (Boumalk 1996: 41). The n-word *walu* ‘nothing’ is borrowed by at least Tarifiyt (Lafkioui 1996: 54), Tashelhiyt, and Central Atlas Tamazight (Boumalk 1996: 41). *ħəttə*, in its function as an n-word determiner, is borrowed by at least Tashelhiyt (Boumalk 1996: 41). *qāʕ*, in its function as a negative polarity adverb ‘at all’, is borrowed by at least Tarifiyt and Central Atlas Tamazight (Boumalk 1996: 42). And the negative polarity adverb **ʕumr* ‘(n)ever’ (< ‘age, lifetime’) is borrowed by at least Kabyle, Mozabite (Rabhi 1996: 30), and Tarifiyt (Lafkioui 1996: 72). Why these items should have been so freely borrowed, when each of them, with the possible exception of *ħəttə*, have direct native equivalents, is unclear. But it is perhaps to be connected with the high degree of expressivity typically associated with negative statements containing indefinites, which therefore creates a constant need for new and “extravagant” (in the sense of Haspelmath 2000) means of expressing these meanings.

Second, while Arabic itself seems to have been much more constrained in its borrowing of indefinites from other languages, we can here point at least to the

⁸Though for recent discussion of a related case – namely the acquisition of a determiner function by the Berber indefinite *kra* ‘something, anything’ via a calque of the polyfunctionality of Maghrebi Arabic *ši* – see Souag (2018).

n-word *hič* ‘nothing’, borrowed from Persian, which Holes (2001: 549) includes in his glossary of pre-oil era Bahraini Arabic, citing also Blanc (1964: 159) and Ingham (1973: 547) for its occurrence in Baghdadi and Khuzestan Arabic respectively. It remains in use in the latter (cf. Leitner, this volume), but consultations with present-day speakers of Baghdadi Arabic indicate that, in this variety at least, this item has since dropped out of use.

3.2 The indefinite system of Maltese

While most or perhaps all Arabic varieties have at least some items that qualify as n-words according to the definition in §1.3, it is only Maltese that has developed into a straightforward negative-concord language with a full series of n-word indefinites in largely complementary distribution with a separate series of indefinites that cannot appear in the scope of negation, as is the situation in French, described in §1.3. These two series are shown in Table 1, adapted from Haspelmath & Caruana (1996: 215).

Table 1: Maltese indefinites

	n-words	non-n-words
Determiner	ebda	xi
Thing	xejn	xi haġa
Person	ħadd	xi ħadd
Time	qatt	xi darba
Place	imkien	xi mkien

All the lexical material that makes up the Maltese indefinite system illustrated in Table 1 is inherited from Arabic, but the neat paradigm of n-words for determiner, ‘thing’, ‘person’, ‘time’, and ‘place’ is much more typical of European Romance languages than of Arabic. The extent to which, for example, *xejn* ‘nothing’ (deriving from *šay?* ‘thing’)⁹ is felt by Maltese speakers to be inherently negative, is shown by the existence of the denominal verb *xejjen* meaning ‘to nullify’, as illustrated in (27).¹⁰

⁹As pointed out in Lucas (2009: 83–84) and argued in greater detail in Lucas & Spagnol (forthcoming), the final segment of this item represents a fossilized retention of the indefinite suffix (so-called nunation or *tanwīn*), as found in Classical Arabic.

¹⁰This is despite the fact that it may also occur in interrogatives with non-negative meaning (cf. Camilleri & Sadler 2017). Compare the French n-word *rien*, which, as illustrated in (7), retains a non-negative interpretation in a restricted set of negative-polarity contexts.

(27) Maltese (Lucas 2013: 441)

Iżda xejjen lil-u nnifs-u
 but nullify.PRF.3SG.M OBJ-3SG.M self-3SG.M
 ‘But he made himself nothing.’

As such, it seems likely that the intensive contact that occurred over several centuries between Maltese and the negative-concord languages Sicilian and Italian (cf. Lucas & Čěplö, this volume) played a role in these developments in the Maltese indefinite system. Precisely how this influence was mediated is hard to say, since both borrowing under recipient-language agentivity and imposition under source-language agentivity were likely operative in the Maltese–Romance contact situation, and either are possible here. See Lucas (2013: 439–444) for further discussion.

4 Conclusion

As we have seen, the overall areal picture of bipartite clausal negation in Arabic and its contact languages (and also, to a lesser extent, indefinites in the scope of negation) strongly suggests a series of contact-induced changes, and not a series of purely internally-caused independent parallel developments. What is required in future research on this topic, to the extent that textual and other historical evidence becomes available, is a detailed, case-by-case examination of the linguistic and sociolinguistic conditions under which these constructions emerged in the languages in question. Such investigations would serve to either substantiate or undermine the contact-based explanations for these changes advanced in the course of this chapter. Ideally, they would also allow to understand in more detail the mechanisms of bilingual language use and acquisition that give rise to changes of this sort.

Further reading

- Chaker & Caubet (1996) is an edited volume providing a wealth of descriptive data on the expression of negation in a number of Berber and Maghrebi Arabic varieties.
- Diem (2014) is a detailed study of the grammaticalization of Arabic *šay?* as a negator, with particular attention paid to early sources of textual evidence for this development.
- Willis et al. (2013) and Breitbarth et al. (2020) are two volumes of a work examining in detail the history of negation in the languages of Europe and the Mediterranean.

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Abbreviations

1, 2, 3	1st, 2nd, 3rd person	NEG	negative
ABL	ablative	OBJ	object
AOR	arist	MSAL	Modern South Arabian
AUX	auxiliary	OBL	oblique
CAUS	causative	PASS	passive
DAT	dative	PFV	perfective
DEF	definite article	PST	past
DEM	demonstrative	PL	plural
DU	dual	PTCP	participle
EXS	existential	PRED	predicate
F	feminine	PRF	perfect (suffix conjugation)
FUT	future	PRS	present
IMPF	imperfect (prefix conjugation)	REAL	realis
IND	indicative	SBJV	subjunctive
INDF	indefinite	SG	singular
M	masculine	VITR	intransitive marker

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Name index

- ʿAbd ar-Raḥmān III, 226⁶
Abd El-Jawad, Hassan, 571
Abdel-Massih, Ernest, 606
Abdu, Hussein Ramadan, 207
Abu-Haidar, Farida, 96, 99, 306, 571
Abuamsha, Duaa, 618
Aguadé, Jordi, 256
Aikhenvald, Alexandra Y., 1, 102
Akin, Cahit, 152
Akkuş, Faruk, 3, 6, 83, 86, 86⁷, 91, 97,
101, 102, 138, 142, 143, 146–
150, 152, 287, 388, 469
Alamin, Suzan, 633
al-Bakrī, Ḥāzim, 103
Albirini, Abdulkafi, 305, 309–314
Al-Essa, Aziza, 552, 553, 572, 573
Alghamdi, Najla Manie, 552, 572, 573,
575
Al-Hawamdeh, Areej, 558
al-Ḥimyarī, 266
al-Idrīsī, Muḥammad, 407
al-Işbili, Abū l-Ḥayr, 237
Al-Jallad, Ahmad, 7, 38, 40, 42, 44–51,
61, 73, 200, 649, 650
Al-Mahri, Abdullah Musallam, 362,
366
al-Manaser, Ali, 47, 48
Almbark, Rana, 595
Almoaily, Mohammad, 339
Al-Qahtani, Khairiah, 573
Al-Salman, Ibrahim, 337, 339
Al-Shareef, Jamal, 571
Al-Tamimi, Jalal, 576
Al-Wasif, Muhammad-Fajri, 225
Al-Wer, Enam, 10, 553, 558, 559, 561–
563, 567, 571–576
Alzaidi, Muhammad, 592
Andersen, Henning, 604
Anonby, Erik, 462, 463, 468, 469
Anonymous, 537
Appleyard, David, 428
Aquilina, Joseph, 3, 627
Arjava, Antti, 44
Arnold, Werner, 3, 86, 90, 108
Arvaniti, Amalia, 162
Asbaghi, Asya, 3, 78, 454
Atatürk, 445
Atlamaz, Ümit, 152
Atterer, Michaela, 585
Avner, Uzi, 44
Avram, Andrei A., 3, 5, 7, 18, 23, 271,
272, 308, 325, 327, 329, 334–
341, 343, 630
Azzopardi-Alexander, Marie, 272, 273,
282, 284–286, 308, 634
Baḥtiyārī, Maḡīd, 453
Baider, Fabienne, 160
Bakir, Murtaḍha J., 339, 343
Bakker, Peter, 7, 326, 336, 529
Ballou, Maturin M., 267
Barbarossa, 536
Aruj, 536
Hizir, 536

Name index

- Barbot, Michel, 3, 85, 106
Barceló, Carmen, 226, 227
Barry, Daniel, 462, 468, 483
Barthélemy, Adrien, 94, 103
Batan, Ismail, 102
Bauer, Laurie, 554, 626
Beene, Wayne, 103, 125, 376
Beeston, Alfred F. L., 65, 352
Behnstedt, Peter, 3, 86, 88, 90, 91, 93,
98, 108, 128, 186, 197, 293, 603,
613
Bell, Alan, 562
Belnap, R. Kirk, 313
Ben Cheneb, Mohammed, 206
Benaissa, Amin, 593
Benkato, Adam, 6, 16, 90, 214, 215, 226³,
228, 267, 414
Benkirane, Thami, 591, 592
Benmamoun, Elabbas, 3, 146, 148, 150,
152, 309–312
Benoliel, José, 3, 216
Bergman, Elizabeth, 429
Bergsträßer, Gotthelf, 575
Berlinches, Carmen, 99
Bernabela, Roy S., 655
Bernard, Chams, 119¹⁰
Bernini, Giuliano, 644
Bettega, Simone, 8, 18, 435
Biosca, Carles, 291
Bițună, Gabriel, 138, 141, 142, 150
Bizri, Fida, 3, 337–341
Blachère, Régis, 428
Black, George Fraser, 512
Blanc, Haim, 100, 135, 136, 149, 374,
571
Blau, Joshua, 3, 37, 74, 75, 77, 282
Blau, Joyce, 467
Blažek, Václav, 423, 433
Bley-Vroman, Robert, 14
Blodgett, Allison, 592
Blouet, Brian, 267
Bois, Thomas, 460
Borg, Albert, 272, 273, 282, 284–288,
308, 634
Borg, Alexander, 85, 100, 103, 160, 163,
166, 167, 169, 170, 172, 267,
269, 283, 284, 287, 293, 294,
308, 615
Borjian, Habib, 449, 450
Boucherit, Aziza, 612
Bouchhioua, Nadia, 588
Boudelaa, Sami, 309
Boudlal, Abdelaziz, 591
Boumalk, Abdallah, 659
Boumans, Louis, 4, 304–306, 310, 313
Bovingdon, Roderick, 287–289
Brahimi, Fadila, 3, 414
Brauer, Erich, 372, 373
Breitbarth, Anne, 644, 661
Brincat, Joseph M., 3, 266, 267, 277,
287, 288
Brockelmann, Carl, 96
Broß, Michael, 177
Broughton, Elizabeth, 543–545
Browne, Gerald M., 419
Bruggeman, Anna, 591, 592
Brugnatelli, Vermondo, 3, 414, 657
Brunot, Louis, 3, 216
Brustad, Kristen, 122, 152, 312
Bulakh, Maria, 363
Bullock, Barbara E., 585, 586
Bulut, Christiane, 373, 396
Burdin, Rachel Steindel, 591
Bureng Vincent, George, 331
Buridant, Claude, 647
Bybee, Joan, 606, 611, 612, 614
Cadora, F. J., 570

- Camilleri, Maris, 285, 286, 660
Canagarajah, Suresh A., 303
Canavan, Alexandra, 186
Cangemi, Francesco, 587
Cantineau, Jean, 250
Castellanos, Carles, 291
Caubet, Dominique, 266, 306, 612, 651,
652, 661
Čeplö, Slavomír, 6, 13, 19³, 140, 149,
167, 170, 197, 219, 221, 282,
285, 295, 308³, 388, 627, 634,
661
Chahal, Dana, 585, 595
Chaker, Salem, 656, 661
Chalmeta, Pedro, 227, 230
Chetrit, Joseph, 216
Chikovani, Guram, 636
Chyet, Michael L., 376, 380, 387, 391,
395, 463, 476, 478, 483
Cifoletti, Guido, 3, 206, 533, 537, 540
Cinque, Guglielmo, 285
Claudi, Ulrike, 606
Clauzel, Jean, 258
Clissold, Stephen, 536
Coghill, Eleanor, 8, 13, 86, 139, 283,
376, 377, 380, 382, 384–388,
390, 393, 394, 472
Cohen, David, 253, 424, 425, 433, 435
Cohen, Marcel, 255
Colantoni, Laura, 586, 587
Colin, Georges S., 3, 206, 231¹⁶, 237,
238²⁷, 292
Comrie, Bernard, 288–290, 294, 635
Cook, Albert R., 327
Corré, Alan D., 545
Corriente, Federico, 3, 94, 220, 226–
229, 232–240
Cotter, William M., 3, 11, 198, 571, 574,
575
Council of Europe, 161
Cowell, Mark W., 100, 594, 648
Croft, William, 645, 652
D’Anna, Luca, 4, 6, 207, 305, 306, 308,
309, 311, 313
D’Aranda, Emanuel, 536, 537
D’Arvieux, Laurent, 535, 537
D’Imperio, Mariapaola, 585
Daher, Nazih Y., 306
Dahl, Östen, 603, 608
Dakhli, Jocelyne, 537
Dallet, Jean-Marie, 238
Dalli, Angelo, 287–289
Dan, Pierre, 535
Daniel, Elton L., 115, 447
Dānišgar, Aḥmad, 450, 451
Danner, Victor, 443
Daoud, Mohamed, 590
Davey, Richard J., 361, 613
Davies, Humphrey, 606
Davis, Robert C., 534
De Angelis, Pietro, 333
de Cat, Cécile, 285
de Fuentes, Alvaro Galmés, 230
De Planhol, Xavier, 116
de Prémare, André-Louis, 220, 238
de Ruiter, Jan Jaap, 4, 304–306, 310,
311
de Sacy, Silvestre, 266
de Soldanis, Giovanni Pietro Francesco
Agius, 265
Delais-Roussarie, Elisabeth, 592
Dendien, Jacques, 542
Devine, A. M., 593
Devos, Maud, 644
Dia, Alassane, 261
Diagana, Ousmane Moussa, 258
Dichy, Joseph, 75

Name index

- Diem, Werner, 3, 61, 100, 108, 648, 649,
653, 654, 661
Diessel, Holger, 187
Dillmann, August, 65
Dimitrakou, Dimitriou, 292
Dodsworth, Robin, 191
Döhla, Hans-Jörg, 13, 284
Donner, Fred McGraw, 84
Dozy, Reinhart, 220
Drewes, A. J., 294
Drop, Hanke, 186
Drower, Ethel Stefana, 293
Dupoux, Emmanuel, 591

Eades, Domenyk, 650
Eberhard, David M., 460
Eckert, Penelope, 562
Edwards, Bela B., 461, 469
Edzard, Lutz, 352
Ehala, Martin, 304
Eilers, Wilhelm, 74
El Aissati, Abderahman, 3, 632
El Arifi, Samir, 404
El Zarka, Dina, 3, 585, 591, 594, 595
Elias, Edward, 606
Elias, Elias, 606
Elmaz, Orhan, 73
El-Sayed, Rafed, 419
Elwell-Sutton, L. P., 445
Eph'al, Israel, 39
Epps, Patience, 610
Erwin, Wallace M., 126
Extra, Guus, 305

Fabri, Ray, 277, 285
Face, Tim, 592
Fagyal, Zsuzsanna, 586
Fassberg, Steven Ellis, 96, 379, 385,
389, 391

Fāzīlī, Muḥammad Taqī, 450, 451, 453
Féghali, Michel, 94, 103
Fenech, Edward, 288
Ferguson, Charles A., 57, 91, 293, 568
Ferrando, Ignacio, 229, 237, 238, 240
Field, Frederick, 517
Fiorini, Stanley, 267
Fischer, Wolfdietrich, 63
Flege, James Emil, 272
Fleisch, Henri, 90
Fletcher, Janet, 584
Folmer, Margaretha L., 460
Fox, Samuel Ethan, 394
Fraenkel, Siegmund, 71, 77
Frajzyngier, Zygmunt, 188
Frank, Louis, 538, 544, 545
Friedman, Victor A., 286
Frota, Sónia, 585, 589, 592, 593

Gabriel, Christoph, 274
Gabsi, Zouhir, 590
Gaftar, Roey, 567
Galmés de Fuentes, Álvaro, 230
Garbell, Irene, 381, 394, 395
Garcès, Maria Antonia, 544
Gardani, Francesco, 96, 105, 107, 275
Gardiner, Alan H., 643
Gardner-Chloros, Penelope, 544
Gasparini, Fabio, 8, 18, 357, 360, 435
Gatt, Albert, 266, 277
Gaufrey-Demombynes, Maurice, 428
Gautier, E.-F, 404
Gazsi, Dénes, 3, 9, 86, 115–117, 443,
447, 454
Geary, Jonathan, 276
Gendrot, Cédric, 356
Gesenius, Wilhelm, 266
Giancarli, Gigio Artemio, 535
Giannakidou, Anastasia, 646, 648

- Gibson, Maik, 3, 198, 266, 273
Giles, Howard, 304, 553
Gili Fivela, Barbara, 590
Gilson, Erika H., 541
Glaß, Dagmar, 57
Gonzo, Susan, 306, 307, 312, 315
Goodwin, Stefan, 267
Gordon, Elizabeth, 551, 553
Gośam, 40
Graf, David F., 49
Gralla, Sabine, 91
Grandchamp, Pierre, 542
Grech, Paul, 266
Greenblatt, Jared R., 389
Grice, Martine, 274, 589, 592
Grigore, George, 95, 119, 138, 141, 142, 148, 150
Grosjean, François, 610
Grotzfeld, Heinz, 574
Guichard, Pierre, 225, 227, 230
Gulle, Ozan, 160, 167, 168
Gurlekian, Jorge, 586, 587
Gussenhoven, Carlos, 591, 593
Gutas, Dimitri, 72, 78
Gzella, Holger, 40, 43, 49, 69

Haase, Martin, 607
Hachimi, Atiqa, 571
Haedo, Diego de, 535, 537, 543–545
Haeri, Niloofar, 568, 571
Haig, Geoffrey L. J., 3, 147, 459, 462, 463, 469, 472–474, 477, 479
Halasi-Kun, Tibor, 104
Hall, Robert A. Jr, 533
Hamid Ahmed, Mohamed-Tahir, 420, 421, 423
Hamza, Belgacem, 414
Hansen, Anita Berit, 590
Hansen, Maj-Britt Mosegaard, 605, 647, 648
Harrell, Richard S., 266
Haser, Verena, 193
Haspelmath, Martin, 287, 525, 606, 659
Hassan, Jidda, 177, 178, 183, 192
Hassan, Qasim, 125²²
Hassan, Zeki Majeed, 576
Hayajneh, Hani, 39, 41, 49, 73
Heath, Jeffrey, 6, 198, 199, 205, 214–216, 218, 221, 222, 227⁸, 239, 251, 258, 261, 269, 591, 615
Hebbo, Ahmed, 3, 77
Heim, Irene, 651
Heine, Bernd, 178, 187, 605–607, 611, 612, 614, 631–633, 657
Hellmuth, Sam, 11, 274, 585, 588–590, 592–595
Herin, Bruno, 3, 10, 18, 273, 489, 508, 512, 526, 558, 561, 571, 575, 590
Herodotus, 49
Heselwood, Barry, 357, 576
Hoberman, Robert D., 375
Hobrack, Sebastian, 389
Holes, Clive, 84, 85, 94, 118, 571, 594
Hopkins, J. F. P., 544
Hopkins, Simon, 86, 99
Hopper, Paul, 604
Horesh, Uri, 3, 12, 553, 567, 571, 574, 575
Hoyland, Robert G., 352
Hudson, Richard A., 423
Huehnergard, John, 48, 50, 61, 65
Hutchison, John, 182, 188

Ibn al-Bayṭār, 238²⁷
Ibn Ḥayyān, 226⁶
Ibn Khaldūn, 37

Name index

- Ibn Muğāhid, Abū Bakr, 70, 76
Ibrahim, Iman, 471
Ibrahim, Muhammad H., 568
Ibrahim, Zeinab, 68
Iemmolo, Giorgio, 284
Il-Hazmy, Alayan Mohammed, 613
Imām Ahwāzī, Sayyid Muḥammad ʿAlī,
451
Ingham, Bruce, 3, 116, 119, 127, 129,
130, 147, 447
Iraqi Sinaceur, Zakia, 220
Isaksson, Bo, 138, 154
Israel, Felice, 40
Īzadpanāh, Ḥamīd, 449–451

Jacquart, Danielle, 75
Jacques-Meunié, Djinn, 258
James, Boris, 460, 461
Jastrow, Otto, 3, 86, 93, 101, 104, 135–
143, 147–150, 152, 155, 372,
374, 375, 383, 386–390, 393,
394, 396, 461, 469, 615
Jeffery, Arthur, 3, 59, 65, 70, 77
Jenkins, Edward V., 327
Jeremiás, Éva M., 441, 445
Jespersen, Otto, 644
Johanson, Lars, 13
Johnson, Mark, 193
Johnstone, T. M., 654
Joseph, Brian D., 396
Jun, Sun-Ah, 584, 591, 592

Kahane, Henry Romanos, 85, 533, 534
Kahane, Renée, 533, 534
Kahn, Margaret, 462, 464, 467, 468
Kahrel, Peter, 645
Kariolemou, Marilena, 160
Kaufman, Terrence, 13, 552, 585, 631
Keane, G. J., 327

Keesing, Roger, 638
Kent, Roland, 460
Kerswill, Paul, 551, 573
Khan, Geoffrey, 283, 286, 293, 381, 382,
385, 388, 390, 392
Khattab, Ghada, 576
Kherbache, Fatma, 413
Kireva, Elena, 274
Klimiuk, Maciej, 271
Knecht, 541
Kogan, Leonid, 352
König, Ekkehard, 632
Koontz-Garboden, Andrew, 463
Kootstra, Fokelien, 46
Kossmann, Maarten, 238²⁴, 238²⁸, 239³³
Kossmann, Maarten, 9, 66, 200–204,
209, 237, 406, 408, 410–414,
632, 657
Kramer, Raija, 193
Krapova, Iliyana, 285
Krebernik, Manfred, 85
Krier, Fernande, 3, 294
Kropftisch, Lorenz, 75
Kruse, Friedrich, 512
Kulk, Friso, 594
Kuteva, Tania, 178, 187, 607, 611, 612,
614, 631, 657

Labarta, Ana, 226, 227, 236
Labov, William, 4, 562
Ladd, D. Robert, 584, 585
Ladefoged, Peter, 356
Ladusaw, William A., 646
Lafkioui, Mena, 3, 12, 203, 657, 659
Lahdo, Ablahad, 138, 143–146, 148, 150,
154, 287
Laka, Itziar, 648
Lakoff, George, 193
Lanly, André, 539

- Larcher, Pierre, 44
Lash, Elliott, 12, 15, 644, 653, 654
Lass, Roger, 559
Law, Daniel, 608
Le Page, R. B., 554, 555, 572, 610
Leddy-Cecere, Thomas, 3, 11, 187², 567,
610, 617, 618, 631, 657
Lefebvre, Claire, 635
Lehmann, Christian, 605, 606, 609
Leitner, Bettina, 6, 15, 22, 84, 446, 447,
660
Lentin, Jérôme, 7, 86, 94, 99, 226, 394,
461, 574, 613
Leslau, Wolf, 69
Levin, Aryeh, 574
Lewin, Bernhard, 613
Lichtenberk, Frantisek, 645
Lipiński, Edward, 293
Lipski, John, 551
Lonnet, Antoine, 3, 352, 356–358, 362,
364, 366
Loporcaro, Michele, 272
Lucas, Christopher, 6, 12–15, 17, 18,
19³, 22, 24, 61, 88, 89, 118, 124,
126, 130, 140, 149, 167, 170,
193, 197, 203, 205, 219, 221,
232, 268, 307, 308³, 310, 312,
315, 322, 355, 388, 412, 444,
482, 567, 583, 627, 634, 644,
648, 649, 653, 654, 657, 660,
661
Luffin, Xavier, 3, 323, 324, 329, 331,
332, 335, 336, 343
Lydon, Ghislaine, 617
Maas, Utz, 591
Macalister, Robert Alexander Stewart,
490, 513
Macdonald, Michael C. A., 39, 51
MacKenzie, David N., 388, 394–396,
446
MacKinnon, Colin, 449
Maclean, Arthur John, 379
Macúch, Rudolf, 293
Maddieson, Ian, 356
Magidow, Alexander, 85
Mahdi, Qasim R., 611
Maiden, Martin, 280, 281
Majidi, Mohammad-Reza, 119, 121, 124,
126
Malaika, Nisar, 129
Mammeri, Mouloud, 405
Manfredi, Stefano, 1, 4, 11, 23, 176, 215,
282, 284, 286, 308, 321, 322,
325, 326, 328–331, 336, 420¹,
423, 427, 499, 567, 609, 630,
633, 634, 657
Manzano Moreno, Eduardo, 230
Marçais, Philippe, 202, 203
Masliyah, Sadok, 93, 94, 97
Matras, Yaron, 1, 3, 7, 10, 13, 18, 116,
117, 119, 120, 122, 128, 129, 131,
208, 314, 383, 463, 480, 490,
493, 494, 507, 508, 512–514,
516, 517, 524, 525, 529, 587,
618, 657, 658
Mattoso, Joaquim, 551
McMahon, April, 7
Mechehed, Djamel-Eddine, 407
Meillet, Antoine, 643
Meisel, Jürgen, 14
Meldon, J. A., 327
Menéndez Pidal, Ramón, 230
Mengozzi, Alessandro, 377
Mennen, Ineke, 585
Meouak, Mohamed, 414
Mettouchi, Amina, 633
Meyerhoff, Miriam, 638

Name index

- Mifsud, Manwel, 3, 269, 276–280, 287, 288, 294
Miller, Catherine, 3, 315, 322, 328, 330, 334, 343, 603
Minervini, Laura, 533, 534
Mingana, Alphonse, 70
Mion, Giuliano, 198
Mohammadi, Ariana Negar, 129
Moi, Daniel R., 333
Monteil, Charles, 258
Monteil, Vincent-Mansour, 261
Moravcsik, Edith A., 517
Mori, Laura, 534
Morin, Didier, 420, 423
Morris, Miranda J., 353, 354, 359, 366
Morton, Rachel, 585
Mouili, Fatiha, 404
Mourigh, Khalid, 410, 411, 414, 415
Mufāwiya, 159
Mughazy, Mustafa, 652
Muraoka, Takamitsu, 95
Muraz, Gaston, 323
Múrcia Sánchez, Carles, 403
Mutzafi, Hezy, 379, 383, 389
Myers-Scotton, Carol, 208

Naciri-Azzouz, Amina, 201
Næss, Unn Gyda, 339, 340
Naǧībī Finī, Bihǧat, 450, 451, 453
Naīm, Samia, 574
Naīt-Zerrad, Kamal, 270, 292, 293
Nakano, Aki’o, 186
Nakao, Shuichiro, 329, 330, 332–336, 342, 343, 593, 630
Nance, Claire, 586
National Statistics Office, 268
Naumann, Christfried, 409
Naumkin, Vitaly, 356
Nebel, Arthur, 332

Nehmé, Laila, 43, 50, 51
Neishtadt, Mila, 3, 107
Nevo, Moshe, 137
Newbold, F. R. S, 512
Newton, Brian, 3, 166–168, 170
Nolan, Joanna, 10, 85, 199, 214, 545
Nöldeke, Theodor, 69, 77, 90, 396
Noorlander, Paul M., 472
Norde, Muriel, 606
Nortier, Jacomine, 222
Nyberg, Henrik Samuel, 43
Nycz, Jennifer, 569

O’Rourke, Erin, 274, 586
Oberling, Pierre, 115, 116, 446
ŶObodat, 40
Ondráčková, Zuzana, 293
Onour, ŶAbdallah, 420
Öpengin, Ergin, 9, 139, 147, 387, 459–464, 473, 474, 477
Ould Mohamed Baba, Ahmed-Salem, 259
Overlaet, Bruno, 46
Owen, H. R., 327
Owen, Roger, 635
Owens, Jonathan, 3, 4, 6, 140, 176–178, 180, 181, 183, 191, 192, 308, 308³, 316, 323, 325, 327–329, 334, 628–630

Paciotti, Luca, 261
Palva, Heikki, 6, 88, 93, 97, 108, 148
Pananti, Filippo, 537, 542, 545
Panza, G., 333
Papaconstantinou, Arietta, 592
Paradisi, Umberto, 412, 657
Parkinson, Dilworth B., 68
Paspatis, Alexandre, 512
Pat-El, Na’ama, 49, 96, 121, 649

- Patai, Raphael, 372, 373
Patkanoff, K. P., 512
Paul, Ludwig, 119, 446, 468
Pellegrini, Giovanni Battista, 539
Pennell, Richard, 541, 542
Penny, Ralph, 551
Pepper, Stephen, 626, 627
Pereira, Christophe, 198
Perry, John R., 95, 445, 461, 478
Persson, Maria, 360
Peust, Carsten, 593
Piccitto, Giorgio, 283
Pichler, Werner, 405
Pihan, Antoine Paulin, 542
Plantet, Eugène, 536
Poiret, Jean Louis Marie, 542
Poplack, Shana, 314
Porkhomovsky, Victor, 356
Pott, August F., 512
Power, Timothy, 617
Pozzati, Aurelio, 333
Prieto, Pilar, 585, 593
PRIO, 162
Procházka, Stephan, 6, 16, 74, 78, 84,
85, 90, 94, 97, 99, 102, 103,
116, 118, 119, 121, 135–137, 139,
142, 146, 154, 160, 206, 591,
613
Procházka-Eisl, Gisela, 96, 145
Qafisheh, Hamdi, 613
Qayno, 40
Queen, Robin M., 585
Quint, Nicolas, 12
Rabeh, 178, 180, 323
Rabhi, Allaoua, 656, 657, 659
Rabin, Chaim, 63, 76
Rabinowitz, Isaac, 40
Rahmani, Hamed, 591
Ramat, Paolo, 605, 644
Raḳōś bint ʿAbd-Manōto, 42, 43, 46,
47
Rastegar-El Zarka, Dina, 592
Ratcliffe, Robert R., 3, 64, 65, 125, 309,
314, 635, 636
Rāzī, Farīda, 445
Rehbinder, Johan von, 542
Reinhardt, Carl, 615
Reinkowski, Maurus, 105
Retsö, Jan, 3, 39, 69, 70, 78, 86, 103,
178, 352
Rickford, John R., 562
Ridouane, Rachid, 356
Rifaat, Khalid, 592
Rilly, Claude, 419
Ripper, Thomas, 461
Ritt-Benmimoun, Veronika, 190, 281,
629
Rizgar, Baran, 380
Robin, Christian-Julien, 45, 352
Robustelli, Cecilia, 280, 281
Roger II of Sicily, 267
Romaine, Suzanne, 307–309, 315
Roper, E. M., 423
Rosenhouse, Judith, 574, 612
Ross, Malcolm, 13, 609, 625, 626, 631,
636
Rossetti, Roberto, 538
Roth, Arlette, 163, 166, 169–171
Rouchdy, Aleya, 4, 12, 304, 306, 316
Rubin, Aaron D., 48, 50, 65, 99, 352,
605
Russi, Cinzia, 286
Ryding, Karin C., 58, 470
Saada, Lucienne, 614
Saade, Benjamin, 276

Name index

- Sabar, Yona, 377, 381, 385, 386, 389,
390, 395
- Sabuni, Abdulghafur, 91, 92
- Şādeqī, ʿAlī Aşraf, 454
- Sadler, Louisa, 286, 660
- Sakel, Jeanette, 88, 480
- Salāmī, ʿAbdulnabī, 449, 451
- Saltarelli, Mario, 306, 307, 312, 315
- Sammut, Carmen, 290
- Sánchez, Pablo, 233, 614
- Sankoff, Gillian, 303
- Sarlak, Rizā, 449–451
- Şarrāfī, Maḥmūd, 449, 450, 453
- Sasse, Hans-Jürgen, 626
- Savary de Brèves, François, 535
- Sayahi, Lotfi, 3, 203, 206, 209, 215, 222,
590
- Schilling-Estes, Natalie, 615
- Schmitt, Rüdiger, 442
- Schneider, Edgar W., 554
- Schreier, Daniel, 551
- Schroepfer, Jason, 614
- Schuchardt, Hugo, 539, 541, 542, 545
- Scirha, Lydia, 268
- Seeger, Ulrich, 12, 308, 649
- Seetzen, Ulrich Jasper, 512, 513
- Segal, Judah B., 395
- Seifart, Frank, 107, 275
- Selbach, Rachel, 537, 542
- Serreli, Valentina, 404
- Shabibi, Maryam, 3, 116, 117, 119, 120,
122, 128, 129, 131
- Shahin, Kimary, 571, 573–575
- Silverstein, Michael, 610
- Sima, Alexander, 364
- Simeone-Senelle, Marie-Claude, 64, 353,
359, 362, 366, 425, 650
- Simonet, Miquel, 586
- Singer, Hans-Rudolf, 94
- Sinha, Jasmin, 373
- Sirkeci, Ibrahim, 460
- Skjærvø, Prods Okto, 441
- Smart, Jack R., 336, 341
- Sokoloff, Michael, 293
- Sorace, Antonella, 587
- Souag, Lameen, 3, 9, 13, 98, 199–201,
203, 206, 209, 215, 286, 293,
407, 409–415, 635, 636, 649,
656, 657, 659
- Spagnol, Michael, 275, 286, 288–290,
294, 660
- Stassen, Leon, 494
- Stein, Peter, 39, 51, 64
- Stephens, Laurence D., 593
- Stevenson, R. C., 188
- Stewart, Devin, 618
- Stilo, Donald, 449, 451
- Stokes, Phillip W., 122
- Stolz, Thomas, 6, 294
- Sudbury, Andrea, 551
- Sweetser, Eve, 193
- Tabouret-Keller, Andrée, 554, 555, 572,
610
- Tadmor, Uri, 287, 412, 525
- Taïfi, Miloud, 239
- Taine-Cheikh, Catherine, 6, 201, 202,
216, 245, 252, 253, 255–257,
260, 261, 266, 613, 627, 628,
632
- Talay, Shabo, 93, 138, 140, 142, 148,
150–152, 155, 374
- Talmoudi, Fathi., 3, 202, 205, 612
- Taylan, Eser, 3, 152, 153
- Terés Sádaba, Elías, 225
- Teyran, Feqiyê, 468
- Thackston, Wheeler M., 381

- Thomason, Sarah G., 1, 13, 138, 552,
585, 625, 631
Thordarson, Fridrik, 446
Tigziri, Nora, 404
Tinniswood, Adrian, 536
Todd, Terry L., 474
Tosco, Mauro, 1, 321, 323, 325, 326,
336
Traugott, Elizabeth, 604
Tropper, Josef, 49
Trudgill, Peter, 1, 10, 98, 322, 551, 553,
554, 558, 568, 569, 572, 573
Tsabолоv, Ruslan, 3, 472–474, 483
Tsiapera, Maria, 3, 163, 166, 168
Tully, Miss, 541, 543
Türkmen, Erkan, 206

Ullendorf, Edward, 425
Ullmann, Manfred, 282
ʿUmar ibn Ḥafsūn, 226⁶
University of Zaragoza, 283, 287, 311
Ursini, Flavia, 540
Utas, Bo, 460, 463

Van Coetsem, Frans, 17, 21–24, 138,
177, 200, 205, 207, 269, 307,
315, 322, 330, 355, 443, 482,
626
van den Boogert, Nico, 405, 407, 414
van der Auwera, Johan, 643, 644, 653
van der Wal Anonby, Christina, 3, 655,
656
van Putten, Marijn, 3, 7, 9, 16, 50, 63,
409, 411, 414, 443
Vanhove, Martine, 9, 15, 267, 270, 282,
287, 294, 421–424, 429–431,
435, 612, 634
Vassalli, Michelantonio, 266
Vassallo, Mario, 268

Vella, Alexandra, 274
Versteegh, Kees, 1, 8, 125, 136, 150, 278,
306, 308, 352
Vicente, Ángeles, 3, 7, 206, 214, 227,
229, 233, 240, 306
Visconti, Jacqueline, 605
Vocke, Sybille, 142
Vollers, Karl, 606
Vossen, Frens, 644, 653
Vycichl, Werner, 409

Waldner, Wolfram, 142
Walker, Traci, 587
Walter, Mary Ann, 6, 20, 22, 83, 85⁴,
136, 140, 149, 168, 271, 272,
287, 308³
Walters, Keith, 590
Warrington, 544
Watson, Janet C. E., 3, 4, 45, 352, 357,
360–362, 364, 366, 591, 593,
613, 614, 650
Wedekind, Klaus, 420, 422, 435
Weinreich, Uriel, 14, 585
Weiss, Gillian, 536
Wellens, Inneke, 327, 329–331, 333–
335
Wells, John C., 584
Wellsted, James R., 351
Weninger, Stefan, 3, 64, 65, 73, 108
Whorf, Benjamin Lee, 75
Williams, Ann, 551, 573
Willis, David, 644, 646, 661
Wilmsen, David, 17, 66, 627, 649, 662
Winford, Donald, 22, 119, 205, 322, 342,
355, 629, 634
Wittrich, Michaela, 138, 142
Wohlgemuth, Jan, 383, 433
Woidich, Manfred, 96, 128, 186, 271,
574, 603, 627

Name index

- Wolfram, Walt, 615
Woodhead, Daniel R, 103, 125, 376
- Yardeni, Ada, 40
Yoda, Sumikazu, 3, 199
Yūsifī, Ṭulāmḥusain, 444
- Zaborski, Andrzej, 431
Zagona, Karen, 286
Záhořík, Jan, 421
Zammit, Martin R., 3, 273, 352, 590
Zeyneloğlu, Sinan, 460
Ziagos, Sandra, 3
Ziamari, Karima, 205, 209
Zibeliu-Chen, Karola, 419
Zuckermann, Ghil'ad, 638
Zwettler, Michael J., 49

Language index

- Acholi, 327, 328, 332–336
Afar, 424, 433
Afro-Asiatic, 245, 254, 255, 292, 323,
371, 419, 425, 433, 434
Agaw, 424, 433, 434
Akkadian, 7, 39, 61³, 85, 85³, 293
Alur, 327
Amharic, 434, 645
Arabic (Ar.)
 Abu Dhabi, 613
 Aleppo, 84, 92, 92²⁰, 94
 Algiers, 198, 255, 612
 Amman, 11, 572–577, 658
 Anatolian, 101, 163, 287, 374, 374⁴,
 383, 383¹⁶, 388, 469
 Andalusi, 7, 165, 198, 214, 217, 218,
 220, 283, 284, 287, 311
 Aswan, 614
 Āzəḥ, 138, 142, 143, 150, 151, 374,
 383¹⁶
 Baggara, 179, 633, 637
 Baghdad, 84, 88, 89, 93, 97, 99,
 105, 108, 125²², 129³¹, 135¹, 197,
 266, 374⁴, 376⁶, 381, 381¹⁴, 386,
 396, 571², 660
 Bahrain, 116, 119⁹, 453, 572, 577,
 660
 Basra, 116, 125²², 611
 Bedouin, 11, 84, 87–89, 91¹⁹, 92–
 94, 97, 98, 100, 102³⁴, 103, 106–
 108, 116, 118, 136, 214, 228,
 248, 249, 250³, 374, 374⁴, 407,
 408, 570
 Beirut, 84, 90, 492, 574
 Bongor, 322–325, 342, 343
 Bukhari, 314
 Cairo, 63, 96²⁹, 269, 312, 408, 574,
 611, 648, 651, 652
 Casablanca, 197, 266, 269, 552, 612
 Central Asian, 3, 12, 136, 635–637
 Chadian (ChA), 179, 323, 324
 Cilician, 83¹, 90, 92²⁰, 97, 99, 101,
 102, 102³⁴, 103, 105, 105³⁸, 613
 Classical (CA), 3, 7, 8, 10, 37, 38,
 40³, 42, 45, 50, 89, 99, 103,
 119, 119¹⁰, 135¹, 151, 177, 187³,
 197, 216–219, 226, 228, 229¹²,
 246, 248–250, 254, 255, 260,
 266, 276¹⁰, 282, 305, 313, 407,
 425, 427–429, 443–445, 452,
 463⁵, 631, 648, 660⁹
 Cypriot Maronite (CyA), 3, 20,
 22, 136, 140⁵, 271, 283, 284,
 287, 308³, 615
 Damascus, 84, 95, 96, 98–100, 103,
 105, 187³, 491, 492, 500, 574,
 594, 613, 648
 Daragözü, 138, 149
 Dhofar, 613
 Diyarbakır, 135, 153, 154
 Eastern, 6, 228¹², 250³, 267
 Egyptian (EA), 11, 16, 61, 66, 179,
 182, 186, 187, 187³, 189–191,

Language index

- 193, 276¹⁰, 312–315, 327, 337,
338, 341, 543, 585, 592, 593,
606, 606¹, 627, 652⁴
- Gaza, 11, 570, 571, 575
- Ghamdi, 576
- Gulf (GA), 8, 94²², 96²⁹, 115, 116,
128²⁵, 130, 180, 337–339, 360,
361, 442, 446, 447, 449, 453,
651, 655
- Gulf Pidgin, 336–343
- Ḥapəs, 138, 142
- Hasköy, 138, 140⁴, 142
- Ḥassāniyya, 6, 201, 202, 214, 216,
627, 628, 632, 637, 656
- Mali, 216, 250, 251, 256, 258,
260, 615
- Ḥiğāzi, 59, 592–594
- Iraqi (IA), 83, 88, 89, 91, 93, 96,
96²⁸, 100, 101, 103³⁵, 104, 107,
116, 117, 117⁴, 118, 124¹⁸, 125²¹,
126²⁴, 283, 284, 337, 338, 374–
376, 376⁶, 378, 380–383, 385–
387, 390, 391, 393, 395, 397,
447
- Janaybi, 355, 356, 359, 362
- Jebel Ansariye, 613
- Jerusalem, 95, 513, 514, 517, 524,
525, 559, 612, 657, 658
- Jordanian (JA), 11, 310, 337–339,
497–499, 556–558, 558¹⁴, 559,
559¹⁶, 560–563, 572, 573, 575,
577, 585
- Jordanian Pidgin, 8, 336–339, 341,
342
- Juba, 7, 23, 308, 315, 322, 326–
334, 334⁵, 335, 336, 342, 343,
593, 630, 634, 635
- Khuzestan, 6, 15, 22, 84, 100, 442,
446, 447, 451, 660
- Kinderib, 138, 148
- Kinubi, 7, 322, 326–336, 342, 343
Kenyan, 326, 327, 329, 331, 335,
336
- Kozluk, 135, 136, 143
- Kozluk–Sason–Muş, 140, 142, 147,
152
- Kurdistan, 101
- Lebanese, 17, 89, 92, 94, 170, 310,
337, 492, 493, 574
- Levantine, 3, 61, 66, 67, 163, 165,
168, 267, 283, 284, 293, 310,
492, 493, 499, 501, 504, 560,
574, 613, 615
- Libyan (LA), 198, 201, 206, 206¹⁵,
207, 208, 593
- Maghrebi, 6, 90, 217, 218, 226, 226³,
228, 228¹⁰, 228¹², 233, 248,
251⁴, 266, 267, 269, 273, 276¹⁰,
287, 290, 294, 406, 407, 413,
632, 633, 659, 659⁸, 661
- Mardin, 135, 136, 138, 139, 142, 143,
147, 150, 153, 154, 374, 374⁴,
461, 462, 469, 477, 480, 482
- Marrakech, 614
- Mecca, 572, 576
- Mesopotamian, 3, 6, 10, 116, 119,
135, 136, 141⁷, 374, 374⁴, 376⁶,
386, 393, 447, 615
- Modern Standard (MSA), 3, 7, 16,
17, 21, 99, 117, 119, 119¹⁰, 122¹⁵,
129, 165³, 177, 180, 181, 209,
222, 246, 248, 250–252, 256–
258, 261, 269, 305, 361, 379–
381, 386, 390, 392, 404, 444,
444², 445–447, 449–453, 481,
489, 594, 631, 648
- Moroccan (MA), 6, 11, 16, 75, 100,
198, 199⁴, 200⁸, 202, 203¹³,

- 206¹⁴, 209, 213, 222, 227⁸, 228¹²,
233, 238, 238²⁵, 238²⁶, 238²⁷,
238³⁰, 247, 256, 261, 305, 310,
310⁷, 313, 406, 552, 585, 586,
589, 591, 592, 632, 651, 652,
657⁷
- Mosul, 86, 87⁸, 92, 104, 107, 381,
390, 393, 460, 462, 482, 615
- Mutki-Sason, 138
- Muş, 135, 136
- Najdi, 552, 572, 573
- Nigerian, 6, 12, 140⁵, 308³, 628–
630
- Old, 3, 38, 39, 40³, 41, 46–49, 51,
73¹⁹, 90, 91, 91¹⁹, 92–95, 99,
122¹⁵, 140–143, 168, 228, 232,
233, 287, 469, 470
- Omani, 352, 355, 357, 358, 594,
615, 650, 651
- Palestinian, 10, 12, 107, 310, 394²²,
514, 517, 518, 526, 557, 559,
559¹⁶, 560–562, 570, 572–575,
577, 649, 657–659
- Pidgin Madame, 8, 336–341
- Post-Hilalian, 216, 219
- Pre-Hilalian, 216–219, 221
- Romanian Pidgin, 8, 336–339, 341
- Sana'a, 613, 614, 652
- Sason, 135, 137, 140, 142–146, 148,
149, 149¹⁴, 150–152, 152¹⁵, 153
- Sfax, 198, 267
- Sicilian, 198
- Šihhī, 651, 655, 656
- Siirt, 135, 136, 138, 148¹², 153, 154,
372, 374, 461, 469
- Soukhne, 93, 97, 98, 613
- Sousse, 198, 612
- Sudanese (SA), 9, 176, 326–331,
422, 423, 425, 427–429, 630,
635, 652⁴
- Sudanic pidgins, 7, 321, 322
- Syrian, 83, 89, 92, 94, 100, 103³⁵,
107, 124¹⁸, 135, 137, 310, 393,
466, 492, 493, 594, 645
- Tillo, 138, 143, 144, 144¹⁰, 145, 146,
150, 153, 153¹⁶, 154, 287
- Tlemcen, 198, 266
- Tozeur, 614
- Tunis, 198, 203, 273, 588, 589
- Tunisian (TA), 6, 11, 75, 94²², 190,
191, 201, 202, 266, 267, 273,
281, 305, 306, 308, 311, 312,
541, 588–592
- Uzbekistan, 100, 152, 182, 308³,
445
- Western, 6, 7, 225, 266
- Western Sudanic (WSA), 176, 179,
188, 323, 327, 633
- Yemeni, 45, 352, 421, 594, 613, 614,
616, 650, 651, 652⁴
- Aragonese, 227
- Aramaic (Aram.), 6, 7, 16, 39, 39², 40–
44, 44⁷, 45, 46, 48–51, 58, 59,
61, 62, 66, 68–70, 70¹³, 70¹⁵,
71, 72, 74, 77, 78, 85, 86, 88–
91, 93, 94, 94²², 95, 96, 99,
99³¹, 100, 103, 104, 107, 108,
116, 138, 138³, 139, 141, 148,
153, 153¹⁶, 154, 163, 172, 282,
284, 293, 460, 470, 472
- Christian Palestinian, 70¹⁵
- Eastern, 139
- Imperial, 38, 40
- Jewish Babylonian (JBA), 293, 605
- Mandaic, 293
- Middle, 3
- Mlahso, 371
- Nabataean, 38, 43, 49, 50, 61

Language index

- Neo-Aramaic, 3, 86, 101, 139, 293,
467, 469
North-Eastern (NENA), 8, 9, 16,
139, 371–376, 376⁶, 377–388,
390, 390¹⁸, 390¹⁹, 391–397
Western, 100, 108
Syriac (Syr.), 69, 70, 70¹⁵, 70¹⁶, 71,
72, 72¹⁸, 77, 90, 95, 99, 104,
139, 142, 153, 163, 372, 372¹,
379, 386, 387, 396
Turoyo, 142, 148, 153, 371, 372, 374,
394
Western, 86
Armenian, 12, 85, 137, 138, 140, 161,
164, 171, 259, 372¹, 467, 469
Arwad, 16, 90
Avokaya, 327, 328, 335
Azer, 258, 259
Azeri, 87, 373², 374, 375, 381, 394–396,
513
Bagirmi, 176, 179, 188, 189, 323, 325
Baka, 327, 328, 335
Balochi, 442
Bari, 23, 327–331, 334, 334⁵, 335, 336,
630, 635
Basque, 607
Beja, 9, 15
Belanda Bor, 327, 328, 333, 336
Bengali, 337, 339, 341
Berber, 3, 6, 7, 9, 11, 12, 16, 22, 66⁹,
199–201, 201¹⁰, 201¹¹, 201⁹, 202,
203, 203¹³, 204, 205, 205¹⁴,
206, 208, 209, 214–219, 221,
225, 229–231, 233¹⁸, 234, 236,
237, 237²¹, 237²², 238, 238²⁴,
238²⁶, 238²⁷, 238²⁸, 238³⁰, 239,
239³¹, 240, 245, 247–251, 251⁴,
252–261, 270, 276¹⁰, 292, 293,
305, 587, 590–592, 594, 627,
628, 632, 633, 653, 656, 657,
659, 659⁸, 661
Awjila, 9, 411, 412, 656, 657
Beni Snous, 413
Ghomara, 201, 201⁹, 237, 410, 411,
413–415
Kabyle, 201, 202, 204, 238, 238³⁰,
239, 257, 403–405, 408, 410,
413, 632, 633, 656, 657⁷, 659
Mozabite, 659
Northern, 408, 413, 414
Senhaja, 237
Shawiya, 403, 659
Siwa, 276¹⁰, 404, 405, 407, 412,
415, 656, 657, 659
Tamazight, 215, 305, 403, 659
Tarifiyt, 215, 305, 403, 412, 413,
632, 657⁷, 659
Tashelhiyt, 203, 215, 238²², 247,
305, 403, 413, 656, 659
Tuareg, 9, 247, 254, 257, 403, 405,
409, 413, 656
Tunisian (TB), 590, 591
Zenaga (Zen.), 245, 247–249, 249²,
250–253, 253⁵, 254, 255, 257,
259–261, 627, 628, 632, 656
Zenati, 234, 236, 237, 412
Zuwara, 410, 590
Bitlis, 154
Bongo, 327, 328, 333–336
Canaanite, 39, 49
Castilian, *see* Spanish
Catalan, 216, 227, 291
Majorcan, 586
Chadic, 176, 189, 199, 209, 323
Chaoui, *see* Shawiya
Circassian, 85

- Coptic, 11, 419, 588, 592, 593, 643¹, 653–655
- Cushitic, 9, 419, 423–425, 427, 431, 433–435
- Dadanitic, 38, 46, 49
- Dardic, 490, 491, 512
- Didinga, 327, 335
- Dinka, 327–329, 332, 334–336
- Domari, 10, 12, 18, 653, 657, 658
 - Antioch, 501, 502
 - Beirut/Damascus, 490–504, 504³, 505, 507, 508
 - Jerusalem, 490, 494
 - Jordanian, 515
 - Northern, 512
 - Southern, 10, 490, 491, 495, 498, 508, 512
- Dutch, 305, 306
- Egyptian (Ancient), 419, 434, 588, 592, 593, 653
- English, 6, 14, 19, 75, 87, 89, 92, 103, 106, 116, 162, 163, 177, 180, 181, 216, 221, 248, 259, 265, 268, 269, 272, 274, 275, 277, 279, 287, 289, 289¹⁷, 290, 290¹⁸, 291–293, 304, 306, 312, 327, 328, 337, 338, 340, 341, 375, 377, 504, 551, 551¹, 568, 586, 588, 605, 606¹, 626, 627, 637, 644, 646, 647
 - American, 221, 306, 615
 - British, 306
 - Early Modern, 644
 - Maltese, 268
 - Middle, 644
 - New Zealand, 553, 553⁵
 - Old, 644
- Fali, 188, 189, 193
- French, 19, 74, 75, 75²², 87, 89, 92, 106, 164, 180, 199, 201–203, 205, 205¹⁴, 206, 206¹⁴, 208, 209, 214, 216, 217, 219–221, 247, 248, 251, 258, 259⁶, 260, 275, 292, 306, 323–325, 375, 404–406, 533–535, 538, 539, 541–543, 545, 551, 551¹, 586, 590–592, 605, 643¹, 644, 646–649, 660, 660¹⁰
 - Old, 644
- Fulfulde, 176, 177, 179, 180, 191, 192, 323, 325, 629
- Gaelic, 586
- German, 14, 75, 398, 586, 647
- Greek (Gk.), 7, 10, 11, 23, 38, 42, 44, 47, 48, 58, 59, 66, 68, 72, 72¹⁷, 72¹⁸, 74, 77, 78, 85, 85⁴, 88, 104, 104³⁶, 160–173, 199, 215, 282, 287, 292, 419, 533, 534, 542, 588, 592, 593
 - Ancient, 593
 - Cypriot, 6, 160–162, 162², 163, 165–167, 169–172
 - Koiné, 593
 - Standard, 162, 162², 163, 168
- Gurbetça, *see* Kurbetça
- Gurānī, 442, 446
- Gīlakī, 442
- Gəŋəz (Gz.), 45, 65, 68, 69, 69¹¹, 71, 72, 72¹⁷, 74
- Ḥānsāri, 449
- Hasaitic, 46, 46¹¹, 48
- Hausa, 6, 177, 180, 181, 191, 199, 206¹⁵, 209, 323, 325, 404

Language index

- Hebrew, 3, 12, 39, 49, 50, 63⁵, 69, 73,
75, 77, 168, 199, 216, 229¹⁴,
553, 638
- Hindi, 339, 341, 342
- Hismaic, 38, 49, 50
- Iberian, 216, 229¹³
- Igli, 404, 406, 411
- Indo-Aryan, 441, 490, 493, 511, 512,
514–518, 522, 524–527, 529,
657
- Indo-Iranian, 3, 9, 137, 518, 656
- Indonesian, 8, 339
- Iranian, 9, 86, 116, 137, 139, 373, 383,
396, 459, 460, 463, 464, 466,
470, 472, 473, 478, 491, 502,
513, 514, 655, 656
- Italian, 7, 199, 201, 206, 207, 207¹⁶, 207¹⁷,
207¹⁸, 208, 268, 272, 274–279,
279¹², 280–282, 286, 287, 289–
293, 305, 306, 312, 533–535,
537, 537¹, 538–545, 586, 590,
627, 634, 647, 661
Bari dialect, 589, 590
- Javanese, 339
- Jibbāli, *see* Şheret
- Jur, 327, 328, 332, 333, 335, 336
- Kakwa, 327, 334, 335
- Kanembu, 176
- Kanuri, 6, 176–178, 180–182, 188, 189,
191, 192, 323, 325, 628–630,
637
- Kirmānī, 442
- Koalib, 12, 633
- Kotoko, 176, 180, 192, 629
- Kuku, 327
- Kumzari, 442, 463, 653, 655, 656
- Kurbetça, 164
- Kurdish (Kr.), 6, 9, 83, 86, 88, 91, 92,
95–97, 101, 104, 107, 118, 137,
137², 138, 139, 141, 142, 147–
153, 153¹⁶, 154, 372, 372¹, 373,
373³, 374–379, 379¹², 380, 381,
383–386, 387¹⁷, 388, 389, 390¹⁸,
391, 394, 395, 397, 442, 446,
490–493, 501, 502, 507, 513
Central, 459, 463–467, 472, 473,
475, 481
Kurmanji, 139, 152, 373³, 376⁶, 459,
462, 463⁴, 468, 470–472, 474,
477, 478, 480–482
Badini, 471, 480
Northern, 374⁵, 376⁶, 379–381, 383–
386, 387¹⁷, 388, 391, 395, 396,
459, 463–467, 472–474, 476–
478, 480, 481
Sorani, 395, 396, 459, 462, 463⁴,
474, 477, 478, 481, 513
- Latin, 3, 19, 38, 66, 72, 74, 199⁴, 213,
218, 220, 229, 229¹³, 231, 232¹⁷,
233, 236, 238, 239, 259, 291,
304, 311, 405, 406, 420, 462³,
534, 588, 591, 646
Classical, 215, 647
Late (LL), 199, 199⁴, 215, 217, 218,
220, 221
Vulgar, 229¹³, 238, 239
- Lendu, 327, 335
- Lingua Franca, 10, 85, 91, 104, 199, 199⁵,
214
- Lotuho, 327, 328, 335, 336
- Luganda, 327, 329, 335
- Lugbara, 327, 335
- Luo, 327
- Mahriyöt, 354, 357, 359, 362, 365

- Malayalam, 339
- Malgwa, 192
- Maltese, 3, 6, 7, 19, 19³, 140⁵, 165, 167,
168, 170, 197, 198, 219, 221,
308³, 388, 612, 616, 627, 633,
634, 637, 660, 661
- Mamvu, 327
- Manam, 645
- Masa, 323
- Ma'di, 327, 328, 332–336
- Mbay, 323–325
- Meroitic, 419
- Moru, 327, 328, 335
- Mundari, 327, 334
- Mundu, 327, 328
- Ngambay, 323–325
- Niger-Congo, 323, 327, 333
- Nilo-Saharan, 12, 188, 189, 199, 323,
327, 433, 628
- Nubian, 12, 176, 323, 419, 434
- Nuer, 327, 328
- Nuristani, 441
- Occitan, 291
- Omotiic, 434
- Ossetic, 442, 446
- Pamir, 442
- Parthian, 443
- Persian (Pers.), 6, 7, 9, 15, 22, 58, 59,
66, 68, 74, 74²⁰, 77, 78, 86,
89, 89¹¹, 91, 92, 95, 96, 101,
104, 107, 115, 116, 116², 117,
117⁴, 118, 118⁷, 119, 119¹⁰, 120,
120¹², 121, 121¹³, 122, 122¹⁴,
122¹⁶, 123, 124, 124¹⁹, 124²⁰,
126–128, 128²⁷, 128²⁸, 128²⁹,
129, 129³⁰, 129³¹, 129³³, 130,
259, 314, 339, 342, 375, 379,
383, 394, 395, 460, 461, 463,
463⁵, 464, 465, 469, 470, 472–
478, 482, 483, 491, 513, 543,
588, 591, 660
- Bandarī, 442, 447
- Baḥtiārī, 442, 450, 451
- Classical, 444, 448, 451, 452, 452⁴
- Darī, 442
- Dizfūlī, 442
- Fīnī, 442
- Lurī, 442, 449–451
- Lāristānī, 442
- Modern Standard (MSP), 444, 444²,
446–451, 452⁴, 453
- New (NewP), 9, 441–443, 445–
449, 451–454
- Phoenician, 50, 266
- Pojulu, 327, 328, 334, 335
- Portuguese, 10, 216, 238²⁷, 239³², 306,
534, 535, 537, 537¹, 551, 551¹,
589, 592
- Provençal, 533, 534, 537, 538
- Punic, 199, 215, 266
- Punjabi, 339
- Pāri, 327, 328, 332, 333, 335, 336
- Quechua, 586
- Romance, 3, 6, 7, 10, 167, 199, 202, 214,
215, 218–220, 227, 229, 230,
230¹⁵, 231–235, 235²⁰, 236,
237²², 238²³, 239³¹, 240, 265,
267, 269–276, 276¹⁰, 277–279,
279¹², 281, 282, 284, 286, 287,
289, 289¹⁷, 290–294, 311, 536,
537, 539–545, 585, 589, 593,
607, 647, 660, 661
- Andalusi, 227, 229, 229¹⁴, 230, 232–
235, 238²³, 240

Language index

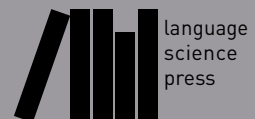
- Romani, 164, 413, 490
Romanian, 337, 338, 341
Russian, 75, 164
- Safaitic, 38, 41, 42, 47–50, 73¹⁹
Saho, 424, 433
Sami, 162
Sango, 323, 325
Sar, 323, 325
Sara, 323, 325
Semitic, 8, 9, 37, 38, 42, 46, 47, 47¹³,
48, 49, 63⁵, 65, 70¹³, 72, 73,
85, 90, 96, 101, 147, 163, 165,
189, 253, 265, 266, 269, 270,
277, 279, 283, 286, 288, 289,
294, 351, 352, 355, 356, 371,
376, 383, 384, 388, 419, 425,
427, 430, 433, 434, 462, 463,
465, 467, 470, 474, 555¹¹, 649²
 Central, 46, 50, 122¹⁵
 Ethiopian, 7, 58, 59, 64, 65, 77
 Northwest, 85
Shilluk, 327, 328, 332, 333, 336
Sicilian, 7, 267–269, 272, 274, 275, 275⁸,
276–278, 280–286, 289–293,
311, 537, 661
Sinhalese, 337, 339, 341
Slovak, 293
Sogdian, 443
Somali, 424
Songhay, 199, 209, 247, 258, 261
Soninke, 247, 249, 258–260
South Arabian, 3, 9, 18, 38, 45, 51, 59,
65, 65⁸, 66, 72, 73, 425, 435
 Modern (MSAL), 8, 12, 64, 65, 425,
650, 651, 653–655, 662
 Baḥari, 8, 18, 353–360, 362, 364,
365
 Ḥarsūsi, 8, 353, 365, 654
 Hobyōt, 8, 353, 365
 Mehri, 8, 65, 353, 354, 357–359,
361–365, 650, 654
 Şheret, 8, 353, 354
 Soqoṭri, 8, 353, 354, 356, 357,
365, 650
 Old, 7, 51, 59, 64–66, 71–73, 352
Spanish, 10, 199, 206, 209, 214–221,
227, 232, 233, 238²⁷, 239³²,
274, 283, 284, 286, 287, 291,
292, 306, 534, 535, 537, 537¹,
538, 540, 551, 551¹, 586, 591,
592
 Buenos Aires, 586
 Hakitia, 216
 Majorcan, 586
 Old, 220
Sudanic, 12, 321, 323, 327, 333, 419
Şurayt, *see* Turoyo
Swahili, 8, 327–332, 334–336
- Tagalog, 339
Tagoi, 633
Tajik, 12, 314, 442, 445, 446, 635, 636
Tamil, 339
Thamudic, 46, 46¹², 47, 49
Tigre, 421, 434
Tigrinya, 434
Tupuri, 323
Turkic, 87, 373², 383, 396, 461, 467,
491, 513, 514
Turkish, 3, 6, 10, 66, 74, 78, 84, 87, 89,
91, 92, 96, 97, 101–105, 116,
119, 129³¹, 130, 135–137, 137²,
138, 139, 141–144, 146–153, 153¹⁶,
154, 160, 163, 164, 199, 202,
206, 206¹⁵, 207, 208, 214, 259,
287, 292, 372¹, 373², 374, 375,
379, 384, 386, 387, 389, 395,

- 396, 445, 465, 469, 470, 491–
493, 500, 501, 507, 513, 527,
534, 541, 542, 586
- Ottoman, 7, 57, 59, 74, 77, 89, 92,
104, 107, 116, 142, 153, 206,
379, 463⁵, 477, 478, 482, 483,
541, 543, 588
- Turkmen, 12, 101, 107, 395, 396
- Turku, 7, 322–325, 342, 343
- Tālišī, 442
- Tātī, 442, 449
- Urdu, 339, 341, 342
- Uzbek, 12
- Venetian, 533, 537¹, 538, 540, 541
- Wandala, 188, 189
- Wolof, 247, 249², 258–260
- Yaynōbi, 442
- Yiddish, 75
- Zande, 327, 328, 333–336
- Zarma, 404
- Zazaki, 137–139, 148–151, 442, 463, 470,
472, 474

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