

New Perspectives in Biblical and Rabbinic Hebrew

EDITED BY AARON D. HORNKOHL AND GEOFFREY KHAN



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NEW PERSPECTIVES
IN BIBLICAL AND RABBINIC
HEBREW

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*Edited by Aaron D. Hornkohl
and Geoffrey Khan*





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subtitle expresses her main concern, namely how to study biblical texts in their linguistic, cultural, and cognitive contexts of origin.

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PREFACE

Most of the papers in this volume originated as presentations at the conference *Biblical Hebrew and Rabbinic Hebrew: New Perspectives in Philology and Linguistics*, which was held at the University of Cambridge, 8–10th July, 2019. The aim of the conference was to build bridges between various strands of research in the field of Hebrew language studies that rarely meet.

The study of Hebrew has a long tradition in European universities. Hebrew teaching began to become institutionalised within the universities by the beginning of the fourteenth century, with chairs of Hebrew established at the universities of Paris, Oxford, Bologna, Salamanca, and at the Pontifical See in Rome. By the sixteenth century, when the Renaissance was at its height, Hebrew had become a central component of the curriculum of the universities, alongside Greek and Latin, following the model of the trilingual colleges at Alcalá and Louvain. This situation changed in subsequent centuries, when Hebrew rapidly lost its central status in the general humanities curriculum and became more restricted to biblical and theological studies.

There are various clear historical stages in the development of the Hebrew language. These are:

- (i) Biblical Hebrew, i.e., the language of the Hebrew Bible written in antiquity;
- (ii) Rabbinic Hebrew, i.e., the Hebrew language of the Mishna, Talmud, and other Rabbinic texts, written in late antiquity and the Middle Ages;
- (iii) Modern Israeli Hebrew.

Broadly speaking, the study of Biblical Hebrew in universities today is concentrated in departments of biblical studies and theology; the study of Rabbinic Hebrew is concentrated in departments of Jewish studies; and the study of Modern Hebrew language is concentrated in departments of theoretical linguistics. Scholars who are researching linguistic aspects of pre-modern Hebrew (i.e., Biblical and Rabbinic Hebrew) tend to be working in isolation in departments that do not have a clear linguistic focus.

One of the main aims of the conference was to bring together three main groups of scholars: (i) scholars working on Biblical Hebrew and the linguistic situation of Hebrew in antiquity, (ii) scholars working on Rabbinic Hebrew and the linguistic situation of Hebrew in late antiquity and the Middle Ages, and (iii) theoretical linguists who have worked on linguistic analyses of Modern Israeli Hebrew. These three groups of scholars seldom collaborate and there are rarely opportunities for them to meet at a conference dedicated to the Hebrew language. The aspiration of the organisers was that, by uniting these groups, the conference would give an impetus to revitalise Hebrew as a major force in the modern humanities. This would be achieved by joining together cutting-edge research on Hebrew philological sources from the ancient and medieval worlds and uniting these with state-of-the-art enquiry into general linguistic theory. The collaboration with general theoretical linguists would result in the conference helping to give the Hebrew language a more prominent role in the broad field of modern linguistics, which has extensive international outreach. This aspect of the conference followed the

initiative of the Israeli linguists Susan Rothstein, Edit Doron and Outi Bat-El, who founded the Biblical Hebrew Linguistics and Philology Network in 2017. Conferences within the framework of this network were held at Bar Ilan University in 2017 (organised by Susan Rothstein) and at the Hebrew University of Jerusalem in 2018 (organised by Edit Doron and Robert Holmstedt). Very sadly, Susan Rothstein and Edit Doron passed away in 2019.

Of particular significance are the many ways in which collaboration between Hebrew philologists with theoretical linguists will invigorate the field.

There are two primary historical reasons for the avoidance of linguistic theory in Biblical and Rabbinic Hebrew language study. The first is one of environment and access. As remarked above, the vast majority of Biblical and Rabbinic Hebrew teaching and research occurs in departments that are not primarily concerned with linguistics. Thus, the study of pre-modern Hebrew typically occurs in contexts in which the appropriate linguistics education is unavailable. This situation continues to contribute to, and even to exacerbate, the second historical reason for the lack of linguistically-informed analysis of Biblical and Rabbinic Hebrew—a deep-seated antipathy between traditional philology, which has characterised the study of Biblical Hebrew since its ‘rediscovery’ by European scholars in the Renaissance, and the relative latecomer, modern linguistics. This tension between modern linguistic theory and philology was not historically born from, or limited to, Hebrew studies. August Schleicher (1821–1868) was the first to argue for a clear distinction between *Philologie*, an essentially historical endeavour using language as

a means to study culture, and *Linguistik*, the scientific study of language itself. Ironically, though Schleicher considered his own work to be linguistic, the following generation of scholars derisively cast Schleicher's work as the older 'philology' based on historical linguistics. This was in contrast to their own 'newer' methods, which were increasingly associated with non-historical, synchronic language description (see Holmstedt 2006). This misleading dichotomy between 'philology as historical language study' and 'linguistics as synchronic language study' not only resulted in the long-standing tension between philology and linguistics, but was imported directly into Biblical Hebrew studies, illustrated most clearly in James Barr's influential 1969 article 'The Ancient Semitic Languages: The Conflict between Philology and Linguistics'.

Considerable obstacles notwithstanding, the melding of contemporary linguistic theory and the study of Biblical Hebrew has occurred, though rarely and in isolated bursts of individual scholarship. Though individual efforts are a welcome contribution to this small but important movement in Biblical Hebrew studies, the conference sought to set a new paradigm in collaboration between Hebrew philologists working on different periods of the language and some of the world's leading theoretical linguists who have worked in particular on Modern Hebrew.

Finding the appropriate methodologies for applying linguistic theory to Biblical and Rabbinic Hebrew is not a trivial challenge. Linguists working on the modern language have at their disposal large corpora and search engines, as well as the possibility of generating data by working with native speakers.

Biblical and Rabbinic Hebrew are restricted to fixed corpora, with their own search engines, but, of course, no possibility of generating new data. Further complicating the endeavour is the transmitted nature of the biblical and rabbinic sources that serve as philological texts used as linguistic texts for analysis (on the relationship of philological text to linguistics text, see Hale 2007).

An additional objective of the conference was to bring together early career scholars, such as graduate students and post-doctoral researchers, and established senior scholars in the field. The early career researchers displayed posters and made short presentations interspersed with the presentations of other participants.

The present volume is the published outcome of this initiative in Cambridge. It contains peer-reviewed papers in the fields of Biblical and Rabbinic Hebrew that apply methodologies of philology and theoretical linguistics. These include contributions by established scholars and by students and early career researchers. The abstracts of the papers are given after this preface.

We would like to express here our gratitude to the conference organising team, which was led by post-doctoral researcher Dr Magdalen Connolly and included graduate students Estara Arant, Nick Posegay, Johan Lundberg, Joseph Habib, Cody Kingham, Dorota Molin, and post-doctoral researcher Dr Ben Kantor. It was thanks to their hard work and superb organisational skills that the conference was such a great success.

Estara Arrant has also given us invaluable assistance in the preparation of the volume, including logistical support and proof-reading, for which we register here our heartfelt thanks.

We gratefully acknowledge the financial support that we received for the organisation of the conference from the Thyssen Foundation (in response to a joint application by Cambridge and Lutz Edzard), the Arts and Humanities Research Council (from a grant funding a project directed by Michael Rand), and Hebrew Trust funds of the Faculty of Asian and Middle Eastern Studies.

Finally, we would like to express our gratitude to Open Book Publishers for all their efficient help in publishing the volume. Their open-access initiative will allow this publication to be widely read throughout the world.

The Editors, Cambridge, February 2021

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ABSTRACTS

Aaron Koller, The Alphabetic Revolution, Writing Systems, and Scribal Training in Ancient Israel

The first writing systems in the Near East, cuneiform and hieroglyphs, had heavy non-phonetic components, including determinatives and morphographic spellings. The early alphabet, as found in the inscriptions from Serabit el-Khadim and elsewhere, contrasts sharply with these systems in the way that the language is reflected. Here the orthography is radically shallow, with no components to the writing system that do not reflect phonology. The orthographic practices seen in the Hebrew Bible take a step away from the radical shallowness of the early alphabetic texts. Noting examples of morphophonemic spelling in the Masoretic Text of the Bible allows us not only to conceptualise the writing system at work, but also to reveal some of the contours of the training that went into being a scribe in biblical Israel.

Nick Posegay, Hissing, Gnashing, Piercing, Cracking: Naming Vowels in Medieval Hebrew

The modern names for the Hebrew vowels (*qameṣ*, *pataḥ*, *segol*, *ṣere*, *ḥiriq/ḥireq*, *ḥolem*, *shuruq/shureq*, *qibbuṣ/qubbuṣ*) are derived from a variety of medieval sources. The pair of *qameṣ* and *pataḥ* are the oldest, both having evolved in the earliest stages of Masoretic analysis of vocalisation. The remaining names are products of three different conventions. *Ṣere*, *ḥiriq*, *ḥolem*, and *shuruq* de-

scend from four Aramaic technical terms that described the physical articulation of vowel phonemes during the ninth century. Additionally, *segol* describes the shape of its three-dot vowel sign in the Tiberian pointing tradition, while *qibbuṣ* is a Hebrew calque of an Arabic grammatical term. This article traces the evolution of these terms during the early medieval period alongside other vowel names that have not survived to the modern day.

Steven E. Fassberg, III-y Imperatives in Ancient Hebrew

The ms imperative of strong verbs in the *qal* and derived stems shows an alternation of final $\emptyset \sim -\bar{a}$. This is so in the case of the ms imperative of weak verbs, too, with the exception of III-y verbs in the derived stems, where one finds final $\emptyset \sim -\bar{e}$. This study investigates the distribution of long and short forms of the ms imperative of III-y verbs in Biblical Hebrew, epigraphic Hebrew, the Hebrew of Ben Sira, the Dead Sea Scrolls, the Samaritan Pentateuchal oral tradition, the Secunda, and Tannaitic Hebrew. The data from ancient Hebrew sources seem to indicate that the later the text, the greater the chance that one will find in it long ms III-y imperative forms in the derived conjugations.

Jorik (F. J.) Groen, Frequency, Analogy, and Suppletion: $\sqrt{h}lk$ in the Semitic languages

The verb $\sqrt{h}lk$ exhibits various morphological irregularities throughout the Semitic language family. These are well known and have been described before, in particular from the perspec-

tive of Biblical Hebrew and its nearest relatives. The current contribution approaches the morphology of Semitic $\sqrt{h}lk$ from state-of-the-art linguistic theories, in particular usage-based theory. Thus, it is explained how high-token frequency of some of the verb's forms induced irregular sound changes (phonetic reduction), the manner in which these spread to other forms in the paradigm through analogy, leading to the suppletive paradigms of $\sqrt{h}lk$ in the various Semitic languages. By combining frequency figures with usage-based theory, earlier solutions are revised, while drawing up the chronological order and paradigmatic directions of the most likely development.

Ariel Gabbay, On the Morphology of the Guttural Verbs in Sephardic Traditions in the Early Modern Period

This paper deals with the morphology of guttural verbs in the Sephardic reading tradition for Mishnaic Hebrew. It is based on findings common to the world's first two Mishna editions printed with full vocalisation: the Constantinople edition and the Amsterdam edition. Both of these seventeenth-century editions, although vocalised by grammar experts, reveal vocalisation that contradicts not only biblical grammar, but also rabbinic grammar, as represented in the medieval vocalised manuscripts, first and foremost MS Kaufmann. The paper presents three phenomena that emerge from the two editions. The first is feminine participle forms with *segol* instead of *patah*, such as נִפְרָעָה 'collect (a debt) (fs)', מְגִלָּחָה 'shave (fs)'. The second is the lack of compensatory lengthening in *pi^{al}* and *pu^{al}*, such as מְאַנָּה 'she refused',

מְבוּעָר 'removed'. The third issue is *shewa mobile* with guttural consonants in quadrilateral verbs, examples including מְעַרְעֵרִין '(they) compel (her)', מְהַבְהִיבִים 'parch (mpl)'. This vocalic realisation, which apparently reflects analogy to non-guttural verbs, is well documented in Sephardic reading traditions of recent generations.

Na'ama Pat-El, Comparative Semitic and Hebrew Plural Morphemes

The distribution of the Hebrew plural morphemes on substantives is generally assumed to be conditioned by gender; nevertheless, many exceptions are attested in all periods. Scholars have suggested multiple explanations for this phenomenon, though none can adequately explain all exceptions. In this paper, comparative evidence is used to shed light on this problem. Based on this evidence, I argue that plural marking of substantives in Hebrew patterns with other languages and, therefore, should be studied comparatively and not in isolation. I also offer some criteria for the use of plural variation for linguistic dating of Hebrew texts.

Elisheva Jeffay, Proper Names as Predicates in Biblical Hebrew

Unlike in Modern Hebrew (MH), proper names in Biblical Hebrew (BH) appear freely in the annex of constructs, e.g., בְּנֵי יַעֲקֹב 'the sons of Jacob' (Gen. 34.13). Rothstein (2012, 2018) argues that the infelicity of these constructs in MH is due to the status of the annex as a predicate phrase, which proper names, as referential expressions (DPs), cannot fill. This suggests that proper

names in BH are not inherently referential, but are predicates. In this paper, I will explore the construct phrase and its rules, the semantic composition, and lexical interpretation of names in BH and BH gentilic names as evidence in support of the hypothesis that BH proper names are predicates.

Chanan Ariel, The Shift from the Biblical Hebrew Far Demonstrative ההוא to Mishnaic Hebrew אותו

In Biblical Hebrew ההוא serves as the distal demonstrative pronoun and follows the noun it complements. In Mishnaic Hebrew two shifts occur. אותו (usually a direct object pronoun) replaces ההוא and precedes the noun it complements. This paper examines the explanations offered for this development over the last 175 years in light of evidence from Late Biblical Hebrew, Palestinian Aramaic dialects, and Greek. It supports an explanation that focuses on language contact: Aramaic could have encouraged prolepsis, but the main influence is the Greek pronoun *αὐτός* with a similar sound and similar syntactic functions. The paper attempts to reconstruct the reason for the replacement of an existing Hebrew structure with a Greek alternative. It examines possible influence of the legal genre and links these shifts to the omission of definiteness in demonstrative pronouns in Mishnaic Hebrew.

Bo Isaksson, Biblical Hebrew Short *Yiqṭol* and the ‘Consecutive Tenses’

The Biblical Hebrew *wayyiqṭol* clause-type is a primary constituent in the theory of ‘consecutive tenses’. This article uses recent advancements in the study of the Masoretic Text to clarify that

such clauses were pronounced without gemination of the prefix consonant in Standard Biblical Hebrew (SBH): *wa-yiqtol* (past perfective meaning). The gemination was an innovative feature of the reading tradition during the Second Temple Period. This opens up the question of the status of the conjunction *wa-* before past perfective short *yiqtol*. It is shown that the traditional assumption of a special ‘consecutive *waw*’ before short *yiqtol* is unwarranted. The coding of pragmatic discourse continuity already has a signal: the clause-type with normal *wa-* and initial verb (type *wa-VX*). The typical main-line clause in historical narration, *wa(y)-yiqtol*, signals discourse continuity because the verb directly follows the conjunction *wa-*, and this conjunction was a normal ‘natural language connective’ *wa-* ‘and’ in SBH.

Elizabeth Robar, The Rise of *Wayyiqtol*

The distribution of *wayyiqtol* throughout the Hebrew Bible is far from uniform. In much of Archaic Biblical Hebrew, it is altogether absent. In other portions, it is present, but not uniform in tense/aspect semantics. In the book of Job, *wayyiqtol* is common, but behaves as a freely chaining verb (continuing the tense and aspect of a preceding situation) rather than as a preterite. This brief inventory of the uses of *wayyiqtol* is not well reflected in traditional definitions of it as a perfective past. An exclusively semantic definition might not be adequate to define *wayyiqtol*.

Ambjörn Sjörs, Notes on the Lengthened Imperfect Consecutive in Late Biblical Hebrew

The article investigates the distribution of lengthened and unlengthened forms of the first-person imperfect consecutive in Late Biblical Hebrew (Daniel, Ezra, Nehemiah, and Chronicles). It is argued that the literary language of these compositions reflects a standard in which the first-person imperfect consecutive is lengthened as a rule. Exceptions to this rule are discussed individually. It is shown that some unlengthened verb forms are used in formulaic expressions and it is argued that they are retrieved whole from the lexicon rather than generated by contemporary language-usage grammar. It is also argued that other apparently unlengthened verb forms of roots with a final guttural show assimilation of paragogic *heh*. Finally, it is shown that the use of unlengthened verb forms in the court narrative in Neh. 1–4 coincides with other archaic or archaising features, and it is suggested that the composition imitates Classical Biblical Hebrew.

Geoffrey Khan, The Coding of Discourse Dependency in Biblical Hebrew Consecutive *Weqatal* and *Wayyiqtol*

The paper argues that the discourse dependency of Biblical Hebrew consecutive *weqatal* and *wayyiqtol* forms is encoded in their semantic structure and is not just an implicature of the context. This is a heritage of their historical origin in subordinate constructions with temporal integration between clauses. The historical development of consecutive *weqatal* and *wayyiqtol* proposed

has typological parallels in Neo-Aramaic and involves the extension through schematisation of constructions containing dependent clauses (apodosis and purpose clause, respectively). The old narrative construction of *waw* + past perfective *yiqtol* expressing chains of events was preserved due to a process in which it was reanalysed as an extension of a different, but structurally similar, construction, viz. *waw* + jussive *yiqtol*.

Aaron D. Hornkohl, A Tense Question: Does Hebrew Have a Future?

Arguing that the Biblical Hebrew (BH) verbal system expresses semantics that correspond to all three Tense-Aspect-Mood (TAM) categories, the article examines the longstanding and deeply-rooted rejection in BH scholarship of tense, in general, and of future tense, more specifically. It next spotlights representative aspect- and mood-prominent treatments of the *yiqtol* form, indicating where these more and less successfully explain the data, concluding in favour of a tense- or mood-prominent approach. Certain complications with mood-prominence are then considered, not least the categorisation of various sorts of modality commonly associated with *yiqtol*. Finally, it is argued that a viable mood-prominent approach must comprehend the possibility of the expression of indicative future, which claim is substantiated on the basis of semantic minimal pairs of verbs indicating future certainty, on the one hand, and obligation, on the other.

Ethan Jones, On Pragmatics and Grammar in Biblical Hebrew: Predicate Adjectives and Stative Verbs

In the study of the pragmatics of Biblical Hebrew, most of the scholarly attention has been on *topic* and *focus*. At times, *given* and *new* information (i.e., *theme* and *rheme*) receive passing mention. Yet a claim has gone mostly unnoticed for decades, namely, that the pragmatic layer of *given* and *new* information is inextricably linked to the grammar of Biblical Hebrew (Jenni 1968; 2012). In short, the position is that predicate adjectives mark *new* information, whereas stative verbs mark *given* information. The present article revisits this old claim. It returns afresh to this minimal pair, using recent research on Information Structure (Götze et al. 2007). At times, the results corroborate previous research, but other times the seamless connection between pragmatics and grammar is challenged. In all, this article hopes to encourage more work on the relationship between grammar and pragmatics in ancient Hebrew.

Ellen van Wolde, *Nif^{al}* Verbs in the Book of Genesis and Their Contribution to Meaning

In this study, the use and meaning of *nif^{al}* in Biblical Hebrew is investigated based on the representative corpus of *nif^{al}* verbs in Genesis. First, a theoretical characterisation of the middle voice is presented as distinct from the passive voice. Then follows an examination of the 78 instances of *nif^{al}* verbs in Genesis, with a focus on *nif^{al}* verbs that express body actions. The conclusion is

that these verb forms conceive of the event from a final, conclusive, or resultative point of view. Expressed in middle voice, the events are not construed as unfolding over time, but as having been achieved, that is, as achievements that affect or have an impact on the initiating subject, who is at the same time the affected patient. In these middle constructions, the verbal root takes on new shades of meaning.

Daniel Wilson, הָיָה in Biblical Hebrew

A general consensus has emerged that the copula הָיָה licenses tense, aspect, and mood (TAM) in Biblical Hebrew (BH) and can also be used as a ‘true verb’ meaning *become*, *happen*, *exist*, etc. Exactly which features are licensed by הָיָה, however, has not been demonstrated in an exhaustive study. This article—based on an exhaustive study of הָיָה in BH—demonstrates exactly which TAM features and environments control the manifestation of הָיָה. The ‘true verb’ function of הָיָה can also be understood in a uniform way typical of auxiliaries. A thorough discussion of the roles of הָיָה also requires distinguishing predicational sentences from existential sentences. The semantics of existentials in BH also explains the function of הָיָה in many examples. Readers of BH will find that most finite forms of הָיָה in the Hebrew Bible can be explained using one of the conditions specified in this article.

Lutz Edzard, The Coordination of Biblical Hebrew Finite Verb Forms and Infinitives in Comparative Semitic and Typological Perspective

The coordination of finite verb forms and infinitives in Biblical Hebrew, especially Late Biblical Hebrew, and in other Semitic languages continues to be an intriguing issue. This paper examines said topic from the perspective of the concepts of (pseudo-)coordination and (pseudo-)subordination, as proposed by Yuasa and Sadock (2002), drawing on comparison of a wide range of Semitic (Phoenician, Sabaic, Gəʿəz, Amharic, Epigraphic North Arabic, Classical Arabic, Modern Arabic dialects) and typologically comparable non-Semitic data (Yiddish, Norwegian, Turkish, Swahili). Relevant constructions treated in this paper are syndetic constructions with posture or motion verbs, syndetic serial-verb constructions, asyndetic serial-verb constructions, syndetic converb(-like) constructions, asyndetic converb construction, as well as syndetic constructions consisting of finite VPs and infinitives.

Cody Kingham, Parts of Speech in Biblical Hebrew Time Phrases: A Cognitive-Statistical Analysis

Though time phrases function adverbially, they can be headed by nouns, adjectives, and adverbs. This non-prototypical behaviour makes time phrases a useful context in which to test theories on parts of speech. The collocation behaviour of head words in time phrases can be measured statistically as a way of capturing their semantics. These objective statistical data provide a necessary control on more subjective linguistic hypotheses. In that vein,

this article explores a new method of ‘cognitive-statistical’ analysis. The behaviour of words found in over 3,400 adverbial phrases in Biblical Hebrew is analysed using Principal Component Analysis (PCA), an unsupervised clustering technique. The resulting analysis uses the PCA model of word collocations to automatically classify their parts of speech. The end results prove promising for future classifications based on statistical analyses of word behaviour rather than on pure intuition.

Christian Locatell, Polysemous Adverbial Conjunctions in Biblical Hebrew: An Application of Diachronic Semantic Maps

Adverbial conjunctions often communicate multiple interclausal relationships in a constrained set of polysemy patterns (e.g., time and cause, place and condition, or comparison, time, and condition, to name but a few). This raises several questions: How are these different meanings conceptually related to each other? What processes led to the proliferation of meanings for a single form? And how may these meanings be diachronically ordered in a form’s developmental history? This study approaches these questions regarding adverbial conjunctions in Biblical Hebrew with the following methodology: (1) construct a usage profile of the form(s) in question; (2) heuristically employ diachronic semantic maps to generate hypotheses about the conceptual and diachronic organisation of uses; (3) test these hypotheses by examining corpus data for plausible bridging contexts; (4) compare these results to comparative data where available. This method yields plausible reconstructions of a form’s diachronic development, even when only synchronic data are available.

**Cynthia L. Miller-Naudé and Jacobus A. Naudé,
Differentiating Left Dislocation Constructions in
Biblical Hebrew**

Left dislocation (as opposed to topicalisation) involves a constituent that occurs to the left of the sentence boundary and has resumption within the core sentence. Crosslinguistically, left dislocation constructions exhibit considerable syntactic variation, which can be described on the basis of three considerations. The first relates to the grammatical features of the coreferential resumptive element. The second concerns the relationship of the left-dislocated constituent to the resumptive element, especially with respect to case agreement. The third relates to the relationship of the sentence involving left dislocation to the broader syntactic context. By considering these questions within the context of contemporary linguistic theory, we can determine in a more precise and principled way the kinds of left-dislocation constructions that are differentiated in Biblical Hebrew and their essential characteristics.

**Christo H. J. van der Merwe, Biblical Hebrew and
Cognitive Linguistics: A General Orientation**

The aim of this study is to enable scholars of Biblical Hebrew (BH) to orientate themselves as far as a substantial number of applications of cognitive linguistic (CL) insights into BH are concerned. The paper begins with a brief overview of CL, positioning it within the field of linguistics and describing its commitments and basic points of departure. This is followed by a bird's eye view of the different schools of thought. The section concludes

with a summary of current developments in CL and some of the widely acknowledged challenges. In the final section of the paper, the scope and the theoretical underpinnings of a range of applications of insights from CL to BH are profiled. One of the findings of this broad orientation is that a way to optimally use distributional data and statistical methods for establishing the different senses of linguistic expressions has yet to be established, whether in CL or BH.

Tania Notarius, From לִיָּהּ to סִפָּר and Back: An Episode in Biblical Hebrew Historical Linguistics

The paper traces the semantic development of the lexeme **lwh* in ancient Northwest Semitic languages from Ugaritic to Qumran Hebrew, via Classical and Late biblical Hebrew, in view of epigraphic Hebrew, Aramaic, and Phoenician. It is demonstrated, in comparison to other terms of writing, that in Ugaritic the term denotes letters; in CBH its usage is limited to a fixed literary idiom referring mainly to the Tablets of the Covenant; LBH practically abandons the lexeme; and QH revives the classical idiom, turning it into a medium for eternal, primordial knowledge and law.

Gary A. Rendsburg, Israelian Hebrew in the Book of Amos

The majority of scholars have identified the home village of Amos with Tekoa on the edge of the Judaeen wilderness. This article follows the lead of David Qimḥi in identifying Tekoa as the northern village of the same name, mentioned in several ancient

sources. One also notes use of the root *q-š-r* ‘treason’ in Amos 7.10, implying that Amos was a ‘citizen’ of the northern kingdom of Israel; and the use of the root *b-r-ḥ* ‘flee’ in Amos 7.12, implying the same. The article then moves to identify sixteen (mainly) lexical and grammatical Israelian Hebrew features within the book of Amos, with an especial concentration of such features in ch. 6.

Yehonatan Wormser, Attitudes towards Rabbinic Hebrew as Reflected in Hebrew Grammars during the Jewish Enlightenment

This paper examines some attitudes towards the nature, merit, and use of Rabbinic Hebrew that prevailed among Jewish intelligentsia during the Jewish Enlightenment, as reflected in three Biblical Hebrew grammars: Chayim Keslin’s (1749–1832) *Maslul be-Diqduq Leshon ha-Qodesh* (Berlin, 1788), Judah Leib Ben-Ze’ev’s (1764–1811) *Talmud Lashon Ivri* (Breslau, 1796), and Chayim Zvi Lerner’s (1815–1889) *Moreh ha-Lashon* (Leipzig, 1859). These works differ from one another in terms of frequency and nature of data from Rabbinic Hebrew included in their grammatical discussions. It is argued that the status of Rabbinic Hebrew in each work reflects the author’s attitude towards the desirable status of Rabbinic Hebrew in Hebrew usage of contemporary Jewish society.

THE ALPHABETIC REVOLUTION, WRITING SYSTEMS, AND SCRIBAL TRAINING IN ANCIENT ISRAEL

Aaron Koller

1.0. Introduction

The scope and methods of scribal education in ancient Israel, and even the very existence of scribal education in ancient Israel, have long been discussed and debated. Various scholars have taken different tacks in approaching this question, invoking, among other things, comparative evidence, biblical texts, archaeological data (and its absence), and palaeographical evidence.¹ In this paper I would like to suggest that the spelling practices evident throughout the Hebrew Bible can themselves suggest something of the extent of such scribal education—both its extent and its limitations. To get there, however, we need to begin with a discussion of early writing systems, and then turn to the alphabetic revolution. As we will see, considering these developments from the perspective of writing systems can open entire vistas in considering the question of scribal education.

¹ For the most recent contributions to this discussion, both with ample bibliography, see Schniedewind (2019) and Shupak (2019).

2.0. The Invention of Writing: Historical and Conceptual Framework

We start with the invention of writing, not so much for historical context as much as for conceptual context: for orientation as to how writing systems *can* work, and how they *did* work in the ancient Near East. While the history of writing is a well-trod field, the question of how writing systems represent language(s) is far less studied (Daniels 2018, 3). We now know that writing was invented at least a few times in world history, certainly by the Maya and likely by the Chinese, in addition to its invention in the Near East, apparently in southern Mesopotamia in the late fourth millennium BCE, among the Sumerians. This Mesopotamian invention, like cylinder seals and other contemporaneous ideas and artifacts, thence spread rapidly to Egypt.

Denise Schmandt-Besserat (1992) argued that the first writing emerged from tokens in envelopes, a system developed entirely for accounting purposes. Some of the specifics of her theory rest on very little data (Zimansky 1993), but it does seem clear from the texts themselves that the invention of writing was primarily for bookkeeping and accounting (Robinson 1995, 11–12; Woods 2020). It cannot be a coincidence, however, that writing developed in the same time and place (late fourth-millennium Sumer) as the first states, and so the association between writing and statecraft should not be ignored either (Scott 2017, 139–42).

How did the early writing system work? The first writing consisted essentially of numbers, metrics, and common nouns (for the system, see Nissen, Damerow, and Englund 1993). There is no grammar; there were no verbs, adjectives, or prepositions,

and even the plural on nouns, for example, is not marked. Only around 2800 BCE, nearly half a millennium after writing was invented, was the MEŠ sign developed to indicate plurality of nouns. Until then, a text would simply say the equivalent of ‘donkey 1’ and ‘donkey 8’. The spoken language did, of course, distinguish between singular and plural nouns, but the earliest writing does not reflect this.

The writing in the earliest texts is so distant from speech, that Englund (1998, 73–81) denies that it is provable that the language being written is Sumerian. Others (Steinkeller 1995; Cooper 2004) argue that there is just a little bit of phonetic writing, enough to prove that the script reflects Sumerian (probably enough to prove that the script was invented in order to write Sumerian, rather than borrowed for this purpose from some other linguistic group; Daniels 2018, 93–94). But this discussion establishes the key point. It is conventional, and useful, to think of writing as potentially reflecting two different levels of the underlying language: the sounds of the language, which are meaning-independent, and the meaning conveyed by those sounds. That is, the writing can reflect the *phonemes* (the sound-units) or the *morphemes* (meaning-units). Early cuneiform says nothing about the phonemic level altogether, and instead maps directly onto the morphemic level. In fact, Sumerian, Egyptian, and Mayan writing all use semantic classifiers, which have no phonetic value whatsoever, and whose meaning is entirely on the levels of semantics and grammar.

Writing begins as primarily conveying *meaning*, and only marginally conveying *sound*. This was possible because the earliest cuneiform consists almost entirely of ‘morphograms’, signs representing complete, individual morphemes (up to the size of a word).² Early writing was not meant to reflect spoken language at all, but to do jobs for which spoken language is actually quite poor, primarily lists and bureaucracy. And these it did very well: Cooper (2004, 77–78) observes that as soon as the idea struck, there was a full-blown system in place:



The idea that commodities, titles, names, and transaction types could be represented graphically led almost immediately to the elaboration of an entire system of signs, and, in contrast to the very simple enumeration of the earlier numerical tablets, we are confronted with an irrationally exuberant metrological system with over a dozen different sets of numerals for recording amounts of various kinds of discrete objects, weights, area, liquid and dry measures and time.³

² For morphography rather than logography as the appropriate analytical category (not in the context of Near Eastern writing systems), see Joyce (2013).

³ Paradoxically, then, the earliest writing violates the definition of writing offered by Daniels and Bright (1996, 3), who define writing as “a system of more or less permanent marks used to represent an utterance in such a way that it can be recovered more or less exactly without the intervention of the utterer.” This definition is meant to exclude graphic signs with no phonetic content (a traffic sign for a roundabout, for example), but it also seems inevitably to exclude numerals in most writing systems, as well as signs that stand for the concepts such as ‘sheep’, ‘field’, ‘acre’, unmodified grammatically and unmarked phonetically.

Morphograms comprise only a “partial writing system” (DeFrancis 1989). Theoreticians of writing argue that a script that is entirely morphographic is a dead end (DeFrancis 1989; Liberman 1992, 120; Rogers 2005; Joyce 2013, 70), so fortunately, cuneiform later develops into a morphophonemic system, utilising morphograms—signs for individual, complete morphemes or words—alongside phonograms—signs for sounds.

For this move, so crucial in the history of writing, the needed step was the development of signs that reflect the *sounds* of the language, rather than the meanings. Actually, what was needed was a whole system of such signs. The motivation for this, however, was not to begin to write sentences. Still very much in the world of accounting, the motivation was to keep track of people’s names (Schmandt-Besserat 2015). Thus, with these developments, which took place between 2900 and 2700 in Mesopotamia, it was possible to write not only ‘8 donkey’, but ‘Kushim 8 donkey’, bringing bookkeeping practices fully into the third millennium BCE.

Both cuneiform and early Egyptian accomplish this transformation through the rebus principle. Once complete, this move—which created the Egyptian writings of ‘son’ as a duck, both *ś3*, ‘mother’ as a vulture , both *mwt*, and ‘to enter’ as a cormorant , both ‘*q*—allows the writing of anything in the language.

We now have a “full writing system” (DeFrancis 1989). At this point, anything can be written, not only phrases such as ‘8 donkeys’, but sentences like ‘the sight of the royal boat on the

great green sea yesterday filled me with feelings otherwise provoked only by the acquisition of 8 donkeys’.

3.0. The Alphabet as Orthographic Revolution

Let us turn now to the invention of the alphabet. The steps involved must have been something like the following:

(1) *Introspection regarding the phonemes in the inventor’s language.* This is not easy. Studies have shown that illiterate people (children who have not yet learned to read, and adults who never did) generally lack phonemic awareness, and cannot break down the word /bag/ into [b], [a], and [g]. This is one of the stronger reasons to doubt that the inventors of the alphabet were illiterate, although this alone cannot resolve that question.

(2) Concomitantly, the decision was made to *include only consonants*—a decision which takes some linguistic sophistication, since the categories of consonants and vowels are not all that stable. This, too, suggests, prior literacy, as the exclusion of vowels was likely inspired by the practices of Egyptian writing (Daniels 2006, 375–76). In any event, this decision yielded approximately 28 or 29 consonantal phonemes to account for.

(3) Somehow keeping the resulting list of consonantal phonemes in mind, the inventor then utilised the acrophonic principle to *assign a graphic sign to each phoneme*. The rules of this game were: for each, find a common noun that was easily drawable and easily recognisable that started with a given sound; from now on, if you see that picture, it means only the first sound. *Arm* is a good candidate; *freedom* is not. *House* works; *to fly* does not. Here again, the Egyptian writing system was probably helpful.

(4) *Finally, this had to be taught to others.*

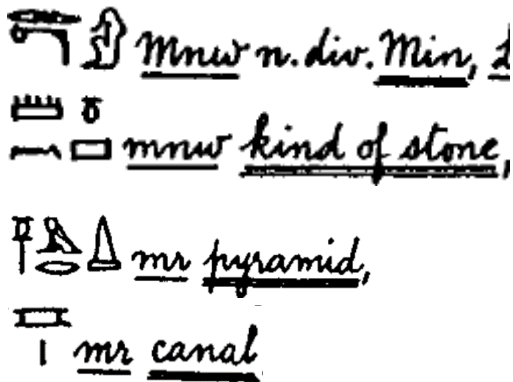
Steiner (2015) observed that the earliest corpus of alphabetic texts, the inscriptions from Serabit el-Khadim, are radical in their phonemic transparency. They map one-to-one, sign to sound, with no attention paid to the semantic level of the language at all.

Even the concept ‘word’ is foreign to the corpus of the Sinai inscriptions, as there is no indication in these texts where one word may begin or end. Early alphabetic inscriptions are much less clear than Egyptian at indicating where words end. This is linguistically interesting (see further below), but for now I want to draw attention to the implications for reading. Readers of English quickly identify familiar words. This works not just in the case of short words. Eye-tracking studies show that readers’ eyes settle on each word, typically once, at a spot relatively close to the middle of the word, before moving on to the next one.

This is empirical evidence of what we all know intuitively: we read word by word, not syllable by syllable or letter by letter. In fact, studies have shown that good second- and fourth-grade readers read familiar object words such as <MAN>, <CAR>, <DOG>, <BALL>, <HAT> as quickly as they named digits such as 2, 6, 3, 5, 4, 9: in other words, they are reading the words as single units rather than by sounding out the separate letters (Ehri and Wilce 1983; Ehri 2005). In theorising reading today, a regnant theory is the ‘dual-route’ theory, which posits that the brain can pronounce words correctly either by mapping graphemes to phonemes, or by recognising words; the key distinction

between these routes is *familiarity* (Share 2008). Already in kindergarten, children are taught to identify ‘sight words’. For adults, the vast majority of words are sight words.

Reading hieroglyphs certainly relies on quick recognition of the boundaries of each word, along with rapid word recognition. This is enabled by the presence of classifiers, which besides classifying, also mark the end of the word, and regularised spelling. One may not spell *nfrw* ‘beautiful young people’ (𓏏𓏏𓏏𓏏) the same way as one spells *nfrw* ‘foundations of a house’ (𓏏𓏏𓏏𓏏). See also these pairs, taken from Faulkner’s dictionary:



In these cases and many others, orthographic practices convey visual clues regarding semantics that are not found in the spoken language: these pairs are homophonic, but not homographic.⁴ This type of orthographic distinction was not possible in the Sinai texts, however, where the words are not separated

⁴ Of course, the vowels are not indicated in ancient Egyptian writing (although they can sometimes be reconstructed from Coptic spellings and/or transcriptions of the words in other scripts). So words that appear to have been homophones may not have been in fact homophonous.

from each other in any graphic way, and the written signs convey nothing other than the sounds. Just how aberrant this is within writing systems can be seen from the fact that some scholars of writing systems (e.g., Liberman 1992), not cognizant of the Sinitic texts, have argued that to be usable, a script cannot be pitched at the narrow phonemic level, but must be oriented at the more abstract phonological or morphemic levels.

There are thus serious disadvantages to this type of system, foremost among them the difficulty of fluid reading. I assume this means that either these texts had to be read aloud or they were not meant to be read at all. Paul Saenger (1982; 1997) showed that the norm in the classical world in antiquity was for oral reading, and he connected that method of reading to the practice of writing with no spaces. The key insight is that when one reads aloud, the aural experience allows the reader to make sense of the text even through the graphic representation of the text is difficult to decode. In the Middle Ages—beginning in the eighth century on the Irish margins of Europe, and reaching France and Spain in the twelfth and thirteenth centuries—reading became silent, and writing concomitantly gained spacing. This type of approach to the question of word divisions relates the practice of writing, especially the peritextual elements in the written text, to the practices of reading. This framework needs to be incorporated into the story of Northwest Semitic writing (Boyarin 1993; Dobbs-Allsopp 2012). For the early alphabetic texts, with no word dividers and a purely phonemically-oriented writing system, reading would have been a slow, laborious task, likely only possible when read out loud.

The other possibility is that these texts were not meant to be read at all. Recall that at Serabit el-Khadim the texts were primarily votive inscriptions, on objects dedicated to the gods, and especially to Ḥaṭḥor, lady of the turquoise. Other early alphabetic texts are graffiti, or labels—all plausibly never meant to be read again, except perhaps by gods, who are presumably untroubled by the lack of word dividers.

Whether the alphabetic texts were read aloud or not read at all, this highlights a major drawback of this new script: its unreadability by a scribe sitting by himself. It is common to laud the invention of the alphabet not only as an act of genius, but as a transformative development with the ability to change the world of texts (Logan 1986; see Koller 2019 for discussion). While this may be true of the *idea* of the alphabet, the radical alphabetic script of the Sinai inscriptions actually goes ‘too far’, so to speak: while the total phonological transparency of these texts is remarkable and seems admirable, the script has thereby forfeited much of what makes reading efficient. It may not be surprising, then, that the alphabet did not quickly spread as a technology, and instead seems to have remained extremely marginal for more than half a millennium after its invention (contra Sass 2004–2005).

4.0. Spelling in the Hebrew Bible and Its Implications

With these two polar models—the fully sign-to-meaning model of earliest cuneiform, and the fully sign-to-sound model of the earliest alphabet—in mind, we can approach the orthographic

practices in evidence in the Hebrew Bible to see what we can learn from them. Other scholars have noted that spelling practices can tell us a lot about scribal training. For example, Rollston (2010; 2015) has argued that the hallmarks of Hebrew orthography evident in the epigraphic record are “synchronic consistency and diachronic development” (2010, 103) This is entirely accurate for the topics he studies, primarily אמות הקריאה, *matres lectionis*. Here I want to emphasise some elements that are consistent both synchronically and diachronically: historical spellings and other morphophonemic spellings.

To take a simple example discussed by Steiner (2015): the *’alef* in the word צאן ‘sheep, goats’ is etymological, but of merely historical relevance after the quiescence of the glottal stop and the resulting lengthening of the /a/ vowel, which was then subjected to the Canaanite shift. This chain has to have been completed prior to the end of the Late Bronze Age, when the last-mentioned sound change stopped being productive—and in fact the word *ṣunu*, with an <u> for /o/, is attested already in Amarna Canaanite. The same is true for ראש ‘head’ (but see Qimron 2003 for a suggested modification).

So how did Israelite scribes know to spell the word צאן with an *’alef*, rather than spelling it like בור ‘cistern’, כוס ‘cup’, דור ‘generation’, and the like? This requires education, in the form of sheer memorisation. This is actually the way we all learned to spell correctly: out of fear of our teachers, or a desire to do well in school, we studied for spelling quizzes and memorised the difference between *to*, *too*, and *two*, and so on.

Many other standard spellings in Biblical Hebrew are not historical, but reflect meanings rather than sounds. In other words, these spellings are morphemic rather than phonemic. Some common examples are the *yod* in many plural forms with suffixes (דבריך ‘your words’, מלכינו ‘our kings’, אנשיו ‘his men’) and the *yod* in construct or suffixed forms of *-ay-* segolates (ייןך ‘your wine’, עין ‘eye, spring [construct]’), and the usual distinctions made between קרה ‘happen, meet’ and קרא ‘call, read’, or ברא ‘create’ and ברה ‘eat; choose’.⁵

Closely related are the *’alef* in a form such as לָשאת ‘to bear’ and a form such as תאבדנה ‘will perish (fpl)’—where the *’alef* has fully quiesced, but is useful for visually conveying the verbal root. These spellings are morphemic in the sense that the writing of the *’alef* preserves visually the existence of the three-letter root which no longer exists phonemically. It is far easier to realise that תאבדנה ‘will perish (fpl)’ is related to אָבדוּ ‘perished (3pl)’ than it would be if it were spelled תבדנה. Similarly, there is good reason for ראשים ‘heads’, ראשית ‘beginning’, and ראשון ‘first’, to be spelled as they are, despite the non-phonemic *’alef*, which synchronically serves as a *mater lectionis* for four *different* vowels in these words: the spellings transparently link the words to ראש ‘head’, and therefore give the reader a graphic clue to the semantics of the word that would not otherwise be available from the phonological shape of the word alone.

Other examples are the spelling of the plural noun חטאות/חטאת (which appears dozens of times), and the singular

⁵ There are exceptions, such as בָּרָא ‘eat’ (2 Sam. 12.17) for בָּרַה, and others.

noun תטאָה/תטאָת (which appears 55 times).⁶ All of these have a non-phonemic *’alef*, which is nevertheless useful, as it makes the respective connections to מלֵא ‘full’ and טאָה ‘to sin’ transparent.

Such spellings are clearly useful, and therefore repay the extra time and effort needed to learn them in school. The same principle is in evidence in English spelling. For example, the past tense of *read* is spelled <read>, homophonous with the colour <red>. Why not merge the spellings? There are two benefits to these non-phonemic spellings: (a) the avoidance of ambiguity and (b) the conveyance of semantic information by graphic association with other words. For the first, it is convenient that *read* and *red* are spelled differently, just for the sake of spelling them differently, and avoiding confusion. For the second, the spelling <read> immediately makes transparent the relationship to the verb *read*.

Similarly, consider English *electric*, *electricity*, and *electrician*, wherein the <c> is pronounced three different ways: /k/, /s/, /ʃ/. Although we tend to complain about such inconsistencies, there is great benefit to seeing the word ‘electric’ within the two other words. Another ubiquitous example (discussed by Steiner 2015) is the plural morpheme /s/, which is pronounced differently in <dogs>, <cats>, and <horses>. It would be only slightly exaggerated to say that the grapheme <s> represents

⁶ See also מלאות, although it is otherwise rare in the Bible to find the string ׀ marking the /o/ vowel (Ariel 2013). This example is more complicated, though, because it is plausible, as a reviewer pointed out, that the spelling of this word assumed ׀ to be a functioning consonant, and its phonological loss led to the vowel retracting to the /l/.

the meaning [+PLURAL], not the sound, and is in that sense equivalent to the Sumerogram MEŠ in Akkadian texts or the three lines marking the plural in Egyptian writing.

The other major reason for preserving non-phonemic spellings is to visually convey semantic distinctions, as already mentioned in the example of *read* (\neq *red*) (see also Daniels 2018, 17–18). For example, if we spelled the opposite of *day* <nait>, the pronunciation would be more transparent from the writing. We could do the same with the /nait/ in shining armor. But <night> contrasts with <knight>, neither of which is spelled in a way that reflects pronunciation. What is gained in the lack of phonological transparency is semantic transparency: now the sentence ‘the boy was scared of the knight’ is unambiguous, as ‘the boy was scared of the nait’ is not.⁷

Comparable examples in Biblical Hebrew are the consistent distinction between לֹא ‘no, not’ and לוֹ ‘to him, for him’ and between קרה ‘happen, meet’ and קרא ‘call, read’—homophonic, but semantically distinct.⁸ The benefit is instant recognition of the meaning; the price paid is extra quizzes in scribal school. These examples show how spelling can convey semantic distinctions.

The spelling of Biblical Hebrew takes a step away from the radicalism of the Sinaitic inscriptions; it is not strictly oriented

⁷ In terms of reading processing, the element <ight> is a single grapheme. Contrast <ough> (*bough/cough/through/tough/dough*) where this is only historically true.

⁸ Here, too, the distinction is *nearly* consistent. The Masoretes note 15 occasions of “written לֹא but read לוֹ,” and two “written לוֹ but read לֹא” (*Okhlah ve-Okhlah*, 98–99, lists 105–6).

towards the phonology of words, but contains morphemic information, as well. Of course, Biblical Hebrew spelling is still primarily phonemic, but the morphographic elements should be noted. Phonemic spellings are the skeleton and the foundation for learning to read, but competent readers of ancient Hebrew, like those of English, would ideally arrive at the end result of word recognition (Ehri 2005).

This necessitates a return to one question alluded to above: did Iron Age Hebrew writing represent words, unlike in the early alphabetic texts? We have, of course, the Masoretic division of the text into words by use of spaces.⁹ For the Iron Age itself, word dividers are well attested, but to judge from the epigraphic record, there may have been some inconsistency. Within Biblical Hebrew, single-letter prepositions are obligatorily cliticised to the following word, but two-letter prepositions can stand alone. In inscriptions, monosyllabic nouns of two or even three letters are often cliticised to the following word, especially if the word is in the construct state, such as *bytdwd* ‘house of David’ and *brbʿr* ‘son of Beʿor’.¹⁰

⁹ This, too, is only *nearly* consistent. According to the Masoretes, there are “15 that are written as 1 word but read as 2,” and “8 that are written as 2 words and read as 1” (*Okhlah ve-Okhlah*, lists 99–100). When the Masoretes say that they are ‘read’ as one or two words, the practical import is, presumably, with regard to the stress patterns. Each ‘word’ has only one main stress, so reading them as ‘one word’ means that there is only one main stress, and vice versa.

¹⁰ In Phoenician inscriptions, we find similar examples, such as (these are all from the Aḥirom sarcophagus) *bnʿhrm* ‘son of Aḥirom’ and *mlkgbl* ‘king of Byblos’, but also more surprising examples, such as *ymḥsfrh*

Interestingly, there are exceptional cases in the other direction, as well, where ‘word dividers’ divide graphemic strings that are not normally understood to be words. In a number of cases, the third-person masculine plural object suffix is divided by a word divider from the verb or noun to which they are grammatically suffixed: *w’shb.hm* ‘and I dragged them’ (Mesha 18), *wmhnt.hm* ‘and their encampments’ (Zakkur A9), *’rq.hm* ‘their land’ (Tel Dan 10) (Millard 1970, 15; also Lehmann 2016, 44* fn. 2).

Thus, although the idea of words was certainly established in the writing system of the Iron Age Levant, it may well have been a fuzzy category. This is intuitively true, since it is not at all obvious conceptually if the definite article is a separate word (as in English), a prefix (as in Hebrew), or somewhere in between (as in French), and the same is true for suffixed pronouns and other features of language. These are good examples of things that had to be learned in scribal school.

‘may his text be erased’. On *bytdwd*, see Rendsburg (1995); see also Couturier (2001, 82–93) and Pioske (2015, 210 n. 15). Similarly, in fourth- and third-century texts from Cyprus, we find writings such as *’dmlkm* ‘lord of kings’, where the final /n/ of the first word (**’dn*) has fully assimilated to the initial /m/ of the second word (*mlkm*), and then the words were written as a single word with one <m> serving for two underlying phonemes; see Harris (1936, 30); Millard (1970, 10); Steiner (2015, 317).

5.0. Extra-Biblical Evidence for the Value of Scribal Training

As is clear, then, much of the foregoing argues for the widespread, but not fully consistent, training of the scribes who produced the biblical text. The lack of full consistency argues for the genuineness of the training, since if order had been imposed where chaos had once reigned, we would not expect to find the many exceptional spellings that we find.

How would scribes of ancient Hebrew write if they were not forced to memorise spellings? This is fortunately an answerable question, since we have epigraphic texts written by people who were self-evidently literate, but not trained scribes. This is an instance of the rule that the less-trained the writer is in the language he is writing, the more revealing the writing will be (see Steiner 1995, 202–3). The soldier-writer of Lachish 3, for example, shows that he pronounced the 2ms ending of the perfect verbs with a final /ā/, and so writes שלחתה ‘you sent’ (for BH שלחת) and ידעתה ‘you know’ (for BH ידעת).¹¹

This writer is also not entirely sure about the division of words, so he writes וכיאמר ‘and because he said’ and חיהוה ‘by

¹¹ Whether the scribal tradition of the Bible also reflects the same pronunciation, but written defectively (e.g., שְׁבִיחַ), or reflects a pronunciation in which the final vowel had dropped in both the masculine and the feminine forms, is impossible to decide with certainty. Note that the Masoretic tradition does preserve occasional 2ms independent subject pronouns in /-t#/ (e.g., Num. 11.15, etc.), and note also that the epigraphic corpus contains many spellings without the final ה. See Gogel (1998, 82–88) for data and discussion.

Yhwh's life' as single words. He writes להגיד 'to say', because he never learned the rules behind *plene* and defective spellings of long *i*. And he never learned that masculine plural nouns with the 3ms possessive suffix are written with a silent *yod*, a morphographic spelling of the plural, so he writes אנשיו rather than אנשיו for 'his men'.¹²

It will be noted that the spellings found in Lachish 3 are not foreign to the Bible, and are actually found more often the later we go within the biblical tradition. Forms like פעלתה for פעלת occur well over a hundred times (Tur-Sinai 1940/1987, 37–42; Barr 1986, 114–31).¹³ Barr rightly points out that the occurrence of this spelling does not date the text in which it is found, but Tur-Sinai is surely correct in arguing that as a spelling practice, it is later than the defective פעלת, and never replaced it in the scribal tradition of the Bible.¹⁴

¹² I think this understanding of the *yod* is preferable to the alternative that sees it as reflecting a pronunciation other than the one reflected by the vocalisation. See Pardee (1988, 279–80) and Gogel (1998, 159–60) for bibliography and discussion.

¹³ Again, I am unconvinced that these variations in spelling must have reflected variations in pronunciation.

¹⁴ Tur-Sinai theorises that the spelling originated with the verb נתתה 'you (ms) gave', and in particular in relative clauses, אשר נתתה 'that you (ms) gave'. According to Tur-Sinai, this originally was meant to represent something like Tiberian נתתה 'you (ms) gave it (ms)', but after the replacement of *heh* with *waw* as the standard spelling for the 3ms object pronoun, it was misunderstood as a *plene* spelling of נתתה. From there, it spread to other verbs, mostly weak. It may be worthwhile to compare this to other similar developments in spelling practices, such as נער/נערה

The spelling of *hif'il* verbs is not consistent in the Bible, either, although here a diachronic solution does not seem to fit the data (contra Barr 1986, 81–84). The specific word used in Lachish 3, להגד, is spelled *plene*, i.e., להגיד, more than two dozen times, without a single defective example like that in Lachish 3. But there are more than seven hundred examples of the defective spelling of *hif'il* verbs overall, and I can discern no pattern in their distribution.

The spelling of the 3ms possessive suffix on masculine plural nouns as ם- rather than ם- is also encountered in the Bible (see Barr 1986, 131–37, although he combines many disparate issues into one discussion). These are scattered throughout the corpus, generally limited to the scribal tradition (the *ketiv*); for example, *ketiv* אגשו, *qere* אָגְשׂוּ 'his men' (1 Sam. 23.5).¹⁵ This likely shows that the plural was sometimes written with only a final *waw*, not the *yod-waw* sequence. These *waw*-only spellings increase in Transitional Biblical Hebrew texts. In Ezekiel 40 alone there are some 34 examples (Ariel 2013). The first three words of Ezek. 40.22 are *ketiv* וחלונו ואלמו ותמררו, *qere* וחלונָו וְאַלְמָיו וְתַמְרָיו 'and its

'girl'. The short form appears 21 times in the Torah (against only a single case of נערה), while in later books, the short form is entirely unattested, and נערה appears 26 times. (For some cautionary remarks on the older spellings found in the Torah alone, see Barr 1986, 39–43, who notes other examples, as well.) This sort of distribution, too, suggests that the final *heh* to mark the final *a*-vowel is a later development within the biblical writing tradition—although obviously there are hundreds of words with that ending in all texts throughout the corpus.

¹⁵ In this case, I do not know what the *qere* means, as the reading seems to be unchanged.

windows and its porches and its palm trees'. (For reasons that are not clear to me, only the first and third words are marked as *qere* in the Aleppo Codex, while the second is allowed to simply be revocalised.) However, 'proper' spelling in the Bible insists on the morphemic *yod* to indicate the plural, and to distinguish between the singular and the plural possessive endings (note that a spelling such as חלונו is entirely ambiguous as to number, 'his window' or 'his windows').

It is not surprising that some of the spelling practices in evidence in Lachish 3 become more common in later biblical texts, as well. The explanation is straightforward: these are all developments away from morphemic spelling and towards phonemic spelling. In general, this is the way spelling reforms tend to move, as writers and readers more easily see the lack of phonemic transparency than they grasp the benefits of morphemic spelling.¹⁶

¹⁶ "A Plan for the Improvement of Spelling in the English Language," a letter by one M. J. Shields (often spuriously attributed to Mark Twain), is a case in point. It reads:

For example, in Year 1 that useless letter "c" would be dropped to be replaced either by "k" or "s", and likewise "x" would no longer be part of the alphabet. The only case in which "c" would be retained would be the "ch" formation, which will be dealt with later. Year 2 might reform "w" spelling, so that "which" and "one" would take the same konsonant, while Year 3 might well abolish "y" replacing it with "i" and Year 4 might fix the "g/j" anomaly for all.

Generally, then, the improvement would continue Year by Year with Year 5 doing away with useless double konsonants, and Years 6–12 or so modifying vowels and the remaining voiced and unvoiced

6.0. Conclusions

The conclusion that emerges from this all is that the training that went into being an ancient Hebrew scribe was real, but not all that extensive (contrast Schniedewind 2019). On the one hand, the very presence of morphemic or morphophonemic spellings is indicative of scribal training, as only someone who had gone to school (whatever that school looked like) could know to write עשתה with a *heh*, but כתבת without one, to write ראשון and חטאת with *ʾalef*, and to write אנשיו with a *yod*. Only a scribe could know to write צאן with an *ʾalef*, or to distinguish לא from לו, and so on. On the other hand, the lack of consistency on some of these points shows that even this low bar was not always met. Certainly, there is no reason to think that scribal training in ancient Israel (or any of its neighbouring alphabet cultures) was nearly as intensive or extensive as that needed for cuneiform or hieratic scribes.

konsonants. Bai iear 15 or sou, it wud fainali bi posibl tu meik ius ov thi ridandant letez “c”, “y” and “x”—bai now jast a memori in the maindz ov ould doderez—tu riplais “ch”, “sh”, and “th” rispektivili.

Fainali, xen, aafte sam 20 iers ov orxogrefkl riform, wi wud hev a lojikl, kohirnt speling in ius xrewawt xe Ingliy-spiking werld. Haweve, sins xe Wely, xe Airiy, and xe Skots du not spik Ingliy, xei wud hev to hev a speling siutd tu xer our lengwij. Xei kud, haveve, orlweiz learn Ingliy az a second lengwij et skuul!

Iorz feixfuli, M. J. Yilz

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HISSING, GNASHING, PIERCING, CRACKING: NAMING VOWELS IN MEDIEVAL HEBREW

Nick Posegay

1.0. Introduction

Hebrew scholars have long sought comprehensive explanations for the names of the Tiberian vowels, which are known today mainly as *qameš/qamaš* (/ɔ/), *pataḥ* (/a/), *segol* (/ɛ/), *šere* (/e/), *ḥireq/ḥiriq* (/i/), *ḥolem* (/o/), and *shureq/shuruq/qibbuš/qubbuš* (/u/). Aron Dotan offered a brief treatment of these names, as well as others applied to the Tiberian vowels, in his encyclopaedia article on ‘Masorah’ (Dotan 2007, 634, §5.3.1.3), but his brevity results in a discomfiting amount of speculation and generalisation. Before Dotan, Israel Yeivin summarised the usage of Tiberian vowel names in the terminology section of his *Introduction to the Tiberian Masorah* (Yeivin 1983, 81–114), but this section is only a reference list of the names’ occurrences in the *Masora*. Well before Yeivin, Paul Haupt wrote a short paper titled ‘The Names of the Hebrew Vowels’, in which he theorised a number of explanations for the names based on their lexical definitions in comparison to Arabic (Haupt 1901). Haupt’s paper was likewise not the first attempt to explain the vowel names, and even Gesenius

remarks on them in his *Lehrgebäude der hebräischen Sprache* (1817, §9 I).

Most of these authors addressed vowel names as part of larger projects, and in that context their brevity is not particularly detrimental. A few studies have also explored specific aspects of Tiberian vowel naming in greater detail (notably Dotan 1974; Steiner 2005), but they do not account for the breadth of different naming systems that existed in the early medieval period. Yeivin attributes this breadth to multiple “schools” and “diverse origins” of Masoretic material (Yeivin 1983, 80), and, indeed, the medieval sources reveal a complicated web of overlapping conventions that reflect different strains of phonological thought. The following discussion surveys the different layers of this web between the ninth and eleventh centuries, and shows that the eight modern vowel names ultimately derive from four different naming conventions.

All of these medieval conventions were attempts to supplement the basic relative terminology of earlier Masoretes, who used the contrastive Aramaic active participles פתח ‘opening’ and קמץ ‘contracting, closing’ to compare homographs in the *Masora* (Dotan 1974, 32; 2007, 623–24; Steiner 2005, 379; Posegay 2021, 61–62). In this early system, a homographic word with a relatively open vowel was called *pataḥ*, while its orthographic twin with a relatively closed vowel was called *qameṣ*. These terms are the only ‘modern’ vowel names that appear in the notes of the Tiberian *Masora*, and there they contrast homographs with the vowels /a/ (*pataḥ*) and /ɔ/ (*qameṣ*), as well the pair /ε/ (*pataḥ*) and /e/ (*qameṣ*) (Yeivin 1983, 113–14). Over time, *pataḥ*

and *qameš* stabilised as the exclusive terms for /a/ and /ɔ/, respectively, the two phonemes that they most often referred to, and thus became the first absolute vowel names in the Hebrew tradition.

The four subsequent types of vowel naming all began from this starting pair of *pataḥ* (/a/) and *qameš* (/ɔ/). First, some Masoretes expanded the relative system with additional terms to specify more vowels, including names like *pataḥ qaton* ('small *pataḥ*, i.e., /ɛ/). Second, some writers named the physical graphemes that represented the vowels, variously counting their dots (*shalosh nequdot* 'three dots', /ɛ/), describing their position (*altaḥtoni* 'the lower one', /i/), or likening their shape to another object (*zujj* 'spearpoint', /u/). The most advanced form of this system appears in the *Treatise on the Shewa*. Third, others—notably Saadia Gaon (d. 942)—used terms that described the articulatory processes involved in producing each vowel phoneme (*ḥelem* 'closing firmly', /o/, and *shereq* 'whistling', /u/). Finally, some Masoretes supplemented the early relative terminology with names from the Arabic grammatical tradition (*khafḍa* 'lowering', /i/, and *našba* 'standing upright', /o/).

2.0. The Expanded Relative System

The expanded relative system is a variation on the earlier Masoretic homograph comparisons, and adds new phonetic information to the original terms *pataḥ* and *qameš*. This system never expanded to include every Tiberian vowel, but instead named only the four vowels not typically represented by a *mater lectionis*

in the biblical text (i.e., /a/, /ɔ/, /ɛ/, and /e/). It appears in numerous anonymous Masoretic notes, as well as in the work of the Tiberian Masorete Aharon ben Asher (d. ca. 960) and the Andalusī grammarian Judah ben David Ḥayyūj (d. ca. 1000).

Steiner (2005, 378) identifies a Masoretic vowel list from the appendices of Baer and Strack's *Diqduqe ha-Ṭe'amim* (1879, 11, lns 23–28) that contains the expanded relative naming system, and demonstrates how this system was insufficient to indicate every Tiberian vowel. He notes that it refers to /a/ and /ɔ/ as *pataḥ* and *qamaṣ*, and then calls /ɛ/ and /e/ *pataḥ qṭanna* (פתח קטנה) 'small opening' and *qamaṣ qṭanna* (קמץ קטנה) 'small closing', respectively. The inclusion of the 'small' descriptor adds another layer of comparison to the original relative terms, maintaining the older classification of /a/ and /ɛ/ as more 'open' (*pataḥ*) than /ɔ/ and /e/, but now also specifying that the two *e*-vowels are 'smaller' (i.e., more closed) than the two *a*-vowels.¹ The list then indicates the other three vowels by describing their graphemes, a phenomenon addressed below.

The same system appears in *Diqduqe ha-Ṭe'amim*, where Aharon ben Asher only applies phonetic vowel descriptors based on the roots *ptḥ* and *qms*. Throughout the text, he indicates /a/ with *pataḥ*, *pataḥ*, or *bi-ṭataḥ* (Dotan 1967, 131, ln. 5; 133, lns 1–2; 144, ln. 1), and /ɔ/ with *qameṣ*, *qamaṣ*, and *qmoṣ* (Dotan 1967, 119, lns 2–3; 138, ln. 2; 144–45, lns 2–3). He is also familiar with

¹ This description is curiously similar to the vowel terminology of the Syrian bishop Jacob of Edessa (d. 708), who classifies Syriac /e/ as *qatṭin* 'small, narrow' in comparison to /a/ and /ɔ/ (Phillips 1869, ١٤). See also Talmon (2008, 166–67); Posegay (2021, 62–63).

the expanded relative name for /e/, which he calls *qameš qaṭon* at least once (Dotan 1967, 137, ln. 2). Then, just like Steiner's list, Ben Asher indicates the other vowels by describing their graphemes.

Judah ben David Ḥayyūj also uses the expanded relative system in his early work, *Kitāb al-Tanqīt* 'The Book of Pointing' (Nutt 1870, I–XV). This text is short, and mostly in Arabic, but Ḥayyūj uses the Hebrew terms *qameš gadol* 'large *qameš*' and *pataḥ gadol* 'large *pataḥ*' for /ɔ/ and /a/, respectively (Nutt 1870, I, lns 5–7; III, lns 5–6, 12–14). Then, for /e/ and /ɛ/, he says *qameš qaṭon* and *pataḥ qaṭon* (Nutt 1870, VIII, lns 14–22; X, lns 19–21; XI, lns 6–10). This version of the expanded relative system differs from the one in Steiner's list, applying an additional modifier (*gadol*) to explicitly contrast 'big' *a*-vowels with 'small' *e*-vowels. *Gadol* may be a deliberate phonological descriptor to indicate that /a/ and /ɔ/ are more 'open' than /ɛ/ and /e/, but Ḥayyūj may use 'big' simply as a logical contrast to the Masoretic 'small', with no intention to convey additional phonetic information. Interestingly, Ḥayyūj abandons this system for his two later books on irregular verbs (Jastrow 1897). In those texts, while he is certainly aware of other Hebrew vowel names, he employs terms from the Arabic grammatical tradition to describe Hebrew vowels.

3.0. Graphemic Names

Medieval linguists seem to have first supplemented the *pth* and *qmš* vowel names by counting the dots of the Tiberian vowel signs. As such, they often called /i/ (ⱪ) and /o/ (Ⱬ) 'the one dot',

/e/ (⸘) ‘the two dots’, and /ɛ/ (⸚) and /u/ (⸛) ‘the three dots’. However, these numbered names were still insufficient to indicate all of the vowels unambiguously, so some texts applied additional terms related to the position, location, and shape of the signs.

These graphemic descriptions appear in Steiner’s Masoretic vowel list (mentioned above). It names /e/ as *qomṣḳ qṭannḳ*, but also specifies that it occurs with *shṭe nequdot*. It then refers to /o/ as *אחַת לְבַאד מוֹנַחַת* ‘one dot, placed all alone’, and /u/ as *אֶוּ* *הָאֲמֻצְעִית* ‘middle *ʿu*’ (Baer and Strack 1879, 11, lns 23–28), reflecting the position of the intralinear Tiberian vowel point (וּ).

Ben Asher also refers to several vowels according to their dots in *Diqduqe ha-Ṭe’amim*. For example, when comparing different ways that one can vocalise כל (לָל or לְלָ), he writes: *וְאִם הוּא חָתוּךְ עִם שְׁכֵנוֹ לֹא פְתוּךְ מִקְמָצָה הוּא רֵשׁ וְנִקּוּדָה אַחַת נִדְרָשׁ* ‘But if it is cut off, not combined with its neighbour, it is free of *qomṣḳ*, and one dot is required’ (Dotan 1967, 119, lns 2–3). That is, /o/ is required. Similarly, he explains of the suffix *-hem* קִמֶץ *הֵם* *בְּכָל מְקוֹם קִמֶץ* ‘is small *qameṣ* in every case, with two dots’ (Dotan 1967, 137, ln. 1), except in the context of a few letters, which *בְּשֵׁלֶשׁ נִקּוּדוֹת מְצוּיִת* ‘occur with three dots’ (Dotan 1967, 137, ln. 2). This language necessitates that the Tiberian vocalisation signs were already in use before Ben Asher wrote this text—not a startling revelation by any stretch—but it does *not* presuppose that the reader already associates the *qameṣ qāṭon* with ‘two dots’. This, in turn, suggests that referring to /e/ either by the number of its dots or as *qameṣ qāṭon* was a recent development in Ben Asher’s time. On the other hand, his redundant phrasing in this

instance may not hold any additional significance, as he might be referring to the vowel /e/ in two different ways in order to fit a particular metre and rhyme. In any case, he is aware of some convention that indicates /o/, /e/, and /ε/ according to the form of their Tiberian graphemes.

These types of vowel names also appear frequently in linguistic texts from the Cairo Geniza. Though the precise age of these references is difficult to determine, certain details suggest that some are from the eleventh century or earlier. For example, T-S NS 301.37, seemingly a fragment of a Karaite grammatical text, explains in Arabic the vocalisation of verbs that contain *al-nuqṭatayn* ‘the two dots’.² It also vocalises *pth* as an Aramaic active participle (פְּתָה),³ which may indicate that it is relatively old (pre-eleventh century). Similarly, T-S NS 301.48, another fragment of a grammatical text, refers to /e/ and /ε/ as *al-nuqṭatayn* ‘the two dots’ and *al-thalātha* ‘the three’, respectively. It also includes Arabic plural forms of *pataḥ* and *qameṣ*, writing *al-pāṭihāt* (ألفاتحة) and *al-qāmiṣāt* (לקאמצא).⁴ Although Arabic forms,

² Cambridge University Library (CUL), Taylor-Schechter (T-S) New Series (NS) 301.37 recto, ln. 10 and verso ln. 13.

³ CUL T-S NS 301.37 verso, ln. 2.

⁴ CUL T-S NS 301.48, fol. 2 recto, lns 24–25. The transcription here is an approximation. An *ʾalef* represents the first vowel in both words, but the second vowel is unmarked, and it is not clear whether they were pronounced more like the active participles in Aramaic (with /e/ or /a/) or Arabic (with /i/). It is also not clear whether *pāṭihāt* had an initial Hebrew/Aramaic bilabial plosive (/p/) or an Arabic labiodental fricative (/f/).

these, too, are active participles, perhaps translated from an earlier Aramaic source, and again may point to a relatively early date. Besides these linguistic clues, another fragment—T-S Ar.5.8—is both parchment and written in a horizontal book format, two features that indicate an even earlier provenance (ca. tenth century). It refers to /a/ and /e/ as פתח and נוקטתיין.⁵

The most complex version of the graphemic vowel-naming convention comes from the work known as the *Treatise on the Shewa* (Levy 1936), a tenth-century Masoretic treatise on accents and vocalisation. The anonymous author frequently switches between Arabic and Hebrew, likely reflecting the language and earlier source material, and—crucially—they provide their own Arabic translations for certain Hebrew vowel terms. Like most Hebrew linguists, the author indicates /a/ and /ɔ/ with terms from *pṯh* and *qms*,⁶ and supplements those words with additional names.

The author identifies /e/ and /ɛ/ using the Arabic forms *thnatayn* (תנתין) ‘two’ (Levy 1936, כ, ln. 8) and *al-thalātha* (אלתלתה) ‘the three’ (Levy 1936, כ, ln. 8; י, lns 10–11) and then, in another section, as *thnatayn nuqat* (תנתין נקט) ‘two dots’ and *thalātha nuqat* (תלתא תה נקט) ‘three dots’ (Levy 1936, יח, ln. 14; כ, lns 19–20). They also use the dual form *al-nuqtatayn* ‘the two dots’ for /e/ (Levy 1936, כ, ln. 20). There are even places where the author combines Arabic and Hebrew terminology, likely due

⁵ CUL T-S Arabic (Ar.) 5.8, fol. 1 verso, lns 4–5.

⁶ Including multiple variations on these roots, such as *fathā*, *fātiḥ*, *fātiḥa*, *maftūh*, and verbal forms.

to discrepancies in their source materials. For example, when explaining how to pronounce *shewa* in inflections of the verb אָכַל ‘eat’, they write part of the passage in Hebrew, saying: כָּל לִשׁוֹן ‘eat’, they write part of the passage in Hebrew, saying: כָּל לִשׁוֹן ‘every variant of [the lexical class of] ‘eating’, if it is with *shelosha nequdot...*’, indicating /ε/. They continue in Arabic on the same line: וְאִדָּא כֵּאֵן בְּעַד אֲלִשׁוּא נִקְטִין ‘but if *nuqtayn* is after the *shewa...*’, indicating /e/ (Levy 1936, ל, lns. 10–11).

The author includes similar numerical examples for /i/ and /o/. In one instance, they say that a word with /i/ is read with *nuqṭa wāḥida* ‘one dot’ (Levy 1936, ט, lns 14–15), trusting that the reader can tell from context that they mean a dot below (/i/) rather than a dot above (/o/). In another case, they say that the vowels which have ‘reduced’ (חֲטִיף) forms are *pataḥ* (/a/), *qameṣ* (/ɔ/), and *al-thalātha nuqat* ‘three dots’ (/ε/); but not *al-nuqtatayn* ‘the two dots’ (/e/), *wāḥid min fawqa* ‘one above’ (/o/), or [*wāḥid*] *min asfal* ‘[one] below’ (/i/) (Levy 1936, ב, lns 18–21).

Identifying /i/ and /o/ both as ‘one dot’ is still ambiguous, so the author adopts other terms related to dot locations in order to define them more precisely. When indicating /o/, the text reads: וְאִמָּא סִימָן הָעֲלִיוֹנִי אֲעִנִי אֲלִנְקִטָּה אֲלִפּוּקָא ‘as for the symbol of the upper one, I mean, the upper dot’ (Levy 1936, טז, ln. 15). This sentence includes the Hebrew phrase סִימָן הָעֲלִיוֹנִי ‘the upper symbol’, using an adjectival form based on the Hebrew preposition עַל ‘over, above’ with the Hebrew definite article. The author clarifies this term with the phrase *al-nuqṭa al-fawqā* ‘the upper dot’, using an irregular nominalised form of the Arabic preposition

fawqa ‘over, above’.⁷ Similarly, for /i/, they write אלתחתוני ‘the lower one’ (Levy 1936, ו, lns 1–2), again using a nominalised adjective formed from a Hebrew preposition תחת ‘under, below’, but now with the Arabic definite article. Later, they translate these terms as *al-siman al-fawqānī* ‘the upper symbol’ and *al-saflānī* ‘the lower [symbol]’ (Levy 1936, ט, ln. 1).

Finally, the *Treatise on the Shewa* includes multiple ways of indicating the vowel /u/, which is unique in the Tiberian pointing system, in that it has two different graphemes: one dot within the curve of a *mater lectionis waw* (ו) and three oblique dots below a consonant (שׁ). The author accounts for this fact at the end of one of their vowel lists, describing /u/ as אלתלתה אלתי תכרג באו ‘the three which are pronounced with ^hu, which they call *al-zujj*’ (Levy 1936, ט, lns 1–2). ‘The three’ here refers to the three sublinear dots of the second sign for /u/, but the author explains the phonetic quality of that sign by spelling out the sound, using a *waw* with a single dot (וּשׁ). Arabic *zujj* ‘spear-point, piercing’, then, is a term for this dot with *waw*. Most likely, it represents the physical form of the dot, which appears to ‘pierce’ the centre of the *mater lectionis*. This term also occurs for /u/ in eleventh-century Karaite linguistic texts, including *Kitāb al-Uqūd fī Taṣārīf al-Lughā al-‘Ibrāniyya* ‘The Book of Rules Concerning the Grammatical Inflections of the Hebrew Language’ (Vidro 2013, 395) and *Hidāyat al-Qārī* ‘The Guide for the Reader’ (Khan 2020, II:17).

⁷ *Fawqā* as it appears here is not a Classical Arabic word, but it could be an abbreviation of the more regular *fawqānī* ‘upper’.

An additional name of this type is *segol* ‘a bunch of grapes’, which describes the shape of the three-dot sign for /ε/ (אָ). However, this name is more common in texts that contain phonetic vowel names, and is discussed below.

4.0. Phonetic Names

Four of the modern vowel names—*holem* (/o/), *shureq* (/u/), *šere* (/e/), and *hireq* (/i/)—share a common origin in phonetic terminology of the early tenth century. None of these ‘phonetic’ names describes the aural qualities of their vowels, but rather they are based on Aramaic words related to the articulatory motions required to produce each vowel phoneme. These include: חלם ‘closing firmly’, שרק ‘whistling, hissing’, צרי ‘cracking, splitting’, and חרק ‘gnashing the teeth’. In their original forms, these terms were Aramaic, but they were later interpreted as Hebrew segolates.

The earliest dated list of phonetic vowel names comes from the fifth chapter of Saadia Gaon’s *Kutub al-Lughā* ‘The Books of Language’, titled *Al-Qawl fī al-Naḡham* ‘The Discourse on Melody’ (Skoss 1952, 283), which he wrote sometime between 913 and 931 (Lambert 1891, 76, fn. 1; Malter 1921, 44, fn. 57).⁸ In this chapter, Saadia presents the seven Tiberian vowels by placing them on a ‘scale’, arranging them according to how far back they are articulated in the mouth. He starts with /o/, referring to it as אלהלם,⁹ and proceeds through אלקמץ (/כ/), אלתחה (/a/), אלסגול

⁸ Saadia completed his earliest work (*Ha-Agron*) in 913. He completed his *Commentary on Sefer Yešira*, which refers to *Kutub al-Lughā*, in 931.

⁹ Saadia treats all of these words as if they are Arabic nouns, prefixing them with the Arabic definite article (אל in Judaeo-Arabic).

(/ε/), אלצירי (/e/), אלחרק (/i/), and אלשרק (/u/) (Skoss 1952, 292, lns 7–22).

The text is largely unvocalised Judaeo-Arabic, which makes it difficult to reconstruct the exact pronunciation of all of these terms. אלפתחה stands out as potentially identical to Arabic *al-fathā* ‘opening’, the name for /a/ in the Arabic grammatical tradition. However, it is not clear whether this initial *pe* was fricativised (*fathā*) or not (*pathā*). Saadia also indicates this vowel with פתח (Skoss 1952, 294, ln. 1), which was probably close to the original Aramaic active participial form פתח, but could also be the Arabic grammatical term *fath*. Likewise, קמץ was probably close to its original Aramaic form—קמץ—but Saadia also spells it קמצה (Skoss 1952, 296, ln. 17; 314, ln. 1). This second form may be *qamṣa*, analogous to *fathā* and the other Arabic vowel names.

The name סגול here represents another Aramaic form: סגול ‘a bunch of grapes’. It is the only vowel name in *Al-Qawl fī al-Nagham* that describes the appearance of a vowel sign, indicating the three-dot sign (⋈). It shares this feature with one of the Hebrew disjunctive accents—also called *segol* or *segolta*—which consist of a similar cluster of dots (⋈). Its origin as a graphemic name is conspicuous in the context of the rest of Saadia’s list, and suggests the term *segol* came into use at a time different from that of his other six names.

The four ‘phonetic’ vowel names here are חלם, צירי, חרק, and שרק. Only צירי appears in *Al-Qawl fī al-Nagham* spelled with a *mater lectionis*, which makes its pronunciation fairly straightforward: *ṣērē*. Then חלם occurs once with vowel signs, indicating that it was read as *ḥelēm* (Skoss 1952, 292, ln. 27; see his footnote). This

vocalisation also occurs occasionally in other Masoretic texts,¹⁰ as does חֶרֶק and שֶׁרֶק for /i/ and /u/, respectively (Khan 2020, 261, 264). If understood solely as a Hebrew noun, *ḥelem* can be interpreted for /o/ as “completeness, i.e. a vowel using the whole mouth” (Dotan 2007, 634), although this could also be said of /כ/ and /א/. Similarly, *ḥereq* could be a ‘squeak’, perhaps indicating the high pitch of /i/. *Shereq* clearly means a ‘whistle’, as whistling and the vowel /u/ require the same lip movement, but *šere* has no Hebrew meaning that can be logically connected to /e/. Dotan glosses over this problem, conceding that rather than all being Hebrew, “some of the names are in Aramaic” (2007, 634), and this caveat allows an interpretation of *šere* as ‘splitting’ between the lips or teeth. Dotan is technically correct, but only because all four of these phonetic names originated as Aramaic terms.

Two tenth-century *mušawwitāt* ‘vowels’ texts,¹¹ extant in Geniza fragments, use phonetic terminology similar to Saadia’s, but, rather than Hebrew segolates, their vowel names have Aramaic nominal forms. The first text (T-S Ar.53.1) begins in Arabic as follows:

אעלם באן אלמצותאת ז מן סוא אלשוא אלאלול חלמא והו או אלב קמין
 והו אָא אלג פתח והו אָא אלד סגול והו אָי אלה צריא והו אָי אלז חרקא
 והו אָי אלז שרקא והו או ואלשוא והמא אלנקטתאן אלקאימתאן...

¹⁰ For example, CUL T-S NS 301.69 recto, ln. 5. See also, Steiner (2005, 377).

¹¹ A subgenre of late Masoretic treatises, written primarily in Judaeo-Arabic, that deal specifically with vowels and accents (Allony 1964; 1965; Eldar 1986).

Know that the vowels are seven, excluding the שׁוּא. The first is חלמא, and it is ʾo. The second is קמץ, and it is ʾe. The third is פתח, and it is ʾa. The fourth is סגול, and it is ʾe. The fifth is צריא, and it is ʾe. The sixth is חרקא, and it is ʾi. The seventh is שרקא, and it is ʾu. And then the שׁוּא, which is the two standing dots... (Allony and Yeivin 1985, 91, ln. 1 to 92, ln. 9).

Several details stand out in this passage. First, *qameṣ* is vocalised as an active participle, still in its original Aramaic form, and presumably *pataḥ* would have been as well. Second, the author spells out all of the vowel sounds phonetically (ʾa, ʾe, etc.), a practice which predates the naming of any vowels (Dotan 2007, 634). Third, the name for the “two standing dots” is vocalised as either *shəwa* or *shəwə* ‘levelling’, another Aramaic form. Fourth, the author describes the shape of the *shewa* grapheme, but not the vowel signs, suggesting that either the name *shewa* or the sign itself had only recently been introduced, at a time when the vowel points had already been well established (Dotan 2007, 634). Finally, the author gives the four phonetic vowel names as חלמא (/o/), צריא (/e/), חרקא (/i/), and שרקא (/u/). These words all appear to be Aramaic emphatic nouns, probably *ḥelmo*, *ṣeryo*, *ḥerqo*, and *sherqo*, but the text gives no additional hints towards their vocalisation.

The second text (T-S Ar.31.28) provides more information about the vocalisation of these Aramaic terms. It begins with a *lacuna*, but the ensuing discussion addresses the elision of words in the biblical recitation, mentioning: ‘אלאִי אַלְדִּי אַסְמָה חַלְמָא: the ʾo, the name of which is חלמא’, *al-qameṣ* (אַלְקַמֶּץ), *al-fatḥa* (אַלְפַתְחָה),

and *al-sh[e]rqa* ([אלשרקא]) (Allony and Yeivin 1985, 99, lns 5–9). Later in the fragment, the author lists:

אלו מלוד והם אלחלמא אעני או ואלקמצה אעני א ואלפתחה אעני א
 ואלסגול והו א ואלצריא והו א ואלחרקא והו א ואלשרקא והו א

...the seven vowels, and they are the חלמא, I mean ^ʔo, the קמצה, I mean ^ʔk, the פתחה, I mean ^ʔa, the סגול, I mean ^ʔe, the צריא, I mean ^ʔe, the חרקא, I mean ^ʔi, and the שרקא, I mean ^ʔu (Allony and Yeivin 1985, 102, lns 58–64).

Once again, the vowels are spelled out phonetically, and /o/, /e/, /i/, and /u/ are named with Aramaic nominal forms that end in ^ʔalef. However, in contrast to those four vowels, קמצה (/k/) and פתחה (/a/) are notably spelled with final *heh*. This difference makes some sense, as the names of /k/ and /a/ were derived separately based on early relative vowel terminology, and here they seem to be either Arabicised forms (like *fatha*, *kasra*, *damma*) or retain a different style of Aramaic orthography. סגול also stands out in this text, and its initial *shewa* reinforces the fact that it is definitely an Aramaic form. The term from *ṣry* also receives special attention, as it is completely vocalised, giving the form *ṣiryw*. It may be possible to extrapolate this vowel pattern onto the other unvocalised names (i.e., *ḥilmw*, *ḥirqw*, *shirqw*), but it is more likely that *ṣiryw* was unique in having an initial /i/, while the other names had /e/ or /a/ (i.e., *ḥelmw*, *ḥerqw*, *sherqw*).

The vowel names in these two *muṣawwītāt* texts are almost certainly older than those in *Kutub al-Lughā*. Given that all three of these works were written in tenth-century Judaeo-Arabic, it is not surprising that they contain some Hebrew and Aramaic technical terms. That said, if Saadia's apparent Hebrew segolate terms

(*ḥeḥem*, *ṣere*, *ḥereq*, *shereq*) were the original forms of the phonetic vowel names, then it would be likely that he or someone shortly before him contrived them during the tenth century as novel Hebraisms to name the Tiberian vowels. If this development occurred, then the authors of the *muṣawwītāt* texts (T-S Ar.53.1 and T-S Ar.31.28) would have had to take those Hebrew terms and convert them to Aramaic forms (*ḥelmō*, *ṣiryō*, *ḥerqō*, *sherqō*) for use in otherwise Arabic texts. Much more likely, these Aramaic forms are remnants of an earlier stage of linguistic activity, probably from the second half of the ninth century, when the Masoretes were still writing in Aramaic.

Accordingly, all four of these vowel names are best understood as Aramaic descriptions of articulation: *ḥelmō* ‘closing firmly’, referring to the near-complete closure of the lips when pronouncing /o/; *ṣiryō* ‘cracking, splitting’, indicating the gap that opens between the teeth or lips for /e/; *ḥerqō* ‘gnashing’, denoting the overlapping action of the teeth during /i/; and *sherqō* ‘whistling, hissing’, relating the lip shape of whistling to that of pronouncing /u/. Then, in the first quarter of the tenth century, some linguists (perhaps Saadia was the first) rendered these names with Hebrew segolate forms, creating vowel names like *ḥeḥem*.

Finally, *qubbuṣ*, the ‘modern’ name for the three-dot sign of /u/, is the last Hebrew vowel term that has its roots in a phonetic description. It is not derived from the same relative terminology as *pataḥ* and *qameṣ*, nor was it originally an Aramaic term, but rather it is a by-product of contact between the Hebrew and Arabic grammatical traditions.

5.0. Arabic Grammatical Terminology

There is substantial overlap between the Hebrew and Arabic linguistic traditions, beginning before Saadia and intensifying throughout the tenth and eleventh centuries. The following section focuses on one work in particular—another anonymous tenth-century *muṣawwītāt* text—which reveals this contact in its use of Arabic grammatical terminology to name Hebrew vowels (Allony 1964; 1965; 1983; Eldar 1986).¹²

The text's discussion of vowels begins by directly addressing their names, saying in Arabic:

אלמחותאת באסמא לאיקה בהא דאלה עלי מעאניהא בלגה ערביה ליכון
 סהל עלי אלנאטר ובין ללקארי ויהי אלמחותאת סבעה אחדהא אלקמ
 אלכבירה

The vowels have names which are suitable for them, indicating their meanings in the Arabic language, so that they are easy to recognise and clear for the reader. The vowels are seven, and the first of them is *al-qm al-kabira* (Allony 1965, 140, lns 28–30).

The author (or perhaps the copyist) adopts a practice of abbreviating terms from the roots *qmṣ* and *pṭh*, so the first vowel (/כ/) is

¹² Nehemia Allony published the extant fragments of this text (CUL T-S Ar.32.31 and AIU IX.A.24) in 1965, initially claiming that they were part of a treatise called *Kitāb al-Muṣawwītāt*, supposedly written by Moshe ben Asher. Ilan Eldar (1986) has since argued that there is no evidence that the title of this work is actually *Kitāb al-Muṣawwītāt*, nor is it more likely that Moshe ben Asher wrote it than another early medieval author. I treat it as an anonymous work with an unknown title.

called *al-qm al-kabira*. Given the feminine adjective, its full form was probably *al-qamša* (or *al-qāmiša*) *al-kabira* ‘big *qamša*’. This Arabic form is a calque based on the expanded relative naming convention (i.e., *qameš gadol*), and resembles the terminology in Ḥayyūj’s *Kitāb al-Tanqīṭ*. Further, following this convention, the author refers to /e/ as *al-qm al-ṣaghira* ‘small *qamša*’, /a/ as *al-pt al-kabira* ‘large *paṭha/fatḥa*’, and /ε/ as *al-pt al-ṣaghira* ‘small *paṭha/fatḥa*’ (Allony 1965, 140, ln. 35; 142, lns 38–41).

The fifth vowel is /u/, which the author calls *al-ḍamma* ‘bringing together, pressing together’ (Allony 1965, 142, ln. 43), using the name for the same vowel in the Arabic grammatical tradition. They make no distinction between the one-dot (י) and three-dot (ן) signs. In Arabic, *ḍamma* is another phonetic vowel name, and refers to the contraction of the lips during the articulation of /u/. This meaning is similar to that of *qameš* ‘closing, contracting’, although here *ḍamma* is just a noun, rather than a participle. In the eleventh or early twelfth century, Hebrew grammarians calqued this name as the Hebrew noun *qibbuš* ‘bringing together’ (Dotan 2007, 634).¹³

Next is /i/, which the *muṣawwitāt* author explains in greater detail, saying: *ואלסדסה אלכפצה ויהי אלמנעטפה עלי קאילהא אנעטאפא יקום מקאם אלססה* ‘The sixth is *al-khafḍa*, which is bent to a degree of inclination according to its speaker. It establishes the role of the noun’ (Allony 1965, 142, lns 45–46). It is unclear precisely what is meant by this sentence. The name *khaḍḍa* is simple enough: it comes from *khaḍḍ* ‘lowering’, an Arabic grammatical

¹³ Dotan notes that this name has been known “since the time of the Kimḥis.” See Khan (2020, 264).

term for the genitive case. In Classical Arabic, nouns in the genitive case are usually marked by final /i/, and *khafḍ* doubled as a name for the phoneme /i/ through at least the first half of the ninth century (Owens 1990, 59; Versteegh 1993, 18–19). The author of this text probably added the feminine suffix *-a* on analogy with the other Arabic vowel names (i.e., *fatha*, *kasra*, *ḍamma*).

The phrase ‘bent to a degree of inclination (*in‘itāf*)’ is more difficult to parse. It at first evokes the phonological concept of *imāla* ‘bending down, inclination’, which Arabic grammarians used to describe the fronting of *a*-vowels towards /i/. In the earliest Arabic tradition, this term was a ‘low’ classification for fronted allophones of /a/ (e.g., /ɛ/, /e/), in contrast to *naṣb* ‘standing upright’, which indicated ‘higher’ allophones produced farther back of the mouth (/a/, /ɑ/) (Posegay 2020, 207–9). An analogy with *imāla* is likely at play here, but the ‘inclination’ that the author indicates with *in‘itāf* probably also refers to the directed movement of air during articulation of /i/. That is, the airflow of /i/ is angled downward in comparison to that of other vowels, and this directionality further corresponds to the lexical meaning of *khafḍ* (Eldar 1983; Posegay 2020, 211–16). The author even calls it אלמנכפצה אעני אי literally ‘the lowered vowel, I mean *’i*’ (Allony 1965, 144, ln. 53). Finally, the line ‘it establishes the role of the noun’ also seems to be connected to Arabic grammar, as only nouns can be in the *khafḍ* (genitive) case.

The seventh vowel is /o/, which the author names *al-naṣba*. They say והי אלווצפה ללאפעאל אלמאציה ואלחאבתה וצפא מנעטפא עלי ‘it is the marker for past verbs,

and it stabilises an inclined characteristic, according to a marker of inclination, establishing the role of the verb' (Allony 1965, 142–44, lns 48–50). In Arabic grammar, *naṣb* 'standing upright' is the name of the accusative case, which is usually marked by final /a/. Prior to the ninth century, *naṣb* was also an Arabic name for the phoneme /a/ (Owens 1990, 59; Versteegh 1993, 18–19), but here it represents /o/.

In opposition to *khafḏ*, the author emphasises the role of *naṣba* as a 'stabiliser' (*thābita*) that nullifies inclination (*in'itāf*). This explanation mirrors the contrastive vowel phonology of *naṣb* and *imāla* in early Arabic grammar, associating front vowels (e.g., /i/) with 'lowness', and back vowels (e.g., /o/) with 'height'. This duality is particularly salient with /o/ and /i/, as they are, respectively, the most- and least-backed Hebrew vowels. They thus occupy the highest and lowest steps on the scale of vowels within the mouth. Moreover, the association of *naṣb* with /o/ suggests that this author perceived the articulation of /o/ as having a 'fixed upright' direction of airflow, in contrast to the bent airstream of /i/. This association matches Saadia's understanding of /o/, which he describes as 'unwavering' (*ghayr ḥā'ida*) in contrast to the other vowels that turn upwards or downwards (Skoss 1952, 292, lns 10–11).

The names for /ɔ/, /e/, /a/, and /ε/ in this text—all based on the expanded relative system—seem to have been well established by the time it was written. By contrast, the terms for /u/, /i/, and /o/ do not have direct tenth-century Hebrew or Aramaic equivalents. The author thus gives lengthier phonological explanations for /i/ and /o/, and spells out ^ʔ*u* and ^ʔ*i*, reverting to the

most basic practice for identifying vowel phonemes. These details reinforce the conclusion that *ḍamma* (/u/), *khafḍa* (/i/), and *naṣba* (/o/) were adopted later, separate from the expanded relative terms. These three Arabic names are the result of this author supplementing the expanded relative system, in the same way that other Masoretes supplemented *pataḥ* and *qameṣ* with graphic and phonetic names. This addition of Arabic case names to fill out a set of Hebrew vowel terms also parallels the Syriac linguistic tradition, where some grammarians adopted calques of *naṣb* (ܙܩܩܘܐ, /ɔ/) and *rafʿ* (‘rising’, *massaq*, /o/) to identify their vowels (Posegay 2020, 216–18).

This *muṣawwitāt* text is a useful example of Arabic vowel terminology used in the Hebrew linguistic tradition, but it is by no means representative of all the connections between Arabic and Hebrew in this domain. A more comprehensive study is needed to form a clearer picture of this relationship, especially as it developed into the eleventh century. Such a study ought to include a number of additional sources, such as Saadia’s *Commentary on Sefer Yeṣirah*, Ḥayyūj’s *Kitāb al-ʿAḑal Dhawāt Ḥurūf al-Liyn*, Yūsuf ibn Nūḥ’s *Diqduq*, Abū al-Faraj’s *Hidāyat al-Qāriʿ*, and Jonah ibn Janāḥ’s *Kitāb al-Lumaʿ*, as well as the anonymous works *Kitāb al-ʿUqūd fī Taṣārīf al-Luḡha al-ʿIbrāniyya* and *Kitāb Naḥw al-ʿIbrānī* (to name but a few).

6.0. Conclusion

This paper is not exhaustive, and there are some other Hebrew and Aramaic names that do not appear in any of the sources examined here. For example, Gesenius (1817, §9 I) mentions שְׁבֵר

‘breaking’ as another name for /e/, which he presumes is a calque of *kasra*, the Arabic name for /i/ (Khan 2020, 261). Likewise, Dotan (2007, 634) lists *טשפ* ‘simplicity’ as a name for /a/ and /ε/, but it does not occur as a vowel name in our sources.

That said, the present survey is sufficient to conclude that the eight modern Hebrew vowel names descend from four concurrent tenth-century vowel-naming conventions: (1) expanded relative terminology, (2) graphemic descriptions, (3) phonetic descriptions, and (4) Arabic grammatical terminology. *Qameṣ* and *pataḥ* were originally the Aramaic active participles *קמק* ‘contracting, closing’ and *פתח* ‘opening’, respectively, which fossilised as absolute names for /ɔ/ and /a/ with the decline of the early Masoretic practice of relative vocalisation. *Segol* was first the Aramaic noun *לגול*, a name which equated the shape of the three-dot grapheme (ס) for /ε/ with a bunch of grapes. *Ṣere* (/e/), *ḥireq* (/i/), *ḥolem* (/o/), and *shureq* (/u/) began not as Hebrew words, but as the Aramaic nouns *ṣiryɔ* ‘cracking, splitting’, *ḥerqɔ* ‘gnashing’, *ḥelmɔ* ‘closing firmly’, and *sherqɔ* ‘whistling, hissing’, each of which indicates the physical action required to produce its respective phoneme. Finally, *qubbuṣ* is ultimately a calque of *ḍamma* ‘bringing together, pressing together’, the Arabic name for /u/.

The last major development in the history of the vowel names was the addition of ‘symbolic’ vowels. Around the eleventh century, Hebrew linguists started adopting the practice of including a vowel’s sound in its name (Steiner 2005, 380–81; Dotan 2007, 634). This sound symbolism persists to the present day, giving us forms like *ḥolem* and *shureq*, rather than *ḥelem* and

shereq. Over time, most of the graphemic vowel names and Arabic grammatical terms fell out of favour, leaving only the eight modern names that are still in use.

Still, the various conventions raise another question: what was the point of naming vowels at all? It seems that the earliest names evolved as pedagogical instructions for differentiating between the vowels of the /a/–/ɔ/ and /ɛ/–/e/ pairs. These pairs were generally not distinguished in Jewish Palestinian Aramaic (Fassberg 1990, 28–31, 53; Steiner 2005, 379–80), so new readers of Tiberian Hebrew would have needed the most assistance in learning their sounds. As such, if a Galilean student mistakenly read *ṣ* as 'a, then their Tiberian teacher might have said *l*, 'at *qomeṣ pimmək* 'no, you contract your mouth'. Likewise, if they read *ṽ* for *ṣ*, then a Tiberian teacher would say *l*, 'at *pataḥ pimmək* 'no, you open your mouth' (Steiner 2005, 375–77, 380). The same instructions applied to /e/ ('at *qomeṣ pimmək*) and /ɛ/ ('at *pataḥ pimmək*). These verbal directions relied on the contrastive principles of early relative vocalisation, and they likely solidified as absolute vowel names (*pataḥ*, *qameṣ*) only after the invention of the Tiberian vowel signs.

The phonetic names *ṣiryṽ*, *ḥerqṽ*, *ḥelmṽ*, and *sherqṽ* can also be interpreted as pedagogical vocabulary, although there is no evidence that they were originally active participles. Each name indicates the proper positioning of the mouth in order to produce /e/, /i/, /o/, or /u/. Perhaps a child would have been instructed to say *ṣ* 'with gnashing' (*b-ḥerqṽ*), or *ṣ* 'with [the shape of] whistling' (*b-sherqṽ*). These absolute names most likely emerged after

the invention of the Tiberian points, but could possibly predate them.

By contrast, the graphemic vowel names necessarily post-date the introduction of the vowel signs. They probably began as shorthand terminology for Masoretes who wanted *written* instructions on how to point a biblical text, rather than as verbal directions for new readers. In every case, then, vowel names aided instructors in explaining the biblical recitation tradition, whether in its oral or written form. This conclusion matches the words of the Masorete from our last *muṣawwitāt* text: “The vowels have names which are suitable for them... so that they are easy to recognise and clear for the reader.”

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III-Y IMPERATIVES IN ANCIENT HEBREW

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1.0. Introduction

The final vowel of the masculine singular (ms) imperative of strong verbs in the *qal* and derived stems alternates between a zero morpheme and *-ā*, e.g., זָכֹר ‘remember!’ (Exod. 32.13) vs. זָכְרָה (Neh. 13.29), פָּלַט ‘deliver!’ (Ps. 32.7) vs. פָּלְטָה (Ps. 17.13), הִתְיַצֵּב ‘station yourself!’ (2 Sam. 18.30) vs. הִתְיַצְּבָה (Job 33.5). Most weak verbal classes also show this alternation, e.g., שֵׁב ‘sit!’ (Gen. 20.15) vs. שְׁבָה (Gen. 27.19), קוּם ‘arise!’ (Gen. 13.7) vs. קוּמָה (Judg. 18.9), הִבִּיטָה ‘look!’ (Lam. 3.63) vs. הִבֵּט (1 Kgs 18.43). III-y verbs in the derived stems, however, show a different alternation in the final vowel of the ms imperative, namely, a zero morpheme and *-ē*.

Some III-y verbal roots appear in the derived stems with short forms, some appear with long forms, and yet others show up with both short and long, e.g., צַו ‘command!’ (Lev. 6.2) vs. צִוָּה (Josh. 4.16), or הִט ‘stretch forth!’ (Ps. 17.6) vs. הִטָּה (Ps. 71.2). Are there conditioning factors responsible for the choice of the III-y forms or are short and long merely stylistic variants? In the light of the conditioning factors that have been argued for the employment of short and long imperative forms in the strong and

weak (non-III-y) verbs (see below §3), I propose to re-examine the distribution of the short and long imperative forms in III-y verbs in Biblical Hebrew and the other ancient Hebrew corpora in order to see what factors, if any, regulate their use.

2.0. History of Scholarship

Medieval and modern grammarians have noted the existence of two forms of the III-y ms imperative, but, with few exceptions, have not attempted (e.g., GKC, 214) to explain the difference in use and distribution. Ibn Janah (Bacher 1896, 465) explained the lengthened form רָבֵה ‘multiply!’ (Judg. 9.29) as צווי ליחיד והוא מצוה ‘a singular imperative that indicates generosity and grace’. Elijah Levita wrote in his commentary to Moses Qimḥi’s מהלך שבילי הדעת (1563, 74) on the inflection of III-y verbs:

הצווי גלה כמו קוה אל יי' ותמהתי למה לא אמר או בחסרון ה"א גל כמו
 גל עיני ואביטה צו את בני ישראל ‘the imperative ‘reveal’ like
 קוה ‘hope in the Lord’ and I wonder why it is not defective
 without a *he* גל like the verse גל עיני ואביטה (‘open my eyes
 that I may behold!’ [Ps. 119.18]) or צו את בני ישראל ‘com-
 mand the children of Israel!’

The Karaite grammarians, who considered the imperative to be the base of most verbal and some nominal forms (Khan 2000, 39), also noted that some verbs had two forms, of which the shorter one was apocopated from the longer (Skoss 1936–1945, II:503; Khan 2000, 188, 278, 352, 370; Vidro 2013, 276). They did not, however, address the question of whether there

was a difference in meaning or in use between the III-y ms imperatives.

In the modern period Ewald (1870, 588) thought that the vocalisation with *šere* was more poetic and Aramaic. Brockelmann (*GvG*, I:628) viewed the short forms as older inherited imperatives and those with final *-ē* as new formations on the analogy of the imperfect. Bauer and Leander (1922, 414) attributed the existence of long and short forms of *צו/צוה* and *הִרְבֵּה/הִרְבָּה* to the merging of the III-y and III-w classes and considered the final *šere* (for expected *hireq*) in the derived conjugations to be the result of analogy to the *qal* imperative. Lambert (1931–1938, 371–72, 374) was of the opinion that there was no clear distinction in use between *צו/צוה* and *הִרְבֵּה/הִרְבָּה*, but wondered if the long forms *צוה*, *קוה*, and *רָבָה* (Judg. 9.29) were for marking entreaty, as he believed was the case with the lengthened imperative *צֵאָה* ‘go out!’, which followed *רָבָה* in the verse. Lipiński (2001, 357) commented that *צו/צוה* as well as *יִצו/יִצוה* represent graphic and dialectal differences, but did not offer an explanation. According to Qimron (2018, 173, 235 n. 234, 252) the short forms found in Ben-Sira and the Dead Sea Scrolls reflect spoken speech during the Second Temple Period. In the most recent treatment of the subject, Suchard (2020, 135–36) concurs with Brockelmann and the consensus that the short imperatives are the historically inherited forms. Suchard views the long forms in the derived verbal stems as the result of analogy with *qal* forms.¹

¹ See also Suchard (2017, 213–17).

3.0. Biblical Hebrew

Qal III-*y* imperatives show no fluctuation: there are only long forms, all of which end in *šere*.² Attested imperatives include גִּלֵּה ‘uncover!’ (Ezek. 12.3), הִיָּה ‘be!’ (also וְהִיָּה; 13x), וְחַיֵּה ‘live!’ (Gen. 20.7; Prov. 4.4; 7.2), מַחֵה ‘erase!’ (Ps. 51.3, 11), מִנֵּה ‘count!’ (2 Sam. 4.21), נָטָה ‘stretch out!’ (11x), עֲלֵה ‘ascend!’ (39x), עֲנֵה ‘answer!’ (Mic. 6.3; Prov. 26.5), עֲשֵׂה ‘do!’ (62x), קַנֵּה ‘acquire!’ (20x), רִאֵה ‘see!’ (84x), רִדֵּה ‘have dominion’ (Ps. 110.2), וְשַׁבְּהָ ‘take captive!’ (Judg. 5.12), שִׁתֵּה ‘drink!’ (8x). Only one *nif'al* verb is attested and it is also with *-ē*: הִרְאֵה ‘show yourself!’ (1 Kgs 18.1). The two examples of *hitpa'el* imperatives are both short and without a final vowel: הִתְחַלְּ ‘feign illness!’ (2 Sam. 13.5), הִתְחַגְּר ‘contend with!’ (Deut. 2.24).

It is in *pi'el* and *hif'il* verbs that one finds fluctuation. Both short and long forms are found with the following verbs:

הִטְ ‘stretch forth!’ (Ps. 17.6; 119.3; 144.5; Prov. 4.20; 5.1; 22.17) vs. הִטָּה (2 Kgs 19.16; Isa. 37.37; Ps. 31.3; 71.2; 86.1; 88.3; 102.3; Dan. 9.18)

הִךְ ‘strike!’ (Exod. 8.12; 2 Kgs 6.18; 13.18; Ezek. 21.19; Amos 9.1; Zech. 13.7) vs. הִכָּה (Ezek. 6.11)

צִו ‘command!’ (Lev. 6.2; 24.2; Num. 5.2; 28.2; 34.2; 35.2; Deut. 2.4; 3.28; 2 Kgs 20.1; Isa. 28.10, 13; 38.1) vs. צִוָּה (Josh. 4.16; 1 Kgs 5.20; Ps. 44.5)

² Richard Steiner (2020) has recently argued that אָת־וְהָבָ בְּסוּפָהָ (Num 21.14) is a short ms imperative ‘come!’ from the root א"ת.

הָרַב 'increase!' (Judg. 20.38; Ps. 51.4 *qere*) vs. הרבה (Ezek. 24.10; Ps. 51.4 *ktiv*)

הָרַף 'let go!', refrain!' (Deut. 9.14; 1 Sam. 11.3; 15.16; 2 Sam. 24.16; Ps. 37.8; 1 Chron. 21.15) vs. הִרְפָּה (Judg. 11.37; 2 Kgs 4.27)

The *hif'il* ms imperative of ע"י is attested with a short form three times: העל 'bring up!' (Exod. 8.1; 33.12; Num. 20.25). There is one possible example of the long form: הַעֲלֵה עֲלֵיהֶם קֶהָל וְנָתַן אֶתְהֶן לְזַעֲוָה וּלְגַבּוּ לְזַעֲוָה וּלְגַבּוּ 'Bring up a mob against them and make them an object of horror and plunder!' (Ezek. 23.46), though some prefer to take the verb as an infinitive absolute (e.g., BDB, 749a).³

Only short forms are found with the following *pi'el* verbs: גַּל 'uncover!' (Ps. 119.18; 22); חַל 'entreat!' (1 Kgs 13.6); מָן 'appoint!' (Ps. 61.8); נָס 'test!' (Dan. 1.12). On the other hand, only long forms show up with the *pi'el* verbs חָבַה 'wait!' (Hab. 2.3), כָּלָה 'consume!' (Ps. 59.14 [2x]; 74.11); קוּוָה 'hope!' (Jer. 8.15; 14.19; Hos. 12.7; Ps. 27.14 [2x]; 37.34; Prov. 20.22); רָבָה 'enlarge!' (Judg. 9.29; with *segol* for expected *šere*). Another possible example is רִוּה in תִּלְמִיּוֹת רִוּה נַחַת גְּדוּדֶיהָ in רִוּה

³ No morphological difference between the infinitive absolute and long form of the ms imperative is expected in *hif'il* III-y verbs: both end in -ē. One should also bear in mind that the infinitive absolute overlaps in function with the imperative at the beginning of a clause, e.g., זְכוֹר אֶת-יְוָם הַשַּׁבָּת 'Remember the Sabbath day!' (Exod. 20.8). Those who prefer to analyse הַעֲלֵה as an infinitive absolute do so because of parallelism to the infinitive absolute וְנָתַן in the continuation of the verse.

its ridges!’ (Ps. 65.11), though it is generally interpreted as an infinitive absolute ‘saturating’ (and ‘lowering’; e.g., BDB, 924a).⁴

Are there conditioning factors at play? Different possibilities come to mind. In the case of the two forms of the ms imperative of the strong verb, קטל and קטלָה, I believe the longer ones are marked forms indicating that the action is directed towards the speaker or for his benefit, whereas the short forms are usually used when the action is directed towards someone else (Fassberg 1999), e.g., תִּנְהֵ-לִי ‘give me!’ (Josh. 14.12) but וְתוֹדֵ-לוֹ ‘and give him!’ (Josh. 7.19). This conditioned used is evident from the fact that the longer imperatives are more often than not followed by particles and nouns with the 1 s. and pl. suffix pronouns, e.g., הַגִּשָּׂה לִי ‘serve me!’ (Gen. 27.25), הַנִּיחָה אוֹתִי ‘let go of me!’ (Judg. 16.26), מְלִכָה עָלֵינוּ ‘rule over us!’ (Judg. 9.8 *qere*), שְׂיַמָּה-לָנוּ ‘give us!’ (1 Sam. 8.5), מְלִטָה נַפְשִׁי ‘save my life!’ (Ps. 116.4). Further proof is found in the use of the long imperatives הִבֵּה, לָכֶה, and קוּמָה as exhortations before verbs in first-person cohortative forms, in which the speaker includes himself in the performance of the action (Mann 1954), e.g., הִבֵּה נְלַבְנָה לְבָנִים ‘let us make bricks!’ (Gen. 11.3), לָכֶה נַכְרִתָּה בְרִית ‘let us make a covenant!’ (Gen. 31.44), וְנָשָׁבָה | קוּמָה ‘let us return!’ (Jer. 46.16). On the other hand, a pragmatic conditioning factor of respect and politeness on the part of inferiors when addressing superiors has been argued for the long forms by some scholars (Lambert 1931–

⁴ Like רָוָה the form נָחַת, can be taken as a *pi‘el* imperative or infinitive absolute. See n. 2 above.

1938, 255–57; Kaufman 1991, 198),⁵ and others have spoken of stylistic variants (GKC, 132; Joüion 1923, 108–9; Waltke-O'Connor 1990, 571) or emphasis (Ewald 1870, 583; Meyer 1992, 221).

Do any of these interpretations fit the data of verbs III-y? As for direction towards the speaker, all eight occurrences of הָטָה are found involving direction to the speaker (2 Kgs 19.16; Isa. 37.17; Ps. 31.3; 71.2; 86.1; 88.3; 102.3; Dan 9.18), but טָה is also attested in a similar context in five of the six occurrences (Ps. 17.6; 119.36; Prov. 4.20; 5.1; 22.17; but not in Ps. 144.5). There does not seem to be direction towards the speaker with the other verbs.

As for being a polite form, יָצַח is used when God addresses Moses (Lev. 6.2; 24.2; Num. 5.2; 28.2; 34.2; 35.2; Deut. 3.28) and when Isaiah turns to Hezekiah in the name of God (2 Kgs 20.1 = Isa. 38.1), whereas יָצַח is employed by God in speaking to Joshua (Josh. 4.16), Solomon to Hiram (1 Kgs 5.20), and man to God (Ps. 44.5). הָדַח is used when God speaks to Moses (Exod. 8.12), Ezekiel (Ezek. 21.19), Amos (Amos 9.1), and a prophet (Zech. 13.7), and it is also used when Elisha addresses Joash, king of Israel (2 Kgs 13.18); הָכַח is attested when God turns to Ezekiel (Ezek. 6.11). הָרַח is found in the speech of God when talking to Moses (Deut. 9.14), God turning to a messenger (2 Sam. 24.16 = 1 Chron. 21.15), the elders of Jabesh to Nahash the Ammonite (1 Sam. 11.3), and Samuel to Saul (1 Sam. 15.16); הָרַפַּח occurs when

⁵ For discussions of politeness strategies in Biblical Hebrew, see, e.g., Estelle (2012) and Morrison (2013). Jenni (2002) proposes a further twist to the politeness strategy and suggests that the speaker adopts the long form when acknowledging the right of the addressee to refuse.

Jephthah's daughter speaks with her father (Judg. 11.37), and Elisha with his servant (2 Kgs 4.27). הַטָּה is spoken by man to God (2 Kgs 19.16; Isa. 37.17; Ps. 31.3; 71.2; 86.1; 88.3; 102.3; Dan. 9.18); טָה is also uttered by man to God (Ps. 17.6; 119.36; 144.5) as well as by a father to a son (Prov. 4.20; 5.1; 22.17). In short, it does not appear that either interpretation, direction to the speaker or politeness, applies to III-y imperatives.

Is the choice of form dependent upon the collocation? צַו יִשְׂרָאֵל אֶת־בְּנֵי יִשְׂרָאֵל is common to Lev. 24.2; Num. 5.2; 28.2; 34.2; 35.2. There is no such collocation with צַוֶּה. הִטָּה־אֲנִי occurs in Ps. 17.6; Prov. 4.20; 5.1; and 22.17, yet אֲנִי (אֵלֵי) הִטָּה can be seen in Ps. 31.3; 71.2; 88.3; 102.3; אֲנִי הִטָּה ה' is found in 2 Kgs 19.16; Isa. 37.17; and Ps. 86.1; and אֲנִי | אֵלֵי הִטָּה in Dan. 9.18. The short form is attested with another part of the body: הִטָּלְבִי (Ps. 119.36). Due to the limited number of III-y ms imperatives, it is difficult to say more about the possibility of other collocations.

Further analysis of the data, however, hints at possible chronological conditioning. In those cases where there is a short and long pair of the masculine singular, the long form is absent from the Pentateuch and is attested only in the Prophets and the Writings. This suggests that the long form became more frequent as time went by.⁶ That is not to say, however, that the short form

⁶ According to most biblical scholars, the Pentateuch was the first section of the Hebrew Bible to have crystallized. Therefore one may generally assume that its language is also older than that found in the Prophets and the Writings. This is certainly true when looking at the language of the exilic and post-exilic books. See Fassberg (2012, 173–74).

is restricted to the Pentateuch. Prosodic factors probably played a role in the choice of form, particularly in poetic contexts.

4.0. Other Ancient Hebrew Corpora

4.1. Epigraphic Hebrew

Inscriptional material from the First Temple period yields no unequivocal examples of ms III-y imperatives. Although graphically interpretable as imperatives, the following forms have been taken contextually as 3 ms perfect forms: *ועתה הטתה [ע] בדכ [ל] בה* ‘and now your servant has inclined his heart’ (Arad 40.4); *ועתה הנ. עשה. אדני* ‘and now behold my lord has done’ (Arad 21.3); *כנ. עשה. עבדככתבתיעלהדלת* ‘thus did your servant. I wrote on the door/sheet’ (Lachish 4.3). Another example, *עשדרככ* ‘make your way!’, has been interpreted by Lemaire and Yardeni (2006, 197–98) and Aḥituv (2012, 201) as a defective spelling for the *qal* imperative *עֲשֵׂה*, but by Bloch (2014) as the *pi‘el* imperative *עַשׂ*, which is unattested in the Hebrew Bible.

4.2. Ben Sira

The book of Ben Sira contains a number of III-y imperatives. All *qal* imperatives, as expected, are long: *דמה* ‘be like!’ (38.5 MS B), *היה* ‘be!’ (4.10 MS A + 9x), *חזה* ‘see!’ (37.7 MSS B and D), *נהה* ‘yearn for!’ (38.16 MS B), *ענה* ‘answer!’ (5.12 MSS A and C; 9.14 MS A), *עשה* ‘do!’ (14.16 MS A; 51.30 MS C), *ראה* ‘see!’ (6.36 MS A + 3x), *רעה* ‘graze!’ (34.15 MS B; 38.16 MSS B and D), *שנה* ‘repeat!’ (33.6 MS B). There is one *nif‘al*, which is long: *היעצה* ‘seek counsel!’ (4.28; < עצי״י). Three short forms of *pi‘el* verbs are attested: *כל* ‘finish!’ (35.8 MS B; as opposed to MT *כָּלָה* Ps. 74.11),

נט 'test!' (37.27 [2x], cf. MT נט Dan. 1.12) and פת 'entice!' (30.23 MS B; there are no biblical occurrences of the ms). There are also two long forms: קוה 'hope!' (6.19 MSS A and C + 2x) and שנה 'change!' (33.6 MS B). As for *hif'il* verbs, the short form of נט"י is attested three times, all in collocations containing parts of the body: הט לעני אונך (4.8 MS A), הט שכמך ושאה, 'bend your shoulder and carry her' (6.25 MS A), and והט אונך תוסר 'and if you incline your ear, you will be disciplined' (6.33 MS A). Qimron (2018, 173 n. 52) believes there is an additional example in הרב 'increase!' (30.38 MS E), though the reading is not certain. There might be one short *hitpa'el* imperative, if the proposed reading and reconstruction by Ben-Ḥayyim are correct: ה[ת]רע 'make friends!' (11.1 MS A; Ben-Ḥayyim 1973, 281; so, too, Qimron 2018, 173 n. 52).

4.3. Dead Sea Scrolls from Qumran

One finds in the Dead Sea Scrolls from Qumran both short and long forms. In the biblical scrolls the imperatives correspond almost always to those attested in the Masoretic Text (Qimron, 2018, 173 n. 51). In the non-biblical manuscripts, the forms usually echo those found in biblical collocations. Here are the Qumran attestations:

גל עיני גל (4QPsh [4Q90] 1–2, 18 = Ps. 119.18; 11QPsa^a [11Q5] VII, 4 = Ps. 119.18)

הט/הטה: הטא ה' אונכה (1QIsa^a XXX, 22 = Isa. 37.17); הט אונכה (4QPsa^a [4Q83] 9 II, 6 = Ps. 71.2); הט אונכה (11QPsa^a [11Q5] XXIV, 4 = Ps. 144.3); הט שמיכה (11QPsa^a [11Q5] XXIII, 15–16 = Ps. 144.5)

attested in the Bar Kosiba letters and only with the *qal* verb הו"י: אהוה שלום (Mur 46.11); והוי שלום (Mur 44.8); 'be well!' הוא שלום (Mur 42.7; the *'alef* is apparently an error); הוא שלום (Mur 48.6); הוא ש[ל]ם (Yadin 49.14). This imperative form is taken by many to be Aramaic and not Hebrew, as are the instances of הו"י in Biblical Hebrew, Samaritan Hebrew, and Tannaitic Hebrew (Mor 2016, 158 nn. 855–57).

4.5. Samaritan Pentateuch

There are no short imperatives in the oral tradition of the Samaritan Pentateuch. All forms in all stems end in a final *-i*, e.g., *ēli* 'ascend!' (Samaritan Pentateuchal written tradition עלה Gen. 35.1 = MT עלה), *ʿalli* (העל Exod. 33.12 = MT העל). MT צו 'order!' (e.g., Deut. 2.4) is realized as *šābi* (in the written tradition צוי), and MT הך 'strike!' (Exod. 8.12) as *wakki* (written tradition וכה; Ben-Ḥayyim 2000, 186–87). The III-ʿ verbs מלא 'fill' and קרא 'call' follow the inflection of III-y verbs:⁷ *mēli* (מלא Gen. 44.1 = MT מלא), *mālli* (מלא Gen. 29.27 = MT מלא), *qēri* (קרא Deut. 31.14 = MT קרא). The originally III-y verb *nēṭā* נטה 'stretch forth!' (נטה Exod. 7.19 = MT נטה) always (11x) ends with an *a*-vowel, for it appears to have been treated as if from the root נט"ח or נת"ח, the Samaritan Targum equivalent of נט"י (Ben-Ḥayyim 2000, 146).

⁷ Signs of the merger of verbs III-ʿ and III-y can be found already in Classical Biblical Hebrew (GKC, 206). The phenomenon increases in the Second Temple period, as seen in the Dead Sea Scrolls (Kutscher 1974, 343) and particularly Tannaitic Hebrew (Segal 1927, 90). The merger of III-ʿ and III-y is a salient feature of Aramaic.

arrāf (הרף Deut. 9.14 = MT הִרְרָף) is derived in the Samaritan tradition from רפ"פ (Ben-Hayyim 2000, 186 n. 139).

4.6. *Secunda*

Two imperatival forms are attested in the *Secunda* of the Hexapla, both of which correspond to the Masoretic Text (Brønno 1943, 100): *αίη* (הִיָּה Ps. 30.11; 31.3); *εττη* (הִטָּה Ps. 31.3).

4.7. Tannaitic Hebrew

Tannaitic Hebrew evidences the long forms in all stems (Segal 1927, 92; Haneman 1980, 385–87), e.g., צוה (t. Ber. 6.13). Examples of short forms usually occur only in biblical quotes, e.g., הרף ממני ואשמידם ‘let me alone so that I will destroy them’ (Sifre 27, citing Deut. 9.14), הט אזנך ושמע, ‘incline your ear to hear!’ (Seder Olam Rabba, citing Prov. 22.17). An exception is העל ‘bring up!’, which is attested in לקח את הפירות האלו לירושלם לחלק ‘bring up these fruits to Jerusalem to distribute!’ (m. Ma‘aser Sheni 3.1; t. Shev. 6.23).

5.0. Conclusion

The distribution of long and short forms of the ms imperative of III-y verbs does not correspond to the conditioning factors that have been suggested for the short and long forms of the ms imperative of strong verbs and most weak verbs. The data from ancient Hebrew sources seem to indicate that the later the text, the greater the chance that one will find in it long ms III-y imperative forms in the derived conjugations. This is the case in the later books of the Hebrew Bible, in the oral tradition of the Samaritan

Pentateuch, and in the Dead Sea Scrolls. In Ben Sira one finds two short forms unattested in Biblical Hebrew as well as an unattested long form.

It has been suggested by Qimron that the existence of short forms III-y imperative forms in Ben Sira and the Dead Sea Scrolls is proof that the short forms were used in speech in the Second Temple period. This interpretation of the data should be viewed in the light of Qimron's general approach that the orthography of the Dead Sea Scrolls should often be taken at face value and may represent the *ipsissima verba* of the Qumran community. Such an explanation of the written data, I believe, underestimates the role of written classicisms in the Hebrew of the Second Temple period, a period when writers tried and, on the whole, succeeded in imitating the Hebrew of the First Temple period (Kutscher 1974, 31). Scribes knew the classical biblical system and generated new forms that were unattested in writings from the First Temple period. At times they were guilty of pseudo-classicisms (Joosten 1999). The existence of III-y short forms in Second Temple Period texts does not prove that Hebrew speakers continued to generate short forms in speech. It does prove, however, that they continued to write them.

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FREQUENCY, ANALOGY, AND SUPPLETION: \sqrt{HLK} IN THE SEMITIC LANGUAGES¹

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The verbal root \sqrt{hlk} , with the original meaning ‘to go’, is attested in almost every branch of the Semitic language family, including Hebrew. In most cases it behaves irregularly, exhibiting unexpected paradigms. The phonological changes responsible for the anomalous forms are often equally irregular and therefore *ad hoc*.

Irregular forms of \sqrt{hlk} are well known and many scholarly opinions on their appearance in the individual languages have been shared. Despite parallels between the various Semitic languages, an investigation from a general Semitic point of view

¹ This paper entails most of the content of the poster I presented at the conference *Biblical and Rabbinic Hebrew: New Perspectives in Philology and Linguistics*, Cambridge, 8–10 July 2019. I am grateful for the opportunity to elaborate on the matter’s theoretical background. I would also like to thank those who have reviewed this contribution at any stage of its development. Any remaining errors are, of course, my own. Abbreviations: Mb = Moabite, Ph = Phoenician, Pun = Punic, Ug = Ugaritic, DA = Deir ‘Allā, Aram = Aramaic (varieties), ClArab = Classical Arabic, Akk = Akkadian, Ebl = Eblaite, pf. = perfect, impf. = imperfect, pret. = preterite, impv. = imperative, inf. = infinitive, a.ptc. = active participle, X > Y = sound change, X → Y = analogical change.

is lacking. In this paper I will point out these parallels, albeit with a slight focus on Biblical Hebrew and its closest Northwest Semitic relatives. Moreover, I will make use of modern linguistic theory in order to explain why some developments are more likely to have happened than others.

1.0. The Data

We find verbal forms of $\sqrt{h}lk$ in Akkadian, Arabic, and almost all Northwest Semitic languages.² The table on the following page sums up the most common forms in each language.

In most languages the first radical *h* is missing or behaves irregularly in many forms, marked in the table with shading. The rationale behind this peculiar feature of $\sqrt{h}lk$ is the main subject of this paper and will be treated in detail below. Here I confine myself to select observations.

Excluded from the table are the Biblical Hebrew ‘strong’ formations, namely prefix conjugations that preserve the first radical, such as imperfect הָלַךְ and construct infinitive הֵלֵךְ . They are rare: the 19 such formations are contrasted with exactly 1000 ‘weak’ formations. Furthermore, their restricted attestation in presumed foreign or ‘non-Judahite’ passages, such as the book of Job (6x) and the Balaam narrative (3x), suggests that they are

² The root is not found in some scarcely attested epigraphic Northwest Semitic languages. In Modern South Arabian a trace of this root may be found in $\sqrt{t}lk$ ‘to lead (an animal by a rope)’ (Mehri *tlūk*, Jibbali *etlĕk*, and Soqotri *tʕlĕk*), which can be explained as a causative derivative of $\sqrt{h}lk$ (Kogan 2015, 573). Ethiopic attestations of $\sqrt{h}lk$, e.g., Tigre *halkä* ‘to exert oneself, to die’ and Tigrinya *haläkä* ‘to toil, to get weary’ are borrowings from Arabic (Kogan 2015, 234–35, fn. 689).

Table 1

	BH	Mb	Ph/Pun	Ug	DA	Aram	CIArab	Akk	Ebl
	'to go'	'to go'	'to go'	'to go'	'to go'	'to die' ^a	'to perish'	'to go'	'to go'
G pf.	<i>hālāk</i>		<i>yłkt</i> _{1S}	<i>hłk</i>	<i>hłkw</i> _{3P}	<i>hłk</i>	<i>halaka</i>		
impf.	<i>yālēk</i>						<i>yahlıku</i>	<i>ıllak</i> ^b	
pret.	<i>wayyālēk</i>	<i>ʾhłk</i> _{1S}	<i>t[ʃ]k</i> _{3FS} [?]	<i>yłk</i>		<i>[yəhāk]</i>	<i>yahlıku</i>	<i>ıllık</i>	
impv.	<i>lēk</i>	<i>łk</i>	<i>łk</i>	<i>łk</i>	<i>łkw</i> _{MP}		<i>yahlıku</i>	<i>atık</i>	
inf.	<i>lēket</i>		<i>łkt</i>	<i>łkt</i>		<i>[məhāk]</i>	<i>hul-</i>	<i>alākum</i>	<i>halākum/</i> <i>haʾākum</i>
a.ptc.	<i>hālōk</i>		<i>hłk</i> [?]				<i>hālık-</i>		
Gt impf.	<i>hōlēk</i>		<i>ʾłk</i>	<i>hłk</i>			<i>yahtatıku</i>	<i>ıttallak</i>	
D impf.	—			<i>yłk</i>		<i>yłk</i>	<i>yuhallıku</i>		
C impf.	<i>yōlīk</i>		<i>yłk</i>	<i>ášhłk</i> _{1S}			<i>yuhıku</i>	<i>ıšāllak</i>	

^a G-stem perfect forms of *√hłk* are attested in Palmyrene and Nabatean Aramaic only, and at least in Nabatean the meaning is clearly 'to die' (Hoftijzer and Jongeling 1995, s.v. *hłk*₁). The use of the G-stem with this meaning is probably due to Arabic influence, but the euphemistic use of 'to go' for 'to die' is also attested in other Northwest Semitic languages (cf. English *gone* or *depart* in the same sense). Derivations of the G-stem with meanings that can be associated with 'to go' exist in various Aramaic varieties. The Aramaic meaning of the D-stem of *√hłk*, 'to walk (around)', concurs with the Biblical Hebrew *piʿel*.

style-switching features (cf. Rendsburg 2003, feature II.C.7).³ These forms have been linked to the Moabite consecutive imperfect *w'hlk* 'and I went' (Meshah^c lns. 14–15), but it should be noted that the strong consecutive imperfect is very rare, being attested only twice in Biblical Hebrew, of which וַיִּתְּרַן 'and (fire/lightning) ran' (Exod. 9.23) may actually be a *pi^cel* form (Jouion and Muraoka 2011, §75g: *lectio mixta*) (the second is וַיִּהְיֶה 'and he passes' [Job 14.20]).⁴

Prior to the discovery of Ugaritic, the absence of the first radical was commonly explained as a result of dissimilatory loss of this consonant in the *hif^cil*, i.e., **hahlík* > **hālík* > הוֹלִיךְ , after which it spread to the *qal* by analogy with the I-*w* verbs (Praetorius 1882). Not only is it most unlikely for analogy to act from a less commonly occurring paradigm to a more common one (see §3.0), this explanation was also no longer tenable when

³ In the Balaam narrative another instance of forms of וַיִּלְחֶץ that alternate between foreigners and speakers of Hebrew is use of the long imperative לְחַץ by foreigners (Balaam, Balak, etc.), while God exclusively commands with the short variant לֶחֶץ . On the other hand, this can also be explained according to the theory that the long imperative expresses motion towards or for the benefit of the speaker (Fassberg 1999).

⁴ In relation to the Moabite imperative *lk* (Meshah^c ln. 14), where the first radical was lost, Blau (1979, 145–46) suggests that Moabite reflects a more archaic stage than Biblical Hebrew. Although it is indeed most likely that the elision of *h* started in the imperative (cf. below), I would argue that this development happened at an earlier stage (cf. Ugaritic *lk* and *ylk*). I consider it more likely that *w'hlk* does not represent an actual Moabite form, as the consecutive imperfect was not native to the spoken Moabite language, but a literary feature borrowed from the more prestigious Hebrew (Gzella 2011, 430).

Ugaritic turned out to have lost the first radical in the G-stem (impf. *ylk*, inf. *lkt*), but not in the C-stem (impf. *āšhlk*_{1s}). Although Praetorius' theory of dissimilation remains plausible for the *hif'ʿil* (Meyer 1992, §78.9b), it is found nowhere else in Biblical Hebrew, and is therefore an *ad hoc* solution.⁵

2.0. Frequency

There are multiple ways in which frequency, more specifically token frequency,⁶ plays a significant role in language change.

⁵ The only other Biblical Hebrew causative form of a I-*h* verb, the *hof'al* הִפְעִיל 'it has (been) turned' (Job 30.15), was identified as an analogical restoration by Praetorius (1882, 311–12). On the other hand, the change *ʾa' > *ā- (e.g., *ʾaʿhab > *āhab > אָהַב vs. *yiʿhab- > יִאָּהַב), to which Praetorius links the dissimilation of *hah-, is unrelated, as it is not a case of dissimilation; a glottal stop was regularly lost in syllable-final position (and only analogically restored in the less frequent verbs; Suchard 2019, 72). Note also that the *qal* prefix conjugation forms of I-ʾ virtually always (92 percent) preserves the first radical in spelling (e.g., יִאָּכַל), whereas the -ō- (< *-aw-) in the *hif'ʿil* prefix conjugations of הִפְעִיל (76 percent) and I-*w* verbs (75 percent) is relatively less often written with a *mater lectionis*.

⁶ It is very important in this matter to distinguish between token frequency, how often a phenomenon (word, sound, morpheme, etc.) is *used* in a language, and type frequency, which refers to how often a phenomenon *occurs* in a language (often based on dictionary counts). One could say that type frequency concerns *langue* and token frequency concerns *parole*. The distinction between the two is exemplified by regular vs. irregular verbs in English: almost 95 percent of the verbs are regular (type frequency), but attestations of irregular verbs outnumber

High token frequency can either stimulate or prevent formal change. This paradox is explained by the Frequency–Implementation Hypothesis:

Changes which require analysis—whether syntactic, morphological, or phonological—during their implementation affect the least frequent words first; others affect the most frequent words first. (Phillips 2001, 134)

‘Analysis’ in this context is to be understood as the fragmentation of an utterance into individual words, morphemes, or sounds as performed by the speech recipient in order to interpret the message. Common phrases and words, however, are perceived as single units rather than sequences of elements (Phillips 2001, 127). An example of this is the grammaticalised use of American English *I am going to*, which can be phonetically reduced to [‘aimə̃ə] without becoming misunderstood (Bybee 2001, 11). From the speaker’s perspective, recurring utterances of a word or phrase undergo ‘automation’ like other highly repetitive behaviours, and become less clearly articulated (Bybee 2015, 41). At the other side of the conversation, phonetic reduction (i.e., deficient articulation) generally causes interpretation issues for the listener, but this does not apply to contextually predictable words—and the more frequent a particular form, the more predictable it is.

The other aspect of the Frequency–Implementation Hypothesis, the stability of frequent words, can be attributed to the fact that “the more token frequency a form has, the better

those of regular verbs (token frequency) (Berg 2014, 209). Unless otherwise specified, in the remainder of this paper the label ‘frequency’ refers to token frequency.

and earlier it is stored in the brain” (Dressler 1985, 333). As such, frequent forms are accessed more easily, irrespective of their morphological irregularity (Bybee 2015, 95). A speaker of English will reproduce the past tense of *to go* correctly as *went* without hesitation, whereas he needs to derive the past tense form of a verb like *to vamoose* or *to abscond*. Because *went* occurs frequently, it is stored in the human mind as a lexical item separate from the present tense of *to go*. Hence, very frequent forms are resistant to paradigmatic levelling, which is the most significant change that requires morphological analysis (cf. Phillips 2001, 134). For instance, as word-initial **w* had become **y* in Proto-Northwest Semitic, Biblical Hebrew stative I-*w* verbs like **√wqd* > יקד ‘to burn’ were reanalysed as I-*y* verbs on the basis of the forms where it had changed, e.g., the perfect **waqada* > **yaqada*, causing the analogical replacement of word-internal **w* with **y*, such as the imperfect **yiwqadu* → **yiyqadu* > ייקד ‘it will burn’. The frequently occurring **yiwkalu* ‘he will be able’, however, did not undergo this analogical levelling, resulting in the form יוכל (Blau 2010, §§1.16.2, 1.16.4). Similarly, נתן ‘to give’ is the only III-*n* verb in which the third radical is assimilated to a following consonant, e.g., נתתי ‘I gave’ vs. שכנתי ‘I dwelt’; the verb’s high frequency blocked a morphological analysis *nātan* + *-tī* (cf. Blau 2010, §4.3.8.3.4).

In conclusion, frequently occurring forms exhibit consistent but irregular phonetic reductions that are resistant to paradigmatic levelling.

The verb for ‘to go’ (i.e., denoting basic motion) belongs to the most basic lexical stratum of every language and is uttered

very often. Within the selection of Biblical Hebrew discourse clauses⁷ (based on the annotations of Van Peursen, Sikkell, and Roorda 2015) $\text{qal} \text{ } \text{h} \text{ } \text{h} \text{ } \text{h}$ ranks among the six most frequently used verbs. Among the forms of this verb the 2ms $\text{h} \text{ } \text{h}$ (and morphological variants, 140 attestations) and 2mpl $\text{h} \text{ } \text{h}$ (83) imperative forms are the most common forms, accounting for more than a quarter of all *qal* forms of $\text{h} \text{ } \text{h} \text{ } \text{h}$ in direct speech (774 in total). This aligns with the paradigmatic independence that is found with imperatives, in particular basic directives like ‘go!’, ‘come!’, ‘give!’, ‘take!’, all over the world (cf. Veselinova 2006, 139; Maiden, Swearingen, and O’Neill 2009, 105–6).⁸ Hence, it is by no means surprising that this form is phonologically reduced throughout Northwest Semitic. At some stage the **h* in **hlik*,⁹

⁷ High-frequency-induced developments are based on occurrences in the spoken language. As the differences in the use of verbal forms between narrative and discourse clauses in Biblical Hebrew are clear (cf. consecutive imperfect vs. imperative), it is a necessity to distinguish these for any frequency analysis.

⁸ Besides token frequency, the paradigmatic autonomy of imperatives can be attributed to their acquisition in a pre-morphological phase in several languages, including Modern Hebrew (Berman 1985, 268). Because the language learner is not aware of a verbal paradigm, “[imperatives] are at this stage indistinguishable from interjections” (Maiden, Swearingen, and O’Neill 2009, 106).

⁹ Some may prefer to reconstruct a bisyllabic form, such as **halik* or **hilik* (e.g., Blau 2010, §4.3.5.2.4.1), as is probably the proto-form of Akkadian *alīk*. However, the exact reflex of the form is irrelevant: irregular phonological reduction can just as well account for the loss of an entire (unstressed) syllable **ha-*.

standing in a phonetically unstable position, was dropped.¹⁰ Due to a lack of data, it is impossible to date this development more accurately than somewhere between Proto-Semitic and Proto-Northwest Semitic;¹¹ at least the Akkadian imperative *alik*, probably going back to **halik*, did not participate. Akkadian does show another irregular phonological reduction in the paradigm of *alākum*: original **h* exceptionally assimilated to an adjacent consonant, e.g., *illik* < **yihlik-*, *ittalak* < **yihtalik-* (or **yithalik-*; Kouwenberg 2010, 546, fn. 114).¹² Most likely, this assimilation first occurred in the most frequent form where **h* stood before a consonant, for instance the preterite **yihlik-*, later spreading to other forms, presumably on analogy with I-*n* verbs.¹³

¹⁰ Blau (2010, §3.3.5.5.2; cf. 1979, 145 fn. 14) even appears to assume that the root-initial *h* was lost in the qal imperative of all I-*h* verbs, later being restored by analogy (e.g., **hpuk* > **puk* > 𐤐𐤕). Although it is phonetically not unlikely that the cluster-initial position was too unstable for a glottal consonant, there is no evidence pointing towards this unnecessary sound law.

¹¹ If the Modern South Arabian causative root \sqrt{tlk} ‘to lead (an animal by a rope)’ is indeed related to \sqrt{hlk} (see fn. 2 above), it hints at the loss of *h* in the shared ancestor of Modern South Arabian and Northwest Semitic, i.e., Proto-West Semitic. However, these may reflect two parallel, yet independent, developments.

¹² That **h* does not regularly assimilate to an adjacent consonant in Akkadian can be seen from, e.g., *itawu* < **yihlawiw-* and *ālum* < **ahlum* (Huehnergard 2002, 170, fn. 26).

¹³ Aramaic forms like impf. 3ms *yhk* / ܝܚܟ (attested in Old, Imperial, and Biblical Aramaic) are understood by some as irregular outcomes of Proto-Northwest Semitic **yahlik-*. While the lateral could theoretically be subject to phonetic reduction due to high token frequency, there are

3.0. Analogy

In the past, historical linguistics has been accused of using analogy as a ‘wastebasket’ for linguistic changes that could not be explained by regular change or borrowings (Campbell 2013, 91). There are, however, several tendencies that aid us in understanding how and—perhaps most importantly—in which direction analogical changes operate (Bybee 2015, 115).

In the first place, forms that influence each other must be semantically related (belonging to the same morphological category) as well as phonologically similar. For instance, the past tense of verb A cannot be analogically reshaped directly on the basis of the present tense of verb B. In the second place, analogical change regularly operates from a basic to a derived form within a paradigm (Kuryłowicz 1945, 23). The basic form is identified as the ‘least marked’ in terms of phonology (short > long), morphology (stem only > with affixes), semantics (e.g., singular > plural; masculine > feminine; active > passive; present > past, future), and, above all, token frequency (frequent > rare). Bybee stipulates the following hypothesis:

High-frequency forms are resistant to change on the basis of the structure of other forms or patterns, and more likely

two reasons to question this assumption: (1) the stem-vowel *ā* (attested in Biblical Aramaic) does not agree with the characteristic *i* of *√hlk*; (2) it is very unlikely that the phonetically less stable **h* would be preserved in favour of **l* (Bybee 2001, 73–74). It goes beyond the scope of this contribution to treat the case of Aramaic ‘to go’ in depth, which I intend to do in a future publication (Groen forthcoming).

to serve as the basis of such change in low-frequency forms. (2015, 102)

Accordingly, after the collapse of the case systems, the Bronze Age Northwest Semitic languages generalised the presumably more frequent oblique plural ending **-īm/n* rather than the morphologically less marked nominative **-ūm/n*. Perhaps the most famous case of analogy in Biblical Hebrew verbal morphology is the introduction of *i* in the stem of the strong verb *hif^cil* imperfect יִקְטִיל on the basis of analogy to II-*wy* *hif^cil*, e.g., יָקִים:

(1) juss. **yaqim* : impf. **yaqīmu* :: juss. **yaqtīl* : impf. X; X = **yaqtīl*

It may seem unlikely that a rather limited verb class can influence the paradigm of a regular verb, but less so when we see that among *hif^cil* imperfect forms in Biblical Hebrew direct speech clauses the II-*wy* הָשִׁיב ‘to return (trans.)’ is the most common verb, with הָבִיא ‘to bring, insert’ being third.¹⁴

Thus, even though frequent forms behave independently of the rest of the paradigm, they can conversely serve as an analogical model for less frequent forms within the paradigm.

¹⁴ Unfortunately, the data (Van Peursen, Sikkell, and Roorda 2015) does not distinguish between imperfect and jussive or ‘short imperfect’ forms (consecutive imperfects are marked and have been excluded from this count). Although the distinction between these forms is essential in this analogy—only the II-*wy* (long) imperfect **yaqīmu* > יָקִים triggered the analogical change to **yaqrību* > יִקְרִיב (vs. jussive **yaqim* > יָקֵם and consecutive imperfect **wayyaqrīb* > וַיִּקְרַב)—the length of the theme vowel is obscured by such factors as verbal ending, object suffix, weak third radical (e.g., הָבִיא ‘to bring, insert’), and ambiguous origin (such as the frequent הָבִיא/יָבִיא; Huehnergard 2005, 467–68).

Given the morphological relationship between the imperative and the prefix conjugations (including the construct infinitive), we may expect the latter to be reshaped in analogy to the phonologically reduced imperative of $\sqrt{h}lk$, as shown in (2). After all, the imperative $*(h)lik$ is more basic than the imperfect $*ya-(h)lik-$ in terms of phonology, morphology, and frequency.¹⁵

(2) impv. $*qtl$: impf. $*yaqtl-$:: impv. $*lik$: impf. X; X = $*yalik-$

Additionally, the anomalous paradigm of $\sqrt{h}lk$ was associated with the scheme of the active I-*w* verbs already before Praetorius (1882). The active I-*w* verbs, most of which are motion verbs like $\sqrt{h}lk$ (e.g., $\sqrt{w}rd$ ‘to descend’, $\sqrt{w}\$’$ ‘to go out’, $\sqrt{w}\theta b$ ‘to sit down’, $\sqrt{w}bl$ ‘to bring’), are characterised by a biradical stem with stem vowel *i* throughout the Semitic languages.

Table 2

	BH	Ph	Ug	Aram	ClArab	Akk
impf.	<i>yēreḏ</i>	<i>yšb</i>	<i>yrd</i>	<i>yittib</i>	<i>yaridu</i>	<i>urrad</i>
impv.	<i>rēḏ</i>	<i>ld_{FS}</i>	<i>rd</i>	<i>teḏ</i>	<i>rid</i>	<i>rid</i>
inf.cs.	<i>rédeṭ</i>	<i>šbt</i>	<i>ḥbt</i>	—	—	—

The similarities of this verb class with $\sqrt{h}lk$ may have formed an additional impetus for the previous analogical development and also explain the feminine ending *-t* for the construct infinitive (another hallmark of I-*w* verbs in Northwest Semitic):

¹⁵ Cf. Maiden, Swearingen, and O’Neill (2009, 100, with examples on pp. 102–3): “imperatives are ‘basic’ members of their paradigms, in that they tend both to *resist* intraparadigmatic leveling and sometimes to be the *source* of such leveling” (emphasis in the original).

- (3) impv. *rid : impf. *yariḏ/-u : inf.cs. *riḏ-t :: impv. *lik : impf. X : inf.cs. Y; X = *yalik/-u, Y = *lik-t

This development could have happened at any time in the history of the (West) Semitic languages after the loss of the first radical in the imperative. Only in Phoenician did it also spread to the *qal* perfect *ylkt*_{1s} */yalaktī/, parallel to the levelling in the paradigm of the verb √*ntn* ‘to give’ in both Phoenician and Ugaritic (impv. */tin/, impf. */yatin-/, pf. */yatan(a)/¹⁶). On the basis of Hebrew (Blau 2010, §3.3.5.5.1) and Phoenician (*yipʿil* pf. *ylk* and impf. *ylk*), I would postulate an additional extension of I-*w* forms to the causative stem of √*hlk* in Proto-Canaanite. The dissimilatory rule **hah-* > **hā-* (> *hō-*) put forward by Praetorius (1882) would explain the dissimilarity with Ugaritic *āšhlk*_{1s} */ʾašahlik-/, though it is unnecessary and otherwise *ad hoc* (see above). If it happened, it must have done so before Phoenician shifted the causative morpheme from **hi-* to **yi-*.

But were the imperfect forms of √*hlk* not frequent enough to resist paradigmatic levelling?¹⁷ It is possible that the loss of *h*

¹⁶ Note that the root-initial *y* also occurs in Phoenician and Ugaritic nominal derivatives of original √*ntn* (e.g., Punic *ytn* ‘giving, presentation’; Ugaritic *ynt* ‘gift, offering’), but not with √*hlk* (e.g., Ugaritic *hlk* ‘walk, course’ and *hlkt* ‘conduct, way of acting’); Punic *uulech* ‘traveller, guest’ probably reflects /(h)ōlik/, but theoretically could be the outcome of **yōlik* > */wōlik/.

¹⁷ Individually, the frequency numbers of imperfect forms of 𐤎𐤌𐤍 in direct speech do not come near those of the masculine imperative forms (2ms 140 attestations, 2mpl 83), with 3mp being most frequent (43), followed by the 1s (34), 2ms (33), and 3ms (30). Also the construct infinitive (62) and masculine singular participle (58) are more frequent.

in the imperfect **yahlik-* should indeed be attributed to a phonological reduction similar to that in imperative **hlik*, but there is evidence that the imperfect of $\sqrt{h}lk$ (and active I-w verbs) was not as paradigmatically independent as the imperative. If Biblical Hebrew יִלֵּךְ goes back to **yaylik-* (Joüon and Muraoka 2011, §75c; Suchard 2019, 250),¹⁸ it reflects insertion of a first root consonant **y*. This can only be explained by two-stage analogical levelling with I-wy verbs:

(4) pf. **qatal* : impf. **yiqtul* :: pf. **yarad* : impf. X; X = **yayrid*

(5) impv. **rid* : impf. **yayrid* :: impv. **lik* : impf. X; X = **yaylik*

This analogy is additional proof of the paradigmatic autonomy of the imperative, where the **y* was analogically added in neither I-w verbs nor $\sqrt{h}lk$. It is unclear whether this development happened only in (Biblical) Hebrew, as the Canaanite data provides no information on the prefix vowel of the relevant verbs. In Ugaritic, we can infer from 1s impf. *álk* / $\text{ʔal}ik-$ /, *árd* / $\text{ʔar}id-$ / (vs. **ʔay-* > / ʔē- / <*i*>) and the attestation of syllabic representations of /*yatin-*/ (vs. BH יִתֵּן) and similar forms (Sivan 1985, 292) that this development did not occur. Given that in Biblical Hebrew this *-ē* < **-ay-* is never spelled with a *mater lectionis* ׁ (contrasting

¹⁸ Others attribute the *šērē* in the prefix to an original *i*-vowel in the prefix, e.g., **yilik* (e.g., Blau 2010, §4.3.8.4.12). This does not work for the active I-wy verbs, where the prefix vowel is preserved in case of remote stress, as in יִפְּרֹךְ ‘he shall know you’ (Joüon and Muraoka 2011, §75c), but this solution cannot be excluded for יִלֵּךְ , as suffixed forms do not occur with *qal* forms of this verb.

with I-y, e.g., דָּרַךְ ‘it will burn’), this analogy might be as late as the reading traditions.¹⁹

The forms of $\sqrt{h}lk$ attested in Arabic have not been discussed so far, as they are completely regular. The origin of this regularity is a semantic shift ‘to go’ > ‘to perish’ and a concomitant loss of frequency. No longer afforded the protection of high token frequency, any morphological anomalies were ousted by paradigmatic levelling.

4.0. Suppletion

In his thorough study of suppletion as a synchronic state (rather than a morphological process), Mel’čuk (1994) summarises his definition of suppletion as follows:

...for the signs X and Y to be suppletive their semantic correlation should be maximally regular, while their formal correlation is maximally irregular... (1994, 358)

Thus, e.g., the semantic difference between *go* and *went* is a regular grammatical difference (viz. ‘-/+ past tense’), but there is no rule in English grammar that can explain their morphological dissimilarity. After all, past tense is regularly marked by the suffix *-ed* (as in *play* : *played*) or vowel alternation (as in *swim* : *swam*). Biblical Hebrew *qal* הָשָׁתַּח ‘to drink’ has no *hif’il*, but instead the causative ‘to make to drink’ is expressed by using the *hif’il* הִשְׁתַּחֵק. The formal correlation between ת and ק is, however, not “grammatically corepresentable” (cf. Mel’čuk 1994, 347).

¹⁹ The Babylonian vocalisation tradition has \bar{e} too: e.g., *yēšab*, *yēšēbū*; *yēlak*, *tēlēkī* (Khan 2013, 961).

While both of these examples are instances of suppletion through lexical change, a suppletive paradigm can also be the result of irregular and regular phonological changes.²⁰ This type of suppletion is generally rarer, as it is often eliminated via paradigmatic levelling (Kim 2019, 457). Moreover, most regular sound laws lead only to regular alternations. For instance, as post-vocalic spirantisation in Biblical Hebrew is a regular phenomenon, כָּתַב [k^hːʕaːv] does not stand in a suppletive relationship to כָּתַבׁ [jiχ^lt^hoːv], even though two of the three root consonants are phonetically different.²¹ The absence of the first radical of active I-*w* verbs in several forms of the paradigm is another alternation, as it occurs regularly in this class of verbs.

Contrastively, there is no allophonic alternation (**w* >) *y* : *h* in Northwest Semitic that can account for the difference between $\sqrt{h}lk$ in the perfect, absolute infinitive, and participle, on the one hand, and the imperative, imperfect, jussive, and construct infinitive, which are derived from a root $\sqrt{w}lk$, on the

²⁰ Rudes (1980, 660) regards suppletion of etymologically related forms, being the result of phonological change, ‘pseudo-suppletion’. In many cases, however, language users are unaware of any etymological relation. For instance, German *ist* and *sind* correspond regularly to their Proto-Indo-European forms $*h_1\acute{e}s-ti$ and $*h_1s-énti$, but there is no reason to assume that speakers of the language understand the formal discrepancy—instead, they consider them different stems (cf. Kim 2019, 460).

²¹ The line between alternations and irregularities can be somewhat arbitrary. Is a morphological substitution shared by only two pairs regular or not? As this differs per case, Mel’čuk (1994, 378) leaves this up to the researcher, although he states that, theoretically, such a case is “‘not quite’ suppletive.” Note that his definition of suppletion allows for various degrees of suppletion (1994, 346, 376–81).

other. Biradical imperatives regularly correspond to a perfect with initial *n* (*śa' : *naśa'a) or *y* (*rid : *yarada), while perfect forms with initial *h* also regularly have it in the imperative (*haraga : *hrug). The meanings of the forms in which this alternation is distributed correlate like any other verb, with the differences being completely grammatical. As both conditions of Mel'čuk's definition are met, it follows that $\sqrt{h}lk$ and a hypothetical $\sqrt{w}lk$ were in a suppletive relationship in Proto-Northwest Semitic and to varying degrees in most of its descendants Ugaritic (not in the C-stem), Phoenician (also in the perfect), and Hebrew.

Further proof of this suppletive relationship is seen in the fact that the $\sqrt{h}lk$ forms did not participate in the Biblical Hebrew analogical levelling of I-*w* verbs presented in (4)–(5), whereas the imperfect and jussive did.

5.0. Conclusions

We have seen three linguistic phenomena that account for the anomalous forms of $\sqrt{h}lk$ in Biblical Hebrew and other Semitic languages. These explanations are not completely new; Blau (2010, §3.3.5.5.2; cf. 1979, 145, fn. 14) already pointed towards the role of high token frequency in the shortening of the imperative $\sqrt{h}lik > \sqrt{l}ik$; analogy has been commonly accepted for the similarity between $\sqrt{h}lk$ and active I-*w* verbs for a long time (e.g., Praetorius 1882); and Gesenius (1816, §86) already mentioned the suppletive character of $\sqrt{h}lk$. What is new, however, is the use of modern linguistic theories in order to explain the parallels and differences in this paradigm across Semitic languages.

The imperative **hlik* was likely the first form to behave anomalously, being phonetically reduced to **lik* because of its high token frequency, probably in an early stage of West Semitic. Subsequently, the prefix-conjugations (and the construct infinitive) were reshaped in analogy to the imperative and the morphologically and semantically similar active I-*w* verbs. This resulted in a paradigm in which affected forms, going back to a hypothetical **√wlk*, and unaffected forms, regularly formed from the root *√hlk*, are in a suppletive relationship with each other. Along the way we saw irregular, high frequency-induced assimilation (and subsequent analogy) in Akkadian, and paradigmatic levelling in Arabic, where the verbal forms had lost their paradigmatic independence due to a semantic shift.

By way of a summary, the following table provides a concise overview of the development of the G-stem forms of *√hlk* from Proto-Semitic to Biblical Hebrew. Phase I is not unlikely to correspond to Proto-West Semitic; the changes in Phase II occurred thereafter, the latest in Proto-Northwest Semitic; the loss of the first radical in the *hif^cil* (Phase III) can be postulated for Proto-Canaanite; Phase IV is the (probably Hebrew-only) insertion of **y* in the prefix of I-*w* verbs and *√hlk* by analogy with the strong verb, which could have happened at any time before the split of the Tiberian and Babylonian reading traditions.

Table 3

	PS	Phase I	Phase II	Phase III	Phase IV	BH
G pf.	* <i>halaka</i>					> <i>hālāk</i>
impf.	* <i>yahliku</i>		→ * <i>yaliku</i>		→ * <i>yēlék</i>	> <i>yēlēk</i>
juss.					→ * <i>yélek</i>	> <i>yēlēk</i>
pret.	* <i>yahlik</i>		→ * <i>yalik</i>		→ * <i>wayyélek</i>	> <i>wayyélek</i>
impv.	* <i>h^(a)lik</i>	> * <i>lik</i>				> <i>lēk</i>
inf.cst. (* <i>hlik</i> -?)			→ * <i>lik-t</i>			> <i>lēket</i>
inf.ab. * <i>halāk-</i>						> <i>hālōk</i>
a.ptc. * <i>hālik-</i>						> <i>hōlēk</i>
D impf.	* <i>yuhalliku</i>					> <i>y^hhallēk</i>
C pf.	* <i>šahlika</i>			→ * <i>hōléka</i>		> <i>hōlīk</i>
impf.	* <i>yušaliku</i>			→ * <i>yōléko</i>		> <i>yōlīk</i>

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ON THE MORPHOLOGY OF THE GUTTURAL VERBS IN SEPHARDIC TRADITIONS IN THE EARLY MODERN PERIOD

Ariel Gabbay

1.0. Introduction

This article deals with the morphology of the guttural verbs in the Sephardic reading tradition for the Mishna. It is based on findings common to the world's first two Mishna editions printed with full vocalisation: the Constantinople Mishna edition (1643–1645, hence CM)¹ and the Amsterdam Mishna edition (1646–, hence AM),² both of which probably represent the living reading tradition for Mishnaic Hebrew among Sephardic Jews in the 17th century. The findings presented below contradict not only the grammar of the Bible, but also the grammar of the Mishna, as represented in the medieval vocalised manuscripts, first and foremost MS Kaufmann.

It is commonly assumed that Mishnaic Hebrew, especially as represented in the printed editions of the Mishna, has been

¹ See CM's title page in Appendix 1.

² See AM's title page in Appendix 2.

deeply influenced by Biblical Hebrew. Printers and grammarians, who idolised the biblical language, aspired to bring Mishnaic Hebrew closer to the Tiberian biblical standard (Kutscher 1963, 247–48; Yalon 1964, 12; Mishor 1989, 90; Bar-Asher 2009a, 318; 2009b, 50–51). As a result, one might expect that the grammar reflected in a printed Mishna is in fact identical to biblical grammar. Thus, for example, in the matter of the widespread verb *נעשה* ‘to become, to be done’ G. Birnbaum determined that “In the printed editions the vocalisation is, of course, according to the Tiberian Bible (that is *נַעֲשֶׂה*, *נַעֲשֵׂה*).”³ However, this study presents a different picture: both CM and AM, though vocalised by grammar experts,⁴ stray from BH grammatical standards. They not only contain dozens of forms with *segol* instead of *patah*—e.g., *נַעֲשֶׂה*, *נַעֲשֵׂה*, *נַעֲשִׂין*, *נַעֲשִׂות*—but they also reveal fundamental deviations from the biblical norm in quite a few grammatical categories. As mentioned above, I shall limit the discussion to anomalies relating to the morphology of the guttural verbs.⁵

³ See Birnbaum (2008, 129).

⁴ In the introduction of CM, the publishers praise the vocaliser’s work, performed “according to grammar by an expert in grammar.” Similar things are said in the introduction of AM.

⁵ For an overall examination of the deviations from Biblical Hebrew in CM, see Gabbay (2017). For another side of the question discussed in this paper, see also Gabbay (2019).

2.0. Findings

Below are the categories in which the tradition reflected in AM and CM fits neither biblical grammar nor the medieval vocalised manuscripts of the Mishna.

2.1. Feminine Participle with Third Radical Guttural

The first matter is feminine participle forms whose third radical is guttural. As is well known, in Biblical Hebrew these forms appear with modification of *segol* to *pataḥ* (e.g., מְצַרֵּחַת, מְצַרֵּחַת). This is also the case in the Mishna manuscripts, except for one unusual and rare form: מְגַבְּהַת ‘lifts up (fs)’ (Halla 3.1), found in some of the manuscripts (Zurawel 2004, 107). CM and AM also vocalise *pataḥ* (or *qameṣ*⁶) in most cases. Yet, we find eight verbs with *segol*: נִפְרָעַת ‘collects (a debt) (fs)’ (CM, Ketubbot 10.5; Shevu‘ot 7.7, compared to נִפְרָעַת/נִפְרָעַת in Ketubbot 9.8; Giṭṭin 4.3), מְקוּפָּחַת ‘ruined (fs)’ (CM, Ohalot 16.1), מוֹנְחָת ‘set, lying (fs)’ (CM, Terumat 8.8 [2x], compared to מוֹנְחָת in Ketubbot 8.8 [2x]), מְגַלְּחָת ‘shave (fs)’ (AM, Soṭa 3.8; Nazir 4.7), מְשַׁבְּחָת ‘increases in value (fs)’ (AM, ‘Arachin 6.5 [2x], compared to מְשַׁבְּחָת in Soṭa 3.5), הַמְשַׁלְּחָת ‘the one sent forth (fs)’ (AM, Nega‘im 14.5 [2x], *lamed* without *dagesh*), מְגַבְּהַת ‘lifts up (fs)’ (AM, Hālla 3.1), and two pausal forms: מְשַׁבְּחָת ‘increases in value (fs)’ (AM, Baba Qama 5.4), מְצַעֵּת ‘make the bed (fs)’ (CM, Ketubbot 5.5 [2x], *ṣade* without *dagesh*). It should also be noted that the feminine form of פְּקֵחַ ‘a person who is not deaf’ in both editions is always פְּקֵחָת/פְּקֵחָת.

⁶ In both editions, *pataḥ* and *qameṣ* may be interchangeable due to the Sephardic accent of the vocalisers, which does not distinguish between the two signs.

It should be emphasised that the interchange of *pataḥ* and *segol* does not reflect a Yemenite pronunciation. The accent of the two vocalisers was Sephardic, as evidenced by many interchanges between *pataḥ* and *qameṣ* on the one hand and *segol* and *šere* on the other hand. In contrast, *pataḥ* and *segol* are not parallel: *segol* may appear instead of *pataḥ* only in some of the third-guttural feminine forms, but *pataḥ* never appears instead of *segol*.

Reading such guttural feminine forms with *segol* instead of *pataḥ*, known from various Sephardic oral traditions of recent generations, is interpreted as an analogy to the non-guttural forms (Morag 2003, 47). This study, however, first reveals these forms in vocalised editions of the Mishna from the 17th century. It turns out that the picture reflected in CM and AM is quite similar to that of the reading traditions of Baghdad and Aleppo, but different from that of Djerba. As in the Baghdad and Aleppo traditions, this phenomenon is relatively limited: the forms with *segol* are a minority compared to the forms with *pataḥ/qameṣ* and are not found in the *qal* stem⁷ nor in biblical words, whereas in the tradition of Djerba the forms with *segol* are the vast majority and appear in all circumstances (Katz 1977, 195–96).

2.2. Lack of Compensatory Lengthening in *Pi^{ca}l* and *Pu^{ca}l*

The second issue relates to the vowel of the first radical before a middle guttural in the *pi^{ca}l* and *pu^{ca}l* stems. While in the Tiberian system we usually find the vowel modifications $i > e$ (often

⁷ Except for one form, actually a noun: פִּתְחָת 'key' (AM, Kelim 13.6; Baba Batra 6.5, compared to פִּתְחָת in Beša 4.2).

before \aleph and always before \daleth , such as שֵׁרַת ‘to serve’, מָאַן ‘to refuse’⁸) and $u > o$ (before \aleph , ה, ע, ר, such as מְגֹאֵל ‘detestable’, מְטַהֵרָה ‘purified [fs]’, מְבַעֵרָת ‘removed [fs]’, גָּרְשׁוּ ‘they were expelled’), in both Mishna editions, in most cases, there is no vowel change. This feature is revealed not only before \daleth (examples include מְגוֹרֶשֶׁת ‘divorcée’, עָרַב ‘to mix’, בָּרַר ‘to choose’, which are well known from various sources of Mishnaic Hebrew⁹), but also before other guttural consonants. The number of relevant examples from the entire Mishna is not large, yet almost all of them are vocalised as opposed to biblical grammar: מִיאָנָה/מִאָּנָה ‘she refused’ (CM, AM, Yevamot 1.2; 2.10; 13.4 [2x]; 13.5 [2x], 7 [2x]), מִיאָנוּ ‘they refused’ (AM, Yevamot 1.1 [2x], but in CM מִאָּנוּ), הַמְשׂוּאָר ‘leftover’ (CM, AM, Pe‘a 3.3 [2x]; Zevahim 8.12 [2x]), מְסוּאָבוֹת ‘unclean (fpl)’ (CM, AM, Ḥalla 2.2; Ḥagiga 3.3, compared to מְסוּאָבוֹת, only in CM in Ḥullin 2.5; Toharot 2.1; Tevul Yom 4.1; while in AM *shureq* appears in all cases), מְזוּהָם ‘stinking’ (CM, AM, Bekhorot 6.12), כְּמְבוּעָר ‘removed’ (CM, AM, Ma‘aser Sheni 5.6; Pesahim 2.3), מְמוּעָטָת ‘small (fs)’ (CM, AM, Qinnim 1.2 [2x]). In both editions, the form מְבוּאָר ‘made clear’ comes with *ḥolam* (Yadayim 3.1). In the manuscripts of the Mishna, the past forms

⁸ In the Babylonian biblical vocalisation tradition *šere* may appear before any of the gutturals, even in cases where the Tiberian vocalisation indicates *ḥireq*. See Yeivin (1985, 516–18).

⁹ In Yemenite and Sephardic oral traditions, middle-radical \daleth forms may be similar to those of ordinary verbs, with gemination of \daleth (see Morag 1998, 46–47). However, in CM and AM there is no *dagesh*. In AM *dagesh* is indicated in neither \daleth nor \aleph , ה, ח, ע, and in CM it is not indicated in any consonant. And yet, the vocalisation of the first radical is clear and different from that in Biblical Hebrew.

of מֵאן 'to refuse' are vocalised with *šere* in the first radical,¹⁰ and the guttural *pu*^{al} forms appear with *ḥolam* in most cases.¹¹

It should be noted that CM and AM reflect a completely different picture in the *nif^{al}* category. The prefix of the future forms of *nif^{al}* appears as in the Bible and in the Mishna as represented in the manuscripts, depending on the nature of the next consonant. That is to say, before a non-guttural consonant the prefix is vocalised with *hireq* (such as יִמְכְרוּ 'they will be sold', תִּפְסֹל 'it will be disqualified', יִכְנֹס 'he will enter'), but before a guttural consonant it is constantly vocalised with *šere*: יֵאָכַל 'it will be eaten' (Pesahim 7.11), שֶׁתֵּאָמַר 'that it will be said' (Berakhot 1.5), תִּהְיֶה 'it will become' (Soṭa 9.15), יִהָרְגוּ 'they are put to death' (Makkot 1.5), שֶׁיִּחָלֵק 'it will be divided' (Bava Batra 1.6), שֶׁתִּעֲבֹד '[after] it has been worshipped' (Avoda Zara 4.4), יִעָשֶׂה 'let this one be declared' (Makkot 1.1), יִרְקְבוּ 'let them rot' (CM, Terumot 5.1, but AM indicates a *qal* form: יִרְקְבוּ), תִּרְאֶה 'it will appear' (Nega'im 4.7), יִרְאוּ 'let them be seen' (Nega'im 11.1).¹²

¹⁰ In MS Kaufmann this is always the case, and the same is true of MS Parma, except for one appearance with *hireq* (Haneman 1980, 159).

¹¹ However, the verb מְמוּעֵט is vocalised with *shureq* (Haneman 1980, 191).

¹² Two exceptions with *hireq* were found in CM, both with the third-person prefix *-י-*: יִהָרְגוּ 'is put to death (3ms)' (Soṭa 9.7), וַיֵּאָכְלוּ 'they are eaten (m)' (Bekhorot 2.9). It is possible that the realisation of *šere* approached that of *hireq* under the influence of *yod*.

2.3. *Shewa Mobile* with Guttural Consonants in Quadriliteral Verbs

The third issue is *shewa mobile* (vocal *shewa*, שׁוּיָא נַע) with guttural consonants. The rule in Tiberian Biblical Hebrew is that when the guttural stands at the beginning of a syllable with *shewa*, it necessarily takes a *ḥataf*, and almost always *ḥataf-pataḥ*.¹³ Accordingly, in CM and AM *ḥataf-pataḥ* is the permanent replacement of *shewa mobile*, and appears in all forms, such as: יְחַדּוּ ‘to specify (3mpl)’ (Baba Metzia 3.9), טִיְהַרּוּ ‘one purifies it’ (Nega‘im 13.1), מְמַעֲטוּ ‘(it) diminishes it’ (Kelim 5.7; 28.1), שְׂיִמְעֲלוּ ‘that commit sacrilege’ (Zevahim 7.4 [2x]), and יְרַחֲצוּ ‘wash (3mpl)’ (Yoma 8.1). However, this is not the case for quadriliteral verbs whose third radical is a guttural consonant, which is expected to appear with *ḥataf-pataḥ*. These verbs are regularly vocalised with *shewa mobile* or with another diacritic that may be parallel to *shewa mobile* in the Sephardic accent: שְׁעַלְעָה ‘(a wind) that hurled’ (CM, AM, Kil‘aim 7.7), מְעַרְעֵין ‘(they) compel (her)’ (CM, Soṭa 3.3, in AM: מְעַרְרִים¹⁴), הִבְהִיבָה ‘it (ms) singed it (fs)’ (CM, Shabbat 2.3, but in AM: הִבְהִיבָה), מְהַבְהִיבִין ‘(they) parch’ (AM, Menaḥot 10.4, in CM:

¹³ There are, however, some exceptions (see GKC 1910, §64h).

¹⁴ AM’s version is different from the conventional one. It is possible that the vocaliser of AM was used to reading this verb in the same way the vocaliser of CM had read, but could not express his reading in the version that he found. Perhaps for this reason he indicated מְעַרְרִים to express מְעַרְעֵינִים ‘(they) compel (her)’. At the same time, it is possible that he interpreted this form as a regular trilateral verb and vocalised accordingly.

(מְהַבְּהִיִּים), מְתַחֲלָחֵלֹת ‘rolling about’ (CM, Mikva’ot 4.3, in AM: מְתַחֲלָחֵלִין).

In this category, the fundamental difference from biblical grammar is prominent, especially as manifest in CM. The number of relevant examples from the entire Mishna is only five, and in all of them, without exception, CM has *shewa mobile* or *şere*, expressing the vowel *e*, rather than *ḥataf-pataḥ*, indicating the vowel *a*.¹⁵ It should be emphasised that in this category as well, the vocalised manuscripts of the Mishna reflect a reading tradition that is clearly similar to that of Biblical Hebrew, which prefers the semivowel *a*: all these quadriliteral verbs appear in the Mishna manuscripts with an *a* vowel beneath the third radical.¹⁶

¹⁵ Obviously, AM also confirms the reading tradition that emerges from CM. Most examples clearly indicate the vowel *e*. Only one form appears with the vowel *a* in the third radical (הַבְּהִיָּה), but one cannot ignore the special place in which it occurs: in the second chapter of tractate Shabbat, which is usually read in synagogues on Friday night and is actually part of the prayer. It is quite possible that this chapter was subject to greater influence of Biblical Hebrew.

¹⁶ In MS Kaufmann *ḥataf-pataḥ* is found in three of the five forms: מְתַחֲלָחֵלִין, מְעַרְעָרִים, מְהַבְּהִיִּין. In another form, *qameṣ* comes: הַבְּהִיָּה (probably equivalent to הַבְּהִיָּה). The latter form appears with *hireq*: שִׁיעֲלֵעִלָּה. Presumably, the spelling of the third syllable with *yod* (שִׁיעֲלֵעִילָה) indicates that the scribe of MS Kaufmann read this verb just as the vocalisers of CM and AM read it, but the vocaliser of MS Kaufmann, who was not used to such reading, assumed that the spelling requires *hireq*. In MS Parma (De Rossi 138) we find: שִׁיעֲלֵעִלָּה, הַיְבְּהִיָּה. The other forms appear in the non-vocalised part of the manuscript. MS Parma Order *Toharot* (De Rossi 497) includes only one of the five forms, and it comes with

3.0. Discussion

We have seen above that the vocalisation of the two editions does not match biblical grammar rules. How can this fact be explained? It cannot be argued that the vocalisers were unfamiliar with biblical grammar. The introductions of the books reveal that the vocalisers were learned scholars who were well acquainted with biblical grammar and that it was for this reason they were chosen for their task.¹⁷ It is therefore logical to assume that these findings reflect an authentic Sephardic reading tradition for Mishnaic Hebrew different from Biblical Hebrew in some basic matters. An instructive example is the vocalisation of the verb *מאן* ‘to refuse’, whose past forms are prevalent in the Bible, always with *šere* in the first radical: *מֵאַן*, *מֵאַנָה*, *מֵאַנְתָּ*, *מֵאַנְתָּ*, *מֵאַנְנוּ*, *מֵאַנְתֶּם*. When this verb appears in the two Mishna editions as a direct quotation from the Bible, it appears in accordance with the Biblical vocalisation: ... *מֵאַן יְבִמִי לְהִקִּים* ‘my husband’s brother refuses to perpetuate’ (Deut. 25.7 in Yevamot 12.6). Yet, in the regular halachic language of the Mishna, the first radical comes in most cases with *hireq*: *מֵאַנָה*, *מֵאַנְנוּ* (see above). These forms are of great significance: they prove that the vocalisers knew the Tiberian vocalisation for this verb, and yet chose another vocalisation. It is important to note that the verb *מאן* is the only verb in the Mishna in the *pi^{ce}l* category with a middle radical *ʾalef*. It may therefore represent a broader rule in CM and AM’s tradition

ḥataf-pataḥ: מתחלהלִין. And finally, the Maimonides autograph commentary to the Mishna also reveals *a* vocalisation in these circumstances (Zurawel 2004, 123).

¹⁷ See above, fn. 4.

for post-biblical Hebrew: the first radical of past *pi^{cc}el* forms was pronounced with *hireq* regardless of the identity of the next radical. Similarly, the first radical of the *pu^{cc}al* forms was pronounced with *shureq* regardless of the identity of the next radical. The reason for this was presumably the desire to simplify the language and avoid grammatical complexity.¹⁸

It seems that many of the deviations from biblical grammar are the result of simplification and harmonisation of verbal paradigms. In this way we are able to explain the findings in the other two categories as well: נִפְרַעַת according to the vocalic pattern of נִבְנֶסֶת and מְעַרְעָרִין according to the pattern of מְגַלְגָּלִין.

Yet, it is clear that the tendency to unify paradigms was not unlimited. We have seen categories in which the vocalisation of guttural verbs is quite similar to that in the Bible and in Mishna manuscripts. Thus, for example, in future *nif^{cc}al* forms the prefix before a guttural consonant is consistently vocalised with *šere* rather than *hireq*. What made this category different? It is reasonable to assume that since in Biblical Hebrew there is a clear and stable rule, and the vowel preceding each one of the guttural consonants is always *šere*,¹⁹ this rule also continued to exist in post-biblical Hebrew traditions. In contrast, in the intensive conjuga-

¹⁸ It cannot be argued that the lack of compensatory lengthening in *pi^{cc}el* and *pu^{cc}al* was the result of the fact that the reading traditions of Constantinople and Amsterdam lacked gemination (*dagesh forte*). If that were the reason, we would expect a lack of compensatory lengthening in *nif^{cc}al* as well. However, this is clearly not the case (see §2.2 above).

¹⁹ GKC (1910, §51b).

tions, there is no absolute rule in Biblical Hebrew. In fact, lengthening of the preceding vowel occurs consistently only before *resh*, whereas with other gutturals the preceding vowel may be similar to that of the non-guttural verbs (GKC 1910, §64d–e). This complexity may have led in late traditions of Mishnaic Hebrew to unification of the vowels of the first radical in all *pi^cel* and *pu^cal* verbs, including those with gutturals.

The same is true for the *nif^{al}* forms נַעֲשֶׂה, נַעֲשׂוּ. The Tiberian vocalisation offers two alternatives for reading the prefix -נ before an initial guttural, with either *segol* or *pataḥ*, e.g., נַעֲשֶׂתָהּ ‘was done (3fs)’ as compared to נַעֲשָׂה ‘was done (3ms)’, נִגְלָם ‘was hidden (3ms)’ as compared to נַעֲרָץ ‘is feared (ms)’, נִחְשַׁבְתִּי ‘I was regarded’ as compared to נִחַבַּבְתָּ ‘you hid (ms)’.²⁰ Since the Tiberian tradition here is not homogeneous, a simpler inflection evolved. Thus, in CM and AM the prefix of all guttural verbs regularly has *segol*,²¹ including forms in which the Tiberian vocalisation indicates *pataḥ*.²²

It turns out that small categories with few examples were also subject to the effect of unification, for example, the category of quadrilateral verbs with guttural third radical. It is interesting that, while these verbs are read similarly to non-guttural quadrilateral verbs (מַעֲרַרְיִן like מַגְלִילִין), trilateral verbs with a guttural

²⁰ And there is also a third option, if we consider that the prefix of the verb נִהְיָה ‘to become’ appears with *hireq*.

²¹ The only exception is the verb נִהְיָה.

²² It is worth noting that, as opposed to the biblical form נִעְלָמִים ‘hypocrites’ (Ps. 26.4), we find in CM נַעֲלָמִים (Shevu‘ot 2.1). However, the version in AM is נַעֲלָמוּ.

middle radical are consistently distinguished from their non-guttural counterparts, as *ḥataf-pataḥ* regularly replaces *shewa mobile* in the guttural forms.²³ Why were the quadrilateral gutturals, and not the trilateral gutturals, influenced by non-guttural forms? Presumably, this is because Biblical Hebrew has plenty of trilateral middle guttural verbs with *ḥataf-pataḥ*. The prominent presence of these forms in the Bible helped them to be preserved in post-biblical Hebrew traditions. By contrast, the number of biblical cases of quadrilaterals with guttural third radical is extremely small.²⁴ Therefore, the forms of these verbs were more likely to resemble those of non-guttural verbs.

In short, analogy to non-guttural forms is to be expected in categories where Biblical Hebrew reveals complex inflection, as well as in small categories with few examples. However, this does not mean that in other categories analogy is not possible. In reality, some of the guttural feminine participle forms in CM and AM were found to have vocalisations that correspond to those of non-guttural forms, e.g., *מְגַלְחָה*, *נִפְרָעָה*, even though the Tiberian Bible reveals a clear paradigm with numerous examples in which the gutturals always appear with *pataḥ* rather than *segol*. And yet, it should not be forgotten that in the two Mishna editions studied,

²³ As mentioned in §2.3, there is a clear difference in the vocalisation of the middle radical between trilateral guttural and non-guttural forms: *יִכְתְּבוּ* ‘they will write’, *נֹתְנִין* ‘give (mpl)’, *מְלַמְדוֹ* ‘teaches (ms) him’ vs. *יִרְחֲצוּ* ‘they will wash’, *נֹהֲגִין* ‘be accustomed (mpl)’, *מְמַעֲטוֹ* ‘diminishes (ms) it’.

²⁴ And they also do not appear in a position in which *ḥataf-pataḥ* is expected, such as *עֲרַעֲרָהּ תִּתְעַרְעֶר* ‘will be utterly broken (fs)’ (Jer. 51.58), *וַתִּתְחַלְחַל* ‘and (the queen) was grieved’ (Est. 4.4).

the forms that deviate from the norms of Tiberian vocalisation are a minority compared to other forms in the category. In addition, all the anomalous forms are found in the derived stems only, with none appearing in the Bible.

4.0. The Historical Development of this Reading Tradition

The reading tradition presented above arises from two distant places and different witnesses, which certainly did not exert mutual influence.²⁵ Therefore, we can assume that this reading tradition is ancient, although we cannot determine for certain how ancient it is. It may have developed in the Middle Ages, but later than the vocalised manuscripts of the 12th and 13th centuries. However, it is possible that this reading tradition evolved in an even earlier period and reflects another type of Mishnaic Hebrew, though we do not have its ancient documentation.²⁶ What is certain is that the vocalic realisation emerging from CM and AM

²⁵ Even if we assume that CM, the earlier edition, arrived in Amsterdam and the publishers of AM saw it, it is certain that the vocalisation in AM was not copied from CM. First, the vocaliser of AM writes in his introduction that he had to rely on his understanding of grammar. Second, if the vocalisation was copied from CM, it should have been the same. As a matter of fact, there are many differences in vocalisation between the two editions (most of the differences are related to the marking of *pataḥ* and *qameṣ*, on the one hand, and of *segol* and *šere*, on the other), and in this article, too, some of the findings (see §2) are not the same.

²⁶ It is possible, however, that in the work of the MS Kaufmann's scribe we find a hint of gutturals with *šewa mobile* instead of *ḥataf-pataḥ* (see

continued to exist in various Sephardic communities until our time. Forms like *נְזַרְעַת*, *מְבוּעֵר*, *מְגוּרְשֵׁת*, and *עֲלֵעֵלָה* are documented in the Sephardic reading traditions of recent generations.²⁷ It is interesting to note one verse from the *Seliḥot*, the prayers delivered in the period leading up to the High Holidays. In the 12th century *Piyyuṭ* הקן רובע אפס, the vocalisation that appears in almost all contemporary Sephardic prayer books is as follows:

במצוותך שניהם נוהרים ואחרֵיך לא מהרהרים חשו והלכו נמהרים על אחד

ההרים

‘At your command the two of them take care / and after you they do not criticise / they hurried and went hastily / up one of the mountains.’

The form *מהרהרים* ‘criticise (mpl)’ is not only opposed to biblical grammar, but is also unsuitable for the rhyme. Apparently, such a pronunciation of quadrilateral verbs has been accepted for centuries, since at least the 17th century.²⁸

above, fn. 16). But it is difficult to determine this with certainty based on a single example.

²⁷ On guttural feminine participle forms with *segol* (instead of *pataḥ*), see above, §2.1. On guttural quadrilaterals with *shewa mobile* (instead of *ḥataf-pataḥ*), see Morag (1977, 83); Katz (1981, 68). On the vowel preceding a middle radical *ר* in *pi^{cc}el* and *pu^{cc}al*, see above, fn. 9. The form *מְבוּעֵר* (with *shureq* instead of *ḥolam*, as expected according to the biblical form *מְבַעֵרֶת* ‘was burning [fs]’ [Jer. 36.22]) is documented in the reading tradition of the Baghdadi community (Morag 1977, 120).

²⁸ It is worth noting, by the way, that this is the accepted pronunciation for quadrilateral verbs in Israel today. Forms such as *הִבְהִיבָה* ‘it flashed, blinked (fs)’, *יִהְדְּדוּ* ‘they will echo’, *מְעַרְעֵרִים* ‘appeal, object; undermine

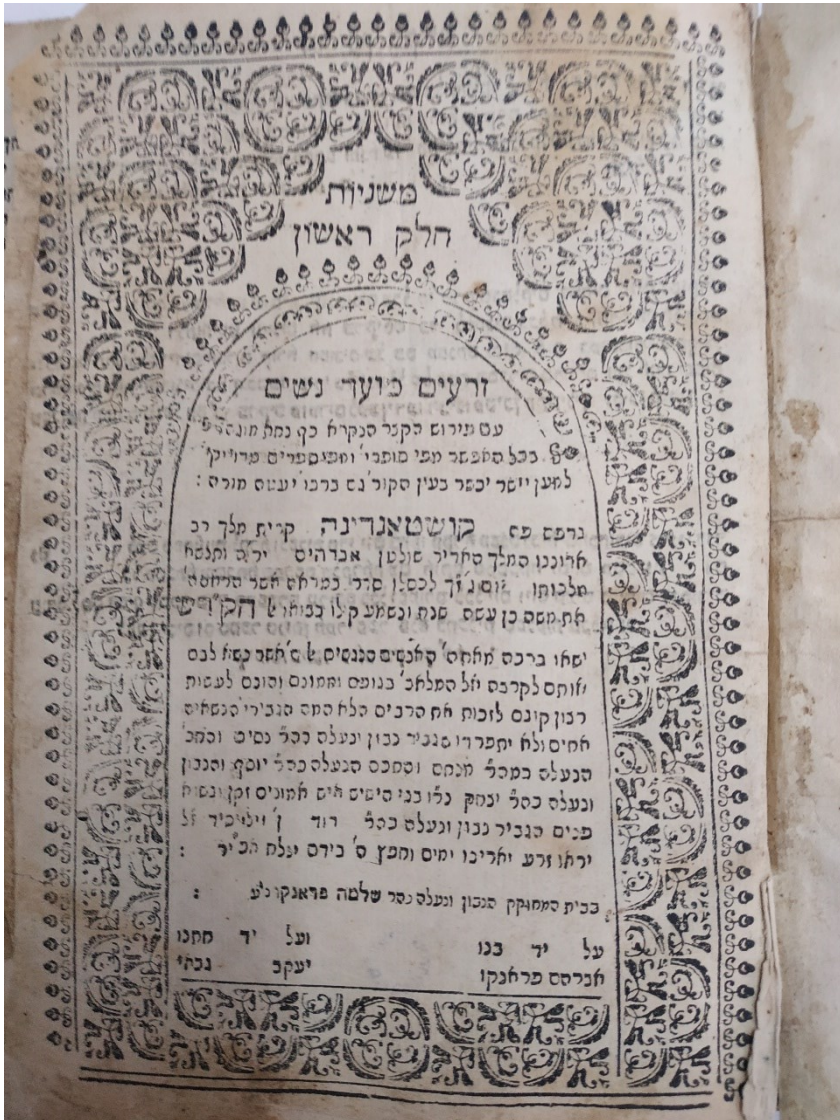
5.0. Conclusions

CM and AM reflect an authentic Sephardic reading tradition of Mishnaic Hebrew that systematically differs from Biblical Hebrew. For this reason, one should disagree with the common opinion that Biblical Hebrew dominates the language of printed editions of the Mishna.

It seems that one of the most important features of Mishnaic Hebrew, as represented in the two editions examined, is the effect of the tendency to simplify the halachic language and avoid grammatical duplications.

(mpl)', and הַתְּחַלְּלָה 'was shocked, went pale (3fs)'—with gutturals realised with an *e* vowel—are common pronunciations, even among educated people.

Appendix 1: CM title page



Appendix 2: AM title page



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COMPARATIVE SEMITIC AND HEBREW PLURAL MORPHEMES

Na'ama Pat-El

1.0. Introduction

Like many Semitic languages, Hebrew has two suffixed plural morphemes: *-ōt* and *-īm*. Typically, grammars describe the plural morpheme *-ōt* as marking the plural of feminine nouns and the plural morpheme *-īm* as marking the plural of masculine nouns (e.g., GKC, 241–43; Blau 2010, 270–73). While adjectives and participles exhibit a predictable gender-number distinction which reflects the neat distinction described in the grammars, substantives often do not. The distribution of plural morphemes with substantives is not always predictable, although gender assignment is not affected: e.g., *gāḏōl~gəḏōlim/gəḏōlā~gəḏōlōt* ‘big’, but *zānāb~zənābōt* ‘tail (m)’/*dəḥōrā~dəḥōrīm* ‘bee (f)’.

In addition, a semantically diverse group of nouns is attested with both plural morphemes, the conditioning factors of which are unclear: e.g., *ḥāṣērōt/ḥāṣērīm* ‘courts (f)’, *qəḥārōt/qəḥārīm* ‘graves (m)’. The choice of plural formation has a diachronic angle; a number of scholars have pointed to an inner-Hebrew diachronic trend whereby post-biblical Hebrew has a marked preference for *-ōt* plurals, even where Biblical Hebrew chooses a different morpheme (e.g., Cohen 1930; Sharvit 1990,

337). The increasing use of $-\bar{o}t$ in post-biblical Hebrew is statistically significant, as has most recently been shown by Tubul (2003; 2005). Tubul shows that unmarked nouns,¹ mostly masculine singular, select $-\bar{o}t$ in Mishanic Hebrew more than in earlier stages of Hebrew, while marked feminine singular nouns show only a minor increase of the plural $-\bar{i}m$.

Table 1: Distribution of mismatched plurals in Hebrew (Tubul 2003)

	Biblical Hebrew	Mishnaic Hebrew
Unmarked > $-\bar{o}t$	6.7%	14.5%
Marked feminine > $-\bar{i}m$	2%	3.4%

The question of this gender-number morphological mismatch in all phases of Hebrew is a long-standing problem; attempts to explain it have mostly been synchronic and restricted to evidence from Hebrew. Although the existence of gender-number mismatch in other Semitic languages is peripherally acknowledged by Hebraists,² scholars have yet to examine this phenomenon comparatively. Given the failure to provide a coherent explanation for the mismatch internal to Hebrew, it is surprising that so little attention has been paid to this phenomenon in other languages. In what follows, I would like to position the Hebrew case within a wider Semitic context and ask whether this system is especially typical of Hebrew, and, if not, what that tells us about plural formation in Hebrew. My aim is not to provide a full

¹ The term ‘unmarked’ here designates nouns with no overt gender morpheme in the singular.

² See already comments on the situation in Palestinian Arabic in Cohen (1930, 282).

reconstruction of the Semitic system; I hope to do that in a separate study. Rather, I wish to contextualise Hebrew and point to avenues which have yet to be explored. In §2.0 I review some inner-Hebrew explanations and show them to be insufficient. In §3.0 evidence from other Semitic languages is presented. In §4.0 I offer analysis, with some implications for Hebrew. §5.0 summarises my findings and offers a conclusion.

2.0. Hebrew Plural Morphemes

The main accounts of gender-number mismatch in Hebrew are lexical, morphological, or a combination of the two. That is, they treat plural formation as a lexical feature, unconditioned by nominal morphology, as a grammatical feature, or as arising from both lexical and grammatical factors.

Schwarzwald (1991) suggests that a set of synchronic rules applies to a large number of substantive categories in the lexicon, and do not follow gender assignment (*the Strong Lexicalist Hypothesis*), while other categories, along with adjectives and participles, are marked in the grammar, and follow gender assignment (*the Weak Lexicalist Hypothesis*). According to this approach, different nouns are assigned plural formation in different layers of the grammar. Even if one accepts Schwarzwald's position, it provides no explanation for the seeming randomness of plural formation in Hebrew, which results in a synchronically incoherent system. This approach is also problematic synchronically, because it is unclear how nouns move from one category to the other, especially from the one governed by the weak lexicalist

hypothesis to the one governed by the strong lexicalist hypothesis.

A set of phonological, morphological, and lexical criteria was already suggested by Cohen (1930), which form the basis for most subsequent discussions of the topic. Cohen suggested that *-ōt̄* is common with nouns with a rounded vowel, certain patterns (*miqtēl̄*, *maqtēl̄*), and quadriradicals (e.g., מְשֻׁבָּלִים ‘clusters’); *-im* is common with certain patterns (*qittūl̄*, *qātūl̄*), segolates, and nouns denoting flora (e.g., מְשֻׁבָּלִים ‘figs’) and fauna (e.g., מְשֻׁבָּלִים ‘goats’).

Tubul (2003) proposes a similar set of criteria to account for the distribution in both Biblical and Mishnaic Hebrew. She discovered that gender is not a crucial factor in determining the plural morpheme, as 50 percent of unmarked nouns select *-im* while the other 50 percent select *-ōt̄*, regardless of gender. For unmarked nouns selecting *-ōt̄*, she suggests two criteria:

- a. *Phonological*: nouns with a rounded vowel in the final two syllables of the stem tend to choose *-ōt̄*, which is also rounded, due to *ad hoc* vowel harmonisation. This tendency is claimed to be stronger in Mishnaic Hebrew.³
- b. *Morphological*: *-ōt̄* is associated with certain nominal patterns.⁴

³ There are many exceptions to this rule, of course, most notably *šibbōlet̄* ‘sheaf’, which, in view of the feminine singular form and the rounded vowel in the stem, should have selected *-ōt̄*. Its plural, however, is *šibbōlim*.

⁴ It is worth noting, however, that the number of nouns to which this rule applies is small: for example, **maqtīl̄* (*mazlēḡ* ‘fork’, and five other lexemes), **quṭlān̄* (*šulḥān̄* ‘table’, and one more lexeme), **maqtāl̄* (*maṭtēah̄* ‘key’, five lexemes out of 49).

Marked feminine nouns which select *-īm* typically belong to the semantic field of flora and fauna, although other categories are also possible.

Tubul (2005) and others have noted that the plural formation of the most common nouns are not morphologically predictable, while those of the least common nouns are. Tubul (2005, 267) suggests that speakers learnt common words as lexical items, whereas less commonly-used words were subject to regular morphological rules.

If there are rules governing the selection of the plural suffixes, nouns which are attested with both plural morphemes present a problem. Multiple unrelated explanations have been suggested in the literature to account for this phenomenon. Unfortunately, most of them are *ad hoc* and do not provide a motivation for the phenomena *in toto*.

Tubul (2007) suggests that plural morphemes are grammatically determined. According to this hypothesis, different morphemes are used in different states; i.e., one suffix can be used for the absolute, while another is used for construct. These, however, are internally inconsistent (see Table 2); nouns may use different plural morphemes in different states, but the choice of morpheme for each state is unpredictable, so the assumption that plural morphemes are grammatically determined does not hold.

Table 2: Sample plural distribution by state

	Absolute	Construct	Pronominal
<i>hēkāl̄</i> 'temple, palace'	<i>-ōṭ</i>	<i>-īm</i>	<i>-īm</i>
<i>ʿēmā̄</i> 'terror'	<i>-īm</i>	<i>-ōṭ</i>	<i>-īm</i>
<i>qānē̄</i> 'reed'	<i>-īm</i>	<i>-īm</i>	<i>-ōṭ</i>

Another claim is that different morphemes correlate with semantic differentiation (Tubul 2003, 195); for example, *qēber* with *-īm* is the plural of ‘grave’, while *qēber* with *-ōt* is ‘family burial grounds’. Thus, in example (1), the Israelites refer to simple graves, while in (2) the reference is to Josiah’s family burial compound.

- (1) הַמִּבְּלֵי אֵיזֶ-קְבָרִים בְּמִצְרַיִם לְקַחְתָּנוּ לָמוֹת בַּמִּדְבָּר
 ‘were there no graves in Egypt that you took us to die in the desert?’ (Exod. 14.11)
- (2) וְנִאֲסַפְתָּ אֶל-קְבָרֵי־יָדֶיךָ בְּשָׁלוֹם
 ‘you will be buried peacefully in your family graves’ (2 Kgs 22.20)

This explanation does not offer a coherent account of the phenomenon: what governs the choice of each morpheme remains unclear. Worse still, this line of reasoning applies only to a small sample of the occurrences, and, in fact, the plural morphemes show no consistent semantic association. Even the noun *qēber* does not show a regular semantic distribution of its plurals. For example, in (3) below, Ezekiel refers to simple graves, scattered around a cistern, but uses the plural *-ōt*, which Tubul argues should be interpreted as marking a family burial plot. Conversely, in (4) below, the Hittites give Abraham leave to bury his dead in their own family tombs, and here the plural morpheme is *-īm*, which according to Tubul’s explanation should be reserved for simple graves.

- (3) אֲשֶׁר נָתַנוּ קְבָרֵיהֶּ בִּירְכַת־יָבוֹר
 ‘whose graves are set around the uttermost parts of the pit’ (Ezek. 32.23)

(4) בְּמִבְחָר קְבֵרֵינוּ קָבַר אֶת־מֵתָיִךְ

‘bury your dead in the best of our graves’ (Gen. 23.6)

Semantic differentiation, therefore, cannot explain variation in the case of most lexemes; as the examples above show, even with those lexemes whose variation is partially attributable to semantic differentiation, this tendency is inconsistent. Moreover, there is no coherent account for why a specific plural morpheme is selected to mark a given semantic nuance.

But the rules governing the distribution of the plural suffixes may not be purely linguistic. Within Biblical Hebrew, Tubul (2007) argues that genre is also an important factor. At least for some nouns, plural morphemes are claimed to be distributed according to genre. Specifically, in poetry, nouns tend to select *-ōt* plurals, even when in other genres they do not. Here too there is no internal consistency; for example, in prose *ya‘ar* ‘forest’ appears with *-īm* (Ezek. 34.25; 39.10), while in poetry it appears with *-ōt* (Ps. 29.9). But the exact opposite distribution is attested for *dōr* ‘generation’, which selects *-ōt* in prose (e.g., Num. 10.8), but *-īm* in poetry (e.g., Ps. 72.5). Genre is, therefore, unlikely to be a significant factor.

Finally, several scholars suggest that alternative plural morphemes are used when similar plural morphemes occur in the vicinity, e.g., in the same clause, as a result of textual attraction, or ‘tonal agreement’ (Sharvit 1990, 338; Tubul 2007). For example, in (5) below, the noun **ʔālumṁā* ‘sheaf’ selects the plural morpheme *-īm* when in the vicinity of another form with the

same morpheme (the masculine plural participle *mə'alləmīm* ‘were gathering’), but not otherwise.⁵

- (5) וְהָיָה אֲנַחְנוּ מְאַלְמִים אֶלְמִים... וְהָיָה תְּסַבִּינָהּ אֶלְמִתִּיכֶם
 ‘we were collecting sheaves... and there, your sheaves gathered around’ (Gen. 37.7)

This alleged attraction, however, does not describe the vast majority of the examples; furthermore, there are multiple examples where the evidence is squarely against such a hypothesis. In (6) below, the noun *masmēr* ‘nail’ is adjacent to a noun with the morpheme *-ōt* (*daltōt* ‘doors’), and yet selects *-īm*. Meanwhile, in example (7) below, the adjacent noun selects *-īm* (*šəqālīm* ‘shekels’) but *masmēr* ‘nail’ selects *-ōt*. In both cases, *masmēr* ‘nail’ belongs in the same syntactic segment as nouns with a different plural morpheme, and yet there is no perceivable effect on the selection of plural morpheme.

- (6) וּבְרִזָּה | לְרֹב לְמִסְמָרִים לְדִלְתוֹת הַשַּׁעֲרִים
 ‘iron in abundance for the nails of the gate doors’ (1 Chron. 22.3)
- (7) וּמִשְׁקַל לְמִסְמָרוֹת לְשִׁקְלִים חֲמִשִּׁים זָהָב
 ‘the weight of the nails was fifty golden shekels’ (2 Chron. 3.9)

Describing variation as a form of attraction has, therefore, very limited applicability. Indeed, in most cases, it has no effect at all.

⁵ For this lexeme, the plural with *-īm* is attested only in the absolute (Gen. 37.7), while the plural with *-ōt* occurs only in the pronominal state (Gen. 37.7; Ps. 126.6).

Explanations thus far have appealed to multiple lines of reasoning which are internally inconsistent and which provide a coherent account of neither the mismatch in gender-number nor the alternation between plural suffixes in Hebrew. A diachronic explanation, to the best of my knowledge, has not been offered. Both gender-number mismatch and the use of alternating morphemes are attested in other Semitic languages, and a review of the evidence there may shed some light on Hebrew.

3.0. Sound Plurals in Semitic

Many Semitic languages use broken plurals for some or most of their substantives. Such a system is found in the languages of the Arabian Peninsula (Arabic, Modern South Arabian, and Epigraphic South Arabian) and Ethiopia (Gəʿəz). A strong preference for sound plurals of the type that Hebrew shows is found primarily in Northwest and East Semitic. Other branches show a much more complicated combination of broken plurals and sound plurals, with a strong preference for the former. Therefore, the most relevant sub-branches for a comparison with Hebrew are Akkadian, Aramaic, and Ugaritic,⁶ although evidence from Ethiopic and Arabic is also illustrative.

I have collected all nouns that show a morphologically unexpected plural, namely a reflex of Proto-Semitic (PS) **-ūn* on feminine nouns and a reflex of PS **-āt* on masculine nouns.⁷ The

⁶ The list should include also Canaanite dialects, but due to the paucity of the evidence they are less useful for a comparison.

⁷ Data on Akkadian plurals was collected from *CAD* and Streck (2010). Data on Ugaritic plurals was collected from *DULAT*. Data on Aramaic

comparison is not exhaustive, because for some nouns, plural forms are not attested. This is especially true for Ugaritic, but also on occasion for Akkadian, where some plural forms are consistently written with logograms, and so remain morphologically opaque. Another snag is that we cannot truly evaluate the ratio of predictable plural morphology with mismatched gender-number morphology, since we have no access to speakers, and sometimes only limited access to texts. The reliance on information from dictionaries is not without risk, since dictionaries list all forms, regardless of their actual status in the language. Nevertheless, for a broad comparison, there is no other resource to collect evidence.

All the languages examined for this study have a significant number of substantives the plural of which is unpredictable. With the exception of Aramaic, most languages show a strong preference for the use of **-āt* at the expense of other plural forms, regardless of gender; namely, the number of substantives selecting an unpredictable **-āt* is far larger than that of substantives selecting an unpredictable **-ūn*. In Ugaritic the ratio of unpredictable **-āt* to **-ūn* is 2:1, in Biblical Hebrew it is slightly over 2:1, in Mishnaic Hebrew it is 3.5:1, and in Akkadian it is 30:1. The preference in Aramaic is reversed: the ratio of unpredictable **-ūn* to unpredictable **-āt* in Syriac is more than 5:1. Clearly, all languages show a strong preference for one of the plural morphemes and their distribution is therefore not random. In this respect,

plurals was collected from Sokoloff (2002; 2003), Cook (2015), Payne Smith (1879), which are all incorporated in the online *CAL*.

Hebrew patterns with Akkadian and Ugaritic, but not with Aramaic.

The set of nouns with unpredictable plurals is not easily compared, since not all languages share the lexicon and the shared set of nouns which select the same unpredictable plural morpheme is small.⁸ Additionally, there is some variation even in the case of the most prototypical examples of unpredictable plural formation; for example, the plural of ‘father’, which selects **-āt* in Hebrew *ʾāḇōṭ* and Aramaic *ʾabāhātā*, appears to select a masculine plural in Akkadian *abbû*,⁹ despite the fact that Akkadian shows the most notable preference for **-āt*. Table 3 below includes nouns that show the same unpredictable plural across Northwest Semitic (NSW) and Akkadian. This is a very short list, and includes two loan words from Akkadian, the first originally Sumerian (*kissē* ‘chair’ < *kussû*; *mazzāl* ‘constellation’ < *mazzāzu*).

⁸ In some languages, the gender of the noun has changed, and the plural is therefore no longer unpredictable, at least synchronically.

⁹ Assyrian *abbāʾū*; see Huehnergard (1987, 186).

Table 3: Nouns selecting the same plural reflex¹⁰

	Hebrew singular	Hebrew plural	Aramaic plural	Ugaritic plural	Akkadian plural
* <i>-āt</i>	<i>kissē</i> ‘chair’	<i>kis’ōt</i>	<i>kursāyān</i>	<i>ksāt</i>	<i>kussātu</i> ¹¹
	<i>laylā</i> ‘night’	<i>lēlōt</i>	<i>lelāwān</i>	—	<i>liliātum</i>
	* <i>mazzāl</i> ‘constellation’ ¹²	<i>mazzālōt</i>	<i>mazzālān</i>	—	<i>manzalātu</i>
* <i>-ūn</i>	<i>’eben</i> ‘stone’	<i>’ābānīm</i>	<i>’abnīn</i>	<i>’abnm</i>	<i>abnū</i>
	<i>ḥittā</i> ‘wheat’	<i>ḥittīm</i>	<i>ḥettīn</i>	<i>ḥtm (ḥtt?)</i>	—
	<i>śā’orā</i> ‘barley’	<i>śā’ōrīm</i>	<i>s’ārīn</i>	<i>š’rm</i>	—

Nevertheless, a comparison can be made between the languages to illustrate how plural morphemes pattern. Note the following two comparative tables, where the plurals of 16 nouns are provided. Table 4 presents a set of Hebrew masculine singular forms which select the plural morpheme **-āt*, along with their equivalents in Aramaic, Ugaritic, and Akkadian. Some of these substantives select more than one plural morpheme, in which case the most common morpheme was chosen for the sake of

¹⁰ Other possible lexemes are attested only in Hebrew and Aramaic, such as *bēšā* ‘egg’, *dābōrā* ‘bee’, *dābēlā* ‘dried fig’, *yōnā* ‘dove’, *millā* ‘word’, *nāmālā* ‘ant’, *sā’ā* ‘seah’, *šāpardēa* ‘frog’, etc. *’ir*~*’ārīm* ‘town’ is attested only in Hebrew and Ugaritic.

¹¹ Most plural attestations of this lexeme are written with Sumerograms and are thus morphologically opaque; however, see ^{GIS}GU.ZA-*a-at* *ḥu-ra-ši* ‘golden thrones’ (YOS 11, 23.18), where the head noun shows *-āt* in construct (Steinkeller 2005, 29). I wish to thank an anonymous reviewer for referring me to this text.

¹² This noun is attested only in the plural in the Bible.

simplicity. The shaded cells indicate substantives which select a reflex of **-āt*.¹³

Table 4: Masculine nouns with **-āt* plural forms

Hebrew sg	Hebrew pl	Aramaic pl	Ugaritic pl	Akkadian pl
'aggān 'basin'	'aggānōt	'aggānīn	—	agannātu
miškān 'tent'	miškānōt ¹⁴	mašknīn	—	maškanātu
zānāb 'tail'	zānābōt	dunbīn	—	zibbāti
pē 'mouth'	pēyōt/piyyōt	pumīn	—	pātu
nāhār 'river'	nāhārōt	nharīn ¹⁵	nhrm	nārātu
lūah 'tablet'	lūhōt	luḥīn	lḥt	—
mizbēah 'altar'	mizbēhōt	mabḥīn	mdbḥt	—
mōšāb 'dwelling'	mōšābōt	mawtabīn	mḥbt	—
'āpār 'dust'	'āpārōt	'aprin (Syr)	'prm	?

The table illustrates that within Northwest Semitic, Aramaic is the least similar to Hebrew,¹⁶ with Ugaritic slightly more similar;

¹³ The table includes only nouns whose plurals are attested in at least three of the four languages represented here.

¹⁴ This lexeme selects *-ōt* twice (Ezek. 25.4 in the pronominal state; Ps. 46.5 in construct) out of 20 plural occurrences.

¹⁵ This is the plural in the earlier dialects. Later dialects shift to **-āt*, e.g., Syriac *nharwān*.

¹⁶ The list of mismatched Aramaic–Hebrew nouns is longer than what is presented here, but in many cases, there are no cognates, or no plurals, attested in other languages, which precludes definitive conclusions on the pattern in Hebrew. Some of the nouns which show *-ōt* in Hebrew, but *-īn* in Aramaic are 'ōšār 'treasure, granary', *zikkārōn* 'memory', *ḥālōm* 'dream', *mizrāq* 'basin', *māṭār* 'rain' (Job 37.6), *masmēr* 'nail' (twice with *-ōt* and twice with *-īm*), 'ēšeb 'grass' (Ps. 27.25), *šōm* 'fast' (Est. 9.31), *qarāb* 'war' (Ps. 68.31), *mā'ōr* 'light' (except in Ezek. 32.8).

however, Hebrew patterns more often with Akkadian than with its closest Northwest Semitic relatives.

Table 5 below includes feminine singular nouns, either marked or unmarked for gender, which select the plural morpheme **-ūn*. In Hebrew and even more so in Akkadian, this is a relatively small category, as neither language has many cases where feminine singular nouns select **-ūn*.

Table 5: Feminine nouns with **ūn* plural

	Hebrew	Aramaic	Ugaritic	Akkadian
ʿēḇēn ‘stone’	ʾāḇānīm	ʾabnīn	ʾabnm	abnū
ḥittā ‘grain’	ḥittīm	ḥettīn	ḥtm (ḥtt?)	—
lāḇēnā ‘brick’	lāḇēnīm	libnīn	lbnt ¹⁷	libnātu
ʿēz ‘goat’	ʿizzīm	ʿinzīn	ʿzm	enzāti
rāḥēl ‘ewe’	rāḥēlīm	riḥlīn	—	lahrū
šibbōlet ‘ear of grain’	šibbōlīm	šebblīn, šubblīn	šblt	šubulātu
šānā ‘year’	šānīm ¹⁸	šnīn	šnm	šanātu
tāʿenā ‘fig’	tāʿenīm	tʿenīn	—	tinātu
paʿam ‘step’	pāʿāmīm ¹⁹	—	pʿnt	pēnū/pēnētu ²⁰

¹⁷ Although the singular and plural are indistinguishable in Ugaritic orthography, the construct *bt lbnt* ‘brick house’ (1.4 V 11) likely contains a plural form (‘a house of bricks’ rather than ‘a house of brick’).

¹⁸ The absolute plural of this lexeme is *-īm*, the construct and pronominal indicate either *-ōt* or *-īm*, sometimes in the same book, e.g., *šənōtēkā* ‘your (ms) years’ (Job 10.5) versus *šānāw* ‘his years’ (Job 36.26).

¹⁹ There are three instances of *-ōt* (Exod. 25.12; 37.3; 1 Kgs 7.30), all in the pronominal state, out of 61 plural occurrences.

²⁰ The form of the plural of *pēnu* ‘thigh’ depends on its gender, as it is attested with both genders in Akkadian.

The data indicates that in the case of feminine nouns with **-ūn* plurals, Hebrew patterns exactly with Aramaic, a bit less with Ugaritic, and very little with Akkadian.

Tables 4 and 5 show that Biblical Hebrew has slightly more variation than Aramaic, which shows greater propensity for **-ūn*, and Akkadian, which leans toward **-āt*; however, Hebrew patterns with Akkadian more than expected given its phylogenetic position.

Borrowed lexemes are a special case. Typically, when borrowed lexemes are incorporated into the host system, they are expected to follow the standard morphological rules of the host system. In the languages I examined, most borrowed lexemes select **-āt*, regardless of their gender, animacy, or the morphology of the singular.²¹ For example, words borrowed into Akkadian, primarily from Sumerian, frequently select **-āt*, e.g., *ḥarwaraḥuzu*~*ḥarwaraḥuz-āt-u* ‘tool’ (< Hurr.); *iššakku*~*iššakk-āt-u* ‘local ruler’ (< Sum.). In Ugaritic, evidence of plural forms for loan and native lexemes is limited, but *nablū*~*nblât* ‘flame’ (< Akk. *nabl-ū*) is quite striking, as Ugaritic selects the plural marker *-ât*, even though the original Akkadian plural is *-ū*. In Mishnaic Hebrew, *-ōt* is the preferred plural morpheme for borrowed lexemes, e.g., *māmōn*~*māmōnōt* ‘wealth, value’ (< Gr.), *simpōn*~*simpōnōt* ‘receipt’ (< Gr.). Since most of the borrowed

²¹ The tendency to mark borrowed words with **-āt* is also widespread in modern Arabic dialects; e.g., *ranġ-āt* ‘Range Rovers’ (Bettega 2017, 162). See also Fischer (2002, 66, §104, n. 1) for a similar phenomenon in Classical Arabic.

lexemes in this stage of Hebrew are Greek,²² many carry a Greek masculine or neuter suffix, which includes a rounded vowel (-ος/-ον), giving false support to the impression that the conditioning factor is phonological. Many other lexemes without this morpheme also select -ōt; e.g., *zūg̃~zūg̃ōt* ‘pair’, *’issar~’issarōt* ‘coin’, etc.

The comparative evidence provides a number of useful leads. First, Hebrew is clearly not an exceptional system and several of the phenomena assumed thus far to be Hebrew-specific and/or Hebrew-internal should be examined from a much broader perspective. Second, Hebrew often patterns with Akkadian, not, as might be expected, with Aramaic or Ugaritic. Explanations given for the distribution of the plural morphemes in Hebrew clearly cannot be based solely on internal evidence (§2.0 above).

The assumption in the scholarly literature is that, since plural morphemes are gendered, feminine nouns will choose *-āt and masculine nouns will choose *-ūn. This assumption is true for the distribution of the plural morphemes with adjectives and participles, where the plural morphemes behave predictably. If indeed plural marker distribution on adjectives is the same as that for substantives, as is widely assumed (Hasselbach 2007), one should expect alignment of the plural morphemes with appropriately gendered singular nouns. But that is not the case. The Semitic languages examined here, including Hebrew, show numerous se-

²² See Heijmans (2013) for the most up-to-date list of borrowed Greek lexemes.

mantically and morphologically diverse categories of substantives that do not select the expected suffix. Since all Semitic languages with a similar number system show the plural morpheme to be unpredictable with substantives, any answer provided by examining Hebrew alone, outside its Semitic context is likely to be partial, if not misleading. I now turn to examine what these observations bring to the study of Hebrew.

4.0. Hebrew in Context

Given the comparative evidence, it emerges that some claims concerning the distribution of plural morphemes in Hebrew are unsustainable. The phonological and morphological factors conditioning the choice of **-āt*, if they exist at all, cannot be internal Hebrew factors. For example, the patterns *miqtāl/maqtēl*, which are listed as conditioning *-ōt* (Tubul 2003, 74–75), include nouns which are attested in other languages with the plural **-āt*.²³ If there is a morphological factor underlying the choice of the plural morpheme, it should be expected to apply as equally to Ugaritic and Akkadian as it does to Hebrew.

Given the distribution observed in the previous section, not only is the organisation of plural morphemes in Hebrew unexceptional; it is also possibly inherited from some ancestor. While it is interesting to trace the distribution of each morpheme in Biblical and post-biblical Hebrew, studying them in isolation

²³ For example, Hebrew *miškān~miškānoṭ* ‘dwelling’ and Akkadian *maškanātu*; Hebrew *maššā~maššā’ōt* and Aramaic *massān*; Hebrew *mōšāb~mōšābōt* ‘dwelling’ and Ugaritic *mṯbt*, etc.

from similar patterns in other languages has not yielded fruitful results.

One of the shortcomings of this scholarly navel-gazing is failure to observe that plural formation in post-biblical Hebrew does not pattern with Aramaic. The influence of Aramaic on Rabbinic Hebrew is well documented, but plural nominal morphemes remain largely unaffected. The reason may be that, crosslinguistically, bound morphemes tend to exhibit low borrowability (Matras 2014). It may also indicate that the system in Hebrew was already firmly established by the time Hebrew speakers came into intense contact with Aramaic speakers.

The difference between the distribution of plural morphemes in the languages examined here, as well as the documented diachronic shift to $-\bar{o}t$ observed in post-biblical Hebrew indicate that nominal plural morphemes are not gendered. Additionally, not only does the gender of the singular fail significantly to affect the choice of plural morpheme, but so does the form of the singular. If either the gender or form had much relevance for plural formation, we should expect a much more consistent system, where certain plural forms are blocked. Moreover, a pronounced shift to $-\bar{o}t$ in a system regulated by gender assignment would be unlikely, if $-\bar{o}t$ were marked for gender. The fact that the shift happened regardless of an opposite shift in Aramaic is indicative that gender cannot be the principal feature.

From the perspective of Hebrew historical linguistics, the two observations noted here, namely the historical shift in Hebrew to $-\bar{o}t$ and the difference between the trends in Hebrew and Aramaic, may be useful for the relative dating of biblical texts, if

used with caution. In order to properly ascribe weight to the occurrence of a particular plural morpheme, we must first trace its distribution across the entire corpus, under the assumption that in proto-Hebrew plural morphemes on substantives were not gendered. This will allow us to identify the pattern of change, if such exists. The use of a specific plural morpheme does not have a clear binary monarchic/exilic distribution; rather, it can be interpreted as historically significant if certain conditions are met. There are two ways of interpreting the evidence:

- (1) A change from *-īm* to *-ōt* can be interpreted as a sign of a diachronic shift in cases in which *-ōt* appears in texts known or thought to be late, as well as post-biblical Hebrew, while *-īm* is restricted to early texts or Transitional Biblical Hebrew (TBH).
- (2) A localised use of *-īm* may be an indication of Aramaic interference in cases in which *-īm* appears in some late texts, while *-ōt* appears in texts of various periods, including Late Biblical Hebrew (LBH) and post-biblical Hebrew. Comparison to Aramaic is instructive, if the lexeme is attested there.

Claim (1) above can be illustrated with the distribution of the plural of *ḥallōn* ‘window’. In monarchic period texts it is pluralised with *-īm*, ex. (8), in exilic texts, it shows both plurals, (9)–(10), and in LBH (11) and post-biblical Hebrew (12), *-ōt* is found. This tallies with the observation made by several scholars, that

during its attested history Hebrew shifts to use $-ōt$ more generally, at the expense of $-īm$.²⁴

- (8) וַיַּעַשׂ לְבַיִת חֲלוֹנֵי שְׁקָפִים
‘he made window frames for the house’ (1 Kgs 6.4)
- (9) וְהַחֲלוֹנִים הָאֵטְמוֹת וְהָאֲתִיקִים | סָבִיב
‘and the sealed windows and the galleries around’ (Ezek. 41.16)²⁵
- (10) וְחֲלוֹנוֹת אֵטְמוֹת אֶל־הַתְּאִים
‘and sealed windows facing the chambers’ (Ezek. 40.16)
- (11) מִשְׁגִּיחַ מִן־הַחֲלוֹנוֹת
‘gazing from the windows’ (Song 2.9)
- (12) לֹא יִפְחוּת מִן הַחֲלוֹנוֹת וְלֹא יוֹסִיף עֲלֵיהֶם
‘he shall not reduce or increase the number of windows’
(m. Baba Metzia 8.9)

It is, therefore, warranted to assume that for this noun the plural $-ōt$ in Song of Songs is a sign of lateness, while the use of $-īm$ likely positions a text no later than the Babylonian Exile.

Claim (2) is more complicated. Since Aramaic exhibits the exact opposite direction of Hebrew, under certain conditions the

²⁴ Other examples of a shift from $-īm > -ōt$ are observable in the case of, among others, the nouns $mō'ēd$ ‘appointed time’, which occurs with $-ōt$ only in 2 Chron. 8.13; $maṭ'ām$ ‘savory dish’, which occurs with $-ōt$ only in Prov. 23.6, 3; $māḡēn$ ‘shield’, which occurs with $-ōt$ in 2 Chron. 23.9 (and also in contemporary Akkadian; cf. von Soden 1966, 16), but with $-īm$ everywhere else; $perēš$ ‘breach’ occurs with $-īm$ in Amos 4.3; 9.11, but with $-ōt$ in Ezek. 13.5; and others.

²⁵ Ezekiel is the only text where $hallōn$ ‘window’ conditions feminine agreement.

appearance of *-īm* may be indicative of an Aramaism and, therefore, of exilic or post-exilic date. One must exercise caution, however, as not all nouns that select *-īm* are a result of foreign interference, and an early use of the plural morpheme *-īm* should be clearly distinguished from a hypothesised Aramaic calque *-īm*. I suggest that we can verify whether *-īm* is a result of language contact, *if* there is evidence that both pre-exilic and later texts regularly use *-ōt*, while *-īm* occurs only in texts that are suspected of being under Aramaic influence. A few examples will suffice to demonstrate the potential of this feature.

The biblical nouns *pinnā* ‘corner’ and *parsā* ‘hoof’ are attested with the plural morpheme *-ōt* in both pre-exilic, (13)–(14), and exilic or post exilic, (15)–(16), texts:

- (13) וְשִׁעַת שְׁסַע פְּרָסוֹת
 ‘and that has cloven hooves’ (Lev. 11.3)
- (14) וַעֲשִׂיתָ קַרְנֹתָיו עַל אַרְבַּע פְּנֵיָיו
 ‘you shall create its horns on its four corners’ (Exod. 27.2)
- (15) וּפְרָסוֹת בְּהֵמָה לֹא תְדַלְחֵם
 ‘the hooves of a beast will not bother them’ (Ezek. 32.13)
- (16) עַל-הַמְגָדָלִים וְעַל-הַפְּנֹת
 ‘over the towers and [their] corners’ (2 Chron. 26.15)

The same morpheme is also used in post-biblical Hebrew, where both lexemes select the plural *-ōt*:

- (17) הוּא מְקִיף פְּרָסוֹתָיו
 ‘he surrounds his hooves’ (m. Bekhorot 7.6)
- (18) אַרְבַּע עַל אַרְבַּע פִּינוֹתָיו

‘its corners are four by four’ (m. Middot 1.1)²⁶

However, in Zechariah, an Achaemenid period text, both nouns select the plural morpheme *-īm*:

(19) וּפְרָסֵיהֶן יִפְרֹק

‘he will tear their hooves’ (Zech. 11.16)

(20) עַד־שַׁעַר הַפְּנִים

‘up to the corner gate’ (Zech. 14.10)

Given the distribution of the plural *-ōt* in pre-exilic, exilic, and post-exilic texts, the occurrence of *-īm* in Zechariah is exceptional, requiring explanation. I suggest that the choice of plural morpheme is a localised Aramaic calque, which failed to be adopted in later periods.²⁷

A second example comes from Song of Songs, another post-exilic text. The language of Song has generally been dated to the Hellenistic period based on a number of late features.²⁸ Dobbs-Allsopp (2005) proposes that the plural of *mēgēd* ‘precious thing’

²⁶ Sharvit (1990, 370) notes a few instances of *pinnīm* ‘corners’ in Mishnaic manuscripts, but they are rather likely related to *pānīm* ‘face’.

²⁷ Neither lexical item is attested in Persian period Aramaic texts. In Late Antique dialects *pnītā* takes *-ātā* (e.g., in Syriac), although the lexeme is likely derived from a different root (Aram. \sqrt{pny} versus Hebrew \sqrt{pnn}). The lexeme *parsā* is also attested in later texts, where its plural morpheme varies. JPA has *parsātā*, while Syriac uses *parsānē* as well.

²⁸ The list of LBH features in Song includes orthography (the *plene* spelling of *dāwīd* ‘David’), morphology (e.g., preference for the 1cs pronoun *ʾānī*), syntax (the decline of narrative *wayyiqtol*), and lexicon (preference for *hēk* for mouth instead of the early *pē*). See Dobbs-Allsopp (2005) for a fairly thorough list and discussion.

there, *māḡāḏīm* (Song 4.13, 16; 7.14), is a late feature, on the basis of the discussion in Polzin (1976), who argued that preference for nominal pluralisation is a sign of lateness.

- (21) שְׁלֹחֵיךָ פְּרָדִים רְמוּזִים עִם פְּרֵי מְגֵדִים
 ‘your branches are a pomegranate orchard with precious fruit’ (Song 4.13)

This proposal is difficult because another plural, *miḡḏāñōt*, is used in several other biblical texts, so the use of the plural is not *per se* diagnostic:²⁹

- (22) וּמְגֵדָתָהּ נָתַן לְאָחִיהָ וּלְאִמָּהּ
 ‘he gave precious things to her brother and mother’ (Gen. 24.53)

- (23) וַיִּתֵּן לָהֶם אָבִיהֶם מִתְּנֻנוֹת רַבּוֹת לְכֶסֶף וּלְזָהָב וּלְמְגֵדָנוֹת
 ‘their father gave many presents of silver, gold and precious things’ (2 Chron. 21.3)

The exact dating of Gen. 24, ex. (22), is difficult. Rofé (1990) has suggested that it is a Persian period text, based on its language. Rendsburg (2002) argues on the basis of the same features that it is not a late text, but rather a Northern text, which per Rendsburg includes multiple instances of Aramaisms, as a form of style switching. This analysis includes the lexeme *mēḡēḏ*, which Rendsburg argues is ‘Aramaic-like’ and Rofé suggests is late.³⁰ Hendel

²⁹ See also Ezra 1.6 and 2 Chron. 32.23.

³⁰ Akkadian **magattu~magadātu* is a possible cognate. Von Soden (1966, 16) reads *magātātu* and suggests that it is a loanword from Aramaic, whose root he suggests is $\sqrt{ghṭ}$ (see Sokoloff 2002, 362). *CAD* assumes the root is \sqrt{mgd} . The lexeme is still listed as an Aramaic loan in

and Joosten (2019, 81–82), however, note that despite the late features and signs of contact with Aramaic embedded in Gen. 24, the text also exhibits several CBH features which are generally absent from LBH. They, therefore, suggest that the text belongs to TBH.

What has not previously been noted in the context of this discussion is the form of the plural. Song of Songs pluralises *mēḡēḏ* with *-īm*, while all other biblical texts, whatever their date, use *-ōṭ*. Following the criteria I set above, the plural with *-īm* in a single text is exceptional, and since the language clearly did not stop using *-ōṭ* to pluralise this substantive, it may be a calque of the Aramaic plural. Indeed, all dialects of Aramaic where the lexeme is attested pluralise *mēḡēḏ* with a reflex of **-ūn*: JPA *maḡdānīn*, Targum *maḡdānīn*, Syr. *maḡdunē* (or *mēḡdunē*). The plural of *mēḡēḏ* in Song is, therefore, likely an Aramaic calque, which lends support to the LBH dating of the text.

Some other possible cases are the plural of *kinnōr* ‘lyre’. It generally selects *-ōṭ* in pre-exilic (2 Sam. 6.5) and post-exilic (Neh. 12.27) biblical texts. This is also true in Mishnaic Hebrew (e.g., m. Sukkot 5.4). The only exception is Ezek. 26.13, where it appears as *kinnōrayīk* ‘your (fs) lyres’. In Aramaic, this noun also selects **-ūn*, for example JPA *kīnārīn*, Syriac *kēnārē*. The plural of

CAD although no Aramaic origin is noted. Abraham and Sokoloff (2011, 40) reject Sokoloff’s etymology, but suggest no alternative. Given the context of the lexeme in Akkadian, that is, a dowry list, it is possible that it is a cognate of the Aramaic and Hebrew lexeme. Its attestation in Neo-Babylonian roughly fits the date of the first instance of the lexeme in Hebrew, if Gen. 24 is viewed as a TBH text. The evidence is, however, too scant for a clear conclusion.

šāḇūāʿ ‘week’ is typically pluralised with -ōt̄ in both pre-exilic (Exod. 34.22) and post-exilic (2 Chron. 8.13) biblical texts. The same plural is found in Mishnaic Hebrew (e.g., Megilla 3.5). The only exception is Daniel, where all occurrences of the plural of šāḇūāʿ are šāḇūʿim. The plural of this noun in Aramaic is similarly a reflex of *-ūn, e.g., JPA and CPA šābuʿin, Syriac šabuʿē. Caution should be exercised, however, in evaluating such cases, and evidence from Aramaic and post-biblical Hebrew is crucial to establishing the direction of change.

5.0. Summary and Conclusions

This paper has dealt with the age-old problem of mismatched plurals in Hebrew. I have attempted to show that the study of such phenomena purely on the basis of Hebrew is misleading. In a comparative perspective, the distribution of plural morphemes in Hebrew is not exceptional and has parallels in other Semitic languages. The comparative evidence as well as documented diachronic shifts in Hebrew can be used for linguistic dating. The main methodological conclusion I hope readers draw from this paper is that the study of the structure of Hebrew must not be undertaken in isolation from evidence in other languages; in most cases comparative evidence is invaluable.

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PROPER NAMES AS PREDICATES IN BIBLICAL HEBREW¹

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1.0. Introduction

In this paper I shall outline the data supporting the claim that proper names have a different status in Biblical and Modern Hebrew. In Modern Hebrew they are determiner phrases (DPs), acting as arbitrary labels for individuals, while in Biblical Hebrew they are noun phrase (NP) predicates, denoting properties of individuals, and refer to an individual only because the noun phrase denotes a singleton set of individuals with the given property. DPs are headed by a D position, which can be filled either by a determiner or by a noun that moves to fill that position, while NPs are headed by nouns. While DPs are generally closed to further modification and will hold their own definiteness or lack thereof, NPs are open to further modification, including the addition of determiners (e.g., English *the*) and predicates such as

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adjectives. The motivation for this theory is the difference in distribution of personal proper names in the annex of construct phrases in Biblical and Modern Hebrew, which is outlined in §2.0. The various pieces of supporting evidence for this argument are outlined in §§3 and 4, and conclusions can be found in §5.

2.0. Construct Phrases

The first piece of evidence that the proper name in Biblical Hebrew is a NP is its distribution within the construct phrase. When a NP predicate—that is, a noun phrase that assigns a property—acts as the annex of a construct phrase, the head—generally, though not exclusively, a noun—takes the construct state, possibly undergoing phonological shift; it then takes a NP annex via NP incorporation, meaning that anything that can act as the annex of the construct phrase must be a NP (Borer 2008; Rothstein 2017). In both Modern and Biblical Hebrew, the head of the construct phrase needs to be relational. When a sortal noun, i.e., a noun that denotes an object that can be counted, acts as the head of the phrase, as in (1), it shifts to take a relational interpretation, with the relationship being defined from context (Rothstein 2012). In (1), this is a type of possession, while in (2), the head is inherently relational and does not need to shift to become so, with the phrase denoting a familial relationship. This is the case in both Modern and Biblical Hebrew.

- (1) בְּדָגַת הַיָּם
bi-dgāt hay-yām
 PREP-fish.FS.CNST DEF-sea
 ‘over the fish of the sea’ (Gen. 1.28)

- (2) אֵת-אִם הַיָּלֵד
 'et 'ēm hay-yāleḏ
 DO mother(.CNST) DEF-boy
 'the mother of the boy' (Exod. 2.8)

The construct phrase can be found in both Modern and Biblical Hebrew. In this paper, I follow Rothstein (2012), who argues that the construct phrase requires a predicate NP complement, which acts to describe what is denoted by the head of the phrase. A DP cannot take this position, as it acts referentially and cannot be used to denote a property, even an abstract one, such as seen in (1) and (2). If this is the case, then the reason that in Modern Hebrew personal proper names cannot appear in the annex of construct phrases (apart from in specific exceptional circumstances) is likely to be as a result of their status as DPs, which prevents them from acting as input for NP incorporation, which is the syntactic process by which the parts of a construct phrase are brought together.

- (3) *בית אריאלה \ משה
 be(y)t 'ari'ela / moše
 house.CNST Ariela / Moše
 Intended 'Ariella's / Moshe's house'

However, *be(y)t 'ari'ela* is judged by native speakers to be felicitous in reference to the Tel-Aviv central library, in which the construct refers not to the house that belongs to Ariella, but rather to the building that is named after her. In this situation it is not used referentially, but rather to denote a property, that of being named after her. Therefore, the name serves as a predicate. This is the

denotation of a specific building, which would be referred to in English not as *Ariella's Library*, but as *The Ariella Library*.

(4) משקפי ג'ון לנון
mišqafe(y) d̄zon lenon

glasses.DU.CNST John Lennon

'John Lennon glasses' (Danon 2017, 50)

Similarly, (4) is grammatical, although in a way different to (3), in that it describes a type of glasses, a style characterised by the individual denoted in the annex, rather than the specific pair of glasses possessed by that individual. While (3), when grammatical, denotes a specific building or institution, (4) denotes a type, a subset of glasses, and, as such, is open to further modification to which (3) is not. Apart from these outlined exceptions, the general rule in Modern Hebrew is that a personal proper name is not allowed in the annex of a construct phrase.

In Biblical Hebrew, by contrast, personal proper names appear freely in the annex of construct phrases which denote a range of different relationships, including possession (as in (5)), familial relations (as in (6)) and part-whole relations or inalienable possession (as in (7)).

(5) בְּאֹהֲלֵי שֵׁם
bə-ʾāhāl-ē šēm

PREP-tent-PL.CNST Shem

'in the tents of Shem' (Gen. 9.27)

(6) בְּנֵי יַעֲקֹב
bən-ē yaʿāqōb

son-PL.CNST Jacob

'The sons of Jacob' (Gen. 34.13)

- (7) בְּעֵינֵי אַבְרָהָם
bə-‘ēnē *’abrāhām*
 PREP-eye.DU.CNST Abraham
 ‘Abraham’s eyes’ (Gen. 21.11)

Given the assumption that the construct state requires NP annexes (Rothstein 2012), and the observation that personal proper names appear freely in the annex of the construct state in Biblical Hebrew, the data strongly suggests that personal proper names in Biblical Hebrew, unlike in Modern Hebrew, are predicate NPs, describing properties, rather than DP arguments, which have referential qualities and are closed to any further modification. In the following sections I will bring further empirical evidence in support of this analysis.

There is an alternative explanation for this, i.e., that the construct denotes a more restricted set of relationships in Modern Hebrew than it does in Biblical Hebrew. Therefore, although in Modern Hebrew the construct does not allow for DPs to act as the annex, in Biblical Hebrew this is allowed. This would mean that the difference in the distribution of personal proper names in the construct phrase in Biblical Hebrew and Modern Hebrew results only from differences in construct syntax, not in the syntax and semantics of proper names, as this paper argues, based on a various types of evidence elaborated in the following sections.

3.0. Semantic Composition and Interpretation of Names

3.1. Simple Names

There is further reason behind the theory that names in Biblical Hebrew are predicative, denoting properties. Names in Biblical Hebrew are at times completely transparent in terms of their semantics, although this varies from name to name. Due to their morphology, complex names, which are built up from phonological parts that have independent meaning, are more likely to be transparent than simple names. In some places, simple names may be semantically transparent, but entirely opaque in terms of the relationship between the name and the individual, such as with (8):

- (8) תַּמָּר
tāmār
 date.palm
 ‘Tamar’ = ‘date palm’ (Gen. 38.6)

This can be taken a step further, as there are names which have no clear meaning to the modern reader, such as (9):

- (9) יְהוּ
yēhū
 ‘Jehu’ (1 Kgs 19.16)

No reason is provided in the narrative for the connection between these names and the individuals who bear them. This being the case, it is difficult to find a connection between the individual and the name in a way that would support the argument that it denotes

a property of the individual or their lifetime. In other words, (8) appears to differ little from names such as *Daisy* in English, which are directly taken from common nouns, and may contain a metaphorical reference to the plant from which the name is derived. Therefore, it appears that the argument that names denote properties and act as predicates, while supported by many complex names, may not hold true in regard to simple proper names. Although it appears to be the case in examples such as (10) below, it does not necessarily hold true for examples such as (9), for which it is difficult to postulate a derivation from a meaningful noun.

(10) פֶּלֶג

peleḡ

‘Peleg’ = ‘division’ (Gen. 10.25)

According to the narrative, this name was given to the individual bearing it because in his lifetime, the world was divided, after the Tower of Babel. This name could therefore be argued to be predicative in the same way as *Ichabod* in example (15).

Personal names are generally referential expressions whose meaning amounts to their reference in the world. They denote specific individuals, but in many languages the relationship between the lexical item and the object can be arbitrary. The name *John* does not express any particular property that the individual has, other than carrying that particular name. This can be seen in Biblical Hebrew in examples such as (8). In contrast, some personal names, such as that seen in (10), are used to refer to individuals, but also express properties like predicate NPs. These names are semantically transparent to a large degree and may be complex. If this is the case, then when these names are broken

down into their constituent parts, they can be interpreted as genuine predicates. These names can indicate the character of the individual that they denote, the situation surrounding the birth of the individual, or some hope that the person who gave the name had for the future, either personal or national.

3.2. Complex Names

Many names in Biblical Hebrew can be seen to have complex semantic composition, with some names having construct morphology and being indisputably comprised of two separate words, as in (11). There are also names that form a single orthographic unit, but which contain a number of different lexical items, linked with what may be the remnants of case markings, as in (12), or, alternatively, a vowel that could be argued to be the *hireq compagnis*, as in (13), below (Layton 1990).

(11) בְּנֵי אֲוִיָּהּ

bən 'ōn-ī

son.CNST mourning-POSS.1CS

'Benoni' = 'son of my suffering' (Gen. 35.18)

There are a number of names which form single orthographic units, within which multiple lexical items can be seen, with various phonemes used to connect the lexical items as and when needed. These include names such as those shown in (12) and (13):

(12) בֵּית־אֵל

bəṭ-ū-'ēl

house.CNST-NOM(?) -god

'Betuel' = 'house/temple of god/El' (Gen. 22.22)

(13) עֲבֹדֵי־אֱלֹהִים

‘*abd-i-’el*

servant.CNST-GEN(?)-god

‘Abdiel’ = ‘servant of God’ (1 Chron. 5.15)

This name, along with the more common alternate with similar semantics in (14), seems to denote an individual who is characterised by service to God, i.e., a deeply religious and devout man, or a wish of those who named him that he would be so. Indeed, of the individuals who bore the name adduced in (14), the ones who appear in the narrative rather than simply genealogies are shown to perform acts that demonstrate their faith.

(14) עֲבָדֵי־יְהוָה

‘*ōbad-yā*

servant.CNST-Yah

‘Obadiah’ = ‘servant of Yah/God’ (Obad. 1.1)

It is worth noting that this is not always the case, and that not all of those who carried theophoric names were described as righteous in the text, but it is demonstrably the case that these names had meaning and denoted properties of some sort. All of these examples are theophoric names, i.e., names containing the name of a deity, with the medial vowel *ū*, as in (12) above, which may be a remnant of archaic case marking that later fell out of use.

There are also some names which are clearly comprised of two words, often with the first in the construct state. One of those is (11) above, and another is (15):

(15) אִי־כְבוֹד

ʾī *kābōd*

NEG honour

‘Ichabod’ = ‘there is no honour’ (1 Sam. 4.21)

Both examples (11) and (15) denote properties of the situation of the individual’s birth, with (11) denoting the personal suffering of the mother, Rachel, while (15) denotes the lack of national pride or honour caused by the capture of the Ark of the Covenant by the Philistines. These names are also explicitly explained as part of the individual’s birth narrative. There are also names that may be construct phases, or alternatively possessives, but for which the relationship between the individual and the name are unclear, such as (16):

(16) אֲדֹנַי־צְדָקָה

ʾādōn-ī

ṣedeq

master.CNST-POSS.1CS/GEN(?) righteousness

‘my master of righteousness’ or ‘master of justice’ (Josh. 10.1)

For names such as these, although their meaning is unclear, their morphology strongly suggests that they are NPs. So, too, are many construct phrases and, therefore, NP predicates.

There are also several complex names that are predicates and yet function as nouns, such as (17):

(17) יהוֹנָתָן

yāhō-nātān

Yhw-give.SC.3MS

‘Jonathan/Yehonatan’ = ‘The LORD has given’ (1 Sam. 14.6)

This name, also theophoric, and those like it, add to the evidence supporting the predicative status of names in general, because the predicative nature of their verbal constituents makes the preservation of that status more likely once the name is formed. Although much of the time, the name בְּנֵי יִמִּינִי ‘Benjamin’, forms a single unit, its status as a construct name is demonstrated in a number of circumstances in which it splits to reform its constituent elements, particularly in the gentilic, as in (17):

- (18) בְּנֵי יִמִּינִי
bən-ē *yāmīn-ī*
 SON-PL.CNST right-GNT/ADJ
 ‘Benjamites’ (Judg. 19.16)

This additionally shows that even when the name has been formed, it does not lose its status as a noun phrase, but is still productive and can change. This is further evidence that names in Biblical Hebrew should be considered NPs rather than DPs, especially given the possibility, outlined in §5.0, that Biblical Hebrew does not have a determiner position at all, and that, therefore, no nouns project to the DP level, remaining entirely at the NP level (Jeffay and Rothstein 2019).

4.0. Evidence from Gentilic Names

4.1. Gentilic Names as Modifiers

Gentilic names are a subcategory of proper names with their own distinct morphology. Of the proper names, they are the closest in nature to adjectives, and act as such, modifying names or common nouns and generally taking predicate position as modifiers.

Rather than referring to individuals, their core meaning refers to a family, tribe, or place of origin, although in certain situations, they refer pragmatically to an individual. While the name רְאוּבֵן ‘Reuben’ is a personal proper name referring to an individual, the gentilic name רְאוּבֵנִי*/רְאוּבֵנִי* refers to the tribe descended from this individual. Gentilic names are able to function as intersective modifiers, denoting a set or group which has a particular property or characteristic and overlaps with another group, generally denoted by the predicate being modified to produce an intersection containing a subset of the group of individuals initially denoted by the predicate. They have all of the properties of adjectival modifiers, agreeing with the noun that they modify in gender, number, and definiteness. They so frequently take the definite article, that Joüon and Muraoka (2009, §137c) suggest that the definite article appears as a rule, with the times that this does not happen being a rare exception. This use of the gentilic name is particularly interesting given evidence (outlined in §4.3) that suggests that the gentilic name, despite its morphological similarities with the Hebrew adjective, is generated as a NP. The *-ī* suffix is used in a number of ways in Biblical Hebrew, including in the formation of the gentilic name, as well as many adjectives, ordinal numbers and directions, indicating some commonality between them, possibly suggesting that the gentilic name is adjectival.

(19) הַמָּן הָאֲגִיטִי

hāmān hā-’āgāg-ī

Haman DEF-Agag-GNT/ADJ

‘Haman the Agagite’ (Est. 8.3)

Here, the gentilic name concords grammatically with the personal name, taking the definite article as well as masculine singular agreement.

In situations where the head noun of the phrase is indefinite, the gentilic name once again agrees:

(20) אִישׁ יְהוּדִי

ʾiš yəhūdī

man Judah-GNT/ADJ

‘a Judaeen/Judahite/Jewish man’ (Est. 2.5)

Here, due to the indefinite nominal head, the gentilic name does not take the definite article. In the examples seen so far, agreement in definiteness can be seen, but number and gender may conceivably be masculine singular by default because of the derivation of the gentilic. But cf. (21) and (22).

(21) רֹוּת הַמֹּאבִּיָּה

rūt ham-mōʾāb-iyy-ā

Ruth DEF-Moab-GNT/ADJ-FS

‘Ruth the Moabite’ (Ruth 2.2)

Here, the gentilic name, derived from a masculine personal name, can be seen to agree in gender with the feminine name, taking the feminine ending.

(22) אֲנָשִׁים מִדְּיָנִים

ʾānāš-īm midyān-īm

man-PL Midian-GNT/ADJ.PL

‘Midianite men’ (Gen. 37.28)

Here, the gentilic can be seen to agree in number, taking the plural to agree with the indefinite masculine plural nominal head.

The contrast between the feminine singular in (21) and the masculine plural in (22) shows that the gentilic is able to agree in gender and number and does not default to the masculine singular in all environments.

However, in contrast to (19) and (21), the gentilic name does not always take the definite article when agreeing with personal proper names, as demonstrated in (23). This may suggest that personal proper names are not necessarily definite. It is usually (though not always) the case that modifiers agree in definiteness with the noun they modify. This together with the feasibility of marking a gentilic name with the definite article suggests that in (23) the proper name is indefinite.

- (23) אֶלְקָנָה בֶּן־יְרֵחָם בֶּן־אֵלִיהוּא בֶּן־תְּחוּ בֶּן־צוּף אֶפְרַתִּי
 'elqānā ben yĕrōḥām ben 'ēlihū ben tōḥū
 Elkanah son.CNST Jeroham son.CNST Elihu son.CNST Tohu
 ben šūp 'ēprāt-ī
 son.CNST Zuph Ephrat-GNT/ADJ
 'Elkana, son of Elihu, son of Tohu, son of Suf, (the/an) Ephrathite'
 (1 Sam. 1.1)

Here, the Masoretic reading tradition indicates that this is a single phrase, with no pause between 'Zuph' and 'Ephrathite'. Therefore, agreement is expected. The lack of definiteness marking on the gentilic name suggests that the name with which it agrees may not be inherently definite, i.e., does not necessarily denote a unique and defined individual, and, thus, does not force agreement.

4.2. Gentilic Names as Noun Phrase Predicates

Gentilic names, being another class of proper, albeit not necessarily personal names, have nominal as well as adjectival uses, taking a position between that of nouns and adjectives on the spectrum. They can be used to denote individuals, and can be used as the annex of construct phrases, which is a position that licences only NP predicates. This is most clearly distinguished from adjectival usage in examples in which the head has a distinctive construct form and when the head and annex differ in terms of grammatical concord. It is, therefore, clear that there is no agreement. This means that the following examples are particularly good evidence for the nominal nature of the gentilic name within the construct phrase:

(24) מִשְׁפַּחַת הַקֹּהֲתִי

mišpaḥat haq-qəhāt-ī

family(.FS).CNST DEF-Kohath-GNT/ADJ(.MS)

‘the Kohathite family’ (Num. 26.57)

(25) מִשְׁפָּחוֹת הַכְּנַעֲנִי

mišpəḥōt hak-kənaʿān-ī

family.FPL.CNST DEF-Canaan-GNT/ADJ(.MS)

‘the Canaanite families’ (Gen. 10.18)

In example (24), the head is clearly assigned construct state, and there is no agreement between the head and the annex, with the head being feminine and lacking the definite article, while the annex is masculine and marked for definiteness, with the definiteness percolating over the entire phrase. Likewise in (25), except that the head is feminine plural, rather than singular.

The gentilic name can also be used to denote individuals, which can be singular, as seen in (26), or plural, as seen in (27).

(26) יִשְׁמַעֲאֵלִים

yīšmāʿēl-īm

Ishmael-GNT/ADJ.PL

‘Ishmaelites’ (Judg. 8.24)

(27) וַיַּעֲבֹר אֶת־הַכּוּשִׁי

way-yaʿābōr ʾet hak-kūš-ī

and-3M.pass(s).WPC DO DEF-Kush-GNT/ADJ

‘And he passed the Kushite’ (2 Sam. 18.23)

In (26) the reference is to a group of individuals descended from the individual who had the name ‘Ishmael’. In (27) the reference is to a single individual, salient from context, who in the situation described is the sole individual of that nationality in any way relevant to the narrative.

Of nearly 1,800 gentilic names analysed in the process of the research project building towards my thesis and from which this paper stems, the vast majority, over 1,400, were analysed as nominal, either as a result of their appearing in the annex of construct phrases or appearing alone, referring to an individual or group. Although the suggestion of an elliptical or null noun merits consideration, if that were the case here, it would be true for over nine hundred instances. The number of null nominal heads would thus approximately triple that of heads explicitly expressed. This arguably militates against a solution that emphasises elliptical expressions or null heads.

Given that the vast majority of occurrences of gentilic names have been analysed as nominal rather than adjectival, I

suggest that this is the root meaning of the word, and that the modificational use is an extension of this. While it is possible that a nominal name could shift to become an adjective with null morphology, it is more likely to be a name acting in apposition as a modifier. It is also possible that all adjectives act thus, as Waltke and O'Connor (1990, 261) suggest that “because the boundary between adjectives and substantives is not fixed or rigid, it is common to find nouns that are most often used as adjectives in substantive slots.” They suggest that the difference between adjectives and nouns in Biblical Hebrew is more subtle than may be assumed, and it may indeed be the case that all adjectives are indeed nouns acting in apposition to other nouns. This would also raise the likelihood that all nouns, including proper nouns, are predicates. Hilman (2013) discusses the formation of gentilic names, primarily in terms of the addition of the suffix ־י *-ī*, generally used in adjective formation, to nouns such as place names, in order to denote an individual’s origin. The gentilic, more than almost any other name, is transparent in its formation and most clearly connected both to its morphological root and to the adjectival interpretation that marks it as a predicate.

4.3. Definite Markers on Gentilic Names

Of the 1,417 gentilic names found with nominal use, 1,045 have the definite marker *ha-*, indicating that they are NPs rather than DPs—since DPs are unable to appear in the scope of definite markers. Therefore, proper names that appear in the scope of the definite marker should be analysed as predicate NPs. This means

that alternations such as the one between (28) and (29) demonstrate that the gentilic name is a NP predicate rather than a DP, and that the *ha-* is a true clitic, rather than integral to some gentilic names.

(28) יְדֹמִי

^ʔ*ādōm-ī*

Edom-GNT/ADJ

‘Edomite’ (Deut. 23.8)

(29) יְהַדְּמִי

hā-ʔādōm-ī

DEF-Edom-GNT/ADJ

‘The Edomite’ (1 Sam. 22.9)

Bekins (2013) discusses the use of the definite article in Biblical Hebrew, outlining a number of potential uses. The generally accepted use of the article is anaphoric, i.e., reference to something that has already been mentioned within the discourse. This differs from associative use, in which the item mentioned has not appeared in the discourse, but has identity inferable on the basis of association with a referent found in the discourse (generally because it is found in the semantic frame of something previously mentioned in the discourse, such as referring to the front door when a house has just been mentioned). Mention is also made of the generic, where the definite article is used, but the referent is indefinite, with no specific referent denoted. In such scenarios, the definite article is not required, but may appear. For example, in prophecy, both (30) and (31) refer to lions in a generic sense, but in the former there is no definite article, while in the latter there is.

- (30) וַעֲגַל וְכַפִּיר וּמְרִיא יַחְדָּו
wə-‘ēgēl u-kṗīr u-mrī yaḥdāw
 and-calf and-lion and-fatling together
 ‘and calf and lion and fatling (shall be) together’ (Isa. 11.6)
- (31) וְהַכְּפִיר עַל-טָרְפוֹ
wə-hak-kəpīr ‘al tarp-ō
 and-DEF-lion over prey-POSS.3MS
 ‘and the lion over his prey’ (Isa. 31.4)
- (32) לֹא יִבֹּא עַמּוֹנִי וּמוֹאָבִי
lō yaḇbō ‘ammōn-ī u-mō’āb-ī
 NEG 3M.come(.s).PC Ammon-GNT/ADJ and-Moab-GNT/ADJ
 ‘No Ammonite or Moabite shall come...’ (Deut. 23.4)

It is possible that some parallels can be drawn between the use of the gentilic to denote kinds, as seen in (32), and the generic in the settings seen in (30) and (31), with both being able to denote specific indefinites because the kind as a whole is identifiable to the hearer. Once these parallels have been drawn and the similarities can be seen, it appears that gentilic names, and potentially all proper names, share most, if not all, properties with common nouns and, therefore, are just as likely to act as predicates.

5.0. Conclusions and Further Research

This paper has explored the properties of proper names in Biblical Hebrew, showing that they have the distributional and interpretational properties of predicate NPs, not of DPs. Complex names express properties of individuals, rather than acting as arbitrary labels for individuals. And proper names in general can

appear in predicate positions, acting as the annex of construct phrases.

Gentilic names have been explored as a case study for the wider corpus of names in Biblical Hebrew. They are able to act both in predicative NP positions and as intersective modifiers, similar to adjectives. This is a property that they may be expected to have, given their morphological similarity to adjectives and their derivation from nouns.

Besides for the points of interest outlined within this paper, there are wider theoretical implications. If personal proper names are not DPs in Biblical Hebrew, does this category exist at all in the language? The status of nominal phrases needs to be determined, and if the DP category exists in Biblical Hebrew, we need to understand at what level NPs in general are interpreted—DP or NP. There are a number of languages in which the definite article can be found with a proper name, such as Italian, as outlined in Longobardi (1994), and in many of these languages when the definite article is not found, it is suggested that the name raises to fill the determiner position. However, current syntactic theories allow for languages without DPs, and as such it is entirely possible that there is no DP position in Biblical Hebrew, leaving the question open for further investigation in future research. Doron and Meir (2016) suggest in Modern Hebrew that what is often analysed as the definite clitic is in fact part of state morphology, and is one of the morphological markers of the emphatic state—one of the three states into which nouns are classified in the context of that paper, the others being the construct state, discussed in this paper, and the absolute state, in which

nouns are generally interpreted as indefinite. If *ha-* is not necessarily a determiner in Modern Hebrew, there is no reason to assume that it is a determiner in Biblical Hebrew at this point.

Additionally, a question raised by the study of gentilic names within this paper is whether there is a distinction in Biblical Hebrew between the nominal and adjectival categories. If such a distinction does not exist, it makes the phenomena explored in this paper much easier to explain. However, if the distinction does exist, it is then necessary to determine in which category gentilic names are generated, and under which conditions they are prompted to shift to the second category.

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THE SHIFT FROM THE BIBLICAL HEBREW FAR DEMONSTRATIVE הָהוּא TO THE MISHNAIC HEBREW אֹתוֹ

Chanan Ariel

One of the most prominent differences between Biblical and Mishnaic Hebrew is the shift of the far demonstrative pronoun הָהוּא in the Biblical Hebrew (e.g., הָאִישׁ הָהוּא ‘that man’) to the Mishnaic Hebrew אֹתוֹ (e.g., אֹתוֹ הָאִישׁ ‘that man’). Since the mid-nineteenth century, scholars have attempted to offer an explanation for this change. This article reviews the development of modifying demonstrative pronouns in Hebrew and Aramaic, supporting the suggestion that the dominant factor in this change was Greek influence. The article also offers a possible explanation for the extreme nature of this change and the exclusive use of the new modifying pronoun in Mishnaic Hebrew.

1.0. Introduction: The Extreme Change in the Far Demonstrative Pronoun between Biblical and Mishnaic Hebrew

In Mishnaic Hebrew, the direct object marker אֵת is used as a demonstrative pronoun in two ways: (a) the direct object marker

אֵת in its uninflected form functions as an independent demonstrative pronoun when used as the antecedent of a relative clause,¹ for example:

(1) אֵי זֶה הוּא הַדּוֹפֵק? אֵת שֶׁהַגּוֹלֵל נִישֶׁעַן עָלָיו.²

‘What is the buttressing stone? **That** against which the stone leans that seals the grave.’ (Mishnah Oholoth 2.4; Danby 1933, 652)

(b) The form of the direct object marker that is inflected with third person pronominal suffixes (אֹתוֹ, אֹתָהּ, אֹתָן³) replaces the distal demonstrative modifying pronoun (הַהוּא, הַהִיא, הַהֵם) in Biblical Hebrew. I should note here that, in terms of syntactic function, the respective Biblical and Rabbinic Hebrew pronouns הַהוּא and אֹתוֹ usually express anaphora or identity, and are not used

¹ This structure may have limited precedents in Late Biblical Hebrew, such as וְטוֹב מִשְׁנֵיהֶם אֵת אֲשֶׁר-עָדוּן לֹא הָיָה ‘and happier than either are **those who** have not yet come into being’ (Eccl. 4.3; NJPS). For a comprehensive review of the literature and an updated discussion on the distribution of this structure in the Bible, see Samet (2020).

אֵת as an independent demonstrative pronoun appears in the Tannaïtic literature only in its uninflected form, and always before a subordinate clause. The use of the inflected form of אֵת (-אֹת-) as the nucleus of a clause began only in Amoraic Hebrew (Sokoloff 1969, 138; Breuer 2002, 211–13).

² This citation, like all citations from rabbinic literature, is according to the *Ma’agarim* website of the Academy of the Hebrew Language at <https://maagarim.hebrew-academy.org.il>.

³ The masculine and feminine forms merged into one form (אֹתָן) because of the phonetic shift (under certain conditions) from final /m/ to final /n/ in Mishnaic Hebrew.

as independent indicative pronouns (as distinct from their proximal counterparts).⁴

This paper is devoted to the use of the inflected form *אותו* as a demonstrative modifier. A good example of the shift that occurred between Biblical and Rabbinic Hebrew can be seen when we compare the wording of the law of ‘*egla arufa* ‘the heifer with a broken neck’ in the Bible and its Mishnaic presentation. The Torah states:

- (2) והיה העיר הקרבה אל-החלל ולקחו זקני העיר ההוא עגלת בקר אשר לא עבד בה אשר לא-משכה בעל: והורדו זקני העיר ההוא את-העגלה אל-נחל איתן... וכל זקני העיר ההוא הקרבים אל-החלל ירחצו את-ידיהם על-העגלה הערופה בנחל:

‘And it shall be, that the city which is next unto the slain man, even the elders of **that city** shall take an heifer, which hath not been wrought with, and which hath not drawn in the yoke; And the elders of **that city** shall bring down the heifer unto a rough valley... And all the elders of **that city**, that are next unto the slain man, shall wash their hands over the heifer that is beheaded in the valley.’ (Deut. 21.3–6; KJV)

Whereas the text in the Mishnah reads:

- (3) זקני אותה העיר מביאין עגלת בקר אשר לא עובד בה (ו)אשר לא משכה בעול... ומורידין אותה אל נחל איתן... זקני אותה העיר רוחצין את ידיהן במים במקום עריפתה שלעגלה.

⁴ See Oron (1990, 28–30); Kaddari (1991, 212–13); Azar (1995, 212–13); Breuer (2002, 212).

‘The elders of **that city** brought a heifer from the herd which had not been wrought with and which had not drawn in the yoke ... and they brought it down unto a rugged valley... The elders of **that city** washed their hands in water at the place where the heifer’s neck was broken.’ (Mishna, Soṭa 9.5–6; Danby 1933, 304)

This is a radical change. The inflected pronoun **אות** in the relevant syntactic role occurs 67 times in the Mishna (in 56 different *mishnayot*), while the adjectival demonstrative pronouns **ההיא** and **ההם** appear only three times (in two *mishnayot*).⁵

2.0. Documentation of the Change in Sources

Preceding Mishnaic Literature

The shift from **ההוא** to **אותו** is completely undocumented prior to Mishnaic Hebrew—whether in the Bible or in the documents from the Judaean Desert. Józef Milik suggested that this shift may be seen in a disjointed fragment from an Aramaic astronomical work found at Qumran. Milik (1976, 296) reads the relevant words as [במא] **ובאותה** בימ **מא** ‘and on [the] same da[y], and on that da[y]’ (4Q211 [4QEnastr^d ar] 1 iii, 4). However, Beyer (1984, 258, 506) interprets it as a loan from Hebrew **אות** ‘sign’, which Cook (2015, 4) regards as the better explanation. But the conventional reading may be wrong. Alexey Yuditsky and Elisha Qimron

⁵ According to Kaddari (1991, 213), in the three instances in which the biblical pronoun appears, its use may emphasise its deictic (rather than anaphoric or identity-related) function. An example is **הרי המעות ההם** ‘Let that money be rendered free for common use by [exchange with] this produce’ (Ma‘aser Sheni 3.4; Danby 1933, 76).

kindly alerted me that the words should be read as [מֵא] בִּיּוֹמֵיהֶּם. If their reading is correct, we should probably parse the word מֵאִתָּהּ as an infinitive form of the root "אָת, potentially in the function of a verbal noun. The meaning of the phrase would thus be ‘and its entrance on the day.’⁶

Jan Joosten (2002, 14–16) has noted two verses where the Septuagint documents the independent demonstrative pronoun אֹתוּ. In Num. 6.13, the object pronoun in the phrase יָבִיֵא אֹתוֹ ‘one shall bring him’ is translated as αὐτός ‘he himself’. Similarly, in Num. 33.8 the place name אֶתְּם is translated αὐτοὶ ‘they themselves’. Joosten argues that this translation reflects the influence of the spoken Hebrew of the period of the translators, in which אֹתוּ already served as an *independent* demonstrative pronoun. However, the use of the pronouns אֹתוּ and אֹתָם as independent demonstrative pronouns is first documented in a Hebrew text only in the Palestinian Amoraic period, some five hundred years later, and is completely absent from Tannaitic Hebrew (see fn. 1, above).

⁶ Compare the infinitive forms of this root in Qumran Aramaic לְמֵאֵתָהּ, לְמֵתָהּ (Beyer 1984, 525). Regarding the digraph אֵי, cf. the spelling רֵעֵי ‘summit’ (1Q20 14.9; Muraoka 2011, 29). Milik’s claim (Benoit, Milik and de Vaux 1961, 120) that the pronoun אֹתוּ is documented in Mur 22.1-2 אֶתְּמָקוּם ... מְכָרָה ‘sold... the place’ is not probable at all. Depending on the context of this fragmentary document and comparing to other documents (e.g., KhQOstracon 1.4; 5/6Hev 44.6–7), there is no reason to doubt that this אָת is the direct object marker. Indeed, the analysis as a direct object marker appears in Yardeni’s edition (Yardeni 2000, A, 45–47; B, 27).

Accordingly, it would seem that we should consider other possible explanations for these surprising translations. As Joosten himself noted, there is a syntactic difficulty in the first of these verses (the verse has no antecedent to which the anaphoric object pronoun **וְאֵל** could refer); this difficulty was resolved in a similar manner in the Tannaitic Halakhic Midrash, *Sifre*.⁷ In the second instance, it is not impossible that the translators had a version before them with the spelling **וְאוֹתָם** with a *waw*, rather than the defective **וְאֵתָם**, as in the Masoretic Text; that they may have had such a reading tradition can be hypothesized in light of the transliterations of the other three occurrences in which this proper name appears (Exod. 13.20; Num. 33.6, 7): *Ὁθόμ, Βουθάμ*.⁸

⁷ See Sarfatti (1992, 342); Kahana (2011, 275–76). Yet, though the meaning is the same, the grammatical analysis differs: if the Septuagint, like the *Sifre*, had understood **וְאוֹתָם** to mean ‘(he brings) himself’, it would have used the reflexive pronoun *ἑαυτόν*.

⁸ Prof. Joosten has kindly drawn my attention to three further examples in which the Septuagint translates **וְאוֹתָם** as an independent demonstrative pronoun rather than an object pronoun. Two of these instances appear in just a single textual witness. See Lev. 26.39 in Aquila’s recension (for a discussion of the different versions, see Wevers 1997, 459) and 1 Kgs 9.25 in Codex Alexandrinus. Both instances entail exegetical difficulties. In Lev. 26.39, the antecedent of **וְאוֹתָם** (which the translator read as **וְאוֹתָם**) is unclear (Milgrom 1991, 2329; cf. the discussion of Num. 6.13, above). The interpretation of the verse from Kings remains unclear in modern research (Kalimi 2005, 121–22). In the third instance, Ezek. 10.22, all witnesses for the Septuagint (as well as Targum Jonathan) translate **וְאוֹתָם** as an independent pronoun, i.e., ‘and they’. Medieval exegetes (such as R. David Qimḥi) struggled to interpret the word in its context in the verse, and explanations offered by modern scholars are also forced (Saydon 1964, 202).

Aaron Kaminka (1942, 342) noted that in some cases the Septuagint interprets a difficult Hebrew word as if it were Greek. Thus, the phrase $\text{וְהוּשַׁי הָאַרְכִּי רַעַת הַמֶּלֶךְ}$ ‘and Hushai the **Archite** was the King’s friend’ (1 Chron. 27.33) is translated $\text{καὶ Χουσι ὁ πρῶτος φίλος τοῦ βασιλέως}$ ‘and Chousi the **chief** friend of the king’. The translator understood the Hebrew word הָאַרְכִּי as if it were the Greek word ἀρχή .

In light of Kaminka’s note, one might ask what caused the Greek translator to prefer these ungrammatical translations: did he utilise his familiarity with the Greek pronoun αὐτός to resolve the difficulties in these verses, or did he rather take advantage of his knowledge of the Rabbinic Hebrew אותו , as Joosten has suggested? I prefer the first option, because, as noted, the use of אותו as an independent (rather than complementary) pronoun is not documented in rabbinic literature prior to the Palestinian Amoraic period.

3.0. Research Questions and Review of Previous Studies

The replacement of the structure הוא האיש by האיש הוא raises three key questions:

1. Why does the word order change in Mishnaic Hebrew, so that the demonstrative pronoun now precedes the noun it complements?
2. Why was the distal demonstrative pronoun הוא replaced by the object pronoun אותו ?
3. What was the motivation for such an extreme shift?

The first two of these questions have been discussed in the research literature since the mid-nineteenth century, but, to the best of my knowledge, the third question has not been examined. I will briefly review the main opinions in the literature.

Abraham Geiger (1845, 36) argued that the change reflected Aramaic influence. He noted that the third-person plural pronoun אֲנֹנִי is used both as an object pronoun and as a demonstrative adjective.⁹ Geiger also noted that use of the inflected forms of ית- instead of the distal pronoun is documented in Christian Palestinian Aramaic and in Samaritan Aramaic.¹⁰ The same use is found in a small number of cases in Galilean Aramaic (such as יתהון כפתיה 'those knots').¹¹ Following Geiger, Nöldeke (1868, 471) and Wright (1890, 113) suggested that dialects such as Samaritan Aramaic and Christian Aramaic influenced the Mishnaic Hebrew.

⁹ In Biblical Aramaic, אֲנֹנִי serves as an independent demonstrative pronoun (Ezra 5.4); some scholars have argued that it also serves as a separate object pronoun (Dan. 6.25; see, for example, Bauer and Leander 1927, 70; Vogt 2011, 107). A good illustration of the use of אֲנֹנִי as an object pronoun can be found in ותבר אנון... ואשכח אנון 'and he found them... and defeated them' (Genesis Apocryphon 20.20). An example of its use as a modifier may be found in the Bible: מְלִכֵּי אֲנֹנִי 'those kings' (Dan. 2.44). The pronoun הֵמוֹ usually serves in Biblical Aramaic as an object pronoun (as in Ezra 4.10, 15), though it also appears as an independent subject pronoun (Ezra 5.11; see Bauer and Leander, 1927, 70).

¹⁰ Sokoloff (2014, 168). Prof. Simon Hopkins has drawn my attention to a similar phenomenon in Christian Arabic; see Blau (1966, 402–5); Tal (1979, 62–63; 2000, 366); Stadel (2013, 44).

¹¹ Sokoloff (1992, 247).

The flaw in the comparison to the object pronoun אהנה is that its use as an object pronoun and a demonstrative adjective pronoun is found only in the plural, and not in the singular. It is unlikely that the plural pronoun, which is relatively rare, would influence the singular pronoun, which is several times more common. The suggestion that the Aramaic dialects that have an inflected form of ית influenced Hebrew is also problematic, since these dialects are later than Mishnaic Hebrew. Moreover, they use the inflected form of ית alongside distal demonstrative pronouns, and in Galilean Aramaic, which has a strong affinity to Rabbinic Hebrew, this form is extremely rare; in Mishnaic Hebrew, by contrast, אהרה is the sole form and the grammatical norm.

Isaac Hirsch Weiss (1867, 4, 112) developed Geiger's argument, claiming that phrases such as באהרה היום 'on that day' also have their origin in the Biblical Aramaic phrases בַּה־שַׁעֲתָא 'at the same moment' (Dan. 3.6); בַּה־זְמַנָּא 'at the same time' (Dan. 4.33). However, Weiss fails to explain why, instead of the expected structure בו ביום 'on that day' (which is common in Rabbinic Hebrew and parallels בַּה־בְּלַיְלָא 'on the same night' (Dan. 5.30), or instead of the unattested structure *בו היום, Rabbinic Hebrew developed a structure with the object pronoun, באהרה היום.

GKC (365), Moshe Zvi Segal (1927, 202), Waltke and O'Connor (1990, 178), and others have suggested that this phenomenon has its origins in Hebrew, rather than in the Aramaic dialects. They suggested that the use of the object marker את in its uninflected form emerged first as an emphatic form, then be-

came an independent demonstrative pronoun marking the subject (see fn. 1 and example (1) above), and finally the use of the inflected form of *אות*- developed as a demonstrative adjective.

However, the claim that *אֵת* indeed serves as an emphatic form in Biblical Hebrew is in itself controversial.¹² Moreover, it is difficult to explain how the use of uninflected *אֵת* as an emphatic form in a few exceptional instances in Biblical Hebrew could have totally changed the grammatical structure in the Mishnaic Hebrew. Furthermore, as already noted (above, fn. 1), in Tannaitic Hebrew there is a sharp formal and syntactic separation between the ‘emphatic’ *אֵת שֶׁ-* and the modifying demonstrative *אות*-: the former always appears in an uninflected form as the antecedent of a relative clause, while the latter always appears in an inflected form as an attribute not followed by a relative clause. Had the latter form developed from the former, we would expect to find some overlap between the syntactical functions of the two pronouns.

Aaron D. Rubin (2005, 123) has suggested that this structure emerged due to a reanalysis of sentences such as

ראיתי אותו, האיש שראית ‘I saw **him**, the man you saw’,

which was reanalysed as

ראיתי אותו האיש שראית ‘I saw **that man** you saw’.

Through a process of grammaticalisation, the inflected object pronoun *אותו* then became a demonstrative pronoun. The problem in Rubin’s explanation is that there is no documented in-

¹² See Blau (1954); Samet (2020).

stance in Mishnaic Hebrew showing the structure **object pronoun + definite noun + relative clause**, which according to his reconstruction forms the starting point for this process.¹³

Azzan Yadin-Israel (2015, 339) has offered a convincing solution. He suggests that the complementary demonstrative pronoun developed due to the syntactical and phonetic similarity to the Greek word *αὐτός*, which serves as an anaphoric pronoun and pronoun of identity, in a manner similar to the object pronoun אורח in Mishnaic Hebrew.¹⁴ Yadin-Israel offers no evidence to support his suggestion. I shall seek to examine his proposal below in light of developments in Hebrew and Aramaic, and contact with Greek, and aim to substantiate his argument, while offering an alternative explanation for Mishnah Baba Batra 5.2 which he discusses.

¹³ I thank Prof. W. Randall Garr for the reference to Rubin. It should be added that in a similar instance in Biblical Hebrew, we find the repetition of the direct object marker: וְהָיָה הַגּוֹי וְהַמְּמֻלְכָה אֲשֶׁר לֹא-יַעֲבֹדוּ אֹתוֹ אֶת־ נְבוּכַדְנֶאֱצַר מֶלֶךְ-בָּבֶל 'And it shall come to pass, that the nation and the kingdom which will not serve **him, the same** Nebuchadnezzar king of Babylon' (Jer. 27.8; KJV). A partial similarity to the structure reconstructed by Rubin (though without a nucleus in the subordinate clause, cf. fn. 1 above) can be found in the verse: וַיִּמָּת אֹתוֹ אֲשֶׁר-הִפְקִיד מֶלֶךְ-בָּבֶל בְּאֶרֶץ 'and [he] slew him, whom the king of Babylon had made governor over the land' (Jer. 41.2; KJV). For a detailed discussion of prolepsis in Biblical Hebrew, see Kogut (1981–1982).

¹⁴ I thank Prof. Gary A. Rendsburg and Dr Uri Mor for the reference to Yadin-Israel.

4.0. Discussion

4.1. Aramaic Influence on the Position of the Complementary Pronoun

In Late Biblical Hebrew, we find several examples of the use of the distal demonstrative pronoun *הוא* before a proper noun. I shall mention two examples here:

- (4) וַיְהִי לְיְחִזְקִיָּהוּ עֶשֶׂר וְכָבוֹד הַרְבֵּה מְאֹד ... וְהוּא יְחִזְקִיָּהוּ סָתַם אֶת־מוֹצָא
מִיָּמֵי גִיחוֹן הַעֲלִיּוֹן

‘And Hezekiah had exceeding much riches and honour ...

This same Hezekiah also stopped the upper watercourse of Gihon.’ (2 Chron. 32.27, 30; KJV)

- (5) ... עֶזְרָא בֶן־שֵׁרַיָּה ... הוּא עֶזְרָא עָלָה מִבָּבֶל וְהוּא־סֹפֵר מְהִיר בְּתוֹרַת מֹשֶׁה ...
‘Ezra the son of Seraiah ... **This Ezra** went up from Babylon; and he was a ready scribe in the law of Moses.’ (Ezra 7.1, 6; KJV)

In one case at least the demonstrative pronoun *הוא* appears before a noun:

- (6) בְּאֶמְרֵי לְרָשָׁע רָשָׁע מוֹת תָּמוּת וְלֹא דַבַּרְתָּ לְהִזְהִיר רָשָׁע מִדַּרְכּוֹ הוּא רָשָׁע
בְּעוֹנֵי יָמוֹת וְדָמוֹ מִיָּדָךְ אֲבַקֵּשׁ:

‘When I say unto the wicked, O wicked man, thou shalt surely die; if thou dost not speak to warn the wicked from his way, **that wicked man** shall die in his iniquity; but his blood will I require at thine hand.’ (Ezek. 33.8; KJV)¹⁵

¹⁵ Some scholars argue that all these instances actually entail an appositional structure (‘he, that is to say: an evil one’) rather than a complementary demonstrative pronoun; for example, see Kogut (1981–1982,

The structure in Late Biblical Hebrew is reminiscent of the use of the demonstrative adjective pronoun אורז in Biblical Aramaic:

- (7) אורז צלמא ראשה די־דְהָב טָב
'As for **this image**, its head was of fine gold.' (Dan. 2.32; World English Bible)¹⁶

The phenomenon of placing a pronoun before the noun to which it refers (prolepsis or cataphora) is well documented in Aramaic. From as early as the Imperial Aramaic of the sixth century BCE, we have documentation of a periphrastic genitive construction with a proleptic possessive pronoun preceding the construct; this is also documented for Biblical Aramaic in the phrase

104). Even if these verses originally contained appositional structures, however, it will become apparent below that the translators of the Septuagint read a complementary pronoun in all three instances.

¹⁶ Compare Bauer and Leander (1927, 268, 270). Muraoka (1972, 10; 2011, 49; see also Fitzmyer 2004, 212; Pat-El 2012, 98–99) argues that in אורי הוא רוחא כתש לכולהון 'For the spirit attacked all of them' (Genesis Apocryphon 20.20) a demonstrative adjective pronoun precedes the noun: 'that spirit'. However, it seems to me that this is better parsed as the past form of *pe'al* הו"י: 'for the wind smote (lit. would smite) them all' paralleling the form in line 17: והואת כתשא לה ולכול אנש ביתה 'and it smote (lit. would smite) him and all his house'. See Avigad and Yadin (1956, 44). The scholars who parsed a pronoun here, rather than a verb, did not address this analogy. They rejected the view that אורז is a past form of the verb הו"י, since they did not find any other instance where the ancillary verb הוה is separated from the main verb by the subject. We should note, though, that it is equally true that there is no other instance in Qumran in which a complementary pronoun precedes the noun.

שְׁמֵהּ דִּי־אֱלֹהֵא ‘the name of God’, lit. ‘his name of God’ (Dan. 2.20). In Biblical Aramaic there are two instances (in addition to Dan. 2.32 mentioned above) where the demonstrative pronoun appears before the noun: דְּנָהּ בְּנִינָא ‘this building’ (Ezra 5.4); אֲלִין חֵיתָא ‘these beasts’ (Dan. 7.17).¹⁷

However, in most of the instances in which הוּא is used as a modifying demonstrative pronoun in the Aramaic dialects preceding Mishnaic Hebrew, it appears after, rather than before, the noun. Moreover, it is even difficult to find nominal clauses containing **noun + demonstrative adjective** הוּא functioning as an object. It is true that in the Nabataean Aramaic, this structure appears in the object function, as for example:

- (8) אַסְמִלְךְ בַּר עַבְדִּי כְרוּ גִנְתָּא הִי וּפְרַע דְּמִי כְרוּזָא הוּ
 ‘smlk son of ‘bdy proclaimed **that (same) grove** and paid off the price of **that same (writ of) proclamation.**’ (Papyrus Starcky [P. Yadin 36], Ins 17–18; Yardeni 2001, 132)

Still, even in Nabatean Aramaic הוּא is not used as an object pronoun (contrary to the plural demonstrative adjective pronoun אֲנֹנִי).¹⁸ Accordingly, it is difficult to suggest that the use of the

¹⁷ Since Kutscher (1971, 104–9), the growth of this phenomenon in Aramaic has conventionally been explained by way of Akkadian influence. For a review of the literature, examples from various Aramaic dialects, and a comprehensive discussion, see Pat-El (2012, 89–132).

¹⁸ In all the ancient Aramaic dialects we have found only two instances where הִי ‘it (f.)’ is used as an independent subject pronoun (Muraoka and Porten 1998, 156 §d). However, these instances may be parsed as prominence or focus. See Muraoka (2005, 34).

demonstrative adjective pronoun אִתּוֹ in Mishnaic Hebrew can be explained solely by reference to Aramaic.

4.2. Support for the Hypothesis of Greek Influence

Muraoka (2016, 74) notes with extreme brevity that the use of the Greek *αὐτός* as a pronoun of identity reminds us of the use of the object pronoun אִתּוֹ in Mishnaic Hebrew. He adds that the phrase אַתְּ-שֶׁעַתָּה בְּהַשְׁמַעְתָּ 'at the same moment' (Dan. 3.6; 5.5) in Biblical Aramaic is translated by the Septuagint as *αὐτῆ τῆ ὥρα, ἐν αὐτῆ τῆ ὥρα ἐξῆλλθον*.

We may add to this that even the instances in which הוּא serves as a pronoun preceding proper nouns, such as הוּא יְהוֹזָקִיהוּ (2 Chron. 32.3) and הוּא עֲזָרָה (Ezra 7.6), as mentioned above (examples 4–5, above), are translated in the Septuagint as *αὐτὸς Ἐξείας* and *αὐτὸς Ἑσδρας*. The proleptic pronoun preceding the indefinite noun mentioned above (example 7) in הוּא רָשָׁע 'that wicked man' (Ezek. 33.8) is also translated (with the addition of the definite pronoun absent in the Masoretic version) *αὐτὸς ὁ ἄνομος*.

The use of *αὐτός* both as an anaphoric pronoun and a pronoun of identity and as an independent pronoun in the oblique cases is known from classical Greek,¹⁹ and is documented extensively in the Greek documents uncovered in Wadi Murabba'at and in Naḥal Ḥever, which reflect the contemporary Greek of the Tannaitic period.

¹⁹ See Smyth (1920, 92–93, §328).

Here are two examples from the Greek Judean Desert documents:

(9) ὅταν δὲ παραγγελίῃ Σελα<μ>ψιοῦς τῷ αὐτῷ Ἰούδατι, τευχίζῃ αὐτὴν διὰ δημο-σίων.

‘And whenever Shelamzious summons the **said Judah** he will register **it** with public authorities.’ (Papyrus Yadin 19, Outer text, lns 25–27; Lewis 1989, 75)

(10) ὁ ἀργύριον ἀποδώσω σοι καλάνδαις Ἰανουαρίαις τῷ αὐτῷ ἔτει [τῆς] αὐτῆς ὑπατείας, τὸν δὲ τόκον χορηγήσω σοι τοῦ αὐτοῦ ἀργυρίου κατὰ μῆνα ὡς τῶ[ν] ἑκατὸν δ[η]να[ρ]ων δ[η]γαρον. ἔν κατὰ μῆνα.

‘which money I will repay to you on the kalends of January in the **same year** during the **said consulship**, and the interest of the **said money** I will deliver to you monthly at the rate of one denarius per hundred denarii per month.’ (Papyrus Yadin 11, Outer text, lns 19–22; Lewis 1989, 45)

The syntactic analogy to the Greek is complete in all respects—both in the position of the pronoun and in its double function as an independent object pronoun and a pronoun of identity. Accordingly, this seems to us to offer the best explanation for the change in Rabbinic Hebrew. It is even possible that the similarity between the sound of the Greek and Hebrew words facilitated the influencing of the Hebrew structure by the Greek one.

4.3. Additional Instances of Greek Influence on Function Words in Rabbinic Hebrew

A similar example of Greek influence on Hebrew in the area of pronouns has been identified elsewhere. The influence of the

Greek pronoun *ἄλλος* on the use of the pronoun הָלֵךְ in Tannaitic Hebrew to mark a change in the subject of the sentence has been discussed by Breuer (2002, 215 n. 257). This instance shows that Greek pronouns may have penetrated, or at least influenced, Mishnaic Hebrew.²⁰

Lieberman (1950, 298–99) noted an additional function word that shows Greek influence. He clarified the phrase בפרוס הפסח ‘before Passover’ in Tannaitic Hebrew in light of Greek *πρός* ‘before’. The common feature linking all these four words is the phonetic similarity between the relevant Greek and Hebrew words.

5.0. The Extreme Nature of the Change

The shift אהוה > אוהו is much more significant than other changes in involving independent pronouns, such as זאת > זו, הנה > הן. In these pronouns the connection to the Biblical Hebrew pronouns is still preserved and the pronoun accompanies the noun it complements as in Biblical Hebrew. It is also possible that the Mishnaic Hebrew pronouns reflect a dialect of Hebrew that existed alongside Biblical Hebrew. But the dramatic shift of the demonstrative pronoun אהוה > אוהו required special motivation. I will seek to offer two complementary avenues of research that may resolve this problem: genre and morphosyntax.

²⁰ The fact that Greek *ἄλλος* did not affect the final vowel of הָלֵךְ may indicate that Greek only influenced the meaning and use of existing particles in Hebrew (the element הָלֵךְ appears in the existing pronoun הַלֵּךְ), and was not responsible for the creation of new Hebrew particles.

5.1. The Legal Genre's Influence

Crystal and Davy (1961, 202) noted that legal documents are careful to repeat the identification of the characters and of the assets to which they refer in an excessive manner in order to prevent any possibility of ambiguity.²¹ Examples of this can be found in the Nabataean Aramaic Papyrus Starcky, and in the Greek Papyri Yadin 11 and 19, all mentioned above. The same phenomenon is found in Palestinian Aramaic and Hebrew documents of the period. The heightened use of the pronoun of identity in the legal genre may have led to the routine use of the common Greek pronoun in the casual register.

5.2. Omission of Definiteness in the Phrase Nucleus + Demonstrative Pronoun

Perhaps we should liken this shift to another change between Biblical and Rabbinic Hebrew in the field of the definiteness of pronouns. The structure **indefinite noun + indefinite demonstrative adjective pronoun** appears just once in the Bible: וּפְקֹד גִּפְנֵי זֵאֵה 'and be mindful of **this vine**' (Ps. 80.15), but is the standard structure in Rabbinic Hebrew.²² Based on the set of proximal pronouns—איש זה, אישה זו, אנשים אילו—we would anticipate the following distal set: *איש הוא, *אישה היא, *אנשים הן. However, the absence of the definite article from the demonstrative adjective pronoun was liable to create confusion between הוא as a demonstrative adjective pronoun, הוא as an independent demonstrative

²¹ I thank Prof. Daniel R. Schwartz for the reference to Crystal and Davy.

²² See Kaddari (1991, 214); Azar (1995, 211).

pronoun, and *הוא* as a copula. The use of the new pronoun *אותו* removed this ambiguity and permitted a distinction between the anaphoric pronoun and pronoun of identity and the independent demonstrative pronoun.

5.2.1. Mishnah Baba Batra 5.2

A good illustration of the syntactic ambiguity created by the omission of definiteness in the demonstrative pronoun *הוא* > *ההוא* can be found in the various versions and interpretations of Mishnah Baba Batra 5.2. In this Mishna, R. Judah discusses whether someone who sells an ass also sells the ass's trappings. He distinguishes between two instances:

- (11) המוכר את החמור, לא מכר את כליו. נחום המדי או': מכר את כליו. ר' יהודה אומר: פעמים מכורים, ופעמים שאינן מכורים. כיצד? היה חמור לפניו וכליו עליו, אמ' לו: 'מכור לי חמורך זו!'—כיליו מכורים. 'חמורך הה(י)[ו]א'—אין כליו מכורים.

'If a man sold an ass he has not sold its trappings. Nahum the Mede says: He has sold its trappings also. R. Judah says: Sometimes they are sold with it and sometimes not; thus, if the ass was before him and it bore its trappings and he said, 'Sell me this ass of thine', all the trappings are sold too; [but if he said, 'Sell me] that ass of thine', its trappings are not sold with it.' (Danby 1933, 372)

The use of the Biblical pronoun *ההוא* here instead of simply Mishnaic *אותו** requires explanation. It may emphasize its

deictic (rather than anaphoric) function, i.e., the ass standing there, and not here (see fn. 5, above).²³

In all Mishnaic manuscripts of the Palestinian branch, we find *חמורך ההיא/ההוא*, with a possessive pronoun before the complementary definite demonstrative pronoun.²⁴ Conversely, all textual witnesses of the Babylonian branch have *חמורך הוא*.²⁵ The omission of the definite article from the pronoun in the Babylonian manuscripts (perhaps under the influence of the absence of definiteness in the demonstrative pronoun in the preceding phrase *חמורך זו*) created a difficulty in understanding the text.

The sentence *חמורך ההיא* is elliptical—it contains only the object, and does not include the principal component *מכור לי*. As long as the definite article was included before the demonstrative pronoun in the phrase *חמורך ההוא*, it was evident that this was not an independent sentence, but rather a nominal phrase to be completed according to the preceding sentence. However, the Babylonian version *חמורך הוא* has the appearance of a regular nominal sentence, and accordingly this led the Babylonian Amoraites, and subsequently many exegetes of the Mishna, to understand the phrase as an independent sentence, which in context must be a

²³ It is noteworthy that in order to express the possessive pronoun *חמורך* ‘your ass’ with the Mishnaic demonstrative *אותה* three words are required: *חמורך אותה חמור שלך** instead of only two, as in *חמורך ההיא*.

²⁴ This is the version in these manuscripts: Parma 3173 (De Rossi 138); Kaufmann A 50; Cambridge Add.470.1 (Lowe); Pococke 295 (Maimonides’ autograph); T-S E1.107 (Babylonian punctuation).

²⁵ This is the version in these manuscripts: Munich 95; Paris 1337; Escorial G 1.3.1; Vatican Ebr. 115b; Hamburg 165.

question:²⁶ the buyer asks the seller whether the ass belongs to the seller.

- (12) ר' יהודה או': פעמים מכורין. מאי שנא רישא ומאי שנא סופא? אמ' רבא: רישא דידע דחמרא דידיה הוא, והאי דקאמ' ליה 'זה' משום כליו קא אמ' ליה. סופא דלא ידע דחמארא דידיה הוא, והכי קאמ' ליה: חמורך הוא שתמכרנו לך?

‘R. JUDAH SAYS: SOMETIMES IT IS SOLD, etc. What is the difference between THIS ASS OF YOURS and IS THE ASS YOURS?—Raba said: [When the buyer used the expression,] THIS ASS OF YOURS, he was aware that the ass was his, and the reason, therefore, why he said unto him, “THIS” [must have been] on account of its equipment. [But when he asked], “IS THE ASS YOURS?” [he did so] because he was not aware that the ass was his, and this was [the implication of] his inquiry: “Is the ass yours? Sell it to me.” (Babylonian Talmud Baba Batra 78b; Slotki and Epstein 1989, 78b)

R. Yishma‘el ben Hakhmon (prob. Egypt, thirteenth century), who was familiar with the versions in both the Palestinian and the Babylonian branches, offered two interpretations:

²⁶ Yalon (1971, 106) argued briefly in favour of linking the explanation of the Mishna in the Babylonian Talmud to the differences between the Palestinian and Babylonian versions, contradicting Segal (1936, 51), who asserted that the Talmud’s interpretation was ungrammatical. Yadin-Israel (2015, 336–37) also suggested that the interpretation in the Talmud reflects a misunderstanding of Tannaitic Hebrew during the Amoraic period, ignoring the divergence of versions between the Babylonian and Palestinian branches.

- (13) 'כיצד היה חמור לפניו וכליו עליו, אמ' לו מכור לי חמורך זה, כליו מכורין'—שכיון שידע הלוקח שהיא חמורו, ואמר לו 'זה'—לקנות כלים שעליו נתכוין, וקנה כלים שעליו. 'חמורך ההוא'—כלומר, חמור פלוני שיש לך. ובקצת נוסחאות של תלמוד כתוב 'חמורך הוא זה', שנמצא כמי שלא ידע שהוא חמורו ושאל עליו—אין כליו מכורין, שלא נתכוין זה לקנות הכלים.
- 'IF THE ASS WAS BEFORE HIM AND IT BORE ITS TRAPPINGS AND HE SAID, "SELL ME THIS ASS OF THINE," THE TRAPPINGS ARE SOLD TOO, for since the buyer knew that it is his ass, and he said to him זה ('this') he intended to buy the vessels on it, and he bought the vessels on it. חמורך ההוא ('that ass of thine')—that is, a particular ass belonging to you. Some versions of the Talmud have זה חמורך הוא ('is the ass yours?'), which indicates that he did not know that it was his ass, and asked him "the vessels are not sold," since he did not intend to buy the vessels.' (Hershler 1989, 122–23)

In my opinion, this example usefully illustrates the advantage of using the pronoun *אותו* rather than the indefinite pronoun *הוא*.

5.2.2. Comparison to the Development of the Demonstrative Pronouns in Palestinian Aramaic

This explanation is arguably supported by an analogous development in the Aramaic dialects used in the Palestinian translations of all the demonstrative pronouns, both proximal and distal. Tal (1979, 46–51) pointed out that a distinction began to emerge between the demonstrative adjective pronoun, which was preceded by *ה*, such as *באורחה הדין* 'in that way' (Targum Fragments Gen. 28.20 [Klein 1986, 37]; Tal 1979, 48), and the independent pronoun, which remained without *ה*, as in *דין סימן קיימה* 'This is the

sign of the covenant' (Targum Fragments Gen. 9.12 [Klein 1986, 25]; Tal 1979, 47). The addition of the ה in Aramaic was presumably intended to create a distinction between these different syntactical functions, independent pronoun as opposed to adjective pronoun. In Rabbinic Hebrew, which removed the definite article from the demonstrative adjective pronoun, the adjective pronoun הוּא was replaced by אוֹתוּ in order to distinguish it from the independent pronoun. In any case, the very dramatic change in the marking of definiteness on pronouns that undermined the biblical pronominal system certainly facilitated the absorption of the new pronoun from Greek.

6.0. Conclusion

The change from הוּא to אוֹתוּ is the result of language contact. Aramaic encouraged the prolepsis, but the change in the pronoun reflects the influence of a Greek pronoun with a similar sound and syntactic functions, as scholars have shown regarding other function words in Mishnaic Hebrew.

In light of this conclusion, it would seem that we should separate the discussion of the development of the pronoun אַתְּ-שׁ in Tannaitic Hebrew from that of the inflected pronoun אוֹתוּ + noun, contrary to the prevailing opinion in earlier studies.²⁷

The conclusion reached in this article may also have ramifications regarding the question of the definiteness of the nucleus for which the pronoun אוֹתוּ serves as complement. In light of the situation in Greek and Aramaic, it might have been expected that

²⁷ See, e.g., GKC (365, §117i); Segal (1927, 202); Oron (1990, 33); Waltke and O'Connor (1990, 178).

Mishnaic Hebrew would also show definiteness in the nucleus, contrary to the accepted view in the literature that this definiteness was added due to the need to separate two consecutive stressed syllables.²⁸ This question should be re-examined in light of all the selected witnesses of the Talmudic literature. However, such clarification lies beyond the scope of the present article; I hope to discuss it elsewhere.²⁹

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²⁸ See Mirski (1941); Sarfatti (1980).

²⁹ I would like to mention here the late Prof. Edit Doron who asked me about this surprising shift in an email in December 2015 and aroused my curiosity. May her memory be blessed.

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THE BIBLICAL HEBREW SHORT *YIQTOL* AND THE ‘CONSECUTIVE TENSES’

Bo Isaksson

It is commonly held in the theory of ‘consecutive tenses’ that *way-yiqtol* in the synchronic state of Standard Biblical Hebrew (SBH) stands in temporal, aspectual, and modal opposition to ‘*waw*-less’ *yiqtol*, and that the ‘consecutive *waw*’ in *wayyiqtol* has certain semantic, pragmatic, or discourse-conditioned notions in contrast to usual ‘copulative *waw*’. The semantics of the ‘consecutive *waw*’ are described as one of (temporal or logical) sequentiality or foregrounding. This article examines the linguistic reality behind these assumptions.

1.0. The Status of the Short *yiqtol* as a Separate Verbal Morpheme in SBH

Comparative research uniformly testifies that the short *yiqtol* in Biblical Hebrew has its historical background in an old short prefix conjugation *yaqtul* with perfective meaning.¹

¹ Huehnergard (2005; 2019, 62); Kouwenberg (2010, 126ff.); Hackett (2012); Hasselbach (2013, 329); Kossmann and Suchard (2018, 47, 52). Baranowski (2016b, 1) writes: “If there is anything absolutely certain in the historical understanding of the Semitic verbal system, it is the reconstruction of a short prefixed form with the perfective meaning,

The freestanding short *yiqtol* form is attested with two basic meanings in archaic Biblical Hebrew poetry, indicative (past) and jussive (Notarius 2013, 305, 307, 313).² In classical prose the indicative meanings of short *yiqtol* are restricted by word order to the *wayyiqtol* syntagm. In comparison with the relatively free usage of short *yaqtul* in Amarna Canaanite, the indicative short *yiqtol* in SBH has been replaced by *qatal* in most positions and functions; the only exception to this replacement is the *wayyiqtol* syntagm (Baranowski 2016a, §4.2). By contrast, the jussive short *yiqtol* is retained in SBH, including in freestanding form (see Table 1).³

Table 1: Short *yiqtol* past and jussive meanings (Tiberian vocalisation)

	indicative (past)	jussive⁴
Archaic Hebrew poetry ⁵	<i>Ø-yiqtol, wayyiqtol</i>	<i>Ø-yiqtol, wə-yiqtol</i>
Classical prose	<i>wayyiqtol</i>	<i>Ø-yiqtol, wə-yiqtol</i>

used typically as the past tense in the indicative and as the directive-volitive form.”

² Since the theme of the present article is the short *yiqtol* in relation to the ‘consecutive tenses’, the jussive short *yiqtol* is only peripherally treated in the discussion below and no examples are given.

³ “It thus happens fairly frequently that perfective categories may have non-past reference in non-indicative moods or (which is the same thing) certain non-assertive contexts” (Bybee and Dahl 1989, 84). See also Palmer (2001, ch. 8).

⁴ The restriction to first position in the clause indicated in the table holds for affirmative jussive clauses. Clauses negated by *ʾal* exhibit a relatively free word order in SBH.

⁵ In the archaic phase of the language, the initial position of the verb is a tendency for which there are some possible exceptions: on Deut. 32.18, see Waltke and O’Connor (1990, 558); Joosten (2012, 417); Notarius (2013, 78, 307; 2015, 240).

The *wayyiqtol* clause-type plays a major role in the system of consecutive tenses and has been the subject of an immense body of scholarly literature. Especially problematic is the nature of the *waw* conjunction in *wayyiqtol*. Scholarly positions are illustrated in a surprising way by debate about the Aramaic Tel Dan inscription. Dated to the second half of the 9th century BCE, this old Aramaic text is approximately contemporary with the SBH period. The text type can be characterised as a retrospective report:

וישכב . אבי . יהך אל .] אבהו[ה .
 ויעל . מלך י[ש] 4 ראל . קדם . בארק . אבִי] .
 ו]יהמלך . הדד [. א]יתי . 5 אנה .
 ויהך . הדד . קדמי] .
 ו]אפק . מן . שִׁבְעָת] . 6 י מלכי .
 ואקתל . מל[כן שב]עֶן אֲסִרִי . א]לפי . ר[7 כב . ואלפי פרש .
 וקתלת . אית . יו]רם . בר .] אחאב . 8 מלך . ישראל .
 וקתל]ת . אית . אחז]יהו . בר] . יורם . מל[9 ד . בית דוד .
] ואשִׁם .

³ and my father **lay down** (and) went to [his ancestors.] Now the king of ⁴ Israel **had** formerly **entered** in my father's land. [But] Hadad **made me king**.
⁵ And Hadad **went** before me, [and] **I departed** from seven[...] ⁶ of my kingdom. **And I killed** seven[nty ki]ngs, who harnessed thou[sands of cha] ⁷ riots and thousands of horsemen. [And I killed Jo]ram, son of [Ahab,] ⁸ king of Israel, and [I] killed [Ahazi]yahu, son of [Joram, kin] ⁹ g of the house of David; **and I**

set [... and I overthrew] (KAI⁵ 310.3–9; Biran and Naveh 1993; 1995)⁶

This early Aramaic inscription aroused intense debate on the conjunction *waw* in *wayyiqtol* in Biblical Hebrew. The reason was that the inscription contains a number of verbal forms that are semantically and syntactically similar to the SBH *wayyiqtol*: וישב, ויעל, ואשם, ואקחל, ואפק, ויהד, ויהמלך, ויעל. The scholarly discussion came to focus on the *waw* preceding the five (or possibly seven) narrative prefix forms. In Biblical Hebrew grammar such a *waw* would have been considered ‘consecutive’ or ‘conversive’, and thus a central feature in the system of ‘consecutive tenses’. But Takamitsu Muraoka (1995a; 1995b; 1998; with Rogland 1998; also Kottsieper 1999, 62, 71 fn. 67) took the position that Biblical Hebrew was unique on this point:

‘inversive *waw*’ is a unique innovation in Biblical Hebrew;
 two different types of conjunction -ו existed only in Biblical Hebrew;
 the conjunction in Aramaic can only be a normal -ו, so -ו in the Tel Dan *w-yqtl* forms must be ‘simple *waw*’;
 there is no need to assume a ‘conversion’ of *yqtl* in Aramaic.

The majority of scholars, however, have disagreed with Muraoka and argue that:⁷

⁶ The *w-yqtl* forms are underlined in the Aramaic text and are set in boldface type in the translation.

⁷ For example, Biran and Naveh (1993, 91); Emerton (1994); Sasson (1997, 113ff., 117); Fales (2011, 559, 568). Cf. Garr (1985, 184–86); Smith (1991, 18ff.).

w-yqtl in the Aramaic of Tel Dan has the same function and meaning as *wayyiqtol* in Biblical Hebrew; the conjunction -ו in Tel Dan's *w-yqtl* forms must be a 'conversive' or 'consecutive *waw*'; there were two different types of conjunction -ו in both early Aramaic and Biblical Hebrew.

It is striking that, in the wake of this discussion, practically no scholar has adopted the view that for both early Aramaic and SBH there was only one 'natural language connective' -ו 'and'.⁸

The traditional system of consecutive tenses in Biblical Hebrew has three hallmarks:⁹

1. The syntactic distributional opposition between clause-initial¹⁰ *waw*-consecutive forms and the corresponding non-initial *waw*-less forms. This means that *wayyiqtol* and *wə-qatal* are clause-initial, while long *yiqtol* forms and *qatal* forms must be non-initial.¹¹

⁸ For the term 'natural language connective', see Van Dijk (1977, 58). I owe this reference to Khan (1991).

⁹ Following Notarius (2013, 22).

¹⁰ An important element of Biblical Hebrew syntax is the understanding that the conjunction -ו is not reckoned as the first element in the clause, which would otherwise render the verb form itself non-clause-initial. This also holds for jussive *wə-yiqtol* clauses, in which -ו is regarded as 'copulative', as in וַיִּפְקֹד פְּקֻדָּיִם 'and he should appoint supervisors' (Gen. 41.34). All other conjunctions (such as *kī*) render a following verb non-initial.

¹¹ The latter is certainly a false rule of thumb. It is roughly valid only in the known corpus of narrative prose, but does not hold in other types of text, such as direct speech, report, and poetry (see Revell 1989, 33,

2. The explicit opposition in temporal, aspectual, and modal semantics between two pairs of constructions: *way-yiqtol* / *qaṭal* and *wə-qaṭal* / long *yiqtol*.¹² In summary: *way-yiqtol* ‘equals’ *qaṭal* (past meaning), and *wə-qaṭal* ‘equals’ long *yiqtol* (present/future meaning).¹³ In such presentations it is usually ignored that -ו functions as a conjunction; rather, the -ו is considered an intrinsic part of the verb form.

with the corpus Judges–Kings). Counterevidence in narrative includes: Gen. 18.11 (anterior elaboration); 48.14 (elaboration, Driver 1892, §163); Num. 11.8 (according to Joosten 2012, 218, a completely irregular usage of initial *qaṭal* in narrative); Josh. 11.12 (possibly elaboration, but Driver 1892, §163: circumstantial); Judg. 2.17 (elaboration, not discussed in Driver 1892). Non-narrative counterevidence from Genesis: 14.22; 21.7; 23.13; 27.35 (report); 30.6, 18; 31.41 (report), 38.24, 26; 39.14; 42.28, 30 (report); 45.16 (report); 49.9 (archaic poetry). A more modern and valid formulation of this syntactic distribution would be to regard word order, that is, the position of the verb in the clause, as a decisive factor in the formal marking of the distinction between irrealis short *yiqtol* (jussive) and imperfective long *yiqtol*, the morphologies of which had become largely homonymous (Isaksson 2015b). Notarius calls this phenomenon a “complementary syntactic distribution” and it certainly “puts recent research at odds with the traditional opposition between volitive and indicative systems” (Notarius 2013, 17; similarly Hornkohl 2018, 33).

¹² Irrealis (jussive) *wə-yiqtol* is not accounted for in this opposition, as is noted by Hornkohl (2018, 33). See also the criticism in Notarius (2013, 17).

¹³ Second point in Hornkohl (2018, 33). This is what Blau (2010, 190) calls “a **double set of tenses**, because of the existence of the so-called converted tenses, opening with the so-called conversive *waw*” (Blau’s emphasis). Blau prefers, however, the term ‘preserving *waw*’, because,

3. Certain semantic, pragmatic, or discourse-conditioned notions associated with the ‘*waw*-consecutive’ constructions *wayyiqtol* and *wə-qaṭal*, in contrast to their ‘*waw*-less’ counterparts *qaṭal* and long *yiqtol*.¹⁴ The difference between the pairs is usually described as one of (temporal or logical) sequentiality or foregrounding pertaining to the *waw*-consecutive clauses, in contrast to the non-consecutive verb forms.

in his view “after *waw* the archaic usage of the tenses has been preserved.” This terminology contains a nucleus of truth, because *wayyiqtol* (except the gemination) is a retention from Proto-Semitic, and *wə-qaṭal* has developed from early, possibly prototypical meanings of the perfective *qaṭal* formation inherited from West-Semitic (Bergsträsser 1929, §3g). But Blau’s statement fails to account for the obvious imperfective meanings of *wə-qaṭal* in its interaction with the long *yiqtol* grammatical morpheme in SBH. Many scholars also argue that the *wə-qaṭal* was formed by “the paradigmatic pressure of the *waw* with the prefix-tense to establish a parallel feature in the suffix-tense” (Blau 2010, 198; similarly, Bergsträsser 1929, §3g). According to this view, -י in *wayyiqtol* was synchronically interpreted as conversive in SBH, and this conversive tense inspired the formation of another conversive tense *wə-qaṭal* with a conversive -י.

¹⁴ With the terminology ‘forms without *waw*’ or ‘*waw*-less forms’ (as in Hornkohl 2018, 33, 54), it generally goes unacknowledged that in a Biblical Hebrew text ‘forms without *waw*’ commonly occur in clauses with initial -י, only that the verb form does not follow directly after the conjunction. There are certainly also clauses that are joined asyndetically, and they deserve to be recognised, but most clauses are linked with -י in SBH prose. The problem with, and legacy of, the terminology ‘*waw*-less form’ is an unfruitful focus on the single verb form to the detriment of the corresponding clause.

This is a bewildering complex of suppositions about the Biblical Hebrew verb system.¹⁵ Hornkohl concludes that the observations contained in the traditional description of the SBH verbal system “have little explanatory value,” and that there is redundancy in the system of forms, which “demands an explanation” (2018, 33). At the heart of the matter stands the role of word order in a conspicuous alternation of clauses with initial verb (type *wa-VX*) and clauses with non-initial verb (usually type *wa-XV*).¹⁶ SBH grammars describe an alternation of ‘forms’ in double pairs: *wayyiqtol* alternates with its ‘equivalent’ *qatal*, and *wə-qatal* alternates with its ‘equivalent’ long *yiqtol*. The grammars state that the connection between the -ו and the verb in the ‘consecutive tenses’ is ‘fixed’: if an element *X* is to be inserted for topicalisation before the verb, the ‘equivalent’ in the pairs must be used: *X-qatal* and *X-long yiqtol* respectively (Blau 2010, 190).¹⁷

¹⁵ In the second reprint of the second edition (with corrections 2009), the prestigious grammar of Joüon and Muraoka (2006) still assigns the formation “*wayyiqtol*” the value “inverted future” (§118a) and “*w-qatal*” is called “inverted perfect” (§119a).

¹⁶ According to many scholars this alternation is to be interpreted as a “grammatical encoding of temporal sequence, presumably by means of the *waw*-consecutive tenses ויקטל and ויקטל” (Notarius 2013, 21). But temporal sequence is far too narrow an interpretation of -ו in the clause-types *wayyiqtol* and *wə-qatal* (Hornkohl 2018, 34, 46).

¹⁷ Blau (2010, 190) argues that it is possible to explain the alternation as triggered by syntactic ‘possibility’: when “it is possible to apply connective *waw*” (i.e., a proclitic -ו directly before a verb form), the forms with ‘conversive’ *waw* are used (Blau uses double quotation marks around the term ‘conversive’). But this is not “a satisfactory explanation for this alternation.” The realis *wayyiqtol* is a vestige of a much wider

Tropper (1996; 1998), Van de Sande (2008, 206–39), and Cook (2012, 315) have all argued for a single conjunction $\text{-}\dot{\text{v}}$ in Biblical Hebrew.¹⁸ But since they have been unable to account for a system of ‘consecutive tenses’ with only one conjunction $\text{-}\dot{\text{v}}$, they have met with little response.¹⁹

usage (thus also Blau 2010, 195), and *qaṭal* is an upstart and usurper in the field of application of the old Semitic perfective **yaqtul*; and the specific imperfective application of *wə-qaṭal* is an internal SBH development, a replacement of long *yiqtol* when the latter could no longer be used in initial (*w-VX*) position.

¹⁸ The position of Bergsträsser (1929, §§2b, 5e) is quite different. The $\text{-}\dot{\text{v}}$ in “Imperf. cons.” is surely a reflex of Proto-Semitic **wa* ‘and’. But the gemination “ist entstanden als Vortonverdoppelung,” a phonological phenomenon that must have taken place in Proto-Hebrew. In Biblical Hebrew, possibly with the exception of some archaic poetic texts (§7h), the $\text{-}\dot{\text{v}}$ with gemination before the “Imperf.” has become a sign of conversion of the ‘imperfect’. Residues of “die alte präteritale Bedeutung des Imperf.” were “vom Sprachbewußtsein nicht mehr verstanden” (§7g). Thus, from a synchronic perspective of SBH, there were in Bergsträsser’s view two different types of conjunction $\text{-}\dot{\text{v}}$. The $\text{-}\dot{\text{v}}$ that retained full vowel *a* + gemination of the prefix consonant was a distinctive signal of preterite meaning (“einem Merkmal der Form,” Knudtzon 1892, 52 fn. 1, to whom Bergsträsser refers). This $\text{-}\dot{\text{v}}$ Bergsträsser calls “ $\dot{\text{v}}$ consecutivum.” In addition a $\text{-}\dot{\text{v}}$ without gemination is called “ $\dot{\text{v}}$ copulativum” (§5e). “Nach $\dot{\text{v}}$ „und“ (vor dem Imperf. $\dot{\text{v}}$) — sog. $\dot{\text{v}}$ consecutivum — kehren sich die Tempusbedeutungen um” (§2b). By analogy the $\text{-}\dot{\text{v}}$ in *wə-qaṭal* is called “ $\dot{\text{v}}$ consecutivum” (§9) (though it exhibits no gemination). In contrast to Bergsträsser, the position of Tropper, Van de Sande, Cook, and the present author is that, synchronically, SBH had just one conjunction $\text{-}\dot{\text{v}}$ ‘and’.

¹⁹ Van de Sande’s (2008) main contributions to the question are (1) that that there is only one $\text{-}\dot{\text{v}}$ in Biblical Hebrew (with normal coordinating

It is my thesis that the basic supposition of Tropper, Van de Sande, and Cook accords with the linguistic reality in the SBH texts: there was no distinction between *way-* and *wə-*. There was only one conjunction *wa* ‘and’. To prove this assumption, I argue that SBH text-linguistics must be able to account for the following issues:

function) and (2) that the difference in pronunciation between *waC-* and *wə-* is a Masoretic innovation. Both Van de Sande and Tropper lack a text-linguistic perspective and fail to explain how their three-part verbal system (short *yiqtol*, long *yiqtol*, *qatal*) is related to the ‘consecutive tenses’. Tropper (1998; cf. also 1996) does not show how and why the *wə-qatal* syntagm in Biblical Hebrew could acquire the meanings typical of the imperfective long *yiqtol*. Tropper’s short sketch on this point (1998, 184–86) is insufficient. Another weakness is a lack of acquaintance with cross-linguistic grammaticalisation theory, as is found, for example, in Bybee et al. (1994) and Dahl (2000). This leaves him unable to explain how a perfective formation (e.g., the Akkadian *iprus*) can have all the meanings he discusses (Tropper 1998, 158ff.). Tropper’s argumentation for a secondary lengthening of short *yiqtol* forms in III-y/w verbs in SBH is unconvincing, since most examples of such lengthening are found outside the corpus Genesis to Judges, a fact that is clearly shown in Stipp (1987), and he also fails to recognise that other Northwest Semitic languages exhibit similarly shortened forms (Tropper 1998, 167). Tropper draws no diachronic distinction between text examples, and treats poetry side-by-side with prose. Archaic Biblical Hebrew texts should be held apart, and SBH examples apart from LBH. Instead, all examples are given without discrimination (as in Tropper 1998, 170ff.). For such reasons his argumentation, although comparative in perspective, has seemed unconvincing to Hebrew scholarship. The strengths of Cook’s work (2012) are the methodological chapters and his critical assessment of current research, but his own treatment of the verbal system fails to convince.

1. the status of short *yiqtol* (with both past and jussive meanings) as a separate verbal morpheme distinct from long *yiqtol*;
2. why *wa-* has two formal variants (*wə-* and *way-*) in the Masoretic Text;
3. the linguistic reality behind *wa-* in the ‘consecutive tenses’;
4. how long *yiqtol* was distinguished from short *yiqtol*;
5. why *qatal* came to alternate with *wayyiqtol*;
6. why *wə-qatal* acquired imperfective meanings and came to alternate with the inherited long *yiqtol* (< **yaqtulu*).²⁰

I have already discussed in brief the status of the short *yiqtol*. In the following I touch upon numbers 2 and 3. I begin with the differentiation of the conjunction *wa-*. After that, I continue with the linguistic reality behind *wa-* in the ‘consecutive tenses’. Finally, some text examples are given.

My paper is based on:

a *corpus* of SBH texts: the Pentateuch and the book of Judges;

a *database* of classified syntactic samples from the corpus (6200 records).

²⁰ The SBH long *yiqtol* formation was inherited from at least as far back as Central Semitic (Huehnergard 2005, 157–65; Kogan 2015, 131, 158–66). Some scholars even argue that *yaqtulu* is Proto-Semitic (Kouwenberg 2010, 103).

In the following I use the term ‘Classical Hebrew’ (CH) for this corpus. It is intentionally restricted to secure a reasonably consistent synchronic representation of SBH.²¹

2.0. Why *wa* Has Two Formal Variants (*wā-* and *way-*) in the Masoretic Text

The vowel signs were created by the Masoretes in Tiberias for the purpose of preserving in writing the reading tradition of the biblical text. The reading tradition had roots as far back as the Second Temple Period. The problem for us later scholars is that competence in the Tiberian reading tradition and in the phonetic realisation of its written signs fell into oblivion during the Middle Ages. The Tiberian sign system that is transmitted to us in various editions of *Biblia Hebraica* can be considered a *fossil* of this tradition. We have two main sources to achieve knowledge about the meaning of the signs (Khan 2018, 324):

- Karaite Arabic transcriptions of the Hebrew Bible from the 10th and 11th centuries;
- Masoretic treatises on the Tiberian pronunciation from the early 11th century.

The sources show that in the Tiberian reading tradition the basic realisation of *shewa mobile* was as a short vowel with the same quality as *pataḥ* (Khan 2013a, 98; 2013b). This means that the two variants *wā-* (written with *shewa mobile*) and *way-* (written with *pataḥ* and *dagesh forte*) were read with the same vowel quality:

²¹ For SBH/CH, see Lam and Pardee (2016).

וַיִּקְטֹל was read *wa-yiqṭōl* ‘and let him kill’

וַיִּקְטֹל was read *way-yiqṭōl* ‘and he killed’

The difference in the reading of the two types of clauses is restricted to gemination because the vowel quality of the conjunction was the same for both variants of the conjunction *wa-* (Khan 1991, 241 fn. 17; 2013a, 98; 2013b).

We must now scrutinise the gemination in *wayyiqtol*. There is a dot in the *yod* called *dagesh forte*: וַיִּקְטֹל. Gemination (marked with *dagesh forte*) was sometimes utilised in the Tiberian reading tradition (and even more frequently in the Babylonian reading tradition) in order to distinguish between otherwise homophonous words (Khan 2018, 340ff.). For example:

עַל-רִיב לְאִלּוֹ [‘al-ri:v llo: lo:] ‘concerning a quarrel not his’
(Prov. 26.17)

In the example the two final words *lō* are at risk of being confused in the reading and are therefore distinguished by means of gemination of *lamed* in the negation *lō*. The two words were already distinct *in written form*, but the problem was that they were homophones *in the reading*. This danger of ambiguity was remedied in the reading tradition during the Second Temple Period via lengthening of *lamed*, marked with *dagesh forte* (Yeivin 1980, 49, 294; Khan 2018, 341, 344).²² This effort to avoid homophony is a type of ‘orthoepic’ strategy. According to Khan, the Masoretes

²² This strategy to distinguish semantic differences in cases of homophony is also found in the Babylonian reading tradition, Rabbinic Hebrew, the Samaritan reading of the Pentateuch, as well as in the living oral Aramaic tradition among Yemenite Jews (Khan 2018, 343–45).

standardised a distinction that had already arisen in Second Temple times (Yeivin 1980, 49, 294; Khan 2018, 341, 344).

The gemination is fairly old, but it was not a feature of CH. Rather, in CH the inherited homophony between jussive short *yiqṭol* and indicative short *yiqṭol* persisted (Khan 2020, I:534):²³

ויקטל *wa-yiqṭōl* [wa-jiq^lt^o:l] ‘and let him kill’²⁴

ויקטל *wa-yiqṭōl* [wa-jiq^lt^o:l] ‘and he killed’

Thus, in order to avoid confusion and achieve clarity, the reading tradition introduced gemination of the prefix consonant in the reading of the text:

ויקטל *wa-yiqṭōl* [wa-jiq^lt^o:l] ‘and let him kill’

ויקטל *way-yiqṭōl* [waʔ-jiq^lt^o:l] ‘and he killed’

For CH it is reasonable to reckon with homophony between an indicative narrative *wa-yiqṭol* and a jussive *wa-yiqṭol*, both expressing discourse continuity, but in different domains.²⁵

To sum up: speakers and writers of CH made no distinction between two different *wa-* conjunctions. Such a distinction occurred in the reading tradition after the classical period, probably already in the Second Temple period.

²³ This conclusion, based on Khan’s studies of the Masoretic Text, has received additional support by an investigation of Greek and Latin transcriptions, recently published by Kantor (2020, 95, 99, 104, 116).

²⁴ I follow here the transcription system of Khan (2020).

²⁵ For the term ‘discourse continuity’, see below in this paper. For ‘domain’, see Cohen (2014).

3.0. The Linguistic Reality behind *wa* in the 'Consecutive Tenses'

It is one of the cornerstones of Biblical Hebrew text-linguistics that two of the principal verb forms in the central verbal system are 'consecutive'. One of them is *wayyiqtol*, the other is *wə-qaṭal*. The consecutive verb forms typically build series of main-line consecutive clauses. Clauses that break the main-line pattern are 'non-consecutive'. Hebrew text-linguistics is concerned with the nature of the consecution, and the function of the non-consecutive clauses. This can be summarised in a table displaying the essence of Biblical Hebrew text-linguistics:

Table 2: The essence of Biblical Hebrew text-linguistics (focusing on Tiberian vocalisation of the conjunction *wa-* before *yiqtol*)—affirmative clauses

	Consecutive clauses	Non-consecutive clauses
Narrative & report	<i>wayyiqtol</i>	<i>(wə)-X-qaṭal</i>
Instruction & forecasting	<i>wə-qaṭal</i>	<i>(wə)-X-yiqtol</i>

Characteristic features of consecutive clauses are:

1. The initial 'consecutive *waw*' (bold type in the table).
2. The initial position of the (finite) verb.

It is usually held that a non-consecutive clause is characterised by having a clausal constituent (*X*) before the verb. The alternation between the two clause-types can be summarised as what I

call “Tenet 1* of Biblical Hebrew text-linguistics,”²⁶ where ‘*’ indicates a preliminary formulation:

Tenet 1*. A series of **wa-VX** clauses is interrupted by a clause with (wa)-XV pattern.²⁷

This formula subsumes the labour of generations of Biblical Hebrew scholars, and is the legacy of the system of ‘consecutive tenses’. It contains the germ of a clause-linking approach to the verbal system.²⁸

Non-consecutive clauses more often than not start with a *wa*-, but can also be asyndetic. Some oft-recognised alternatives in CH text-linguistics are:

Tenet 1a*. A series of **wa-VX** is interrupted by a clause with *wa-XV* pattern.²⁹

Tenet 1b*. A series of **wa-VX** is interrupted by a clause with \emptyset -XV pattern.³⁰

²⁶ Tenet 1 and Tenet 2 are quoted from a forthcoming book.

²⁷ With terminological inspiration from Buth (1995) and Hornkohl (2018, 48ff.).

²⁸ For a history of research, see McFall (1982), Van de Sande (2008, 23–200), and, sharpest of all, the sustained critical survey by Cook (2012, 77–175). For a clause-linking approach, see Isaksson (2014; 2015a; 2017).

²⁹ For example, Niccacci (1990, 63).

³⁰ Niccacci (1990, 64): “WAYYIQTOL → (WAW-)x-QATAL (note that the WAW can be omitted).”

Tenet 1c*. A series of **wa**-VX is interrupted by a verbless clause.³¹

The boldface **wa**- in the formula indicates the common assumption in Hebrew grammars that the *wa*- before a consecutive clause has a special nature: it is a ‘consecutive *waw*’. This is the term adopted by most scholars, though some use ‘conversive’, ‘inversive’, ‘energetic’, or another distinguishing term.

But as already indicated above, the main arguments in favour of a special ‘consecutive’ *wa*- must be refuted:

1. The differences in vocalisation represent an innovative feature of the reading tradition.³²
2. The impression of a ‘conversion’ is just an impression, caused by a diachronic retention, i.e., *wa(y)-yiqtol* with short *yiqtol*, and a diachronic semantic innovation, i.e., in *wa-qatal*.³³
3. The range of meanings exhibited by ‘consecutive *waw*’ has the same semantic complexity as that of ‘copulative

³¹ For example, Niccacci (1990, 65): “simple nominal clause, usually preceded by WAW.”

³² In consequence of this, and from now on, I will make use of more pertinent terminology, *wa(y)-yiqtol* and *wa-qatal*, for the traditional ‘consecutive’ clauses. The ‘(y)’ in *wa(y)-yiqtol* is meant to indicate that the gemination was pronounced in the reading traditions (and is thus represented in the *dagesh forte* written in standard Hebrew Bibles), but that it was not a feature of CH.

³³ Pardee (2012, 290) proposes the term “*w*-retentive forms” for both *wayyiqtol* and *wə-qatal*. ‘Symmetry’ has been adduced as a driving force behind the development of consecutive *wə-qatal*, but symmetry is not a feature that must be expected in a living language (Cook 2012, 104).

waw'. Both can express temporal succession, logical result, elaboration, simultaneity, etc.³⁴ The impression of a special sort of 'consecution' is due to its use in the frequent discourse continuity clause-types *wa(y)-yiqtol* (in narrative and report) and *wa-qatal* (in instruction and legal discourse).³⁵

It is also necessary to update the terminology in the traditional 'system of consecutive tenses'. It is not so much a question of 'tenses', but of 'clauses'. And 'consecutive' is a vague and narrow description of the variety of clausal relations that are displayed in continuity linkings with *wa-*.

It is a thesis of the present paper that the Old Semitic *wa* had only one reflex (*wa-*) in CH. The *wa-* was a 'natural language connective' in the sense described by Van Dijk (1977, 58).³⁶ Its meaning was ambiguous and pragmatically determined.

This *wa-* deserves brief elaboration. Like the English connective *and*, *wa-* could express readings such as '(and) at the same time', '(and) there', '(and) therefore', '(and) then', '(and) so', '[if]

³⁴ Garr (1998, lxxxvi). See, further, the chapter on the Proto-Semitic conjunction *wa-* in CH in my forthcoming book.

³⁵ I am fully aware that this enumeration of possible discourse types is not exhaustive. For a critical discussion of discourse types, see Notarius (2008, 57–59; 2013, 10–11, 51–53).

³⁶ The conjunction *wa* has been used in all Semitic languages, even Akkadian (early Sargonic time, Kienast 2001, 395, 438; Kogan 2014, 42). It was a monosyllabic proclitic particle **wa-* in the earliest Semitic stage (Huehnergard 2008, 241ff.). This *wa* has been retained in living usage in all West Semitic languages, and the Tiberian reading variants (*wə-*, *way-*, etc.) represent the same morpheme in CH.

... then'. Consider the following examples taken from Traugott (1986, 147) and Schiffrin (1986, 45 fn. 1; emphasis added):

Annie is in the kitchen **and** (there) she is making doughnuts. [location]

Annie fell into a deep sleep **and** (during this time) her facial color returned. [simultaneity]

The window was open **and** (coming from it) there was a draft. [source]

Peter married Annie **and** (after that) she had a baby. [temporal succession]

Paul pounded on the stone **and** (thereby) he shattered it. [cause]

Give me your picture **and** I'll give you mine. (If you give me your picture, I'll give you mine.) [conditionality]

The number 5 is a prime number **and** (therefore) it is divisible only by 1 and itself. [conclusion]

These more specific meanings are primarily derived from the context (which includes the whole paragraph).³⁷ As a natural language connective, *wa-* sets a clause in a certain relation to a previous clause:

Pattern: (*wa*)-Clause₁ *wa*-Clause₂

³⁷ Garr (1998, lxxii–lxxiii). In a similar way Müller (1991, 156) compares *wa* with the German *und*. Tropper (1996, 635) defines the meaning in Biblical Hebrew and Old Aramaic as “und (dann).”

The pattern shows the simplest linking of two clauses.³⁸ Clause₂ is linked to Clause₁. The conjunction *wa-* puts Clause₂ into a relationship with Clause₁. The order of the clauses is fundamental. It is Clause₂ that *relates to* Clause₁. In many cases, the second clause (*wa*-Clause₂) can be said to be ‘dependent’ on the first clause, which Khan (1991, 240) formulates as: “[t]he proposition of the second clause is to be interpreted in the ‘world’ which is determined by the first clause.”³⁹

In traditional Biblical Hebrew grammars, the syntax of *wa-* stands out as an extremely complex affair. They assign opposite roles to the *wa-* conjunction, distinguishing at least two functions, namely, ‘copulative’ *wa-* and ‘consecutive’ *wa-*. “This standard treatment is problematic and unsatisfactory,” because it places “too much semantic weight on the *waw* conjunction” (Cook 2012, 313ff.).⁴⁰

³⁸ The “(*wa-*)” before Clause₁ indicates a possible connection backward to a previous clause or clauses, as is often the case.

³⁹ For further discussions of clause-combining with *wa-* (and all its allomorphs) in Semitic, see Isaksson (2009); Isaksson and Persson (2015). I am aware that Khan in this instance writes specifically about clauses connected in a relation of temporal sequentiality in narrative: “This dependency relation is typically associated with a series of verbs with perfective aspect” (Khan 1991, 240). Cf. also Waltke and O’Connor’s (1990, 477) recognition of the ‘*waw*-resultative’ as representing “a situation subordinate to that of the preceding clause.” Waltke and O’Connor regard this as a special feature of ‘*waw*-relative (1990, §32.1.1).

⁴⁰ Cook’s conclusion that *wa-* has “no meaning at all” is premature. When Cook goes on to explain clause linking in Biblical Hebrew texts, he disregards the presence of *wa-* as a linking connective (Cook 2012, 313–38). Kottsieper (1999, 71) also disregards the function of *wa-* in *w-*

It is more apposite to regard the linking with *wa(y)-yiqtol* and *wa-qaṭal* as an expression of *pragmatic discourse continuity*.⁴¹ A *wa-V(X)* clause signals *pragmatic continuity*, and may, according to context, express *thematic continuity*, *action continuity* and *topic continuity* (cf. Hornkohl 2018, 48; see also Givón 1983, 7; Buth 1995, 97–99). *Wa(y)-yiqtol*, with short *yiqtol* and normal *wa-*, is one of the typical clause-types that signal discourse continuity in CH.

A typical ‘discontinuous’ type of clause, *(wa)-XV*, may signal the beginning of a literary unit, topicalisation of *X* or focus thereon, anteriority, simultaneity, background, and elaboration. “[D]iscontinuity seems a particular apt concept for uniting them under a single, explanatory heading” (Hornkohl 2018, 49). My conclusion is that Tenet 1 of Biblical Hebrew text-linguistics should be reformulated in terms of continuity and discontinuity and without the assumption of a special ‘consecutive *waw*’.

Tenet 1 (updated): Pragmatic discourse continuity // discontinuity in affirmative clauses (prose texts):⁴²

Tenet 1a. *wa-VX* // *wa-XV*.⁴³

yqtl in his description of the Old Aramaic verbal system. He maintains that the realis *yqtl* in Old Aramaic in itself has a tendency to describe events “die auf andere folgen.”

⁴¹ The term is taken from the innovative article by Hornkohl (2018, 48f); cf. Bailey and Levinsohn (1992, 193–205); Buth (1995).

⁴² Here ‘//’ means ‘is interrupted by’. The ‘*X*’ in a discontinuous clause (type ‘*XV*’) cannot be a simple negation such as *lō*. The issue of negated clauses is not treated in the present paper.

⁴³ This is the most frequent type of discontinuous linking in my corpus. I have registered 117 discontinuous clauses of the \emptyset -*X-qaṭal* type and 355 of the *wa-X-qaṭal* type. Similarly, I count 76 discontinuous clauses

Tenet 1b. *wa-VX* // \emptyset -*XV*.⁴⁴

Tenet 1c. *wa-VX* // (*wa*)-*X* \emptyset . Linking with a verbless clause.⁴⁵

In the updated Tenet 1 formula there is no boldface *wa*-. As can be concluded from the formula, the traditional assumption of a special ‘consecutive’ *wa*- would imply a *redundancy* in the signaling of pragmatic continuity (cf. Hornkohl 2018, 33). The fundamental alternation between discourse continuity and discourse discontinuity already *has* a signal: the switch from a *wa-VX* clause-type to one with *XV* (or *X* \emptyset) word order.⁴⁶ The hypothesis

of the type \emptyset -*X-yiqtol* with long *yiqtol*, but 171 of the type *wa-X-yiqtol* with long *yiqtol*. Cf. Pardee (2012, 292 fn. 37): “many, probably most, disjunctive clauses are introduced by a conjunction.” I disregard in this paper the (more trivial) case of discontinuous clauses introduced by conjunctions other than *wa*-.

⁴⁴ There are also a few cases of \emptyset -*qatal* clauses that serve special discontinuity purposes, like expressing simultaneity or elaboration or the beginning of a new unit, usually in direct speech: Gen. 18.11; 30.6; 31.41; 42.30; 48.14; Exod. 14.3; 32.8; Num. 17.11; Deut. 3.19; 9.16; Judg. 2.17 (elaboration in narrative); 20.31 (simultaneity in narrative). An example outside the corpus is Josh. 11.12 (narrative).

⁴⁵ To achieve consistent and intuitive terminology, I designate verbless clauses ‘*X* \emptyset ’, where *X* stands for any first constituent in the clause and ‘ \emptyset ’ the absence of a verb. Tenet 1c indicates that verbless clauses, with or without initial *wa*-, may also signal discourse discontinuity. In my corpus there are 164 circumstantial or backgrounding examples of *wa-X* \emptyset and 86 such examples of \emptyset -*X* \emptyset .

⁴⁶ For an evaluation of recent approaches in Biblical Hebrew text-linguistics, see Hornkohl (2018). I am indebted to Hornkohl as well as

of a special ‘consecutive’ *wa-* is unwarranted for the synchronic state of CH. A simple assumption of one ‘natural language connective’ *wa-* is fully sufficient to clarify the linguistic reality behind *wa-* in the ‘system of consecutive tenses’.

The discontinuous clause can also be the first in a series of clauses. A formulation of Tenet 1 must allow for the possibility that a discontinuous clause (\emptyset -XV or *wa*-XV) starts a new literary unit, in which case it also signals a break with the preceding clause(s).⁴⁷ The semantic functions of this type of macro-syntactic marking of a new literary unit (often with a topicalised element), are pragmatically determined. This kind of discontinuity may either signal a connection with the preceding context (*wa*-XV) or the absence of such a connection (\emptyset -XV).

Tenet 1d. // *wa*-XV + [(*wa*)-XV or (*wa*)-X \emptyset] + *wa*-VX.
Topic/focus and a new literary unit. With signal of backward connection.⁴⁸

Buth (1995) for clarifying the pragmatic dimension of discourse discontinuity and its signalling by XV word order. Pardee (2012, 292) also observes that “the sentence beginning with something other than a *w*-retentive form... serves to set up contrast on many possible levels.”

⁴⁷ For a discussion of several pragmatic functions of the XV word order, see Hornkohl (2018, 52–53 fn. 79).

⁴⁸ There are 85 examples in my corpus in which a *wa*-X-*qatal* clause begins a new literary unit (affirmative clause). The following examples are taken from Genesis (for many of them see Hornkohl 2018, 49, 52): 3.1 (topic and start of episode); 4.1; 7.6; 13.5, 14; 14.18; 18.17; 19.15; 21.1; 24.35 (direct speech).

Tenet 1e. // \emptyset -XV + [(wa)-XV or (wa)-X \emptyset] + wa-VX.
 Topic/focus and a new literary unit. Without signal of backward connection.⁴⁹

The initial ‘//’ in 1d and 1e indicates that the discontinuity is signalled in relation to the clauses (if any) that precede the new unit.

The clauses within brackets, [(wa)-XV or (wa)-X \emptyset], in 1d and 1e indicate that one or more of the typical discontinuity clauses (1a, 1b, 1c) can be inserted before the main-line is resumed by a continuity clause (wa-VX) in the new literary unit.⁵⁰

In 1d and 1e the initial (wa)-XV can be a main-line clause in spite of its discontinuity signal.⁵¹ In other pragmatic contexts the initial (wa)-XV can be a background clause.⁵² In some shorter paragraphs, especially in direct speech, there is no continuity clause

⁴⁹ 26 examples in the corpus exhibit a \emptyset -X-*qatal* pattern beginning a new literary unit (affirmative clause). Some of them are: Gen. 1.1 (see example below); 7.13; 10.11; 15.1; 19.23; 34.27; 41.10 (Hornkohl 2018, 49); 43.20; 44.19 (Hornkohl 2018, 49); 46.31 (Hornkohl 2018, 49); 47.5 (Hornkohl 2018, 49).

⁵⁰ I define ‘main-line clause’ as a foregrounded clause. It often, but not always, signals discourse continuity. The concept of a foreground-background distinction is recognized by almost all linguists as a language universal. The distinction is psycholinguistic, and related to the processing of discourse. Whether events are foreground or background depends of their relative saliency (Hopper and Thompson 1980, 280, 283, 294; Cook 2012, 283–288).

⁵¹ Examples: Gen. 1.1 (against Joosten 2012, 165); 4.1 (Hornkohl 2018, 49 fn. 64; Buth 1995, 89); 7.13; 13.14 (Westermann 1981, 209); 14.18.

⁵² Examples: Gen. 6.9; 13.5; 19.15, 23; Exod. 3.1; 19.1; Judg. 1.16.

(*wa-VX*), which means that at least one discontinuity clause alone forms a main-line.

As Tenet 1 in all these cases (a–e) indicates, the normal *wa-* with immediately following verb is the decisive signal of discourse continuity in affirmative clauses. This observation enables us to formulate another tenet.

Tenet 2 of Biblical Hebrew text-linguistics (prose texts):
The clause-type *wa-V(X)* is necessary and sufficient for pragmatic discourse continuity in affirmative clauses.

In Tenet 2, *wa-* is necessary and *V* is necessary. No clausal constituent can be inserted between *wa-* and *V*, because this would make the clause signal discontinuity. In this text-linguistic sense, it is pertinent to speak of an ‘inseparable union’ between *wa-* and the verb in discourse continuity clauses. The ‘inseparable union’ in the syntagms *wa(y)-yiqtol* and *wa-qatal* results from their functions as markers of discourse continuity and was a reality on the textual level in CH (but not on the morphological level). Specifically, *wa(y)-yiqtol* is not a ‘tense’; it is a clause-type.

4.0. Examples: With Special Emphasis on Indicative Short *yiqtol*, i.e., *wa(y)-yiqtol*

(1) is an example of a series of continuous *wa-VX* clauses interrupted by a discontinuous *wa*-clause (*wa-XV*):

(1) *wa-VX + wa-VX + wa-XV* (= Tenet 1a)⁵³

וַיֵּרָא אֶת־מִבּוֹא הָעִיר וַיְכֹן אֶת־הָעִיר לְפִי־חָרָב וְאֶת־הָאִישׁ וְאֶת־כָּל־
מִשְׁפַּחְתּוֹ שְׁלַחוּ:

⁵³ The first line in the examples displays the linking pattern.

‘So he showed them the way into the city, and they put the city to the sword but spared the man and his whole family.’
(Judg. 1.25)

The example illustrates the frequent linking when a series of *wa(y)-yiqtol* clauses is interrupted by a discontinuous clause of the type *wa-X-qatal* (where *X* in this case stands for two direct objects). The pragmatic context indicates (1) that the objects in the discontinuous clause (וְאֶת־הָאִישׁ וְאֶת־כָּל־מִשְׁפַּחְתּוֹ) ‘the man and his whole family’) are *contrasted* to the object in the preceding clause (אֶת־הָעִיר ‘the city’), a topicalisation, and (2) that the same clause lacks the default continuity signal of sequentiality in narrative (does not fulfil Tenet 2).⁵⁴

Example (2) shows two asyndetically attached discontinuous clauses (\emptyset -XV):

(2) *wa-VX + \emptyset -XV + \emptyset -XV* (= Tenet 1b)

וַיְבָרָא אֱלֹהִים | אֶת־הָאָדָם בְּצַלְמוֹ בְּצַלְמֵ אֱלֹהִים בָּרָא אֹתוֹ זָכָר וּנְקֵבָה בָּרָא
אֹתָם:

‘God created humankind in his own image, in the image of God he created them, male and female he created them.’
(Gen. 1.27, NET)

The two discontinuous \emptyset -X-*qatal* clauses in example (2) supply further detail about the action described in the first (continuous) clause. They express perfective past and function as elaborations

⁵⁴ For narrative examples of *wa-VX + wa-XV* see also Gen. 2.22 and 42.8, among many. Concerning the default temporal interpretation of narrative texts with iconicity of temporal succession, see Cook (2012, 276, 285) and Hornkohl (2018, 51).

in relation to the initial (also past perfective) *wa(y)-yiqtol* clause.⁵⁵

Example (3) illustrates the discontinuous function of a verbless clause (either *wa-XØ* or *Ø-XØ*, in this case the former) after *wa(y)-yiqtol* clauses in narrative:

(3) *wa-VX + wa-VX + wa-XØ* (= Tenet 1c)

וַיֵּלֶךְ אַבְרָם כַּאֲשֶׁר דִּבֶּר אֵלָיו יְהוָה וַיֵּלֶךְ אִתּוֹ לוֹט וְאַבְרָם בְּזֶחֶמֶשׁ שָׁנִים
וְשִׁבְעִים שָׁנָה בְּצֵאתוֹ מִחָרָן:

‘So Abram left, just as the LORD had told him to do, and Lot went with him. (Now Abram was 75 years old when he departed from Haran.)’ (Gen. 12.4, NET)

In (3) a series of two continuous *wa(y)-yiqtol* clauses is interrupted by a verbless clause functioning as a circumstantial parenthesis.⁵⁶

An example of a discontinuous clause signalling a new literary unit (with marking of backward connection) is found in (4):

(4) *wa-XV + wa-V + wa-VX + wa-VX* (= Tenet 1d)

⁵⁵ Other examples of *Ø-XV* after a *wa(y)-yiqtol* clause in narrative: Gen. 7.21–22 (elaboration); 13.12 (elaboration); 34.28 (elaboration); 41.48; 46.6–7; 49.28; 50.8 (background). For a definition of ‘elaboration’, see Dixon (2009, 27).

⁵⁶ Such verbless clauses in narrative usually express circumstantial information or are possible glosses from an editor. Other examples: Gen. 12.6 (*wa-XØ*, background), 8 (*wa(y)-yiqtol + Ø-XØ + wa-XØ*); 19.38; 24.10a (circumstantial state); 25.26 (background), 29 (circumstantial state); 29.31 (circumstantial); 36.32 (circumstantial); 37.24; 38.1; 43.33a; 44.14; and many others.

וְהָאָדָם יָדַע אֶת-חַוָּה אִשְׁתּוֹ וַתְּהַר וַתֵּלֶד אֶת-קַיִן וַתֹּאמֶר קִנִּיתִי אִישׁ אֶת-
יְהוָה:

‘Adam made love to his wife Eve, and she became pregnant and gave birth to Cain. She said, “With the help of the LORD I have brought forth a man.”’ (Gen. 4.1, NIV)

The first clause with its *XV* word order signals discontinuity and the beginning of a new literary unit or paragraph (about Cain and Abel).⁵⁷ The initial *wa-* in the first clause signals that there is a certain connection to the previous context (the story of Adam and Eve). The next three clauses conform to the continuity linking pattern *wa-V(X)* (Tenet 2). In one of the continuity clauses there is no *X* (וַתְּהַר), in the other two *X* is, respectively, a direct object (אֶת-קַיִן) and a complement clause (the quotation).

The following example (5) illustrates in an instructional text how a discontinuous clause with topicalised element *X* (אֶת-כָּל-חֵלְבֵהָ) ‘all the fat’) starts a new series of continuous clauses of the *wa-qatal* type. It also illustrates the breadth of meanings that are possible with the natural language connective *wa-*. The verse begins by describing a sacrificial ritual procedure (*wa-X-yiqtol* [long] + *wa-qatal*). These two clauses constitute the ‘world’ that is tacitly presupposed in the ***wa-qatal*** + *wa-qatal* clauses:

(5) *wa-XV* + *wa-VX* + ***wa-VX*** + *wa-VX* (= Tenet 1d)

⁵⁷ The syntax of the first clause in (4) illustrates that *qatal* in CH has taken over (from short *yiqtol*) the role of past indicative verb in discontinuous clauses (cf. Cook 2012, 96). In Archaic Biblical Hebrew poetry the instances of past indicative *XV* clauses with short *yiqtol* are extremely few (Notarius 2013, 89, 281), and none is attested in CH.

וְאֶת־כָּל־חֵלְבֵהּ יִסֵּר בְּאֵשׁ יִסֵּר חֵלֶב־הַכֶּשֶׁב׃ מִזֶּבַח הַשְּׁלָמִים וְהַקְטִיר הַכֹּהֵן
 אֹתָם הַמִּזְבֵּחַ עַל אֵשׁ יְהוָה וְכִפֹּר עָלָיו הַכֹּהֵן עַל־חַטָּאתוֹ אֲשֶׁר־חָטָא וְנִסְלַח
 לּוֹ:

‘They shall remove all the fat, just as the fat is removed from the lamb of the fellowship offering, and the priest shall burn it on the altar on top of the food offerings presented to the LORD. **In this way** the priest will make atonement for them for the sin they have committed, and they will be forgiven.’ (Lev. 4.35, NIV, my emphasis; cf. Milgrom 1991, 228)

In the example there is first a clause with long *yiqtol* (יִסֵּר) followed by a *wa-qatal* clause (וְהַקְטִיר), and the discontinuity structure of the long *yiqtol* clause in this case signals a topicalised direct object. These two clauses describe the ritual procedure of a sacrifice. The two succeeding *wa-qatal* clauses must be interpreted within the framework of the previous ritual procedure. The clause starting with וְכִפֹּר is not just one more action to be performed by the priest, and it is not a subordinate clause. Rather, וְכִפֹּר presupposes the procedure in the foregoing clauses and concludes: in the way that is already described the priest brings atonement for him. וְכִפֹּר must be read within the framework of the world that has been described in the preceding clauses.⁵⁸

⁵⁸ Milgrom (1991, 228): ‘Thus the priest shall effect purgation...’. Other examples are: Gen. 17.13; 39.9; 45.19; Exod. 13.15–16; 17.5; 19.23b; 20.25b (future anterior); 23.25 (within protasis); 28.43; 31.6; Lev. 4.26, 31; 5.6, 10, 12–13a; 12.7a; 14.18, 20, 36; 15.15, 30, 31; 16.2, 6, 11, 19; 19.12, 29; 20.2b–3a; 22.2; Num. 4.19 (cf. Garr 1998, lxxxiii, who assigns the *wa-qatal* a result value, “and [as a result] they will live,” which

An example of *pragmatic discontinuity* signalling a new literary unit without signal of backward connection is found in example (6) below:

(6) \emptyset -XV (= Tenet 1e, initial clause)

בְּרֵאשִׁית בָּרָא אֱלֹהִים אֶת הַשָּׁמַיִם וְאֶת הָאָרֶץ:

‘In the beginning God created the heavens and the earth.’

(Gen. 1.1)

According to Tenet 2, this is a clause that cannot express discourse continuity. There is no initial *wa*- and a non-verbal clausal constituent is placed before the verb. The pragmatics of the clause makes it a signal of a new literary unit and the start of a narrative main-line (Tenet 1e). There is nothing before this clause to connect to, so the clause is *asyndetic* (lacking the connective *wa*-). The fronted constituent *X* (בְּרֵאשִׁית) contains the first focus of the clause, and sets up the topic, which orients the reader/listener concerning the following sentences. The second focus is the predication, which has broad non-contrastive focus, and supplies the value of the act of creating the heavens and the earth.⁵⁹ In this way a simple, but fundamental coding of discontinuity (\emptyset -XV) can fulfil a double function in the text: to signal focus and topic, and to mark a new literary unit.⁶⁰ The example also illustrates that a clause that marks discontinuity can be, and often is, a foregrounded clause.

is close to my interpretation); 5.3; 8.13–14; 11.17; 20.8; Deut. 13.6; 17.13; 21.8.

⁵⁹ Khan and Van der Merwe (2020, 370–75).

⁶⁰ “Language users evidently made use of a single multi-functional structure, the XV order, effectively to halt forward progress of the default

An example of discourse discontinuity clauses coding a background complex is found in (7):

(7) *wa-XV + wa-XØ + wa-XV* (= Tenet 1e, continued)

וְהָאָרֶץ הָיְתָה תְהוֹם וְבְהוֹ וְחֹשֶׁךְ עַל־פְּנֵי תְהוֹם וְרוּחַ אֱלֹהִים מְרַחֶפֶת עַל־פְּנֵי הַמַּיִם:

‘Now the earth was formless and empty, darkness was over the surface of the deep, and the Spirit of God was hovering over the waters.’ (Gen. 1.2, NIV)

Example (7) is built up of three clauses, all introduced by *wa-*: *wa-X-qatal*, *wa-XØ*, and *wa-X-qōtēl* (active participle). The three clauses signal ‘action discontinuity’ and are descriptions of the state that was the result of the creational act in example (6). Gen. 1.2 is background in relation to both 1.1 and 1.3.

The next example shows two clauses that signal discourse continuity; they resume the main-line:

(8) *wa-VX + wa-VX* (= Tenet 1e continued, Tenet 2)

וַיֹּאמֶר אֱלֹהִים יְהִי אֹר וַיְהִי־אֹר:

‘Then God said, “Let there be light,” and there was light.’ (Gen. 1.3, Wenham 1987, 2, 18)

In Gen. 1.3 there appear for the first time in the Hebrew Bible clauses of the pattern *wa-VX* that fulfil the requirements of Tenet 2 and thus express action continuity. The two *wa(y)-yiqtol* clauses express temporal sequentiality in relation to the main-line action

discourse continuity iconically communicated by the *waw*-consecutive forms for purposes of specially marking both genuine topics and whole clauses” (Hornkohl 2018, 51).

clause in Gen. 1.1, and temporal or logical sequentiality in relation to the background clauses in 1.2.⁶¹

5.0. Summary

I have discussed the CH short *yiqtol* within the framework of the ‘consecutive tenses’. I have concluded:

1. The short *yiqtol* is a separate verbal morpheme in CH (< Proto-Semitic **yaqtul*). It has two basic meanings: past perfective and jussive. Though past perfective short *yiqtol* is attested in freestanding form in Amarna Canaanite and Archaic Hebrew, such meanings of short *yiqtol* are found in CH only in the *wa(y)-yiqtol* clause-type.
2. There was only one conjunction *wa-* in CH. The gemination in *wa(y)-yiqtol* was introduced in the reading tradition after the classical period to distinguish two homophones in the reading: indicative perfective *wa-yiqṭōl* and jussive *wa-yiqṭōl*. The *wa-* in these clauses is a normal ‘natural language connective’ *wa-* ‘and’. The gemination was not a feature of CH. Speakers and writers of CH did not distinguish between two different *wa-* conjunctions.
3. The ‘system of consecutive tenses’ needs to be updated with only one *wa-* and the concept of *pragmatic discourse continuity*. A *wa-* immediately before a finite verb (*wa-VX*) signals in itself ‘discourse continuity’. Thus defined, the concept of ‘discourse continuity’ has no use of a special *wa-*

⁶¹ In this interpretation of Gen. 1.1–3 I follow the majority view among the commentators, represented by Westermann (1976, 130–56). For Gen. 1.3 see also Wenham (1987, 2, 15–16, 18).

conjunction, and the traditional assumption of a ‘consecutive *waw*’ emerges as unwarranted for the synchronic description of CH. A simple assumption of one ‘natural language connective’ *wa-* is sufficient to clarify the linguistic reality behind the conjunction *wa-* in the ‘system of consecutive tenses’. Specifically, *wa(y)-yiqtol* in CH is a discourse continuity clause-type—not a ‘tense’—with normal *wa-* and short *yiqtol*. Discourse discontinuity is signalled by clauses with an initial clausal constituent (*X*): (*wa*)-*XV*, or (*wa*)-*XØ* (where *XØ* is a verbless clause).

I have not discussed:

4. How long *yiqtol* (< **yaqtulu*) was distinguished from short *yiqtol* in CH.⁶²
5. Why *qatal* came to alternate with *wa(y)-yiqtol*.
6. Why *wa-qatal* acquired imperfective meanings and came to alternate with the inherited long *yiqtol*.

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⁶² But cf. Isaksson (2015b).

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THE RISE OF WAYYIQTOL¹

Elizabeth Robar

In the Festschrift in honour of George Klein, *The Unfolding of Your Words Gives Light* (Jones 2018), Holger Gzella writes magisterially of the *wayyiqtol* form as the “Archimedean point for any comprehensive examination of the still controversial principles” of the Biblical Hebrew verbal system.

In semantic terms this form, to put it bluntly, is strongly marked for punctual, or complete, events in the past; hence it combines perfective aspect with past tense. This insight may be taken as an established and uncontested point of departure. (Gzella 2018, 21)

While many Western² scholars have come to a similar conclusion from familiarity with the text, Gzella’s confidence in this semantic analysis is based on *wayyiqtol*’s assumed historical development from the proto-Northwest Semitic short **yaqtul*, a prefixed

¹ I am deeply indebted to Joseph Habib for his help in revising an earlier draft of this paper.

² I specify “Western” because I am also familiar with non-Western (and native South American) speakers who have come to different conclusions, undoubtedly influenced by their own languages.

preterite form itself descending from the proto-Semitic prefixed preterite represented by *iprus* in Akkadian.³

This view accounts for a vast number of the occurrences of *wayyiqtol* and thus provides a useful point of departure for a broader analysis. The purpose of the present essay is to provide an inventory, first, of early uses of *wayyiqtol*, to evaluate if they fit into a typology that would accord with the above statement; second, of some early expressions of past tense and perfective aspect; and, third, of unexpected uses of *wayyiqtol* in Job.⁴

³ See the history of scholarship as laid out in McFall (1982), Smith (1991, 1–15), and Cook (2012). Baranowski (2016) has recently provided evidence of a short prefixed preterite in Canaanite narrative, analogous to BH *wayyiqtol*. Waltke and O'Connor (1990) represent scholars who also take into account a discourse relationship with the preceding verb: *wayyiqtol* is a 'waw-resultative' form, in some way subordinate to the preceding clause.

⁴ Diachronic and typological reconstructions of *wayyiqtol*'s development are closely related, but by no means identical. This paper accepts the consensus that Archaic Biblical Hebrew (ABH) is early, but no other linguistic dating is assumed. The question under discussion is whether the distributional data (textual occurrences of *wayyiqtol*) accord with the typological argument (claiming early short *yiqtol* functions as a preterite and *qatal* as a non-preterite) suggested by the assumed historical reconstruction (**yaqtul* > short *yiqtol*). See Table 1, in §1.3 below, for totals of *wayyiqtol* forms and a summary of the distributional data in recognised archaic texts.

Note that the dating of Job remains inscrutable, so no particular date is assumed here.

1.0. Archaic Biblical Hebrew

Any dating of Biblical Hebrew is fraught with debate, as linguistic features once thought archaic may now be considered dialectal or stylistic (e.g., Aramaisms).⁵ Even so, for most scholars, intuition prevails in considering there to be a body of ABH, including such texts as Psalm 68, the Blessing of Jacob (Gen. 49), Balaam's Oracles (Num. 23–24), the Songs of the Sea (Exod. 15), of Moses (Deut. 32–33), and of Deborah (Judg. 5), and the Prayer of Hannah (1 Sam. 2). In most of these texts, *wayyiqtol* is sparse, if present at all.⁶

1.1. *Wayyiqtol* Rare

Scholars have long been convinced of the archaic nature of Psalm 68, thanks to its mention of Sinai, defective spelling, syntax, phraseology, motifs, and vocabulary (including strong parallels between vv. 12–19 and the Song of Deborah).⁷ Of note here is

⁵ See Mandell (2013) and the articles in Barmash (2017) for a discussion of ABH as a valid category. Particularly important works in the discussion remain Young et al. (2008) and Miller-Naudé and Zevit (2012). An exhaustive treatment of the history of scholarship and *status quaestionis* on the linguistic dating of Biblical Hebrew may be found in Rezetko and Young (2019).

⁶ Unbound short *yiqtol* occurs in this early Hebrew, but this paper is concerned only with short *yiqtol* within the bound form *wayyiqtol*.

⁷ Notarius (2013) excludes Psalm 68 from her study, presumably because she restricts herself to “those poetic passages incorporated into the prose books of the Torah and Former Prophets” (71).

simply the presence of a narrative recital with mostly *qaṭal* forms and a few *yiqtol* forms.⁸

Suggested archaic features include the nominative reflex (וַי) of the Proto-Semitic relative pronoun (**ǝū*) in Ps. 68.28 and the genitive (הַיְ < **ǝī*) in v. 9 (Pat-El and Wilson-Wright 2013, 401). Holmstedt (2014) disputes the genitive use of הַיְ and argues, persuasively, for a straightforward demonstrative use. His argument influenced the translation provided below.

Watson (2005, 46) assesses the relevant features, concluding that while the evidence for an early provenance should not be “overstated” and may reflect later redactional activity, nonetheless its “content and allusions, vocabulary, grammar, or use of divine names, seems to point to the conclusion that it is substantially very ancient, perhaps emanating from a period as early as that of the Judges or Saul.”

⁸The distribution of the *qaṭal* forms is consistent with Notarius’ (2013, 286–87) criterion for ABH, stipulating a limited use of *qaṭal* in narrative. Note, however, that, based on her discourse modes, she would not consider Ps. 68 narrative. Self-admittedly, she defines these circularly—as an “interpretative circle” (59)—and presumably they should therefore only be considered of self-fulfilling value rather than as additional evidence for her view.

In her conversational frameworks (whose subtype, ‘hymnal poetic speech’, she would presumably consider the label for Ps. 68, given its vocative וַיִּלְהִי), she interprets *qaṭal* as able to mark simple past tense, as in Deut. 32.30 (Notarius 2013, 53, 91) and 2 Sam. 22.5 (2013, 167). She acknowledges difficulty in distinguishing resultant, simple past, and anteriority, which should caution the reader to the potential of less than robust argumentation. Similarly, she acknowledges a

significant overlap between narrative and report [the third subtype of conversation] in terms of their discourse characteristics: both discourse modes are governed by dynamic bounded events and both reveal temporal text-progression.

- (1a) אֱלֹהִים בַּצֵּאתְךָ לִפְנֵי עַמְּךָ בְּצֵעֵדָד בְּיַשִּׁימוֹן סֵלָה:
 אָרֶץ רָעָשָׁה | אֶף-שָׁמַיִם נָטְפוּ מִפְּנֵי אֱלֹהִים
 זֶה סִינַי מִפְּנֵי אֱלֹהִים אֱלֹהֵי יִשְׂרָאֵל:

‘O God, when You went at the head of Your army,
 when You marched through the desert. *Selah*.
 the earth trembled, even the sky rained because of God,
 this Sinai [trembled], because of God, the God of Israel.’
 (Ps. 68.8–9)

- (1b) גִּשְׁם גְּדֻבוֹת תִּנְיֶיךָ אֱלֹהִים נְחֻלְתְּךָ וְנִלְאָה אֶתְּךָ כְּוַנְנִיתָ:
 חֵזְתְּךָ יִשְׁבוּבָה תִּכְיֶן בְּטוֹבֶתְךָ לְעַנִּי אֱלֹהִים:

‘You would release a bountiful rain, O God;
 Your own inheritance: when it languished, You sustained it.
 Your tribe dwelt there;
 O God, in Your goodness You would provide for the
 needy.’ (Ps. 68.10–11)⁹

The main difference is that in narrative temporal progression correlates with an autonomous sequential time..., while in report the temporal text-progression is given in constant reference to ST [speech time], consistent with the deictic temporal pattern. (Notarius, 2013, 55)

She has in fact expressed the difference between a perfect/anterior (which does not update the reference time) and a perfective (which does update the reference time). Here we can see how the discourse modes are defined by verbal forms. Consequently, if narrative is defined as formed by preterites and report by anteriors, then it is logical, if not insightful, that narrative has an autonomous sequential time (the reference time being updated by the preterites) and report does not (the reference time remaining the same, not updated by the anteriors).

See also Isaksson (2014) for a similar approach to that of Notarius.

⁹Translations are based on the JPS, modified only where deemed necessary.

All verbal forms may be considered past tense, either preterite (perfective) or past habitual (imperfective) in aspect.¹⁰

1.1.1. Consecutive *qatal* Forms

In the oracles of Balaam, which purport to be non-Israelite and non-Judahite, indeed foreign altogether, there are no *wayyiqtol* forms. This is true for all of the poetic material in Num. 23–24 (23.7–10, 18–24; 24.3–9, 15–24, excluding narrative frames).¹¹

For instance, whereas one might expect, in typical classical prose, to have a *qatal*–*wayyiqtol* sequence, such as *כָּרַע וַיִּשְׁכַּב* or even a *wayyiqtol* sequence, e.g., *וַיִּכְרַע וַיִּשְׁכַּב*, we instead read multiple consecutive *qatal* forms, as in:

¹⁰ The justification for understanding the *qatal* forms as simple pasts (preterite semantics), rather than anteriors (perfects), lies in the temporal ‘when... then’ backbone of the minimal narrative: two consecutive events narrated in succession: ‘When God went out, then the earth trembled.’ A report, which refers constantly to speech time, would obscure the inherent consecution: ‘God has gone out and the earth has trembled.’ A narrative embedded within the report would begin with speech time as reference and then shift to a reference time within the narrative: ‘God has gone out and then the earth trembled and the sky rained.’

The long *yiqtol* forms, *תִּבְרַח* and *תִּבְרַחַ*, have past imperfective semantics here. The *qatal* *כּוֹנֵנֶתָה* seems to function here like an English simple past, in that it is past tense, but unmarked for aspect (thus capable of bearing habitual semantics). Possibly the *weqatal* *וַיִּנְלָאָה* is also to be considered unmarked for aspect here, or perhaps more likely it marks the imperfective aspect that the *qatal* then inherits.

¹¹ For an argument for a clearly archaic profile, see Morag (1981) and Pat-El and Wilson-Wright (2013) or, with less certainty, Notarius (2013, 227–28, 296).

- (2) פָּרַע שָׁכַב כְּאַרְיֵי וּכְלִבְיָא מִי יִקְיָמֵנוּ
 ‘He crouched, he lay down like a lion, like a lioness;
 Who dares rouse him?’ (Num. 24.9)

Notarius (2008, 74–75; 2013, 218) understands these as resultative perfects, which presumably would be reflected by a translation such as ‘He has crouched [and] lain down like a lion, like a lioness [in victory over its prey]; who [therefore] dares rouse him?’ In other words, she does not read the text as a micro-narrative (with preterites) followed by a present tense comment, but rather she holds that the speech time remains the reference point for each verb (with resultatives/anteriors).¹²

The context may be insufficient to determine which is likeliest for this isolated instance, but because this appears to be a culturally shared poetic trope, both syntactically and semantically,¹³ its other instances may therefore shed additional light.

Identical syntax and semantics¹⁴ are also found in:

¹² Were one to read these as statives, they could be either ‘he is crouched, he is lying down like a lion’ or ‘he was crouched, he was lying down like a lion.’ The reference point would be unspecified, since statives *qua* adjectives can take their time reference from the context.

¹³ See *CAD* (IX:24–25) for instances of lion imagery in Akkadian literature. On the shared lion motif in Gen. 49, specifically, and the rest of the Hebrew Bible, generally, see Hoop (1999, 289–94, 522–30).

¹⁴ And nearly identical words, except *שָׁכַב* in Numbers becomes *רָבַח* in Genesis.

‘At her feet he sank, he lay, outstretched,
 At her feet he sank, lay still;
 Where he sank, there he lay—destroyed.’ (Judg. 5.27)

Here in Judg. 5 the *qaṭal* forms serve as narrational forms with clear preterite semantics.¹⁶ Given that this is the only context in which the sequence fits naturally—i.e., semantically *and* grammatically—the strongest argument is to give this context the dominant role in determining the grammatical semantics of the *qaṭal* forms. If that is so, then even in the above cases (Num. 24.9 and Gen. 49.9), even if awkward in English, it may yet be more conservative to understand the *qaṭal* forms as providing a micro-narrative, followed by a cry of despair (as in the English translations provided).¹⁷

After Gen. 49.9, Deut. 32.15 does not seem so strange with its interruption of a series of *wayyiqtol* forms with a series of three

¹⁶ This may be a reported narrative, as in narrative explicitly within the poet’s mouth, but, *pace* Notarius (2013 129–30), it strains credulity to suggest this must be report, i.e., a series of anteriors that retain speech time as its reference time, e.g.,

‘He has asked for water, but she has given him milk;
 in a bowl fit for nobles she has brought him curdled milk.
 Her hand reached for the tent peg, her right hand for the
 workman’s hammer.
 She has struck Sisera, she has crushed his head,
 she has shattered and pierced his temple.
 At her feet he has sunk...’

¹⁷ As Notarius (2013, 140) notes, *qaṭal* forms can be simple past. If one defines the discourse mode here as narrative (even if embedded within report), these are easily considered simple past *qaṭal* forms.

asyndetic second-person *qatal* forms.¹⁸ The effect is that of an ex-postulation in the midst of a narrative, in which the narrator speaks of the addressee in third person, but, given the topic at hand, cannot restrain the outburst, “You grew fat, gross, and coarse!!” in the midst of his song.

- (5) וַיִּשְׁמַן יִשְׁרוּן וַיִּבְעֹט
וַיִּטֵּשׂ אֱלֹהֵי עֲשָׂהוּ
וַיִּנְבֵּל צוּר יִשְׁעָתוֹ:
שָׁמְנָה עֲבִיתָ כְּשִׁיתָ
- ‘So Jeshurun grew fat and kicked—
 You grew fat and gross and coarse!!—
 He forsook the God who made him
 And spurned the Rock of his support.’ (Deut. 32.15)

In semantic terms, these could be simple pasts, as above, or they might be stative perfects, ‘You are become fat, thick, gorged!’ (Notarius 2013, 81–82); both are plausible and defensible and thus must for the present be left as possibilities.¹⁹

1.1.2. Lone Past Tense *yiqtol* Form

The absence of *wayyiqtol* forms does not coincide with an equal absence of short *yiqtol* forms with past time reference; Balaam opens his oracles with a prefixed verb with preterite semantics

¹⁸ Even the series of third-person *qatal* forms like this is restricted to poetry, apart from זָקֵן בָּא בַיָּמִים ‘he became old, advanced in days’ and its variants (Gen. 18.11; 24.1; Josh. 13.1; 23.1–2; Judg. 19.16; 1 Sam. 17.12; 1 Kgs 1.1).

¹⁹ Cf. Isaksson (2017, 14).

(the sole instance in his speeches; all other past tense verbs are *qaṭal*).²⁰ As an opening verb, it is possible it had a formulaic role.

(6) מִן־אַרָם יָבִי־בָלַק

‘From Aram Balak brought me.’ (Num. 23.7)

Apart from this one instance, however, Balaam exclusively uses *qaṭal* (and *weqaṭal*) for past tense.²¹

²⁰ Grammarians disagree whether this is an imperfect, e.g., ‘he was bringing me by stages’ (GKC, §107b, d), or preterite, ‘he brought me’ (Bergsträsser 1962, II:§34h). Note that the latter is Bergsträsser’s *update* of the former.

Notarius argues that since “it is not narrative,” therefore “a real narrative tense is not to be expected here; nor is the simple past meaning marked in the passage,” even though “verse 7 pertains to an event anterior to the speech-time” (Notarius, 2008, 79; 2013, 222). She suggests that word order (non-initial position) indicates possible circumstantial function, effectively ‘*when* Balak brought me... *then* he said.’

Even were this to be understood circumstantially, it would not change the past tense value, nor the perfective aspect: only a pragmatic function of foregrounding versus backgrounding. Any equation of ‘circumstantial background function’ with an imperfective or a ‘kind of historical present’ (usually understood as vivid, the opposite of backgrounded) would appear to be a case of category confusion.

Indeed, the implied semantics of a past tense circumstantial would be either pluperfect, ‘when he *had brought* me’, or simultaneous, ‘while he *was bringing* me’. The former would be most curious for a short *yiqtol* (if this is a short *yiqtol*, which here is morphologically ambiguous) and the latter is illogical in the context.

²¹ Because the *weqaṭal* forms continue the *qaṭal* form אָמַר, I understand them to have parallel (past tense) semantics: just as he *has* spoken, so he *has* promised and he *has* blessed.

- (7)
- | | |
|----------------------------------|------------------------------|
| וּבִן־אָדָם וַיִּתְנַחֵם | לֹא אִישׁ אֵל וַיִּכְזֹב |
| וְדַבֵּר וְלֹא יִקְיַמְנָה: | הֲהוּא אָמַר וְלֹא יַעֲשֶׂה |
| וַיִּבְרָךְ וְלֹא אֲשִׁיבָנָה: | הֲנֶה בִּרְךְ לְקַחְתִּי |
| וְלֹא־דָאָה עִמָּל בְּיִשְׂרָאֵל | לֹא־הִבִּיט אֲנִי בַּיַעֲקֹב |
| וַיִּתְרוּעַת מְלֶךְ בּוֹ: | יְהוָה אֱלֹהֵיו עִמּוֹ |

‘God is not man to be capricious, or mortal to change His mind.

Has He spoken and will not act; has He promised and will he not fulfill?

I have received [the command] to bless: when He has blessed, I cannot reverse it.

He has not sighted harm for Jacob, He has not seen woe for Israel.

The LORD their God is with them, and their King’s acclaim in their midst.’ (Num. 23.19–21)

Although Balaam²² uses *yiqtol* for standard future tense, he uses *qaṭal* for the peculiar prophetic passage about the star to arise

²² I interpret all these words as Balaam’s. If the verbs of speaking in v. 19 are considered quotative frames (Miller 1996) for the Canaanite deity El, v. 20 can be considered a quotation of divine speech, in which El honours the legitimacy of Balaam whom he has ‘taken’ (Notarius 2013, 210–20). In this interpretation, Balaam legitimates himself by citing El, who vows that if Balaam blesses, El will not revoke it. Any persuasive value of such logic is not entirely clear, as the very authority structure of El legitimating Balaam would be turned on its head, with El deferring to Balaam. In any case, this would not change any past tense value of the *qaṭal* verbs.

Medieval commentators also treated these as past tense in Balaam’s mouth, e.g., Rashi (1040–1105), commenting: אתה שואלני. הנה ברך לקחתי. והוא ברך אותן ואני לא אשיב מה דבר י"י? קיבלתי ממנו לברך אותם. וברך ולא אשיבה. והוא ברך אותן ואני לא אשיב

from Jacob. In this case, the past tense presumably refers to Balaam's vision (recounting what *happened in his vision* or *was revealed to him*) and is not applicable to the events themselves.²³

(8) אֲרָאֲנֹהּ וְלֹא עֲתָה אֲשׁוּרְנֶנּוּ וְלֹא קָרוֹב
 דְּרִדֵּי כּוֹכָב מִיַּעֲקֹב וְקֶם שֶׁבֶט מִיִּשְׂרָאֵל
 וּמַחֲלֵץ פְּאַתֵי מוֹאָב וְקִרְקַר כָּל-בְּנֵי-שֵׁת:

‘What I saw for them is not yet;
 what I beheld will not be soon:
 A star rose from Jacob,
 a scepter came forth from Israel;
 It smashed the brow of Moab,
broke down all children of Seth.’ (Num. 24.17–18)

1.1.3. *Wayyiqtol* in Non-prophetic Dialogue

Though there are no *wayyiqtol* forms in Balaam's prophetic monologues, there is one in his direct dialogue with God in ch. 23.

.את ברכתו. [The phrase] לְקַחְתִּי בְרֵךְ הִנֵּה [means] “You ask me: ‘What has the LORD said?’ I (i.e., Balaam) have received [an order] from Him to bless them (i.e., Israel).” [The phrase] אֲשִׁיבְנָהּ וְלֹא וּבִרְךָ [means] “*He (i.e., the Lord) blessed them, and I will not revoke His blessing*” (emphasis mine). Likewise, Ibn Ezra (1092–1167) comments that וּבִרְךָ עַל עֵבֶר וְהִטְעַם כִּי הַשֵּׁם [The word] וּבִרְךָ is a past-tense verb; the meaning is “The LORD granted a blessing and I will not revoke it.”

The *qatal* forms in v. 21 are commonly labelled *perfectum confidentiae* (GKC, §106n) and, with such a distinguished name, left in peace. Cf. Notarius (2013, 217–19).

²³ Here in v. 17 Notarius (2013, 220) sees the prophetic perfect as a subset of the resultant perfect, with the *weqatal* forms marking temporal text-progression within future-time reference.

- (9) וַיִּקַּר אֱלֹהִים אֶל-בְּלָעַם וַיֹּאמֶר אֵלָיו
 אֶת-שִׁבְעַת הַמִּזְבְּחֹת עָרַכְתִּי וְאָעַל פָּר וְאֵיל בְּמִזְבֵּחַ:
 ‘God manifested himself to Balaam and he said to him,
 “Seven altars have I set up
and I sacrificed a bull and ram on each altar.”’ (Num.
 24.4)

On the one hand, the striking syntactic sequence of object-*qatal* followed by *wayyiqtol*-object is nearly poetic, suggesting that it may hark back to an earlier poetic memory (toward archaic times). On the other hand, the absence of *wayyiqtol* forms in the prophecies makes this form seem foreign in Balaam’s mouth and possibly from a different dialect or time period.

Psalm 68 and Balaam’s oracles thus provide little evidence for use of a prefixed preterite, whether alone or in the bound *wayyiqtol* form: only one (possible) short prefixed preterite each.²⁴ *Qatal* largely bears the burden of preterite past tense.

1.1.4. Possibly Archaic *wayyiqtol*

In the Song of the Sea we find a single *wayyiqtol* form (וַיְהִי), followed soon thereafter by two *wayyiqtol* forms (וַיִּצְרַח וַיִּמְדַּבֵּר).

- (10) עָנִי וְזִמְרַת יְהוָה לִישׁוּעָה
 ‘The LORD is my strength and might; He has become my
 deliverance.’ (Exod. 15.2)

Given the narrative nature of the song, one might have expected a series of *wayyiqtol* forms (as in, for instance, Ps. 18). What we do find is nearly the exact text of Exod. 15.2 in both Isaiah and

²⁴ Including תִּשְׁלַג ‘let it snow (?)’ or ‘you caused it to snow (?)’ in Ps. 68.15.

Psalms, raising two possibilities: either the latter texts are drawing on an earlier, archaic tradition (with the rare form יָהּ) or the earlier text has been adapted to a later tradition (with a possibly anachronistic *wayyiqtol* form). (Or, of course, a combination of the two.) We have already seen, above in Gen. 49.9, portions of text that plausibly seem embedded tropes. The rare יָהּ might indicate the same phenomenon here.

- (11) הַיְהוָה אֵל יְשׁוּעָתִי אֶבְטַח וְלֹא אֶפְחָד
 כִּי־עֲזִי וְזַמְרָת יְהוָה יְהִי־לִי לְיְשׁוּעָה:
 ‘Behold the God who gives me triumph! so I am confident,
 unafraid;
 For Yah the LORD is my strength and might, And He has
 become my deliverance.’ (Isa. 12.2)

- (12) עֲזִי וְזַמְרָת יְהוָה יְהִי־לִי לְיְשׁוּעָה:
 ‘Yah is my strength and might; He has become my deliverance.’ (Ps. 118.14)

If these are embedded tropes, then it becomes more difficult to identify the original context, so we must be cautious about adopting any conclusions. The *wayyiqtol* in Exod. 15 may not be original to its context.

1.1.5. Certainly Archaic *wayyiqtol*

We have a clear *wayyiqtol* in the Song of Deborah, but it is not a fully independent form introducing a clause detached from surrounding clauses. In Judg. 5.28 we have ellipsis of the subject (Sisera’s mother) in the first clause (with *qatal*), with the subject provided in the second clause (with *wayyiqtol*). The first clause is

Wayyiqtol does not have a monopoly on consecutive past tense verbs, however, as is evident in the blessing on Reuben in v. 4, which, instead of *wayyiqtol*, has זָ with *qatal*.

- (15) פָּחַז בַּמַּיִם אֶל־תּוֹתֵר כִּי עָלִיתָ מִשְׁכְּבֵי אָבִיךָ
 אֶז חֲלַלְתָּ יְצוּעֵי עֲלֵה: פ
 ‘Unstable as water, you shall excel no longer; For when
 you mounted your father’s bed,
Then you brought disgrace—my couch he mounted!’ (Gen.
 49.4)

In prose, the default sequence would have been עָלִיתָ וְחֲלַלְתָּ (cf. Exod. 20.25). The two verbs refer to the same action, but the presentation of זָ with *qatal* separates the disgrace as a distinct idea (as indeed the third verb, עֲלֵה, again referring to the same action, is presented in third person as a linguistic distancing that parallels the distancing of Jacob from his firstborn-but-no-longer-heir).

Similarly, in v. 6 one might have expected a *wayyiqtol* followed by the prepositional phrase בְּרִצְנָם, but instead the prepositional phrase is fronted, followed by another *qatal* form.

- (16) כִּי בְּאַפָּם הָרְגוּ אִישׁ וּבְרִצְנָם עָקְרוּ־שׂוֹר:
 ‘For in their anger they slew men and at their pleasure
 they hamstrung oxen.’ (Gen. 49.6)

The blessing on Judah in v. 9 is the most obvious opportunity for *wayyiqtol* forms (repeated from above).

- (3) מִטָּרֶף בְּנֵי עָלִיתָ גֹּר אַרְיֵה יְהוּדָה
 מִי יִקְיָמְנוּ: כָּרַע רֶבֶץ כְּאַרְיֵה וּכְלָבִיא
 ‘Judah is a lion’s whelp;
 On prey, my son, have you grown.

He crouched, he lay down like a lion, like the king of beasts;
Who dares rouse him?’ (Gen. 49.9)

These cases demonstrate the availability of *wayyiqtol* for consecutive past tense, and the simultaneous availability of *qatal* to convey the same semantics (but with other poetic or pragmatic effect).

1.2.1. Not Yet Classical: Habakkuk 3.6

Habakkuk 3.6 demonstrates the familiar *qatal-wayyiqtol* pattern, e.g., *וַיִּמְדָּד* | *וַיִּתְרַץ* and *רָאָה וַיִּתְרַץ*, but then an unexpected (poetic) *wayyiqtol-qatal* sequence (*וַיִּתְפָּצְצוּ הַרְרֵי־עַד שָׁחוּ גְבְעוֹת עוֹלָם*). This is not quite yet classical (prose) style.

(17) עִמָּד | וַיִּמְדָּד אֶרֶץ רָאָה וַיִּתְרַץ גּוֹיִם
וַיִּתְפָּצְצוּ הַרְרֵי־עַד שָׁחוּ גְבְעוֹת עוֹלָם
הַלִּיכּוֹת עוֹלָם לֹא:

‘When He stands, He makes the earth shake; When He
glances, He makes nations tremble.

The age-old mountains are shattered, The primeval hills
sink low.

His are the ancient routes.’ (Hab. 3.6)

1.2.2. Archaic Biblical Hebrew Together with *wayyiqtol*

In Deut. 32–33, Ps. 18, and 2 Sam. 22²⁸ the *wayyiqtol* form begins to function in more familiar fashion, but with no hegemony. First, there continue to be narrative recitals without *wayyiqtol*. Ps. 18 begins with *qatal-yiqtol* and *qatal-qatal* sequences in vv. 5–6.

²⁸ Cf. Notarius (2013, 165–66).

- (18) אַפְפוּנִי חֲבַלֵי־מָוֶת וְנַחֲלֵי בְלִיעַל יִבְעֲתוּנִי:
 חֲבַלֵי שְׁאוֹל סָבְבוּנִי קְדָמוּנִי מִזְקָשֵׁי מָוֶת:
 ‘Ropes of Death encompassed me; torrents of Belial terri-
fied me;
 Ropes of Sheol encircled me; snares of Death confronted
 me.’ (Ps. 18.5–6)

Immediately afterward, in v. 7, a series of *yiqtol* forms carries the narratival action.²⁹

- (19) בְּצַר־לִי | אֶקְרָא יְהוָה וְאֶל־אֱלֹהֵי אֲשׁוּעַ
 יִשְׁמַע מֵהֵיכָל קוֹלִי וְשׁוֹעֲתֵי לְפָנָיו | תִּבּוֹא בְּאָזְנוֹ:
 ‘In my distress I called on the LORD, cried out to my God;
 in His temple He heard my voice; my cry to Him reached
 His ears.’ (Ps. 18.7)

As if to display the variety of forms capable of carrying on a narrative recital, v. 8 gives an entirely different series: many sequential *wayyiqtol* forms (interspersed with a few *qatal* and *yiqtol*³⁰ forms), describing a breath-taking storm theophany.

- (20) וַתִּגַּעַשׁ וַתִּרְעַשׁ | הָאָרֶץ וּמוֹסְדֵי הָרִים יִרְגָּזוּ וַיִּתְגַּעְשׂוּ כִּי־חָרָה לִּי:
 עָלָה עָשָׁן | בְּאָפוֹ וְאֶשׁ־מִפְּיוֹ תֹאכַל גְּחָלִים בְּעָרוֹ מִמְּנוֹ:
 וַיִּט שָׁמַיִם וַיִּרְדּוּ וַעֲרָפֶל תַּחַת רַגְלָיו:
 וַיִּרְכַּב עַל־כְּרוֹב וַיִּעָף וַיִּדָּא עַל־כַּנְפֵי־רוּחַ:
 ‘Then the earth rocked and quaked; the foundations of the
 mountains shook,

²⁹ Whereas above, in the Song of Deborah, *qatal* was the perfective past and *yiqtol* the imperfective circumstantial (Notarius 2013, 269), here it is the *qatal* forms that set the scene and *yiqtol* that furthers the main line of the plot. Only the last *yiqtol* is clearly long; the others are ambiguous.

³⁰ These *yiqtol* forms are ambiguous as to whether they are short or long.

rocked by His indignation;
 smoke went up from His nostrils, from His mouth came
 devouring fire; live coals blazed forth from Him.
He bent the sky and came down, thick cloud beneath His
 feet.
He mounted a cherub and flew, gliding on the wings of
 the wind.’ (Ps 18:8–11)

The recital weaves in and out of the various forms, with another
 round of *wayyiqtol* forms in vv. 14–16, but returning to mostly
yiqtol forms³¹ for the climax.

(21) יִשְׁלַח מִמְרוֹם יִקְחֵנִי יְמִשְׁנֵי מַמְיִם רַבִּים:
 יִצִּילֵנִי מֵאֵיבֵי עוֹז וּמִשֹּׁנְאָי כִּי־אֶמְצֶוּ מִמֶּנִּי:
 יִקְדָּמוּנִי בַיּוֹם־אִי־דִי וַיְהִי־יְהוָה לְמִשְׁעֵן לִי:
 וַיּוֹצִיאֵנִי לְמִרְחֵב יְחִלְצֵנִי כִּי תִפֶּץ בֵּי:
 יִגְמְלֵנִי יְהוָה כְּצַדִּיקִי כְּבָר יְדֵי יוֹשֵׁב לִי:
 ‘He reached down from on high, He took me; He drew me
 out of the mighty waters;
He saved me from my fierce enemy, from foes too strong
 for me.
They confronted me on the day of my calamity, but the
 LORD was my support.
 He brought me out to freedom; He rescued me because He
 was pleased with me.
The LORD rewarded me according to my merit; He re-
quited the cleanness of my hands.’ (Ps. 18.17–21)

The significance of these various means of fashioning a narrative
 recital indicates precisely that there was not one standard: there

³¹ The final form, יָשִׁיב, is clearly long. The others are ambiguous.

was no expectation that past sequences be encoded in *wayyiqtol* forms (or even short *yiqtol* with or without the *way-*). The translational semantics (English simple past) are the same for all these verbs, suggesting that simple tense and aspect are not the factors motivating the different verbal choice.³² As in Deut. 32.15, verbal form and even the person of the verb appear very much in the service of poetic effect, perhaps even to the obscuring of verbal semantics.³³ As the JPS translation of Hab. 3.6 suggests (presented here because it demonstrates well what I consider the best reading), past tense might not be inherent in the Hebrew verbal forms, which in some contexts might be better translated as English present forms.

1.3. Compared to Classical Biblical Hebrew

The texts most commonly classified as ABH are listed below (Table 1), with the number of *wayyiqtol* forms present in each (and sorted accordingly). Although the very classification of ABH is a matter for debate (based on diachrony? dialect? theology of Yhwh from the east? Yhwh at Sinai?), the persisting consensus on these texts has an empirical basis, which the following table helps to clarify.

³²In a previous work I have touched on discourse and information structure as possible motivation for the change in verbal choice (Robar 2014).

³³Discourse functions trumping verbal semantics have been well documented in other cultures' poetry; see, for instance, Fleischman (1985; 1990).

Table 1: Texts traditionally considered Archaic Biblical Hebrew, with totals of *wayyiqtol* forms

Archaic Biblical Hebrew texts	<i>Wayyiqtol</i> forms
Psalms 68	0
Numbers 23–24 (Oracles of Balaam)	0 ³⁴
Judges 5 (Song of Deborah)	1
Exodus 15.1–18 (Song of Moses)	1
1 Samuel 2.1–10 (Prayer of Hannah) ³⁵	2
Genesis 49 (Jacob's blessing)	4
Habakkuk 3	5
Deuteronomy 32–33 (Prayer and Blessing of Moses)	20
Psalms 18	23
2 Samuel 22	27

Within this corpus of ABH, we can readily arrange the texts in order of *wayyiqtol* frequency. There are many past perfective verbs other than *wayyiqtol* (notably *qaṭal* and a few *yiqtol* forms). When *wayyiqtol* does appear, it is often past perfective, but the verbal semantics are subordinated to poetic function. In 1 Sam. 2.6, for instance, the *wayyiqtol* form is only with some contortion past perfective; it depicts action characteristic of Yhwh, continuing the semantics of the participles earlier in the verse.³⁶

³⁴ One instance, if Balaam's direct address of God (outside the actual oracles) is included.

³⁵ These texts were not analysed, simply for want of space.

³⁶ Cf. Notarius (2013, 259).

(22)

יְהוָה מְמִית וּמְחַיֶּה
מֹרִיד שְׂאוֹל וַיַּעַל:

‘The LORD deals death and gives life,
Casts down into Sheol and raises up.’ (1 Sam. 2.6)

The above tabulation does not pretend to be a chronological ordering of the texts, but it may have significance for a *typological* ordering of the texts, if the distribution of *wayyiqtol* is to be correlated with its evolution within Biblical Hebrew.³⁷

2.0. Job

Having established that ABH (if we have properly identified it) is not homogeneous in its use of *wayyiqtol*, we now turn to Job, whose book and language remain mysterious in many ways and thus represent a different stream of Biblical Hebrew.³⁸ In contrast to the situation in ABH texts, the use of *wayyiqtol* is highly developed in the poetry of Job. Below are various examples of uses atypical within Classical Biblical Hebrew.

2.1. *Wayyiqtol* Not Independent

In Job 3.10, the negative לֹא can apply to both its own clause and the following *wayyiqtol* clause.

³⁷ If *wayyiqtol* evolved at different rates in different dialects or registers of Biblical Hebrew, evolutionary states may not correlate with dating. A ‘more evolved’ form in one dialect might coincide with a ‘less evolved’ form in another dialect.

³⁸ No particular date is assumed here for Job. An exilic or post-exilic date has been suggested on the basis of the language of the prose tales (Hurvitz 1974). Cf. Young, 2009; Joosten, 2013.

- (23) כִּי לֹא סָגַר דְּלֶתַי בְּטֶנֶי
וַיִּסְתֵּר עֵמָּל מֵעֵינַי:
‘Because it did not shut the doors of my mother’s womb,
nor hide trouble from my eyes.’ (Job 3.10)

This is the inverse of Judg. 5.28, in ex. (13) above, in which the *qatal* clause depended on the *wayyiqtol* clause. Ellipsis of the *לֹא* means that *wayyiqtol* is semantically dependent on the previous (*qatal*) clause for its negation. (Cf. Job 7.21, with the same phenomenon involving *yiqtol* and *weyiqtol*.)

2.2. The Chained ‘Paragraph’

The reason *wayyiqtol* does not function as an independent verb may be, simply put, that it is not an independent verb. Rather than introducing an independent clause with past tense and perfective aspect, it may function to ‘chain’ clauses together into a paragraph quite apart from verbal semantics. Oakes (2018, 178) describes a crosslinguistic form of clause chaining, which he also perceives within Biblical Hebrew:³⁹

A chain of clauses that are neither coordinated nor subordinated, but are governed in a different way by a controlling (head) clause either at the beginning or the end of the paragraph (or larger unit). This head verb is fully inflected, while the other verbs of the paragraph lack inflection in some significant way. That is, these other verbs that make up the bulk of the paragraph rely on the head verb for their tense, aspect, or mood, and often for their subject. Linguists refer to these dependent verbs as medial verbs, and

³⁹This is the same phenomenon I attempted to describe in Robar (2014).

to the languages that use them as (verb- or clause-) chaining languages.⁴⁰

In other words, if *wayyiqtol* is understood as a medial verb, its function is to bind together a paragraph whose basic verbal semantics (e.g., tense, aspect, mood) are often determined by a head verb or clause (or, in other languages, a tail verb or clause).

If *wayyiqtol* is thus understood, it becomes simple to see how it can continue even participial function, as above in 1 Sam. 2.6 or with the nominal participle הַמְחַכִּים (passing over the nominal clause וְאֵינְנוּ) in Job 3.21:

(24) הַמְחַכִּים לְמוֹת וְאֵינְנוּ
וַיַּחְפְּרוּהוּ מִמַּטְמוֹנִים:

‘To those who wait for death but it does not come,
Who search for it more than for treasure.’ (Job 3.21)

Similarly, *wayyiqtol* can continue a relative clause with its resumptive pronoun:

⁴⁰ Note that Oakes applies this discussion to the function of *weqatal*, though in a footnote he considers *wayyiqtol* to be a chaining verb for past tense narrative. Given its applicability to the language of Job, the notion could be expanded to a chaining verb in both narrative and poetry, whether past, present or future. The existence of *two* chaining verbs in Hebrew is worth noting. The answer may lie in linguistic development (*weqatal* as contingent modality re-analysed as chaining), in sociological happenstance (with the scribal institution of the monarchy) or some other reason.

- (25) לְגֵר אֲשֶׁר־דָּרְכוּ נִסְתָּרָה
וַיִּסָּד אֱלֹהֵי בְעָדָו:

‘To the man who has lost his way,
Whom God has hedged about?’ (Job 3.23)

Two verses later, the *wayyiqtol* resumes a relative clause semantically, but transforms the object of the relative clause (the fear that was feared) into a subject (the fear that came upon him). This is indeed neither co-ordination nor subordination, but nonetheless involves connected clauses.

- (26) כִּי פָחַד פָּחַדְתִּי וַיֵּאָתֶינִי
וְאֲשֶׁר יָגֵרְתִּי יָבֵא לִי:

‘For a fear I feared and it has come upon me;
what I dreaded has overtaken me’ (Job 3.25)

Alternatively, one might translate this as ‘For a fear I feared comes upon me; what I dread befalls me.’ Whether both the *wayyiqtol* and *yiqtol* are understood as past or as general present, they would seem to share tense and aspect here. What is relevant for this argument is that the *wayyiqtol* continues the semantics of the preceding *qatal*.

2.3. *Yiqtol*–*wayyiqtol* Sequences

As in several cases above in ABH, so in Job, *wayyiqtol* is used with unexpected senses. At least, Eliphaz seems to have been under no constraints regarding its syntax or semantics. (Nor was he instructed that clause-initial *yiqtol* is reserved for jussive semantics.) In both Job 4.5 and 12 we have *yiqtol* as the head for *wayyiqtol* clauses (including one clearly long *yiqtol*).

- (27) כִּי עָתָה | תָּבוֹא אֵלַיךָ וְתִלְא
תִּגַּע עֲדֶיךָ וְתִבְהַל:

‘But now it comes to you, and you are impatient;
it touches you, and you are dismayed.’ (Job 4.5)

- (28) וְאֵלַי דְּבַר יִגְבֹּב
וְתִקַּח אָזְנִי שִׁמְעַת מְנִהוּ:

‘A word came to me in stealth;
My ear caught a whisper of it.’ (Job 4.12)

2.4. Semantic Freedom

The syntactic freedom of *wayyiqtol* extends equally to the semantic domain. Just as when continuing a participle syntactically it also continued the general present semantics, so also in Job 7.9 it continues a general present *qatal* with the same semantics.⁴¹

- (29) כָּלָה עָנָן וַיִּלָּךְ כִּן יוֹרֵד שְׁאוֹל לֹא יַעֲלֶה:
‘As the cloud fades and vanishes,
so he who goes down to Sheol does not come up.’ (Job
7.9)

Immediately afterward we have the statement that a tree cut down may yet have hope in its stump, for with the scent of water it might yet sprout anew. As for man, however:

- (30) וְגִבֹר יָמוּת וַיִּחַלֵּשׁ
וַיִּגָּוַע אָדָם וַאֲיֵי:

‘But mortals languish and die;
Man expires; where is he?’ (Job 14.10)

⁴¹ Its semantic breadth has been noted before (Michel 1960), even if largely ignored in the literature.

Much more can be said about the syntax, semantics, and discourse functions of *wayyiqtol* in Job, but these examples should be sufficient to demonstrate that neither in ABH, nor in Job, have we fully understood the function of *wayyiqtol* if we restrict it to past tense and perfective aspect. It behaves with far more freedom than some of our scholarly pronouncements permit.

3.0. Conclusion

In much ABH, there are few *wayyiqtol* forms or none at all (rare in the Songs of Deborah and Moses, Prayer of Hannah; none in Ps. 68 and Num. 23–24). In some, *wayyiqtol* is common in form, but with varying function. If this aligns with their typological development (which has not been argued, but is considered plausible), this could reflect the development of a new form,⁴² possibly prompted by its close connection between two actions (the opposite of the distancing seen with $\text{ׁ} + qatal$ in Gen. 49 in ex. (15) above).

In Job, we have another linguistic stream, in which *wayyiqtol* is common as a freely chaining verb, that is, following other verbs (even participles) and taking up their prominent tense, mood, and aspect. It seems to behave more as a medial verb in a

⁴² Gzella's response to this distribution is to consider *wayyiqtol* as a bound form to be an innovation which spread during the ninth century B.C.E., but only in Southern Canaan and Transjordan (i.e., in Hebrew and Moabite), rather than an earlier Northwest Semitic form (Gzella 2018). According to Kantor's (2020, 124–26) recent work, we must not assume that the *wayyiqtol* was phonologically disambiguated from *wayiqtol* before the Second Temple Period.

clause-chaining language, rather than an independent form with a morphologically encoded tense and aspect.

If so, describing *wayyiqtol* as combining perfective aspect with past tense does not reflect its first appearances within Biblical Hebrew. This essay provides evidence pointing in a different direction: perhaps syntax, rather than semantics, would be a more helpful motivation to explain the rise of *wayyiqtol*.

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NOTES ON THE LENGTHENED IMPERFECT CONSECUTIVE IN LATE BIBLICAL HEBREW

Ambjörn Sjörs

1.0. Introduction

It is widely assumed that the verb form used in the third-person volitive, i.e., jussive *yiqtol*, is derived from the same verbal grammatical morpheme as the verb form used in the so-called imperfect consecutive, *wayyiqtol*.¹ This assumption is based, among other things, on the morphological identity between the jussive and the imperfect consecutive vis-à-vis the imperfective in certain stems and roots, such as III-*w/y* verbs. Compare, for example, the ‘full’ imperfective יְהִי ‘he/it will be’ and the ‘short’ jussive יְהִי ‘let him/it be’ and imperfect consecutive וַיְהִי ‘and he/it was’. In the first person, however, the imperfect consecutive and the volitive, i.e., the cohortative, are usually distinct, at least in the earlier books of the Hebrew Bible according to the Masoretic text.

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For example, while the imperfect consecutive typically displays short forms whenever they obtain, the cohortative is characteristically lengthened by the so-called paragogic *heh* after the final radical: compare cohortative $\text{ʿ}εqt\bar{a}l\bar{a}$, imperfect consecutive $w\bar{a}\text{ʿ}εqt\bar{o}l$, and imperfective $\text{ʿ}εqt\bar{o}l$. At the same time, paragogic *heh* is rarely and almost never written when the final radical is either ʿ or *w/y* (Revell 1988, 419, n. 3), which means that in these cases the cohortative morphologically coincides with the imperfective. Thus, the $\text{ʿ}εqt\bar{o}l$ form of a III-*w/y* verb that displays a non-short form is analysable as either lengthened or full, and, from a formal point view, volitive or imperfective, e.g., $\text{ʿ}εqt\bar{o}l$ ‘may I see’ and ‘I shall see’.

In later forms of Hebrew, in turn, paragogic *heh* is frequently used also in the first-person imperfect consecutive. For example, in Ecclesiastes and the core Late Biblical Hebrew (LBH) books of Esther, Daniel, Ezra, Nehemiah, and Chronicles, 59 of 116 examples of the first-person imperfect consecutive are lengthened with paragogic *heh* (Hornkohl 2014, 162). In the Masoretic Pentateuch, on the other hand, the corresponding numbers are only 4 out of 105. In non-biblical texts from Qumran, in turn, lengthening is determined by word order, so that $\text{ʿ}qtlh$ is used as a rule in clause-initial position, whether or not preceded by *w-*, and whether *w-* is conjunctive or conversive (Qimron 1997, 198).² In other words, the first-person imperfect consecutive is practically always lengthened.

² The Great Isaiah Scroll seems to indicate the existence of different scribal practices. As is well known, 1QIsa^a can be divided into two parts

According to the common explanation, the use in the first-person imperfect consecutive of a verb form that looks like the cohortative is due to analogy with the use of one and the same verb form in the imperfect consecutive and the jussive in other grammatical persons.³ Indeed, even while the full (or lengthened) form of III-*w/y* verbs predominates in the first person, only three out of 269 examples are full in the third-person singular and second-person masculine singular in LBH (Hornkohl 2014, 174).

At the same time, the distribution of the first-person imperfect consecutive in LBH is at first sight not homogenous. The books of Ezra, Nehemiah, and Daniel, for example, provide evi-

based on the physical layout of the manuscript (DJD 32/2, 40–41): columns i–xxvii (Isaiah 1–33) and columns xxviii–liv (Isaiah 34–66). Now, the first part of the scroll has the lengthened prefix conjugation on only two occasions (ואמרה ‘and I said’ [Isa. 6.8, 11]) where the Masoretic text has unlengthened forms (Kutscher 1974, 326). The second part, in turn, evinces the same practice as the non-biblical texts (Qimron 1997, 178), and consistently has lengthened forms after *w-*. Notably, this distribution between lengthened and unlengthened forms dovetails with the distribution of other orthographic and morphological features. Thus, it is possible that the scribe of the second half of 1QIsa^a, or the scribe of some source text to it, applied the same principle as found in the non-biblical compositions when handling the morphology of the imperfect consecutive in the first person.

³ See Bergsträsser (1929, 22) and more recently Hornkohl (2014, 165–70). Lengthening of the imperfect consecutive in Qumran Hebrew may also be viewed in the light of a preference for lengthened lexemes in general, such as מואדה ‘much’ (MT מאד) and שמה ‘there, thither’ (MT שם), see Fassberg (2003).

dence of both lengthened and unlengthened imperfect consecutive. The book of Chronicles, however, displays only unlengthened forms.⁴ Japhet (1968, 338) has suggested that the absence of the lengthened imperfect consecutive in Chronicles is indicative of “a normative linguistic principle which is applied in Chr. in contrast to all the other texts of the same period.” Polzin (1976, 54–55), in turn, has noted that the reverse could also be the case, and that the lengthened imperfect consecutive was indiscriminately used as misunderstood archaisms in Ezra and Nehemiah. Polzin (1976, 55) alternatively suggests that the situation may reflect different scribal practices: the tradition underlying the book of Chronicles was uniform and used only the unlengthened imperfect consecutive. The use of both lengthened and unlengthened forms in Ezra and Nehemiah, on the other hand, may be due to a plurality of scribal traditions.⁵

⁴ The evidence for the imperfect consecutive in other compositions that are usually held to be late is limited. There are three attestations of the first-person imperfect consecutive in Ecclesiastes. Two of them are forms of הָרָאָה ‘see’ and are full (Eccl. 4.1, 7). The other verb form is lengthened (Eccl. 1.17). There are six lengthened verb forms in Ps. 119 (55, 59, 106, 131, 147, 158) and one unlengthened (52).

⁵ See also Talshir (1988, 174): “[I]t is not unlikely that the difference between Ezra–Neh. and Chronicles reflect[s] at best two different copyists.” See further Revell (1988, 423):

The use of affixed 1st person forms with *waw* consecutive represents, then, a syntactic or semantic development which was standardized in a post-exilic form of literary Hebrew. It is possible that some parts of the Bible were written in a Hebrew of this sort in which the standardization

The purpose of this study is to analyse the evidence for the first-person imperfect consecutive in Daniel, Ezra, Nehemiah, and Chronicles and to explain its distribution in the different texts.

2.0. Daniel

There are 25 examples of the imperfect consecutive in the first person in Daniel: two III-^ʿ verbs without *-h*, six full III-*w/y* verbs, one short III-*w/y* verb, six unlengthened verb forms of other roots, and ten lengthened forms of such verbs, see Table 1 below.⁶

Table 1: First-person imperfect consecutive in Daniel

Chapters	Verb Class						
	‘Strong’		III- <i>w/y</i>		III- ^ʿ		Suffixed
	[+h]	[-h]	[+h]	[-h]	[+h]	[-h]	
1–12	10	6	6	1	—	2	—

On three occasions, paragogic *heh* is missing from וַיִּשְׁמַע ‘and I heard’ (Dan. 8.16; 10.9; 12.7), which is conspicuous in view of וַיִּשְׁמַעַהּ (Dan. 8.13). However, the absence of paragogic *heh* can presumably be explained as a result of the weakening of

of this usage was either less complete than at Qumran, or has been obscured by later change.

Revell also suggests that the distribution of the affixed *waw* consecutive (the lengthened imperfect consecutive) in Nehemiah is different from the usual division based on content and style, which indicates that it must have arisen in the process of transmission.

⁶ For III-^ʿ verbs, see Dan. 8.3 (but cf. וַיִּשְׂאֵהָ ‘and I lifted’ 4QDan^b f16–18i + 19.5 [DJD 16, 266]) and 10.5. For III-*w/y* verbs, see Dan. 8.2 (2x), 3, 27; 9.4; 10.5, 8.

‘*ayin* and subsequent assimilation of \bar{a} . This is not entirely uncommon in the Great Isaiah Scroll from Qumran (Kutscher 1974, 507); see, e.g., אודיע נא ‘I will make known to you’ (1QIsa^a 4.16 || MT אודיעה-נא Isa. 5.5) and ונדע ‘that we may know’ (1QIsa^a 5.6 || MT ונדעה Isa. 5.19). Assimilation may also be at work in ואפתח פי ואדברה ‘and I opened my mouth and I spoke’ (Dan. 10.16). In this case, it is the weakening of *het* that has caused the assimilation of \bar{a} , cf., e.g., נגילה ונשמח ‘let us be glad and rejoice’ (1QIsa^a 20.8 || MT נגילה ונשמחה Isa. 25.9). This kind of assimilation would at first sight be quite exceptional in Daniel, but finds support in a combination of two hypotheses, namely, that the gutturals first weakened among the educated Hellenised population (Kutscher 1974, 57–60), and that the author or a redactor of Daniel 7–12 was knowledgeable in Greek learning.⁷

The remaining two unlengthened forms occur in the last verse of Dan. 8:

- (1) ואני דניאל נהייתי ונחליתִי ימים ואָקום ואָעֲשֶׂה אֶת־מְלַאכַת הַמֶּלֶךְ
ואָשְׂתוּמָם עַל־הַמְרָאָה וְאִין מִבִּין: פ

‘I, Daniel, was exhausted and sick for days. Then I started doing the king’s work. I was appalled by the vision, it was beyond understanding.’ (Dan. 8.27)

Dan. 8.27a includes the only instance of the *qal* verb קום in the Hebrew of Daniel. The verb used for ‘stand (up)’ everywhere else is עמד.⁸ Thus, the use of קום, as well as the absence of paragogic

⁷The source of the theory of four successive world empires, for example, can be found in Greek historiography; see Niskanen (2004, 27–43).

⁸See Kutscher (1982, 84) on the use of עמד ‘stand up’ in LBH.

heh from it, may be explained in light of the construction וְאָקוּם וְאֶשְׂפָּה, and the fact that וְאָקוּם is grammatical rather than lexical. In a similar fashion, the use of the short form of וְרָאָה ‘see’ in וְאֶשְׂפָּה וְאָרָא ‘I lifted my eyes and I saw’ (Dan. 10.5) may result from the formulaic nature of the phrase. Thus, in both examples it appears that the unlengthened verb forms are due to the fixed expressions in which they occur. As such, they are not necessarily generated by the writer’s own language use, but formed by force of habit.

The postscript in Dan. 8.27b, in turn, may be a redactional addition. Since the meaning of the vision has been sought in Dan. 8.15–16 and subsequently been expounded in Dan. 8.20–25, the statement in Dan. 8.27bb, that there was no interpreter (or perhaps ‘I was not understanding’), is contradictory (Hasslberger 1977, 15–17). It is possible, therefore, that Dan. 8.27b was added at a later stage to make a transition from Dan. 1–8 to chapters 9–12 (Kratz 2001, 100–1). This possibility is further corroborated by the use of verbs with the root שׁמ"מ in Dan. 8.27ba, which becomes frequent in Dan. 9 (Dan. 9.17, 18, 26, 27).

3.0. Ezra

There are 23 examples of the imperfect consecutive in the first person in Ezra: one III-³ verb with *-h* (according to the *ketiv*) and two without it, one full III-*w/y* verb, 16 lengthened verb forms of other roots, and two unlengthened forms of such verbs. In one

example, the imperfect consecutive is followed by a pronominal suffix.⁹

One of the two unlengthened verb forms is found in וַנִּשְׁבּוּ וְנָשִׂים נְכָרִיּוֹת ‘We have married foreign women’ (Ezra 10.2). This example occurs in direct speech that belongs to Ezra’s third-person narrative and can perhaps be attributed to a different author or redaction than the first-person narrative. Wright (2004, 248–57), for example, suggests that Ezra 10 is the work of a later hand and that it is a secondary expansion of the first-person account. Pakkala (2004, 83–89), on the other hand, assumes that Ezra 10.2 belongs to an original third-person narrative and that the first-person accounts in Ezra 7.27–9.15 are later additions. Whatever the case may be, the use of defective spelling in *hif’il* וַנִּשְׁבּוּ is itself exceptional in LBH, since the *hif’il* first-person imperfect consecutive has full consonantal orthography in 17 of 19 examples in Ecclesiastes, Esther, Daniel, Ezra, Nehemiah, and Chronicles (Hornkohl 2014, 160–61). The only exceptions are וַנִּשְׁבּוּ (Ezra 10.2) and וַאֲנִי אָמַרְתִּי ‘and I said’ (1 Chron. 17.10), which is itself distinctive (see below).

The other unlengthened imperfect consecutive is found in the first-person narrative: וַנִּבְּוֵא יְרוּשָׁלַם וַנִּשְׁבּוּ שָׁם יָמִים שְׁלֹשָׁה ‘We came to Jerusalem and we dwelled there for three days’ (Ezra 8.32). Since Ezra 8.32 is similar to וַאֲבֹא אֶל-יְרוּשָׁלַם וְאָהִי-יָשָׁם יָמִים שְׁלֹשָׁה ‘I came to Jerusalem and I was there for three days’ (Neh. 2.11), it

⁹ For III-*v* verbs, see Ezra 8.17 (*ketiv*), 21, and 32. For III-*w/y* verbs, see Ezra 8.15. For the imperfect consecutive with a pronominal suffix, see Ezra 8.15.

is possible that the verse in Ezra was added at a later stage, during a redactional process in which the texts of Ezra and Nehemiah were combined.

It is also possible that the application of paragogic *heh* was inhibited by the penultimate stress pattern in וַיִּשָׁב (Ezra 8.32) (and וַיִּשָׁב Ezra 10.2) and that it was written without paragogic *heh* by force of habit. On this assumption, וַיִּשָׁב was not generated by the author or the scribe at the time of writing, but memorised from previous encounters and prefabricated in the lexicon, perhaps on analogy with וַיִּשָׁב ‘and he sat, dwelled’, which occurs more than a hundred times in the Hebrew Bible.

4.0. Nehemiah

The book of Nehemiah is known to have an almost even number of lengthened and unlengthened verb forms (Talshir 1988, 172). However, the verb forms are not distributed evenly in the book; see Table 2.¹⁰

¹⁰ The counts in the table exclude two instances of *qere* וַיִּשָׁב for *ktiv* וַיִּשָׁב in Neh. 5.9 and 7.3. For lengthened verb forms in Neh. 1–4, including a III-² verb, see Neh. 1.4; 2.1, 6, 9, 13. For III-² verbs without paragogic *heh*, see Neh. 2.1, 2, 9, 11, 15; 4.8. For III-*w/y* verbs, see Neh. 1.4 (2x); 2.11, 13, 15 (2x); 3.38. For unlengthened verb forms of other roots, see Neh. 1.5; 2.3, 4, 5, 7, 12, 14, 15 (2x), 17, 18, 20 (2x); 4.3 (2x), 7 (2x), 8 (2x), 9, 13. For III-² and III-*w/y* verbs in Neh. 5.1–7.5 and 12.27–47, see Neh. 5.12; 7.2, 5 (2x); 12.31. For unlengthened verb forms of other roots, see Neh. 5.7; 6.4; 7.1. For lengthened verb forms, see Neh. 5.7 (2x), 8, 13; 6.3, 8, 11, 12; 7.5; 12.31. For III-² and III-*w/y* verbs in Neh. 13, see Neh. 13.7, 25. For unlengthened verb forms of other roots, see Neh. 13.15, 25. For lengthened verb forms, see Neh.

Table 2: First-person imperfect consecutive in Nehemiah

Chapters	Verb Class						Suffixed
	'Strong'		III-w/y		III-ʾ		
	[+h]	[-h]	[+h]	[-h]	[+h]	[-h]	
1–4	4	21	1	6	1	6	1
5.1–7.5; 12.27–47	10	3	2	—	—	3	1
13	16	2	1	—	—	1	6

Since Williamson (1985), it is generally assumed that the Nehemiah Memoir (Neh. 1.1–7.5; 12.27–13.31) combines at least two different genres.¹¹ One part of the memoir consists of a narrative that relates how Nehemiah repaired the walls of Jerusalem, and has variously been described as a building report (Hurowitz 1992, 118–24) and a court tale (Burt 2014, 120–25). There is some disagreement about which material belongs to this part, but a number of scholars conclude that at least the narrative in Neh. 1–4 belongs here.¹² Notably, these chapters also have the highest

13.7, 8, 9 (2x), 10, 11 (2x), 13, 17 (2x), 19 (2x), 21 (2x), 22, 30. For verbs with pronominal suffixes in the Nehemiah Memoir, see Neh. 1.2; 5.12; 13.11 (2x), 25 (3x), 28.

¹¹ See already Mowinckel (1964, 68–74), who characterised significant portions of the book of Nehemiah as enumeration (*Aufzählung*), but noted that Neh. 1–2 separates itself as an introductory narrative (*Erzählung*).

¹² On the basis of Northwest Semitic building inscriptions, Hurowitz (1992, 118–24) classifies the following parts as Nehemiah's building report: (a) Neh. 1.1–2.8 (the decision to build), (b) Neh. 2.9–20 (preparations), (c) Neh. 3 (description of the building), and (d) Neh. 7.1–5a; 11.1–2; 12.27–43 (dedication rites). Burt (2014, 137) characterises Neh. 1–4 as a foreign court narrative in which the action is propelled by the conflicts among courtiers. Indeed, a number of important events

concentration of the unlengthened imperfect consecutive. Furthermore, Neh. 1–4 is characterised by certain archaic or archaising features, such as the frequent use of וַיְהִי before time determinations (Neh. 1.1, 4; 2.1; 3.33; 4.1, 6, 9, 10) and the use of the short form in the first-person imperfect consecutive of III-w/y verbs (Neh. 1.4; 2.11, 13, 15 [2x]; Neh. 4.8).¹³ Indeed, among 25 examples of the first-person imperfect consecutive of III-w/y verbs in Ecclesiastes, Esther, Daniel, Ezra, Nehemiah, and Chronicles, the short form is only found here and in Dan. 10.5 (see above, §2.0).

The other part is not immediately concerned with the building project and is characterised by the occurrences of so-called remembrance formulae, e.g., זָכְרָה לִי אֱלֹהֵי זָכְרָה לָהֶם אֱלֹהֵי (Neh. 5.19) and זָכְרָה לָהֶם אֱלֹהֵי (Neh. 13.29), which express Nehemiah's concern for how he or his enemies should be remembered by God; see also Neh. 6.14;

in Neh. 1–4 are initiated by the reaction of Sanballat and other enemies (Neh. 2.10, 19; 3.33; 4.1, 9). As Nehemiah becomes governor in chapter 5, however, the story leaves the genre of the court tale and turns into an official memoir (Burt 2014, 125). Neh. 6, in turn, comes back to the genre of the court tale and combines it with features of the memoir (Burt 2014, 135).

¹³ Introductory וַיְהִי is also found in Neh. 6.1, 16; 7.1; 13.3, 19. At the same time, it is notably not used before time determinations on four occasions in Neh. 13 (vv. 1, 6, 15, 21).

13.14, 22, 31.¹⁴ The remembrance formula has parallels in commemorative votive inscriptions in Aramaic, Akkadian, Egyptian, and Persian and, on the basis of these parallels, it has been suggested that at least Neh. 5 and 13 belong to a genre of Ancient Near Eastern memorial texts (Von Rad 1964; Burt 2014, 108–11).

Now, the remembrance formula in Nehemiah occurs as a retrospective conclusion of shorter episodic units, and it is precisely in these narrative units that most of the examples of the lengthened imperfect consecutive are found. In other words, these units are composed in a style in which the lengthened imperfect consecutive was used as a rule.¹⁵ It is less clear whether the distribution of the lengthened forms can be explained as a function of genre or whether they should be attributed to a different author or redaction.¹⁶ For its part, Neh. 13, in which most

¹⁴ As shown by Shulman (1996, 65–84) and Fassberg (1999), the so-called lengthened imperative is used when the action of the verb is directed towards the speaker or for the benefit thereof. However, such a meaning does not appear to be present in the lengthened imperative in Neh. 13.29. It rather looks like the verb form is used in imitation of Classical Biblical Hebrew (CBH); see Joosten (1999, 156–57).

¹⁵ Notably, many of the LBH features discussed by Polzin (1976, 73) are found only in Neh. 5 and 13, such as the plural form עָתִים ‘times’ (Neh. 13.31), reduplication with syndeton for plurality (Neh. 13.24), and the appositional order ‘weighed or measured + weight or measure (+ number)’ (Neh. 5.15).

¹⁶ Zahn (2017, 197–99) has argued for the influence of genre on the morphology and orthography in texts found at Qumran, noting that many parabiblical or apocryphal texts are written with the kind of spelling associated with Ezekiel and Jeremiah, rather than according to the so-called Qumran Scribal Practice; see also Tigchelaar (2010, 204).

examples of the remembrance formula are found, may belong to a different author or redaction altogether.¹⁷ Indeed, Corwin (1909, 47–48) noted long ago, even without referring to the use of the lengthened imperfect consecutive, that Neh. 13 and Neh. 1–7.5 differ on a number of syntactical points.¹⁸

Thus, most examples of the lengthened imperfect consecutive are found in coherent units concluded by the remembrance formula, and may belong to an author or redaction different from that of Neh. 1–4.

¹⁷ Williamson (1985, xxvii–xxviii), for example, suggests that the memoir can be divided into two layers: Nehemiah first wrote a building report in connection to the construction of the wall, and later updated it by adding various paragraphs in a different style. Wright (2004, 323–78) agrees that at least Neh. 13.4–14 is more recent than the rest of the memoir. Pakkala (2004, 212–24), in turn, assumes that all of Neh. 13.4–22 is later.

¹⁸ One finds, for instance, narrative *qatal* with conjunctive *we-* twice in chapter 13 (vv. 1, 30), but never in chapters 1–7. Likewise, *wayyiqtol* is twice used as an object clause after אָמַר ‘say, order’ in chapter 13 (vv. 9, 19), but never in Neh. 1–7. Finally, *liqtol* is used in a circumstantial clause on four occasions in chapter 13 (vv. 7, 13, 27 [2x]), but never in chapters 1–7. Notably, the same modes of expression are common in Chronicles. Chapter 5, in turn, shares with Neh. 13 the use of partitive מִן (Neh. 5.5; 13.19, 25, 28) and adverbs of time formed with *la-* (Neh. 5.18; 13.6) against the rest of the memoir. Corwin (1909, 50) suggests that these features in Neh. 5 may belong to the Chronicler’s redaction, and also notes that the construction *ad sensum* with a plural verb form before קָהָל ‘assembly’ (Neh. 5.13b), as well as the use of לְהַרְבֵּה (Neh. 5.18), are distinctive characteristics of Chronicles; see, e.g., 1 Chron. 29.20; 2 Chron. 29.31 and 2 Chron. 11.12; 16.8, respectively.

5.0. Chronicles

In Chronicles there are ten examples of the first-person imperfect consecutive. However, all of these examples occur in passages that have parallels in Samuel and Kings.

The first-person imperfect consecutive of verbs III-*w/y* has the full form in both Chronicles and the parallel texts, see וְאָהֵיָהּ ‘and I have been’ (1 Chron. 17.5 || 2 Sam. 7.6), וְאָהֵיָהּ ‘and I have been’ (1 Chron. 17.8 || 2 Sam. 7.9), and וְאָבַנָהּ ‘and I have built’ (2 Chron. 6.10 || 1 Kgs 8.20).¹⁹ The first-person imperfect consecutive in *qal* verbs II-*w/y*, in turn, is spelled with vowel letters in two examples, even when the parallel text in MT Kings has defective spelling; see וְאָקִיָם ‘and I have arisen’ (2 Chron. 6.10 || וְאָקִיָם 1 Kgs 8.20) and וְאָשִׁיָם ‘and I have placed’ (2 Chron. 6.11 || וְאָשִׁיָם 1 Kgs 8.21). This is in accordance with LBH orthographical practice (Hornkohl 2014, 160–61).

At one point, *wa²eqtol* in Chronicles corresponds to *weqatal* in the parallel verse in MT Samuel: וְאָגַדְתִּי ‘and I hereby tell’ (1 Chron. 17.10 || וְהִגִּידְתִּי ‘and he tells’ 2 Sam. 7.11). At present it seems impossible to know whether the reading in Chronicles belongs to the Chronicler’s own creativity, or whether it represents the faithful transmission of an otherwise unknown source text.

¹⁹ Since there is no evidence for first-person imperfect consecutive of roots III-*w/y* in the Chronicler’s independent composition, nothing can be said with certainty about his own usage at this point (Japhet 1968, 335, n. 1). It is significant, however, that the Chronicler shortens the imperfect consecutive of verbs III-*w/y* in the second and third person (Japhet 1968, 335–36), e.g., *qere* וְיִתְאַוּ *ketiv* וְיִתְאוּ ‘and (David) yearned’ (1 Chron. 11.17 || וְיִתְאַוּהָ 2 Sam. 23.15).

However, the defective spelling of וַאֲנִי points in the latter direction, since the first-person imperfect consecutive in *hif'il* has full orthography in 17 out of 19 examples in Ecclesiastes, Esther, Daniel, Ezra, Nehemiah, and Chronicles (Hornkohl 2014, 160–61). The only exceptions are וַאֲנִי (1 Chron. 17.10) and וַיָּשָׁב (Ezra 10.2; see above, §3.0).

Another example of *wa'eqtol* occurs in a text that has no parallel in other MT books, but for which the Chronicler's source can be reconstructed based on other witnesses. Compare:

(2a) וַאֲבַחַח בִּירוּשָׁלַם לְהִיּוֹת שְׁמִי שָׁם וַאֲבַחַח בְּדָוִד לְהִיּוֹת עַל־עַמִּי יִשְׂרָאֵל:
 'I chose Jerusalem for my Name to be there and I chose David to be over my people, Israel.' (2 Chron. 6.6)

(2b) וַאֲבַחַח בְּדָוִד לְהִיּוֹת עַל־עַמִּי יִשְׂרָאֵל:
 '...and I chose David to be over my people, Israel.' (1 Kgs 18.6b)

While 1 Kgs 8.16b corresponds to 2 Chron. 6.6b, there is no corresponding material to 2 Chron. 6.6a in the MT of 1 Kings. However, the Old Greek version of 1 Kgs 8.16 and the column width of 4QKgs f7 (DJD 14, 177) presuppose the text of the Chronicler's transmission. Thus, the absence of the text corresponding to 2 Chron. 6.6a in MT 1 Kgs 8.16 presumably results from homeoteleuton with 1 Kgs 8.16b. In other words, the use of וַאֲבַחַח in 2 Chron. 6.6 cannot be ascribed to the Chronicler's own composition.

At another point, an unlengthened verb form in Chronicles corresponds to a lengthened verb form in the synoptic verse according to the MT; compare וַאֲכַרְתִּי 'and I have cut off' (1 Chron. 17.8) and וַאֲכַרְתָּה (2 Sam. 7.9). It is not impossible, however, that

the Chronicler's source was different from MT Samuel, so that the difference is merely coincidental. To be sure, disagreement over paragogic *heh* is found in other synoptic verses in the MT.²⁰ Thus, the absence of paragogic *heh* in וְאַכְרִיתָ (1 Chron. 17.8), despite its presence in וְאַכְרַתָּהּ (2 Sam. 7.9), is not conclusive evidence of the Chronicler's own perceived rule of language-usage prescription.

6.0. The Non-Past Prefix Conjugation

It was noted in the introduction that the short form of the imperfect consecutive is normally used when it obtains in the third-person singular and second masculine singular. Now, Qimron (1986–1987) has shown that when the prefix conjugation refers to the non-past in LBH, the short form is also frequently used after *wə-*, even when indicative mood is expected, and where *weqatal* would be used in CBH, e.g., וַיִּכְעַמְדוּ תִשְׁבַּר מְלִכּוּתוֹ וְתִחַץ לְאַרְבַּע ... רִוְחוֹת הַשָּׁמַיִם. 'As he rises, his kingdom will be broken and divided to the four winds of heaven...' (Dan. 11.4a). As noted by Joosten (1999, 158) in connection with this example, the verb form וְתִחַץ may have the same function here as תִּשְׁבַּר, and so the use of a short verb form instead of imperfective וְתִחַצֶּה should be understood as a pseudo-classicism, i.e., an expression known from classical usage that demonstrates a reanalysis on part of the post-classical author: "The authors of post-classical texts appear to have noted that CBH tends to use the short form following *waw*, without paying attention to the distinct function expressed by the

²⁰ Note, for example, Isa. 37.24 || 2 Kgs 19.23; Ps. 18.24 || 2 Sam. 22.24; Ps. 18.38 || 2 Sam. 22.38; 1 Chron. 21.13 || 2 Sam. 24.14; 2 Sam. 22.50 || Ps. 18.50; 2 Sam. 10.12 || 1 Chron. 19.13.

form.” The generalised use of such pseudo-classicisms presupposes a literary standard rather than the idiosyncratic use of an individual author, and shows that pseudo-rules were taught in a school setting to those who became the authors of post-classical literature (Joosten 1999, 156).

A similar case can be made for the distribution of the prefix conjugation referring to the non-past in the first person. The book of Nehemiah includes 16 examples of such verb forms that are not followed by a pronominal suffix and in which the final radical is not ʾ or w/y .²¹ All verb forms that are non-initial are unlengthened (Neh. 1.8; 2.20; 4.4; 5.12; 6.3; 13.21) and all verb forms that are syndetic with $w\text{-}$ are lengthened (Neh. 5.2 [2x], 3; 6.2, 7, 10). This distribution is in agreement with CBH, where the cohortative and imperfective as a rule are used in initial and non-initial position, respectively.²² Notably, however, there are three

²¹ For III- ʾ verbs, see Neh. 2.7, 8; 4.5; 6.11, 13; 10.38. For III- w/y verbs, excluding two examples with pronominal suffixes, see Neh. 2.17 (2x); 5.2, 12; 6.13. For verb forms with pronominal suffixes, see Neh. 1.9; 2.5; 6.3. In the book of Ezra, there are six examples of the prefix conjugation referring to the non-past in the first person. Two examples involve III- w/y verbs and both are full, in initial (Ezra 4.2) as well as non-initial (Ezra 4.3) position. In another four examples, the verb form is non-initial and unlengthened (Ezra 4.2; 9.10, 14; 10.3). There are six examples of the prefix conjugation referring to the non-past in the first person in Daniel. Two verb forms are syndetic and lengthened/full (Dan. 1.12 [2x]). The other verb forms are non-initial and unlengthened (Dan. 10.20, 21; 11.2; 12.8).

²² See Shulman (1996, 248) regarding the distribution of the cohortative in clause-initial position.

verb forms that are asyndetic but clause-initial, and they are unlengthened, e.g., $\text{וַיֹּאמֶר נִנְעַד אֶל-בַּיִת הַאֱלֹהִים אֶל-תּוֹד הַהֵיכָל וְנִסְגְּרָה}$... $\text{דְּלַתוֹת הַהֵיכָל}$... '...He said, Let us meet in the house of the Lord, in the midst of the temple, and let us shut the doors of the temple...' (Neh. 6.10ba).²³ To be sure, one also finds unlengthened verb forms in clause-initial position in the Pentateuch and the Former Prophets, e.g., אֶרְדֶּךָ אֶשְׁיג 'I shall pursue, I shall overtake' (Exod. 15.9), where the full form of אֶשְׁיג here indicates that such unlengthened verb forms should be parsed as imperfective.²⁴ It cannot be ruled out that the imperfective is intended in נִנְעַד , too, but it is also possible that it is volitive in meaning and coordinated with וְנִסְגְּרָה , compare $\text{לָכֵה וְנִנְעַדְנָה}$ 'Come and let us meet' (Neh. 6.2). Thus, this distribution may reflect a literary standard in which unlengthened verb forms were used in asyndetic position, whether volitive or imperfective, while lengthened verb forms were used after $w\text{-}$.

²³ See also Neh. 2.18 and 5.12. In fact, the only lengthened clause-initial verb form is followed by $-n\bar{a}$, which never occurs after unlengthened verb forms in the first person when the final radical is not ʾ or w/y .

²⁴ See also Gen. 30.31, 32; Deut. 32.41, 42. To be sure, there are very few examples of non-past $\text{ʾeqt\bar{o}l}$ that also display the morphology of the short prefix conjugation (Bergsträsser 1929, 21). In qal II- w/y and $hif'il$ verbs, for example, $\text{ʾeqt\bar{o}l}$ regularly displays the morphology of the imperfective even in clause-initial position. In other words, it appears that there is no contrastive opposition between $\text{ʾeqt\bar{a}l\bar{a}}$ and volitive $\text{ʾeqt\bar{o}l} < *ʾaqtul$, but between $\text{ʾeqt\bar{a}l\bar{a}}$ and imperfective $\text{ʾeqt\bar{o}l} < *ʾaqtul$.

7.0. Conclusions

The literary language of LBH compositions reflects a standard in which the first-person imperfect consecutive is lengthened.

Daniel and Ezra use the lengthened imperfect consecutive as a rule. A few examples of the unlengthened form in Daniel can be explained as the result of assimilation processes after *‘ayin* and *het*. Other times it appears that the author or a scribe resorts to the unlengthened verb form when writing formulaic language (Dan. 8.27a and 10.5). In וַיִּשָּׁב ‘and we remained’ (Ezra 8.32) and וַיִּשָּׂא ‘and we have married’ (Ezra 10.2), in turn, it seems that the author or a scribe falls back on the unlengthened form when stress falls on the penultimate syllable. All these verb forms may have been retrieved whole from the lexicon at the time of writing rather than being subjected to analysis in accordance with the prescriptions of language-usage grammar.

In the Nehemiah Memoir, most lengthened verb forms are found in those memorial texts that conclude with the so-called remembrance formula in chapters 5–6 and 13. The court narrative in Neh. 1–4, in turn, is characterised by the use of unlengthened verb forms. In light of the short forms of III-w/y verbs in these chapters, this may be viewed as a successful imitation of the use in pre-exilic Biblical Hebrew when handling the morphology of the first-person imperfect consecutive. It is less clear whether the distribution of lengthened/full and unlengthened/short verb forms can be explained as a function of different genres or whether they should be attributed to different authors or redactions.

The absence of the lengthened imperfect consecutive from Chronicles cannot be used as evidence for the use of unlengthened verb forms in original LBH literary compositions, because all examples of the imperfect consecutive occur in passages that have parallels in MT Samuel and Kings, and only one example, 1 Chron. 17.8, corresponds to a lengthened imperfect consecutive in the parallel MT text, i.e., 2 Sam. 7.9. Nevertheless, since other synoptic verses in the MT sometimes disagree on the use of paragogic *heh*, it cannot be ruled out that the Chronicler had an unlengthened verb form in his source text.

According to one explanation, the use of the lengthened verb form in the first-person imperfect consecutive in LBH is formed on analogy with the use of one and the same verb form in the imperfect consecutive and the jussive in other grammatical persons. Alternatively, lengthening may have been introduced in order to maintain a distinction between the syndetic imperfective and imperfect consecutive, which presumably had coincided in their pronunciation. Such a formation does not, however, result from a natural development in spoken language. On the contrary, the use of the lengthened imperfect consecutive may reflect a generalised pseudo-classicism of a literary standard that developed in the Second Temple Period.

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**THE CODING OF DISCOURSE
DEPENDENCY IN BIBLICAL HEBREW
CONSECUTIVE *WEQATAL* AND
*WAYYIQTOL***

Geoffrey Khan

In this paper I shall make a typological comparison between the Biblical Hebrew ‘consecutive’ forms *weqatal* and *wayyiqtol* and verbal forms expressing discourse dependency in Neo-Semitic and various non-Semitic languages. In particular I shall be concerned with the insights these typological parallels may give us into the possible historical background and development of the Hebrew forms. It is becoming increasingly recognised that language typology is an important tool for assessing and enlightening the study of historical linguistic change (Shields 2010; Pat-El 2020).

The paper is organised as follows. §1.0 presents the comparative data, with a particular focus on discourse dependent verbal forms in Neo-Aramaic. In §2.0 and §3.0 I examine the Biblical Hebrew consecutive *weqatal* and *wayyiqtol*, respectively, in the

light of these parallels. This is followed by a concluding discussion concerning the coding of discourse dependency.¹

1.0. Discourse Dependency in Neo-Semitic

In some Neo-Semitic languages certain forms of verb are used to signal that the predicate of the clause they occur in continues in some way the preceding discourse. This continuation is typically either temporal sequence or some kind of elaboration, and is referred to here by the generic term ‘discourse dependency’.

In this section I shall focus in particular on verbal forms expressing discourse dependency in Neo-Aramaic dialects. I have presented a detailed study of this phenomenon in Neo-Aramaic in a recent paper (Khan 2021) and here I shall give only a brief overview.

1.1. Future and Discourse Dependent in Neo-Aramaic

In many North-Eastern Neo-Aramaic (NENA) dialects future events are expressed by a construction with the form *bət-qaṭəl*. This consists of a preverbal element *bət*, which is a grammaticalised and phonetically reduced volitional verb ‘he wants to’, followed by a verb form that is historically an active participle but now functions as a subjunctive. In normal fast speech the *bət*-element generally undergoes further phonetic reduction. In addition to expressing the future in main clauses, both a deontic fu-

¹ I am grateful to the comments on an original draft of this paper by Aaron Hornkohl, Ivri Bunis, and my graduate students, which helped improve it.

ture expressing intention (e.g., ‘I shall go’) and an epistemic predictive future (e.g., ‘he will go’), the form is used in the apodosis of conditional constructions, e.g.,

- (1) ʾən-kpìn-ni,[|] t̄-axlàn-ne.[|]
 if-hunger.PFV-1s fut-eat.sbjv.1ms-3ms
 ‘If I am hungry, I shall eat it.’ (A23:5)

In conditional constructions such as (1), the apodosis with the *bət-qaṭal* form is dependent syntactically on the preceding protasis. The *bət-qaṭal* form is sometimes used outside of conditional constructions in clauses that are more loosely dependent on the preceding discourse. Various types of such discourse dependency are attested. In some cases the form expresses events that are temporally sequential to what precedes (2). In many cases, however, the form does not express temporal sequentiality, but only some kind of relevance to a preceding clause, typically elaboration (3):

- (2) bāṯar ʾéḏa gòra[|] ... ʾiθena[|] ʾéḏat sulàqa.[|]
 after festival big there.is festival.of ascension
 xàrθa[|] t̄-áθe xá-ʾeḏa xréna zòra,[|]
 afterwards fut-come.sbjv.3ms one-festival other small
 y-amrîle ʾéḏat musàrde.[|]
 hab-say.ipfv festival.of musarde
 ‘After the Great Festival ... the festival of Ascension takes place. ... **Afterwards comes** a small festival, which is called *musarde*.’ (B6:5–8)

- (3) bāwθa Ninwàye[|] ʾáp-ʾay ʾitwa.[|]
 petition.of Ninevites also-it.3fs there.was

šemila.[|] *ṭ-ámri* *díge = u* *kθàye*[|]

fast.ipfv.3pl-3pl fut-say.sbjv.3pl cocks = and chickens

ʾáp *ʾan-zóre* *xṭàye.*[|]

also those-small lower

‘The Rogation of the Ninevites was also observed (in our community). They would fast during it. **They would say** (concerning this) “The cocks and the chickens, and also the small lowly creatures (should observe the fast).”’ (B16:15)

When the *bət-qaṭal* form has this discourse dependency function, it generally expresses habitual events, as is the case in the examples above. The construction, however, is sporadically used in narratives, where it refers to specific events that are dependent on, and typically sequential to, what precedes, e.g.,

(4) *ʾárbe máxe* *l-gðàðe,*[|] *ṭ-ázi*

sheep strike.sbjv.3ms to-each.other fut-go.sbjv.3pl

xa-fàtra[|] *ʾal-salíqə zòrna.*[|] *máxe* *zòrna*

a-while on-tune.of pipe strike.sbjv.3ms pipe

xa-salíqa xèna,[|] *ʾárbe b-dèri,*[|] *b-ganèy.*[|]

one-tune other sheep fut-return.sbjv.3pl by-themselves

‘He gathered the sheep together **and they went off** for a while according to the tune of the pipe. He played another tune on the pipe **and** the sheep **returned** by themselves.’ (A25:27)

Following the temporal analysis proposed by Reichenbach (1947), we should be careful to distinguish event time (E), speech time (S), and the temporal reference time (R). Reichenbach’s

original system has undergone various modifications in more recent research, but the ‘neo-Reichenbachian’ approaches still distinguish these three components of analysis. The reference time (R), sometimes referred to as the ‘evaluation time’ (Hatav 2012), is the contextual temporal anchor to which the future verb form relates. One may say that the future form is temporally ‘bound’ to this anchor (Hatav 2012). According to a Reichenbachian system of temporal analysis, in future constructions in main clauses and in apodoses the event time (E) is posterior to the reference time (R), which can be represented R—E. In the case of the future function, the reference time overlaps with speech time (S), i.e., the contextual temporal anchor is the speech situation. This can be represented R,S—E. For the *bət-qaṭal* form in the apodosis of conditional constructions, however, the reference time is that of the eventuality expressed in the protasis clause. In such cases the *bət-qaṭal* form expresses an eventuality that is posterior to this reference time, but this reference time does not necessarily overlap with speech time. It is important to note that the reference time in these various constructions has different locations. In the future constructions the reference time is internal, i.e., it coincides with the utterance of the clause. The reference time of the verb of the apodosis, however, is external to the clause and is located in the preceding protasis clause.

I have argued (Khan 2021) that the discourse dependency habitual function of *bət-qaṭal* developed by extension of its use in apodosis clauses. The habitual meaning of the discourse dependent *bət-qaṭal* form most likely arises from a retention of the contingent semantics of a conditional apodosis.

1.2. Narrative Subjunctive in Neo-Aramaic

In some NENA dialects the subjunctive form of the verb is used in narratives as a perfective sequential form. It typically continues an event or events that are expressed by a narrative past verbal form, e.g.,

C. Barwar

- (5) ʾáp ʾaw-léle xéna qimla,^l sáʾat tláθa
 also that-night other rise.pfv.3fs hour.of three
 b-léle,^l šárya bānúda dīya,^l ʾu-ʾáza
 at-night untie.sbjv.3fs bands.her of.her and-go.sbjv.3fs
 ʾáxla xá-brona xéna ʾu-dēra,^l
 eat.sbjv.3fs one-son other and-return.SBJV.3FS
 dāmxa,^l páθxa tǎra,^l dāmxa
 sleep.sbjv.3fs open.sbjv.3fs door sleep.sbjv.3fs
 gu-dudiya.^l
 in-cradle

‘Also the next night she got up, at three o’clock in the morning, **untied** her bands, **went** and **ate** another child, then **returned** and **went to sleep**. She **opened** the door and **went to sleep** in the cradle.’ (A18:5–6)

This construction is predominantly used to express perfective events in narrative, but sporadically the subjunctive form is used as a sequential habitual:

C. Barwar

- (6) ʾu-máxa xa-mášxa gu-be-ʾéne dīye^l
 and-put.sbjv.3pl one-oil in-place.of-eyes.his of.him

ʾođí-le rúšma ʾax-šlīwa.¹

do.sbjv.3pl-3ms sign like-cross

‘And they put some oil on his forehead and make the sign of the cross.’ (B6:36)

I argued (Khan 2021) that the narrative subjunctive *qaṭal* form is a modal subjunctive, which has been extended from its use in subordinate clauses, in particular, purpose clauses. Constructions that are used to express purpose are also used as result clauses, i.e., they express the result of a preceding action. Such result clauses appear to have developed from the common implicature of purpose clauses that the event took place, especially after verbs of movement, e.g., *I went to buy some bread* has the implicature that I did in fact buy bread (Schmidtke-Bode 2009, 178). This conventionalisation of an implicature as the expression of a real event that is reflected in result clauses is likely to have been the pathway of development also of dependent narrative subjunctive forms.

1.3. Elsewhere in Semitic and Beyond

Within Semitic one can find some parallels to the discourse dependent forms of NENA. Owens (2018) argues that the preverbal particle *b-* that is found in a variety of Arabic dialects originates in the deontic verb *baġa* ‘to want’ (cognate with Aramaic *baʿe*). What is of interest is that, although it has retained its deontic or modal sense in some dialects of the Gulf, in other dialects it has developed into an indicative (e.g., Levant). The missing link, Owens claims, is its use in Nigerian Arabic to express what he calls

‘propositional adjacency’, which corresponds to what I call here discourse dependency.

The indicative preverbal particle *ka-* in Moroccan Arabic appears to have its origin in the modal use of the auxiliary verb *kān* in conditional clauses (Corriente 1977, 140–41; Stewart 1998, 111–12; Hanitsch 2019, 256–58). This also, therefore, may have followed a similar pathway of development as NENA *bāt-qatəl*.

Tsukanova (2008) has identified the use of dependent subjunctive forms containing the modal auxiliary *čān* in Gulf Arabic as a continuative form in narratives.

Parallels to such discourse dependent verbal forms have been documented in a variety of languages outside of Semitic. Numerous languages of Africa have special verbal forms for the expression of continuity in discourse. These are used, for example, for the chaining of clauses in narratives and descriptions of habitual procedures.² This continuity may be temporal sequence or elaboration. Such forms are often identical to forms that express modal subordination in subordinate clauses and so have been referred to as narrative subjunctives (R. Carlson 1992; Seidel 2015, 180). In some African languages the consecutive forms can be used independently of preceding discourse as a future or modal form denoting an unrealised action (e.g., Seidel 2015, 186). Historical reconstructions of Oceanic languages have

² Verbal forms of this type in numerous African languages are discussed in the papers of the volume edited by Payne and Shirtz (2015). See also Palmer (1986, 204–7), Longacre (1990), and Persohn (2017, §7.1).

revealed connections between narrative continuity devices and future verbal forms (Lichtenberk 2014).

English habitual constructions containing the auxiliary *would* also furnish a possible typological parallel. It has been observed that such habituals have a similar dependency on situations established in the context (by a preceding clause or time adverbial), e.g., Carlson and Spejewski (1997) and Boneh and Doron (2013), who refer to this as ‘modal subordination’. A habitual sentence *used to*, on the other hand, has no such dependency. In a description of habitual events *used to* may be employed in the first clause, whereas *would* is felicitous only in subsequent clauses, e.g., *My grandmother used to make delicious apple pies. She would go to the orchard to pick the apples herself* (adapted from Carlson and Spejewski 1997, 102).

2.0. Biblical Hebrew Consecutive *weqatal*

The historical development and function of the consecutive *weqatal* of Biblical Hebrew appears to parallel very closely that of the NENA *bət-qatəl* form. It has already been proposed by several scholars that the construction had its historical origins in Northwest Semitic conditional constructions (Smith 2009, 6–15). In the El-Amarna documents the suffix conjugation with future meaning is mostly restricted to conditional constructions. It is attested in the apodosis, which is normally preceded by the connective *u* (Rainey 1996, II:358–62; Baranowski 2016b, 173–78). According to Moran (1961, 64–65) this represents the closest semantic and syntactic antecedent to Biblical Hebrew future *weqatal*. The same applies to Ugaritic, where clear cases of *w* +

the suffix conjugation with a future meaning are restricted to the apodosis of conditional clauses or semantically related contexts (Sivan 1998, 92; Tropper 2000, 716–17). Similarly, future uses of the suffix conjugation in contexts of a conditional type are found also in Phoenician and Punic (Krahmalkov 1986).³ Elsewhere in Central Semitic one may compare this to the use of the *qatala* form in Arabic in conditional constructions, e.g., *'in fa'alta ḏālika halakta* ‘If you do that, you will perish’ (W. Wright 1898, 15).

In Biblical Hebrew *weqatal* with a future meaning is frequently used in the apodosis of conditional constructions:

- (7) אִם-יַעֲלֶה | הָעָם הַזֶּה לַעֲשׂוֹת זִבְחִים בְּבַיַת-יְהוָה בִּירוּשָׁלַם וְשָׁב לֵב הָעָם הַזֶּה
 אֶל-אֲדֹנָיהֶם אֶל-רְחֻבֶם מִלֶּדְ יְהוּדָה וְהָרַגְנִי וְשָׁבוּ אֶל-רְחֻבֶם מִלֶּדְ-יְהוּדָה:
 ‘If this people go up to offer sacrifices in the house of the
 LORD at Jerusalem, **then** the heart of this people **will turn
 again** to their lord, to Rehoboam king of Judah, **and they
 will kill me and will return** to Rehoboam king of Judah.’
 (1 Kgs 12.27)

The use of a past form to denote possible future events in conditional constructions in other Northwest Semitic languages and Arabic expresses contingent possibility rather than past time reference. The apodosis is modal. The modality has various parameters. It can be identified as including epistemic modality, in

³ The topic–comment type of constructions cited by Krahmalkov as examples of future *we-qatal* are semantically close to conditional constructions; cf. Haiman (1978) and Ebert et al. (2014).

that it involves judgement about the factual status of the proposition (Palmer 2001, 8). The contingency and dependence of the apodosiis can be referred to as ‘contingent modality’.⁴

The two main meanings of the Biblical Hebrew consecutive *weqatal* outside of conditional constructions are dependent/sequential future (8)–(11) and habitual (12)–(15):

- (8) ... כִּי־יִרְאוּ אֶתְךָ הַמִּצְרִיִּים וְאָמְרוּ אֲשֶׁתּוֹ זֹאת וְהָרְגוּ אֹתִי...
 ‘When the Egyptians see you, **they will say** “This is his wife,” **and they will kill me...**’ (Gen. 12.12)
- (9) וַיֹּאמֶר דָּוִד אֶל־שָׂאוֹל אֶל־יִפְלֵ לִב־אָדָם עָלָיו עַבְדְּךָ יִלְדֹּ וְנִלְחָם עִם־הַפְּלִשְׁתִּי
 הַזֶּה:
 ‘And David said to Saul, “Let no man’s heart fail on account of him; your servant will go **and will fight** with this Philistine.” (1 Sam. 17.32)
- (10) רַק אִיזִירָאת אֱלֹהִים בַּמָּקוֹם הַזֶּה וְהָרְגוּנִי עַל־דְּבַר אֲשֶׁתִּי:
 ‘But there is no fear of God in this place **and they will kill me** because of my wife.’ (Gen. 20.11)
- (11) וְהַנְּשָׂאִים בְּכֶם וְהַבָּאִתִּי מִרְדָּ בְלִבְכֶם בְּאַרְצֵת אִיבֵיהֶם...
 ‘As for those of you who may be left, **I will bring** weakness into their hearts in the lands of their enemies...’ (Lev. 26.36)
- (12) וְאֵד יַעֲלֶה מִן־הָאָרֶץ וְהִשְׁקָה אֶת־כָּל־פְּנֵי־הָאֲדָמָה:
 ‘A mist used to go up from the earth and **would water** the whole face of the ground.’ (Gen. 2.6)
- (13) וְנֹאֲסְפוּ־שָׁמָּה כָּל־הַעַדְרִים וְנִלְלוּ אֶת־הָאֲבוֹן מֵעַל פִּי הַבְּאֵר וְהִשְׁקוּ אֶת־הַעֲאֹן
 וְהִשִּׁיבוּ אֶת־הָאֲבוֹן עַל־פִּי הַבְּאֵר לְמִקְמָה:

⁴ This is the term used by Cook (2012, 250) and Robar (2015, 146) to refer to the modality of conditional constructions.

‘And all the flocks **would gather** there, **and they would roll** the stone from the mouth of the well, **and they would water** the sheep, **and they put back** the stone in its place on the mouth of the well.’ (Gen. 29.3)

- (14) שֶׁרָפִים עֹמְדִים | מִמַּעַל לוֹ שֵׁשׁ כַּנְּפִים שֵׁשׁ כַּנְּפִים לְאֶחָד בְּשֵׁתַיִם | יִכְסֶה פָּנָיו
וּבְשֵׁתַיִם יִכְסֶה רַגְלָיו וּבְשֵׁתַיִם יְעוֹפֶף: וְקָרָא זֶה אֶל־זֶה וְאָמַר קְדוֹשׁ | קְדוֹשׁ
קְדוֹשׁ יְהוָה צְבָאוֹת מְלֵא כְּלֵהָאָרֶץ כְּבוֹדוֹ:

‘Seraphim stood above Him, each having six wings; with two he covered his face, and with two he covered his feet, and with two he flew. **And one would call out** to another and **would say** “Holy, Holy, Holy, is the LORD of hosts. The whole earth is full of His glory.”’ (Isa. 6.2–3)

- (15) הַגְּנוּב | רָצַח וְנָאֵף ... וּבְאֵתָם וְעַמְדָתָם לְפָנַי בְּבַיִת הַזֶּה...
‘Do you steal, murder, and commit adultery,... then **you come and stand** before Me in this house...?’ (Jer. 7.9–10)

Although there has been recognition of the historical origin of consecutive *weqatal* in conditional constructions, as far as I am aware, no model that satisfactorily explains such a historical development has been proposed. I shall argue here that the development could be explained using the model of construction grammar, whereby linguistic change takes place through cognitive schematisation of constructions (e.g., Langacker 1987; Fillmore, Kay, and O’Connor 1988; Goldberg 1995, 2006; Bybee 2010). Such change involves extensions of components of a particular construction with a particular linear structure by a process of substituting items with a semantic resemblance or association, thereby making the slots of the components more schematic, i.e., abstract. Another feature of the extension of constructions is their

incorporation of pragmatic associations and implicatures into their meaning (Bybee 2010, 48). An example of this process of extension of constructions that is often cited (e.g., Bybee 2010, 55; 2015, 124) is the development of future constructions consisting of movement verbs, e.g., English *he is going to eat*. This originated as a construction that expressed real physical movement of an animate agentive subject, but it became schematised as SUBJECT + BE + *going to* + VERB, whereby any subject or verb could fill the subject or infinitive slots adjacent to the substantive core *going to*. Moreover, when used in the third person, although it originally expressed an intention, it implied that the predicate would be carried out. This implicature became conventionalised in the construction and so its meaning was extended to include prediction, e.g., *The branch is going to fall*.

The distribution of *weqatal* reflects a variety of schematisation.

In a context such as (8), in which the *weqatal* form follows a subordinate temporal clause, we may say that the construction of the conditional apodosis has been extended to verbs expressing events that are presupposed to take place, while retaining the reference time of the verb in the preceding clause and so expressing temporal sequentiality. In example (9) the *weqatal* expresses an event that is future relative to that expressed by the verb in the preceding clause. Here too, therefore, its reference time is in the preceding clause.

In a context such as (10) the temporal reference point of the apodosis that was in the preceding protasis clause has been schematised to being a more abstract cognitive reference point,

referring to the general situation rather than specifically to a point in time. The *weqaṭal* predication, therefore, is cognitively, but not necessarily temporally, bound to this preceding point. It is linked to it through discourse coherence analogous to a topic–comment relationship. This does not mean that the topical situation itself may not have a reference time, but rather the *weqaṭal* form no longer expresses temporal posteriority to this reference time, but rather communicative posteriority to the more abstract topical situation, i.e., topical reference point–comment. This is seen clearly in a context such as (11), in which the *weqaṭal* clause is a comment on a preceding topical entity rather than on a situation expressed by a proposition. In (10) and (11) the *weqaṭal* form has a future time reference, and so the event time is posterior to the reference time (R—E), but its reference point is internal to the clause and is not situated in the preceding clause as in a conditional construction or in a construction such as (8). This distinction is referred to by Hatav (2012) as local versus long distance temporal binding of tenses. As with contexts such as (8) and (9), so in (10) and (11), the contingent element of the conditional apodosis has been lost. Examples such as (10)–(11), therefore, have retained the future of the apodosis, but lost the long distance temporal binding and the contingency of the apodosis.

The habitual use of *weqaṭal* seen in (12)–(15), which *prima facie* may seem furthest from the original function of the *qaṭal* form in a conditional apodosis, can also be explained as having arisen by schematisation of the conditional construction. As we have seen, there is a typological parallel for this in the habitual

discourse dependent *bət-qatəl* form of NENA. In such cases the contingent feature of the verb of the apodosis has been retained, whereas the future time reference has been lost.

The habitual meaning of the discourse dependent *weqatəl* form arises from this retention of the contingent semantics of a conditional apodosis. Verbs expressing habituality present an event as a characterising property of an individual, which occurs on the majority of occasions during a particular time interval (*he usually visits us every week*). Habitual predications are not completely “lawlike” (Dahl 1985, 97) and are contingent on circumstances (*he usually visits us every week, but he did not come last week because he was ill*).⁵ A habitual predicate is imperfective in aspect since it includes the reference time within it and is only partially viewed from within (G. Carlson 2012, 835). Habituality should be distinguished from iterativity. Verbs expressing iterativity assert the occurrence of the event on multiple occasions, typically specified by an adverbial (*he visited us three times; he visited us every day*). Such predicates are perfective and express repeated temporally bounded events that are not contingent on circumstances (Dahl 1985, 97; G. Carlson 2012, 835). Iterative uses attributed by some scholars to *weqatəl* are best interpreted as habitual, especially if they are translated with English *used to* or *would*, which are incompatible with the iterative, e.g.,⁶

(16) וְעָלָה הָאִשׁ הַהוּא מְעִירוֹ מִיָּמִים | יָמִימָה לְהִשְׁתַּחֲוֹת וְלִזְבֹּחַ לַיהוָה צְבָאוֹת
בְּשָׁלָה

⁵ Cf. the remarks of Joosten (1992), who sees a connection between the non-indicative modality of *weqatəl* and habitual aspect.

⁶ Contra, e.g., Joosten (1992; 2012, 305), who uses the term ‘iterative’.

‘**And** this man **used to go up** from his city yearly to worship and to sacrifice to the LORD of Hosts in Shiloh.’ (1 Sam. 1.3)

In some cases, habitual consecutive *weqaṭal* forms are temporally sequential to what precedes, e.g., (13). In such cases the temporal structure of the verb would include the reference point of the preceding clause, as a verb does in an apodosis, as well as a local reference point coinciding with the event. This can be represented R_1-R_2,E , i.e., the event is located at reference time R_2 in relation to reference time R_1 .⁷ In examples such as (14), in which the habitual *weqaṭal* is not temporally sequential to what precedes, the long distance temporal reference point of the original apodosis has been schematised to a cognitive topical reference point. Most cases of habitual *weqaṭal* have past time reference, but some examples are attested of *weqaṭal* expressing present habituais (GKC, §112m), e.g., (15). It appears that the time reference of habitual verbs was relative rather than absolute, i.e., it was determined by the context and not a component of its meaning. In this respect it would correspond to the relative time reference of habitual *yiqtol*.

The various schematisations of the conditional construction can be represented thus (R = reference time, E = event time, T = topic):

⁷ For the possibility of a verb having two reference points see Comrie (1985, 128).

Table 1

What precedes <i>weqatal</i>			
conditional	R—	E (future, contingent)	Example (7)
future (1)	R—	E (future)	Examples (8), (9)
future (2)	T—	R—E (future)	Example (10), (11)
habitual (1)	R ₁ —	R ₂ ,E (contingent)	Examples (12), (13), (15)
habitual (2)	T—	R,E (contingent)	Example (14)

As can be seen, all schematisations retain some specific semantic element of the *weqatal* in the apodosis of the conditional construction.⁸

As for why the discourse dependent *qatal* occurs only after *waw*, this can be explained also within the framework of construction grammar. The conditional construction that forms the basis of the schematisation was specifically protasis + *waw* + *qatal*. This had the advantage of containing a connective *waw*, which made the apodosis suitable for reanalysis as a consecutive clause in discourse. Moreover, it was by far the most frequent ordering of these elements in conditional constructions containing such *waw* of apodosis, as was the case also in the predecessors of the construction in earlier Northwest Semitic languages. The

⁸ The discourse dependence of *weqatal* can also be represented in the dependency framework of mental spaces proposed by Fauconnier (1994) and Dinsmore (1991). According to this model, knowledge can be represented in a network of mental spaces. These spaces are constructed by the listener/reader, interpreting grammatical or lexical cues. Spaces contain information belonging to distinct times, locations, or realities. For mental spaces in Biblical Hebrew discourse see Robar (2015, 31–33).

string *waw* + *qaṭal* remained the substantive core of the construction. This core underwent semantic but not syntactic schematisation, analogously to the phrase *going to* in the future construction in English (see above). It was the substantive invariable ‘chunk’ that had become consolidated and ‘en-trenched’ in the construction, facilitated by frequent repetition (Bybee 2010, 34–37). The NENA parallel construction with *bət-qaṭal* did not include a connective. The explanation is likely to be that in NENA discourse connectives between clauses in discourse are far less regular than in Biblical Hebrew.

On a number of occasions *weqaṭal* is used as a narrative past perfect. This is found not only in Late Biblical Hebrew (Cohen 2013, 84–86),⁹ but also in earlier books. In some cases the *weqaṭal* may be regarded as a later insertion on text-critical grounds (e.g., 1 Kgs 20.27, where the *weqaṭal* verb is not represented in the LXX). Several cases, however, are consecutive in function and on text-critical grounds do not appear to be later insertions, e.g.,

- (17) וַיִּצַו הַמֶּלֶךְ אֶת-חִלְקִיָּהוּ הַכֹּהֵן הַגָּדוֹל וְאֶת-כַּהֲנֵי הַמִּשְׁנָה וְאֶת-שַׁמְרֵי הַסֶּף
 לְהוֹצִיא מֵהֵיכַל יְהוָה אֵת כָּל-הַכֵּלִים הָעֲשׂוּיִם לְבַעַל וְלְאֲשֵׁרָה וְלִכָּל צַבָּא
 הַשָּׁמַיִם וַיִּשְׂרְפֵם מִחוּץ לִירוּשָׁלַם בְּשַׂדְּמֹת קִדְרוֹן וְנָשָׂא אֶת-עֲפָרָם בֵּית-אֵל:
 ‘And the king **commanded** (*wayyiqtol*) Hilkiyah, the high priest, and the priests of the second order, and the keepers of the threshold, to bring out of the temple of the LORD all the vessels made for Baal, for Asherah, and for all the host

⁹ The habitual function of *weqaṭal* is only sporadically attested in Late Biblical Hebrew (Cohen 2013, 203–7).

of heaven; and **he burned them** (*wayyiqtol*) outside Jerusalem in the fields of the Kidron, and **he carried** (*weqatal*) their ashes to Bethel.’ (2 Kgs 23.4)

Such *weqatal* forms have been interpreted as past perfective uses of the construction that unexpectedly break a chain of *wayyiqtol* narrative forms in order to express climactic events (Longacre 1994; van der Merwe 1994, 28; Robar 2015, 152–59). The range of functions of the NENA parallel form *bət-qatal*, however, could open our mind to another possible interpretation of some such uses of *weqatal*. As has been indicated above, the NENA discourse dependent *bət-qatal* form is attested occasionally in narratives, e.g., (4), repeated below as (18), within a past perfective context. The clauses with *bət-qatal* forms cohere together with the immediately preceding clauses. Each pair of cohering clauses express subevents of the same overall event:

- (18) *ʾərbe máxe l-ğðàðe,| t-ázi*
 sheep strike.sbjv.3ms to-each.other fut-go.sbjv.3pl
xa-fàtra| ʾal-salíqə zòrna.| máxe zòrna
 a-while on-tune.of pipe strike.sbjv.3ms pipe
xa-salíqə xèna,| ʾərbe b-dèri,| b-ganèy. |
 one-tune other sheep fut-return.sbjv.3pl by-themselves
 ‘He gathered the sheep together and they went off for a while according to the tune of the pipe. He played another tune on the pipe and the sheep returned by themselves.’
 (A25:27)

Such *bət-qatal* forms mark the closure and climax of the preceding event and disrupt the flow of the narrative. It is, therefore,

a strategy to signal discontinuity.¹⁰ The form is an imperfective habitual, but is used in a perfective context in narrative. Its lack of temporal boundaries is exploited to disrupt the chain of perfective temporally bounded events. This strategy of using imperfectives in narratives has been identified in various other languages, e.g., the ‘narrative imperfect’ of French (Carruthers 2012, 312–15) or narrative habituais in African languages (Schaefer and Egbokhare 2015, 310). In this light, *weqat̄al* forms in contexts such as (17) in Classical Biblical Hebrew could be identified as consecutive habitual *weqat̄al* forms rather than instances of perfective *weqat̄al* forms. As is the case with narrative habitual *bət-qat̄al* forms in NENA, these habitual *weqat̄al* forms disrupt the flow of narrative by removing temporal boundaries in order to signal closure and climax of discourse segments. This can have the effect of marking an event as a subevent cohering with what precedes, embedded in the higher-level narrative chain.¹¹ The act of burning and the act of carrying the ashes cohere together as two subevents of the same overall event, the closure of which is marked by the *weqat̄al* form. Further support for this argument can be adduced from the fact that the *yiqtol* form is sometimes used with the same function in narrative contexts when the verb is preceded by a clause argument, e.g.

¹⁰ For discontinuity strategies in Biblical Hebrew see Robar (2015, 148–49). For possible imperfective interpretations of narrative *weqat̄al* see Hornkohl (2013, 261, 288).

¹¹ For embedding of units in the narrative chain see Robar (2015, 74–75).

- (19) הוּא קָם וַיִּדָּב בַּפְּלִשְׁתִּים עַד | כִּי־יָגַעַה יָדוֹ וַתִּדְבַּק יָדוֹ אֶל־הַחֶרֶב וַיַּעַשׂ יְהוָה
 תְּשׁוּעָה גְדוֹלָה בַּיּוֹם הַהוּא וְהָעָם יָשְׁבוּ אַחֲרָיו אֶדְ-לְפָשֶׁט:
 ‘He rose and struck down the Philistines until his hand was
 weary, and his hand clung to the sword. And the Lord
 brought about a great victory that day, and the men **re-**
turned (*wayiqtol*) after him only to strip the slain.’ (2 Sam.
 23.10)

3.0. Biblical Hebrew Consecutive *wayyiqtol*

The consecutive *wayyiqtol* form is normally thought to be a vestige of an old past *yaqtul* form, which can be found in earlier forms of Northwest Semitic, such as the Tell Amarna Canaanite texts and Ugaritic, and in East Semitic. Some possible examples of this use of an old past *yaqtul* without *waw* have, moreover, been identified in early poetic layers of Biblical Hebrew, e.g. יָצַב ‘he fixed’ (Deut. 32.8) (Notarius 2013, 78).¹² In this paper I do not want to engage with the question of the identity and status of this past *yaqtul* form in ancient Northwest Semitic and beyond,¹³ but rather I shall focus on the consecutive *wayyiqtol* form as it appears in the Masoretic Text and the form of the construction that has been transmitted in the Tiberian vocalisation tradition.

¹² For references to the literature see the survey in Robar (2015, 78–79).

¹³ Different views have been expressed in the literature as to whether there were originally two distinct *yaqtul* forms expressing past and jussive, distinguished, according to some, by stress position (e.g., Hetzron 1969; Rainey 1986), or whether there was only one morpheme expressing both functions (Huehnergard 1988).

I shall argue that although the scholarly consensus is undoubtedly correct that its roots go back to an old past *yaqtul* form, in Classical Biblical Hebrew prose it came to be reanalysed as a schematised extension of a dependent jussive form.¹⁴ The typological parallel to the consecutive *wayyiqtol* in NENA is the NENA narrative subjunctive (see §1.2), which was a subordinate verbal form used to express discourse coherence. As we have seen, the NENA narrative subjunctive was an extension of the use of the subjunctive in subordinate clauses, in particular purpose clauses. The Hebrew *wayyiqtol* form results from the reanalysis of the old Semitic past *yaqtul* as a jussive specifically in discourse dependent contexts. This was facilitated by its formal similarity to jussives and the syntactic similarity of such discourse dependent contexts to constructions with jussives in dependent purpose clauses. This similarity of form, construction, and dependent function led to the distinction between jussives and *yiqtol* past

¹⁴ Robar (2013; 2015, 78–112) is one scholar who has found the notion that *wayyiqtol* is past perfective problematic. She insightfully adduces arguments against the view that it has a past perfective core meaning. Her thesis is that it is a narrative present form that takes its time reference from the context. She has drawn attention to parallels in the Neo-Aramaic narrative *qaṭəl* form in the Barwar dialect, which I interpreted as a narrative present in my grammar (Khan 2008), and also to parallels in several African languages that have narrative forms without specified tense. My interpretation of the Barwar narrative *qaṭəl* has since, however, shifted and I now consider it to be a narrative subjunctive in the light of my work on other dialects. The relevant parallels in African languages for me are now those languages that use modal subjunctive forms as narrative forms (R. Carlson 1992).

becoming opaque and to the reanalysis of the *yiqtol* past in this context as a schematised extension of a jussive.

The reanalysis followed the common pattern of linguistic change whereby it took place in a context where it was least obtrusive due to structural ambiguity in particular contexts (de Smet 2012, 608). It was ‘coerced’ by the construction (Noël 2007).

As Baranowski (2016a) has shown, *u + yaqtul* was the most common pattern of past *yaqtul* constructions in narrative sequences in the Canaanite reflected by the Amarna letters. This archaic narrative structural pattern was preserved in Biblical Hebrew by reanalysis in a context that resembled contexts in which jussives were used to express dependent events, i.e., *waw + yiqtol*. By the period of Classical Biblical Hebrew, the *qaṭal* form had extended its functional territory to include that of the perfective past, which would have pushed the old *yiqtol* perfective past out of the system.¹⁵ The old narrative construction of *waw + past perfective yiqtol* expressing chains of events was preserved by a process in which it was reanalysed as an extension of a different, but structurally similar, construction, viz. *waw + jussive yiqtol*. One may say that the conservative nature of the literary tradition with the old narrative construction was a motivating factor for the reanalysis.

Some scholars have, indeed, already expressed the view that there was a convergence between the *wayyiqtol* form and the

¹⁵ In Archaic Biblical Hebrew the *qaṭal* had not yet completely superseded the old past perfective *yiqtol* (Notarius 2013).

modal system during the period of Late Biblical Hebrew.¹⁶ I would like to argue that this had taken place already in Classical Biblical Hebrew. Furthermore, I wish to propose a model to explain how this came about.

In the Tiberian Masoretic corpus of Biblical Hebrew jussives are used with a subordinate purposive sense after imperatives (20) or expressions that function pragmatically as imperatives, such as (21):¹⁷

(20) הַעֲתִירוּ אֶל־יְהוָה וְיִסַּר הַצְּפַרְדִּיִּים מִמְּנִי וּמִמְּעָמִי
 ‘Entreat the LORD **in order that He remove** the frogs from me and from my people.’ (Exod. 8.8)

(21) מִי יִפְתֶּה אֶת־אֲחָאָב וְיַעַל וְיִפֹּל בְּרָמֹת גִּלְעָד
 ‘Who will entice Ahab **in order that he go up and fall** at Ramoth-gilead?’ (1 Kgs 22.20)

When the verb of the purpose clause is first person singular, the cohortative jussive is often used, e.g.,¹⁸

(22) וַעֲשֵׂה־לִּי מִטְעָמִים כַּאֲשֶׁר אֶהְבֵּתִי וְהֵבִי־אָה לִּי וְאִכְלָה בְּטָרִם אָמוֹת:
 ‘and prepare for me savoury food, as I love, and bring it to me **that I may eat** before I die.’ (Gen. 27.4)

This corresponds to the distribution of the modal *yaqtul* and *yaqtula* forms, the ancestors of the Hebrew jussive and cohorta-

¹⁶ E.g., Bergsträsser (1918–1929, II:§5d) and Talshir (1986).

¹⁷ For other functions of sequences with jussive verbs see Dallaire (2014, 102–3).

¹⁸ For other functions of the cohortative after *waw* in sequences see Dallaire (2014, 118).

tive, respectively, in purpose clauses in the Canaanite of the Amarna letters, in that they occur with this function specifically after volitive expressions. Moran (1960, 6–9) called this ‘modal congruence’.¹⁹ In cross-linguistic studies of the moods of subordinate clauses it has been observed that subordinate moods often originate as moods that are in harmony with the mood of the main clause, but that these can become extended to subordinate clauses in other syntactic contexts (Palmer 1986, 132; Bybee, Perkins, and Pagliuca 1994, 218–19). I shall argue that such a process of extension took place with jussives.

The Hebrew jussive expresses a directive with speaker-oriented modality (Bybee, Perkins, and Pagliuca 1994, 179), whereby the speaker imposes his/her will or permission on the addressee or third person subject of a clause.²⁰ Sequences of directives such as (20) and (21) had the implicature of purpose constructions with the second event future in relationship to the first event, i.e., the second event is intended by the subject of the first event or by the speaker. This implicature was subsequently conventionalised. As a consequence, the second event became

¹⁹ It was Moran (1961, 64) who first proposed the Canaanite *yaqtula* as the ancestor of the Hebrew cohortative. This has been accepted by some scholars. Others prefer to seek its origins in the Canaanite energetic form *yaqtulanna*. See Dallaire (2014, 108–11) for a survey of the literature. In Classical Arabic an analogous construction has a subjunctive verb (*yaqtula*) after an imperative and the conjunction *fa-*, e.g., *ʾiġfir li yā rabbi fa-ʾadkhula ʾal-janna* ‘Pardon me, oh my Lord, so that I may enter paradise’ (Wright 1898, 31).

²⁰ For the various nuances of commands expressed by the jussive and other verbal forms in Biblical Hebrew see Dallaire (2014, 89).

temporally and semantically integrated with the first and had its temporal reference point in the first event.

In some attested cases this construction could be interpreted as having made a further shift to express result, e.g., in the prophetic pronouncement of Elisha:

- (23) הָלוֹךְ וְרַחֲצֵתָ שֶׁבַע-פְּעָמִים בַּיַּרְדֵּן וְיָשַׁב בְּשָׂרְךָ לָךְ
 ‘Go and wash in the Jordan seven times, **and (as a result)** your flesh **shall be restored** (LXX ἐπιστρέψει future)’ (2 Kgs 5.10)

As we have seen, the NENA narrative subjunctive appears to have developed through the pathway of purpose clause > result clause > discourse dependent. Result clauses developed from the common implicature of purpose clauses that the event took place (see above §1.2 and Schmidtke-Bode 2009, 178). When the main clause has future time reference, the shift from purpose to result clause entails a shift from a desired event to a predicted event.

The cohortative form expresses the desire of the speaker to perform the event. This can be analysed as agent-oriented modality in the sense of the term that is described by Bybee, Perkins, and Pagliuca (1994, 178), i.e., it consists of internal or external conditions on an agent with respect to the completion of the action. Since it is first person, however, it overlaps with their category of speaker-oriented modality, since it imposes the desire of the speaker on the performance of the action. It could, therefore, be used in a sequence with imperatives and other directives with the implicature of purpose, as in (22) above.

The temporal structure of purpose clauses (*weyiqtol*), result clauses (*weyiqtol*), and consecutive *wayyiqtol* clauses can be represented as follows.

Table 2

a.	Main clause	Purpose clause
	R ₁ ,E	<i>waw</i> + <i>yiqtol</i> (R ₁ —E)
b.	Main clause	Result clause
	R ₁ ,E	<i>waw</i> + <i>yiqtol</i> (R ₁ —R ₂ ,E)
c.	Main clause	Consecutive
	R ₁ ,E	<i>waw</i> + <i>yiqtol</i> (R ₁ —R ₂ ,E)

In the purpose clause construction the jussive verb is irrealis and takes as its reference time, i.e., its contextual anchor, that of the main clause (represented by the repeated R₁ in (a) in Table 2). It is viewed from the perspective of the main clause. The event time of the purpose clause, therefore, is posterior to its reference time. In (b) and (c) the jussive clause has been reanalysed as an asserted event. This involves the acquisition of a reference time coinciding with the event (R₂). It is proposed that the clause retains the R₁ reference time, to which it is posterior. This reflects its reanalysis as an asserted event that is sequential to what precedes, i.e., the event is located at reference time R₂ in relation to reference time R₁.²¹ The representation in the table

²¹ This temporal analysis differs from that of Hatav (1997; 2004; 2006), who argues that a *wayyiqtol* form “introduces a new R-time [i.e., reference time] into the discourse” (Hatav 2006, 748). This analysis is followed by Cohen (2013, 95–96). According to such a model, sequential is an inference from the succession of R-times with each *wayyiqtol*. Cf.

above does not include speech time, which differs in relation to R_1 according to whether the main clause is future (S— R_1) or past (R_1 —S).²² In the attested corpus of Biblical Hebrew, as we have seen, purpose and result clauses with jussives have future main clauses, whereas past *wayyiqtol* is generally preceded by a past clause. The reanalysis of the discourse dependent past *yiqtol* as a jussive, therefore, would have involved a schematisation of the temporal structure of the construction of purpose and result clauses whereby the speech time is no longer specified. The common denominator of the construction across all three variants can be identified as:

Table 3

Clause 1	Clause 2
R_1, E	<i>waw</i> + <i>yiqtol</i> (R_1 —E)

As with the *weqatal* construction, consecutive *wayyiqtol* developed by schematisation of a specific construction with the string *waw* + *yiqtol* as its substantive core, which is the norm for

also Cook (2004; 2012), who argues that temporal succession is the default interpretation of a series of temporally bounded perfectives. In my proposal the *wayyiqtol* form explicitly encodes dependency on the preceding discourse by having two reference points (R_1 — R_2, E), which is a legacy of its historical origin in a purpose clause.

²² In some Neo-Reichenbach approaches (e.g., Johnson 1981; Dinsmore 1982; Verkuyl 2012), rather than consisting of a single triple system, the analysis should consist of two pairs of components, namely S and R, on the one hand, and E and R, on the one hand. The relationship between S and R would correspond to tense, whereas the relationship between E and R would be one of posteriority or anteriority, independent of tense.

purpose and result clauses with jussive verbs. For that reason, the conversive *yiqtol* only developed when the *yiqtol* was immediately preceded by *waw*.

As is the case with the NENA narrative subjunctive, the discourse dependent *wayyiqtol* form came to be far more frequent than the subordinate use of the *waw* + *yiqtol* construction.

Reanalysis involves a change in the structure of an expression without any immediate modification of its surface manifestation. It typically takes place when there is an overlap in surface form between two underlying structures and some analogical relationship between their functions. The actualisation of the reanalysis may then be manifested by changes in surface structure or function of some exponents of the reanalysed form from those of the form before the reanalysis.²³

The reanalysis of the narrative *yiqtol* as a schematised extension of a jussive and also the process of change described above are manifested in a number of features.

The most obvious structural manifestation is the occurrence of the cohortative jussive form of first person in *wayyiqtol* forms. These become particularly frequent in Late Biblical Hebrew (Cohen 2013, 121–23),²⁴ but are found sporadically already in the Pentateuch in Classical Biblical Hebrew, e.g.,

(24) וְאֶתְנָה אֶת־הַלְוִיִּם נְתַנִּים | לְאַהֲרֹן וּלְבָנָיו

‘And I have given the Levites as a gift to Aaron and his sons.’ (Num. 8.19)

²³ For the process of reanalysis see Madariaga (2017).

²⁴ For more details regarding their distribution in Late Biblical Hebrew see Sjörs (this volume).

(25) וַיְהִי כִּי־בָּאוּ אֶל־הַמְּלוּן וַנִּפְתַּחֲהָ אֶת־אֲמָתֵהֶם וַיִּבְּאוּ

‘and when we came to the lodging place, **we opened** our sacks.’ (Gen. 43.21).²⁵

Sjörs (2021) argues that such consecutive forms retain the speaker-benefactive meaning of the cohortative. This can be interpreted as a legacy of the volitive meaning of first person cohortatives in purpose constructions such as (22).

Some *wayyiqtol* forms occur in clauses that can be interpreted as result clauses, which, as discussed above, was the immediate extension of a purposive use of jussive *yiqtol*, e.g.,

(26) לָמָּה אָמַרְתָּ אַחֲתִי הִוא וְאַקַּח אֶתָּה לִי לְאִשָּׁה

‘Why did you say “She is my sister,” **so that I took her** for my wife?’ (Gen. 12.19)

Occasionally a *wayyiqtol* form expresses a discourse dependent imperfective habitual,²⁶ e.g.,

(27) לָמָּה תִּבְעֵטוּ בְּזֹבְחֵי וּבַמִּנְחֹתַי אֲשֶׁר צִוִּיתִי מֵעוֹן וּתְכַבְּדוּ אֶת־בְּנֵי־דָם מִמֶּנִּי לְהַבְרִיאֲכֶם מִרְאשֵׁית כָּל־מִנְחַת יִשְׂרָאֵל לְעַמִּי:

‘Why then look with greedy eye at my sacrifices and my offerings which I commanded, **and (habitually) honour** your sons above me by fattening yourselves upon the choicest parts of every offering of my people Israel?’ (1 Sam. 2.29)

(28) הֲיִהְיֶה מִמִּית וּמִחַיָּה מוֹרִיד שְׂאִיל וַיַּעַל:

²⁵ There are fifteen cases of *wayyiqtol* cohortative in the Pentateuch and Early Prophets (Talshir 1986, 590).

²⁶ Robar (2015, 85–86) draws attention to this fact in her argument against interpreting the *wayyiqtol* form as a preterite. See also her paper in this volume.

‘The LORD kills and he brings to life; he brings down to Sheol **and he raises up.**’ (1 Sam. 2.6).

(29) הַמְחַכִּים לְמָוֶת וְאֵינְנָהּ וַיִּחְפְּרוּהוּ מִמְטָמוֹנִים:
 ‘those who long for death, but it comes not, **and dig for it**
 more than for hid treasures.’ (Job 3.21)

Such functions are incompatible with the old past perfective *yiqtol*, but would not be problematic if the form is a schematised jussive, which does not have a specified aspect.²⁷ The purposive construction *waw* + *yiqtol* typically expresses a perfective event and this is likely to be why the *wayyiqtol* form, likewise, is typically perfective in its function. As we have seen, however, the NENA discourse dependent subjunctive *qatāl* can sometimes be habitual (6).²⁸

As discussed, the substantive structural core of the construction that was schematised was *waw* + *yiqtol* (jussive). This explains why the narrative *yiqtol* form is restricted to *yiqtol* immediately preceded by *waw*. Such restricted distribution would be difficult to explain if the form was still being analysed as the old past *yiqtol*.

²⁷ An alternative way of understanding the *wayyiqtol* forms in (27)–(29) would be to interpret them as existential perfects (‘you have honoured on unspecified occasions’, etc.). This would be a strategy for expressing a habitual characteristic of the subject that is equivalent to a ‘gnomic’ *qatāl*.

²⁸ There are some cases where a short *yiqtol* is preceded by *waw* without a *dagesh* in the prefix and the form is generally interpreted as a future, e.g., Num. 24.19, 1 Sam. 10.5, 1 Kgs 14.5, Dan. 11.4, or habitual, e.g., Job 10.17.

It is also relevant to note that negative purpose clauses do not have a jussive form, e.g.,

(30) וְלֹא יִרְבֶּה-לּוֹ נָשִׁים וְלֹא יִסּוּר לְבָבוֹ

‘and he shall not multiply wives for himself **lest** his heart **turn away**.’ (Deut. 17.17)

If consecutive *wayyiqtol* came about through reanalysis of a jussive through schematisation of a subordinate jussive construction, then how is the *dagesh* in the prefix to be explained? I have argued elsewhere that the gemination should be regarded as a late addition to the reading tradition in the Second Temple Period to express a semantic distinction between jussive and indicative meanings of the construction (Khan 1991, 241; 2013, 43), and further arguments for this have recently been adduced by Kantor (2020, 104–16). The phenomenon of introducing gemination (reflected by *dagesh* in the medieval vocalisation systems) to express distinctions in the meaning of an originally unitary form is found in various places in the Tiberian vocalisation tradition (Khan 2020, I:524–30) and there are many additional cases in the Babylonian tradition (Yeivin 1985, 357, 909–10). The fact that *dagesh* in the *wayyiqtol* form and also the other cases of *dagesh* for distinguishing meaning that occur in the Tiberian tradition also occur in the Babylonian tradition suggests that it developed in the Second Temple Period in the proto-Masoretic reading traditions before its Tiberian and Babylonian transmissions became geographically divided. This reflects a general Second Temple development in the proto-Masoretic reading tradition involving the introduction of strategies to increase care in pronun-

ciation and clarity of interpretation (Khan 2020, I:73–85). Reading traditions that were not direct heirs to the proto-Masoretic reading also exhibited such strategies, but they did not always coincide with the proto-Masoretic tradition. With regard to the *dagesh* of *wayyiqtol*, it is significant to note that the Samaritan reading tradition does not reflect this. In the Samaritan tradition, where possible, i.e., in *qal* I-y verbs, a different strategy was adopted for distinguishing *waw* + *yiqtol* with a past consecutive meaning, namely the mapping of the *qaṭal* vocalic pattern onto the verbal form, e.g., *wtārad* ‘and she went down’ (Tiberian וַתֵּרַד), by analogy with the pattern *qāṭāl*, versus *térād* ‘she goes down’ (non-past, Tiberian תֵּרַד, תִּרַד). Similarly, in the Samaritan tradition the vocalic pattern of *yiqtol* is mapped onto *weqaṭal*, e.g., *wyēlēdu* ‘and they (habitually) give birth’ (Tiberian וַיִּלְדוּ Exod. 1.19).²⁹ In the Greek transcription of the Hexapla, moreover, the *dagesh* of *wayyiqtol* is reflected to a far lesser extent than in the Tiberian and Babylonian traditions (Kantor 2020). Moreover, there are sporadic examples in the Babylonian tradition of constructions where a form that is *we-yiqtol* jussive in Tiberian is read as *wayyiqtol*, suggesting that the gemination of the prefix was a matter of interpretation of tradition, rather than an original feature of the form, e.g.,

- (31) וַיִּשְׁמְעוּ וַיִּשְׁמְעוּ, *wayyašmi‘u* ‘and they made hear’ (Jer. 23.22, Yeivin 1985, 1063–68 || BHS וַיִּשְׁמְעוּ ‘and let them make heard’)

²⁹ See Florentin (1996). A possible parallel to this in the Hexapla is *εδαλ* (BHS וְהִדָּל ‘and it/one ceases/will cease’ Ps. 49.9). Data supplied by Ben Kantor.

- (32) וְאֶשְׂמְעֵם *wə'ašmi'em* 'and I announced them' (Yeivin 1985, 1063–68 || BHS וְאֶשְׂמְעֵם 'that I may announce them')

The *dagesh* was introduced into the cases of *waw* + *yiqtol* that expressed asserted realis events. In the vast majority of cases, of course, these were perfective events in narrative. Occasionally, however, the *dagesh* was introduced in a *yiqtol* form in the received text when the asserted event was interpreted as habitual to ensure that it was not interpreted as an irrealis form, as we have seen in (27)–(29). Another case of adaptation of the reading tradition in the Second Temple Period to express grammatical distinctions for the sake of clarity is the change of the reading of *qal* transitive verbs to *pi'el* and the change of the reading of *qal* intransitive verbs to *nif'al* (Khan 2020, I:58–59).

Finally, the /a/ vowel in the form *wayyiqtol* can be explained by the fact that the default pronunciation of the *shewa* of the Tiberian tradition was [a]. So the /a/ would have been the result of the closing of the syllable with a vocalic *shewa*.³⁰

In *wayyiqtol* verbal forms that have a penultimate open syllable the stress typically occurs on the penultima, e.g., וַיָּקָם 'and he arose' (Gen. 4.8). This represents the original position of the stress. In jussive forms, by contrast, the stress frequently shifted to the final syllable when it is closed, e.g., יָשָׁב 'let him return'

³⁰ In the Tiberian tradition in the Middle Ages a vocalic *shewa* was, in fact, assimilated to a following semi-vowel /y/, so that וַיָּקָם would have been pronounced [vijiq't^o:ol]. Before other prefixes the default [a] appeared, e.g., וַיָּקָם [vaθiq't^o:ol], וַיָּקָם [vaniq't^o:ol]. This assimilation before /y/ could have been a later development or perhaps the /a/ in the third person forms arose by analogy with other persons.

(Judg. 7.3). There are, however, some jussive forms with this syllable structure that preserve the penultimate stress, e.g., אַל־תָּשֶׂם ‘do not put’ (1 Sam. 9.20). The stress shift in the jussive outside of *wayyiqtol* constructions seems to have been by analogy with the stress position in the long *yiqtol*, e.g., יָקוּם ‘[a people] arises’ (Num. 23.24).³¹ A motivation for this stress shift may have been to distinguish between the realis *wayyiqtol* and the irrealis jussives. The same applies to the advancing of the stress to the suffix in the *weqatal* construction, e.g., וְשָׁמַעְתָּ ‘and you will listen’ (Deut. 6.3). The fact that this does not entail pro-pretonic reduction indicates that it is late. It is possible that this stress shift reflects the imposition on *weqatal* of a stress position that was characteristic of *yiqtol*, where the stress is on the ultima in most inflections, e.g., תֹּאכַל ‘you will eat’ (Gen. 3.14); cf. וְאָכַלְתָּ ‘and you will eat’ (Gen. 3.18). It is possible, moreover, that the retention of penultimate stress in *wayyiqtol* forms such as וַיִּקָּם had some correlation with the stress patterns characteristic of *qatal*, which had penultimate stress in some inflections, e.g., קָמַתָּ ‘you arose’ (2 Sam. 12.21).³² This is analogous to the imposition of the vocalic pattern of *qatal* on *wayyiqtol* and of the vocalic pattern of *yiqtol* on *weqatal* where possible in the Samaritan tradition.³³

³¹ For these developments in stress position see Blau (1978, 100).

³² For the lateness of the stress shifts see Revell (1984).

³³ An analogous phenomenon can be found in the Yemenite reading tradition of Babylonian Talmudic Aramaic. In this oral reading tradition the plural active participle retains its historical vocalism in the first syllable when it has present tense reference, viz. [qɑ:t̪le:] with a *qameṣ*, but when it is interpreted as referring to the past it has the form [qɑt̪le:]

The jussive form, of course, merged with the form of the indicative *yiqtol* in many verbal roots. In the form of the Masoretic text that has been transmitted to us by the Tiberian vocalisation, which is likely to reflect essentially the proto-Masoretic reading tradition of the Second Temple Period, it is only formally distinguished from the indicative *yiqtol* in certain weak roots and in the *hif'il*. This reflects a merger in progress. In some of the biblical texts from Qumran this merger is more advanced, in particular in the Isaiah scroll 1QIsa^a, where short forms in the MT are often long, e.g., ויעשה 'and it made' (Isa. 5.2 = MT ויעֶשׂ) (Kutscher 1979, 328).³⁴

In the Samaritan oral tradition the jussive and indicative *yiqtol* have merged in form completely, e.g.,

(33) *w-lā yémot* 'and will not die' (Exod. 9.4; Ben-Ḥayyim 1977
|| BHS וְלֹא יָמֹת)

(34) *w-al yémot* 'and may he not die' (Deut. 33.6; Ben-Ḥayyim
1977 || BHS וְאַל-יָמֹת)

with a *pataḥ*. The latter form is based on the analogy of the past *qatal* verb, which has the base *qatl-* in most persons (Morag 1988, 133–34).

³⁴ This merger in some cases resulted in the original jussive morphological form being extended to the functions of the indicative. An example of this is the normal inflection of 3mpl and 2mpl indicative *yiqtol* with final *-ū*. This represents the levelling of the original jussive inflection and the original indicative inflection *-ūn*, which has survived as an archaism in indicative contexts (Hoftijzer 1985). Moreover, there are sporadic cases of short *yiqtol* forms (according to orthography and vocalisation) being used as indicatives, e.g. תָּמָת בְּנֶעַר נַפְשָׁם 'their soul dies [habitual] in youth' (Job 36.14), יְרַעַם אֱל 'God thunders [habitual]' (Job 37.5). For further examples preceded by *waw* see n.28.

Analogy to the merger in other verbal forms in the reading tradition (i.e., strong verbs that were not *hif'il*) no doubt played a role in this complete merger. Also, the Aramaic verbal system, which was in the process of losing the jussive in the Second Temple Period, is likely to have had an impact. The Rabbinic Hebrew verbal system, of course, converged even more closely with Aramaic and lost the jussive. With the loss of the jussive form the *waw* + jussive *yiqtol* construction was lost and this would have entailed the loss of the consecutive *wayyiqtol*, which was replaced by simple *we-qatal*. This, in turn, would have eliminated the consecutive *weqatal* from the system. Embryonic signs of this are found already in Late Biblical Hebrew and also in the language of the Dead Sea Scrolls, in which *we-qatal* is frequently used with a perfective past sense (Qimron 2018, 370).

The morphological merger of the Biblical Hebrew jussive *yiqtol* with the indicative *yiqtol* was particularly advanced in the first person. This was due, it appears, to the fact that the distribution of the cohortative form was extended and began to overlap with the functions of the first person jussive (i.e., short *yiqtol*), including the consecutive *wayyiqtol* forms, which, as remarked, were sometimes expressed by cohortative forms in the first person. The original occurrence of *waw* + first person jussive in a purpose clause and consequently also in a *wayyiqtol* clause rather than the cohortative may have been a vestige of verb sequences in earlier Canaanite. Baranowski (2016b, 166–68) has argued that in the Canaanite of the Amarna letters modal *yaqtul* (the ancestor of the Hebrew jussive) and modal *yaqtula* (the ancestor of the Hebrew cohortative) have different distributions. The *yaqtul*

form is what he calls a ‘sequential modal’, in that it occurs in clauses expressing the purpose or result of a volitive expression, whereas the *yaqtula* occurs in a volitive phrase that precedes the purposive *yaqtul*.³⁵ Against this background, the spread of the Hebrew cohortative into purpose and *wayyiqtol* clauses can be seen as an innovative extension of its function. This gradual replacement of the first person jussive by the cohortative was due to the functional relatedness of the cohortative in this construction and also to the general extension of the functions of the cohortative. Originally a volitive expressing the desire of the speaker, the cohortative came to be used as a future expressing the intention of the speaker. These developments are conspicuous in the language of the Dead Sea Scrolls, where the cohortative becomes particularly frequent in *wayyiqtol* constructions and in intentional future constructions. In the Isaiah scroll 1QIsa^a, for example, the cohortative often occurs with these functions where the MT does not have a cohortative (Kutscher 1979, 327).³⁶ This extension of the cohortative is also found in the Samaritan Pentateuch (Sjörs 2021). As Dahl (1985, 106) has observed, a future expressing intention typically implies that the speaker predicts that the event will take place.

³⁵ This is contrary to previous studies, which interpreted the *yaqtula* form as expressing purpose after volitive expressions, e.g., Moran (1960), Dallaire (2014, 131–32).

³⁶ According to Qimron (2018, 371) the occurrence of the cohortative in the Dead Sea Scrolls is conditioned by position, in that it occurs predominantly in clause-initial position after *waw*. The same has been observed in the language of Ben Sira by van Peursen (2004, 83–87).

Such developments led to the merging in function of the cohortative with the long *yiqtol* form. This would explain the regular use, with only a few exceptions, of the long *yiqtol* in first person *wayyiqtol* forms in Late Biblical Hebrew, e.g., וַאֲקוּם 'and I rose' (Neh. 4.8), וַאֲשִׂים 'and I put' (2 Chron. 6.11), וַאֲבַנֶּה 'and I have built' (2 Chron. 6.10), וַאֲעַמְּדֵיךְ 'and I stationed' (Neh. 4.7), וַנַּעֲמִיד 'and we stationed' (Neh. 4.3), וַנִּבְנֶה 'and we built' (Neh. 3.38), וַנִּחַנְּה 'and we camped' (Ezra 8.15) (Talshir 1986, 586–87).

As is generally the case with linguistic change, this process was gradual and there was variation in the first person between the new *wayyiqtol* cohortatives, e.g., וַאֲוִשִׁיעָה 'and I saved' (Judg. 10.12), the new long *wayyiqtol* forms, e.g., וַאֲצַלֵּל 'and I saved' (1 Sam. 10.18), וַאֲבַכֶּה 'and I wept' (2 Sam. 12.22), and the old short *wayyiqtol* forms, e.g., וַאֲוִלֵּךְ 'and I made go' (Lev. 26.13), וַאֲעַלֵּל 'and I cause to go up' (Num. 23.4). First person jussive short *yiqtol* forms are occasionally attested outside of *wayyiqtol*, though they are rare, e.g., לֹא אֶסְמַע לְשׁוֹמְרִי 'let me not hear again' (Deut. 18.16),³⁷ וְלֹא נִשְׁאַר 'and let us not leave' (1 Sam. 14.36).³⁸ The Classical Biblical Hebrew representation of the long *yiqtol* in the *wayyiqtol* is, however, restricted to the orthography of the Early Prophets. The orthography of the Pentateuch reflects the regular use of short forms for the first person jussive and *wayyiqtol* (Talshir 1986).

³⁷ This form, however, may have originally been a *qal*, as is the case also with the jussive form וְיִסְפַּח; cf. Huehnergard (2005, 467-8) [I am grateful to Aaron Hornkohl for drawing my attention to this].

³⁸ First person jussives outside of Classical Biblical Hebrew prose, include Isa. 41.28; 42.6; Ezek. 5.16; Hos. 9.15; 11.4; Zeph. 1.2, 3; Job 23.9, 11.

On many occasions the orthography of Classical Biblical Hebrew reflects a short form in the first person *wayyiqtol*, but the *qere* reads it as a long form, e.g., וָשֵׁלַיְתִי 'and I threw' (Deut. 9.21), וָאֶצְלַיְתִי 'and I delivered' (Josh. 24.10). This is the norm in middle weak verbs, e.g., וָאֶקְמַיְתִי 'and I rose' (1 Kgs 3.21), וָאֶשָּׂא 'and I put' (Gen. 24.47). The same applies to jussives outside the *wayyiqtol* form, e.g., in a purpose clause: וְאֶמָּוֶת 'that I may die' (2 Sam. 19.38). In the Pentateuch this applies only to first person singular forms. First person plural forms are vocalised as short jussives, e.g., וַנְּהַרְסֵם 'and we destroyed' (Deut. 2.34), וַנְּקַרְבֵם 'and we have brought as an offering' (Num. 31.50).³⁹

In later texts composed in the Second Temple Period the orthography of the *ketiv* reflects the long form, indicating that the jussive form had merged with the 'long' *yiqtol* in the first person at the time of composition (see examples above). The vocalisation of Classical Biblical Hebrew forms such as וָאֶקְמַיְתִי reflects the state of the language in the Second Temple Period. It is not clear why this phenomenon of the *qere* is restricted to the first person singular. It may be connected to the greater frequency of occurrence of the first person singular than the first person plural. Within the Masoretic Text, for example, the statistics for 1s and 1pl *wayyiqtol* forms in the *qal* and *hif'il* are as follows:

Table 4

1s <i>qal</i> :	355
1pl <i>qal</i> :	48

³⁹ Talshir (1986, 586). For a detailed examination of this phenomenon, see Hornkohl (forthcoming).

1s <i>hif'il</i> :	74
1pl <i>hif'il</i> :	12

This may be compared to the application of the innovation of stress shift to the suffixes of the 1s and 2ms forms of *weqatal*, but not to those of the 1pl forms. As suggested by Revell (1984, 440), this is likely to be connected with the fact that the 1s and 2ms forms occur more frequently than the 1pl forms. The statistics are as follows for 1s, 2ms, and 1pl *weqatal* forms:

Table 5

1s:	712
2ms:	731
1pl:	52

This phenomenon would be different from the normal effect of frequency in vernacular language, in which changes that require analysis, e.g., reconfiguration of inflectional morphology, affect the least frequent words first (see Groen in this volume). The imposition of the aforementioned changes in the reading tradition were, by contrast, applied 'top down', i.e., to the most frequent items. These innovations are likely to have been internal to the reading tradition and do not reflect vernacular speech.

Returning now to the process of schematisation of the *waw* + jussive *yiqtol* construction, which, I argue, gave rise to the conservative *wayyiqtol* form, I would like to examine a further schematisation of the construction.

Scholars have drawn attention to the fact that the *wayyiqtol* form in some cases does not express temporal sequentiality but rather elaboration of what precedes, e.g.,

- (35) וַיִּנָּשֶׁק לְכָל-אֶחָיו וַיִּבְדֵּן עֲלֵיהֶם
 ‘And he kissed all his brothers and wept on them.’ (Gen. 45.15)
- (36) וַיִּשְׁלַח יוֹאָב וַיַּגֵּד לְדָוִד אֶת-כָּל-דִּבְרֵי הַמִּלְחָמָה: וַיֵּצֵא אֶת-הַמַּלְאָךְ לְאָמֹר...
 ‘And Joab sent and reported to David all the events of the war. And he instructed the messenger, saying...’ (2 Sam. 11.18–19)

It was proposed above that a temporally sequential *way-yiqtol* reflected the following schematisation:

Table 6

Main clause	Consecutive
R_1, E	<i>waw yiqtol</i> ($R_1—R_2, E$)

Here the consecutive *wayyiqtol* is bound to the temporal reference point R_1 in the preceding clause. By a further schematisation, which was identified above also in the *weqatal* construction (§2.0), the temporal reference point of the first clause was generalised to a topical cognitive reference point, whereby the *way-yiqtol* form expresses relevance to what precedes, but not necessarily temporal sequentiality.

4.0. Concluding Remarks

In this paper I have argued that the discourse dependency of consecutive *weqatal* and *wayyiqtol* forms is encoded in their semantic structure and is not just an implicature of the context. This is a heritage of their historical origin in subordinate constructions with temporal integration between clauses. The historical development of consecutive *weqatal* and *wayyiqtol* that has been proposed above has typological parallels in NENA and involves the

extension through schematisation of constructions containing dependent clauses (apodosis and purpose clause, respectively). In terms of syntactic structure, these are not subordinate clauses. They have, however, semantic integration with the preceding clause, which is a feature of syntactic subordination (Cristofaro 2003).

The dependency of *weqatal* and *wayyiqtol* is encoded by a temporal anchor, i.e., a reference time, in the preceding context, so that the event is encoded as being temporally posterior to the reference time of the preceding context. In some cases this temporal anchor has become schematised to a cognitive topical anchor, so that the event is coded as being relevant to what precedes, but not necessarily temporally posterior.

In some languages discourse dependent verb forms have undergone a further schematisation, whereby the cognitive anchor in the preceding discourse has been extended to a general realis indicative denotation irrespective of context. This has occurred, for example, in one NENA dialect (Jewish Dobe, Khan 2021) and is the background of the realis indicative preverbal particles *ka-* of Moroccan Arabic and *bi-* of Eastern Arabic dialects. The question arises as to whether such a further schematisation could be posited for the Biblical Hebrew consecutive forms *weqatal* and *wayyiqtol*, i.e., are there contexts in which they have lost any coding of an anchor, temporal or cognitive, in the preceding context? A relevant factor when considering this question is the fact that, although *weqatal* and *wayyiqtol* are cognitive ‘chunks’ in constructions, they have not lost their compositional-

ity completely and the *waw* still functions as a clause-initial connective to the preceding discourse. This can be considered to coerce a discourse dependency interpretation for the construction. Some scholars have argued that the fact that the *wayyiqtol* form occurs at the beginning of several biblical books indicates that they do not always denote sequentiality or dependency (Bauer 1910, 35–39; Hataf 1997, 36–88; Joüon and Muraoka 2011, §118c). Several scholars, however, regard the *waw* as reflecting connections between the literary units of other books. Moreover, *waw* sometimes begins a biblical book before a non-verbal form, e.g., וְאֵלֶּה שְׁמוֹת ‘And these are the names’ (Exod. 1.1).⁴⁰

In NENA, by contrast, the substantive element in the construction did not include a connective *waw*. In the Barwar NENA dialect discussed in §1.0 the discourse dependency must be encoded in the verbal form. Following this typological parallel, I have posited that the Hebrew constructions followed the same historical pathway and likewise involved coding of discourse dependency. Unlike in NENA, and Arabic dialects, the presence of the *waw* in the substantive core of the Hebrew constructions was a constraint against the full bleaching of this discourse dependency coding.

The schematisation of the constructions (apodosis and purpose clauses) resulted in looser semantic integration with what precedes, which I have been referring to as discourse depend-

⁴⁰ One should also take into account that connectives in some Semitic languages introduce the main body of texts after formulaic preliminaries, e.g., *fa-* in Arabic and Epigraphic South Arabian (Nebes 1995).

ency. This development of linear elements, i.e., from greater integration to lesser integration, is the opposite to what is normally said to be the typical directionality of morphosyntactic change according to grammaticalisation models, i.e., main clauses > subordinate constructions. It has recently been recognised, however, that the opposite directionality may be more widespread in languages than has previously been thought. Evans (2007), in particular, has drawn attention across many languages to cases of syntactically subordinate constructions developing into main clauses. He refers to this process as ‘insubordination’. The insubordination process in the development of consecutive *weqatal* and *wayyiqtol* does not fit the normal model of grammaticalisation. I hope to have shown, however, that they can be explained using the model of construction grammar, whereby components of constructions become more generalised through the cognitive process of schematisation.

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A TENSE QUESTION: DOES HEBREW HAVE A FUTURE?

Aaron D. Hornkohl

1.0. Introduction

This paper's admittedly ambiguous title refers to verbal semantics, specifically, to the question of the relevance of the notion of future tense—and of tense, more generally—to Biblical Hebrew (BH).

For many, the answer may seem so straightforward as to obviate the need for the question. But I expect something other than unanimity on just what the obvious answer might be. Some will take for granted the relevance of future tense in BH, since the language clearly provides means for reference to eventualities (i.e., actions, events, states, etc.) temporally posterior to the present. For others, the assumption will involve the patent irrelevance of the concept of future as one long ago discarded by BH scholars in the broader rejection of the semantic category of tense in favour of more appropriate categories. Among other things, the co-existence of these 'obvious' answers (along with others) justifies revisiting the question.

2.0. Clarifying the Argument: Tense, but Not Only Tense

In the context of current research on the BH verbal system, when one asserts that the forms express tense, there is a risk of misunderstanding from the outset. For the sake of clarity: I do not agree with older (and similar contemporary) claims that BH verbal semantics can be adequately described in terms of purely temporal reference. The semantic category of tense alone—whether construed as absolute or relative—is not sufficient to comprehend the full range of BH verbal semantics. But this differs from saying that BH verbal forms are not employed to express tense or that the BH verbal system may be adequately explained without recourse to tense. Tense is a legitimate and relevant, though by no means exhaustive, semantic category when discussing Hebrew verbs; Hebrew scholars and learners are not only justified, but obligated to speak of it in accounts of BH verbal semantics.

Happily, similar views are espoused by others, including some with articles in this volume. Consider the words of Matthew Anstey from a 2009 article on the *qatal* form:

This article follows those who think BH is tense-prominent... and adopts the position that QV [*qatal*] has Past as its core meaning, for the following straightforward reason: in the range of functions discussed below, Past is clearly the default interpretation in narrative and in reported speech. The other uses occur in much more restricted constructions and contexts (827).

On the *yiqtol* Anstey (827) says: “the Nonpast *yiqtol*, although also multifunctional, has a range of functions that is typical of

nonpast forms, namely, various imperfective and modal nuances, as well as habitual and generic uses.” Even more refreshing than Anstey’s ‘common-sense’ tense-prominent take on the BH verb,¹ is the fact that, in using the description ‘tense-prominent’, he explicitly acknowledges the reality of polyvalent semantics, i.e., the expression of other Tense-Aspect-Mood (TAM) values along with tense.²

3.0. Examining Questionable Assumptions

Scholarly fixation with uncovering the underlying, all-encompassing semantic category of the BH verbal system is deeply entrenched within the BH grammatical tradition, where its influence remains pervasive, but largely unnoticed and, problematically, unexamined. The basic assumptions behind the quest for a unifying semantic value warrant critical examination, as do the considerations that led to the rejection of certain values in favour of others. In many circles one encounters a troubling reticence to admit genuine tense expression via BH verbs.

Focusing, by way of example, on the prefix conjugation *yiqtol*—to be sure, students are routinely informed of some vague correlation between the *yiqtol* and futurity. Yet they are just as often warned that this is a sort of convenient, but misleading fiction, a well-meaning deceit grudgingly perpetrated against them

¹ For an application Bhat’s (1999) notion of tense-prominence (as opposed to aspect- and mood-prominence) to the BH verbal system, see Hornkohl (2018, 28–33).

² See also, more recently, Anstey (forthcoming). Buth (1992) also emphasises the combined TAM values of BH verbal forms.

by instructors pained by regret for, in the name of simplicity, misrepresenting the ancient Hebrew verb and mind. While one must avoid forcing BH grammar into categories foreign thereto, it is no less fallacious on the basis of real or perceived differences between BH and other known languages prematurely to exclude whole semantic categories from the analysis of BH.

To some extent, this is precisely what has been done. Already by the early modern period scholars had become convinced that tense was inadequate to encompass the totality of BH verbal meaning, especially because the relevant verbal forms not infrequently expressed meanings beyond, and even contrary to, what would be expected of them in a pure tense system. But all that this proved was that the category of tense was too narrow a parameter on its own for comprehending the full range of BH verbal semantics—not that the entire notion of tense needed to be discarded. While Hebrew instructors should certainly acquaint students with the pertinence and usefulness of all the TAM categories, aspect and mood should not be privileged at the expense of tense, as if the latter were merely a popular notion with no place in serious scholarly discussion or some sort of epiphenomenon of a deeper, truer reality.

Yiqtol is used to express far more than just the indicative future, but given both the frequency of its use to express indicative future semantics and its status as a default option for expressing the same, it is inaccurate and misleading to exclude from a description of *yiqtol* reference to tense, in general, and to future tense, more specifically.

4.0. A Brief History of Scholarship

4.1. The Medieval Period

A brief history of scholarship might help to explain how Hebraists came to feel so insecure about the future. Medieval Jewish grammarians apparently had no such misgivings, as they commonly spoke in terms of temporal categories (Téné et al. (1971) 2007, 58; McFall 1982, 1–10; Becker 2013, 124, 126). And since many of them had recourse to comparison with Arabic, not just western European languages, it must be emphasised that their adoption of a tense-prominent explanation for the BH verbal system was no likelier due to western scholarly bias than was the later western adoption of alternative descriptions.³

³ In the forceful words of Rainey (1990, 408–9):

In the present context, it remains to state the obvious fact that the behavior of the suffix verbal forms in the el-‘Amânah letters, as in the Hebrew Bible, is in flat contradiction to the prevailing theory that the basic meaning of the Suffix Conjugation is completed action. So we reject outright the use of the term “Perfect” for this conjugation pattern. It is irrelevant, inaccurate, and misleading. Our acceptance of the term “Imperfect” should in no way be construed as acquiescence to the common view that the ancient Semitic verbal systems were based on the expression of “aspect” rather than tense. The ancient Semites knew when to sow their fields and to milk their cows; their own language was quite adequate to explain these things to their sons. The idea that the Semites only viewed verbal action as completed or incomplete is a European conceit. It has no basis in fact.

4.2. The Enduring Influence of Early Modern Concepts

When we come to early modern scholarship, things get complicated. On the one hand, as already noted, certain early modern objections to a purely tense-based approach to the BH verb were and remain valid, especially the obvious intersection of tense and non-tense semantics in several of the forms.

Particularly vexing was the full *yiqtol* form (derived from PS *yaqtulu*, as opposed to, for example, the short *yiqtol* form that developed from PS *yaqtul*). That it serves regularly in BH to express values associated with all three tenses—future, gnomic (i.e., generic and habitual) present, gnomic (i.e., generic and habitual) past⁴—belied a unidimensional tense-based approach. The following examples showcase *yiqtol* forms with absolute future, (1)–(3) relative future (4)–(6), habitual present (7)–(9), and habitual past (10)–(12) semantics.⁵

⁴ For generic and habitual aspect as subtypes of gnomic imperfectivity, see Carlson (2012); Bybee et al. (1994, 126, 141) equate generic and gnomic. The basic distinction that Carlson (2012, 829–31) draws is that between expressions with individual or group subjects (habituals) and those with “[g]eneric noun phrases that do not intuitively designate any particular individuals or group of individuals.” I am grateful to Geoffrey Khan for highlighting this distinction.

⁵ Bybee et al. (1994, 126–27) usefully distinguish between habituality (customary action over a period of time), frequentativity (frequent customary action over a period of time), and iterativity (repeated action on one occasion); see also Comrie (1976, 26–27); Carlson (2012, 828–31). In BH, the former two categories more consistently correlate with explicit imperfective encoding than does the latter, e.g., the perfective iterative in *וַיִּשְׁתַּחוּ אֶרְצָה שִׁבְעַת פְּעָמִים* ‘and he bowed to the ground seven

4.2.1. Absolute Future

- (1) וַיִּשֶׂם יְהוָה מוֹעֵד לֵאמֹר מָחָר יַעֲשֶׂה יְהוָה הַדָּבָר הַזֶּה בְּאֶרֶץ:
 ‘And YHWH set a time, saying, “Tomorrow YHWH **will do** this thing in the land.” (Exod. 9.5)
- (2) כֹּה אָמַר אֲדֹנָי יְהוִה וְהָיָה | בַּיּוֹם הַהוּא יַעֲלוּ דְבָרִים עַל-לִבְבְּךָ וְחִשְׁבֹתָ
 מַחֲשַׁבֹת רָעָה:
 ‘Thus says the Lord YHWH: “On that day, thoughts **will arise** into your mind, and you will devise an evil scheme.”’
 (Ezek. 38.10)

times’ (Gen. 33.3). Other semantic notions associated with imperfectivity, such as progressiveness (durativity of dynamic events), continuousness (durativity of states), and lexical frequentativity (e.g., English *blabber* from *blab*, *crackle* from *crack*) are also routinely conveyed without resorting to dedicated imperfective encoding. For example, the expression of continuousness with *yiqtol* or *weqatal* forms is not rare (see, e.g., Joosten 2012, 286, on statives), but is frequently formulated otherwise, e.g., *qatal* for extended and repeated action and for states (often associated with specific lexical aspects), as well as the participle for continuity of verbal eventualities (Driver [1892] 1998, 13, 15–16, 35–36; Joosten 2012, 84–93, 195–200, 242–43). Yet there are exceptions, in which various sorts of imperfectivity are identically coded, e.g., | שְׂרָפִים עֹמְדִים | מִמַּעַל לּוֹ שֵׁשׁ כְּנָפַיִם שֵׁשׁ כְּנָפַיִם לְאֶחָד בְּשֵׁתַיִם | יְכִסֶּה פָנָיו וּבְשֵׁתַיִם יְכִסֶּה רַגְלָיו וּבְשֵׁתַיִם יַעֲוֹפֶף: וְקָרָא זֶה אֶל-זֶה וְאָמַר קְדוֹשׁ | קְדוֹשׁ קְדוֹשׁ יְהוָה צְבָאוֹת מְלֵא כְּלֵי-הָאָרֶץ כְּבוֹדוֹ: ‘Seraphim were standing above him, each with six wings: with two **they covered** (continuous) their faces, with two **they covered** (continuous) their feet, and with two **they flapped** (iterative). **And** each **called** (frequentative) to the other **and said** (frequentative) ‘Holy, holy, holy is YHWH of hosts. The whole land is filled with his glory.’ (Isa. 6.2–3).

- (3) :...וּמִלֶּךְ שֶׁשָׁדַד יִשְׁתָּה אַחֲרֵיהֶם:
 ‘...And after them the king of Babylon **will drink**.’ (Jer. 25.26b)

4.2.2. Relative Future

- (4) :וַיִּכְנְנוּ אֶת־הַמִּנְחָה עַד־בּוֹא יוֹסֵף בְּצַהֲרַיִם כִּי שָׁמְעוּ כִּי־שָׁם יֵאָכְלוּ לֶחֶם:
 ‘And they prepared the gift for Joseph’s coming at noon, for they had heard that **they would eat** there.’ (Gen. 43.25)
- (5) :...וַיִּקַּח אֶת־בְּנוֹ הַבְּכוֹר אֲשֶׁר־יִמְלֹךְ תַּחְתָּיו וַיַּעֲלֵהוּ עֲלֵהַחֹמָה...
 ‘Then he took his oldest son who **was to reign** in his place and offered him as a burnt offering on the wall...’ (2 Kgs 3.27)
- (6) :...וְאֵלִישָׁעַ חָלָה אֶת־חֲלָיו אֲשֶׁר יָמוּת בּוֹ...
 ‘Now when Elisha fell ill with the illness from which **he would die**...’ (Jer. 50.44)

4.2.3. Habitual Present

- (7) :...עַל־כֵּן אֲנִי זֹבַח לַיהוָה כָּל־פֶּטֶר רְחֹם הַזְּכָרִים וְכָל־בְּכוֹר בְּנֵי אִפְדָּה:
 ‘...Therefore I sacrifice to YHWH all the males that first open the womb, but all the firstborn of my sons **I redeem**.’
- (8) :...הֲלוֹא זֶה אֲשֶׁר יִשְׁתָּה אֲדֹנָי בּוֹ וְהוּא נִחַשׁ יִנְחַשׁ בּוֹ...
 ‘Is it not with this that my lord **drinks**, and with this that he **practices divination**?...’ (Gen. 44.5)
- (9) :...פֶּה אֶל־פֶּה אֲדַבְּרֵבּוֹ וּמִרְאָה וְלֹא בַחֲיִידֹת וּתְמַנְתַּת יְהוָה יִבֵּט...
 ‘Mouth to mouth **I speak** with him, clearly, and not in riddles, and **he looks** upon the form of YHWH.’ (Num. 12.8)

4.2.4. Habitual Past

- (10) וַיְהִי הַיּוֹם וַיִּזְבַּח אֶלְקָנָה וַנִּתֵּן לַפְּנִינָה אֲשֶׁתּוֹ וְלְכָל-בְּנֵיהָ וּבָנוֹתֶיהָ מְנוֹת: וְלְחַנָּה
 וַיִּתֵּן מִנָּה אַחַת אַפְּיָם...

‘On the day when Elkanah sacrificed, he would give portions to Peninnah his wife and to all her sons and daughters. But to Hannah he would give a double portion...’ (1 Sam. 4–5a)

- (11) וְהַעֲרָבִים מְבִיאִים לוֹ לֶחֶם וּבֶשֶׂר בַּבֹּקֶר וְלֶחֶם וּבֶשֶׂר בְּעֶרְבַיִם וּמִזֶּה-הַנָּחַל יִשְׁתָּה: (11)
 ‘And the ravens would bring him bread and meat in the morning, and bread and meat in the evening, while from the brook **he would drink.**’ (1 Kgs 17.6)

- (12) וְאֵת-בְּרוּךְ שָׁאָלוּ לֵאמֹר הֲגִדְנָא לָנוּ אֵיךְ כָּתַבְתָּ אֶת-כָּל-הַדְּבָרִים הָאֵלֶּה וַאֲנִי כָּתַב
 מִפִּי: וַיֹּאמֶר לָהֶם בְּרוּךְ מִפִּי יִקְרָא אֵלַי אֶת כָּל-הַדְּבָרִים הָאֵלֶּה וְאֲנִי כָּתַב
 עַל-הַסֵּפֶר בְּדִין:

‘Then they asked Baruch, “Tell us, please, how did you write all these words from his mouth?” Baruch answered them, “He **would read** all these words to me, and I would write them with ink on the scroll.”’ (Jer. 36.17–18)

None of the above meanings is anomalous; examples of each could be multiplied. While specific senses are especially characteristic of particular genres and/or text types—e.g., future *yiqtol* of direct speech, gnomic present *yiqtol* of proverbial statements, and habitual past *yiqtol* of background description within narrative—no meaning is limited to a specific genre or text type. Language users disambiguated meaning via inference from context, including a range of linguistic and extra-linguistic clues. An observation relevant to the future examples above: all of these exemplify indicative future, which term refers to the expression of

a verifiable future fact (see below). It should be noted that this is one of just several future-oriented semantic values commonly expressed by means of BH *yiqtol*, many of which have varying degrees of deontic or weaker epistemic modal force (see below). As a standard option for all of the above semantic values, the *yiqtol* form is polysemous, being regularly employed to express several semantic combinations of TAM values. From this perspective, the *yiqtol* form is no more easily explained today by recourse to a single, all-explanatory semantic dimension than it was in previous generations.

Early modern approaches were hampered by more than just reductionism. They were also impaired by fundamental misunderstandings regarding the development of BH (and other Semitic languages) and simplistic and/or conflation in TAM notions. Though he is not always cited, S. R. Driver's views continue to influence scholarship. As such, the misplaced assumptions and misunderstandings that played a part in his (and contemporaries' as well as successors') rejection of tense in favour of aspect need to be acknowledged and rectified. One acknowledged problem in Driver's approach was conflation of short *yiqtol* (< PS *yaqtul*, used mainly as a jussive or as a simple past in *wayyiqtol*) and full *yiqtol* (< PS *yaqtulu*),⁶ whereby he was compelled to posit a fundamental semantic value capable of explaining a BH *yiqtol* that was not just temporally polysemous, but very nearly pansemantic: simple *and* habitual past, habitual present, indicative and

⁶ See Garr's critique in Driver ([1892] 1998, xxv–xxvi).

volitional future ([1892] 1998, 75–79).⁷ Given the strong inclination to uncover a single comprehensive category for BH verbal semantics, it is no wonder that Driver (and others) rejected tense.

In hindsight, it might be argued that the very attempt to describe a multi-dimensional object in terms of a single dimension was from the outset ill-conceived and destined to fail.⁸ No monovalent description was ever going to capture a polyvalent reality. But in this case, the replacement of tense with aspect consisted not merely in the substitution of one semantic category with a different, equally valid one, but in the replacement of a strongly relevant semantic category with a faulty version of one far less relevant. A glaring weakness in Driver's and similar approaches was the problematic nineteenth-century conception of what is today called grammatical or viewpoint aspect—a conception that, due partially to Driver's stature, continues to plague Hebrew studies to this day. Rather than a system combining the notionally distinct (though often practically and linguistically intertwined) categories of tense and aspect, the proposal was to account for apparent tense expressions as functions of aspect. 'Past' was replaced with 'perfect' or 'complete' and 'future' with 'imperfect', 'incipient', and 'nascent'. Beyond the fact that such substitution in no way resolved the basic problem of collapsing multiple dimensions into one, the theory suffered the same fatal vulnerability as modern iterations thereof: conflation of distinct

⁷ To his credit, Driver ([1892] 1998, 35–36, 166–168) correctly viewed the active participle, not the *yiqtol* form, as the default for progressive/continuous action, both past and present.

⁸ Cf. Haspelmath (1998, 55 n. 23).

semantic categories, namely, the popular misconception of a one-to-one correspondence between *past tense* and *perfective aspect* and between *future tense* and *imperfective aspect*. Rather, it must be emphasised that multiple tense–aspect combinations are possible. Past eventualities can be presented perfectly or imperfectly, e.g.,

- (13) past tense + perfective aspect

I **showered** this morning.

- (14) past tense + imperfective (progressive/continuous) aspect

I **was showering** this morning (when the phone rang).

- (15) past tense + imperfective (habitual) aspect

When I lived in Galveston, I **showered/would shower/used to shower** at least twice a day.

Likewise, future eventualities can be served up in various sorts of aspectual packaging, e.g.,

- (16) future + perfective aspect

I'll **arrive/I'm going to (or gonna) arrive/I'm arriving/I arrive** tomorrow afternoon.

- (17) future + imperfective (progressive) aspect

(When you call me) Tomorrow afternoon at 4:30, I'll **be arriving/I'm going to (or gonna) be arriving**.

- (18) future + imperfective (habitual) aspect

(Now that you've hired me, you'll find I'm very reliable.)
I'll **arrive** on time every day.

The key is that, contrary to what students are often led to believe by BH grammar books, in no way does the complete, global sense of perfective aspectual presentation dictate anterior

temporal location, nor is the open-endedness of imperfective aspect a ‘natural’ fit for future. By the same token, neither do past and future tense by default entail, respectively, perfectivity and imperfectivity.

To be sure, in the world’s languages certain common tense–aspect combinations come to be represented by dedicated encoding. For example, the combinations past–perfective, past–imperfective, and various types of present–imperfective are far more commonly associated with dedicated morphological, syntactic, and/or lexical coding than, say, future–imperfective, as in (17)–(18), above, or present–perfective.⁹ Though BH is not unique among the world’s languages in having verbal forms (i.e., *yiqṭol*, *weqatal*) doubly tasked with conveying both future tense and imperfective aspect, there is no logical requirement according to which the two values must be combined within a single form. Indeed—and this is a crucial point not often mentioned in grammar books—in BH *the two values generally do not combine*: when *yiqṭol* is employed to express a future eventuality, it is most often

⁹ In both English and BH (as in many languages), the default aspectual interpretation of present tense forms is in the nature of things imperfective, since principal uses are to describe what is currently happening (actual present) or what happens with a degree of regularity (generic present), neither of which entails an end point. However, certain specialised uses of present-tense forms must be categorised as perfective, e.g., performatives (*I hereby confirm...*), sports commentating (*He shoots! He scores!*), and choose-your-own adventure/joke/riddle genres (*You enter a bedroom. There are thirty-four people. You kill thirty. How many are in the bedroom?*). Note: these differ from the so-called ‘historical present’, whereby present-tense grammatical forms are for the sake of vividness used to narrate past events.

to be construed as perfective, i.e., with the eventuality viewed as a global, completive whole, including starting and end points, or as aspectually undefined.¹⁰ Conversely, when *yiqtol* has genuine imperfective aspectual force, crucially, it refers not to the future, but to present or past.¹¹ Compare, in this connection, the perfective reading of the examples of future *yiqtol* in (1)–(6), above, with the imperfective character of non-future *yiqtol* in examples (7)–(12). Clearly, the *form* is versatile, covering both futurity and imperfectivity, *but its future and imperfective values are in reality mutually exclusive*. This stands in stark contrast to what one finds in many teaching grammars and well-intentioned blogs, and even some dedicated scholarship. Despite years of scholarly critique,

¹⁰ In agreement with Cook (2012, 221). In English, too, the default interpretation of future verbs is perfective or undefined, with inference of alternative meaning based at least partially on the lexical aspect of the relevant verb. In the interests of clarity, it is worth emphasising that default perfective interpretation of future forms is not limited to the English construction known as *future perfect*. In other words, the future options *He will return/is returning/returns/is going to (or gonna) return tomorrow at 7pm* is no less perfective than *He will have returned by tomorrow at 7pm*. In all options, the act of returning is understood as a completive whole, rather than as progressive, durative, or habitual. The difference is that the future perfect is a relative tense option denoting temporal location in relation not just to speech time (like the other alternatives), but to a reference time as well. The future perfect makes an assertion about a future situation relative to a completed event, not about the event itself.

¹¹ See Hornkohl (2018, 29–30) for examples in BH of both the default perfective or undetermined aspectual character of the future and the explicit signalling of future imperfectivity via alternative means.

it seems fair to say that the fallacy of a purely aspectual paradigm that conflates tense and grammatical aspect still afflicts the field. This is lamentable, not just because the relevant categories of tense and mood get short-changed, but because the category of aspect itself—also essential for understanding BH verbal semantics—is still so poorly understood among non-specialists.

4.3. Representative Examples of Recent Scholarship

Certain elements in modern aspect- and mood-prominent approaches to BH are compelling; others arguably obfuscate, rather than clarify, matters. One difficulty confronting any approach, whatever the semantic category (or categories) deemed prominent, is the semantic opacity and underspecification of *yiqṭol* morphology. Unlike the *qatal* form, whose morphological and semantic development can be confidently traced,¹² such clarity in the case of proto-Semitic *yaqtul* morphology is conspicuously lacking.¹³ Based on cross-linguistic tendencies in the evolution of verbal semantics, along with what can be gleaned about the verbal systems of other ancient Semitic languages, scholars have reconstructed more or less plausible semantic values for the proto-

¹² Cook (2012, 203–4). Examples of historically traceable development within other language families include the transparent voluntative origins of English future *will*; Romance futures built from infinitive + ‘have’, e.g., Latin *amare habeo* ‘I have to love’ > Italian *amerò* ‘I will love’; Germanic perfects composed of ‘have’/‘be’ + past participle.

¹³ In agreement with Cook (2012, 219): “The second complication for substantiating imperfective *yiqṭol* is that the comparative-historical evidence is simply not as transparent for the form compared with the case for *qatal*.”

Hebrew forms from which the values of documented BH verbs allegedly developed. It is important to emphasise, though, that such reconstructions are no more than learned exercises in conjecture, not even offering something approaching real probability. If one could be sure of the nature of the prehistoric proto-Semitic verbal system(s), or even of the nature of the systems in the documented ancient Semitic languages, then perhaps—and *only perhaps*—on the basis of that knowledge, one could achieve probability regarding the general character of the BH verbal system. As things stand, however, the obsolete approaches, lack of consensus, and uncertainty typical of scholarship on the intensively studied BH verbal system also characterises—to varying degrees and in varying combinations—scholarship on the verbal systems of its often less intensively studied sister languages, to say nothing of their respective linguistic antecedents. With this in mind, when it comes to ancient Semitic languages, proposals regarding developmental probabilities based on typology and common grammaticalisation paths must be judged speculative.¹⁴ In view of the paucity of ancient Semitic verbal morphology, it seems possible, if not likely, that TAM values were variously combined in the Semitic languages from the earliest times.

¹⁴ The same does not necessarily apply, however, to modern Semitic chronolects, e.g., vernacular Arabic dialects, Neo-Aramaic dialects, Modern Hebrew, where scholars often have access to far more information, including both considerable historical data and data from mother-tongue informants.

4.3.1. Aspect and Aspect Prominence

John Cook's oft-cited 2012 aspect-prominent treatment of BH is arguably one of the more lucid, current, and thoroughgoing on offer. Cook seeks to account for the intricacies of BH verbal semantics on the basis of common cross-linguistic patterns of TAM development, typological comparisons, and grammaticalisation paths. His account is persuasive in some cases (e.g., the proposed evolution aspect > tense in the case of BH *qatal*); it is intriguing, but open to question, in others. For example, on *yiqtol* Cook himself (2012, 221) admits that the "progressive-imperfective path of development does not adequately account for the future and irrealis mood meanings that the *yiqtol* conjugation expresses in BH."¹⁵ He manages to explain the centralisation of *yiqtol*'s ostensibly once-peripheral "general (perfective) future" and "subjunctive" values on the assumption that an early progressive *yiqtol* with peripheral future and habitual force lost its progressive meaning due to competition with the participle.¹⁶ This proposal merits far more attention than it can be given here.¹⁷ Of immediate pertinence is Cook's explicit acknowledgement of genuine temporal, aspectual, and modal semantics. Albeit endorsing an aspect-prominent view of the BH verb, he readily acknowledges

¹⁵ Citing Andrason (2010, 36 n. 50).

¹⁶ Cook's argument is based on Haspelmath's (1998) work on old present tense forms that develop anomalous meanings.

¹⁷ In this connection, it is pertinent to cite Geoffrey Khan's contribution to the present volume, in which he traces the path progressive > habitual > modal/future for the Neo-Aramaic historical participle *qāṭel*.

the reality, and even *centralisation*, of temporal and modal expression, too.

The most obvious problem with an aspect-prominent classification of BH is its lack of synchronic explanatory power:¹⁸ whatever the upside of an aspect-prominent account of the development of BH verbal semantics, as Hornkohl (2018, 29–30) notes, a decisive downside is the limited role that aspectual distinctions actually play in the classical BH verbal system as documented in ancient sources. Whereas aspectually prominent languages regularly oblige users to select between aspectual alternatives (such as the choice in the case of many ancient Greek verbs between perfective and imperfective roots in the past, imperative, and infinitive), in BH this choice is relevant only in the sphere of the past, since, as already stated, future tense verb

¹⁸ Cook (2012, 208) readily acknowledges the diachronic perspective of his approach. In his discussion of the *qatal* form he summarises: “This reconstruction has been argued, not based on statistical analysis of individual examples, but primarily on the basis of typological arguments along with the consensus views regarding the primary meanings of the conjugation in each period.” Aside from the fact that the best that such typological arguments can offer is probability based on comparison—which is hardly probative, since, in respect of the semantic development of any given feature, it is possible that BH (or any language) simply ‘took the road less travelled’—as noted above, there are considerable grounds for suspicion when it comes to “consensus views regarding primary meanings.” At least as far as BH is concerned (and likely other ancient Semitic languages, too), scholars have all too often simply rehashed outmoded theories and dressed them up in modern linguistic jargon, without properly addressing the questionable or even fallacious assumptions on which they rest.

forms default as aspectually perfective or undefined and present tense verb forms are by default imperfective.¹⁹ Further, even in the sphere of the past in BH, the unambiguous expression of habituality via use of an explicitly imperfective *yiqtol* or *weqatal* is optional; even where adverbials and/or verb forms in the context indicate habituality, eventualities can be expressed with the default perfective past forms (*qatal*, *wayyiqtol*), e.g.,

- (19) ... וַיֵּצְאוּ שָׂרֵי פְּלִשְׁתִּים וַיְהִי | מִדֵּי יֵצְאוּם שָׂכַל דָּוִד מִכָּל עֲבָדֵי שָׂאוֹל.
 ‘Then the commanders of the Philistines came out to battle, and as often as they came out, David **succeeded** more than all the servants of Saul...’ (1 Sam. 18.30)
- (20) וַיִּלְקְטוּ אֹתוֹ בַּבֶּקֶר בַּבֶּקֶר אִישׁ כַּפֵּי אָכְלוֹ וְחַם הַשֶּׁמֶשׁ וְנָמַס׃
 ‘**And they gathered** it morning by morning, each one according to their consumption, but when the sun would grow hot, it would melt.’ (Exod. 16.21)
- (21) שָׂטוּ הָעָם וְלָקְטוּ וְטָחְנוּ בָרְחִים אֹךְ דָּכוּ בַמִּדְּכָה...
 ‘**The people set out** and they would glean and they would grind it with a hand mill or **they beat** it in a mortar...’ (Num. 11.8)²⁰

¹⁹ The BH imperative also defaults as aspectually perfective or undefined, a given verb’s lexical aspect and other clues aiding in semantic disambiguation. By contrast, RH, often deemed less aspect-prominent than BH (Cook 2012, 208, 221–22), allows for imperfective imperatives, as it permits the volitional use of the *hāyā* + participle construction, chiefly restricted to the sphere of the past in BH.

²⁰ For further examples of *wayyiqtol* forms where one might expect imperfective alternatives, see the lists given in Joosten (2012, 174, 178).

The explicit signalling of grammatical aspect is neither obligatory nor pervasive in the BH verbal system.²¹

This dissonance between Cook's theory and reality inevitably results in strange terminological and notional pairings in his argumentation, some of which are disturbingly reminiscent of early modern attempts to unite all verbal semantics under the banner of a single value. Despite Cook's aforementioned awareness that Hebrew verbal semantics can be plotted along all TAM dimensions, his version of aspect-prominence seems to ill-suit the facts on the ground. Thus, Cook (2012) insists on a "perfective *qatal*" (205–8) that is largely the semantic equivalent of "simple past" *wayyiqtol* (256–65), and on an "imperfective *yiqtol*" that "only infrequently expresses past and present imperfective" meanings, "while (general) future and subjunctive meanings are becoming primary functions" (221). More categorically on *yiqtol* semantics:

while *yiqtol* continues to be employed for some imperfective expressions, the progressive [i.e., predicative participle] is the more favored construction for these expressions, while *yiqtol* is preferred for future and subjunctive (irrealis) expressions, which tend toward perfective aspect (267).

Finally, forestalling the argument that Cook is interested only in the historical development of BH verbal semantics, rather

²¹ These are two of Bhat's (1999, 95–97) four criteria for assessing TAM prominence within verbal systems, the other two being grammaticalisation and systematicity (paradigmatisation). Morphosemantic uncertainty involving PS *yaqtul* hinders assessment of the extent to which TAM categories have been grammaticalised or systematised in BH.

than dominant synchronic uses, his summary tables explicitly classify the BH *qaṭal* as perfective (208) and the *yiqṭol* as imperfective (222).

Table 1: BH *qaṭal* resultative path (adapted from Cook 2012, 208)

<i>Common Semitic</i> <i>resultative</i>	>	<i>West Semitic</i> <i>perfect</i>	>	<i>BH</i> <i>perfective</i>	>	<i>RH</i> <i>simple past</i>
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Table 2: BH *yiqṭol* progressive path (adapted from Cook 2012, 222)

<i>Central Semitic</i> <i>progressive</i>	>	<i>BH</i> <i>imperfective</i>	>	<i>RH</i> <i>irrealis</i>
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Even if one accepts the basic correctness of the suggested ‘resultative path’ for *qaṭal* and the ‘progressive path’ for *yiqṭol*, based on the dominant BH uses of these forms and in the absence of documented forms of BH in which *qaṭal* and *yiqṭol* have as their core meanings the semantic values schematised in the tables, it would be more accurate to substitute ‘proto-Hebrew’ for BH and postpone BH on the developmental continuum, closer to RH.

4.3.2. Modality and Mood Prominence

It is also sometimes argued that BH verbal semantics operates on the basis of a fundamentally modal distinction: *realis* versus *irrealis*. In his classic work on tense Comrie (1985, 45) notes that languages that draw this distinction often group perfective past and actual present in the *realis* category, while “*irrealis* is used for more hypothetical situations, including situations that represent inductive generalisations, and also predictions, including predictions about the future.” The potential relevance of this dichotomy for BH verbal semantics is apparent. In addition to

indicative (absolute and/or relative) future—asserting the certainty of an eventuality posterior to the present—*yiqtol* and *weqatal* are employed to express various shades of deontic and less-than-certain epistemic modality, and the habitual present and past, but—crucially—*not* the cardinal realis values of progressive, whether the actual present or past continuous (i.e., present and past progressive, respectively, in BH both the purview of the active participle), or perfective past (typically conveyed in BH via *qatal* and *wayyiqtol*). Joosten’s 2012 (31–33) monograph on the BH verbal system is a recent application of a modal approach to BH.

Even so, it seems prudent to raise a few considerations. First, as Comrie (1985, 44) writes:

...the question of whether future time reference is subsumed under tense or mood, whether in general linguistic theory or in some specific language, is an empirical question that can only be answered on the basis of the investigation of grammatical expressions of future time reference across a number of languages.²²

I take this to mean that, from a linguistic perspective, evidence of TAM categorisation in real human language data should trump arguments from other domains of enquiry, e.g., philosophy, psychology, theology, physics, quantum mechanics, etc. In this vein it is telling, though not decisive, that some concerned typologists entertain serious doubts as to the centrality of the realis–irrealis dichotomy, highlighting the notional looseness of modal categories as well as the various and idiosyncratic ways in which

²² See also Lyons (1968, 311).

individual languages differ with respect to assigning meanings to the so-called realis and irrealis categories.²³ There are, also, of course, alternative (partially overlapping) modal dichotomies, e.g., indicative versus subjunctive or assertion versus non-assertion (Palmer 2001, 3–4) and epistemic versus evidential (Palmer 2001, 8–9).²⁴ However, notwithstanding the diverse degrees to which apparently mood-prominent languages fit prototypical mood-prominent divisions, it must be admitted that semantic distinctions in BH conform well to a common cross-linguistic pattern of modality expression, lending apparent credence to a modal

²³ See Bybee et al. (1994, 236–39); cf. Palmer (2001, 2, 188–91). One of Cook’s (2012, 219) objections to Joosten’s mood-prominent theory of BH is that the latter “must make the category ‘modal’ endlessly elastic, such as by the claim that ‘there is something inherently modal about questions (Joosten 2002, 54).” While defining mood remains problematic, interrogative modality is recognised cross-linguistically (Palmer 2001, 172) and would seem to have relevance for the semantics of the BH *yiqtol* form. It is interesting that the prose examples of progressive *yiqtol* cited in both Waltke and O’Connor (1990, 504) and Cook (2012, 268) are restricted to questions. Arguably, the modal character of interrogatives is intrinsically both epistemic (involving uncertainty) and deontic (imposing the questioner’s will on the interlocuter in the form of expecting an answer). This accounts for the reference to the actual present via a mix of *yiqtol* in the question and predicative participle in the answer in *וַיִּמְצְאוּהוּ אִישׁ וְהָיָה תַעֲהָ בְשָׂדֵה וַיִּשְׁאַלְהוּ הָאִישׁ לְאָמֵר מַה־תְּבַקֵּשׁ: וַיֹּאמֶר* ‘And a man found him wandering in the countryside. And the man asked him, “What **are you looking for?**” And he said, “**I am looking for** my brothers...”’ (Gen. 37.15–16a).

²⁴ Indeed, together with tense, aspect, and mood, some scholars treat the parameter of evidentiality as a fundamental semantic category, in which case TAM becomes TAME (Dahl 2013).

categorisation of BH centring on the realis/irrealis distinction. Be that as it may, mood-prominent approaches to BH arouse doubts similar to those that attach to aspect-prominent approaches.

Pedagogically, it is legitimate to ask whether this is just one more way for students to misunderstand the BH verbal system, specifically, and ancient Israelite cognition, in general. With special regard to the notion of future, will learners misconstrue the idea of a concept of future defined as inherently irrealis as evidence that BH users conceived of time posterior to the present as particularly hazy or nebulous compared to that envisioned by users of other languages? This would be unfortunate. Given persistent misconceptions regarding the BH verbal system among not just students, but professional academic practitioners in such fields as Hebrew studies, Semitics, linguistics, Biblical Studies, and theology, it is especially incumbent upon Hebrew language specialists, whatever TAM-prominence they avow, to combat such fallacies by emphasising the combined TAM expression of the BH verb system.

Secondly—and most importantly—from the standpoints of actual synchronic language use and terminological and notional precision, it is reasonable to question the legitimacy of describing BH as mood-prominent. The reckoning of modality as pervasive in BH is contingent on a few assumptions. First, mood must be understood to include not only the restricted deontic modality of the first- and third-person directive–volitive *yiqṭol* forms—i.e., those with volitive force explicitly signalled by means of clause-initial word order, special morphology (e.g., short jussive, lengthened cohortative), and/or special particles (לָא, אֵי)—but also that

of those *yiqtol* forms that Dallaire (2014, 39) calls ‘nonvolitive modals’, i.e., those that denote shades of deontic and epistemic modality far broader than the modality expressed via the explicit directive–volitives and without the aforementioned syntactic, morphological, and/or lexical indications of volitivity.²⁵ Second, non-volitional modality must be understood to include not just shades of what are traditionally considered meanings associated with deontic and epistemic modality, but also various shades of

²⁵ In addition to Dallaire, the distinction between the modality of the BH directive–volitives and that of the *yiqtol* and *weqatal* forms more broadly has been repeatedly discussed. Hornkohl (2018, 31–32) contrasts the classic BH directive–volitive triad of cohortative, imperative, and jussive with what he calls the ‘unmarked deontic modality’ of standard *yiqtol* and *weqatal* when the latter denote degrees of obligation. Cook (2012, 247–48) distinguishes between the directive–volitive system and irrealis *yiqtol*, the former always indicating subjective deontics (with speaker-oriented obligation), the latter either subjective or objective deontics (where the speaker is not the source of obligation). Cook expressly bases himself on Verstraete (2007, 32–35), but see also Bybee et al. (1994, 177–79), who contrast speaker-oriented modality and agent-oriented modality. For her part, Shulman (2000, 180) distinguishes between jussives, for deontic modality, and indicative forms, for either epistemic or, more rarely, deontic modality. It is not surprising that *yiqtol* should merge deontic and epistemic modality; consider the fact that English modals such as *can*, *could*, *may*, *should*, *ought to*, *must* have both deontic and epistemic modal force. It is beyond the scope of this article to explore the merits of these approaches. For present purposes, it is sufficient to note the broad recognition that *yiqtol* routinely expresses deontic modal force including, but also beyond, the narrow semantic confines of the directive–volitive categories. As Dallaire states, the non-volitional modality of BH *yiqtol* is characteristic of BH *weqatal*, which Cook renames “irrealis *qatal*” (2012, 249–56).

habituality and—crucial to the present discussion—indicative futurity.

In this connection, it is worth considering two complicating factors, both raised by Comrie. First,

the so-called future tense in English makes a clear prediction about some future state of affairs, and is in this way clearly distinct from modal constructions that make reference to alternative worlds. Thus *it will rain tomorrow* is a very definite statement about a state of affairs to hold at a certain time subsequent to the present moment, and its truth can be tested at that future time by seeing whether it does in fact rain or not. This can be contrasted with *it may rain tomorrow*, which is simply a claim about a possible world in which there is rain tomorrow; the truth value of this statement cannot be assessed by observing whether or not it rains tomorrow (since both presence and absence of rain are compatible with *may rain*)—indeed, evaluation of the truth of such a modal statement is extremely difficult, involving demonstrating the existence or non-existence of a certain possible world which may not coincide with the actual world. *It is thus possible to have future time reference which is not necessarily modal.* (Comrie 1985, 44; italics mine: ADH).

Second, observing that English has several options for future encoding, Comrie (1985, 46–47) notes that one difference between the future as encoded with the English present tense, e.g., *the train departs at five o'clock tomorrow morning*, is that this usage is generally felicitous only in the case of planned/scheduled events. He compares the generally infelicitous *it rains*

tomorrow.²⁶ This has relevance for BH. Among BH options for expressing indicative future semantics is the active participle, with its default realis progressive force, e.g.,

- (22) וַיֹּאמֶר אֱלֹהִים אֲבֹל שָׂרָה אִשְׁתְּךָ יֵלְדָת לְךָ בֵן וְקָרָאתָ אֶת־שְׁמוֹ יִצְחָק
 ‘God said, “No, but Sarah your wife **will bear** you a son, and you shall call his name Isaac...”’ (Gen. 17.19a)

If future marking is by definition modal, then this means the participle, one of whose default senses is the prototypically realis value of actual present, also has irrealis use as a future. The same logic applies to the participle encoding habitual semantics, e.g.,

- (23) ...עַל־כֵּן אֲנִי זֹבֵחַ לַיהוָה כָּל־פֶּטֶר רֶחֶם הַזְּכָרִים וְכָל־בְּכוֹר בְּנֵי אִפְדָּה:
 ‘Therefore I **sacrifice** to YHWH all the males that first open the womb, but all the firstborn of my sons I redeem.’
- (24) וְהֵעֲרִיבִים מִבֵּיָאִים לֹא לֶחֶם וּבֶשֶׂר בַּבֶּקֶר וּלְחֵם וּבֶשֶׂר בְּעֶרְבַּי וּמִן־הַנַּחַל יִשְׁתָּה:
 ‘And the ravens would bring him bread and meat in the morning, and bread and meat in the evening, while from the brook **he would drink**.’ (1 Kgs 17.6)

Conversely, perhaps the future use of the participle should be viewed as encoding a relatively indicative futurity in line with the typically realis semantics of the present progressive. But if so, then it stands to reason that when a similar future value is expressed by the *yiqtol*, this should also be categorised as realis future.

With regard to subsuming habituality under modality—by virtue of the fact that they refer to discrete, actualised, falsifiable

²⁶ See also Bybee et al. (1994, 149–50) and, regarding BH, Cook (2012, 232–33).

eventualities, the perfective past and progressive and continuous past and present may deserve a higher realis score than the gnomic or habitual past and present. But surely the realis–irrealis dichotomy is a cline, with *they used to eat cake* and *they eat cake* much closer on the scale to *they ate cake*, *they were eating cake*, and *they are eating cake* than to *they may/could/ should/must eat cake*, *I wish they'd eaten cake*, or *let them eat cake!*

These objections are not necessarily fatal to mood-prominent approaches to BH, nor to the widespread irrealis classification of futurity and habituality, but they do underscore a difficulty inherent in determining the ‘basic’ meaning of a multifunctional form (here, *yiqtol*). As with the suggested modal cline, it is probably advisable to view the modality of futurity as scalar, from absolute certainty, expressing total conviction, and/or mere description, on the one hand, to possibility, doubt, and/or expression of will, on the other.²⁷ This arguably necessitates the recognition of indicative futurity.

Though there are theoretical and philosophical arguments, supported by both cross-linguistic evidence and diachronic typology paths, in favour of the view that future-oriented and habitual utterances should by their nature be deemed modal,²⁸ there are also valid reasons for doubting whether this should necessarily be seen as a linguistic universal (Hornkohl 2018, 31). Just as some of the parameters of tense and aspect are often conflated,

²⁷ I wish to express my thanks to Geoffrey Khan for a useful discussion on the various levels of future certainty.

²⁸ Hatav (1997, 29); Joosten (2012, 33); Penner (2015); on Penner see (Hornkohl 2016).

so some conceptions of modality may gratuitously blur temporal, aspectual, and modal dimensions that it is useful to keep separate. In the light of Bhat's (1999, 175–78) contention that the TAM classification of, *inter alia*, future and imperfective past should be done on a language-by-language basis with reference to the way in which each language patterns in terms of TAM-prominence, and considering the ongoing lack of consensus regarding both modality, in general, and the nature of the BH verbal system, more specifically, the subsuming of apparent temporal and aspectual nuances in BH under a realis–irrealis modal rubric should not be considered a foregone conclusion.

5.0. Conclusion: Indicative versus Modal Future

To bring this discussion to a close, it will be useful to consider various shades of future expression in BH. While there is a growing body of research supporting the semantic distinction in BH between directive–volitive modality and broader modality, it is not obvious that all shades of futurity and habituality should necessarily be included in the latter. Pending a more definitive verdict from language typologists on the suitability of mood, especially the dichotomy of realis–irrealis, as an umbrella concept suitable for encompassing not just modal categories as typically understood, but also values traditionally categorised under tense, *e.g.*, indicative future, and aspect, *e.g.*, habitual, it seems prudent to discuss BH verbs using a clear, notionally distinct, three-dimensional TAM axis with semantics of individual verbs plotted using discrete temporal, aspectual, and modal terminology.

Indeed, even given the acceptance of an over-arching realis–irrealis distinction, TAM terminological precision will remain useful.

As evidence for the enduring explanatory value of the notion of indicative future, consider the contrasting semantics of the following pairs of examples.

(25a) ... אֶת־יְהוָה אֱלֹהֶיךָ תִירָא וְאֹתוֹ תַעֲבֹד...

‘YHWH your God will you fear and him **will you serve...**’

(Deut. 6.13)

(25b) ... וְעַל־חַרְבֶּךָ תַחְיֶה וְאֶת־אֶחָיִךָ תַעֲבֹד...

‘...and by your sword you will live and your brother **you will serve...**’ (Gen. 27.40)

There is a difference between the future-oriented *prescriptive* ‘you will serve’ in (25a) and the future-oriented, but purely *predictive* ‘you will serve’ in (25b). The former is a clear example of Dallaire’s ‘nonvolitive’ (i.e., agent-oriented [Bybee et al.] or objective deontic [Verstraete; Cook]) modality—not a (directive–volitional [Dallaire], speaker-oriented [Bybee et al.], or subjective deontic [Verstraete; Cook]) wish, but description of obligation (see above, n. 25)—while the latter merely relates a not-yet-realised eventuality as an inescapable future fact. Similar contrastive examples include the following pairs, in each of which example (a) has broad non-volitional modality, while (b) conveys a future eventuality considered an indicative fact:

(26a) גֹּאֵל הַדָּם הוּא יִמִּית אֶת־הַרָצָח בְּפִגְעוֹ־בּוֹ הוּא יִמִּיתֵנּוּ:

‘The avenger of blood—it is he that **will put** the murderer **to death**; when he meets him, he **will put him to death.**’

(Num. 35.19)

- (26b) וְהָיָה הַנִּמְלָט מִחֶרֶב חֲזָאֵל יְהוּא וְהַנִּמְלָט מִחֶרֶב יְהוּא יִמָּוֵת אֶלְיָשָׁע:
 ‘And the one who escapes from the sword of Hazael Jehu **will put to death**, and the one who escapes from the sword of Jehu Elisha **will put to death.**’ (1 Kgs 19.17)
- (27a) כִּי אֶל-אֶרְצִי וְאֶל-מוֹלְדֹתַי תֵּלְדָּה...
 ‘Rather to my country and to my kinfolk **you will go...**’
 (Gen. 24.4a)
- (27b) ...עַל-גֻּחֹנֶךָ תֵּלְדָּה וְעֹפָר תֹּאכַל כָּל-יְמֵי תַיִדָּה...
 ‘...on your belly **you shall go**, and dust you shall eat all the days of your life.’ (Gen. 3.14b)
- (28a) ...לְעַם נִכְרִי לֹא-יִמְשַׁל לְמַכְרָהּ בְּבִגְדוֹ-בָהּ:
 ‘...to a foreign people **he will have no right** to sell her in his betraying her.’ (Exod. 21.8)
- (28b) וְהוּא יִמְשַׁל-בָּךְ...
 ‘...and he **will rule** over you.’ (Gen. 3.16b)
- (29a) וְאִישׁ אֶל-מִשְׁפַּחְתּוֹ תָּשׁוּבוּ...
 ‘...and each to their own family **you must return.**’ (Lev. 25.10)
- (29b) כִּי-עָפָר אַתָּה וְאֶל-עָפָר תָּשׁוּבוּ...
 ‘...for you are dust, and to dust **you will return.**’ (Gen. 3.19b)
- (30a) שָׁה תָּמִים זָכָר בְּוָשָׁנָה יִהְיֶה לָּכֶם:
 ‘A spotless year-old male lamb **it must be** for you.’ (Exod. 12.5)
- (30b) ...לְמָחָר יִהְיֶה הָאֵת הַזֶּה:
 ‘...for tomorrow this sign **will be.**’ (Exod. 8.19)

In such cases, the verbs with indicative future semantics are classifiable as modal only if indicative futures are so deemed by

definition. If this turns out to be the collective decision taken by linguists, based on empirical cross-linguistic typological data, in conjunction with Hebraists, in view of language-specific TAM-prominence patterns, then so be it. However, on the assumption that the aim of an account of BH verbal semantics is (at least partially) to capture how users expressed and interpreted TAM values, then, given the reality of the semantic distinction observed in the foregoing examples, even if the two nuances are conveyed by one and the same verbal form, it is useful, if not essential, to retain a place in BH analysis for indicative future semantics and to keep this notionally and terminologically separate from the category of non-volitional modality.

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ON PRAGMATICS AND GRAMMAR IN BIBLICAL HEBREW: PREDICATE ADJECTIVES AND STATIVE VERBS

Ethan Jones

1.0. Preliminary Remarks

Syntax and semantics vie for the attention of Hebraists. This means that pragmatics, while important, typically remains underappreciated and understudied.¹ Pragmatics, broadly defined, “is the systematic study of meaning by virtue of, or dependent on, the use of language,” which includes “implicature, presupposition, speech acts, and deixis” (Huang 2015, 2). In Hebrew studies, most pragmatic research centres on *information structure* [IS].² That is the “packaging of information that meets the immediate communicative needs of the interlocutors” (Féry and Krifka 2008, 123).

¹ Some well-known exceptions are Muraoka (1985) and Khan (1988).

² See, for example, Shimasaki (2002); Holmstedt (2005; 2009; 2011); Van Hecke (2010); Hatav (2017); Hornkohl (2018); Khan (2019); Moshavi (2010).

Two important, though often debated, categories of IS are *topic* and *focus*. Though variously defined, *topic* generally has to do with what the communication is about (Mosahvi 2010).³

(1) וּבְעוֹז עָלָה הַשַּׁעֲרָה

‘No sooner had Boaz gone up to the gate...’ (Ruth 3.17)

In (1), Holmstedt (2009, 130) observes that the *topic* (Boaz) “orients the reader to which character is acting at a major transition in the book.”

Focus, on the other hand, denotes a choice from at least two options, as Hornkohl (2018, 34) illustrates in (2):⁴

(2) וַיֹּאמְרוּ אִישׁ אֶל-רֵעֵהוּ מִי עָשָׂה הַדָּבָר הַזֶּה וַיִּדְרְשׁוּ וַיִּבְקְשׁוּ וַיֹּאמְרוּ גִדְעוֹן בֶּן-
יֹאָשׁ עָשָׂה הַדָּבָר הַזֶּה:

‘So they said to one another, “Who has done this?” After searching and inquiring, they were told, “Gideon son of Joash did it.”’ (Judg. 6.29)

Research on IS in Biblical Hebrew relies primarily on the establishment of *common ground* [CG] and syntax and not, for

³ Firbas (1992), on the other hand, frames *topic* in terms of *given* or *new* information, and not ‘aboutness’.

⁴ Buth (1999, 81) adds more detail to the contrastive feature of *focus*, writing, “It maybe contraexpected, that is, the speaker/writer assumes his or her audience maybe expecting something different and so marks it for *Focus*. It may also be *new* information that is specially marked to fill in, or to complete, assumed missing information. It may also be old information that needs special reinforcement, through repetition.” While scholars typically describe *focus* as contrastive, Hornkohl (2018) observes that *topic* can also be so.

example, on intonation, which is critical for the study of pragmatics in non-ancient languages.⁵ CG designates the shared information which “is continuously modified in the course of communication” and includes presuppositions, assertions, and discourse referents (Féry and Krifka 2008, 125). Speakers/authors manage CG in part through syntax. Thus, it is no surprise that much of the research on IS in Biblical Hebrew deals with word order.⁶

Let us take (3) as an example.

(3) אֲתִּי שְׁלַח יְהוָה לְמַשְׁחָךְ לְמֶלֶךְ

‘The LORD sent me to anoint you king.’ (1 Sam. 15.1)

The object (אֲתִּי) in (3) begins the speech. Irrespective of one’s view of the basic word order in Biblical Hebrew,⁷ virtually everyone would agree that אֲתִּי has been moved to the front of the sentence for some pragmatic purpose.⁸ However, scholars expend

⁵ Van Hecke (2010, 58) writes that intonation being “one of the most important clues to the informational structure of clauses is not available to us any longer, limiting the analytical detail of pragmatic research in Classical Hebrew.” For more on the role on intonation in IS see Lang and Pheby (2011) and Blühdorn (2011).

⁶ See especially Shimasaki (2002); Holmstedt (2005; 2009; 2011); Hatav (2017).

⁷ Be it Verb-Subject-Object (VSO) or Subject-Verb-Object (SVO). For the important terminological distinction of ‘dominant’ word order as opposed to ‘basic’ word order in Biblical Hebrew, see Khan and Van der Merwe (2020).

⁸ De Regt (2019, 63), for example, argues that “It is not just the participant reference device itself... but also its place at the beginning of the sentence which is determined by the context beyond the sentence.”

considerable energy on the specific reason why, for example, *וְהִיא* is fronted and how that relates to the default word order.

At a general level, Hebraists observe that a *topic* is typically *given* (or old) information and *focus* usually brings *new* information (Bandstra 1982). Holmstedt (2009), however, rightly separates two layers of pragmatics when analysing the Hebrew Bible. The first layer comprises *given* information (*theme*) and *new* information (*rheme*); the second includes *topic* and *focus*.⁹ While I shall strictly define *given* and *new* information in §2, it should be made quite clear the *given/new* layer is not one and the same as *topic/focus* (Gross 2001; Moshavi 2010).¹⁰ For example, while *focus* often correlates with *new* information, *focus* items “may either be brand new... identifiable or discourse active” (Van der Merwe and Talstra 2002–2003, 76). In fact, recent experimental

⁹ While I find it preferable to separate and analyse the two layers, it is worth noting that Erteschik-Shir (2007, 7) sees things differently, as she argues that “topic and focus are the only information structure primitives needed to account for all information structure phenomena.”

¹⁰ Féry and Krifka (2008, 126) note that “given expressions, like pronouns, can be focused.” See also Chen, Li, and Yang (2012). The separation of the two layers appears rather prominently in the work of Gómez-González (2001). A. Jones (2015, 70) writes that “Unlike theme and rheme, topic and focus have proven difficult to define with precision.” Whilst I may agree with his latter observation, the former is quite mistaken. One need only to survey Gómez-González (2001) to notice the complexities and lack of agreement in defining *given* (*theme*) with any precision.

research has verified that “focus and newness are different concepts and suggest[s] making a distinction between contrastive focus and new information” (Chen, Li, and Yang 2012, 6).¹¹

The two pragmatic layers are illustrated in (4):

- (4) Abigail and Benjamin were drinking juice. Abigail wanted to drink another cup.

Abigail in the second sentence is old information or *theme* (Holmstedt 2009, 127). The rest of the second sentence, *wanted to drink another cup*, presents *new* information (*rheme*). The status of *Abigail* in the second layer of pragmatics (*topic* or *focus*) depends on the rest of the context.

- (5) And Benjamin wanted another one as well.

If (5) follows (4), then *Abigail* and *Benjamin* are the *topic* (Holmstedt 2009, 127). However, the second layer changes if (6) were to follow (4)–(5).¹²

- (6) But Benjamin wanted milk.

On account of (6), Holmstedt (2009, 127) finds that “the pragmatic context changes significantly, and accordingly, so does the

¹¹ Additional experimental research corroborates this claim. For example, Toepel and Alter (2013, 227–29) differentiate between *new* information and contrastive information. They develop a “tripartition of focus into broad, narrow new, and contrastive [focus]... to capture the interactions of semantic-pragmatic, phonological, and phonetic aspects of focus in discourse.”

¹² *Topic* as described by Holmstedt is a clause-level rather than discourse-level notion.

total pragmatic information conveyed by both *Abigail* and *Benjamin*. The situation is now a contrastive one, with the entities *Abigail* and *Benjamin* set over against each other. This is *Focus*.”¹³

Hatav (2017, 216–17) adds that *rheme* can stay in its syntactic place (Subject-Verb-Object, according to her), but *focus* is moved up (Verb-Subject-Object). Similarly, theme is not influenced by syntax, but a *topic* is moved to clause-initial position (cf. Abraham 2009).

In addition, Gross (2001) distinguishes the two pragmatic layers, though, like Holmstedt and Hatav, still majors on *topic/focus*. Nevertheless, Van Hecke (2010, 83) comments that Gross “adds to the descriptive fine-tuning needed for an accurate description of pragmatic function.” In his own research, Van Hecke (2010) consistently combines the two pragmatic layers with labels such as ‘New Topic’, ‘Given Topic’, and ‘Resumed Topic’.¹⁴

As illustrated above, nearly all the scholarly attention has been on the second layer of pragmatics (*topic/focus*). When the first layer (*given/new*) does appear, it is (at best) a prerequisite to move on to an analysis of *topic* and *focus*. There is, however, at least one significant exception.

¹³ Holmstedt’s labelling of *topic* and *focus* in (4)–(6) is not my own. I simply wish to illustrate how a scholar distinguishes the layers of pragmatics, and especially the emphasis on the second layer, namely, *topic* and *focus*. For the more appropriate and fine-grained description of “contrastive *topic*” as it relates to “Benjamin” in (6), see Khan and Van der Merwe (2020, 371–72) and Hornkohl (2018, 34–38).

¹⁴ These categories are adapted from Dik (1989, 267). See also Lambrecht (1994, 77–114) for terms such as ‘active’, ‘accessible’, ‘unused’, and ‘brand new’.

In 1968, Ernst Jenni laid out his claim for the function of the *pi^cel binyan*. His work has encouraged many responses, but his comments on pragmatics have gone mostly unnoticed.¹⁵ Nevertheless, Jenni has continued to develop his ideas. In 2007 (re-published in 2012), analysing *given/new* and the grammar of Biblical Hebrew, he attempted to confirm the relationship of pragmatics and grammar:

(7) הִנֵּה חָכֵם אַתָּה מִדָּנְיָאֵל

‘You are indeed wiser than Daniel’ (Ezek. 28.3)¹⁶

(8) וַיְחָכֵם מִכָּל־הָאָדָם

‘He was wiser than anyone else’ (1 Kgs 5.11)

He claims the predicate adjective חָכֵם in (7) conveys *new* information. Specifically, חָכֵם “bringt einen originellen neuen Vergleich” (Jenni 2012, 80). Whereas וַיְחָכֵם in (8) “bringt nur die logische Fortsetzung zum vorangehenden” in v.10: וַיִּתְּרֵב חָכְמַת שְׁלֹמֹה מִחָכְמַת כָּל־בְּנֵי־יִקְדָּם וּמְכָל חָכְמַת מִצְרַיִם ‘Solomon’s wisdom surpassed the wisdom of all the people of the east, and all the wisdom of Egypt’ (Jenni 2012, 80). Put differently, an author/speaker of Biblical Hebrew would use the predicate adjective חָכֵם instead of *wayyiqtol* (וַיְחָכֵם) or *qatal* (חָכַם) for *pragmatic* reasons and not simply semantics. Thus, the difference between the two grammatical forms in (7) and (8) is not limited to ‘are

¹⁵ See Joosten (1998) and Beckman (2015).

¹⁶ Translations are mine unless otherwise noted.

wiser' and 'was wiser', but includes the dimension of *new* versus *given* information.¹⁷

Yet Jenni goes further, arguing that pragmatics is built into the *binyan* system:

(9) וַיִּתְחַבֵּא הָאָדָם וְאִשְׁתּוֹ מִפְּנֵי יְהוָה אֱלֹהִים

'and the man and his wife hid themselves from the presence of Yhwh God' (Gen. 3.8)

(10) וְאִירָא כִּי־עֵרָם אָנֹכִי וְאֶחְבֵּא:

'And I was afraid, because I was naked; and I hid myself.'
(Gen. 3.10)

Like the predicate adjective/stative verb pair in (7)–(8), the *hitpa^cel* in (9) marks *new* pragmatic information. The *nif^cal* in (10), however, "ist keine neue Information, sondern wird als logische Folge unter den gegebenen Umständen angesehen" (2012, 153). To be sure, these observations on the predicate adjective, stative verb, *hitpa^cel*, and *nif^cal* concern not merely the pragmatics of the particular cases in examples (7)–(10). Rather, there is a much more comprehensive claim: that the predicate adjective and the *hitpa^cel* always bring *new* pragmatic information, whereas the stative verb and the *nif^cal* exclusively denote *given* information.

While these arguments have not had scholarly engagement, I believe they deserve consideration for at least two reasons. First and most important, clarity is needed on whether grammatical

¹⁷ Another distinction is that the former is a verbless clause and the latter a verbal clause. Jenni (1968 and especially 1977) makes the point that *new* versus *given* is a critical pragmatic difference between the two types of clauses.

forms themselves mark pragmatic information in Biblical Hebrew. The relationship between grammar and pragmatics, as linguists have ably demonstrated (Ariel 2008; Deppermann 2011), should not be quickly dismissed. Second, the first layer of pragmatics (*given* and *new*) calls for more assiduity, lest it be deemed irrelevant or conflated with the second (*topic* and *focus*).

I wish to be quite plain that this article is not merely an analytical check on Jenni's research. Rather, I hope to use it as a jumping off point for a scholarly conversation on pragmatics and grammar. The relationship between the two has not gone unnoticed by Hebraists.

It is not unusual, for example, to claim that in a verbless clause (i.e., null-copula) the subject is *given* information, whereas the predicate is *new* information (Zewi 1994, 145; Gross 2001, 44). What is more, scholars are certainly aware that a subject pronoun (e.g., הוּא) is often *given* information as well as the pragmatic *topic*. That said, Revell (1999, 306) notes "The *topic* of a clause is... usually its subject; this is not necessarily the case." In addition, Hornkohl (2018, 35) describes *topic* as the "marked point of reference for ensuing information," which can apply to temporal setting (Exod. 16.13) and scene setting (Gen. 3.14–17) as well. Thus, *topic* and subject are not one in the same.

The comments above show that Hebraists are conscious of a relationship between pragmatics and grammar, but it arguably remains on the periphery. In what follows I centre my study on

pragmatics, especially *given/new* information, and the relation (or lack thereof) to the grammar of Biblical Hebrew.¹⁸

2.0. On Method

In attempting to lay bare Jenni's far-reaching pragmatic claims above, I shall analyse the core of his argument: predicate adjectives and stative verbs. Specifically, I wish to see if predicate adjectives *always* bring pragmatically *new* information to the context, and, in turn, if stative verbs *always* bear *given* information. To go about this study, I make use of the detailed guidelines for IS analysis formulated by Michael Götze et al. (2007). Regarding the first layer of pragmatics (which is the only layer we concern ourselves with), I categorise the information using *given*, *accessible*, and *new*. The first two have various sub-divisions that allow for specificity and have criteria for making decisions on IS.

Given [GIV], for example, is divided into *active* [ACT] and *inactive* [INACT]. *Active* applies to information that has appeared explicitly in its exact form within the last or same sentence.¹⁹

(11) John went home. John [GIV-ACT] drank coffee.²⁰

¹⁸ In this article, I will not touch on the pragmatics of the *binyanim*. Rather, I will concentrate on the area of grammar on which Jenni bases his argument.

¹⁹ For an important study of differentiation within givenness, see Prince (1981). Much of what she discusses as *given*—be it predictable, salient, or shared—is covered in Götze et al. (2007).

²⁰ The following examples of IS guidelines are inspired by Götze et al. (2007) unless otherwise noted.

Inactive is similar, but does not occur within the immediate sentence. Typically, Götze et al. suggest looking backward for approximately five sentences.

(12) So John went into the kitchen. It was clean. John [GIV-INACT] was happy.

Accessible information [ACC], which itself is a bridge between the most often used binary choices of *given* and *new*, has numerous sub-divisions. First is *situative* [SIT], which occurs within discourse.

(13) Could you hand me the salt [ACC-SIT], please?

Second is *aggregation* [AGGRG]:

(14) John went shopping with Emily. They [ACC-AGGRG] bought a lot of gifts.

Third is *inferable* [INF]. This involves bridging relations, such as *part-whole relation* (the garden... its entrance), *set-relation* (family... children), and *entity-attribute* (the garden... its scent).

Fourth is *general* [GEN]. Here, the speaker understands that the hearer knows the referent from his or her world knowledge:

(15) The sun [ACC-GEN] set.²¹

The final broad category of IS is *new*. This, of course, is any participant that cannot be categorised as *given* or *accessible*.²²

²¹ Taken explicitly from Götze et al. (2007).

²² I agree with an anonymous reviewer that a graded category for *new* information would be beneficial. However, I have not found appropriate sub-categories for such. Therefore, I content myself with *new* as a category.

These categories as presented above may seem straightforward and unproblematic. However, in analysing Biblical Hebrew, the task is far from easy. Setting aside the well-known issues in researching the Hebrew Bible, one major difficulty for us is the extra-textual world of pragmatics. The criteria of information from Götze et al. primarily concerns the ‘internal’ (i.e., what is mentioned earlier in the narrative or speech). The ‘external’, however, is information that a narrator and reader share—though not made explicit (Revell 1999, 307). The intersection of the external and internal via pragmatic presupposition is significant (Van der Merwe and Talstra 2002–2003, 77; Moshavi 2010).

Van Hecke (2010, 107) rightly avers that the context for pragmatics involves not just “the immediate (narrative or discursive) textual context, but also includes the situation, physical context in which the communication takes place, and even the information which has not yet been referred to in the ongoing communication, but which is shared by the both interlocutors.” Speaking specifically on givenness, Floor (2004, 23) observes “Most theorists agree that... it is more than just activated by the preceding text leading up to it... cognitive and wider extra-textual assumptions and knowledge of the world determine how much of a topic is given.”

For our purposes, it needs to be remembered that “The interlocutors in written communication can either be a narrator and an audience or characters participating in a communicative event” (Khan and Van der Merwe 2020, 350).

(16) מִי־יֵרֵד אִתִּי אֶל־שָׂאֹל אֶל־הַמַּחֲנֶה וַיֹּאמֶר אֲבִישַׁי אֲנִי אֶרֶד עִמָּךְ:

“Who will go down with me to Saul, into the camp?”

Abishai said “I will go down with you.” (1 Sam. 26.6)

So in (16), for example, “the speaker assumes that the hearer presupposes that somebody will go down with him into the camp to Saul” (Khan and Van der Merwe 2020, 353).

The complexities of adducing the pragmatic relevance of the situational, physical, and yet-to-be revealed information in the Hebrew Bible are self-evident.²³ Nonetheless, I shall attempt to categorise information of predicate adjectives and stative verbs. In doing so, however, I make note of how tentative my various linguistic conjectures might be.

Before moving to the analysis section, we should be aware of just how close the relationship of adjectives and stative verbs is. Joüon and Muraoka (2006, 331), for example, claim that the *qaṭal* of stative verbs “is originally a ‘conjugated adjective’.” Concerning cross-linguistics, Cook (2008, 10) argues that “the stative adjective in Biblical Hebrew presents a split-strategy between verbal and nominal encodings,” as evidenced by what he calls verbal strategy (17), zero copula (18), and verbal copula (19).

(17) וַעֲיַיִן יִשְׂרָאֵל כְּבִדּוֹ מִזְקֵן

“The eyes of Israel were heavy from old age’ (Gen. 48.10)²⁴

²³ As Moshavi (2010, 124) observes, “The mental representation incorporates inferences based on the reader’s knowledge and experience; thus information not explicitly referred to in the text may nonetheless constitute *activated information*” (emphasis mine).

²⁴ Translations for (16)–(18) are Cook’s (2008).

(18) וַיְדִי מִשָּׁה כְּבִדִּים

‘The hands of Moses (were) heavy’ (Exod. 17.12)

(19) וַיְהִי הַמַּחֲנֶה כְּבֵד מְאֹד

‘The camp was very great (lit. ‘heavy’)’ (Gen. 50.9)

To complicate matters further, some *qaṭal* and adjectival forms are identical (Pat-El 2013).

In general, adjectives “are highly complex and significantly less studied than other major lexical categories such as nouns or verbs” (McNally and Kennedy 2008, 1). Some of that difficulty is present in linguistic typology. Hofherr (2010, 1), for instance, notes that “[i]dentifying nouns, verbs and adjectives cross-linguistically is... a difficult enterprise, with *adjectives being particularly elusive*.”²⁵ Nevertheless, recent study by Naudé and Miller-Naudé (2016) demonstrates that the adjective in Biblical Hebrew is indeed a proper category and should not be indiscriminately lumped together with nouns in the broad category ‘substantives’.²⁶

In certain contexts, prototypical statives may be either stative or dynamic (Comrie 1976).²⁷ This cross-linguistic tendency holds true for Biblical Hebrew. For example, by way of “narrative

²⁵ Emphasis is mine. See also Dixon (2006); Wetzler (2013); Koller (2012).

²⁶ That said, there may be valid reasons for considering adjectives a subcategory of substantives (Hornkohl, personal communication). For the debate to be advanced, we would need to touch on typology, taxonomy, and more in the fields of linguistics and philosophy of language (particularly its history). Such discussion is beyond our purpose here.

²⁷ Rothmayr (2009).

sequence and the presence of punctiliar frames” a stative may become dynamic (Dobbs-Allsopp 2000, 50). Thus, stative verbs are similar and at times even identical to predicate adjectives, but the two are distinct.

In my study, I analyse the following predicate adjective and *qatal* pairs: חָכַם | חָכְמָה; זָקַן | זָקוּן; גָּדַל | גָּדוּל; קָטַן | קָטוּן. I have chosen these particular pairs because they feature prominently in Jenni’s research (1968; 1977; 1999; 2007; 2012).²⁸ I begin with חָכַם.

3.0. Analysis

3.1. Predicate Adjective (חָכַם)

The predicate adjective (חָכַם) brings *new* information (NEW) in every case.²⁹

(20) לְבַעֲבוֹר סִבַּב אֶת־פְּנֵי הַדָּבָר עָשָׂה עַבְדְּךָ יוֹאֵב אֶת־הַדְּבָר הַזֶּה וְאִדְנִי חָכַם
כְּחָכְמַת מַלְאֲכַי הָאֱלֹהִים לְדַעַת אֶת־כָּל־אֲשֶׁר בָּאָרֶץ:

‘In order to change the course of affairs your servant Joab did this very thing. But my lord has wisdom like the wisdom of the angel of God to know all things that are on the earth.’

(2 Sam. 14.20)

²⁸ It should be noted I do not include in this study nominalised adjectives (e.g., Lam. 5.14), since these are not predicative adjectives/statives.

²⁹ Isa. 31.2; Jer. 4.22; 8.8; Ezek. 28.3 (notably with הִנֵּה); Hos. 14.10 (while textually *new*, it is here part of a rhetorical question); Ps. 107.43 (cf. Hos. 14.10); Prov. 26.16; 28.11.

In (20) the speaker gives a compliment to the king. Her statement gives a description that is textually *new*, but would also be news to the addressee (at least his knowledge of her perception).

3.2. Stative Verb (חִכְּמ)

For the stative verb (חִכְּמ) the pragmatics vary.

3.2.1. GIV-ACT³⁰

- (21) וַיְחַכְּמֵם מֶלֶךְ־הָאֲדָמִים מֵאֵיתָן הָאֶזְרָחִי וְהִימָן וְכַלְכַּל וְדַרְדָּע בְּנֵי מַחֹל
 He was wiser than anyone else, wiser than Ethan the Ezrahite, and Heman, Calcol, and Darda, children of Mahol (1 Kgs 5.11)

It is quite clear that (21) is *given* [GIV-ACT] because of the two previous verses: וַיִּתֵּן אֱלֹהִים חָכְמָה לְשֹׁלֹמֹה וַתְּבוֹנֶה הַרְבֵּה מְאֹד וַרְחֵב לֵב כְּחֹל וַאֲשֶׁר עַל־שֵׁפֶת הַיָּם: וַתֵּרֶב חָכְמַת שֹׁלֹמֹה מִחָכְמַת כָּל־בְּנֵי־קֶדֶם וּמְכַל חָכְמַת מִצְרָיִם “God gave Solomon very great wisdom, discernment, and breadth of understanding as vast as the sand on the seashore, so that Solomon’s wisdom exceeded the wisdom of all the people of the east, and all the wisdom of Egypt” (1 Kgs 5.9–10).

³⁰ Prov. 9.9 (the A line reads תֵּן לְחָכְמִים ‘give to the wise’, making the B line given [GIV-ACT], though the *yiqtol* [וַיְחַכְּמֵם] may well be inchoative); 9.12 (the second *qatal* is given [GIV-ACT]: אִם־חָכְמָתָּ חָכְמָתָּ לָּךְ ‘if you are wise, you are wise for yourself’); Prov. 20.1 (cf. 9.9).

3.2.2. ACC-SIT³¹

(22) וְאָמַרְתִּי אֲנִי בְלִבִּי בְמִקְרָהּ הִכְסִיל גַּם-אֲנִי יִקְרַנִּי וְלִמָּה חֲכָמָתִי אֲנִי אֲזִי יוֹתֵר
וְדַבַּרְתִּי בְלִבִּי שְׁגִסְזָה הִבֵּל:

‘Then I said to myself, “What happens to the fool will happen to me also; why then have I been so very wise?” And I said to myself that this also is vanity.’ (Eccl. 2.15)

Qohelet understands well his past experience of being ‘very wise’ and thus the *qatal* cannot be *new* information. Since he is speaking to himself, it is reasonable to consider חֲכָמָתִי *situational* (ACC-SIT).

3.2.3. ACC-INF³²

(23) לֵן הַיַּיִן הַמָּה שֹׂכֵר וְכֹל-שֹׂגָה בּוֹ לֹא יִחְכֵּם:

‘Wine is a mocker, strong drink a brawler, and whoever is led astray by it is not wise.’ (Prov. 20.1)

³¹ Prov. 23.15; Ecc. 2.15; 7.23. It seems appropriate to understand the imperative use of חָכֵם in Proverbs as situationally bound [ACC-SIT]: Prov. 6.6; 8.33; 13.20; 23.15; 23.19; 27.11. However, there are other possible categories for these imperatives.

³² Deut. 32.29 (with לוֹ ‘if’); Job 32.9 (though the predicate moves the communication, the information still seems inferable from v. 8 וְנִשְׁמַתּוֹ ‘and the breath of the Almighty makes them discern’ [cf. Prince 1981]); Prov. 19.20 (the B line is inferable from the A: שָׁמַע עֲצָה ‘Listen to advice and accept instruction, that you may gain wisdom for the future’); Eccl. 7.23 (it seems possible to consider the B line as inferable from the A: כָּל-זֶה נִסִּיתִי בְחָכְמָה ‘All this I have tested by wisdom’).

The *inference* (ACC-INF) comes from the A line, twice over. Two kinds of drinks are but a fool. Therefore, whoever consumes such drink would inevitably be a fool, or לֹא יִחָכֵם ‘not wise’.

3.2.4. NEW

There is one example of the stative verb that could perhaps be *new* information.

(24) וְגַם־חַמַּת תְּגַבֵּל־בָּהּ צֹר וְצִידֹן כִּי חֲכָמָה מְאֹד:

‘Hamath also, which borders on it, Tyre and Sidon, though they are very wise.’ (Zech. 9.2)

In Zech. 9 the information that Tyre and Sidon are ‘very wise’ is certainly textually *new*. However, it may be better to understand the stative verb in (24) as *accessible* [ACC-GEN], considering Tyre’s reputation was possibly part of general knowledge of the world (cf. Isa. 23.8; Ezek. 26.15–17; 27.3).

3.3. Predicate Adjective (זָקֵן)

All unambiguous instances of the predicate adjective זָקֵן bring *new* information (NEW)—as Jenni claims.³³

(25) וְאַבְרָהָם וְשָׂרָה זָקְנִים בָּאִים בַּיָּמִים הַדָּלִ לְהַיּוֹת לְשָׂרָה אַרְחַ בְּנָשִׁים:

‘Now Abraham and Sarah were old, advanced in age; it had ceased to be with Sarah after the manner of women.’ (Gen. 18.11)

This comment by the narrator in (25) provides *new* information for the reader that proves important for the remainder of the

³³ Cf. also Job 32.4.

larger narrative (Gen. 12–22). We should keep in mind, however, that the syntactic structure of *waw* + subject + predicate in the midst of a *wayyiqtol* chain could itself be the device for signalling *new* information, irrespective of whether the predicate is an adjective or not (cf. Moshavi 2010, 14).³⁴

3.4. Stative Verb (זָקַן)

3.4.1. GIV-ACT³⁵

(26) וַיֹּאמֶר יְהוָה אֶל־אַבְרָהָם לָמָּה זֶה צָחֲקָה שָׂרָה לֵאמֹר הֲאֵף אֲמַנָּם אֵלֶּךָ וְאֲנִי זָקַנְתִּי:

‘The LORD said to Abraham, “Why did Sarah laugh, and say, ‘Shall I indeed bear a child, now that I am old?’” (Gen. 18.13)

The stative verb זָקַנְתִּי contains information that not only is known, but has been stated explicitly in v. 11 (cf. [25] above). Though, as Hornkohl (personal communication) observes, the information is *given*, it is embedded in direct speech. Therefore, it is not necessarily *given* from the perspective of the characters. Like our analysis above, Holmstedt (2009, 132) toggles between discourse and narrative. In Ruth 3.17, for example, he considers the fronted object (שֵׁשֶׁ־הַשְּׁעָרִים ‘six measures of barley’) *given* information, though the characters themselves have not yet shared

³⁴ In addition, we might consider (25) athetic sentence in which a “unitary situation (“The situation was...”) is expressed (Khan and Van der Merwe 2020, 358).

³⁵ Josh. 13.1b; 23.2; 1 Sam. 8.5.

that information with each other. The audience, however, is already privy to such information via the narrator. In such a case, we should recall that the study of IS involves that “management of the common ground,” which for the Hebrew Bible would mean that the interlocutors “can either be a narrator and an audience or characters participating in a communicative” (Khan and Van der Merwe 2020, 350).

(27) וַיֹּאמֶר הִנֵּה־נָא זָקֵנְתִי

‘He said, “See, I am old.”’ (Gen. 27.2)

As in (26), the stative verb in (27) refers back to the information *given* (GIV-ACT) in the previous verse: וַיְהִי כִּי־זָקֵן יִצְחָק ‘when Isaac was old’ (Gen. 27.1).

3.4.2. GIV-INACT

(28) וַיֹּאמְרוּ אֵלָיו הִנֵּה אַתָּה זָקֵנֶת

‘and said to him, “You are old.”’ (1 Sam. 8.5)

Here, the verb זָקֵנֶת harks back to the narrator’s statement that זָקֵן שְׁמוּאֵל ‘Samuel was old’ (1 Sam. 8.1).³⁶

(29) וְאֲנִי זָקֵנְתִי וְשִׁבְתִּי וּבְנֵי הַגִּם אִתְּכֶם וְאֲנִי הִתְהַלַּכְתִּי לְפָנֶיכֶם מִנְעֹרֵי עַד־הַיּוֹם
הַזֶּה:

‘I am old and grey, but my sons are with you. I have walked before you from my youth until this day.’ (1 Sam. 12.2)

³⁶ While 1 Sam. 8.1 is admittedly ambiguous as to whether it is a stative verb or predicate adjective, the pragmatic analysis of (28) still holds. For further discussion of the grammatically opaque cases, such as 1 Sam. 8.1, see §3.5 (especially §3.5.2).

זָקַנְתִּי in (29) is a restatement of the explicit descriptions of Samuel's age in 1 Sam. 8.1 (זָקַן שְׁמוּאֵל 'Samuel was old') and 8.5 (אַתָּה זָקַנְתָּ 'you are old').

3.4.3. ACC-INF³⁷

(30) שָׁבְנָה בְּנֹתַי לְכֹן כִּי זָקַנְתִּי מִהַיּוֹת לְאִישׁ
 'Turn back, my daughters, go, for I am too old to have a husband.' (Ruth 1.12)

The previous verse (Ruth 1.11) lays the premise that Naomi is past child-bearing years: הֲעוֹד־לִי בָּנִים בְּמִעֵי וְהָיוּ לָכֶם לְאֻנָּשִׁים: 'Do I still have sons in my womb that they may become your husbands?' Thus, זָקַנְתִּי in (30) is an *inference* [ACC-INF]—though rhetorically, the repetition is important for Naomi's argument.

3.4.4. NEW

(31) וַיִּזְקַן יְהוֹיָדָע וַיִּשְׁבַּע יָמָיו וַיָּמָת
 But Jehoiada grew old and full of days, and died. (2 Chron. 24.15)

Though problematic for Jenni's comprehensive claim for the stative verb bringing *given* information, the *wayyiqtol* does not seem to be *given* or *accessible*. Therefore, (31) should be considered *new* information.

³⁷ Ps. 37.25 (if זָקַנְתִּי is present stative 'am old' or inchoative 'am becoming old' [i.e., not preterite 'became old' or past perfective 'have become old'], then it is an inference from the past time *qatal* הָיִיתִי in the previous clause: נָעַר הָיִיתִי 'I was a boy'; the *focus* particle prior to our stative verb זָקַנְתִּי marks contrast, even if that contrast is inferable).

3.5. Predicate Adjective or Stative Verb (זָקֵן)?

The form זָקֵן is ambiguous. It can be construed as a ms predicate adjective or as a 3ms stative verb. As such, I do not make a decision on the grammar of the form, but categorise the pragmatics of each occurrence.

3.5.1. GIV-ACT

- (32) וַתִּצְחַק שָׂרָה בְּקִרְבָּהּ לֵאמֹר אַחֲרַי בְּלִתִּי הֲיִתְהַלְּלִי עַדְנָה וְאֵדְנִי זָקֵן:
 ‘So Sarah laughed to herself, saying, “After I have grown old, and my husband is old, shall I have pleasure?”’ (Gen. 18.12)

זָקֵן gives us information that is known in the verse prior: וְאַבְרָהָם וְשָׂרָה זָקֵנִים ‘Now Abraham and Sarah were old’ (Gen. 18.11).

3.5.2. GIV-INACT³⁸

- (33) וַתָּבֹא בַת-שֶׁבַע אֶל-הַמֶּלֶךְ הַחֲדָרָה וְהַמֶּלֶךְ זָקֵן מְאֹד וְאַבִּישָׁג הַשְּׁוֹנַמִּית מְשֻׁרְתָּת אֶת-הַמֶּלֶךְ:
 ‘So Bathsheba went to the king in his room. The king was very old; Abishag the Shunammite was attending the king.’
 (1 Kgs 1.15)

It is unlikely that זָקֵן marks *new* information, because the book of Kings begins by stating וְהַמֶּלֶךְ דָּוִד זָקֵן ‘Now the king, David, was old’ (1 Kgs 1.1). Jenni (1977, 68), however, argues that (33) is “parenthetischer Umstandssatz, der zur Begründung der Zurückgezogenheit des Königs die Information von v. 1 wiederholt, ohne

³⁸ Josh. 23.1; 1 Sam. 4.18; 8.1.

darauf als etwas Bekanntes zurückzugreifen.” This analysis appears incorrect, as both vv. 1 and 15 are descriptions of David by the narrator.

(34) וְאַבְרָהָם זָקֵן בָּא בַיָּמִים וַיהוָה בֵּרַךְ אֶת־אַבְרָהָם בְּכֹל:

‘Now Abraham was old, well advanced in years; and the LORD had blessed Abraham in all things.’ (Gen. 24.1)

Based on Gen. 18.11–13 (cf. examples (25) and (32), above), זָקֵן in (34) is best understood as *given* information (GIV-INACT). Jenni, on the other hand, calls (34) “neueinsetzende Exposition” and thus understands the predicate to denote *new* information (1977, 68). Abraham’s age in (34) is already part of the common ground between the narrator and audience, however. The narrator’s repetition of זָקֵן here has to do with its relevance for the episode.³⁹

3.5.3. ACC-GEN

(35) וַתֹּאמֶר הַבְּכִיָּרָה אֶל־הַצְעִירָה אַבְיָנוּ זָקֵן וְאִישׁ אֵין בָּאָרֶץ לָבוֹא עָלֵינוּ בְּדָרֶךְ:
כָּל־הָאָרֶץ:

‘And the firstborn said to the younger, “Our father is old, and there is not a man on earth to come in to us after the manner of all the world.”’ (Gen. 19.31)

The older sister describes Lot as old—a fact well-known to both sisters [ACC-GEN]. This information is used to issue a directive in v. 32: לָכֵה נִשְׁקָה אֶת־אַבְיָנוּ יָיִן וְנִשְׁכְּבָה עִמּוֹ ‘Come, let’s make our father drink wine and we will lie with him.’

³⁹ I am grateful to the anonymous reviewer for pointing this out more clearly.

3.5.4. NEW⁴⁰

(36) וְהַמֶּלֶךְ דָּוִד זָקֵן בָּא בַיָּמִים וַיְכַסְהוּ בַבְּגָדִים וְלֹא יָחַם לוֹ:

The king David was old and advanced in years. They covered him with clothes, but he could not get warm. (1 Kgs 1.1)

Introducing the narrative, זָקֵן is *new* information.

3.6. Predicate Adjective קטן

The only clear use of the predicate adjective is *accessible* [ACC-SIT].

(37) וַיֹּאמֶר שְׂמוּאֵל הֲלוֹא אִם־קָטָן אַתָּה בְּעֵינֶיךָ רֹאשׁ שְׁבֵטֵי יִשְׂרָאֵל אַתָּה וַיִּמְשַׁחֶךָ
יְהוָה לְמֶלֶךְ עַל־יִשְׂרָאֵל:

‘Samuel said, “Though you are small in your own eyes, are you not the head of the tribes of Israel? Yhwh anointed you king over Israel.”’ (1 Sam. 15.17)

3.7. Stative Verb קטן

For the stative verb there is no *given* information proper (GIV-ACT or GIV-INACT).

3.7.1. ACC-SIT

(38) וַתִּקְטָן עוֹד זֹאת בְּעֵינֶיךָ אֲדֹנָי יְהוִה וַתְּדַבֵּר גַּם אֶל־בַּיִת־עַבְדְּךָ לְמַרְחֹק

‘And this was a small thing in your eyes, O Lord Yhwh; you have spoken also of your servant’s house for a great while to come.’ (2 Sam. 7.19 || 1 Chron. 17.17)

⁴⁰ Gen. 27.1; Josh. 13.1a; 1 Sam. 2.22; 17.12; 2 Sam. 19.33; 2 Kgs 4.14.

David presents nothing *new* in the first clause of (38). Rather, his statement is *situational* [ACC-SIT] (cf. Prince 1981, 230–31).⁴¹

3.7.2. NEW

(39) קִטְנָתִי מִכָּל הַחֲסִדִים וּמִכָּל-הָאֱמֹת

‘I am not worthy of the least of all the steadfast love and all the faithfulness.’ (Gen. 32.11)

Since there is no clear information that is *given* or *accessible* in the surrounding context of (39), the verb קִטְנָתִי would seem to express *new* information. Jacob appears to use קִטְנָתִי along with עַבְדְּךָ ‘your servant’ for purposes of deference. This politeness strategy lays the foundation for the request הַצִּילֵנִי נָא ‘please deliver me’ (Gen. 32.12; cf. Bridge 2019, 576–77). We should note that (39) poses a rather significant problem for the argument that stative verbs *always* bring *given* information.

3.8. Predicate Adjective גָּדוֹל

Unlike the predicate adjectives זָקֵן and קָטָן, גָּדוֹל does *not* present *new* information exclusively.

3.8.1. ACC-GEN⁴²

(40) כִּי גָדוֹל יְהוָה וּמְהֻלָּל מְאֹד וְנוֹרָא הוּא עַל-כָּל-אֱלֹהִים:

‘For great is Yhwh, and greatly to be praised; he is to be revered above all gods.’ (1 Chron. 16.25)

⁴¹ The possibility of inference or general [ACC] categories here should not be dismissed, however. In any case, the stative verb does not convey *given* information.

⁴² Cf. 2 Chron. 2.4b.

Based on the description of Götze et al. (2007), גָּדוֹל in (40) would seem to be generalised information in which the speaker and addressee readily understand the predicate as something as obvious from general world knowledge (e.g., the setting of the sun).

3.8.2. NEW⁴³

(41) וַיֹּאמֶר קַיִן אֶל־יְהוָה גְּדוֹל עוֹנִי מִנְשָׂא:

‘Cain said to the LORD, “My punishment is greater than I can bear!”’ (Gen. 4.13)

גָּדוֹל in (41) is fronted. In particular, the predicate adjective is focused. It is not surprising that the fronted, focused predicate adjective also relates *new* information. Nevertheless, we should not conflate *focus* with *new* information (Moshavi 2010). Nor should word order be seen as corresponding directly to the status of information (Gross 2001).

⁴³ Gen. 39.9 (with comparative מֵן); Exod. 18.11 (with comparative מֵן); Deut. 1.28 (with comparative מֵן); 9.1 (with comparative מֵן); 11.23 (with comparative מֵן, cf. Holmstedt [2016, 306–7] for analysis of zero-relatives); Josh. 10.2; Judg. 5.16 (though possibly *accessible* [ACC], לְפָלְגוֹת רְאוּבֵן גְּדוֹלִים חֻקְרֵי־לֵב, ‘Among the clans of Reuben the searchings of heart were great’ may best be understood as part of the general knowledge of the speaker and addressee); 2 Sam. 13.15; Ps. 135.5 (the psalmist seems to raise the CG so that the addressees will know [יִדְעֵתִי] that Yhwh is great); 2 Chron. 2.4a.

3.9. Stative Verb (גָּדַל)

3.9.1. GIV-ACT

- (42) וַיְהִי בַיָּמִים הֵהֵם וַיִּגְדַּל מֹשֶׁה וַיֵּצֵא אֶל-אֶחָיו וַיֵּרָא בְּסִבְלָתָם וַיֵּרָא אִישׁ מִצְרִי מַכֶּה אִישׁ-עִבְרִי מֵאֶחָיו:

‘One day, after Moses had grown up, he went out to his people and saw their forced labour. He saw an Egyptian beating a Hebrew, one of his kinsfolk.’ (Exod. 2.11)

The *wayyiqtol* in (42) refers back to וַיִּגְדַּל הַיָּלֵד ‘when the child grew up’ in v. 10.

3.9.2. GIV-INACT⁴⁴

- (43) וַיִּגְדַּל שְׁמוּאֵל וַיְהִי הָיָה עִמּוֹ וְלֹא-הִפִּיל מִכָּל-דְּבָרָיו אֶרְצָה:
‘As Samuel grew up, the LORD was with him and let none of his words fall to the ground.’ (1 Sam. 3.19)

Earlier in the narrative, Samuel was growing up: וַהֲגַעַר שְׁמוּאֵל הַלֵּךְ ‘and the boy Samuel continued growing in stature and favour’ (1 Sam. 2.26). Thus, the information in (43) is *given* (GIV-INACT).⁴⁵

⁴⁴ Cf. also 1 Kgs 12.10 || 2 Chron. 10.10.

⁴⁵ Though children growing up is categorised as *accessible* [ACC-GEN] elsewhere, (41) is *given* [GIV-INACT], because its information was stipulated explicitly earlier in the narrative.

3.9.3. ACC-INF⁴⁶

(44) עַל־כֵּן גְּדֹלַת אֲדֹנָי יְהוָה כִּי־אֵין כְּמוֹד וְאֵין אֱלֹהִים זֹלָתָךְ בְּכֹל אֲשֶׁר־שָׁמַעְנוּ
בְּאָזְנוֹ:

‘Therefore you are great, O Yhwh God; for there is no one like you, and there is no God besides you, according to all that we have heard with our ears.’ (2 Sam. 7.22)

The previous verse (2 Sam. 7.21) does not give the exact information as (44) per se, but the inference is not difficult to discern: בְּעִבּוּר דְּבָרְךָ וְכִלְבֻּבְךָ עָשִׂיתָ אֶת כָּל־הַגְּדוּלָה הַזֹּאת לְהוֹדִיעַ אֶת־עַבְדְּךָ ‘because of your promise, and according to your own heart, you have wrought all this greatness, so that your servant may know it.’ Of course, the inference is made clearer because of עַל־כֵּן ‘therefore’ (cf. Van der Merwe et al. 2017, 450–51).

⁴⁶ Gen. 24.35 (inference coming from the previous verb בָּרַךְ ‘[and Yhwh] blessed’); 26.13; 1 Sam. 26.24a; 2 Sam. 7.22, 26 || 1 Chron. 17.24; 1 Kgs 10.23 || 2 Chron. 9.22; Zech. 12.7 (the first clause וְהוֹשִׁיעַ יְהוָה אֶת־ לֵא־ אֱהִלִי יְהוּדָה בְּרִאשֹׁנָה ‘Yhwh will deliver the tents of Judah first’ allows לֵא־ תִגְדֹּל ‘will not surpass’ to be an inference; moreover, the negated *yiqtol* suggests that the *yiqtol* itself was already presupposed); Mal. 1.5; Ps. 92.6 (inference from previous verse כִּי שָׂמַחַתְנִי יְהוָה בְּפַעֲלֶךָ בְּמַעֲשֵׂי יָדֶיךָ אֲרַנֶּן ‘for you Yhwh have made me glad by your work; at the works of your hands I sing for joy’); Job 2.13; Lam. 4.6; Ezra 9.6 (the *qatal* clause ‘our guilt is great/high (גְּדֹלָה) as the heavens’ is inferable from the previous clause: עֲוֹנוֹתֵינוּ רַבּוּ לְמַעַל רֹאשׁ ‘our iniquities have risen above our head’).

3.9.4. ACC-GEN⁴⁷

- (45) וַתֵּלֶד אֶשֶׁת־גִּלְעָד לֹן בָּנִים וַיִּגְדְּלוּ בְנֵי־הָאִשָּׁה וַיִּגְרְשׁוּ אֶת־יִפְתָּח וַיֹּאמְרוּ לוֹ לֹא־
 תִּנְחַל בְּבֵית־אֲבִינוּ כִּי בְרֵאשִׁיחַ אַחֲרַת אִתָּהּ:
 ‘Gilead’s wife also bore him sons; and when his wife’s sons
grew up, they drove Jephthah away, saying to him, “You
 shall not inherit anything in our father’s house; for you are
 the son of another woman.”’ (Judg. 11.2)

Though וַיִּגְדְּלוּ is *new* textually, I find the *wayyiqtol* in (45) to be generalised, as this is simply the process of human life, similar to the sun setting (Götze et al. 2007).

⁴⁷ Because several occurrences are inchoative ‘become great’ or ‘grow’, we could understand the information as *new*. However, the majority has to do with children growing up. This is, of course, expected from general knowledge of the world: Gen. 21.8, 20; 25.27; 38.11, 14; Exod. 2.10; Judg. 13.24; 1 Sam. 2.21; 2 Kgs 4.18; Ezek. 16.7; Ruth 1.13. A similar assessment of horns in Daniel appears; they ‘grow’—as horns do: Dan. 8.9, 10. At least one has to do with prominence (of the first-born): Gen. 48.19a. However, there are a few texts which speak to Yhwh’s greatness. In such cases, it appears that CG is shared in a general knowledge that Yhwh is גָּדֹל: Ps. 35.27; 40.17; 70.5; 104.1.

3.9.5. NEW⁴⁸

(46) וְאוֹלָם אֶחָיו הַקָּטָן יִגְדֹל מִמֶּנּוּ וְזָרְעוֹ יִהְיֶה מִלֹּא־הַגּוֹיִם:

‘Nevertheless, his younger brother shall be greater than he, and his offspring shall become a multitude of nations.’
(Gen. 48.19)

Contra Jenni’s expectations of pragmatic information, I do not see any basis for the categories of *given* or *accessible* in (46). In the biblical narrative it is much to Joseph’s chagrin that the *new* information is that the younger brother will be greater than the older. His stated expectation was for the first-born: וַיֹּאמֶר יוֹסֵף אֶל־: ‘Joseph said to his father, “Not so, my father! Since this one is the firstborn, put your right hand on his head”’ (Gen. 48.18).

4.0. Conclusions

My study allows for several conclusions—some certain and others tentative. First, Jenni is often correct that predicate adjectives denote *new* information, while stative verbs bring *given* information. However, that is not always the case. A stative verb at times denotes *new* information (§§3.2.4; 3.4.4; 3.7.2; 3.9.5), and predicate adjectives do not always indicate *new* information (§§3.6; 3.8.1). Second, the analysis of IS using three categories (*given*, *accessible*, *new*) provides clarity and specificity in a way

⁴⁸ Num. 14.17; 1 Sam. 26.24b; 1 Kgs 12.8 || 2 Chron. 10.8; Mic. 5.3 (*new* textually and it seems that the scope of greatness was not common ground: כִּי־עַתָּה יִגְדֹל עַד־אַפְסֵי־אָרֶץ ‘for now he will be great to the ends of the earth’); Zech. 12.11.

that the typical *given-new* dichotomy does not. Third, examination of the first layer of pragmatics (*theme/rheme* as some call it) should be a more prominent and explicit part of pragmatic research on Biblical Hebrew, even if the layer is more banal than the second layer (*topic/focus*). Fourth, and perhaps most importantly, more work is needed on the intersection of grammar and pragmatics in Biblical Hebrew.

The above research demonstrates that Jenni's study is ultimately unsuccessful. That is not to say, however, that his supposition of grammar marking pragmatics is fallacious. As pragmatics gains more attention from Hebraists, study of the relationship of grammar and pragmatics will hopefully follow. It is my hope that this article may help, at least in some small way, to advance the conversation on how grammar and pragmatics relate to one another.

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***NIF*^ʿAL VERBS IN THE BOOK OF GENESIS AND THEIR CONTRIBUTION TO MEANING**

Ellen van Wolde

The purpose of the study is to investigate the use and meaning of *nif*^ʿ*al* based on the representative corpus of *nif*^ʿ*al* verbs in Genesis.

1.0. Theoretical Background

1.1. A Syntactic Study of *nif*^ʿ*al* as Non-active Voice and Non-passive Voice

The term ‘voice’ is used in at least two ways in the literature. First, voice denotes a particular alternation in a verb’s argument structure and is therefore considered a syntactic category, in which a verb’s arguments receive different prominence in the sentence through a variety of coding patterns. In the second approach, voice is considered a semantic category and voice alternations are typically considered to encode for semantic patterns based on the interaction between participants.

In a syntactic approach, the syntactic structure underlying the voice patterns is analysed in relation to verb types and their argument structure. For transitive verbs, or verbs involving at least two arguments, the arrangement is always asymmetrical,

with one argument being more prominent than the other. The active voice is the canonical unmarked voice pattern, where the agent is more prominent than the patient. Active voice contrasts with non-active voices, such as passive voice, reflexive voice, and middle voice, all of which have marked voice patterns.

Edit Doron (2003) and Artemis Alexiadou and Edit Doron (2012) published syntactic analyses of two non-active voices in Hebrew, Greek, and English that are the morphological realisation of the two distinct syntactic voice heads μ and π , which generate middle and passive clauses, respectively. They presented a theoretical characterisation of the middle voice as distinct from the passive voice. What distinguishes the passive voice from the middle voice is that it always requires the participation of an external argument, irrespective of the specification of the root. In Hebrew, the passive *binyanim pu'al* and *hof'al* are marked by a passive voice head and are used with an external argument. This contrasts with the active *binyanim qal*, *pi'el*, and *hif'il*, which are used on the clause or sentence level with two arguments, without an external argument. The middle *binyanim nif'al* and *hitpa'el* are characterised by middle voice heads and—unlike the active *binyanim*—have only one argument. They also differ from the passive *binyanim* in lacking an external argument. This, then, is the crucial difference between the passive voice and the middle voice: the presence or absence of an external argument. Instances of *nif'al* and *hitpa'el* verb forms indicate actions that (1) affect their subject without indicating the cause and (2) lack an external argument.

In this article, I will build on Doron's syntactic studies and consider the *nif'al binyan* as expressing the middle voice and not the passive voice.

1.2. A Semantic Study of the Middle Voice

In a semantic study of voice, clausal events are analysed in terms of participants (the referential entities involved in the event) and relations (the relationships linking the participants in a given event), the term 'event' serving as a cover term for actions, processes, circumstances, and states. On the semantic plane, the verbal phenomenon of voice is considered to express the type of action chains where participants interact with each other.

In 1993 Suzanne Kemmer published her book *The Middle Voice*, which has become the definitive typological-semantic study on the topic. Central to her analysis is the notion of transitivity. She defines transitive verbs as verbs that involve two participants: the agent or initiator/instigator, who acts volitionally on another participant, and the patient/endpoint that is directly and completely affected by that event. In contrast, intransitive verbs involve only one participant. Many languages also know a middle voice of transitive verbs that involve one participant that stands in an initiator/endpoint relation to itself. The main function of the middle voice of verbs is to encode the affectedness of an initiating agent.

Kemmer (1993, 243–47) summarises the main results of her study as follows. First, a number of languages give grammatical expression to an 'in-between' category, the middle, which in its most basic uses (body action middles, emotion/cognition

middles) has a single participant that is, however, seen as internally complex. Second, the reflexive is semantically intermediate between prototypical one-participant events and two-participant events in terms of the number of participants involved. The conceptual distinction between initiating agent and affected patient in a reflexive situation type, despite their co-reference, makes it so that some separation of the two participants is maintained. Third, the middle is a semantic area comprising events in which the initiating agent is also the affected patient, and the event is characterised by a low degree of elaboration. Semantically, the middle voice differs from the reflexive voice in terms of participant distinguishability: for the reflexive voice the event is characterised by a high degree of elaboration. The way the single configuration is expressed by middle voice verbs varies among languages. See below, §1.4, for further detail and Table 1 for English examples.

1.3. A Semantic Study of *nif'al* as Middle Voice:

A Survey of Recent Literature

Traditional Biblical Hebrew grammars published in the nineteenth and twentieth centuries (Gesenius, Ewald, König, Bergsträsser, Bauer and Leander, Brockelmann, Joüon, Meyer, Lambdin, Joüon and Muraoka, Waltke and O'Connor, Van der Merwe, Naudé, and Kroeze) often claim that the *nif'al* has a primarily reflexive or passive meaning. Modern scholars, by contrast, have

begun to doubt this claim and have started to explore the *nif^cal* anew.¹

Based on an analysis of all occurrences of *nif^cal* verbs in the Hebrew Bible, Steven Boyd (1993) demonstrated that almost all the *nif^cals* thought to be reflexive are in fact agentless middles.² Subsequently, Holger Gzella (2009) tried to combine the works of Boyd and Kemmer in his study of voice in classical Hebrew and agreed that most *nif^cal* forms do not express reflexive voice, but can be analysed as agentless middles. However, both Boyd and Gzella reduce the semantic role of the grammatical subject to that of patient, in contrast to Kemmer, who emphasises the conflated configuration of the agent and patient role in the subject.

In 2012, Ernst Jenni published a comprehensive analysis of the *nif^cal* that takes Kemmer's study into account. He argues convincingly that the *nif^cal* indicates that the subject is concerned with itself, though not reflexively as a differentiated object, but as an undifferentiated middle, in which the prefix *n-* acts as middle marker.

¹ For a survey of the *nif^cal* studies in twentieth- and twenty-first-century scholarship, see van Wolde (2019).

² Out of the 4135 *nif^cal* constructions, Boyd (1993) showed that there are only five semantic reflexive attestations (which amounts to a statistically insignificant 0.121 percent).

1.4. *Nif^cal* as Middle Voice and the Seven Types of Middle Events It Can Express

The present study of the *nif^cal* instances in the book of Genesis is based on Doron's distinction between the middle voice and the passive voice and on Kemmer's differentiation of the middle voice from the reflexive voice, as well as Kemmer's semantic-typological analysis of the middle Voice in thirty different languages. Recent discussions of the *nif^cal* in Hebrew scholarship are also taken into account. Based on these insights, I take the following characteristics of the *nif^cal* as points of departure.

The *nif^cal* in Biblical Hebrew systematically encodes two dimensions of transitive verbs: (a) simple agency and (b) middle voice. In terms of agency, the *qal* of transitive verbs expresses simple agency, in which the dual roles agent and patient are maintained, whereas the *nif^cal* of transitive verbs expresses simple agency in which the roles agent and patient are conflated in a single participant. As for the middle voice, the *nif^cal* expresses an event in which the subject is concerned with itself, not reflexively as a differentiated object, but as an undifferentiated middle.

In its function as a marker of middle voice, the *nif^cal* expresses how a subject is affected by an event, while focusing on either the active side of the event (prototypically, body actions or mental actions and an initiating subject-agent) or the stative side of the event (prototypically, a spontaneous or anticausative change of state or resultative state or disposition), but not on its cause, source, or external agents. In other words, the *nif^cal* expresses a transitive middle event that affects the subject without indicating its cause, source, or external agent, thereby

contrasting with the passive template, which requires an (implicit) external agent.

A distinction can be made among various types of middle events marked by *nif^{al}*:

- (1) body action middle events: Hebrew verbs that (semantically) designate body actions specify in *nif^{al}* an event in which the subject is affected by carrying out an action in or through the body;
- (2) mental action middle events: Hebrew verbs that (semantically) designate mental actions specify in *nif^{al}* an event in which the subject is affected by carrying out an action of mental rather than physical nature; this event can involve emotion, cognition, or perception; the subject is both initiator, in that the mental event originates within the mind of the experiencer, and endpoint, in that the experiencer is affected mentally;
- (3) collective motion middle events: Hebrew verbs used in the plural that (semantically) designate collective motions specify in *nif^{al}* how multiple subjects are affected by collectively carrying out a movement with or through the body; each participant plays the same roles of agent-mover and affected patient in the event;
- (4) reciprocal action middle events: Hebrew verbs that (semantically) designate interaction between participants specify in *nif^{al}* how multiple subjects interact with one another, while each of them plays their own roles of agent-experiencer and affected patient in the event;
- (5) spontaneous change of state or anticausative middle events: Hebrew verbs that (semantically) designate a spontaneous transformation specify in *nif^{al}* events in which the subject is affected by an action that happens on its own, without the subject's directly initiating or instigating the event;

(6) resultative state middle events: Hebrew verbs that (semantically) designate states specify in *nif^cal* that the event is the consequent state of a previous non-profiled action affecting the subject;

(7) dispositional middle events: Hebrew verbs that (semantically) designate an action and are (often) combined with adverbial or modal elements specify in *nif^cal* the subject's disposition, circumstance, or quality. See Table 1.

Table 1: English examples of middle voice event types

<i>Transitive active</i>	<i>Active events</i>
'He opened the door'	Transitive actions
'He wrote the letter'	
<i>Transitive reflexive</i>	<i>Reflexive events</i>
'I saw myself'	Transitive-reflexive actions
'They blamed themselves'	
<i>Transitive middles</i>	<i>Middle events</i>
'He went away'	Body actions
'He shaved'	
'You are afraid'	Mental actions
'She will realise'	
'They united against the enemy'	Collective motions
'We went abroad'	
'They argued'	Reciprocal actions
'Mary and Mabel kissed'	
'The door opened (by itself)'	Spontaneous changes of state
'The ship broke up'	
'The earth was filled with evil'	Resultative states
'The door opened easily'	Dispositions
'The book is badly written'	
<i>Transitive passive</i>	<i>Passive events</i>
'The door was opened by her'	Transitive actions by external agent
<i>Intransitive</i>	<i>Intransitive events</i>
'He is good-looking'	States
'They are lacking energy'	

2.0. Attestations of *nif^{al}* Verbs in the Book of Genesis

The book of Genesis contains 203 *nif^{al}* verbal forms;³ for a list of the semantic classes of *nif^{al}* verbs in Genesis and their frequency, see Table 2. For common finite *nif^{al}* forms that occur three or more times in Genesis (twenty out of the eighty *nif^{al}* verbs cited in Genesis) and the semantic classes they represent, see Table 3.

Table 2: Frequency of semantic classes of *nif^{al}* verbs in Genesis

Semantic class	Frequency
Body action	78
Mental action	45
Collective motion	22
Reciprocal action	5
Spontaneous action	5
Resultative	26
Dispositional	22
Total	203

³ In addition, Genesis contains *nif^{al}* participles that function as nouns in the absolute state, e.g., וְהַנְּשָׂאָרִים ‘and the rest’ (Gen. 14.10), הַנְּצִבִים ‘the attendants’ (Gen. 45.1), and as adjectives, e.g., נְחֻמָּד ‘desirable’ (Gen. 2.9), הַנִּרְאָה ‘the visible’ (Gen. 35.1). The present study focuses on finite verb forms.

Table 3: Finite *nif'al* forms in Genesis and their semantic classes

Verb	Freq.	Semantic class
נִמּוּל 'be circumcised'	15	Body action: circumcision
נִשְׁבַּע 'swear'	14	Mental action: cognition
נִרְאָה 'appear'	14	Body action: appearance
נִאָּסַף 'be gathered, gather (intr.)'	10	Body action: translational motion
נִמְצָא 'be found'	10	Resultative
נּוּלַד 'be born'	7	Body action: begetting/acquiring
נִפְרָד 'divide (intr.)'	7	Body action: translational motion
נִקְרָא 'be called'	6	Dispositional
נִמְלָט 'flee'	5	Body action: translational motion
נִצַּב 'stand, be positioned'	5	Body action: non-translational
נִחַם 'regret, be comforted'	4	Mental action: emotion
נִקְבַּר 'be buried'	3	Body action: non-translational
נִשָּׂאָר 'be left, remain'	3	Body action: non-translational
נִשְׁמַר 'be careful'	3	Mental action: cognition
נִאֲזַח 'consent, agree'	3	Mental action: cognition
נִאָּחַז 'be caught, possess'	3	Body action: holding property
נִאָּמַר 'be said'	3	Dispositional
נִבְרַךְ 'consider oneself blessed'	3	Mental action
נִכְרַת 'be cut off'	3	Body action: translational
נִעָּשָׂה 'be done'	3	Dispositional

The event most often expressed by verbs set in middle voice belong to the body action domain and comprise situations in which the subject is affected by performing an action in or through their own body. I will focus here on this group of middle body actions. In Biblical Hebrew, body actions are commonly expressed by *qal* (simple agency) or *pi'el* (intensive agency) verbs. For example, the *qal* verbs הִלְךְ 'go, walk' and בּוֹא 'come, arrive, enter' designate spatial movements that differ from those of the *nif'al* verbs נִהָבֵא 'hide (intr.)' and נִשָּׂאָר 'remain, be left', in that the *nif'al* marks

the event in such a way that the experiencing subject is comparatively more affected by the body action. A distinction can be made between various body action middles, namely, (1) verbs of translational motion, which mark the movement of the subject from one location to another along a path; (2) verbs of non-translational motion and change in body posture; (3) verbs of body care; (4) verbs of begetting or acquiring; (5) verbs of holding; (6) verbs of becoming perceptible (for numbers and verbs, see Table 4).

Table 4: Body action middles in Genesis and their semantic sub-classes

Semantic sub-class	Root (frequency)	Meaning
Translational motion (18)	נָמַלַט (5), נָגַשׁ (1), נָאַסַף (5)	move away/towards
	נָחַבַּא (2), נָסְתַּר (1)	hide
	נָפַרַד (3)	split
Non-translational motion (15)	נָשַׁפַּד (1)	pour
	נָשְׂאָר (3), נֹתַר (2), נָאַסַר (1), נִכְלָא (1), נֹחַל (1)	remain (behind)
	נָקַבַּר (3)	stay (in resting place)
Body care (17)	נָצַב (4)	stand (upright)
	נָמוּל (15)	become circumcised
Begetting (9)	נָגַמַל (2)	become weaned
	נֹלַד (7)	be born, acquired
Holding (4)	נִבְנְיָה (2)	become built
	נָאַחַז (3)	become possessed
Perceiving (15)	נֹרֵשׁ (1)	become poor
	נָרְאָה (14)	become perceptible
	נָגְלָה (1)	become visible

3.0. *Nif'al* as Body Action Middle

3.1. Instances of *nif'al* Verbs of Translational Motion

The following *nif'al* verbs in Genesis specify an event in which the subject is affected by initiating translational motion: (1) moving away from/towards: נָמַלַח (19.17, 17, 19, 20, 22); שָׁגַג (33.7); נָאָסַף (25.8, 17; 35.29; 49.29, 33); (2) hiding: נָחַבָּא (3.10; 31.27); נִסְתָּר (4.14); (3) splitting: נִפְרָד (2.10; 13.9, 14); (4) flowing: נִשְׁפָּךְ (9.6).

The verbs in the first group of translational motion middles express movements away from or towards a place or person. In Gen. 19, the deity's messengers exhort Lot to flee Sodom. The five cases of נָמַלַח designate Lot's motion away from Sodom in a way that shows that Lot is very much affected by it: the *nif'al* expresses both Lot's act of fleeing and the impact it has on him. As both experiencing agent and affected patient, Lot is construed in a single bodily configuration as someone forced to flee for his life.

The *nif'al* verb נָחַבָּא belongs to the second group of translational motion, namely, hiding: וְנָחַבָּא ... וְנָחַבָּא 'I heard the sound of you in the garden... and I hid' (Gen. 3.10). The *nif'al* is not a reflexive voice, as in French *se cacher*, but a middle voice as in English 'hide': it sketches the subject's concealing in a single configuration, and depicts the man as both agent-mover and affected patient. At the same time, the description is not of the entire process of going from the open into a hidden spot to prevent easy visibility or discovery, but the end stage only. This stands in contrast to use of the cognate *hitpa'el* two verses earlier, where

the temporal process itself is described: וַיִּשְׁמְעוּ אֶת-קוֹל יְהוָה אֱלֹהִים: וַיִּתְחַבֵּא הָאָדָם וְאִשְׁתּוֹ מִפְּנֵי יְהוָה אֱלֹהִים בְּתוֹךְ עֵץ הַגֶּזֶן: ... 'They heard the sound of YHWH God (...) and the man and his wife hid from the face of YHWH God among the trees in the garden' (Gen. 3.8). The *hitpa'el* marks the temporal process of the act of hiding from beginning to end, not just the end result. This is, at least in this text, the main difference between *nif'al* נִחַבֵּא and *hitpa'el* הִתְחַבֵּא.

The third group of *nif'al* verbs of translational motion is represented by נִפְרָד, used three times in Gen. 13.9–14. The first time is a singular imperative used by Abram and addressed to Lot: הֲלֹא כָל-הָאָרֶץ לְפָנַי הִפְרָד נָא מֵעָלַי אִם-הִשְׁמַאל וְאִימְנָה: ... 'Is not the whole land before you? Please depart/separate from me. If you go north, I will go south...' (Gen. 13.9). The idea expressed here is that of Lot being offered the possibility of leaving Abram. He is the person who may perform the action of parting, though the action will also affect him. The NJPS translates: "Let us separate." In that case the verb should have been set in the plural, in which case the action would have been reciprocal and both would have carried out the leave taking. But this is not the way Abram presents it. Rather Lot is presented as agent-subject and affected patient, although the action itself, pointing towards a future situation, is yet to be executed. Indeed, v. 11 tells us that Lot makes up his mind and chooses to journey eastward. But then, later in the same verse, again נִפְרָד is used, but this time in the plural, וַיִּפְרְדּוּ אִישׁ מֵעַל אָחִיו 'thus they parted' (Gen. 13.11b), expressing a collective action, performed by Abram and Lot together. The third time, the same verb's infinitive construct is used, providing a résumé of the event: וַיְהִי אָמַר אֶל-אַבְרָם אַחֲרַי הִפְרָד-לֹט מֵעַמּוֹ 'And

YHWH said to Abram after Lot had parted from him...’ (Gen. 13.14). Here, again, the parting event is described not in terms of a mutual and collective action, but as one performed by Lot alone. So it refers back to v. 9, not to v. 11. Yet, the *nif'al* describes it as a resultative state, that is, in reference to an event that happened before.

And finally, the last group of translational motion is represented by *nif'al* נִפְּשׁוּ. In Gen. 9.6, the cognate *qal* participle in the phrase מִי־שֶׁשָּׂפַךְ דָּם אִדְמָה, commonly translated ‘whoever sheds the blood of man’, is followed by the *nif'al* *yiqtol* in v. 6b in מִי־שֶׁשָּׂפַךְ דָּם אִדְמָה יִקְטָל, commonly translated as passive ‘by man shall his blood be shed’. The reason why the preposition -בְּ cannot indicate a passive construction with an external agent is given by JM (§132c),⁴ who conclude the following for an instrumental meaning ‘by’ (‘by means of’):

In Gen. 9.6 בְּ is used and not מִן because man is here the instrument of justice (...): *He who sheds a man’s blood, by (means of) a man shall his blood be shed.* On the other hand, examples of מִן with the meaning of the Latin *ab* are

⁴ JM §132c:

Some prepositions may be used with a passive verb to indicate the author of the action. As a rule a proper passive form can be used only if the author of the action (the agent) is not named. Thus a sentence like *the innocent blood shed by Joab* must usually become in Hebrew *the innocent blood which Joab shed.*

Cf. Gen. 21.3; 1 Kgs 2.31; Est. 2.6.

doubtful: in נוֹשַׁע בִּיהוּה *to be saved by Y.* (Dt 33.29; Is 45.17) the meaning is rather *per* (Germ. *durch*) ‘through’. (JM §132e)⁵

However, this understanding of -ב in Gen. 9.6 is unique, and, in my view, led more by textual interpretation than by syntax. If however, the *nif^cal* is understood as signalling middle voice, this verse would not be syntactically unusual or irregular, but indicates that the blood is both the subject of the movement of flowing as well the affected patient. Then the verse can be rendered as ‘whoever sheds the blood of man—in that man his blood will pour’, which means that the murderer’s own blood will gush out of his own body (in an act of retribution).

In all instances of translational body motion middle verbs in Genesis, the *nif^cal* designates an event in which the subject is both involved in and affected by the consequences of self-performed movements. In these cases, the *nif^cal* rarely reflects the entire temporal process from beginning to end, but more often the end stage, the result, or the impact of such a process.

⁵ JM (§132e) continue with: “Text-critically doubtful cases: Nu 36.2; Ho 14.4.” For those who do not share their text-critical view, it should be noted that in כִּפָּר בְּחֵם ‘with which atonement was made’ (Exod. 29.33) and צִוָּה בִּיהוָה ‘(my lord) was commanded by YHWH’ (Num. 36.2) the *pu^cal* (not the *nif^cal*) is used; in other words, the passive is not expressed by -ב + noun, but by the *pu^cal* + -ב + noun construction.

3.2. Instances of *nif'al* Verbs of Non-translational Motion

Genesis contains the following *nif'al* verbs of non-translational motion: (1) remain (behind): נִשָּׂאָר (7.23; 42.38; 47.18); נוֹתָר (32.25; 44.20); נֶאֱסָר (42.19); נִקְלָא (8.2), נוֹחַל (8.12); (2) stay/lie down (in resting place): נִקְבַּר (15.15; 35.8, 19); (3) stand (upright): נָצַב (24.13, 43; 28.13; 37.7).

The first group of non-translational middles express the event of ‘remaining (behind), staying (imprisoned), waiting’, not in the sense of being left behind, but as a description of the resulting state. After the Flood has destroyed all living beings, the *nif'al* in וַיִּשָּׂאָר אֲדֹנָיְךָ וְאִשְׁרֵי אִתּוֹ בַּתְּבֵהָ (Gen. 7.23) describes Noah’s state. There is no implied agent leaving him behind. The same applies to the *nif'al* participle נִשָּׂאָר ‘is left (ms)’ (Gen. 42.38), where Benjamin is Jacob’s only remaining son, and for the *nif'al qatal* לֹא נִשָּׂאָר לְפָנַי אֲדֹנָי בְּלִתי אִסְגוּיִתְנוּ וְאֲדַמְתְּנוּ ‘nothing has been left before my lord but our bodies and our land’ (Gen. 47.18), when Joseph’s brothers refer to the final stage of the remaining process, which may be rendered more idiomatically as ‘there’s nothing left’.

In Gen. 32.25 and 44.20, the verb *nif'al* נוֹתָר describes other situations in which individuals remains behind. In Gen. 32.25, Jacob sends his wives and children over the river, and in the following clause וַיִּנְתָּר יַעֲקֹב לְבִדּוֹ, the *nif'al* marks not the passive voice event ‘Jacob was left behind alone [by his wives and children]’, but the middle voice ‘Jacob stayed behind alone’. In Gen. 44.20, the very same phrase is used, this time to indicate that Benjamin is the only remaining son of his father and mother, since his

brother Joseph has died. On both occasions, the *nif'al* marks the event as one that affects the remaining character.

In these and other cases of *nif'al* verbs that express non-translational body actions, the *nif'al* depicts the event of remaining (in a certain place), waiting (in the ark), resting (in the grave), or standing (in an upright position) as designating the consequent state in which the subject's body finds itself with regard to a location. In all of these cases, the subject is both involved in and affected by the event and at the same time performing the action. Furthermore, these verbs describe not the entire temporal process from beginning to end, but only the final stage of this process or the resultative state of the body with respect to a given location.

3.3. Instances of *nif'al* Verbs of Body Care

The term 'body care' refers to actions that one performs on oneself. In the Hebrew Bible various verbs designate such actions: *pi'el* כָּבַס 'wash' (44x), *qal* רָחַץ 'wash' (69x) or 'wash oneself' (3x), *hitpa'el* הִתְרַחֵץ 'wash oneself' (1x); *qal* לָבַשׁ "wear, clothe oneself, dress (intr.)" (61x), *hif'il* הִלְבִּישׁ 'clothe, dress (tr.)' (32x), *pi'el* כָּסָה 'clothe, cover' (132x), נִכְסָה 'be covered' (2x: Jer. 51.42; Ezek. 24.8), הִתְכַּסָּה 'cover oneself' (9x); *qal* אָזַר 'gird oneself, bind (of garment)' (6x), *pi'el* אָזַר 'gird another' (6x), *nif'al* נֶאֱזַר 'be girded' (1x: Ps. 65.7), *hitpa'el* הִתְאָזַר 'gird oneself' (3x); *pi'el* גָּלַח 'shave (tr.)' (18x), *hitpa'el* הִתְגַּלַּח 'shave oneself' (2x), *hitpa'el* הִתְגַּרְדַּר 'scrape oneself' (1x). As these examples show, verbs of body care rarely occur in *nif'al* in Biblical Hebrew. When used transitively, the verbs are expressed in *qal*, *pi'el*, or *hif'il*. When used

intransitively, reflexively, or in middle voice they are set in *hitpa'el*. From the absence of *nif'al* instances we must deduce that ancient Israelites did not conceive of these kinds of events as middle actions, that is to say, as actions in which (part of) the body is both agent-experiencer and affected patient. This is true for the book of Genesis as well. Only two *nif'al* verbs for body care appear in Genesis, namely the verb *נָמוּל*, used 15 times in *nif'al* with the meanings 'circumcise the foreskin, be circumcised', and the verb *וּנְמַלְתֶּם*, used twice for the weaning of a baby. Instances of *nif'al* *נָמוּל* are concentrated in two chapters in Genesis, namely chs. 17 (10x) and 34 (5x). I will focus on the occurrences in Gen. 17, which are the following:

- (1) הַמּוֹל לְכֶם כָּל־זָכָר
'every male among you shall become circumcised' (Gen. 17.10)
- (2) וּנְמַלְתֶּם אֶת בְּשַׁר עֶרְלֹתְכֶם
'you shall come in the state of being circumcised' (Gen. 17.11)
- (3) וּבְיוֹם־שְׁמֹנַת יָמִים יִמוּל לְכֶם כָּל־זָכָר
'every male among you shall become circumcised at the age of eight days' (Gen. 17.12)
- (4) הַמּוֹל יִמוּל יְלִיד בֵּיתִי
'let every homeborn male become circumcised' (Gen. 17.13)
- (5) וְעֵרְלָא זָכָר אֲשֶׁר לֹא־יִמוּל אֶת־בְּשַׁר עֶרְלֹתָו
'and any male whose foreskin is not circumcised' (Gen. 17.14)
- (6) וַיִּמַּל אֶת־בְּשַׁר עֶרְלֹתָם

'he circumcised the flesh of their foreskin' (Gen. 17.23 *qal*)

(7) בְּהִמְלֹךְ בָּשָׂר עֶרְלֹתוֹ

'when he became circumcised' (Gen. 17.24)

(8) בְּהִמְלֹךְ אֶת בָּשָׂר עֶרְלֹתוֹ

'when he became circumcised' (Gen. 17.25)

(9) נִמּוּל אַבְרָהָם וְיִשְׁמָעֵאל

'Abraham and Ishmael became circumcised' (Gen. 17.26)

(10) וְכָל-אֲנָשֵׁי בֵּיתוֹ... נִמְּלוּ אִתּוֹ

'all men of his house...became circumcised together with him' (Gen. 17.27)

In the ten instances of *nif'al* נִמּוּל in Gen. 17, two grammatical patterns are discernible: (a) in vv. 10, 12, 27 the subject is a generic masculine plural 'all male/all men' and there is no direct object, while an indirect object is included (לְכֶם 'among you [mpl]' and אִתּוֹ 'with him'); (b) in vv. 11, 13, 14, 23, 24, 25, 26 the subject is an individual person (Abraham or Ishmael) with 'the flesh of the foreskin' as direct object, and no indirect object is mentioned.

In the first pattern, the agent-subjects are כָּל-זָכָר 'every male' and כָּל-אֲנָשֵׁי בֵּיתוֹ 'all the men of his house' and the *nif'al* shows that all these men experience the event of circumcision, are affected by it, as well as collectively involved, לְכֶם 'among you'. In v. 10 the imperative (or infinitive absolute) הִמְּלוּ addressed to Abraham characterises circumcision as an obligatory part of God's covenant of with Abraham and his offspring. This is the group the term לְכֶם refers to. In v. 12, the *yiqtol* יִמּוּל expresses a general rule or obligation and once again the collective nature of the covenant is signalled via the prepositional phrase

לְכֶם: every boy will become part of the community through circumcision. And finally, in v. 27, the *qatal* נִמְלֵי describes the result of the previous actions, again in relation to Abraham's family, this time marked by the prepositional phrase אִתּוֹ 'with him'. On all of these occasions, an external agent goes unmentioned. Instead, the *nif'al* middle expresses the general rule or obligation, as well as the resultative state of circumcision. Yet these verses do not focus on the acts performed on one's body, although every subject is also experiencer and patient, but on the future (or, in v. 27, past) state of being circumcised and on its consequence for someone's belonging to the community. The prepositional phrases לְכֶם and אִתּוֹ indicate the beneficiary of this new state, namely, the community which these men join through the experience of circumcision. Thus, the *nif'al* middle voice denotes the obligation of achieving the communal state of being circumcised, and can be translated into English as 'to become circumcised'.

In the second pattern, the *nif'al* נִמּוֹל describes the action of circumcision and takes 'the flesh of the foreskin' as its direct object. At first sight, this usage seems similar to active voice, but on further reflection, it, too, appears to express the middle voice. In v. 11, the *nif'al* וְנִמְלְתֶם indicates that Abraham and his offspring were collectively responsible to have the act performed on their own bodies in order to come into the state of being circumcised. In v. 13, the infinitive construct + *yiqtol* construction הִמּוֹל | יִמּוֹל stresses this same obligation: 'let every homeborn male become circumcised'. In v. 14, the relative clause אֲשֶׁר לֹא־יִמּוֹל 'whose foreskin is not circumcised' describes what happens when a man has not become circumcised: וְנִכְרְתָהּ הַנֶּפֶשׁ הַהוּא מֵעַמּוּיָהּ אֶת־בְּרִיתִי הַפֶּר

'that person removes himself from his people and breaks my covenant'. In other words, in vv. 11–14 *nif'al* נָמוֹל expresses the condition in which a subject must act as agent, focusing on the consequent state in which he will find himself. The men's future state will be characterised by circumcision and they are defined as persons who have been circumcised. This new state, then, is the sign of the covenant. Then, in v. 23, the actual practice of circumcision is described using the *qal* וַיִּמְלֵךְ 'and he circumcised'.

In the final section, vv. 24–26, two *nif'al infinitivi constructi* וַיִּמְלֵךְ point back to this event. V. 24 refers to the age when Abraham became circumcised and v. 25 to the age when Ishmael became circumcised. Thus, the events are summarised so that Abraham and Ishmael are depicted as having initiated the action of circumcision and as having been affected by it at the same time.

Based on this analysis of the usages of the *nif'al* נָמוֹל in Gen. 17 a twofold conclusion can be drawn. (1) *Nif'al* נָמוֹל describes the event of becoming or having become circumcised as a rite of passage signalling entry into a covenant community. From this, it becomes clear why Biblical Hebrew verbs for washing, dressing, covering, and laundering are not expressed in *nif'al*—for these actions require less personal involvement than circumcision, which is a permanent and intentional body modification. The *nif'al* נָמוֹל expresses exactly this: that one is completely involved and moves from one state into another state of being. The *qal* מוֹל, by contrast, does not express the subject's affectedness. (2) *Nif'al* נָמוֹל belongs to two semantic domains: that of body action or care and that of community. In sum, the middle voice of the verb נָמוֹל adds two important shades of meaning to the *qal*

meaning ‘circumcise’, namely that of affectedness and of group identity.

3.4. Conclusion: *Nif'al* as Body Action Middle

In the 78 instances in Genesis of *nif'al* verbs that designate body actions, the verb describes an event in which the subject is affected by carrying out an action in or through its body. The *nif'al* rarely reflects the entire temporal process from beginning to end; it more often marks the conclusive, final, or resultative stage of such a process, including the impact of the process on the subject. This is true for translational and non-translational body actions, where the *nif'al* expresses the result of the movement or the event of remaining, as well as for attestations of *nif'al* גָּמַל ‘become circumcised’ in Genesis. It also appears that the middle voice can add shades of meaning to the verbal root: the five instances of *nif'al* of טָלַן do not belong to the semantic domain of ‘movement’ alone, but also to the domain of ‘emotion’, while *nif'al* גָּמַל belongs not only to the domain of ‘body care’, but also to the semantic domain of ‘community’ or ‘people’. This may reflect the fact that these verbs do not express a self-contained event, but rather the resultative state in which someone finds themselves (or comes to find themselves), often in relation to the collective other.

In sum, *nif'al* verbs of body action in the book of Genesis conceive of the event from a final, conclusive, or resultative point of view. Expressed in middle voice, the events are not construed as unfolding over time, but as having been achieved, that is, as achievements that affect or have an impact on the initiating

subject, who is at the same time the affected patient. In these middle constructions, the verbal root takes on new shades of meaning.

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הִיָּה IN BIBLICAL HEBREW

Daniel J. Wilson

1.0. Introduction

The relationship between subject and predicate is one of the most fundamental elements in natural human language. While there is certainly great diversity among the world's languages in how this relationship is manifested, all languages seem to have a means of predicating an entity or property of a subject. Biblical Hebrew (BH), broadly speaking, presents a relatively straightforward system for this kind of relationship, which has experienced a robust research tradition.¹ These works do not coalesce in agreement on every issue, but there has emerged an overall consensus which features the verbless (or nominal) clause as the construction for non-verbal predication in present tense and the verb הִיָּה functioning in one of two ways: as a copula hosting tense, aspect, and mood (TAM) features, like an auxiliary, and as a 'true' verb in the sense of *become*, *exist*, *happen*, etc.

As is often the case in the study of natural language, however, things are rarely as straightforward as they may appear.

¹ Andersen (1970); Bartelmus (1982); Waltke and O'Connor (1990, 72); Niccacci (1990; 1993; 1999); Miller (1999); Zewi (1994; 1999; 2013).

First, it has been accepted that the copula הָיָה licenses TAM features, but exactly which TAM features has not been demonstrated in an exhaustive study. Second, as Wilson (2018; 2019; 2020a) has recently demonstrated, it is possible to account for the semantic variation of הָיָה in a uniform way typical of auxiliaries. If so, the ‘true’ verb function observed by many can be understood as an extension of the role of הָיָה as an auxiliary. Third, in research on copular sentences, both theoretical and cross-linguistic, there is usually a separate construction—the existential—that shares many of the same morphosyntactic pieces as copular sentences, but that makes a fundamentally different assertion. In BH, the particles יָשׁ and אָיִן are typically discussed with respect to existentials, but examples such as (1) demonstrate that הָיָה may also be used in an existential construction.

(1) וַיְהִי־אִישׁ מִהַר־אֶפְרַיִם וּשְׁמוֹ מִיכָיָהוּ:

‘There was a man from the hill country of Ephraim and his name was Micah.’ (Judg. 17.1)

Thus, the two goals of this paper are as follows. First, I will introduce existentials as a separate construction, distinct from copular sentences, which also utilise הָיָה. Second, I will demonstrate which TAM features are correlated with the presence of הָיָה, as opposed to the default verbless clause, based on an exhaustive study of the finite forms of הָיָה in BH. Before discussing these two points, it is necessary to provide a basic description of copular sentences with הָיָה in BH.²

² This paper is based on a poster presented at the conference *Biblical and Rabbinic Hebrew: New Perspectives in Philology & Linguistics* at the University of Cambridge, 8–10 July, 2019. The work is a summary of

2.0. The Basics of Copula Use in BH

BH, like many other languages (Arabic, Russian, etc.), does not permit an inflected verb in present tense copular sentences, as in (2).

- (2) וְאָבִיךָ אִישׁ מִלְחָמָה
 ‘Your father (is) a man of war’. (2 Sam. 17.8)

As is common in many languages, BH also utilises a copular verb to license future tense, as in (3).

- (3) וְהָיִיתִי גַּע וְנָדָר בְּאֶרֶץ
 ‘But I will be a stranger and a foreigner in the land.’ (Gen. 4.14)

One unique difference between BH and other languages, such as Arabic and Russian, is that an overt copula is not required for a sentence to be grammatical in past tense. In fact, Wilson (2018) states that there are more examples in the Hebrew Bible of past-referring verbless clauses than clauses with an overt form of הָיָה.

It has been noted that in BH, a verbless clause may carry the tense of the surrounding context without requiring an overt copula in every case. The sufficiency of context to carry the tense of an expression forward in other languages has been noted in

some of the central claims of the author’s doctoral dissertation. The book-length adaptation of the dissertation published in Wilson (2020a) includes a much more technical treatment of these and many more issues. This paper distils the results of that volume and makes them accessible to those who may not work in the formal frameworks utilised in the original research.

research by Progovac (2006, 55). Examples are abundant in past-referring contexts in BH, but also occur less frequently in future-referring contexts, as in (4).³

- (4) וַיִּתֵּן יְהוָה גַּם אֶת־יִשְׂרָאֵל עִמָּךְ בְּיַד־פְּלִשְׁתִּים וּמָחָר אַתָּה וּבְנֵיךָ עִמִּי
 ‘so that YHWH will give Israel as well as you into the hand
 of the Philistines and tomorrow you and your sons (will be)
 with me.’ (1 Sam. 28.19)

Since it is the case that a context set in past time is sufficient to license the tense for copular sentences, the question arises: Why are there preterite and suffixed forms of הָיָה and what purpose do they serve? Do they serve merely to disambiguate the tense in copular sentences? An exhaustive analysis of the data reveals that a precondition for answering these questions is establishing the distinction between existential and predicational sentences. Second, it is necessary to recognise the reality of features in addition to tense that control the manifestation of הָיָה. Copulas and auxiliaries are frequently used to express different features in different contexts depending on the language. This is consistent with the analysis of auxiliaries by Bjorkman (2011). These points will be made in turn.

3.0. The Existential/Predicational Distinction

Existential sentences are distinct from predicational sentences both semantically and syntactically, though in many languages the syntactic distinction is not as obvious as the semantic. In English, the distinction is often made through the expletive *there* and

³ Thanks to Jesse Scheumann for discussion about these constructions.

the inversion of the copula in an existential, e.g., the inversion of *is* and *book* in (5).

(5) There is a book on the bookshelf.

This is distinct from the predicational counterpart in (6).

(6) A book is on the bookshelf.

The semantic distinctions between sentences like (5) and (6) have been discussed thoroughly in Francez (2007, 2009). One of the defining features of existentials is the alternate encoding of the figure-ground relationship, which is also present in predicational locative sentences (Creissels 2014). Partee and Borschev (2002; 2008) provide a clever metaphor, which illuminates the semantic distinction between existentials and predicational locatives:

An analogy may be made with a video camera and “what the camera is tracking”. A predicational sentence keeps the camera fixed on the protagonist as she moves around (THING as Center); an Existential sentence is analogous to the way a security camera is fixed on a scene and records whatever is in that location (LOC as Center). (Partee and Borschev 2008, 156)

The anatomy of existentials generally consists of a pivot, e.g., *book* in (5), and a coda, e.g., *on the bookshelf* in (5), and either a particle or a verbal copula (Bentley et. al. 2013). The pivot of an existential is considered the object, while the subject is the contextual domain which can be further specified by the coda (Francez 2007; 2009), though this point is debated (Stowell 1978; McNally 2011).

In BH, the syntactic encoding of existentials is clearest in sentences employing the particle *יש* for positive existentials (7) and the corresponding *אין* for negative existentials (8).

(7) אוֹלֵי יֵשׁ חֲמִשִּׁים צְדִיקִים בְּתוֹךְ הָעִיר
 ‘Suppose there are fifty righteous within the city.’ (Gen. 18.24)

(8) אֵין־לָהֶם חֶלֶב אֶל־תַּחַת יָדַי
 ‘There is no common bread on hand.’ (1 Sam. 21.5)

The data demonstrate, however, that *היה* is also used in both positive (9) and negative (10) existential sentences.

(9) וַיְהִי רָעָב בְּכָל־הָאֲרָצוֹת
 ‘There was a famine in all the lands.’ (Gen. 41.54)

(10) וְלֹא־הָיָה מַיִם לְעֵדָה
 ‘There was no water for the congregation.’ (Num. 20.2)

These are clearly existential, because the nominal—*רָעָב* ‘famine’ in (9) and *מַיִם* ‘water’ in (10)—must be a pivot, and not a subject, for the sentence to be grammatical. If ‘famine’ was the subject of a predicational sentence, it would likely have a definite article, since it is active in the common ground. *היה* is present in sentences like (9), because BH existentials, as opposed to predicationals (cf. §2, ex. (4), above), require a form of *היה* in both past and future contexts. Further comment is provided in Wilson (2020a) and Naudé, Miller-Naudé, and Wilson (2019; forthcoming) on the alternation and diachronic development of the existential particles and *היה* in existential sentences. The fact that existentials as a distinct clause type require some form of *היה* (when an existential particle is not present) accounts for many manifestations of the copula in the Hebrew Bible.

4.0. Features Controlling the Presence of הִיָּה

Copula systems in languages around the world represent different feature bundles that control the presence and shape of their copulas or copula-like elements.⁴ These feature bundles include TAM features, evidential features, and others. Often, taxonomic variables (i.e., types of predicates) also contribute to the variation in copular sentences.⁵ The copula system of BH is controlled by aspect/mood features, *Aktionsart* features, and additional eventive features, which are noted in Wilson (2020a).

Imperfective/habitual aspect is reflected in (11) which, though existing in a past tense context, utilises the prefixed form to represent imperfective aspect.

(11) וּבֵעֶרֶב יְהִיָּה עַל־הַמִּשְׁכָּן כַּמְרֵאֵה־אֵשׁ עַד־בֹּקֶר

‘In the evening, it would be over the tabernacle like the appearance of fire until morning.’ (Num. 9.15)⁶

Example (12) demonstrates that the suffix conjugation can be used to represent the perfect tense/aspect.⁷ Wilson (2018;

⁴ I adopt the definition of features in the research tradition of Distributed Morphology, specifically the Late Insertion hypothesis, which postulates that syntactic terminals are bundles of features which receive their pronunciation post-syntactically (Halle and Marantz 1993). For a more detailed account of how this works, see Wilson (2020a).

⁵ Stassen (1997); Pustet (2003); Roy (2013).

⁶ Also see Exod. 40.38.

⁷ For a review of the perfect as a conflicting category in theories of tense-aspect, see Ritz (2012).

2020a) argues that the suffixed copula in Gen. 1.2 should also be understood as (past) perfect, (13).

(12) אֲנָשֵׁי מִקְנֵה הָיוּ עֲבָדַי מִנְעוּרֵינוּ וְעַד-עַתָּה

‘Your servants have been men of livestock from our youth until now.’ (Gen. 46.34)

(13) וְהָאָרֶץ הָיְתָה תֹהוֹ וְבָהוּ

‘The earth had been formless and empty.’ (Gen. 1.2)

The mood features controlling הָיָה are obvious, since they have distinct morphology. A well-known example is (14).

(14) וַיֹּאמֶר אֱלֹהִים יְהִי אוֹר

‘And God said, “Let there be light.”’ (Gen. 1.3)

There are both jussive forms (3ms יְהִי: 67 examples; 3mpl יְהִי: 21 examples; 2fs תְּהִי: 28 examples; 2fpl תְּהִינָה: 4 examples) and imperative forms (ms הִיָּה/הָיָה: 15 examples;⁸ fs הִיָּה/הָיָה: 2 examples; mpl הִיָּה: 9 examples).

In addition to these simple aspect/mood examples, there are more complex examples, which reflect different semantics in terms of subject and complement. Example (15) illustrates the well-known -לִי הָיָה construction noted by Jenni (2000).

(15) וְאַתָּה תִּהְיֶה לְנֹגֵיד עַל-יִשְׂרָאֵל

‘You will become leader over Israel.’ (2 Sam. 5.2)

This is rightly classified as an inchoative construction, which presents the subject as acquiring a state. This function of הָיָה moves

⁸ For the alternation between *waw* and *yod* as the second radical in some forms of the copula, see Katz (1996, 143).

beyond stative to eventive *Aktionsart*, and, more specifically, indicates an achievement (see, inter alia, Vendler 1957). It is not uncommon, even in English, to see copular sentences with eventive *Aktionsart*. Consider (16), which has an agentive subject and eventive *Aktionsart*.

(16) Sam was rude three times.

Research on copular sentences in other languages has demonstrated how common this is.⁹ Another example of achievement *Aktionsart* in BH copular sentences is the ‘directional’ construction, as in (17).

(17) וַיְהִי דְבַר־יְהוָה אֶל־שְׁמוּאֵל

‘The word of YHWH came to Samuel.’ (1 Sam. 15.10)

In addition to a prepositional predicate, the directive *heh* may also be used, as in (18).

(18) וְהָיוּ תֵצְאוֹתָיו הַיָּמָה

‘Its extremities went to the sea.’ (Josh. 16.8)

Rather than inchoative, these examples demonstrate telic achievements with experiencer subjects. Marin and McNally (2011) have demonstrated the relationship between inchoative and telic achievements, which are similar though separated by a principal concern with *boundary happenings*. While inchoative achievements note the *onset* boundary, telic achievements note the *end* boundary. Normal events are concerned with intervals, while boundary happenings are concerned with points. Examples

⁹ Adger and Ramchand (2003); Markmann (2008); Cowper (2010).

(17) and (18) are non-durative and focus principally on the points of the boundary happenings.

One more example illustrates this phenomenon. These constructions are ‘complement-less’ copular sentences. They are also achievement predicates, which require the presence of הָיָה.

(19) וְאֵת־כָּל־אֱלֹהֵי יָדַי עָשָׂתָהּ וְיָהוּי כָּל־אֱלֹהֵי נְאֻם־יְהוָה

“All these my hand has made and all these came to be”
declares YHWH.’ (Isa. 66.2)

Interestingly, the achievement predicate function of הָיָה has led to the development of *nif'al* נִהְיָה, examples of which are all achievement predicates. Example (20) is the only instance of the inchoative sense. Example (21) demonstrates the directional. Example (22) is complement-less, which is the construction type with the most instances of נִהְיָה.¹⁰

(20) הַיּוֹם הַזֶּה נִהְיִיתָ לְעַם לַיהוָה אֱלֹהֶיךָ

‘This day you have become the people of YHWH your God.’
(Deut. 27.9)

(21) כִּי מֵאֵתִי נִהְיָה הַדְּבָר הַזֶּה

‘For this thing has come from me.’ (2 Chron. 11.4)¹¹

(22) אֵיכָּה נִהְיָתָה הָרָעָה הַזֹּאת

‘How did these evil things happen?’ (Judg. 20.3)

In addition to these conditions, the manifestation of הָיָה can also be attributed to disambiguation in certain examples. Example

¹⁰ Exod. 11.6; Deut. 4.32; Judg. 19.30; 20.12; 2 Sam. 13.35; 1 Kgs 1.27; Jer. 5.30; 48.19; Ezek. 21.7; 39.8; Joel 2.2; Prov. 13.19; Dan. 8.27; 12.1; Neh. 6.8.

¹¹ Also 1 Kgs 12.24; Dan. 2.1.

(23), for instance, includes both a prefixed and a suffixed form of הָיָה for the sake of temporal disambiguation.

(23) רַק יְהוָה יִהְיֶה יְהוָה אִלֵּיךָ עִמָּךְ כַּאֲשֶׁר הָיָה עִם־מֹשֶׁה
 ‘Only, YHWH your God will be with you as he was with Moses.’ (Josh. 1.17)

Another condition which controls the manifestation of הָיָה is related to participant agreement. BH age constructions reveal an interesting pattern in alternating between overt and verbless sentences. Example (24) has a suffixed form of הָיָה, which is sufficient for representing the pronominal subject.¹² Example (25) has an overt subject and a verbless predicate.¹³

(24) בְּזַעֲשָׁרִים וְחַמֵּשׁ שָׁנָה הָיָה בְּמַלְכוֹ
 ‘He was 25 years old when he became king.’ (2 Kgs 18.2)

(25) בְּזַעֲשָׁרִים שָׁנָה אָחָז בְּמַלְכוֹ
 ‘Ahaz (was) 20 years old when he became king.’ (2 Kgs 16.2)

There is not enough space here to provide a detailed description of why the copula appears in example (24) instead of an independent pronominal subject and a verbless clause. A detailed explanation of this phenomenon is provided in Wilson (2020a).

There is one rare taxonomic variable which appears to control the manifestation of הָיָה in a few examples. There are a few

¹² Other examples include 2 Sam. 4.4; 2 Kgs 8.17; 14.2; 15.2, 33; 18.2.

¹³ Other examples include 2 Sam. 5.4; 2 Kgs 12.1; 16.2; 21.11, 19; 22.1.

examples in the Hebrew Bible which are classified as specificational sentences (Higgins 1979; Stassen 1997), which utilise the BH copula, as in (26).¹⁴

(26) וַיְהִי בְּיֵצֵאת הַיָּצְאִים מִן־הַתְּבֹה שֵׁם וְחָם וַיָּפֶת

‘The sons of Noah who came out of the ark were Shem, Ham, and Japheth.’ (Gen. 9.18)

This is not a requirement, however, as there are many examples of verbless specificational sentences.

5.0. Conclusion

In this paper I have briefly summarised the features and environments that control the manifestation of the copula הָיָה rather than defaulting to the more common verbless clause. I have presented an account which claims that הָיָה can be classified as an auxiliary whose manifestation and shape are attributed to a feature complex for certain BH non-verbal predicates. Readers of BH will find that most of the finite forms of הָיָה in the Hebrew Bible can be explained using one of the conditions specified in this article.¹⁵ The complex copula systems of the world’s languages vary due to language-specific feature requirements which determine when and how copulas, or copula-like elements, appear. The BH copula

¹⁴ For other representative examples see Gen. 5.4, 11; Josh. 19.25.

¹⁵ A notable exception to this is the isolated הָיָה (also called a discourse marker, in previous studies), which precedes sentences, has defective agreement, and has no predication relationship with clause subject, i.e., does not itself function as a predicate. A thorough treatment of this construction has been provided by Wilson (2019; 2020b).

הָיָה appears to be obligatory in existential sentences and is controlled primarily by aspect/mood and *Aktionsart* in copular sentences.

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THE COORDINATION OF BIBLICAL HEBREW FINITE VERB FORMS AND INFINITIVES IN COMPARATIVE SEMITIC AND TYPOLOGICAL PERSPECTIVE¹

Lutz Edzard

1.0. Introduction

The issue of coordination of finite verb forms and infinitives in Biblical Hebrew, especially in Late Biblical Hebrew, as well as the use of the infinitive absolute as an inner object (comparable to the Arabic *maf'ūl muṭlaq*) or as an imperative, have received proper attention in Hebrew philology and linguistics. Important references (after treatment in the classic grammars) include Rubinstein (1952); Huesman (1956); Hammershaimb (1963); Waltke and O'Connor (1990, 595ff); Fassberg (2007); Callaham (2010); Morrison (2013); van der Merwe and Andrason (2014); as well as Wang and Noonan (2017).

¹ The author wishes to thank two anonymous reviewers for valuable input regarding a number of details and bibliographical references.

In this paper, the issue is examined from the perspective of the concepts of (pseudo-)coordination and (pseudo-) subordination, as proposed by Yuasa and Sadock (2002; see below), drawing on comparison of a wide range of Semitic and non-Semitic data. Deliberately, no attempt is made to trace back the types of (pseudo-)coordination and (pseudo-)subordination dealt with in this paper to any particular branch of Semitic. Rather, the various attestations of coordination and subordination will be placed and analysed within Yuasa and Sadock's aforementioned typology.

A Biblical Hebrew example illustrating the issue is provided in (1):

- (1) Pseudo-subordination in Biblical Hebrew (finite verb form joined with an infinitive)

זָרַעְתֶּם הַרְבֵּה וְהָבִיא מְעֻט

zara'tem harbē wə-hābē mə'āṭ

sow.PF.2PL.M much and-harvest.INF.ABS little

'You have sown much but harvested little.' (Hag. 1.6) (cf. Morrison 2013, 267)

In the case of (1) and the following Phoenician (2), Safaitic (3), and Sabaic (4) examples, we argue for the following scenario. While the infinitive absolute usually denotes a subordinated activity, the semantics of the two or more activities in these cases appear to be more coordinated than subordinated. Hence the categorisation as 'pseudo-subordination'.

- (2) Pseudo-subordination in Phoenician (finite verb form joined with an infinitive)

wa-šibbirtī/šabartī milišim wa-taroq 'anoki kull ha-ra''

and-break.PRF.1SG villain.PL and-uproot.INF 1SG all DEF-evil

‘And I shattered the villains and uprooted all the evil.’ (cf. Hackett 2013)

- (3) Pseudo-subordination in Safaitic (Old North Arabic) (finite verb form joined with an infinitive; cf. Al-Jallad 2015, 182)

rʿy h-rmḥ bql w kmʿt

pasture.PRF.3SG.M DEF-camel.COL herbage and gather_truffles.INF

‘He pastured the camels on spring herbage and gathered truffles.’

- (4) Pseudo-subordination in Sabaic (finite verb form joined with an infinitive)

w-yʿttmw w-tqdm w-rtḏhn

and-regroup.PRET.3PL.M and-advance.INF and-engage_in_battle.INF

‘And they [the Sabaeans] regrouped, came to a confrontation, and joined in battle.’ (cf. Nebes 1988, 65)

Interestingly, a comparable construction is attested in Norwegian (Lødrup 2002, 2014; Wiklund 2007; Johannessen and Edzard 2015) (5):

- (5) Pseudo-coordination in Norwegian (finite verb form joined with an infinitive)

De ble stående og vente

3PL become.PRET stand.PRES.PART and wait.INF

‘They remained standing, waiting.’ (cf. Lødrup 2002, 138)

In this case, the infinitive ‘to wait’, which we would expect in a syntactically subordinated position (not on the same level), is coordinated by the conjunction *og* ‘and’; hence the categorisation ‘pseudo-coordination’.

In contrast, the Swahili example (6) again represents a case of pseudo-subordination, as semantic coordination obtains:

- (6) Pseudo-subordination in Swahili (finite verb form joined with an infinitive)

wa-na-andika na ku-soma

3PL-PRS-write and INF-read

‘They write and read.’ (cf. Erickson and Gustafsson 1984)

In the following, we investigate the model of (pseudo-)coordination and (pseudo-)subordination proposed by Yuasa and Sadock (2002), which contains the four different categories exposed in (7), with a modular categorisation into syntax and semantics. We first present Yuasa and Sadock’s model, based on a number of Yiddish examples, and then apply it to Semitic data.

2.0. The Yiddish and Semitic Data in Terms of Yuasa and Sadock (2002)

2.1. A Basic Typology

With respect to Semitic data, ‘pseudo-coordination’ and, to a lesser degree, ‘pseudo-subordination’ (which terms are defined below) have received implicit attention in the realm of converb (gerund) and serial verb constructions. Cf., e.g., Woidich (2002); Versteegh (2009) for Arabic; Meyer (2012) for Amharic; Edzard (2014a; 2014b) for (Ethio-)Semitic; Johannessen and Edzard (2015) for Semitic and north-Germanic; Andrason (2019) for Biblical Hebrew; Andrason and Koo (2020) for Biblical Aramaic (with many further references); cf. also, e.g., Ross (2016, 211). As always in linguistics, the following caveat should right away be formulated: one should not automatically consider the syntactic features of a target language or language of analysis, typically

English, as the norm or even the ‘underlying’ structure of the source language, or language under analysis. This holds also and especially for the categories coordination (parataxis) and subordination (hypotaxis).

Table 1 lists the basic categories presented in Yuasa and Sadock (2002), a classic bi-polar scheme. The fact that Yuasa and Sadock base their typology on nominal syntax in no way affects the validity of their model for verbal syntax. What matters here is simply the Boolean bi-polar scheme (the category ‘subordinate’ could also be encoded as ‘– coordinate’):

Table 1: Scheme (Yuasa and Sadock 2002, 91)

Name	Syntax	Semantics
Simple coordination	Coordinate	Coordinate
Pseudo-coordination	Coordinate	Subordinate
Simple subordination	Subordinate	Subordinate
Pseudo-subordination	Subordinate	Coordinate

For the sake of illustration, we start by reviewing some of Yuasa and Sadock’s (2002, 111ff) Yiddish examples in the nominal realm. The case of simple coordination is the most basic. In (7a), *tate* ‘father’ and *mame* ‘mother’ are on the same level, and one would expect plural agreement with any following verbal predicate (7a):

(7a) Simple (‘normal’) nominal coordination in Yiddish

דער טאָטע און די מאַמע

der tate un di mame

DEF.M.NOM father.NOM and DEF.F.NOM mother.NOM

‘the father and the mother’ (i.e., ‘father and mother’)

Yuasa and Sadock provide no matching example of nominal pseudo-coordination, e.g., an example where the second noun would be dependent on the first one, but one might compare a standard Classical Arabic construction, such as (7b):

(7b) Nominal pseudo-coordination (*maf'ūl ma'a-hū*) in Arabic

sirtu wa-n-nīl-a

travel.1SG.PF and-DEF-Nile-ACC

'I travelled with the Nile'.

The traditional grammatical explanation here is that the conjunction *wa-* 'and' is reanalysed as a preposition, but an account of (7b) may well refer to the concept of pseudo-coordination in this case.

Yuasa and Sadock's example of simple (or 'normal') subordination in Yiddish is the following (7c):

(7c) Simple ('normal') nominal subordination in Yiddish

דער רבי מיטן הונט

der rebe mit-n hunt

DEF.M.NOM rabbi with-DEF.M.DAT dog

'the rabbi with the dog'

Here *hunt* 'dog' is both syntactically and semantically subordinate, i.e., a subsequent verbal predicate would refer only to the *rebe* 'rabbi', not to the dog, and would always be in the singular.

Example (7d) is *a priori* ambiguous. Formally it looks like simple subordination (7c), but in principle, both subordinate 'egalitarian' and coordinate 'egalitarian' readings are possible:

(7d) Nominal pseudo-subordination in Yiddish

דער טאָטע מיט דע מאַמען

der tate mit der mamen

DEF.M.NOM father.NOM with DEF.F.DAT mother.DAT

‘the father with the mother’ (i.e., ‘father and mother’)

The appropriate reading as a pseudo-subordination is borne out in example (7e), clearly a construction *ad sensum*, i.e., a construction in which semantics override syntax. The verbal predicate exhibits plural agreement, referring to both *tate* ‘father’ and *mame* ‘mother’, even though *mame* ‘mother’ is syntactically subordinate (in standard German, (7e) would be ungrammatical):

(7e) Nominal pseudo-subordination in Yiddish

דער טאָטע מיט דער מאַמען זינגען אינאיינעם

der tate mit der mamen zingen

DEF.M.NOM father.NOM with DEF.F.DAT mother.DAT sing.IPF.3PL

ineynem

together

‘Father and mother are singing together.’

2.2. The Semitic Material

On both the phrasal (nominal) and the sentential (verbal) level, there exist coordinating (paratactic) and subordinating (hypotactic) constructions in Semitic that are not fundamentally different from comparable constructions in Germanic or Romance, so they will not be covered here. In the following, we will concentrate on instances of verbal pseudo-coordination and pseudo-subordination.

As a further preliminary remark: it is not always possible to place a given construction in the model by Yuasa and Sadock, as borderline cases do exist. The main issue in Semitic is that coordinated structures may appear *asyndetically*, i.e., *without* an intervening conjunction, and that subordinated structures may appear *with* an intervening conjunction, thus blurring the basic picture. The following instances of pseudo-coordination and pseudo-subordination are salient in Semitic and beyond and will be treated here, first cases of pseudo-coordination (§§2.2.1–4), and then cases of pseudo-subordination (§§2.2.5–6). It is not claimed that the following typology is in any way exhaustive.

Pseudo-coordination

- 2.2.1. Syndetic constructions with posture or motion verbs
- 2.2.2. Syndetic serial-verb constructions
- 2.2.3. Asyndetic serial-verb constructions
- 2.2.4. Syndetic converb(-like) constructions

Pseudo-subordination

- 2.2.5. Asyndetic converb construction
- 2.2.6. Syndetic constructions consisting of finite VPs and infinitives

2.2.1. Syndetic Constructions with Posture or Motion Verbs

We start out with cases of pseudo-coordination, i.e., cases, where, in spite of coordinating syntax, subordination obtains on the semantic level. Typically, such constructions involve as first constituents verbs that are semantically reduced. As in Scandinavian

languages, syndetic constructions with a posture verb are not unusual in both older and more recent Semitic language varieties. In (8), representing Levantine Arabic, the posture verb *qa'dat* 'she sat' is semantically bleached (reduced) or, if one so pleases, grammaticalised.

- (8) Pseudo-coordination with a posture verb (cf. Ross 2016, 211)

qa'dat wa-katbat

sit.PF.3SG.F and-write.PF.3SG.F

'She was writing...' (Levantine Arabic)

A Biblical-Aramaic example of pseudo-coordination with a posture verb, here *qām* 'to arise', is the following (9):

- (9) Pseudo-coordination with a posture verb in Biblical Aramaic (cf. Andrason and Koo 2000, 10)

בִּיאֲדִין קָמוּ זְרַבְבֶּל בֶּר־שְׂאֵלְתִיֵּאל וְיֵשׁוּעַ בֶּר־יֹזָדָק וְשִׁרְיֹו לְמִבְנֵא בֵּית אֱלֹהִים
דִּי בִירוּשָׁלַם

bēdayin qāmū zərubbā'el bar-š'altī'el wə-yēšūa'

then rise.PF.3PL PN son.CS-PN and-PN

bar-yōšāddāq wə-šārīw lə-mibnē bēt 'ēlāhā dī

son.CS-PN and-begin.PF.3PL to-build.INF house.CS God REL

b-irūšlem

in-Jerusalem

'Then Zerubbabel the son of Shealtiel and Jeshua the son of Jozadak arose and began to build the house of God, which [is] in Jerusalem.' (Ezra 5.2)

Syndetic constructions with motion verbs occur as well; these are typologically close to the following type represented in

(10) and (11), to wit, syndetic serial-verb constructions. First is a Gəʿəz example of pseudo-coordination with a motion verb, ʾaqdāmku ‘I preceded’, which in English is best rendered by an adverb (10).

(10) Pseudo-coordination with a motion verb (cf. Rubin 2005, 33)

ʾaqdāmku wa-nägärku-kämu

precede.PF.1SG and-tell.PF.1SG-2PL.M

‘I told you beforehand.’ (1 Thess. 3.4) (Gəʿəz)

The Norwegian example (5) cited above and repeated below (11), in which ‘remaining standing’ and ‘waiting’ are also syntactically parallel (on the same level), likewise belongs to the category of pseudo-coordination. On the semantic level, however, we observe subordination in this case (‘standing’ and ‘waiting’ are not on the same level).

(11) Pseudo-coordination in Norwegian (finite verb form joined with an infinitive)

De ble stående og vente

3PL become.PRET stand.PRES.PART and wait.INF

‘They remained standing, waiting.’ (cf. Lødrup 2002, 138)

2.2.2. Syndetic Serial-verb Constructions

Closely related to the previous type are serial-verb constructions sometimes referred to a ‘verbal *hendiadys*’ (cf., most recently, Andrason 2019), in which the first semantically bleached or grammaticalised verb is again best rendered by an adverb in European languages. The prototypical case here is to do something again, as expressed by the verbs $\eta\text{p}^{\prime}\eta$ *way-yōsēp* ‘and he added’ and *atūr*

‘I returned’ in Biblical Hebrew and Akkadian, respectively, as in the following two examples.

- (12) Syndetic serial-verb constructions in Biblical Hebrew

וַיִּסַּף אַבְרָהָם וַיִּקַּח אִשָּׁה

way-yōseḫ ʾabrāhām way-yiqqaḥ ʾiššā

and-add.PRET.3SG.M Abraham and-take.PRET.3SG.M wife

‘And Abraham took once again a wife.’ (Gen. 25.1)

- (13) Syndetic serial-verb constructions in Akkadian (cf. Huehnergard 2005, 125)

atūr-ma wardam ana bēli-ya aṭrud

return.PRET.1SG-and slave.ACC to lord.GEN-1SG send.PRET.1SG

‘I sent the slave to my lord again.’ (Akkadian)

2.2.3 Asyndetic Serial-verb Constructions

Asyndetic serial-verb constructions also occur in more recent registers of Arabic. Alongside the already encountered verb *rigi*^c ‘he returned’ one finds the ingressive verb *qāmū* ‘they began’, as in the following two examples.

- (14) Asyndetic serial-verb construction in Middle Arabic (cf. Versteegh 2009, 196)

qāmū taqātalū

get_up.PF.3PL.M fight.PF.3PL.M

‘They began to fight with each other.’

- (15) Asyndetic serial-verb construction in Cairene Arabic (cf. Woidich 2002, 128)

rigi^c hirib tāni

return.PF.3SG.M flee.PF.3SG.M second.time

‘He fled a second time.’ (Cairene Arabic)

2.2.4. Syndetic Converb(-like) Constructions

In the following two examples, the two converb-like constructions *ka-hārīm-i* ‘as my lifting’ (Biblical Hebrew) and *pʿl ʾnk* ‘my making’ (Phoenician), i.e., infinitives followed by either an enclitic pronominal suffix or an independent pronoun—from a Semitic perspective, this is the underlying structure of converbs—are followed by a finite verb (cf. also Lipiński 2010). Even though the semantics of the resulting construction are of a subordinating character, the syntax is basically coordinating; hence the categorisation as pseudo-coordination.

- (16) Syndetic converb(-like) construction in Biblical Hebrew (cf. Lipiński 2001, 427)

וַיְהִי כִּבְרִימִי קוֹלִי וְאָקְרָא

wa-yhī ka-hārīm-i qōl-i wā-ʾεqrā

and-be.PRET.3SG.M as-lift.INF-1SG voice-1SG and-cry.PRET.1SG

‘Lifting up my voice I cried.’ (Gen. 39.18)

- (17) Syndetic converb(-like) construction in Phoenician (cf. Lipiński 2001, 427)

pʿl ʾnk ... l-rbt-y ... w-šmʿ ql

make.INF 1SG ... to-lady-1SG ... and-hear.PF.3SG.F voice(-1SG)

‘I having made (this) ... for my Lady ..., she heard my voice.’

2.2.5. Asyndetic Converb Constructions

We now turn to the opposite scenario, pseudo-subordination, in which one constituent appears in a typically subordinate state (converb/gerund or infinitive), even though the semantics of the resulting construction are more of a coordinating character (as

stated previously, borderline cases to simple [normal] subordination nevertheless exist). Amharic makes use of converbs in the expression of semantically coordinated chains of events (for an in-depth analysis, cf. Meyer 2012).

The fact that the events expressed by converbs in (18), *ṭärtāw* ‘having called (PL)’ and *täsaffərāw* ‘having gotten in (PL)’, precede the final event expressed by a finite verb, *yəḍärsallu* ‘they arrive’, does not necessarily make the non-final events semantically subordinate.

(18) Asyndetic converb construction in Amharic (cf. Appleyard 1995; Edzard 2014)

taksi ṭärtāw täsaffərāw kǎ-ṭǎqit gize bǎ-hʷala

taxi call.CV.B.3PL get_in.CV.B.3PL of-little time after

mǎgǎb bet yəḍärsallu

food house arrive.IPF.3PL

‘They call a taxi, get in, and after a while they arrive at the restaurant.’ (‘having called, a taxi, having gotten in,...’)

The same holds for (19), even though *gǎbto* ‘coming in’ is reminiscent of a motion verb. However, no semantic bleaching or grammaticalisation takes place in this case.

(19) Asyndetic converb construction in Amharic

gǎbto tāqǎmmätǎ

come_in.CV.B.3SG.M sit_down.PF.3SG.M

‘he came in and sat down’ (‘his coming in, he sat down’)

In other cases, e.g., (20), true subordination obtains (here indicating manner).

(20) Asyndetic converb construction in Amharic

ləǧ-u roto gäbba

child-DEF run.CVB.3SG.M come_in.PF.3SG.M

‘the boy came in running’ (‘the boy his running he came’)

In other languages, e.g., Turkish, true subordination can be observed in similar constructions, as in (21). Here, the first event clearly conditions the occurrence of the second event.

(21) Asyndetic converb construction in Turkish (cf. Johanson 1995, 313)

Ali gel-ince Osman şaşır-d-ı

Ali come-CVB Osman be_surprised-TRM.PST-3SG

‘When Ali came, Osman was surprised.’

2.2.6. Syndetic Constructions Consisting of Finite VPs and Infinitives

We turn now to the origin of our paper, i.e., the phenomenon of syndetic constructions consisting of finite VPs and infinitives. These are also subsumed under the category pseudo-subordination. While an infinitive usually marks a semantically subordinated event, in the following examples the events mostly occur on the same semantic level. A possible explanation, suggested by several of the cited authors, is that once the tense/aspect of the first event is firmly established by a finite verb form, the relevant morphological information can be ‘economised’ in a subsequent verb form, leaving a blank infinitive. Here follow examples, some of which were already introduced at the outset of this paper, in the languages Phoenician, Safaitic (old Northern Arabic), Sabaic,

and Biblical Hebrew (cf. also Rubinstein 1952; Huesman 1956; and Morrison 2013).

- (22) Phoenician (finite verb form joined with an infinitive) (cf. Hackett 2013)

wa-šibbirti/šabartī milišim wa-taroq ʿanokī kull
 and-break.PRF.1SG villain.PL and-uproot.INF 1SG all

ha-raʿ

DEF-evil

‘And I shattered the villains and uprooted all the evil.’ (cf. Hackett 2013)

- (23) Safaitic (finite verb form joined with an infinitive) (cf. Al-Jallad 2015, 182)

rʿy h-rmḥ bql w kmʿt
 pasture.PRF.3SG.M DEF-camel.COL herbage and gather_truffles.INF

‘He pastured the camels on spring herbage and gathered truffles.’

- (24) Safaitic (finite verb form joined with an infinitive) (cf. Al-Jallad 2015, 182)

w wrd f nyt (b-)ʿmtn
 and go_to_water.PF.3SG.M and migrate.INF (in-)Libra

‘And he went to the water, and then migrated when the sun was in Libra.’

- (25) Sabaic (finite verb form joined with an infinitive) (cf. Nebes 1988, 54)

w-yʿttmw w-tqdm w-rtḏḥn
 and-regroup.PRET.3PL.M and-advance.INF and-engage_in_battle.INF

‘And they [the Sabeans] regrouped, came to a confrontation, and joined in battle.’

- (26) Biblical Hebrew (finite verb form joined with an infinitive)

הַנִּגְלָה נִגְלִיתִי אֶל־בֵּית אָבִיךָ בְּהִיוֹתְם בְּמִצְרַיִם לְבֵית פְּרַעֲוֹה: וּבָחַר אֹתוֹ מִכָּל־
שְׁבֹטֵי יִשְׂרָאֵל...
שְׁבֹטֵי יִשְׂרָאֵל

hă-niḡlō *niḡlētī* *ʿel bēt* *ʿābī-kā*

INT-be_revealed.INF.ABS be_revealed.PF.1SG to house.CS father.CS-2SG.M

bi-hyōt-ām *bə-miṣrayim la-bēt* *parʿō*

in-be.INF.CS-3PL.M in-Egypt for-house.CS Pharaoh

u-bāhōr *ʿōt-ō* *mik-kāl šibṭē* *yisrāʿēl*

CONJ-choose.INF.ABS OBJ-3SG.M from-all tribe.PL.CS Israel

‘Did I not clearly reveal myself to your ancestor’s family when they were in Egypt under Pharaoh? And did I not choose him from all the tribes of Israel...’ (1 Sam. 2.27b–28a) (cf. Morrison 2013, 267)

- (27) Biblical Hebrew (finite verb form joined with an infinitive)

זָרַעְתֶּם הַרְבֵּה וְהָבָא מְעֻט

zaraʿtem *harbē wə-hābē* *məʿāṭ*

sow.PF.2PL.M much and-harvest.INF.ABS little

‘You have sown much but harvested little.’ (Hag. 1.6) (cf. Morrison 2013, 267)

- (28) Biblical Hebrew (finite verb form joined with an infinitive)

כִּי־צִמַּמְתֶּם וְסָפַדְתֶּם

kī *šamtēm* *wə-sāpōd*

CONJ fast.PF.2PL.M and-mourn.INF.ABS

‘When you fasted and mourned.’ (Zech. 7.5) (cf. Morrison 2013, 267)

In some of these examples, e.g., in Phoenician (22) and Biblical Hebrew (28), the events occur strictly on the same level. In other examples, the final event (expressed by an infinitive) is indeed

the end of a chain of actions, without, however, engendering the subordination of the previous events. Therefore, the labelling pseudo-subordination is perfectly justified.

- (29) Biblical Hebrew (imperfective finite verb form joined with an infinitive)

וְכִי־תִמְכְּרוּ מִמְכָּר לְעַמִּיתְךָ אוֹ קָנָה מִיַּד עַמִּיתְךָ אֶל־תֹּנֶנּוּ אִישׁ אֶת־אָחִיו׃
wə-kī-timkərū mimkār la-‘āmīte-kā ’ō

and-CONJ-buy.IPF-2PL.M sale for-fellow.CS-2SG.M or

qānō miy-yad ‘āmīte-kā ’al

buy.INF.ABS from-hand.CS fellow.CS-2SG.M not.PROH

tōnū ’iš ’et-’āhī-w

oppress.IPFV.2PL.M man ACC-brother.CS-3SG.M

‘And if you sell anything to your neighbour, or buy from your neighbour’s hand, you shall not wrong one another.’ (Lev. 25.14) (cf. Waltke and O’Connor 1990, 596)

- (30) Biblical Hebrew (jussive finite verb form joined with an infinitive)

יִבְקֹשׁוּ לְמַלְךְ נְעוּרוֹת בְּתוּלוֹת טוֹבוֹת מֶלֶךְ׃ ... וְנָתַן תְּמָרוֹקֵיהֶן׃
yəbaqšū la-meleḵ nə‘ārōt bəṭūlōt

search.JUSS.3PL.M for.DEF-king young_woman.PL virgin.PL

wə-nāṭōn tamrūqē-ḥen

and-give.INF.ABS ointment.PL.CS-3PL.F

‘Let there be sought for the king young virgins fair to look on... and let their ointments be given to them.’ (Est. 2.2–3) (cf. Waltke and O’Connor 1990, 596)

Comparable examples of pseudo-subordination of consecutive verb forms, participles, and infinitives construct with an infinitive absolute exist as well, e.g., in the case of a mixture of infinitives and participles.

(31) Biblical Hebrew (participle joined with an infinitive)

...בִּי־כָתוּב אֲשֶׁר־נִכְתָּב בְּשֵׁם־הַמֶּלֶךְ וְנִהְיָתָם בְּטַבְעַת הַמֶּלֶךְ אִין לְהָשִׁיב:

kī kəṭāḇ ʾāšer niḱtāḇ bə-šēm

CONJ document REL write.PTCP.PASS in-name.CS

ham-melek wə-niḥtōm bə-ṭabbaʿat ham-melek

DEF-king and-seal.PASS.INF.ABS in-ring.CS DEF-king

ʿēn lə-hāšīḇ

NEG to-overturn.INF.CS

‘...for no document written in the king’s name and sealed with his ring can be revoked.’ (Est. 8.8) (cf. Waltke and O’Connor 1990, 597)

2.3. Typological Considerations

Interestingly, similar constructions are also found in other language families, e.g., in totally unrelated Swahili, thus pointing to a typologically widespread feature. Again, the events in the following three examples (Nadine Bayer, personal communication; cf. also Schadeberg 2010) all occur on the same level.

(32) Swahili (finite verb form joined with an infinitive)

wa-na-andika na ku-soma

3PL-PRS-write and INF-read

‘They write and read.’ (cf. Erickson and Gustafsson 1984)

- (33) Swahili (finite verb form joined with an infinitive)

mi-mea i-me-kauka na ku-haribika

NC4-plant CL4-PRF-dry_out and INF-get_damaged

‘The plants are dried out and got damaged.’

- (34) Swahili (finite verb form joined with an infinitive)

A-na-tu-tembelea ma-shamba-ni na ku-tu-shauri

3SG-PRS-1PL-visit NC6-field-LOC and INF-1PL-give_advice

‘He visited us on the fields and gave us advice.’

3.0. Conclusion

In section 2 of this paper we have provided numerous examples from Semitic languages of seeming mismatches involving coordination. The main issue in Semitic is that coordinated structures may appear *asyndetically*, i.e., *without* an intervening conjunction, and that seemingly subordinated structures may appear *with* an intervening conjunction, thus blurring the basic picture. We have applied Yuasa and Sadock’s (2002) modular syntax and semantics model, which allows a structure to be coordination at one level and subordination at the other, and vice versa. First, cases of pseudo-coordination were presented, and subsequently cases of pseudo-subordination, in the hope that the system is intuitive enough and the application meaningful.

It is often claimed (e.g., Andrason and Koo 2020, 8, 29), at least as regards the older Semitic languages, especially Akkadian and Northwest Semitic, that there is a linear grammaticalisation path of serialisation in Semitic from the late third millennium BCE up to the early first millennium CE. As a corollary of this paper, this impression is not necessarily confirmed, as already

Akkadian features clear cases of grammaticalised serial verbs. Equally, the specific combination of the infinitive absolute and finite verbs is already attested in Phoenician. Within Biblical Hebrew, however, the observation that this construction becomes more salient in Late Biblical Hebrew appears to be true.

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PARTS OF SPEECH IN BIBLICAL HEBREW TIME PHRASES: A COGNITIVE- STATISTICAL ANALYSIS

Cody Kingham

1.0. Cognitive-Statistical Approach

With the exception of a few small studies, phrasal time adverbials in Biblical Hebrew (BH) have received little systematic linguistic treatment.¹ The reason for this may be because simple phrase adverbials present no obvious challenges for the classical linguistic method. As the grammars reiterate, time adverbials are simply adverbs or noun phrases that optionally indicate time reference (GKC §118a; Waltke and O'Connor 1990, §10.2a; van der Merwe, Naudé, and Kroeze 2017, §33.1). But this simple description leaves many unanswered questions, among them: *What qualifies as an adverb or noun? How do adverb-headed time phrases differ*

¹ See, though, the important work of van der Merwe (1997). There have also been numerous studies dedicated to individual lexemes or to temporal clauses (כִּי 'for/when', עַתָּה 'now'). There have also been two large exegetical studies on time phrases: DeVries (1975) and Brin (2001). This study focuses instead on time adverbials as a broader linguistic phenomenon. See also Lyavdansky (2010); Barr (2005); Niccacci (2013); Locatell (2017).

*semantically from noun-headed phrases? How are noun phrases utilised within the time adverbial function?*²

These questions are not trivial, but go to the very foundation of grammatical inquiry. In recent years, Hebrew linguists have become more interested in foundational questions (e.g., Forbes 2009; Miller-Naudé and Naudé 2017). The interest parallels a sea change in general linguistics, largely driven by new challenges from the cognitive linguistic perspective (Geeraerts 2010; Scholz, Pelletier, and Pullum 2011). At the same time, advancements in machine learning and brain imaging seem to corroborate cognitivist claims that language categories are learned rather than innate (Perek and Goldberg 2017; Fedorenko et al. 2020). This calls into question the degree to which *a priori* categories can be assumed within individual languages (Haspelmath 2007). In BH, linguists have long recognised that expected categories such as ‘noun’, ‘adjective’, and ‘adverb’ do not always fit (Waltke and O’Connor 1990, §39.3.1a; van der Merwe, Naudé, and Kroeze 2017, 380–81). Given the new advancements, BH categories like ‘noun’ and ‘adverb’ are ripe for fresh evaluation.

The cognitive approach provides an elegant and powerful explanation for the huge variety of forms observed across world languages. The simple human impetus to form categories around

² van der Merwe (1997, 49) asks similar questions:

Is there any difference in the syntax of non-temporal adjuncts and temporal adjuncts? Which BH constructions can function as temporal adjuncts? Apart from the above-mentioned semantic classes of temporal position, duration and frequency, are there other semantic classes or subclasses to be identified among temporal adjuncts?

observed data drives the creation of linguistic patterns. Language, then, is a cognitive tool for categorising the world (Geeraerts and Cuyckens 2012, §2). Humans connect categories built from experiential knowledge to linguistic sounds and signs (cf. Saussure).³ The concepts of prototypes ('best example'), family resemblance, and gradient categories are central to the structure of categories (Lakoff 1987, 41). As it turns out, these structures line up with quantitative patterns observed in the world. Long-tailed distributions (e.g., Zipf's Law) pervade natural, biological, and sociological systems and may drive the formation of prototypes (Ellis, O'Donnell, and Römer 2013, 31–33; Piantadosi 2014). Hebraists will recognise this distribution from lexeme frequencies: a handful of terms (e.g., -וּ 'and', -הַ 'the', אָמַר 'say') occur very frequently, whereas thousands of terms occur only once (*hapax legomena*). Language learners likely use the most frequent items, the prototypes, as reference points for analogically learning new categories.⁴

The link between statistical patterns and cognition opens the door to an empirical method for studying language categories (Stefanowitsch 2010). Probabilistic patterns in the world provide humans with training data, which they then re-externalise using language (Goldberg, Casenhiser, and Sethuraman 2004). Mental

³ I agree with Ellis, O'Donnell, and Römer (2013, 30): "We take the Saussurian (1916) view that the units of language are constructions—form-meaning mappings, conventionalized in the speech community, and entrenched as language knowledge in the learner's mind." For experiential categories see Lakoff (1987).

⁴ On similarity-based categorisation see Sloutsky et al. (2015).

associations between cognitive concepts thus give rise to statistical associations between language patterns.⁵ These associations appear most clearly in the phenomenon of co-occurrence, or collocation, between related constructions.⁶ For instance, מֶלֶךְ ‘king’ is statistically associated with צִוָּה ‘command’ in the Hebrew Bible.⁷ Conceptually this is due to the relatedness of the two terms with ‘authority’. Synonym relations can be identified by indexing which terms collocate with the same kinds of items; for example: רֶשֶׁת ‘prince’. This statistical concept has been successfully extended to grammatical constructions, further demonstrating that lexicon and syntax are not fundamentally distinct (Stefanowitsch and Gries 2003). The collocation principle also underlies a number of recent advancements in machine translation (see, for instance, Devlin et al. 2019).

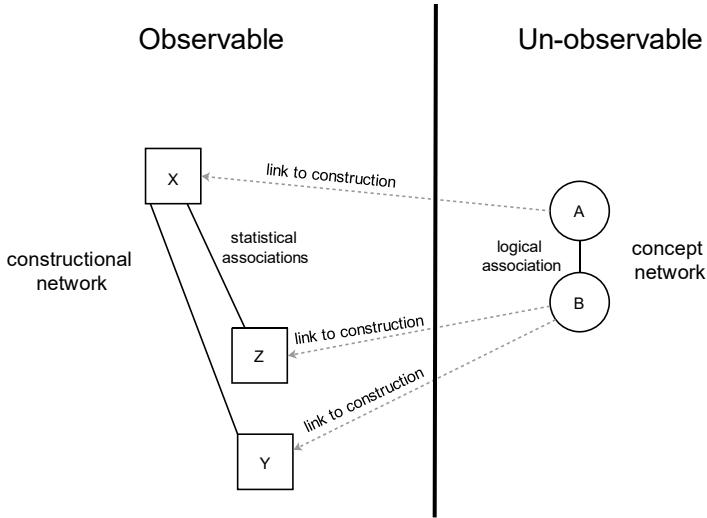
The cognitive-statistical approach I propose here aims to work backward from statistical associations towards hypothetical cognitive associations, as illustrated below.

⁵ Indeed, as noted above, these mental associations are learned from relationships observed in the world. Language thus represents a re-externalisation of semantic input.

⁶ Famously summarised by Firth (1962, 11) as “knowing a word by the company it keeps.”

⁷ Based on an ongoing analysis by this author: https://github.com/codykingham/noun_semantics/blob/master/analysis.ipynb.

Figure 1: Mutual relationship between linguistic, cognitive, and statistical data



The right side of the chart represents cognitive concepts which are ultimately stored in the minds of language users, while the left side represents externalised language in the form of words, phrases, etc. Mental concepts have logical associations which connect them (e.g., king is connected with ‘authority’; ‘leaves’ with ‘green’). However, the problem for linguists is that these concepts are inaccessible to empirical methods, and research has shown that introspective linguistic judgments can be inconsistent (see Schütze 2016). One solution is to recognise that the way constructions co-occur (‘statistical associations’) are motivated by the underlying cognitive concepts they are linked with.⁸ Thus, by identifying statistical associations between language construc-

⁸ These links may not be one-to-one (e.g., concept B > construction Z and Y).

tions, one can work backwards and begin to ask, *why is this statistical association here?* Cognitive linguistic theory can then provide hypotheses. In this way, the data serve as a more objective control for testing linguistic hypotheses (see Geeraerts 2010).

In BH, Forbes has pioneered data-driven models to study word classes, using unsupervised clustering algorithms to automatically group words based on their co-occurrences (Forbes 2005, 105–39; 2009). The approach yields promising results, with clear tendencies and recognisable groups. The methods of analysis for this study are different, but similarly reliant on the principle of collocation.

2.0. Dataset and Scientific Framework

The objective of this analysis is to measure the behaviour of words which head time adverbial phrases. What can powerful statistical tools tell us about the natural behaviour of such words? And do we find any evidence for parts of speech categories? To that end, the study requires a dataset that has wide coverage of the relevant linguistic features and is freely accessible for scholarly scrutiny. Data-driven research is not theory neutral, nor is it immune to bias (equally true in the natural sciences; see Kuhn 2000). Rather, scientific research aims to make its assumptions clear, gather and measure data methodically, test the assumptions against the data, and make the results available for public scrutiny.⁹ Any data-driven study that does not make its full dataset available does little to advance the field.

⁹ This is the process known as ‘operationalisation’ and is the ‘secret’ to the success of the natural sciences; see Stefanowitsch (2010, 358–61).

The open-sourced BHS of the Eep Talstra Centre for Bible and Computer (ETCBC) meets the proposed criteria (Roorda et al. 2019). The BHS is accessed using Python and a corpus analysis package, Text-Fabric (Roorda 2017). It contains annotations for phrases interpreted to indicate adverbial time modification, with coverage for the whole of BHS. The ETCBC has made the annotations over a forty-plus year history (Oosting 2016, 192–209; Kingham and Van Peursen 2018). As with any dataset, BHS represents only one interpretation. It also has a few shortcomings. The analysis is based only on *qere* forms. Furthermore, relations below the phrase level are not always reliable, and there exists no tagging to explicitly indicate headship. For this reason, phrases must be pre-processed using a custom-built parser to isolate the necessary relations.¹⁰

It is important to note that the retrieval and tagging of large quantities of text always assumes a trade-off between precision and recall, i.e., a ratio of good or missed matches (Stefanowitsch 2020, 111–16). Realistically, large-scale studies require a compromise between perfection and coverage (Stefanowitsch 2020, 113). Especially with the parsing of internal phrase relations, edge cases may remain in this study's sample. The remedy is good exploratory data analysis. Results should not be treated as a black

¹⁰ This is done using a custom Python parser which works within the existing phrase segmentation of the BHS. Where the phrase segmentations are deficient, they are modified. For the parser, see the project repository at https://github.com/CambridgeSemiticsLab/BH_time_collocations/blob/master/data/cxs/phrase_grammar.py.

box, but carefully examined in connection with the actual underlying data. The datasets, along with all the code for the analysis, are published online for scrutiny.¹¹

The primary dataset is a subset of all phrases in the Hebrew Bible stored in the BHSA. The entire BHSA contains 4,041 phrases marked for adverbial time function in a clause. Many of the phrases contain embedded sub-phrases that are not always well-marked. To ensure accuracy, the set is pruned down to a group of shorter, simple phrases. The resulting dataset contains 3,442 phrases that are parsed for head words and modifiers using a generally semantic definition.¹² A test to see whether the subsampled phrases negatively affected any particular book's representation showed no significant effects.¹³

¹¹ The whole project is archived at the following reference. For this article, data is stored in the various directories under the heading 'advb_article'. The datasets and production script can be found at data/advb_article (see function_data.csv and generate_function_data.ipynb). The parsers can be found under /tools/cx_analysis and data/cxs. The principal analysis code is under results/notebooks/advb_article. Figures are under results/figures. The directory results/spreadsheets/advb_article includes the PCA values for the part of speech analysis. The whole directory requires a virtual python environment with /tools appended to the Python namespace. The file requirements.txt provides the necessary prerequisites; see Kingham (2020).

¹² I used Croft's (2001, 257–59) notion of semantic headship as a general guide. Objects of prepositions are the semantic heads of prepositional phrases. Quantifiers including כֹּל 'all' are excluded as heads if they modify a word.

¹³ A measure called deviation of proportions (Gries 2008, 415–19) was used to compare the sampled distribution by book against the whole

Table 1: Time Adverbial phrase function frequencies and proportion of selected samples versus BHSA¹⁴

	Time
BHSA frequency	4041
sample frequency	3442
sample proportion	0.85

Throughout the study, I refer to the phrase label ‘Time’ in reference to the samples rather than the actual linguistic category. Thus, I do not assume a fully one-to-one correspondence. The tagged phrases can be viewed as tools of analysis that help to approach the object of study. This is on analogy with other scientific objects of measurement (e.g., a ruler, or a scale) which approximate rather than exhaust reality (Stefanowitsch 2010, 358–61). Alternatively the phrases and tags can be viewed as a hypothesis (one interpretation) in need of testing.

For each of the sampled Time phrases, nine types of modifiers are tagged when found modifying the head: plural endings, pronominal suffixes, definite articles,¹⁵ construct relations (called

dataset. The most affected books are Deut. (3 percent total deviation), Ps. (3 percent), 2 Chron. (2 percent), Isa. (2 percent), and Job (2 percent).

¹⁴ Throughout the study, I refer to proportions out of 1, which can be converted to percentages by multiplying them by 100. This is standard practice in statistical reporting; see Levshina (2015, 70–71).

¹⁵ This includes articles reflected only in the vocalised text of BHS.

‘genitive’ here¹⁶), demonstratives or ordinals, cardinal quantifiers, and other quantifiers (e.g., לָל).¹⁷ Another label, ‘Ø’, indicates no modifying specification of the headword except for the allowance of prepositions. I justify the choice of these modifiers more fully in the linguistic section. But, in brief, these modifiers are hypothesised to modify or select various attributes of a ‘noun concept’ (to be explained). Thus, the working theory here is that a higher degree of modification by nominal modifiers will indicate how noun-like a given lexeme is.

The tagged modifiers and their respective frequencies with Time are shown below; modifiers can, of course, co-occur.

Table 2: Collocational frequencies between Time head and nominal modifiers

cardinal	definite	demonstrative	genitive	ordinal	plural	quantifier	suffix	Ø
411	1331	493	426	162	569	212	103	1148

¹⁶ In this case the modifier term is the *nomen rectum*, or trailing term in a construct chain, rather than the head which is morphologically marked as construct. For this reason, the term ‘genitive’ is used. The BHSA dataset includes constructs indicated via the accents or context.

¹⁷ The attributive adjunct construction involving the definite article, i.e., -הַ + word + -הַ + adjunct, is also tagged separately. But since that construction itself involves definite modification, it is excluded from this study. The simple adjunct construction of word + adjunct is not yet tagged due to existing limitations in the dataset. In the BHSA, these relations are tagged as so-called ‘subphrase relations’; but subphrase relations suffer from a number of problems and inadequacies making them unreliable. In the case of time adverbials, it seems (based on previous analyses) that adjectival elements play a lesser role in the semantics of time. Nevertheless, in the future it would be better to include these modifiers in the dataset.

A separate table is compiled which tabulates how frequently a given lexeme occurs with a given modifier. Words with a sample size <5 are dropped to ensure enough data is present for a reliable analysis. The resulting table contains 41 lexemes. It will be clear in the experimental results which lexemes are included, but the table below gives some preliminary impression, containing common words like יום ‘day’ and עתה ‘now’.

Table 3: Excerpt of Time head × modifier co-occurrence matrix (original: 41×9)

Using the Pandas Python package and a spreadsheet of individual observations, a tabulation is compiled which counts how frequently a given head word lexeme is used with a given modifier type. The result is a table with 41 rows and 9 columns (not including the ‘head’ column), containing a total of 369 data points. The excerpt below shows the first three rows of that table.

head	cardinal	definite	demonstrative	genitive	ordinal	plural	quantifier	suffix	∅
יום	165	819	383	279	108	384	171	41	9
שָׁנָה	188	42	7	22	25	82	4	2	0
עֵתָהּ	0	0	2	0	0	0	0	0	354
...

This dataset contains 369 individual data points (41 rows by 9 columns). We need a method that can ingest the data and identify tendencies and patterns in it. One might imagine the task of a biologist, who collects samples of butterflies, and groups them together based on their shared features. When the number of features and samples becomes quite large, it is helpful to approach the problem mathematically. Imagine, then, a sheet of paper with a horizontal and vertical line drawn down the middle (Cartesian plane). The lines separate the paper into four corners, or quad-

rants. Then, we select those features that tend to be most distinctive of particular groups and assign them to one of the four quadrants. For each sample in our dataset (e.g., butterflies or words) we place a dot in the quadrant which most strongly matches the sample's own tendencies. So, a sample in the very corner of the paper would represent a case that is strongly aligned with the features we assigned to that quadrant, whereas a sample closer to the centre represents a case with no strong tendencies.

The method described above is a strategy used in statistics for clustering samples. In the illustration, we have four corners. But remember that our dataset contains nine features, the modifiers. How exactly should each feature come to be associated with a given corner? What weight should each feature have on placement on the sheet? In statistics this problem is solved using what is called 'dimensionality reduction'. In the case of this dataset, each of the nine features represents a dimension. But we need to somehow compress those nine features into a two-by-two space, so as to know which quadrant should be associated with what and therefore achieve useful clusters. Rather than manually (and subjectively) deciding which features influence placement in the space, we can use an unsupervised clustering method. Principal Component Analysis (PCA) is one such method, which mathematically isolates those features that produce the greatest separation amongst the various samples (Rokhlin, Szlam, and Tygert 2010; Pedregosa et al. 2011). To return to the previous analogy, imagine that 50 percent of the butterflies have eye-shaped patterns on their wings, while 50 percent have stripes. In this case, the sharp divide along 'wing pattern' might lead to that feature

being heavily weighted in the PCA model, so that butterflies with stripes are placed on one side of the ‘paper’, with those with eyes on the other side. The power of PCA is that several discriminative features can ‘cooperate’ together simultaneously. So, for example, ‘wing pattern’ combined with ‘proboscis length’ might yield stronger separation than ‘wing pattern’ by itself. Using methods from Linear Algebra, PCA is able to isolate such patterns.¹⁸

PCA is well-suited for investigating parts of speech in time adverbials, a semantic function which is known to display mixed behaviour with respect to word class. We will apply the same approach to the time adverbial dataset. The model not only allows us to ask, *what clusters exist in the dataset?* but also, *which features are most distinctive of particular groups?* Afterwards, we shall ask the question of *why?*

3.0. Statistical Analysis

The first part of this section details the results of the PCA experiment. The second half consists of digging into the results by looking at individual examples and texts. Afterwards, we ask what these results mean for the discussion on parts of speech.

The analysis begins by normalising the raw frequency data contained in Table 3 (above) as a proportion of a given Time head’s total observed modifiers.¹⁹ A proportion is simply a decimal that can be read as a percentage when multiplied by 100.

¹⁸ For a mathematical description, see Abdi and Williams (2010).

¹⁹ Normalisation involves adjusting the counts so that they are comparable. For instance, some words occur very frequently and, therefore, have high co-occurrence counts, while others are comparatively rare. A

Table 4: Excerpt of Time head × modifier proportion matrix (original: 41×9)

The data from Table 3, containing the raw co-occurrence frequencies, are converted to a table containing proportions using a Pandas sum (across rows) and divide operation (across columns). The resulting decimal values across each row sum to 1, which corresponds with 100 percent of a given lexeme's attested modifiers. For example, the 'cardinal' feature with יום comprises 0.07 in 1 of all the modifiers observed with יום, or 7 percent.

head	cardinal	definite	demonstrative	genitive	ordinal	plural	quantifier	suffix	∅
יום	0.07	0.35	0.16	0.12	0.05	0.16	0.07	0.02	0.0
שָׁנָה	0.51	0.11	0.02	0.06	0.07	0.22	0.01	0.01	0.0
עֵתָהּ	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.99

It is worth pointing out that some of these modifiers co-occur in the same phrase. For instance, the phrase, בַּיּוֹם הַהוּא 'on that day (literally 'in the day the that')' contains two separate modifiers: the definite article and the demonstrative. Each of these modifiers is counted as an individual instance of modification, each adding +1 to their raw frequencies in Table 3 (above). Another approach might count this combination separately, as a 'definite + demonstrative' pattern. This approach would identify whole constructions which are associated with particular Time heads, an interesting experiment in its own right. On the other hand, counting each modification separately can be seen as a measurement of compatibility between a given lexeme and modifier. There is theoretical warrant for this choice—we want to test the degree to which each of the modifiers alters or selects various aspects of a word's meaning and, by extension, determine which

common method is to take a percentage of a sample's overall frequency, here the decimal proportion, i.e., the percentage divided by 100.

aspects are most relevant. From this point of view, a value in Table 4 represents the proportion that one modifier comprises of a lexeme's total attested 'modifiability'.

The unabridged data from Table 4 are fed for analysis into the PCA algorithm, which identifies which features and feature combinations produce the strongest separations in the dataset. The resulting graphs (Figure 2, below) should be interpreted with respect to space, where closer samples are more closely related based on input features. The placement of each sample is similar to the butterfly and paper illustration given in the previous section. Location near an edge represents strong tendencies; location near the centre represents weaker tendencies. The left-hand graph plots the samples using parts of speech from the database and lexicon (subs = noun, inrg = interrogative, adjv = adjective, advb = adverb); this plot shows how the classical parts of speech compare with their PCA classification.²⁰ The right-hand plot shows the samples as Hebrew text. The blue arrows show which features have influenced each lexeme's placement on the graph, with longer arrows indicating stronger influence.²¹ Table 5 contains average proportions of lexemes with a nominal modifier versus without one based on the samples' placement in the PCA graphs. It shows, for instance, that the words to the left of $x = 0$ are used with null modification (\emptyset) 96 percent of the time.

²⁰ The lexicon parts of speech values come from the BHSA's 'sp' feature, which is derived from Köhler and Baumgartner (1958). The respective abbreviated values are substantive, interrogative, adjective, and adverb.

²¹ These are the loading scores, which are the *eigen vectors* \times $\sqrt{\textit{eigen values}}$ following the discussion of ttnphs, 29 March 2015.

The PCA graph reveals a clear separation of terms along a gradient.

Table 5: Mean proportions for null (\emptyset) versus nominal modifiers by placement along x-axis

	\emptyset	nominal
x < 0	0.96	0.04
x > 0	0.04	0.96

Table 5 shows that terms to the right of 0 occur with a nominal modifier on average 96 percent of the time, and on the left of 0 with null modification also with 96 percent on average. This reflects the strong tendencies seen visually in the graph. In cognitive terms, the items on the extreme ends of the plot represent potential prototypes. The separation confirms the intuition that Time adverbial heads exhibit a broadly binary tendency between nouns and adverbs.

In order to determine which features have influenced the model most strongly, we can look at the loading scores (indicated by the blue arrows). One might imagine these various values as measurements of ‘pressure’, pushing the samples into different directions. The features which exert the most ‘pressure’ in a given direction, combined with how often a word occurs with said feature, end up determining the word’s placement on the graph. The ‘amount of pressure’ in actuality corresponds to the separation (variance) a given feature accounts for in the dataset, so that fea-

tures with more discriminatory power are ‘weighted’ more heavily.²² The X (horizontal) and Y (vertical) values of the loading scores are provided below in descending order:

Table 6: PCA Loading Scores (rounded to two decimal places)

	cardinal	definite	demon- strative	genitive	ordinal	plural	quantifier	suffix	∅
horizontal (X)	0.05	0.17	0.03	0.08	0.01	0.08	0.01	0.05	-0.48
vertical (Y)	0.0	0.21	0.02	-0.05	0.0	-0.13	0.0	-0.08	0.04

For example, the definite feature exhibits positive values for both horizontal and vertical axes (0.17 and 0.21, respectively). Therefore, words which frequently occur with definite articles will tend to be pushed toward the upper right-hand corner of the graph.

Null modification (∅) is by far the strongest contributor to the separation (see also the length of its arrow), pushing samples associated with it to the left on the horizontal axis (X loading is -0.48).²³ The result is a tight cluster of lexemes which often correspond to prototypical adverbs, yet with several interesting cases. These lexemes and their proportional tendencies are noted below.

²² This is a crude description of PCA, but gets the point across. Abdi and Williams (2010) present a more precise mathematical description.

²³ The loading score includes direction from the eigen vector and magnitude from the eigen value. The ∅ modifier has a PC1 (x-axis) of -4.8 and PC2 (y-axis) of 3.9. The line is drawn from origin to this point.

Table 7: Adverb-like lexeme cluster (PC1 < 0) (with modification proportions per lexeme shown across rows; each row sums to 1, i.e., 100 percent)

lexeme	cardinal	definite	demonstrative	genitive	ordinal	plural	quantifier	suffix	∅
עַתָּה	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.99
עוֹלָם	0.0	0.02	0.0	0.01	0.0	0.03	0.0	0.0	0.95
אָז	0.0	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.99
תָּמִיד	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
כֵּן	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
מָחָר	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
אַחַר	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
נֶצַח	0.0	0.0	0.0	0.04	0.0	0.0	0.0	0.0	0.96
מְחֻרָת	0.0	0.04	0.0	0.19	0.0	0.0	0.0	0.0	0.77
מִתִּי	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
יֻזְמָם	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
עַד	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
שְׁלֹשִׁים	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
אָן	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
תָּמוּל	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
טָרָם	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
רְגַע	0.14	0.0	0.0	0.0	0.0	0.14	0.29	0.0	0.43
הִנֵּה	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
אַתְמוּל	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0

Note that the ∅ column contains the largest proportions; for example, 99 percent (0.99) of עַתָּה ‘now’, 95 percent of עוֹלָם ‘forever’, and 99 percent of אָז ‘then’ go unmodified. Several ∅ values are at 100 percent (תָּמִיד ‘continuously’, כֵּן ‘thus’, מָחָר ‘tomorrow’, etc.). The words in the sample are certainly semantically diverse. Deictic terms like מָחָר ‘tomorrow’ communicate positions in time, while terms like תָּמִיד indicate durations of time. Interrogative particles are also included (אָן ‘where/when’ and מִתִּי ‘when’).

These differences will be touched on briefly in the linguistic section. Of special note are those lexemes which some lexicons consider nouns, namely עולם 'forever', מחרת 'next day', and רגע 'moment' (see Clines 2009, 315, 216, 414). These cases will be dealt with individually below. For now, it is important to note that the effect of rarely modifying a word sharply distinguishes it from other terms.

The other side of the graph contains lexemes broadly considered to be nouns. The placement of these terms has been defined primarily by the frequent presence of some form of modification. There are notably two subcategories of 'nouns' indicated in the graph: those frequently modified by definite articles and demonstratives versus those modified by genitives, plurals, and suffixes. This is a meaningful separation between more-singular and more-plural items. The two groups will be now be described.

The group modified by definite articles and demonstratives is pushed into the upper right-hand corner of the plot. Definiteness is the second strongest influence on the model. The cluster and its modification proportions per lexeme is shown below.

Table 8: Noun-like lexeme cluster with strong definite/demonstrative influence (PC1 > 0, PC2 > 0) (with modification proportions per lexeme shown across rows; each row sums to 1, i.e., 100 percent)

lexeme	cardinal	definite	demonstrative	genitive	ordinal	plural	quantifier	suffix	∅
יום	0.07	0.35	0.16	0.12	0.05	0.16	0.07	0.02	0.0
עת	0.0	0.36	0.29	0.21	0.0	0.03	0.05	0.04	0.02
לַיְלָה	0.01	0.47	0.11	0.0	0.0	0.03	0.11	0.0	0.27
בְּקָר	0.0	0.83	0.0	0.0	0.0	0.02	0.0	0.0	0.15
עָרֵב	0.11	0.85	0.0	0.0	0.01	0.0	0.0	0.0	0.03
דְּבָר	0.0	0.33	0.33	0.0	0.0	0.31	0.0	0.03	0.0
צְהָרִים	0.54	0.46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
רֵאשׁוֹן	0.0	0.94	0.0	0.0	0.0	0.0	0.0	0.0	0.06
מוֹעֵד	0.0	0.45	0.0	0.27	0.0	0.09	0.0	0.18	0.0
פְּעַם	0.0	0.5	0.38	0.0	0.12	0.0	0.0	0.0	0.0
תְּחִלָּה	0.0	0.4	0.0	0.6	0.0	0.0	0.0	0.0	0.0
שַׁבָּת	0.0	0.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0

Note that diverse modifiers are indeed *compatible* with these words, but there is a clear trend in this group to be modified more often by the definite article. The cooperation with the demonstrative (see blue arrows in) may be explained by the attributive adjunct construction with *-הַ*, so הַיּוֹם הַזֶּה.²⁴ See also that the important time word יום ‘day’ has the definite article as a lower proportion (35 percent) of its total modification compared with the rest of the cluster. This aligns with its intermediate placement in the graph with respect to the two noun sub-clusters.

The second noun-like cluster is primarily influenced by plural modifiers, genitive (construct), and suffixes.

²⁴ E.g., Gen. 7.11; Deut. 3.14; Josh. 20.6; 1 Sam. 7.6; 2 Sam. 3.38; 2 Kgs 20.1; Isa. 28.5; Ezek. 39.11; Zech. 13.4; 2 Chron. 35.16.

Table 9: Noun-like lexeme cluster with plural, genitive, suffix (PC1 > 0, PC2 < 0) (shown with modification proportions across rows; each row sums to 1, i.e., 100 percent)

lexeme	cardinal	definite	demonstrative	genitive	ordinal	plural	quantifier	suffix	∅
שָׁנָה	0.51	0.11	0.02	0.06	0.07	0.22	0.01	0.01	0.0
חֹדֶשׁ	0.2	0.27	0.02	0.06	0.22	0.2	0.01	0.02	0.01
מָוֶת	0.0	0.0	0.0	0.63	0.0	0.0	0.0	0.37	0.0
פְּנָה	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
שְׁבוּעַ	0.38	0.15	0.0	0.0	0.0	0.31	0.08	0.08	0.0
דוֹר	0.0	0.0	0.0	0.17	0.0	0.42	0.0	0.33	0.08
נְעוּרִים	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.0
חַיִּים	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.0
עוֹד	0.0	0.0	0.0	0.64	0.0	0.0	0.0	0.36	0.0
יָרַח	0.2	0.0	0.0	0.6	0.0	0.2	0.0	0.0	0.0

In what way do these modifiers interact? Plurals and suffixes frequently co-occur in such constructions as נְעוּרֵיךָ ‘your youth’ or חַיָּיו ‘his life’, and לְדֹרֹתֵיכֶם ‘unto your generations’, all terms related to life cycles.²⁵ The PCA graph also places מָוֶת ‘death’ nearby, but on the basis of its co-occurrence with genitive modification. Typically, the genitive item is a person, as in אַחֲרַי אַבְרָהָם מוֹת אַבְרָהָם ‘after the death of Abraham’ (Gen. 25.11), עַד־מוֹת הַכֹּהֵן עַד־מוֹת אֲבִיהָ, ‘until the death of the high priest’ (Num. 35.25), וּבְמוֹת אָבִיהָ וְאִמָּהּ ‘and upon the death of her father and mother’ (Est. 2.7). There is a subtle similarity between these cases and the suffix group, in that both utilise modifiers to relate the life cycle term to a particular individual. Here we can see how the statistics and semantics are related. The meaning of the head words, in this

²⁵ E.g., Exod. 12.14, 17, 42; 40.15; Lev. 18.18; Judg. 16.30; 1 Sam. 17.33; 2 Sam. 18.18; 1 Kgs 18.12; Isa. 47.12, 15; Ezek. 23.3, 8; Ps. 49.19; 104.33; 146.2.

case life cycles with respect to person X, influence which modifiers they tend to take.

Summarising the three main groups, we can see that the model successfully distinguishes subtle semantic tendencies on a broad scale by identifying distinctive behaviours: modified versus non-modified, singular versus plural, and even life cycles with distinctive modifiers. The model may also show the shortcoming of traditional parts of speech. Diverse lexicon tags of noun (subs), interrogative particles (inrg), and adverbs (advb) are found grouped together in the ‘adverb’ cluster. The ‘noun’ side is also mixed, containing one adjective (ראשון ‘first’).²⁶ Secondly, several terms sit at intermediate positions along the x-axis, especially רגע ‘instant’, מחרת ‘next day’, and לילה ‘night’. And terms like עולם ‘forever’, which some lexicons consider nouns, are grouped with the adverbs.

4.0. Analysis of Select Words

In order to understand why the aforementioned words are classified in intermediate positions, we must look at their behaviour in context. For the intermediate words, text samples are retrieved and analysed below with an eye to their semantics.

Table 10 contains the full sample set for רגע, a relatively small set (n = 7). רגע is placed slightly on the ‘adverb’ side of the graph.

²⁶ In Modern Hebrew the distinction between adjectives and adverbs is blurry. A similar dynamic appears in BH. Ravid and Shlesinger (2000, 346).

Table 10: Sampled sentences for רָגַע

reference	modifier	sentence	translation
Num. 17.10	∅	וְאַכְלָה אֹתָם בְּרָגַע	I will destroy them instantly.
Isa. 54.8	∅	בְּשַׁצֵּף קֶזֶף הַסְתַּרְתִּי פָנַי רָגַע מִמֶּךָ	In a flood of anger I hid my face at an instant from you.
Ps. 73.19	∅	אֵיךְ הֵיוּ לְשִׁמָּה בְּרָגַע	How they are ruined instantly!
Exod. 33.5	cardinal	רָגַע אֶחָד אֲעֵלֶה בְּקֶרְבְּךָ	At a single instant I will come up in your midst.
Isa. 26.20	quantifier	חֲבִי כַמְעַט־רָגַע	Hide instantly! [lit. ‘in a short instant’]
Ezra 9.8	quantifier	כַּמְעַט־רָגַע הִיְתָה תְּחִנָּה מֵאֵת יְהוָה אֱלֹהֵינוּ	In just a short instant our supplica- tion is before YHWH our God.
Isa. 27.3	plural	לְרָגַעִים אֲשַׁקְּנָהּ	Continuously I watered it.

Three of the text examples are used without any kind of nominal modifier, three employ quantifiers, and one has a plural ending. Given the small sample size, we should withhold definitive judgments about this term. However, a number of observations are pertinent. Even though this word has a slight majority of nominal modifiers (4/7), the algorithm has situated it on the adverb side due to the stronger influence of the null feature. Another reason is the weaker influence of quantifiers. This is not just an accident of the PCA analysis; the feature weights are determined across the whole dataset by the degree, and thus predictive power, of their variability. Furthermore, an abstract word like ‘instant’ does not seem to fit the semantics of a prototypical noun.²⁷ The data thus tentatively indicate a term that sits somewhere on the border between a noun and adverb.

²⁷ As Croft (1990, 246) recognised with constructions like ‘day’ and ‘five times’.

מִחְרָת ‘next day’ appears 26 times in the sample. There are 20 cases of null modification and 6 cases of nominal modification. Note that 11 null cases not shown are identical to the first example with וַיְהִי.²⁸

Table 11: Sampled modifiers with מִחְרָת

cardinal	definite	demonstrative	genitive	ordinal	plural	quantifier	suffix	∅
0	1	0	5	0	0	0	0	20

Table 12: Selected samples of מִחְרָת

reference	modifier	sentence	translation
Gen. 19.34	∅	וַיְהִי מִמְחֲרָתָא	It was the subsequent day.
1 Sam. 5.4	∅	וַיִּשְׁכְּמוּ בַבֶּקֶר מִמְחֲרָתָא	He arose early on [the] next morning.
1 Sam. 5.3	∅	וַיִּשְׁכְּמוּ אֲשֶׁדוּדִים מִמְחֲרָתָא	The Ashdodites arose early [the] next day.
Judg. 6.38	∅	וַיִּשְׁכֶּם מִמְחֲרָתָא	He arose [the] next day.
Num. 17.6	∅	וַיִּלְנוּ כָּל־עֵדֻת בְּנֵי־יִשְׂרָאֵל מִמְחֲרָתָא עַל־מֹשֶׁה וְעַל־אַהֲרֹן	On [the] next day the whole assembly of Israel grumbled against Moses and Aaron.
Lev. 19.6	∅	בַּיּוֹם זִבְחֵכֶם יֹאכַל וּמִמְחֲרָתָא	On the day of your sacrifice it shall be eaten, and on [the] next day.
Exod. 32.6	∅	וַיִּשְׁלִימוּ מִמְחֲרָתָא	They arose on [the] next day.
Exod. 9.6	∅	וַיַּעַשׂ יְהוָה אֶת־הַדָּבָר הַזֶּה מִמְחֲרָתָא	YHWH did this very thing on [the] next day.
Josh. 5.12	∅	וַיִּשְׁבֹּת הַמָּן מִמְחֲרָתָא בְּאֹכְלֵם מִעֵבֹר הָאָרֶץ	The manna ceased on [the] next day when they ate from the land's yield.
Josh. 5.11	genitive	וַיֹּאכְלוּ מִעֵבֹר הָאָרֶץ מִמְחֲרָתָא הַפֶּסַח מִצֹּת וּקְלוֹי בַעֲצָם הַיּוֹם הַזֶּה׃	They ate unleavened bread and roasted meat from the land's yield on [the] day after the Passover, on that very day.
Lev. 23.11	genitive	מִמְחֲרָתָא הַשַּׁבָּת יִנַּפְנוּ הַכֹּהֵן׃	On [the] day after the Sabbath, the priest shall wave it.
1 Sam. 20.27	genitive	וַיְהִי מִמְחֲרָתָא הַחֹדֶשׁ הַשֵּׁנִי	It was on [the] day after the second month.

²⁸ Exod. 18.13; 32.30; Num. 17.23; Judg. 9.42, 21.4; 1 Sam. 11.11; 18.10; 31.8; 2 Kgs 8.15; Jer. 20.3; 1 Chron. 10.8.

Table 13: Selected samples of מִחֶרֶת (continued)

Lev. 23.16	genitive	עַד מִחֶרֶת הַשַּׁבָּת הַשְּׁבִיעִת תִּסְפְּרוּ חֲמִשִּׁים יָמִים	Up to [the] day after the seventh Sab- bath you shall count fifty days.
Jon. 4.7	definite	וַיִּמְן הָאֱלֹהִים תּוֹלַעַת בְּעֹלֹת הַשָּׁחַר לְמִחֶרֶת	God appointed a worm at the dawning of the next day.
1 Chron. 29.21	genitive	וַיַּעֲלוּ עֹלֹת לַיהוָה לְמִחֶרֶת ...הַיּוֹם הַהוּא פָּרִים אֲלֵף	On [the] day after that day they of- fered up as burnt offerings to YHWH a thousand bulls...

In 20 of 26 cases (77 percent), מִחֶרֶת appears without modification, reflecting behaviour similar to its lexical cousin מָחָר ‘tomorrow’ (100 percent Ø). There are six cases of explicit nominalisation: five construct relations and one (vocalic) definite article. Specifically, the construct cases construe מִחֶרֶת as a specific ‘next day’ after the Passover, Sabbath (2x), second month, and ‘that day’ (הַיּוֹם הַהוּא). The use with the (apparent²⁹) definite article, לְמִחֶרֶת ‘on the next day’, represents another possible nominalisation of the term.

Could it be that מִחֶרֶת is simply a noun that happens to be used less frequently with noun modifiers? This is, of course, a possibility. The תֻּ- suffix is consistent with endings (typically

²⁹ The original status of some definite articles reflected only in the vocalisation is debated. The issue at hand is whether the vocalisation tradition preserves an original article, or whether it can be attributed to the tradition itself. As part of the PhD project within which this article is embedded, I have found preliminary data that time adverbials as a semantic function are statistically associated with definite articles, even when merely vocalic articles are removed from consideration. So, at bare minimum, definiteness plays a key role in time semantics. For the wider discussion see GKC (§126w); Barr (1989); Bekins (2013; 2016).

feminine³⁰) found on nouns such as נַחֲלָה ‘inheritance’ (Ps. 16.6), זְמַרְתָּ ‘song/strength’ (Exod. 15.2; Isa. 12.2; Ps. 118.14), or יְתֵרָתָּ ‘remainder’ (Jer. 48.36) (GKC §80g; Bauer and Leander 1922, §62v). Yet, the behaviour of מִחֲרָתָּ differs significantly from that of the other regular nouns in the PCA model, resulting in its placement.

Furthermore, the collocational preference for מִן ‘from/since’ closely resembles that of other adverb-like words. The term occurs with מִן in 23 of its 26 sampled cases. In Lev. 23.16 we find the telling phrase, עַד מִמָּחָרָתָּ ‘until the day after’, where מִן ‘from’ and מִחֲרָתָּ ‘next day’ appear to function as a single lexical item. This pattern reflects a larger tendency in BH to fuse מִן to adverb items that reflect orientation (van der Merwe, Naudé, and Kroeze 2017, §39.14.2). For example, the term חוּץ ‘outside’ is found with an appended מִן in 64 of its 164 occurrences (מחוּץ). Similar to מִמְּחֲרָתָּ, מחוּץ is also occasionally found with another preposition: אֶל-מִחוּץ לַמַּחֲנֶה ‘to outside the camp’ (Lev. 4.12; see also Lev. 4.21; 6.4; 10.4, 5; 14.3, et al.; Num. 5.3–4; 15.36, et al.). This same pattern of preposition + מִן may also be found in the following constructions: לְמִבַּיִת לְפָרְכָתָּ ‘and within the veil’ (e.g., Num. 18.7), לְמִרְחוֹק ‘from one end of heaven’ (e.g., Deut. 4.32), לְמִרְחוֹק ‘for a great while’ (e.g., 2 Sam. 7.19), לְמִתַּחַת לְמִסְגְּרוֹתָּ ‘under the borders’ (e.g., 1 Kgs 7.32), לְמִיָּמֵי קֶדֶם ‘from times of old’ (e.g., 2 Kgs 19.25).³¹ In these examples, מִן coordinates with the adverb item to convey orientation. The result is that even obvious nouns

³⁰ But cf. גִּלְיָתָּ ‘Goliath’ (1 Sam. 17.4); see GKC (§80g).

³¹ See also the case of לְמִן-הַיּוֹם ‘since the day of’ (Exod. 9.18), but here with the definite article.

such as *בֵּית* ‘house’ and *קֶצֶה* ‘end’ become construed as adverbs with a prepositional sense.

It is telling, then, that in two of the six modified cases, *מִחֲרָת* appears without *מִן*: *לְמִחֲרָת הַיּוֹם הַהוּא* ‘on the day after that day’ (1 Chron. 29.2) and *לְמִחֲרָת* ‘on the following day’ (Jon. 4.7). These may show that the use with a nominal modifier represents a different conceptualisation of *מִחֲרָת*, one which is not *incompatible* with a combination of *מִן* (as in Lev. 23.16), but which does not attract it. To put it another way, in view of its use with nominal modifiers, *מִחֲרָת* is arguably construed less like an adverb (with its habitually attached preposition) and more like a noun.³²

לַיְלָה ‘night’ is the most frequent intermediate word in the graph, with 65 percent of its 131 sampled forms collocating with nominal modifiers. This is compared with an average nominal modification of 93 percent on the noun-side of the graph.

Table 14: Frequency and proportion of *לַיְלָה* with modification type

	nominal	∅
frequency	85	46
proportion	0.65	0.35

Table 15: Sampled modifiers with *לַיְלָה*³³

cardinal	definite	demon- strative	genitive	ordinal	plural	quantifier	suffix	∅
2	81	19	0	0	5	19	0	46

³² Thanks to Chip Hardy for pointing out these possibilities in relation to another similar case, *לְעוֹלָם*.

³³ N.B. that this table contains a higher marginal total than the previous since modifiers can co-occur.

Table 16: Selected samples of לילה

reference	modifier(s)	sentence	translation
Gen. 40.5	cardinal	וַיַּחְלְמוּ הַלַּיְלָה שְׁנֵיהֶם אִישׁ חַלְמוֹ בַּלַּיְלָה אֶחָד	The two of them each dreamt his own dream one night .
Gen. 41.11	cardinal	וַנְּחַלְמֶה חֲלוֹם בַּלַּיְלָה אֶחָד אֲנִי וְהוּא	He and I dreamed a dream one night .
Gen. 19.5	definite	אִיִּה הָאֲנָשִׁים אֲשֶׁר-בָּאוּ אֵלַיִךְ הַלַּיְלָה	Where are the men who came to you to- night?
Exod. 14.20	quant. + def.	וְלֹא קָרַב זֶה אֶל-זֶה כָּל- הַלַּיְלָה:	Neither one approached the other for the whole night .
Judg. 16.3	quant. + def.	וַיִּשְׁכַּב שָׁמֹשׁוֹן עַד-חֲצִי הַלַּיְלָה	And Samson lay down until [the] middle of the night .
Ps. 121.6	definite	יּוֹמִים הַשֶּׁמֶשׁ לֹא יִזְכֶּכֶּה וְיָרֵחַ בַּלַּיְלָה:	By day the sun will not strike you, nor moon in the night .
2 Chron. 7.12	definite	וַיֵּרָא יְהוָה אֶל-שְׁלֹמֹה בַּלַּיְלָה	YHWH appeared to Solomon in the night .
Gen. 19.35	def. + de- mon.	וַתִּשְׁלַחֵן גַּם בַּלַּיְלָה הַהוּא אֶת-צִבְיָהוּ וְיָזַן	So also that night they gave their father wine to drink.
2 Chron. 1.7	def. + de- mon.	בַּלַּיְלָה הַהוּא נִרְאָה אֱלֹהִים לְשְׁלֹמֹה	On that night God appeared to Solomon.
Isa. 21.8	qual. + def. + pl.	וְעַל-מִשְׁמַרְתִּי אֲנִכִּי נֹצֵב כָּל-הַלַּיְלֹת:	I stand at my guard through all the nights .
Song 3.1	def. + pl.	עַל-מִשְׁכְּבִי בַּלַּיְלֹת בִּקְשָׁתִי אֶת שְׂאֵהֶבָה נַפְשִׁי	Upon my bed in the nights I seek he whom my soul loves.
Gen. 14.15	∅	וַיִּחַלְקוּ עֲלֵיהֶם לַיְלָה הוּא וַיַּעֲבְדוּ	He and his servants were split up at night .
Num. 14.14	∅	וַיַּעֲמֵד עֲנַן אֹתָהּ הַלֵּךְ לַפְּנֵיהֶם וְיָמִים וַיַּעֲמֵד אֵשׁ לַיְלָה:	In a pillar of cloud you lead them by day and in a pillar of fire at night .
Judg. 9.34	∅	וַיָּקָם אַבִּימֶלֶךְ וְכָל-הָעָם אֲשֶׁר-עִמּוֹ לַיְלָה	Abimelek arose, and all the people with him, at night .
2 Kgs 7.12	∅	וַיָּקָם הַמֶּלֶךְ לַיְלָה	The king arose at night .
Hos. 4.5	∅	וְכָשֵׁל גַּם צְבִיָּא עִמָּךְ לַיְלָה	Even the prophet will stumble with you at night .
Neh. 2.12	∅	וַאֲקוּמוּ לַיְלָה אֲנִי וְאֲנָשִׁים מֵעֵט עִמִּי	I arose at night along with a few men with me.
2 Chron. 35.14	∅	כִּי הִכְהִינִים בְּנֵי אַהֲרֹן בְּהַעֲלוֹת הָעוֹלָה וְהַחֲלִיבִים עַד-לַיְלָה	For the priests, sons of Aaron, were offering up the burnt offering and the fat offering until night .

Again, there is the temptation to consider the null modifications of לַיְלָה simply as unmodified uses of a noun. And, indeed, the PCA analysis does place לַיְלָה on the noun side. Yet other terms, like יוֹם ‘day’, בֹּקֶר ‘morning’, and עֶרֶב ‘evening’, which are likewise well-represented in the dataset, do not have nearly the number of null-modified cases.³⁴ לַיְלָה clearly has a distinctive profile.

As noted above with מִחֲרָת, the habitual collocation with an adverbialising particle seems to discourage the use of noun-type modifiers. This may also be the case with לַיְלָה. Some have proposed that the word’s הֶ- ending originated in the *heh locale* found on locative adverbs, e.g., אֶרְצָה ‘to the ground’ (Gen. 24.52) (GKC §90f; Bauer and Leander 1922, 528).³⁵ Similar to the way in which locative prepositions, such as בִּ- ‘in’ are metaphorically extended to location-in-time function, e.g., בַּבֹּקֶר ‘in the morning’ (van der Merwe, Naudé, and Kroeze 2017, §39.1.4),³⁶ the *heh locale* might have been appended to an original proto-Semitic root *lyl* ‘night’ to indicate ‘at night’.³⁷ This would explain the mixed behaviour of לַיְלָה, a word which one might otherwise expect to share a symmetry with יוֹם ‘day’. Perhaps the 65:35 ratio of noun-

³⁴ The closest would be בֹּקֶר with 18/119 (15 percent) null modified uses, a substantial difference from the 35 percent of לַיְלָה. יוֹם has 0.08 percent Ø; עֶרֶב has 3.5 percent Ø.

³⁵ Thanks to Chip Hardy for pointing this out.

³⁶ This is a common phenomenon in world languages (Haspelmath 1997).

³⁷ Note forms without the ending, e.g., כְּלַיְל ‘like the night’ (Isa. 16.3) and the construct לַיְלָה ‘night of’ (Exod. 12.42).

versus null-modified cases reflects a vague semantic memory of *לְעוֹלָם*'s original form—a memory that is increasingly forgotten, as happens in diachronic change.³⁸

The term *עוֹלָם* ‘forever’ is often classified by Hebraists as a noun, but in our model it clusters with the apparent adverbs. *עוֹלָם* occurs with null modification in 95.5 percent of its samples (170/178) with 8 exceptions:

Table 17: Selected nominalised samples of *עוֹלָם*

reference	modifier	sentence	translation
1 Kgs 8.13	plural	בָּנֵה בְּגִיתִי בַּיִת זָבֵל לָךְ מְכוּז לְשִׁבְתֶּךָ עוֹלָמִים:	I have surely built a lofty house for you, a place for your dwell- ing for eternity.
Isa. 45.17	pl. + geni- tive	וְלֹא־תִכְלְמוּ עַד־עוֹלָמִים עַד: פ	You will not be ashamed unto eternity on.
Jer. 28.8	definite	הַנְּבִיאִים אֲשֶׁר הָיוּ לִפְנֵי וּלְפָנֶיךָ מִן־הָעוֹלָם	The prophets who were before me and you since eternity past...
Joel 2.2	definite	כְּמֹהוּ לֹא נָהְיָה מִן־ הָעוֹלָם	There has not been one like it since eternity past.
Ps. 61.5	plural	אֶגְוֶרָה בְּאֹהֶלְךָ עוֹלָמִים	I will dwell in your tent for eter- nity.
Ps. 77.8	plural	הֲלֵעוֹלָמִים יִזְנַח אֲדַגְּנִי וְלֹא־יִסְוֶה לְרִצּוֹת עוֹד:	Shall my lord reject [me] for eternity and never be pleased again?
1 Chron. 17.14	definite	וְהָעִמְדָתִיהוּ בְּבֵיתִי וּבַמְּלְכוּתִי עַד־הָעוֹלָם	I will establish it in my house and kingdom unto eternity.
2 Chron. 6.2	plural	וְאַנִּי בְּגִיתִי בַּיִת זָבֵל לָךְ וּמְכוּז לְשִׁבְתֶּךָ עוֹלָמִים:	I built a lofty house for you, and a place for your dwelling for eternity.

Five of the eight nominalisations in Time are plural endings. Besides Time phrases, plural endings with *עוֹלָם* appear seven

³⁸ See Bybee, Perkins, and Pagliuca (1994, 15–16) on the comparison of English *will*, *shall*, and *be going to*.

other times in the HB; for example, צור עולמים lit. ‘rock of eternities’ (Isa. 26.4), בְּיָמֵי קִדְמָה דְרוֹת עוֹלָמִים ‘as in ancient days, generations of eternities’ (Isa. 51.9), מַלְכוּת כָּל-עוֹלָמִים ‘kingdom of all eternities’ (Ps. 145.13).³⁹ Semantically, this use of the plural belongs to the “plural of extension” (GKC §124b), which refers to some “characteristic or condition” in abstract nouns (van der Merwe, Naudé, and Kroeze 2017, §24.3.3.6). In this case, the “characteristic” is the continuous nature of the duration.⁴⁰ This same use of the plural was seen on the aforementioned life cycle terms, namely נְעוּרִים ‘youth’, חַיִּים ‘life’. Other examples include בְּחָרִים ‘youth’, זְקֵנִים ‘old age’, בְּתוּלִים ‘virginhood’, and בְּלוּלוֹת ‘betrothal’ (GKC §124b–d).

Three times in the sample עוֹלָם appears with the definite article. Four other definite cases were excluded from the sample due to phrase complexity:⁴¹ מִן-הָעוֹלָם וְעַד הָעוֹלָם ‘from eternity to eternity’ (Ps. 41.14; 106.48; Neh. 9.5; 1 Chron. 16.36). עוֹלָם is also used with the article at least three times outside the category of Time. For instance, Eccl. 3.11 makes the nominal construal

³⁹ The others are Isa. 45.17; 51.9; Ps. 77.6; Eccl. 1.10; Dan. 9.24.

⁴⁰ Perhaps a clue for the origin of these plurals can be found in their use with physical/spatial nouns. There the plural “denote[s] localities in general,” with examples such as שָׁמַיִם ‘sky’, מַיִם ‘water’, פָּנִים ‘face, front’, אַחֲוָרִים ‘back’, מְרַגְלוֹת ‘place of feet’, מִשְׁכָּבִים ‘bed place’, etc. (GKC §124b–d). It seems possible that a location-in-space construction might have been semantically extended to include abstract concepts which are spread out over a metaphorical sphere such as a timeline.

⁴¹ See the note in the methodology section about excluding complex phrases. This is done to ensure accurate selection of phrase heads and modifiers.

clear: *גַּם אֶת־הָעֶלְמִים נָתַן בְּלִבָּם*: ‘Even the eternity he has placed in their hearts’. Dan. 12.7 has the genitive *בְּחַיֵּי הָעוֹלָם* ‘in life of the eternity’. Another case in Ps. 133.3 uses *עַד* within an adjectival expression: *חַיִּים עַד־הָעוֹלָם*: ‘life unto the eternity’.

Thus, in the vast majority of cases, *עוֹלָם* appears without any nominal modifiers, a characteristic which is mathematically distinctive. Yet, in a number of cases, the word does appear with both definites and plurals. What is one to make of these cases with respect to parts of speech? First, the occasional deviation from the strong tendency for null modification (>95 percent in Time) shows that modification behaviours are not hard and fast rules. Semantically speaking, the deployment of a nominal modifier profiles with a more noun-like construal of the term. Second, the data above show that later books (Daniel, Chronicles, late Psalms) account for many, though not all, of the modified cases. Given that *עוֹלָם* morphs into a noun meaning ‘world’ in Rabbinic Hebrew (Sáenz-Badillos 1997, 200),⁴² this may show a gradual shift in speakers’ perception of *עוֹלָם* as increasingly noun-like.⁴³

The PCA groupings also allow us to search for other word behaviour that contradicts intra-cluster tendencies. A query across the ‘noun-cluster’ terms for null modification reveals a pair of illuminating examples concerning *יוֹם* ‘day’, which otherwise

⁴² This also seems true of the corresponding Greek term *αἰών* ‘eon’, see Hebrews 1.2; 9.26; 11.3. Thanks to the anonymous reviewer who pointed this out.

⁴³ Thanks again to Chip Hardy for this idea.

co-occurs with nominal modifiers in 99 percent of the sample (1339/1351):⁴⁴

Table 18: Select null-modified samples of יום ‘day’

reference	modifier	sentence	translation
Isa. 43.13	∅	גַּם-מִיּוֹם אֲנִי הוּא	Surely since time past I am he.
Ezek. 48.35	∅	וְשֵׁם-הָעִיר מִיּוֹם :הַיְהוָה שָׁמָּה	And the name of the city since time past shall be ‘YHWH is there’.

These examples closely resemble in meaning and form the construction מֵעוֹלָם ‘from eternity’, which likewise frequents the prophets.⁴⁵ The term also bears resemblance in form to מִמָּחָרַת ‘since the next day’. Here יום is used within a pattern of null-modification that strongly resembles that of particle-like adverbs. These two cases reinforce the argument just made with respect to עוֹלָם, namely, that the strong tendencies of a word do not constitute hard and fast rules. Rather, individual words are always subject to alternative construals depending on what kinds of contexts they are slotted into.

⁴⁴ Some of the other cases not mentioned here actually contain adjectival modification, e.g., יום טוֹב ‘good day’ (1 Sam. 25.8), or adverbial modification, e.g., בַּיּוֹם מָחָר, lit. ‘on day of tomorrow’ (Gen. 30.33) (though this item might also be construed as a construct with some nominal sense), which were excluded from consideration for the purposes of this analysis. These cases should not have been tagged as ∅. A future model could include these considerations. However, in the case of time adverbials they are comparatively quite rare. Other interesting cases of unmodified יום include מִיּוֹם עַד-לַיְלָה ‘from day to night’ (Isa. 38.12), יום ‘at day’ (Jer. 7.25; Ps. 88.2), and מִיּוֹם-לְיוֹם ‘from day to day’ (Ps. 96.2).

⁴⁵ Josh. 24.2; Isa. 42.14; 57.11; 63.19; 64.3; Jer. 2.20; Prov. 8.23.

5.0. Cognitive Linguistic Analysis

The quantitative data sheds light on the fact that word behaviour is just that: behaviour. Words do not woodenly follow abstract classifications; instead, they exhibit strong and weak tendencies, habitual collocations with other lexical items, and/or semantics dependent on functional context. These facts have a number of implications for linguistic theory and BH.

Classically, grammars have tended to treat time adverbials more rigidly under three discrete groups: adverbs, adverbial accusatives, and temporal prepositional phrases (e.g., GKC §100, 118; Waltke and O'Connor 1990, §§10.2.2c, 11.2, 39.3.1h; Jöüon and Muraoka 1996, §102a–c, 126i, 133). Adverbial accusatives and prepositional phrases are typically noun-based. Yet, as seen already, the distinction between an adverb and noun in BH is not always clear (see also Waltke and O'Connor 1990, §39.3.1a; van der Merwe, Naudé, and Kroeze 2017, 380–81). BH lacks a productive morphology for adverbs, unlike languages such as English with morphemes like *-ly*.⁴⁶ But even English and many languages do not always clearly distinguish nouns and adverbs (Cuzolin, Putzu, and Ramat 2006). One reason for this may be that adverbial function is already an abstract, peripheral role compared with other sentence arguments (Ravid and Shlesinger 2000, 335–37; Croft 2001, 97). As a result, adverbs tend to be sourced from a variety of word classes, resulting in a heterogeneous makeup (Ramat 2011). In BH, the most common sources

⁴⁶ A handful of terms possess adverb suffixes, such as ׀- as found in ׀ׁׁׁׁ 'by day'; see van der Merwe, Naudé, and Kroeze (2017, 380).

for adverbs are nouns and adjectives (Ravid and Shlesinger 2000, 339–44; van der Merwe, Naudé, and Kroeze 2017, 380–81).

The absence of a neat and tidy word class is not unique to adverbs, but is endemic to parts of speech in languages around the world. Some languages, for instance, lack a clear morphological distinction between nouns and verbs.⁴⁷ These problems have led cognitive linguists to abandon the notion of universal, language-inherent parts of speech (Croft 2001, 63–107). Instead, cognitivists propose that semantic meanings, not language categories, are the common elements across human language—though always subject to individual construal.⁴⁸ Concepts are free to be mapped onto an endless range of constructions (Croft 2001, 86–87). Thus, cognitivists attempt to explain parts of speech as word tendencies that reflect underlying concepts. Furthermore, concepts as such can have a range of fuzzy behaviour, with prototypes ('best examples'), family resemblance, and gradient tendencies (Lakoff 1987, 41).

Croft (1990), in particular, analyses parts of speech in terms of their conceptual basis; his analysis is based on a typological approach that respects language differences. He acknowledges the strong, prototypical behaviour found among traditional nouns, verbs, and adjectives. Underlying these tendencies are two

⁴⁷ Croft (2001, 65) notes Nootkan, Salishan, Iroquoian, Philippine, and Polynesian languages as oft-cited examples.

⁴⁸ Geeraerts and Cuyckens (2012, §2) write: "The *perspectival nature of linguistic meaning* implies that the world is not objectively reflected in the language: the categorization function of the language imposes a structure on the world rather than just mirroring objective reality."

classes of concepts. The first constitutes semantic notions of objects (in space), properties (quantity), and actions (in time). Croft derives the second group from Searle's 'propositional acts' of reference (identifying an entity), modification (enriching an entity), and predication (ascribing a property) (Croft 1990, 248–51, 253). These groups and their correlation with the three prototypical parts of speech are illustrated below:

Table 19: Croft's Major Propositional Acts (modified from Croft 1990, 248)

		pragmatic axis		
		reference	modification	predication
semantic axis	objects	core nouns	genitives, adjectivals, PP modifiers	predicate nominals
	properties	abstract de-adjectival nouns	core adjectives	predicate adjectives
	events	nominalizations, infinitives, gerunds, complements	participles, relative clauses	core verbs

The chart can be interpreted spatially, so that constructions in language can point to any region or stretch within the space. For example, the English pattern *-ing* spans the events with reference, e.g., *running*, and events with modification regions, e.g., *running man*) (Croft 2001, 98–99).

But there are many constructions which do not fit prototypical noun, adjective, and verb behaviour. Notably for our purposes, Croft (1990, 246) gives the examples of *day* and *time* (e.g., *five times*) as non-prototypical nouns. Other drip-bucket word classes include adverbs, prepositions, numbers, articles, auxiliaries, demonstratives, etc. Croft (1990, 252) argues that humans intuitively interpret all such categories against the background of

a real or metaphorical spatial dimension ('background dimension'). Secondary word classes thus serve to locate and quantify real or abstract objects in said space (Croft 1990, 256–60). These dynamics are illustrated below (Croft 1990, 279–80):

Table 20: Croft's Minor Propositional Acts (adapted and condensed)

		pragmatic axis		
		situating in physical space	situating in a mental space	selecting entities
semantic axis	objects	demonstratives, locative deictics, prepositions	definite articles, possessive pronouns, names of humans	unit terms, collectives, parts, numbers, quantifiers, ordinals
	properties	core adjectives, diminutives	N/A?	generic?
	events	tense, temporal deictics, temporal adverbials	modals, attitude markers, sentential adverbs, pronouns, conditionals	perfective, generic, habituals, duration phrases

Croft places locative time adverbials within the group that situates in a physical dimension; this derives from the fact that locative time represents a metaphorical extension from space to time in all world languages (Croft 1990, 257; Haspelmath 1997; see also Fillmore 2002).

Croft's categories explain why the results obtained in the PCA experiment (, above) are not merely interesting side-effects of coincidental word behaviour. Following Croft (1990, 253), the noun concept represents objects in a real or imagined physical space. As such, nouns have a position, dimension, size, number, etc., all possibly metaphorical. These attributes are therefore available for situating and selecting by modifiers, which correspond with the minor propositional acts (above, Table 20). This interaction between the semantic-pragmatic features of nouns and modifiers produces statistical patterns that the PCA model identified. The 'situating' function of the definite article and demonstrative had the strongest separation effect. A subgroup of

‘countable’ nouns was separated by their collocation with plurals and quantifiers. The construct and suffix modifiers played a smaller role in the model, but, like the definite article, indicated situated ‘objects’.

While the ‘nouns’ in the PCA model are identified by their collocation with modifiers, the ‘adverbs’ in the model are identified by the lack of modification. Using Croft’s categories, we can now see that in fact adverbs themselves belong to a category of ‘modification’. Indeed, if the various modifiers had been treated as individual words with the potential for their own modification, we would likely see null-modified behaviour in a way similar to that of the ‘adverbs’ of the PCA graph. Breaking down the various items classified as adverbs, we see a group of durations, such as תָּמִיד ‘continuous’, נֶצַח ‘enduring’, עוֹלָם ‘forever’, which correspond with Croft’s modifiers that select ‘quantity’ within events (similarly רִגַע ‘moment’); a group of irrealis indicators that situate events in a mental space, like אָן ‘where’,⁴⁹ מָתַי ‘when’; temporal deictic markers that situate events in space, like עַתָּה ‘now’, אָז ‘then’, מָחָר ‘tomorrow’, הֵנָּה ‘to here’, אָתְמוּל ‘yesterday’; and prepositional situators like טָרָם ‘before’ and מָחָרָת ‘next day’. It is likely that a model which includes variables for collocating verb tense, aspect, and modality would be able to subdivide these adverbs as the nouns were.

The fuzzy behaviour observed with words like רִגַע ‘instant’, מָחָרָת ‘next day’, לַיְלָה ‘night’, עוֹלָם ‘forever’, and even יוֹם ‘day’

⁴⁹ E.g., עַד־אֵן/אָנָּה ‘how long?’ (Exod. 16.28; Num. 14.11; Josh. 18.3, et al.); see BDB 33. This is similar to הֵנָּה.

might be attributed to the interaction between adverbial function, which itself is a modifier, and nominal construal, which is contained *within* the modifier. This containment reveals a recursive and hierarchical structure for part of speech concepts. But the levels of recursion should not be viewed as wholly self-contained. Indeed, as noted by Croft, words like *יֵם* do not fit prototypical noun semantics. They are not physical objects. By this logic, the noun category within adverbials seems to represent a kind of analogical extension by which the very concept of an object is stretched to encompass phenomena such as the cycles of the sun. Perhaps this extension is accommodated by the metaphor of time as a line in space, and thus locative time as ‘places’ in that space (Haspelmath 1997, 23–42). If true, the fuzzy statistical behaviour is simply a product of the already abstract nature of time-as-object.

What do these results mean for the broader theory of parts of speech in BH? These data ought to at least cast some doubt on generative descriptions of surprising word behaviour. For example, in a recent article on parts of speech, Miller-Naudé and Naudé (2017, 273–308) examine the behaviour of *טוֹב* ‘good’ in cases where it is modified by the definite article. For instance:

2 Sam. 19.28	וַעֲשֵׂה הַטּוֹב בְּעֵינַיִךְ	Do the good in your sight.
2 Sam. 14.17	לְשָׁמֵעַ הַטּוֹב וְהָרָע	to hear the good and the bad
Ps. 85.13	גַּם־יְהוָה יִתֵּן הַטּוֹב	Also may YHWH give the good

The debate centres on whether these uses of *טוֹב* (and other similar cases) represent construals of an adjective as a noun (‘the good’). This possibility poses problems for the generative model, which maintains parts of speech as a category inherent to a word.

Miller-Naudé and Naudé propose a ‘null-noun’ that טוב is actually modifying: ‘the good [thing]’ (2017, 293). Yet, while elision is no doubt a real and important part of language, this explanation will simply not suffice for the wide-sweeping tendencies reviewed in this article. The experimental data demonstrate a vast and systematic interaction of semantic-pragmatic factors which all cooperate to construe word class in an individual context. This, in general, casts doubt on the explanatory power of elision in cases where words ‘misbehave’.

6.0. Conclusions

This article has applied a cognitive-statistical approach to examining parts of speech within time adverbial phrases in BH. The statistical model was able to separate words into broadly ‘noun’ items and ‘adverb’ items, with gradient behaviour in between. The linguistic analysis examined these tendencies against the background of cognitive theories on parts of speech. The data and analysis reveal an intricate interplay of contextual factors and indicate the need to classify parts of speech on a case-by-case basis. More generally, the success of the model demonstrates the fruitfulness and potential of applying statistics to the study of semantics. Co-occurrence behaviour of words is not random or coincidental, but arises from the interaction of the semantic-pragmatic values humans assign to them.

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POLYSEMIOUS ADVERBIAL CONJUNCTIONS IN BIBLICAL HEBREW: AN APPLICATION OF DIACHRONIC SEMANTIC MAPS¹

Christian Locatell

1.0. Introduction

The topic of this article is adverbial conjunctions in the Hebrew Bible. As used here, the term ‘adverbial conjunction’ refers to single- or multi-word expressions used to communicate an adverbial relationship between finite clauses (including so-called verbless clauses).² Adverbial conjunctions are an especially

¹ I would like to thank the Golda Meir Fellowship at the Hebrew University of Jerusalem for funding this research. I would also like to thank the editors, Prof. Eitan Grossman, and two anonymous reviewers for their helpful comments on an earlier version of this paper. In addition to the those listed in the References section below, the following abbreviations are used: Syr. = Syriac Peshitta; Tg. Ket. = Targum of the Writings; Tg. Neb. = Targum of the Prophets; Tg. Onq. = Targum Onqelos.

² Cf. Hetterle (2015, 201). For a discussion of the characteristics of this word class, and one set of criteria for grouping them, see Kortmann (1997, 56–77, esp. 71–73). For a more recent discussion, see Thompson

interesting type of linguistic item, not least because they are often polysemous. That is, they are frequently used to communicate a variety of interclausal relationships. For example, אַחֲרַי אֲשֶׁר may communicate anteriority ‘after *p*, *q*’, or causation ‘because *p*, *q*’.³ The adverbial conjunction כִּי may communicate contingency ‘whenever *p*, *q*’, condition ‘if *p*, *q*’, concessive condition ‘even if *p*, *q*’, or concession ‘although *p*, *q*’. In Biblical Hebrew, the conjunctions כִּי and אֲשֶׁר are especially notorious for their polysemy. This raises the question of whether there is an organising principle according to which their associated meanings are conceptually arranged and may be diachronically ordered. If so, what is the relationship between these different meanings and what is their relative order of emergence in diachronic development? This word class has been treated to some extent in several studies in the Semitic languages, e.g.,

et al. (2007, 237–43). However, the degree of clause embedding is characterised by a continuum (Schmidtke-Bode and Diessel 2019), so the delimitation of categories is always somewhat arbitrary. Also note that Kortmann restricts the definition of adverbial conjunctions to those that connect clauses with an inflected verb. However, this appears to be due to the fact that he deals with European languages, which generally lack verbless clauses. As Miller (1999, 3) observes, verbless clauses “...are commonly represented among the world’s languages, even though they are absent in most Indo-European languages...” and “...are an important syntactic feature of Biblical Hebrew.” For different terms that have been used to designate this word class in linguistic literature, see Kortmann (1997, 62) and references there.

³ Note that in these schematic representations of interclausal relations, ‘*q*’ stands for the main (or ‘matrix’) clause and ‘*p*’ stands for the adverbial clause.

Aartun (1974) on Ugaritic, Hackl (2007) on Late Babylonian, and Esseesy (2010) on Arabic. However, adverbial conjunctions in Biblical Hebrew have not received similar attention. By and large, descriptive grammars of Hebrew simply offer a taxonomy of various uses. Furthermore, in linguistics more broadly, quantitative typological data on this word class has only become available relatively recently (esp. Kortmann 1997; 1998; 2001) and mostly for Indo-European languages.

The purpose of this paper is to provide a first step toward addressing this lacuna by proposing paths of development connecting the various uses of polysemous adverbial conjunctions in Biblical Hebrew. This will proceed in the following manner. In §2.0, I provide an overview of semantic maps, focusing on Kortmann's (1997) typological study of adverbial subordinators. In §3.0, I present representative examples of the usage profile of the polysemous adverbial conjunctions I have identified in Biblical Hebrew. In §4.0, I heuristically employ known diachronic semantic maps of adverbial conjunctions in order to generate hypotheses on their relationships to one another in diachronic development, whether as a source or goal of semantic extension. In §5.0, I test these hypotheses by examining potential bridging contexts in corpus data, as well as considering supporting cognate data. Finally, in §6.0, I offer concluding remarks.

2.0. The Semantic Map of Adverbial Conjunctions: An Overview and Methodology

The use of diachronic semantic maps and grammaticalisation theory is not new to Semitic studies.⁴ However, it has not been systematically applied to adverbial conjunctions in Hebrew. Thus, for the sake of those unfamiliar with such work, and in order to lay the foundation for the application of diachronic semantic maps to adverbial conjunctions in particular, the following is offered by way of overview. As defined by van der Auwera (2013, 154), “Semantic maps are essentially representations of the polyfunctionality of words or, more generally, constructions.” The organisation of different functions on the map represents synchronic polyfunctionality and diachronic development (even if only by implication). The basic idea of this can be seen in Figure 1, a schematic example of a classic semantic map.⁵

Figure 1: Schematic synchronic and diachronic semantic map (van der Auwera 2013, 154)



⁴ See Hardy (2014, 49–53), for a survey of past studies of grammaticalisation in Semitic. Also see Christo H. J. van der Merwe in this volume.

⁵ While many variations of semantics maps have been proposed, this is sufficient to illustrate the basic idea for the purposes of this paper. For an overview of different types of semantic maps, see van der Auwera (2013).

Such maps can be constructed by observing polysemy patterns across languages.⁶ Two or more senses are connected in a semantic map if they are both part of the functional profile of a single linguistic item in at least one language. Conversely, distinct uses are only delineated if they are lexically distinguished in at least one language. For example, Hebrew עֵץ does not lexically distinguish between ‘trees’ (e.g., Josh. 10.26; Judg. 9.8) and ‘wood’ (e.g., Exod. 17.9; Zech. 12.16).⁷ But English employs different lexemes for these concepts. While synchronic data can be sufficient to construct such maps, the connections and their directionality are strengthened if they are confirmed by historical data showing the clear emergence of one use from another.

Semantic maps constructed on the basis of a large number of languages (especially areally and genetically distinct languages) with historical corroboration posit implicational universals and grammaticalisation paths that characterise the typical developmental trajectories of the linguistic forms in question.⁸ For example, looking at the map in Figure 1, a form with Use 1 and Use 3 is predicted to have Use 2 as well. In other words, when heuristically employed, the map generates the

⁶ For a detailed discussion of how semantic maps can be constructed, see Georgakopoulos and Polis (2018).

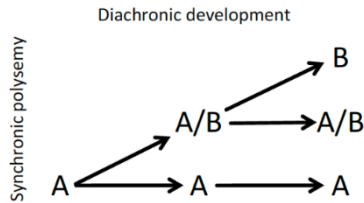
⁷ It may be noted that Rabbinic Hebrew developed this distinction by using Aramaic ܥܝܢ for ‘tree’.

⁸ Grammaticalisation is defined as the process whereby lexical forms develop grammatical functions and whereby grammatical forms develop additional grammatical functions (Hopper and Traugott 2003, 1).

hypothesis that a given form's usage profile will fill a contiguous portion of the semantic map. Additionally, if the synchronic usage of a given form A consists of Uses 2 and 3, this semantic map generates the hypothesis that the emergence of uses in the form's developmental history would have proceeded from 2 to 3. Furthermore, it generates the hypothesis that these uses originally developed from Use 1 sometime in its earlier history. However, it must be emphasised that representations like Figure 1 are not meant to imply that a form communicates only one sense at a time. Rather, multiple uses may persist side-by-side for long periods of time in a phenomenon called 'layering' (Hopper and Traugott 2003, 124). This means that especially in a corpus with a complex textual history, like the Hebrew Bible, uses will typically appear alongside others without necessarily revealing any diachronic distribution, especially for those forms whose developmental histories precede the earliest extant texts.

This makes such diachronic semantic maps all the more valuable, since they can suggest the developmental trajectories of polysemy patterns, even from synchronic data. To visualise this, consider Figure 2.

Figure 2: Layering in diachronic development



Here, ‘A’ represents a source usage and ‘B’ some extension. Such extensions are facilitated by ‘A/B’ bridging contexts where uses ‘A’ and ‘B’ are conceptually and structurally similar, making it possible to reanalyse ‘A’ as ‘B’. Crucially, these bridging contexts often persist side-by-side in a form’s synchronic profile, even if no unambiguous diachronic data is available. Therefore, diachronic semantic maps can generate hypotheses to determine which uses served as sources and goals of semantic development. Additionally, these hypotheses can be tested by examining potential bridging contexts connecting these uses. If a robust diachronic semantic map predicts a certain $A > B$ development, and the synchronic data of the form being analysed shows many ‘A/B’ contexts which could facilitate such an extension, this strengthens the plausibility of such a reconstruction of the form’s diachronic development. Such reconstructions can be further strengthened when there is corroborating data from cognate forms.

Among the advantages of semantic maps is the fact that they are falsifiable, since they can be tested against and modified in light of new data (Georgakopoulos and Polis 2018). The semantic map model is also neutral vis-à-vis monosemy versus polysemy (Haspelmath 2003). This is especially significant in the

discussion of forms functioning as adverbial conjunctions in Biblical Hebrew, since there is often debate as to whether various functions constitute genuine polysemy or merely different uses of a form which in reality has a more general core meaning. This question can be deferred to allow for the analysis of synchronic usage, diachronic development, and crosslinguistic comparison. Thus, semantic maps facilitate crosslinguistic comparison, because they allow the researcher to compare any set of uses or repertoire of linguistic forms, and are theory neutral regarding monosemy versus polysemy.

The specific semantic maps used here are based mainly on Kortmann's (1997) foundational study of adverbial conjunctions.⁹ This study drew data from 53 languages representing half a dozen language families (Indo-European, Uralic, Altaic, Caucasian, Semitic, and one isolate). The linguistic items analysed included 2,043 different adverbial conjunctions. There was also a significant historical component to this study, as the time-depth of languages analysed was up to 2,500 years. This means that the semantic map of adverbial relations is not only based on synchronic patterns of polysemy, but also

⁹ Two other large crosslinguistic studies of adverbial conjunctions followed Kortmann (1997). One is Martowicz (2011), a world-wide sample of anteriority, cause, condition, and purpose relations from 84 languages that takes a close look at the sources of such forms from other word classes. The next is Hetterle (2015), which looks at 756 adverbial conjunctions across 45 languages. Both expanded the language sample beyond Kortmann's and also approached the topic with different research questions, but, in the main, are compatible with the analysis presented here.

supported by observable change in historical corpora where the emergence of uses can be directly seen. From this data, Kortmann presented a compelling case that interclausal relations can be placed into four sets of semantic spaces: locative, temporal, modal, and what has been termed CCC (i.e., cause, condition, and concession) relations.¹⁰ Examples of Biblical Hebrew conjunctions expressing these relations are given in the following section. The reason for identifying these as the basic semantic groupings of interclausal relationships is based on converging evidence, such as frequency of use (i.e., the most commonly used words belong to the most fundamental semantic domains) and degree of lexicalisation (i.e., the domains with the largest lexical inventory are the most central). Additionally, the strongest semantic affinities of a given adverbial conjunction are consistently found within one of these semantic domains.¹¹ These diagnostics support the delineation and cognitive basicness of these semantic domains across languages.

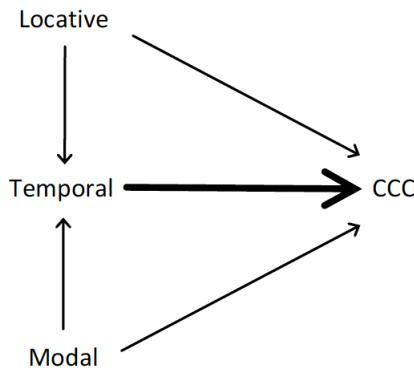
While relatively distinguishable, certain interclausal relationships within these semantic spaces are likely to develop into uses that extend into different semantic spaces. Thus, these groupings of interclausal relations have conceptually similar uses at their boundaries. Inferential pressures in communication drive

¹⁰ Definitions of the subsenses within these semantic spaces are given along with Figure 5.

¹¹ To give a representative example of this from English, the usage profiles of *as*, *when*, and *where* traverse the internally complex networks of the modal, temporal, and locative semantic spaces, respectively. See further Kortmann (1997, 181–82, 193, 195–96).

semantic extensions from one semantic space into another in a constrained and cognitively motivated way (Hopper and Traugott 2003, 39–98). This is convincingly demonstrated by the observation that adverbial conjunctions in certain source domains persistently develop senses in expected target domains with a remarkable degree of statistical consistency.¹² A coarse-grained representation of the semantic extensions between the four main semantic spaces of adverbial relations is presented in Figure 3 below, based on Kortmann (1997, 178).¹³

Figure 3: Diachronic semantic map of adverbial conjunctions



The situation represented in Figure 3 is that locative and modal relations are sources for semantic extensions into temporal

¹² For a detailed presentation of this evidence, see Kortmann (1997, 137–211). Cf. Deutscher (2000, 37–41).

¹³ Each of the four major networks of interclausal relations is simplified and presented as a unit (i.e., locative, temporal, modal, CCC) in order to highlight the relationships between them. However, each has its own internally complex network of relations within that semantic space (especially the time and CCC semantic spaces). This internal complexity is seen in §4.0 below.

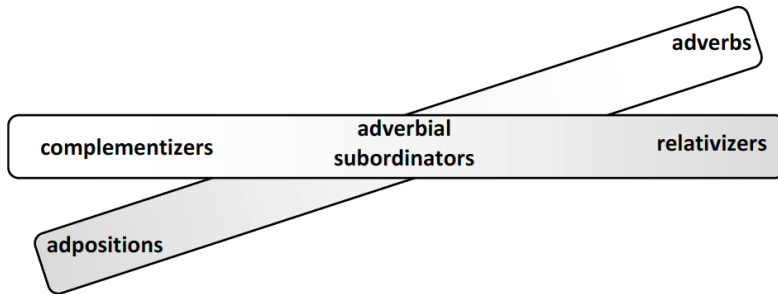
and CCC relations. The temporal semantic space is the most common source of extensions into the CCC domain, as indicated by the bold arrow. There is a general push for all other uses to develop toward CCC relations. The arrows represent the fact that these paths of semantic extension are unidirectional (Kortmann 2001, 846–47; cf. Hopper and Traugott 2003, 99–139).¹⁴

This unidirectionality of change results from the direction of informativeness. That is, speakers invite and hearers infer the most informative interpretation of an utterance, based on the communicative maxim that communication should be as informative as possible (Traugott and König 1991, 190). Therefore, more concrete interclausal relations are pushed toward richer logical inferences as more informative interpretations. For example, it is perceived as more relevant and informative to interpret the temporal relation ‘*q* happened when/after *p* happened’ as a causal relation ‘*q* happened because *p* happened’. Through frequency of use and entrenchment, these enriched interpretations may become conventionalised, at times even displacing earlier meanings (Divjak and Caldwell-Harris 2015).¹⁵

¹⁴ As elaborated in Kortmann (1997, 178): “It is crucial to stress that for none of these links does the reverse hold, i.e., neither are CCC subordinators found to develop temporal, locative or modal readings, nor do temporal subordinators come to serve as locative or modal markers.”

¹⁵ For example, the cognates English *while* and German *weil* both developed from a noun meaning ‘time’ into temporal conjunctions. However, whereas English *while* added contrastive and concessive meanings alongside its earlier temporal meaning, German *weil* is used as a causal conjunction (Hopper and Traugott 2003, 90–2).

Finally, it should be noted that the use of semantic maps can also be applied to multifunctionality across word classes (termed ‘heterosemy’). Such a perspective can help illuminate the common sources of adverbial conjunctions. This can be quite complex, since, as noted by Meillet (1915, 21), “Les origines des conjonctions sont d’une diversité infinie, on le sait. Il n’y a pas d’espèce de mot qui ne puisse livrer des conjonctions.” While an exploration of these typical sources is beyond the scope of this



paper, Kortmann does observe several category continua that intersect at the adverbial subordinator word class. This is represented in Figure 4, adapted from Kortmann (1997, 59).

Figure 4: Category continua

As Kortmann (1997, 64) explains, “recategorization or the acquisition of additional category membership happens both within and between the various continua.” Unsurprisingly, this is also the case in Biblical Hebrew. As pointed out in BHRG² (§40.1.1), word classes such as adverb and conjunction often blend together. This is helpful to keep in mind when considering words like relative אֲשֶׁר and complementiser כִּי, or prepositional אַחֲרַי and עַל. Such heterosemy is crosslinguistically pervasive (Kortmann 1997, 108–12; cf. Sasse 2001, 495–96). It is therefore

not surprising that many of the words discussed below intersect at several points along these continua.

The structure of this article follows a methodological order derived from the above discussion that can be replicated in other studies of this word class or any linguistic form. Hebraists often find themselves analysing linguistic phenomena the historical development of which is not directly observable over a long and voluminous textual history. When typologically robust diachronic semantic maps are available for such phenomena, these can help bridge the gap in data by employing the following methodology. First, the usage profile for the linguistic phenomenon in question can be outlined from available data. Next, this usage profile can be mapped onto diachronic semantic maps based on known polysemy patterns and historical developments. This mapping will then generate plausible hypotheses about the diachronic relationship between uses. The more robust the typological patterns are, the stronger the generated hypotheses will be. For example, *TIME* > *CAUSE* is universally unidirectional so that if a form has both temporal and causal uses, it is virtually certain that the causal use developed from the temporal and not vice-versa, even if no diachronic data is available for the relevant form. However, while extremely robust diachronic paths can be reasonably posited from a synchronic usage profile alone, such hypotheses (especially those based on less-well-attested developmental paths) can be further corroborated by examining bridging (A/B) contexts in synchronic usage that are 'left over' from past development. When cognate

evidence is available, this can also be leveraged to test the hypotheses generated via diachronic semantic maps.

In the end, one is left with a variety of plausible hypotheses about the order of development for uses of a polyfunctional form. The relative strength of these hypotheses will be proportional to the typological robustness of the diachronic path(s) heuristically employed, the clarity and pervasiveness of the bridging contexts available for the form(s) being studied, and the clarity and pervasiveness of corroborating observations in cognate data.

3.0. Polysemous Adverbial Conjunctions in Biblical Hebrew: A Usage Profile

The following presents a usage profile for polysemous adverbial conjunctions in the Hebrew Bible. This includes all the adverbial conjunctions which I have found to have a relatively clear polysemous profile in the Hebrew Bible.¹⁶ That is, they are found to communicate more than one adverbial relationship between

¹⁶ When I use the term ‘polysemous’, it refers to these forms’ ability to mark semantically distinct interclausal relations within the class of adverbial conjunctions. Alternatively, the terms ‘polyfunctional’ and ‘multifunctional’ may refer to the situation just described, as well as cases where a single form has multiple uses across word classes. In this regard, diachronic semantic maps would also be useful in analysing the development of polyfunctionality. However, the present discussion focuses on the different senses of these words within their function as adverbial conjunctions. Functions in other word classes (e.g., relative אֲשֶׁר , complementiser כִּי) are not discussed.

two or more finite clauses.¹⁷ There are many more adverbial conjunctions in Biblical Hebrew which are found to communicate only a single interclausal relationship. However, since the purpose of this article is to discuss the paths of semantic extension among adverbial conjunctions, polysemous forms are better suited for this goal. I present them in the following order: (1) אַחֲרֵי אֲשֶׁר, (2) אַם, (3) אֲשֶׁר, (4) בְּאֲשֶׁר, (5) בְּאֲשֶׁר, (6) כִּשְׁ- , (7) כִּי, and (8) עַל אֲשֶׁר.¹⁸ While several of these include אֲשֶׁר/-שְׁ, the combination with particular prepositions has resulted in different polysemy patterns, suggesting divergent developmental paths.¹⁹

While some comments are offered about the most typical use of a particular form, the examples for each of the uses cited below are meant to be representative and illustrative, rather than

¹⁷ Due to the crosslinguistic cognitive motivation of the semantic extensions discussed in the previous section, it is hypothesised that the same sorts of grammaticalisation paths would be observed when considering forms connecting non-finite clauses. However, a separate study looking into this would be needed.

¹⁸ The uses listed here are not novel proposals and can be found in standard grammars and lexica, as well as in various other works touching on these forms, though they are sometimes referred to with different terminology (e.g., IBHS, JM, BHRG, BDB, DCH, HALOT). However, examples are given here for illustration, which is especially helpful in the case of the crosslinguistically based categorisation of senses adopted here.

¹⁹ Hendel and Joosten (2018, 29–30) suggest that the development of the various combinations with אֲשֶׁר and -שְׁ occurred on analogy with Aramaic compounds with דִּי.

exhaustive.²⁰ Therefore, the uses identified below are not precisely ranked in terms of the typical usage for each form. The focus, rather, will be on considering the conceptual and diachronic relationship between uses, regardless of their relative frequency at a given time. Thus, marginal uses are included, since these result from semantic extension, which is the very focus of the analysis. The usage profiles that emerge for each adverbial conjunction in turn provide the data for constructing the order of their development.

Again, it is important to reiterate that, while certain uses may be debated in terms of whether they are genuinely semanticised or merely contextual uses, the more basic question here is how these uses are organised conceptually and the diachronic implications this arrangement has for their emergence relative to each other. Nevertheless, I have attempted to include only uses for which examples fulfill the criterion of semantic uniqueness (Kortmann 1997, 91–92). These are cases in which the particular interclausal relationship identified is not merely inferred from another simultaneously communicated sense. For example, *וְכֵן* in Jer. 44.18 has both the temporal sense ‘since’ (i.e., from the time that) and simultaneously the causal inference ‘because’. However, since I find no example of *וְכֵן* with only a causal reading, i.e., without a simultaneous temporal reading

²⁰ While statistical figures for each use would certainly be helpful in determining the relative centrality of senses within synchronic usage, frequency of use is less useful for diachronic organisation, which is the goal of this study. For example, earlier uses of a form often decrease in frequency and may be lost altogether in the course of language change.

serving as its inferential springboard, I exclude it here. By contrast, considering *כִּי*, there are clearly cases where the most natural reading is causal, e.g., (24), conditional, e.g., (26), and several other uses independent of a simultaneous reading serving as an inferential springboard.²¹ This does remove the possibility of liminal cases which fall between senses. Indeed, this is expected in light of the conceptual relationship between uses and diachronic emergence of one from another (often reflected in the different renderings seen in ancient and modern translations). However, in order to focus on the most robust semantic extensions, I have tried to include only uses which in at least some cases fulfill the requirement of semantic uniqueness with relative clarity. Bridging contexts, where a use falls ‘between’ senses, are discussed in §5.0.

3.1. אַחֲרֵי אֲשֶׁר

Cases of אַחֲרֵי אֲשֶׁר as an adverbial conjunction include uses in the temporal and CCC semantic spaces, though the temporal use is the more common. In (1) it is used to communicate anteriority

²¹ Preference for different syntactic structures is another means of distinguishing between semantic polysemy vis-à-vis pragmatic polysemy. See, for instance, example (39) below, which notes the preference for temporal *כִּי* clauses to precede the main clause, but for causal *כִּי* clauses to follow the main clause. In addition to the criterion of semantic uniqueness, such divergent syntactic profiles strengthen the case that the proper analysis is one of semantic polysemy rather than merely pragmatic polysemy.

‘after *p*, *q*’. In (2) it is used to communicate causation ‘because *p*, *q*’.²²

- (1) וַיְהִי מִקְצֵה שְׁלֹשֶׁת יָמִים אַחֲרֵי אֲשֶׁר-כָּרְתוּ לָהֶם בְּרִית וַיִּשְׁמְעוּ בִּי-קִרְבָּיִם הֵם
אֵלָיו וּבְקִרְבּוֹ הֵם יֹשְׁבִים:

‘And it was at the end of three days, **after** they cut a covenant with them, they heard that they were close to them and they dwelt in their midst.’ (Josh. 9.16; LXX *μετὰ τὸ* + infinitive; Tg. Neb. בְּתַר)²³

- (2) וַיֹּאמֶר מִפִּיבֹשֶׁת אֶל-הַמֶּלֶךְ גַּם אֶת-הַכֶּלֶל יִקַּח אַחֲרַי אֲשֶׁר-בָּא אֲדָנִי הַמֶּלֶךְ
בְּשָׁלוֹם אֶל-בֵּיתוֹ:

‘Then Mephiboshet said to the king, “Let him also take everything, **since** my lord has come in peace to his house.”’

(2 Sam. 19.31; Tg. Neb. -ד בְּתַר)

- (3) אַחֲרַי נִמְכַר גְּאֻלָּה תְּהִיָּה-לִּי

²² For other examples of this expressing **anteriority**, see Deut. 24.4, Josh. 7.8; 23.1–2; 24.20. For uses expressing **cause**, see Judg. 11.36; 19.23. Josh. 2.7 has the unusual combination of כְּאֲשֶׁר אַחֲרַי heading a temporal clause.

²³ All Hebrew citations are from the BHS. I sometimes list the renderings in ancient versions, especially when they are examples discussed. However, this is not to say that a particular reading is determined by counting versional support or that the versions always transparently reflect the linguistic structure of an underlying Hebrew *vorlage*. Rather, the Hebrew examples presented should stand on their own merits and the occasional citation of versional data simply illustrates an ancient interpretive tradition along the same lines. When versional witnesses are not cited, this is often because their renderings are compatible with multiple readings and therefore non-adjudicating. In other cases, they change the structure of the text substantially, making any close syntactic or semantic equivalence impossible to discern.

‘After he has been sold, he will have redemption.’ (Lev. 25.48; Tg. Onq. בְּתֵר)²⁴

The use of אֲחֵרִי as a locative/temporal preposition appears to have been licensed to head finite clauses by the addition of אֲשֶׁר, as seen in the above examples. This fits the more general observation that the construction preposition + relative is a bridging context allowing for the extension from preposition to adverbial conjunction.²⁵ This is also seen in the other adverbial conjunctions discussed below.

Through repeated use of such a construction, the preposition took on the function of an adverbial conjunction heading finite clauses by itself, in some cases without the help of the relative.²⁶ This is seen in example (3), where it heads a finite

²⁴ Cf. 1 Sam. 5.9.

²⁵ Cf. BDB (473), Lipiński (1997, 475, 527); Esseezy (2010, 270–71); Hardy (2014, 111–12). This strategy is also productive in Modern Hebrew (Glinert 1989, 351). For a crosslinguistic perspective on this as a unidirectional development, see Genetti (1991).

²⁶ There are also some cases where the clause headed by אֲחֵרִי has a verb that is morphologically ambiguous between finite or infinitive. These are Gen. 41.39; 46.30; Lev. 13.55, 56. In these cases, אֲחֵרִי marks a causal relation. The ability to head a finite clause without the relative is also found with the form אָחֵר (e.g., Gen. 18.5; Lev. 14.43; Jer. 41.16; Job 19.26; 42.7). It is used once with אֲשֶׁר. These are exclusively temporal. This is unexpected vis-à-vis the multiple senses marked by אֲחֵרִי אֲשֶׁר in light of the Zipfian inverse relation hypothesis, which states that there is an inverse relation between morphological complexity and polyfunctionality (Zipf 1949, 121; Kortmann 1997, 123).

temporal clause expressing an anterior relationship between the clauses.

3.2. אם

The usage of אם also spans the temporal and CCC semantic spaces of interclausal relations, as seen in the following examples, though its most common use is as a conditional conjunction. In (4) it is used to communicate an interclausal relation of indefinite time (contingency) ‘whenever p , q ’. In (5) it is used to communicate the condition ‘if p , q ’. This use is by far the most common, especially in casuistic texts found in the Pentateuch. In (6) it is used to communicate concessive condition ‘even if p , q ’. In (7) it is used to communicate concession ‘although p , q ’.²⁷

(4) והיה אם זרע ישראל ועלה מדין ועמלק ובני־קדם ועלו עליו:

‘Now, it happened that **whenever** Israel would plant seed, then the Midianites and Amalekites and the sons of the East would come up against them.’ (Judg. 6.3; LXX ὅταν; Tg. Neb. כד)

(5) ויאמר אליו אם־אין פניך הלכים אלתעלנו מזה:

²⁷ For further examples, see the following. **Contingency**: Gen. 38.9 (LXX ὅταν; Tg. Onq. כד); Isa. 24.13 (LXX ἐάν; Tg. Neb. בְּתָר); Ps. 78.34 (LXX ὅταν; Tg. Ket. -בזמן ד-). In at least one case, אם seems possibly to communicate immediate anteriority (Amos 7.2; LXX ἐάν). **Condition**: there are too many examples to list here; see HALOT. **Concessive condition**: Amos 9.2–4 (5x); Eccl. 8.17; cf. Segert (1976, 262). **Concession**: Jer. 15.1; Job 9.15; Ps. 27.3; 138.7 (cf. Ps. 23.4); Prov. 27.22; cf. Friedrich and Röllig (1999, 229).

‘And he said to him, “**If** your presence is not going, do not bring us up from this place.”’ (Exod. 33.15)

- (6) וַיַּעַן בַּלְעָם וַיֹּאמֶר אֶל-עֲבָדָי בְּלֶק אִם-יִתֵּן-לִי בָלַק מְלֵא בֵיתוֹ כֶּסֶף וְזָהָב לֹא אוֹכַל לַעֲבֹר אֶת-פִּי יְהוָה אֱלֹהֵי לַעֲשׂוֹת קִטְוָה אוֹ גְדוֹלָה:

‘Then Balaam answered and said to the servants of Balak, “**Even if** Balak gives me his house full of silver and gold, I would not be able to transgress the word of the LORD my God to do small or great.”’ (Num. 22.18)

- (7) לְכוּ-נָא וְנוֹכַחְהָ יֹאמֶר יְהוָה אִם-יְהִיוּ חַטָּאֵיכֶם כַּשָּׁנִים כַּשֶּׁלֶג יִלְבִּינוּ אִם- יֵאָדְמוּ כְתוֹלַע כַּצֶּמֶר יִהְיוּ:

“Come and let us reason together” says the LORD. **Although** your sins are as scarlet, they will become white as snow. **Although** they are red as crimson, they will be as wool.” (Isa. 1.18)

3.3. אֲשֶׁר

The particle אֲשֶׁר has been treated most extensively by Holmstedt (2016). He argues that in most cases אֲשֶׁר can be analysed as a relative or complementiser, even if “less natural” in some cases (Holmstedt 2016, 232–35). The appeal of positing a singular function for the sake of parsimony can certainly be appreciated. However, as mentioned at the end of §2.0 above, it is the norm for relativisers to fall along several category continua intersecting at the word class of adverbial conjunctions. Indeed, in light of this pervasive tendency, it is arguably more parsimonious (at least as a starting point) to expect uses of אֲשֶׁר beyond its function

as a relativiser and complementiser,²⁸ even though the relativiser function is by far the most common. Furthermore, as pointed out in §2.0, semantic maps do not require a commitment to polysemy versus monosemy. Therefore, even if these non-relative, non-complementiser readings are considered mere implicatures, they can still be organised via a semantic map. Thus, putative uses of אֲשֶׁךְ as an adverbial conjunction are included here. Uses span the modal, temporal, and CCC semantic spaces. These include modal ‘*q*, as *p*’ (8), temporal ‘when *p*, *q*’ (9), causal ‘because *p*, *q*’ (10), purpose ‘*q*, in order that *p*’ (11), result ‘*q*, so that *p*’ (12), and conditional ‘if *p*, *q*’ (13) uses.²⁹

- (8) אֲשֶׁךְ לֹא־יִסְפֹּךְ צָבָא הַשָּׁמַיִם וְלֹא יִמְד תּוֹל הַיָּם בֵּן אַרְבָּה אֶת־זֶרַע דָּנָד עֲבָדַי
וְאֶת־הַלְוִיִּם מִשְׁרָתַי אֶתִּי:

²⁸ Cf. Hendry (2012, 48–132), where she discusses the various sources and developments of relativisers in crosslinguistic perspective.

²⁹ Other putative examples include the following. **Modal:** Exod. 10.6; 14.13 (LXX ὃν τροπον; Tg. Onq. -ד כמא); 34.18 (LXX καθάπερ); Deut. 15.14 (LXX καθὰ); Isa. 7.17; Jer. 48.8 (LXX 31.8 καθὼς); Mic. 7.20 (LXX καθότι); Ps. 106.34. See further fn. 29. **Temporal:** Gen. 6.4; 40.13; Num. 33.1; Deut. 1.46; 1 Sam. 20.31; 2 Sam. 19.25; 1 Kgs 8.9; 11.42; Jer. 29.19; 2 Chron. 35.20. **Causal:** Gen. 30.18; 31.49; 34.13, 27; 42.21; Num. 20.13; Deut. 3.24; Josh. 4.7, 23; Judg. 9.17; 1 Sam. 2.23; 15.15; 20.42; 26.23; 2 Sam. 2.5; 14.22; 1 Kgs 8.33; 15.5; 2 Kgs 12.3; 17.4; 23.26; Isa. 19.24–25; Jer. 16.13; Hos. 14.4; Hab. 3.16; Zech. 1.15; Job 34.27; Eccl. 4.9; 6.12; 8.11, 12; Dan. 1.10; 2 Chron. 6.24. Some ancient and modern versions skilfully render אֲשֶׁךְ causally via the causal use of a relative construction in the target language. See, for example, Gen. 30.18 (LXX ἀνθ’ οὗ); 34.27 (LXX ἐν ᾧ = ὅτι in v. 13); 42.21 (ESV ‘in that’; LXX ὅτι). This highlights the crosslinguistic use of relatives with a causal meaning. **Purpose:** Gen 11.7; 24.3; Exod. 20.26; Deut. 4.10, 40; 6.3 (2 ×);

‘As the host of the heavens cannot be numbered and the sand of the sea cannot be measured, in this way I will multiply the seed of David my servant and the Levites who minister to me.’ (Jer. 33.22; Tg. Neb. כמא ד-7)³⁰

32.46; Josh. 3.7; 1 Kgs 22.16; Jer. 42.14; Ruth 3.11; Eccl. 7.21; Neh. 2.7, 8; 8.14; 2 Chron. 1.11. **Result:** Gen. 13.16; Deut. 28.27, 35; 1 Kgs 3.8, 12, 13; 2 Kgs 9.37; Isa. 65.16; Jer. 19.11; Mal. 3.19; Ps. 95.11; Est. 9.1. **Condition:** Exod. 21.13; Lev. 4.22; 25.33; Num. 5.29; 9.21; Deut. 18.22; Josh. 4.21; 1 Sam. 16.7; 1 Kgs 8.31, 33; Isa. 31.4.

These examples together with alternative analyses as relative clauses are helpfully collected and discussed in Holmstedt (2016, 232–35), along with nonbiblical texts as well. Holmstedt (2016, 233) also helpfully compiles all the cases cited for each of these uses in GKC, IBHS, BHGR¹, and JM. Here, Holmstedt makes the important observation that all the non-relative and non-complement cases cited in GKC, IBHS, BHGR¹, JM, BDB, DCH, and HALOT add up to only 97 cases. This means that even if these identifications are correct, they are not typical.

³⁰ The modal semantic space has several subsenses, including different nuances of comparison, such as comparing various measures of extent (e.g., temporal duration or quantity) and comparison of manner. In the usage of אַשְׁרֵי, I have identified comment/accord and similitive subsenses. Comment/accord can be represented schematically as ‘*q*, as *p*’, where clause *q* accords with some statement in *p*. As described by Kortmann (1997, 87–8), “*p* expresses the speaker’s comment on the content of the matrix clause, typically with the aim of affirming the truth (and thus reliability) of *q*.” See possibly, for example, Gen. 42.14. While Kortmann’s description focuses on this relation in the realm of epistemic modality (e.g., “As you said, this analysis is probably correct”), אַשְׁרֵי typically marks this relationship within the realm of deontic modality, as in Jer. 48.8 (LXX 31.8 καθὼς); Mic. 7.20 (LXX καθότι); Ps. 106.34. A similitive interclausal relationship can be schematically represented as ‘*q*, (in the same way) as *p*’. For examples of this with אַשְׁרֵי, see Exod.

(9) וַיֹּאמֶר מִיכָיִהוּ הַנֶּגֶד רֹאֵה בַיּוֹם הַהוּא אֲשֶׁר תָּבֹא קָדָר בְּחֹדֶר לְהִתְבַּהֵּ:

‘Then Micaiah said, “Behold, you will see in that day **when** you go into an inner room to hide.” (1 Kgs 22.25; LXX ὅταν)

Interpretation as a temporal conjunction seems to be especially facilitated in contexts where it would otherwise function as a relative in relation to יום ‘day’ or other temporal nouns, even if only by implicature. IBHS (334) notes that this function is facilitated in contexts without a resumptive pronoun, as in this example (cf. JM, 562).³¹

(10) הַיּוֹם | יִדְעֻנוּ כִּי־בָתוּכְנוּ יְהוָה אֲשֶׁר לֹא־מַעֲלֵתֶם בְּיְהוָה הַמַּעַל הַזֶּה

10.6; 14.13 (LXX ὃν τρόπον; Tar. Onq. -כמא ד-); Deut. 15.14 (LXX καθά). For more on these categories and the subsenses of the modal semantic space, see Kortmann (1997, 87–88, 195–96); Haspelmath and Buchholz (1998, 277–334); as well as the contributions in Treis and Vanhove (2017).

³¹ Note that for adverbial conjunctions which span multiple subsenses within the temporal semantic domain, I provide only one example for the sake of space. In example (9), the temporal subsense communicated is simultaneity overlap (SIOVER) which may be represented as ‘when *p*, *q*’, where the conjunction signals that clause *p* overlaps with clause *q* in time (also Gen. 40.13; Num. 33.1; Deut. 1.46; 2 Sam. 19.25; 1 Kgs 8.9; 11.42; Jer. 29.19). אֲשֶׁר is also used to mark simultaneous duration (SIDUR) between clauses, defined as ‘while *p*, *q*’, where the conjunction signals that clause *p* opens up a time interval for the whole or part(s) of which clause *q* is true (e.g., Josh. 14.10; 1 Sam. 20.31). For a discussion of the subsenses of temporal interclausal relations, see Locatelli (2020). For a crosslinguistic perspective and evidence for the categorial reality of these subsenses, see Kortmann (1997, 84–5, 181–93).

‘Today we know that the LORD is in our midst, **in that** you have not committed this unfaithfulness against the LORD.’

(Josh. 22.31; LXX $\delta\iota\acute{o}\tau\iota$)

- (11) הָבֵה נִרְדָּה וְנִבְלָה שָׁם שְׂפָתֵיכֶם אֲשֶׁר לֹא יִשְׁמְעוּ אִישׁ שְׂפַת רֵעֵהוּ:

‘Come, let us go down and confuse their language, **that** they will not understand one another’s language.’ (Gen.

11.7; LXX $\acute{\iota}\nu\alpha$)

- (12) וְהָיְתָ נְבִלָת אֵיזָבֵל כְּדָמֵן עַל־פְּנֵי הַשָּׂדֶה בְּחֶלֶק יִזְרְעֵאל אֲשֶׁר לֹא־יֵאמְרוּ זֹאת אֵיזָבֵל:

‘And the corpse of Jezebel will be as dung on the face of the field in the portion of Jezreel **so that** they will not say

“This is Jezebel.”’ (2 Kgs 9.37; LXX $\acute{\omega}\sigma\tau\epsilon$)

- (13) רְאֵה אֲנֹכִי נֹתֵן לְפָנֶיכֶם הַיּוֹם בְּרָכָה וְקִלְלָה: אֶת־הַבְּרָכָה אֲשֶׁר תִּשְׁמְעוּ אֵלַי־מִצֻּוֹת יְהוָה אֱלֹהֵיכֶם אֲשֶׁר אֲנֹכִי מְצַוֶּה אֶתְכֶם הַיּוֹם: וְהַקִּלְלָה אִם־לֹא תִשְׁמְעוּ אֵלַי־מִצֻּוֹת יְהוָה אֱלֹהֵיכֶם...

‘See, I am setting before you today blessing and curse. The blessing, **if** you listen to the commandments of the LORD your God which I am commanding you today. And the curse, if you do not listen to the commandments of the LORD your God...’ (Deut. 11.26–28)³²

³² Notable here is the use of conditional אִם parallel to אֲשֶׁר. It is also worth noting that Tg. Onq. renders אֲשֶׁר here with אִם (הוּ), despite the fact that Tg. Onq. and Tg. Neb. usually render these putative non-relative אֲשֶׁר clauses with -ד. The LXX renders this with $\acute{\epsilon}\lambda\nu$, which is also commonly used to head conditional clauses.

3.4. בְּאֶשֶׁר

The usage of בְּאֶשֶׁר spans the locative and CCC semantic spaces of interclausal relations, the most common being the locative use. These uses include place ‘where(ever) *p*, *q*’ (14) and cause ‘because *p*, *q*’ (15).³³

- (14) וַתֹּאמֶר רוּת אֶל-תִּפְגַּעִי-בִי לְעֹבֵד לְשׁוֹב מֵאַחֲרַיִךְ כִּי אֶל-אֲשֶׁר תֵּלְכִי אֵלַיִךְ
וּבְאֶשֶׁר תֵּלִינִי אֵלָיון עִמָּךְ עַמִּי וְאֵלֶיִךְ אֱלֹהֵי:

‘Then Ruth said, “Do not implore me to abandon you, to return from following after you. For wherever you go I will go and **wherever** you lodge I will lodge. Your people are my people and your God is my God.”’ (Ruth 1.16; LXX *ὅπου ἐλθῶ*)

- (15) אֵינְנוּ גָדוֹל בְּבַיִת הַזֶּה מִמְּנִי וְלֹא-חָשַׁד מִמְּנִי מְאוּמָה כִּי אִם-אוֹתָךְ בְּאֶשֶׁר אַתָּה-
אֲשֶׁתּוֹ

‘There is no one in this house greater than me and he has not withheld anything from me except you, **because** you are his wife.’ (Gen. 39.9; LXX *ὅτι τὸ + infinitive*; Tg. Onq. בדיל -ד)

3.5. כְּאֶשֶׁר

The usage of כְּאֶשֶׁר spans the modal, temporal, and CCC semantic spaces, with modal and temporal uses predominating. These

³³ For additional examples, see the following. **Locative**: Gen. 21.17 (with a nominal clause); Judg. 5.27; 17.8, 9; 1 Sam. 23.13; 2 Kgs 8.1; Ruth 1.17; Job 39.30. **Causal**: with nominal clauses, Gen. 39.23; Eccl. 8.4; with nominal and finite clause in parallel, Eccl. 7.2. We may also note this use in 4Q504 f4.5 = 4Q506 f131–32.11. The unusual, but ostensibly related, כְּשֶׁנָּם in Gen. 6.3 may also be mentioned.

include modal ‘*q*, as *p*’ (16)–(17), temporal ‘when *p*, *q*’ (18), causal ‘because *p*, *q*’ (19), and conditional ‘if *p*, *q*’ (20) uses.³⁴

(16) ויעש הרע בעיני יהוה כַּאֲשֶׁר עָשָׂה מְנַשֶּׁה אָבִיו

‘And he did evil in the sight of the LORD **as** his father Manasseh did.’ (2 Chron. 33.22)

(17) ויִצְוֶה אֶת־אֲשֶׁר עַל־בֵּיתוֹ לֵאמֹר מְלֵא אֶת־אֲמָתֹתַי הָאֲנָשִׁים אֶכֶל כַּאֲשֶׁר יוּכְלוּן
שָׂאת

‘And he commanded the one who was over his house, “Fill the men’s sacks with food, **as much as** they are able to carry.”’ (Gen. 44.1; LXX ὅσα ἐὰν; Tg. Onq. דְּ כַּמָּא דְּ)³⁵

³⁴ For additional examples, see the following. **Modal:** again, the interclausal relationship of ‘comparison’ in the modal semantic space can be broken up into various overlapping subsenses, including COMACC ‘*q*, as *p*’, Gen. 7.9, 16; 12.14; 40.22; 41.13; Exod. 12.28; Deut. 2.14; 11.25; 12.20; 26.19; Judg. 6.36, 37; 1 Sam 24.13; 1 Kgs 9.5; Jer. 26.11; Joel 2.32; Ps. 48.9; Comparison (COMPAR) ‘*q*, as (if) *p*’, where the comparison is usually, though not necessarily, hypothetical (Kortmann 1997, 88), 2 Sam. 16.23; Zech. 10.6; Job. 10.19; SIMIL ‘*q*, (in the same way) as *p*’, Gen. 8.21; 34.22; Exod. 2.14; 33.11; Lev. 4.21; 24.19, 20; Num. 11.12; Deut. 1.44; Judg. 1.7; 1 Sam. 15.33; 1 Kgs 9.2; 2 Kgs 21.13; Eccl. 5.14; Isa. 9.2; 20.3–4; Equative (EQUAT) ‘*q*, (to the same extent) as *p*’, Gen 44.1; Josh. 14.11; 1 Sam. 2.16; Ezek. 46.7; Zech. 8.13. See references in fn. 30 for more on these categories. **Temporal:** Gen. 18.33; 32.3; 40.14; 43.2; Exod. 17.11; Deut. 2.16; Josh. 2.7; Josh. 4.1, 11; 5.8; Judg. 3.18; 6.22; 1 Sam. 1.24; 6.6; 8.1, 6; 12.8; 24.1; 2 Sam. 12.21; Ps. 56.7; Neh. 5.6; 6.3; 7.1; Eccl. 4.17. **Causal:** Judg. 6.27; 2 Kgs 17.26; Mic. 3.4. 1 Sam. 28.18 seems at least to have a strong causal implicature. See (37) below. **Conditional:** Exod. 10.10; Est. 4.16 (LXX ἐὰν).

³⁵ Notable in this example (and other cases of כַּאֲשֶׁר marking an equative interclausal relationship listed above) is that it employs only a standard

- (18) וַיֹּאמֶר יַעֲקֹב כְּאֲשֶׁר רָאָם מַחֲנֵה אֱלֹהִים זֶה וַיִּקְרָא שְׁם־הַמָּקוֹם הַהוּא מַחֲנֵיִם:
 ‘And Jacob said **when** he saw them, “This is the camp of God.” And he called the name of the place Mahanaim.’
 (Gen. 32.3)
- (19) וּרְאִיתָהּ אַתָּה וְנִאֲסַפְתָּ אֶל־עַמִּידָה גַם־אַתָּה כְּאֲשֶׁר נִאֲסַף אֶהְרֹן אֶחִידָה: כְּאֲשֶׁר
 מְרִיתֶם פִּי בַמִּדְבָּר־צִוֹן...
 ‘And you will see it and you will be gathered to your people, also you, as your brother Aaron was gathered, **because** you rebelled against my word in the wilderness of Zin...’ (Num. 27.13–14; LXX *διότι*)
- (20) וְאֵל שְׂדֵי יִתְּן לְכֶם רַחֲמִים לִפְנֵי הָאִישׁ וְשִׁלַּח לְכֶם אֶת־אֶחָיְכֶם אַחֵר וְאֶת־
 בְּנִימִין וְאֲנִי כְּאֲשֶׁר שָׁכַלְתִּי שָׁכַלְתִּי:
 ‘And may God Almighty give you mercy before the man so that he will send to you your other brother, Benjamin. As for me, **if** I am bereaved, I am bereaved.’ (Gen. 43.14)

3.6. כִּשְׁ-

The profile of כִּשְׁ- includes modal ‘*q*, as *p*’ (21) and temporal ‘when *p*, *q*’ (22) uses. I have found only six cases of this form in

marker. Equative constructions often employ a standard and a parameter marker, e.g., ‘You drive as well as I speak Chinese’, where ‘as well’ is the parameter and ‘as I speak Chinese’ is the standard. Haspelmath and Buchholz (1998, 295–97) note several languages that express such equative constructions with only a standard marker. This is typical of head-final, non-finite Eastern European languages. An exception is head-initial Balkan languages, which employ only a standard marker derived from a manner relative pronoun. This is similar to the situation with Hebrew כְּאֲשֶׁר.

Classical Hebrew, making analysis relatively difficult and provisional.³⁶

(21) כְּאִשֶּׁר יֵצֵא מִבֶּטֶן אִמּוֹ עָרוֹם יָשׁוּב לְלֶכֶת כְּשֶׁבֵא

‘As he came from his mother’s womb, naked he will return as he came.’ (Eccl. 5.14; LXX ὥς)

(22) וְגַם בַּדֶּרֶךְ כְּשֶׁהִסְכֵּל הַלֵּךְ לְבוֹ הִסָּר

‘And even in the road **when** a fool is walking, his sense is lacking.’ (Eccl. 10.3; LXX ὅταν)

3.7. כִּי

The most polysemous adverbial conjunction in the Hebrew Bible is כִּי. Its profile includes uses spanning many subsenses of the temporal and CCC semantic spaces, with the causal sense being by far its most common use as an adverbial conjunction. These uses include temporal ‘when *p*, *q*’ (23), causal ‘because *p*, *q*’ (24), contingent (i.e., indefinite time) ‘whenever *p*, *q*’ (25), conditional ‘if *p*, *q*’ (26), concessive conditional ‘even if *p*, *q*’ (27), concessive ‘although *p*, *q*’ (28), result ‘*q*, so that *p*’ (29), purpose ‘*q*, in order that *p*’ (30), and contrastive ‘*q*, but *p*’ (31) uses.³⁷

(23) וְכָל־יִשְׂרָאֵל כִּי לֹא־שָׁמַע הַמֶּלֶךְ לָהֶם וַיֵּשִׁיבוּ הָעַם אֶת־הַמֶּלֶךְ | לֵאמֹר מִה־לָּנוּ
חֶלֶק בְּדָוִד וְלֹא־נִחַלָה בְּבִן־יִשְׂי אִישׁ לְאֹהֲלֵיךְ יִשְׂרָאֵל עֲתָה רָאָה בֵּיתְךָ דָּוִד
וַיֵּלֶךְ כָּל־יִשְׂרָאֵל לְאֹהֲלָיו:

³⁶ Also see **similative**: Eccl. 12.7; **comment/accord**: 4Q397 f6–13.12; **temporal**: Eccl. 9.12; Sir. 30.12 (MS B 3r.3; Beentjes 1997, 54).

³⁷ For additional examples, see the following: **Temporal**: Gen. 24.41; 31.49; Lev. 14.34–35; 19.33; Deut. 4.25–26; 18.9; Ps. 32.3; 1 Chron. 7:21. **Causal**: Gen. 50.19; Lev. 22.7; Ezek. 3.4–5; Ps. 3.8; 1 Chron.

‘And all Israel, **when** the king did not listen to them, the people replied to the king saying, “What share do we have in David?” and “We do not have an inheritance in the son of Jesse. Each man to his tent, O Israel. Now see to your own house, David.” Then all Israel went to their tents.’ (2 Chron. 10.16)³⁸

11.19. This is the most common use of כִּי and citations could be multiplied. **Contingent:** Gen. 4.12; Lev. 1.2; 2.1, 4; 4.2; 15.2, 16, 19; Lev. 19.5, 23; 22.21, 27, 29; 23.10; Ezek. 46.12; 2 Chron. 6.36. **Conditional:** Gen. 4.24; Lev. 13.51–54; 15.8, 25 (2x); Ezek. 3.19; Ps. 11.3; 2 Chron. 6.28 (4x). **Concessive conditional:** Isa. 1.15; Hos. 8.10; 9.16; Ps. 37.24; Lam. 3.8. **Concessive:** Gen. 31.37; 48.14; Jer. 51.53 (2x); Ezek. 2.6; 3.9; 11.16 (2x); 12.3; 32.25, 26, 27, 32; Ps. 21.12; 1 Chron. 5.2; 24.24. **Result:** Gen. 20.9; 40.15; Ps. 8.5 (2x); 1 Chron. 17.16; 29.14; 2 Chron. 32.14. This use also appears in epigraphic Hebrew at Lachish 2.4; 5.4; 6.3. **Purpose:** Gen. 29.32 (3x); Job. 3.12. **Contrastive:** Gen. 18.15; 21.7; 24.4; Exod. 4.10; 34.13; Deut. 4.26; 1 Kgs 21.15; Ezek. 10.11; 1 Chron. 29.1; 2 Chron. 8.9. Note again that while temporal כִּי spans many subsenses in the temporal semantic space, I provide only one example here for the sake of space. These subsenses, however, are represented in the semantic map provided below in Figure 5. As noted above, these subsenses are discussed in detail in Locatell (2020).

³⁸ Note that there is a possible textual issue here when compared with the synoptic text in 1 Kgs 12.16, which has וַיִּרְא כָּל־יִשְׂרָאֵל כִּי לֹא־שָׁמַע הַמֶּלֶךְ אֶל־אֲלֵיהֶם. Here, the clause clearly functions as a complement clause. However, whatever the source of the text in 2 Chron. 10.16, it still constitutes a valid use of language, even if not ‘original’. Additionally, the LXX supports this reading, as well as the causal implicature of the temporal clause, by rendering it with ὅτι (on which see the discussion of example (39) in §5.2 below). These readings are actually switched in Tg. Neb. and Tg. Ket. The Syr. of 2 Chron. 10.16 is identical to that of

- (24) עָתָה חִכְמָה וּמִדָּע תָּוֶלֵי וְאַצְאָה לְפָנַי הָעַם־הַזֶּה וְאַבֹּאֶה כִּי־מִי יִשְׁפֹּט אֶת־
עַמְּךָ הַזֶּה הַגָּדוֹל:
‘Now, grant me wisdom and knowledge so that I may go out before this people and enter in. **For** who can rule this great people?’ (2 Chron. 1.10; LXX ὅτι)
- (25) כִּי יַחֲטְאוּ־לָךְ כִּי אִין אָדָם אֲשֶׁר לֹא־יַחֲטֵא וְאַנְפַּתְּ בָּם וּנְתַתֶּם לְפָנַי אוֹיֵב
וְשָׁבוּם שׁוֹבֵיהֶם אֶל־אֶרֶץ רְחוֹקָה אִו קְרוֹבָה
‘**Whenever** they sin against you (for there is no one who does not sin) and you are angry with them and give them up before an enemy, and they take the captive to a land far or near . . .’ (2 Chron. 6.36; Tg. Ket. כד)
- (26) אִו כִּי יִשׁוּב הַבֶּשֶׂר הַחַי וְנִהְפֵּךְ לְלָבָן וּבָא אֶל־הַכֹּהֵן:
‘Or **if** the raw flesh turns and changes to white, he will go to the priest.’ (Lev. 13.16, LXX ἐάν)
- (27) גַּם כִּי־אֵלֶךְ בְּגִיא צִלְמוֹת לֹא־אִירָא רַע כִּי־אַתָּה עִמָּדִי
‘**Even if** I walk through the valley of the shadow of death, I will not fear evil, for you are with me.’ (Ps. 23.4)³⁹
- (28) כִּי־נָטוּ עָלַיִךְ רַעָה חֲשָׁבוּ מְזִמָּה בְּלִי־וֹכְלוֹ:
‘**Although** they have ventured evil against you, have devised a plot, they will not succeed.’ (Ps. 21.12)
- (29) וַיֹּאמֶר אַבְיִמֶלֶךְ אֶל־אַבְרָהָם מָה רְאִיתָ כִּי עָשִׂיתָ אֶת־הַדָּבָר הַזֶּה:

1 Kgs 12.16 (אִם אֵלֶיךָ אֵלֶיךָ). However, this could perhaps be understood as the result of the translator’s known penchant to draw on parallel passages in earlier books (Weitzman 1999, 79, 118).

³⁹ The use of a focus particle like *גַּם* with a conditional is a typologically pervasive bridging context facilitating the development of concessive conditionals (Haspelmath and König 1998, 620). Note that this collocation does not necessarily result in a concessive conditional meaning (e.g., Rut. 2.21, Prov. 22.6).

‘Then Abimelech said to Abraham, “What did you see **so that** you did this thing?”’ (Gen. 20.10)

(30) וַתֹּאמֶר מִה־תִּתְּנֶנִּי כִּי תָבוֹא אֵלַי:

‘And she said, “What will you give me **in order that** you may come in to me?”’ (Gen. 38.16)

(31) וַיֹּאמֶר אֱלֹהִים אֶל־אַבְרָהָם שְׂרֵי אִשְׁתְּךָ לֹא־תִקְרָא אֶת־שְׁמָהּ שְׂרֵי כִּי שָׂרָה שְׁמָהּ:

‘And God said to Abraham, “As for Sarai your wife, you will not call here name Sarai, **but** Sarah will be her name.”’ (Gen. 17.15)

3.8. על אֲשֶׁר

The usage of על אֲשֶׁר spans the locative and CCC semantic spaces, with the causal use being most common. It is used to mark interclausal relations of place ‘where(ever) *p*, *q*’ (32) and cause ‘because *p*, *q*’ (33).⁴⁰

(32) תָּמוּל | בּוֹאֵד וְהַיּוֹם אֲנֻעֵךְ עִמָּנוּ לְלֶכֶת וְאֲנִי הוֹלֵךְ עַל אֲשֶׁר־אֲנִי הוֹלֵךְ

‘You arrived yesterday and today will I make you go wander with us while I go **wherever** I go?’ (2 Sam. 15.20; LXX οὗ ἄν; Tg. Neb. -לְאֶתֶר דְּ-)

(33) וַיִּחַר־אַף יְהוָה בְּעִזָּא וַיִּכְהוּ עַל אֲשֶׁר־שָׁלַח יָדוֹ עַל־הָאָרוֹן

⁴⁰ For additional examples, see the following: **Locative**: 1 Kgs 18.12; Ezek. 1.20. **Causal**: Exod. 32.35; Num. 20.24; Deut. 29.24; 32.51 (2x); 1 Sam. 24.6; 2 Sam. 3.30; 6.8; 8.10; 1 Kgs 9.9; Jer. 16.11; 22.9; Ezek. 23.30; 35.15; Job 32.3; Est. 1.15; 8.7; 1 Chron. 13.10; 2 Chron. 7.22. However, as with the other multi-word forms discussed, it is important to note that על and אֲשֶׁר do not always function together as a unit.

‘And the wrath of the LORD burned against Uzzah and he struck him **because** he reached out his hand on the Ark.’
(1 Chron. 13.10; LXX διὰ τὸ + infinitive; Tg. Ket. -ד מטול)

The above examples illustrate the usage profile of those adverbial conjunctions in Biblical Hebrew with relatively clear polysemy. They all span two or more of the basic semantic spaces of adverbial relationships, in overlapping but usually different ways. The question raised in this study is how these various uses may be organised conceptually and arranged diachronically in a semantic map. This is discussed in the next section, with some select examples illustrating the heuristic and predictive value of such an approach.

4.0. Generating Hypotheses with Diachronic Semantic Maps

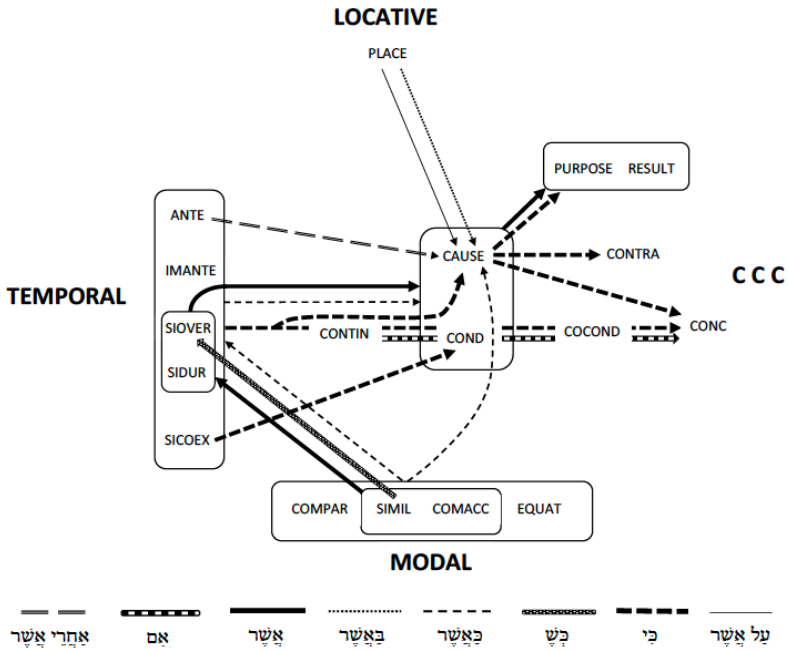
The semantic map below organises the usage profiles of each adverbial conjunction treated above according to cross-linguistically pervasive polysemy patterns and paths of change as explained in §2.0 above.⁴¹ As discussed in §2.0, the heuristic

⁴¹ Cf. the typological map presented in Kortmann (1997, 210). Note that the typological data does not necessarily predict a direct extension from the modal use of כִּי to its causal use, though this is certainly compatible with the typological data. Rather, this direct line was drawn because a plausible bridging context was identified that may suggest such a path. This is discussed in §5.0 below. Alternatively, there may be bridging contexts connecting modal כִּי with the CCC domain. However, none were clearly identified in the course of this study, so the only path shown is modal > temporal > CCC.

value of such maps is to generate hypotheses about the possible conceptual relationships between uses, and which uses have served as sources and goals in language change. Here, I describe how the usage profiles of polysemous adverbial conjunctions in Biblical Hebrew map onto such semantic maps and the diachronic hypotheses this generates. In the following section, I will look at ways of corroborating these hypotheses by examining bridging contexts and cognate data.

The usage profile of each adverbial conjunction above is represented by different, (usually) directional arrows indicating direction of development. An enclosing box indicates when a usage profile includes all the subsenses in a given space or cluster (e.g., temporal space or cause and condition in the CCC space). In some cases, this somewhat defers the question of which subsenses served as the specific loci of extension into other spaces. Alternatively, a line extending into an enclosing box indicates usage of only the subsense with which it connects.

Figure 5: Semantic map of polysemous adverbial conjunctions in Biblical Hebrew



The benefit of this representation is that one can see paths between the four major semantic spaces as well as the similarities and differences between the profiles of each adverbial conjunction.⁴² However, in order to compensate for the lack of

⁴² The following definitions are from Kortmann (1997, 79–87). Terms and definitions for modal relations also draw upon Haspelmath and Buchholz (1998) and Treis and Vanhove (2017). **ANTE**: Anteriority, ‘after p , q ’, where clause p simply precedes clause q in time; **CAUSE**: Cause, ‘because p , q ’, where clause p identifies a cause, reason, or motivation for clause q ; **COCON**: Concessive condition, ‘even if p , q ’, where q is true or will materialise for any value of a variable in p ; **COMACC**: ‘ q , as p ’, where clause q accords with some statement in p ; **COMPAR**: ‘ q , as

transparency, the table below is provided, which lists the various paths for each adverbial conjunction.

(if) *p*', where the comparison is usually, though not necessarily, hypothetical; **CONC**: Concession, 'although *p*, *q*', where the general incompatibility of *p* and *q* are assumed background knowledge; **COND**: Condition, 'if *p*, *q*', where clause *p* identifies the condition upon which clause *q* is, would be, or would have been true; **CONTIN**: Contingency, 'in cases when *p*, *q*' or 'whenever *p*, *q*', where at all times when clause *p* is true, clause *q* is also true; **CONTRA**: Contrast, '*q*, whereas/but *p*', where clauses *q* and *p* may be used as arguments for different conclusions, though not necessarily inherently incompatible, as with concession; **EQUAT**: Equative, '*q*, (to the same extent) as *p*', where the extent of *q* is equated to that of *p*; **IMANTE**: Immediate anteriority, 'as soon as *p*, *q*', where clause *p* immediately precedes clause *q*; **PLACE**: Place, 'where(ever) *p*, *q*', where *p* identifies a location (definite or indefinite) in which *q* takes place; **PURPOSE**: Purpose, '*q*, in order that *p*', where *p* is an intended result or consequence of *q* that is yet to be achieved; **RESULT**: Result, '*q*, so that *p*', where *p* expresses a (mostly factual and typically non-intended) result or consequence of *q*; **SICOEX**: Simultaneity co-extensiveness, 'as long as *p*, *q*', where clause *p* opens up a time interval for the whole of which clause *q* is true; **SIDUR**: Simultaneity duration, 'while *p*, *q*', where clause *p* opens up a time interval for the whole or part(s) of which clause *q* is true; **SIMIL**: Similative, '*q*, (in the same way) as *p*', where some aspect of situation *q* is described by comparing it to situation *p*; **SIOVER**: Simultaneity overlap, 'when *p*, *q*', where clause *p* overlaps with clause *q* in time. Note that these different semantic spaces include other subsenses excluded here because they have not been found used in these adverbial conjunctions.

Table 1: Grammaticalisation paths for each polysemous adverbial conjunction in Biblical Hebrew⁴³

Form	Hypothesized Paths
אַחֲרֵי אֲשֶׁר	ANTE > CAUSE
אִם	CONTIN > COND > COCOND > CONC
אֲשֶׁר	MODAL > TEMPORAL > CAUSE, COND, PURPOSE/RESULT
בְּאֲשֶׁר	PLACE > CAUSE
כְּאֲשֶׁר	MODAL > TEMPORAL > CAUSE; TEMPORAL > COND; MODAL > CAUSE
כִּשֵׁ	SIMIL > SIOVER
כִּי	TEMPORAL > CCC; SIOVER > CONTIN > COND > COCOND > CONC; CAUSE > PURPOSE/RESULT; CAUSE > CONTRA; CAUSE > COND
עַל אֲשֶׁר	PLACE > CAUSE

Considering Figure 5, we note the following broader observations. Certain semantic spaces in this map are ‘cut up’ to different degrees. For example, *עַל אֲשֶׁר* and *בְּאֲשֶׁר* both mark definite and indefinite place in the locative semantic space.⁴⁴ By contrast, the temporal and CCC semantic spaces are ‘cut up’ quite

⁴³ Note that in some cases, a broader semantic domain is listed in a path rather than a specific subsense (e.g., TEMPORAL > CAUSE, COND). In this case, it means some subsense(s) in the temporal semantic space developed both causal and conditional extensions. There is likely a more specific subsense of the temporal semantic space that is more likely to have developed into causal and conditional uses, respectively. However, which subsenses this may have involved is left unspecified. A larger study would pursue these details at a more fine-grained level.

⁴⁴ There are, however, a variety of other locative relations, such as direction goal ‘whither’ (*אֶל אֲשֶׁר*, e.g., Num. 33.54; Ezek. 1.12; Ruth 1.16) and direction source ‘whence’ (*מִשָּׁם... אֲשֶׁר*, e.g., Gen. 3.23; 24.5), which are not marked by *עַל אֲשֶׁר* and *בְּאֲשֶׁר*. For more on these other types of locative relations, see Kortmann (1997, 88–89, 193–94).

differently by the various other adverbial conjunctions. For example, אֲשֶׁר, בְּאֲשֶׁר, and כִּי uses span several subsenses in the temporal space, while אַחֲרֵי אֲשֶׁר, and כִּשְׁ- are only seen to communicate a single subsense. Likewise, אֲשֶׁר, בְּאֲשֶׁר, and כִּי have both conditional and causal uses. However, אִם intersects with only condition, while אַחֲרֵי אֲשֶׁר, בְּאֲשֶׁר, and עַל אֲשֶׁר intersect with only causation.

There are also multiple paths attested between the basic semantic spaces. The usage profiles of כִּי and אִם both connect the temporal and CCC semantic spaces (particularly condition) via contingency (indefinite time), which is, of course, a typologically common bridge. However, אֲשֶׁר and כִּבְאֲשֶׁר extend from the temporal to the CCC semantic space without the use of indefinite time. Likewise, the profile of אַחֲרֵי אֲשֶׁר suggests the extension from anteriority directly to causation. Both would be examples of the typologically pervasive tendency for temporal relations to invite causal inferences, leading to semantic extensions via the *post hoc ergo propter hoc* ('after this, therefore because of this') line of reasoning in which a causal relationship is inferred from sequence or overlap in time (Traugott and König 1991, 194–99). Thus, multiple developmental paths are available from the temporal to CCC semantic spaces.⁴⁵ In accordance with the

⁴⁵ As Givón (1991, 298) observes

...our old reductionist habits, of seeking single causes to complex linguistic events, single explanations to linguistic phenomena, or—in diachrony—single pathways for linguistic change, are inadequate and often misleading... contrary to old reductionist propensities, diachronic grammatical change is often complex, multi-causal and interactive.

typological picture presented in §2.0, this semantic map postulates diachronic development with CCC relations as the prototypical goal network. The only polysemous adverbial subordinator which does not have a use in the CCC space is $\text{-}\psi\text{ך}$.⁴⁶

5.0. Testing Hypotheses of the Semantic Map

In terms of heuristic value, the space between adjacent uses as they are arranged along this semantic map point to typologically plausible bridging contexts where semantic extension would have occurred. As discussed in §3.0 above, intermediate examples between these adjacent uses can then be examined to corroborate the prediction of the semantic map. Note that the goal here is not to find the very instances in which an extension originally took place. Rather, in the development of uses in the form 'A > A/B > B', all uses including the 'A/B' use in bridging contexts often persist side-by-side in layering, as presented in Figure 2 above. Uses in such bridging contexts will communicate sense 'A', but the context will also motivate an inference to sense 'B'. Thus, identifying persistent 'A/B' uses can reveal the loci which initially facilitated a particular change, as well as the inferential processes which may have motivated it, even after the

Thus, this representation should not be seen as ruling out possible extensions from the modal directly to the CCC space. To be sure, the usage profiles suggest that the strongest affinities for extension would proceed MODAL > TEMPORAL > CCC. However, multiple sources are also likely. Recall Figure 3 above.

⁴⁶ Of course, with only six cases to consider, this may simply be due to its rarity.

change had already occurred, and possibly even after its 'A' source use had already died out. The following discussion presents representative examples of grammaticalisation paths between each major semantic space. I will consider possible bridging contexts for extensions from the modal, temporal, and locative semantic spaces, as well as bridging contexts for extensions within the CCC semantic space.

5.1. Extension from the Modal Semantic Space

The profile of כְּאֲשֶׁר illustrates plausible bridging contexts in the paths of semantic extension from the modal semantic space to the temporal and CCC spaces, as seen in the following examples.

(34) SIMIL > SIOVER ('as *p*, *q*' > 'when *p*, *q*')⁴⁷

יְגֹרְרוּ | יִצְפִּינֵנוּ הַמָּה עֲקֵבֵי יִשְׁמְרוּ כְּאֲשֶׁר קִוּוּ נַפְשֵׁי:

'They attack, they lurk, they watch my steps **as/while** they seek to take my life.' (Ps. 56.7; LXX *καθάπερ*; Tg. Ket. היכמה -ד)⁴⁷

Here, the action in the main clause 'they watch my steps' is compared to that in the adverbial clause 'they seek to take my life'. The aspect of the verbal ideas being compared seems to be their temporal frame of reference. The picture painted by the psalmist is that of the attentive gaze of his enemies continually on the lookout for an opportunity to take his life (cf. Tate 1998, 70). The LXX and Targum renderings of כְּאֲשֶׁר here employ typically comparative conjunctions. However, there is clearly a

⁴⁷ For other possible bridging contexts along these lines with כְּאֲשֶׁר, see Eccl. 4.17; Neh. 5.6; 6.3.

temporal implicature. In such contexts, a similative (i.e., comparative) conjunction can be reinterpreted as a temporal conjunction when it is comparing the timeframe, point in time, or temporal duration of the verb in the adverbial clause with that of the verb in the main clause.⁴⁸

Perhaps an even clearer case of this bridging context can be seen in the following example.

(35) SIMIL > SIOVER ('as *p*, *q*' > 'when *p*, *q*')

וַיִּזְרַח-לּוֹ הַשֶּׁמֶשׁ כַּאֲשֶׁר עָבַר אֶת-פְּנוּאֵל וְהוּא צֹלַע עַל-יָרְכוּ:

'And the sun rose **as/while** he passed Penuel (and he was limping because of his hip).' (Gen. 32.32; LXX ἡνίκα; Tg.

Onq. כד; Syr. ܕܘܢܝܢ)

Here, the durative process of the sun rising is compared to the durative process of Jacob physically traversing a particular location. This comparison of duration or temporal overlap invites the inference of a temporal relation between the main and adverbial clause. Such uses are bridges between distinctly modal uses, like example (16) above, and temporal uses, like example (18) above. Deutscher (2000, 39) notes the following example illustrating such a bridging context in the history of English *as*.

⁴⁸ Depending on the temporal idea being compared, this can be reinterpreted as a number of different temporal subsenses. For example, comparing temporal duration can facilitate an interpretation of simultaneous coextensiveness, while comparing points in time can facilitate an interpretation of simultaneous overlap. These temporal interpretations, in turn, can have varying propensities for developing subsequent extensions in the CCC domain (see further Locatell 2020).

(36) ‘Thus pleyneþ John as he gooth by the way’ (Canterbury Tales I.4114)

In this example, the temporal duration of John ‘complaining’ is compared with the temporal duration of him ‘going by the way’. This comparison invites a temporal inference that John complained ‘while’ he went by the way. In fact, this is one of the stages in the development of English *as*, which today has comparative, temporal, and also causal meanings.⁴⁹ Such contexts invite a richer semantic interpretation. Such strengthening of informativeness is a type of metonymic extension from MODAL > TEMPORAL (cf. Traugott and König 1991, 207–12).⁵⁰

Another plausible bridging context is from the modal to the CCC semantic space. This can be seen in the following example.

⁴⁹ For example, it has been widely observed that English *as* originally came from the relative pronoun *swá*. This was later reinforced with *all* as *all swá*. Through unitisation and phonological reduction (hallmarks of grammaticalisation), this gradually progressed as follows: *all swá* > *also* > *alse* > *als* > *as*. See Kortmann (1997, 315–19) and Haspelmath and Buchholz (1998, 292–93). In fact, the polysemy pattern of English *as* has considerable overlap with that of כַּאֲשֶׁר (e.g., as comparative, temporal, and causal). Examples from many other languages can be multiplied. In all, the study of Haspelmath and Buchholz is based on 47 different languages. For other cases of this polysemy pattern and pathway of development, see Heberlein (2011, 235–371), and Treis (2017, 133).

⁵⁰ Hetterle (2015, 260–61) also notes the crosslinguistically pervasive occurrence of this polysemy pattern, though she proposes no mechanism for the semantic extension other than citing their “cognitive relatedness.”

(37) SIMIL > CAUSE ('as *p*, *q*' > 'because *p*, *q*')⁵¹

כַּאֲשֶׁר לֹא־שָׁמַעְתָּ בְּקוֹל יְהוָה וְלֹא־עָשִׂיתָ חֲרוֹן־אָפוֹ בְּעַמְלֶק עַל־כֵּן הִדְבַּר
הַזֶּה עָשָׂה־לְךָ יְהוָה הַיּוֹם הַזֶּה:

'As/because you did not obey the voice of the LORD and did not execute his fierce wrath upon Amalek, therefore the LORD did this thing to you today.' (1 Sam. 28.18; LXX *διότι*; Tg. Neb. -כמא ד-)⁵¹

Here, the disobedience of Saul is compared to, and shown to be commensurate with, the judgment of the LORD. Since disobedience is also presented as the reason for judgment, this invites a richer causal interpretation. In such a context, similative כַּאֲשֶׁר can be reanalysed as a causal conjunction.⁵² The use of עַל־כֵּן reinforces this causal interpretation, since it is commonly used anaphorically to refer back to the causal grounds of the clause it heads (BHRG², §40.38). The LXX clearly reflects this causal reading with the use of *διότι*, whereas the Targum uses the more direct rendering -כמא ד-

5.2. Extension from the Temporal Semantic Space

The major path from the temporal semantic space to the CCC semantic space can also be seen in plausible bridging contexts in

⁵¹ Cf. Num. 27.13–14 and Mic. 3.4. Also see Judg. 1.7; 15.11; 1 Sam. 15.33; Jer. 5.9; Zech. 7.3, in which the sense of כַּאֲשֶׁר is more clearly modal (with כֵּן rather than עַל־כֵּן) and the causal implicature is not quite as strong, but still present.

⁵² For other examples of the relationship between these senses, see Kortmann (1997, 317–18) and Baños (2011, 212–14).

the data of Biblical Hebrew. I will consider by way of illustration the cases of אָשֶׁר, בִּי, and כְּאֲשֶׁר.

(38) ANTE > CAUSE ('*q*, after *p*' > '*q*, because *p*')

לֹא יִוָּכַל בְּעֵלְהָ הָרִאשׁוֹן אֲשֶׁר שְׁלַחָהּ לָשׁוּב לְקַחְתָּהּ לְהִיּוֹת לָּוּ לְאִשָּׁה אַחֲרָי
אֲשֶׁר הִטְמְאַהּ בִּי־תוֹעֵבָה הוּא לִפְנֵי יְהוָה...

'Her first husband who sent her away will not be able to take her again to be for him a wife, **after/since** she was defiled, for this is an abomination before the LORD...' (Deut. 24.4)⁵³

Here, the temporal relation between the main and adverbial clauses implies a causal relation. That is, '*q*, after *p*' implies '*q*, because *p*'. This is facilitated by the *post hoc ergo propter hoc* inferential process mentioned in the previous section.⁵⁴ This causal implicature is reinforced by the fact that the adverbial clause follows a volitive main clause, which constrains a reading in which the adverbial clause can be construed as the grounds for the main clause volitive. This is further reinforced by the following explicit causal clause. So, there are clear uses of אַחֲרָי אֲשֶׁר with a temporal meaning without a causal implicature, as in example (1); uses with a causal meaning in which a temporal reading is unnatural, as in example (2); and plausible bridging contexts where a temporal use has a causal implicature, as in (38).

A causal implicature can also be seen in the temporal uses of בִּי as in example (23) above, repeated here for convenience.

⁵³ Cf. Josh. 7.8 (LXX ἐπεὶ; Tg. Onq. -בִּתְרֵי ד-).

⁵⁴ See Traugott and König (1991, 194–99).

(39) SIOVER > CAUSE ('when p , q ' > 'because p , q ')⁵⁵

וְכָל־יִשְׂרָאֵל כִּי לֹא־שָׁמַע הַמֶּלֶךְ לָהֶם וַיִּשְׁיבוּ הָעָם אֶת־הַמֶּלֶךְ | לֵאמֹר מַה־לָּנוּ
חֵלֶק בְּדָוִד וְלֹא־נַחֲלָה בְּבִן־יִשִׁי אִישׁ לְאֹהֲלָיֶדֶד יִשְׂרָאֵל עֲתָה רֵאָה בֵּיתְךָ דָּוִד
וַיֵּלֶךְ כָּל־יִשְׂרָאֵל לְאֹהֲלָיו:

'And all Israel, **when/because** the king did not listen to them, the people replied to the king saying, "What share do we have in David?" and "We do not have an inheritance in the son of Jesse. Each man to his tent, O Israel. Now see to your own house, David." Then all Israel went to their tents.'

(2 Chron. 10.16; LXX ὄτι)

Here, 'when the king did not listen' implies 'because the king did not listen'. In other words, temporal overlap of the king's action and the people's response clearly implies a causal relationship between them. The king's action is the cause of the people's response. In this case the precise inferential relationship is not *post hoc ergo propter hoc*, as with the anterior sense of אַחֲרֵי אֲשֶׁר above, but rather 'state₁ relevant to state₂' (Traugott and König 1991, 197), which is to say temporal overlap > cause.

In addition to the semantic affinity between time and cause motivating a causal implicature from a temporal meaning, this example also illustrates bridging syntactic features which would facilitate semantic extension. Specifically, the position of the כִּי clause before the main clause fits the preference of temporal uses,⁵⁵ but the use of the *qatal* conjugation, atypical of temporal

⁵⁵ Locatell (2017, 235); Diessel (2001, 466; 2013, 349); Hetterle (2015, 121–27).

כי clauses,⁵⁶ facilitates the invited implicature of causation.⁵⁷ The connection between temporal and causal כי was indeed recognised by Hebraists, such as Schoors (1981, 267), but was thought to be from causal to temporal, apparently based on intuition. This further highlights the heuristic value of semantic maps in predicting bridging contexts and their directionality.⁵⁸

This same sort of bridging context as in example (39) can also be seen within the usage of כְּאֲשֶׁר. Consider the following example.

(40) SIOVER > CAUSE ('when *p*, *q*' > 'because *p*, *q*')

וַיְהִי כְּאֲשֶׁר יָרָא אֶת-בַּיִת אָבִיו וְאֶת-אֲנָשֵׁי הָעִיר מַעֲשׂוֹת יוֹמָם וַיַּעַשׂ לַיְלָה:
 'And it came about, **when/because** he feared his father's
 house and the men of the city to do it by day, he did it at
 night.' (Judg. 6.27b; LXX ὥς; Tg. Neb. -מד; Syr. -ג. ܟܥܪܘܢ)⁵⁹

Here, again, the temporal overlap between Gideon's fear of going against the prevailing customs and carrying out his counter-cultural activities by night has a clear causal implicature. This is

⁵⁶ Bandstra (1982, 121; cf. Aejmelaeus 1993, 171–72).

⁵⁷ Causal כי clauses show a clear preference for position after the main clause, but do not show a strong preference for certain conjugations (cf. Bandstra 1982, 415).

⁵⁸ See further Locatell (2020) for a discussion of the following paths of development for temporal כי: anteriority > causation; immediate anteriority > causation; simultaneous overlap > causation; simultaneous overlap > contingency > condition; simultaneous coextensiveness > condition.

⁵⁹ Cf. Neh. 4.1; 5.6; 6.16.

reflected in various ancient versions, which render כַּאֲשֶׁר with forms that are also compatible with a causal reading.⁶⁰

The following example with אֲשֶׁר provides a final illustration of semantic extension from the temporal to the CCC semantic spaces among polysemous adverbial conjunctions in BH.

(41) SIOVER > CONTIN > COND ('when *p*, *q*' > 'in cases when *p*, *q*' > 'if *p*, *q*')
 אֲשֶׁר נָשִׂיא יַחֲטֵא וְעָשָׂה אֶתֶּת מִכָּל־מִצְוֹת יְהוָה אֱלֹהָיו אֲשֶׁר לֹא־תַעֲשֶׂינָהּ

בְּשִׁגְגָה וְאָשָׁם: אִוְהוֹדֵעַ אֵלָיו חֲטָאתוֹ אֲשֶׁר חָטָא בָּהּ וְהָבִיא אֶת־קָרְבָּנוֹ
 שְׂעִיר עִזִּים זָכָר תָּמִים:

'**When(ever)/if** a leader sins and commits one of the things from all the commands of the LORD his God which ought not to be done, by accident, and is guilty, or his sin in which he sinned is made known to him, then he will bring for his offering a goat, a spotless male.' (Lev. 4.22–23; LXX Ἐὰν; Tg. Onq. אַם;⁶¹ Syr. ܐܝܢ)⁶²

This example illustrates the typologically pervasive mid-point between time and condition—contingency. Here, no specific circumstance in particular is envisioned, but rather a general contingency. In such contexts, a temporal clause in definite time is construed as indefinite time. When this is certain to occur at

⁶⁰ On the causal use of ὡς, see Muraoka (1964) and Cristofaro (1998). In fact, the usage profile of ὡς is very similar to that of כַּאֲשֶׁר and plausibly involves very similar paths of development (Locatell 2021).

⁶¹ A variant reading has דִּי.

⁶² For other possible bridging contexts along these lines, cf. Lev. 6.20; Num. 5.29; Deut. 18.22; Josh. 4.21.

some point, as it seems to be in this case law, it yields a conditional sense. Note the statements in Lev. 4.2 (כִּי), 13 (אם), and 27 (אם) all employ clearly conditional conjunctions parallel with this use of אֲשֶׁר. The casuistic genre of the text reinforces this reading.

5.3. Extension from the Locative Semantic Space

Moving now to the locative semantic space, there was only one semantic extension observed—from place to cause. This was one of the more difficult extensions for which to find plausible bridging contexts, due to the fact that the locative space has the fewest polysemous adverbial conjunctions and to the fact that those it has are relatively rare. Consider the following example, repeated here from (15) for convenience, as an illustration of a possible bridging context.

(42) PLACE > CAUSE ('where p , q ' > 'because p , q ')

אֵין שָׂר בֵּית־הַסֵּהר רָאָה אֶת־כָּל־מְאוֹמָהּ בְּיָדוֹ בְּאֶשֶׁר יְהוָה אִתּוֹ וְאֲשֶׁר־הוּא
עֲשָׂה יְהוָה מִצְּלִיחַ:

'The captain of the prison did not pay attention to anything in his charge, **in that/because** the LORD was with him.'

(Gen. 39.23; LXX δὲ τὸ + infinitive; Tg. Onq. -בד-; Syr. ܐܘܪܘܘܢܐ)⁶³

Here, the extension from place to cause seems to have been facilitated by the metaphor CONTAINMENT > CAUSATION, where being 'within' the situation, as expressed by the adverbial

⁶³ Cf. Eccl. 7.2; 8.3–4; 4Q504 f4.5 = 4Q506 f131–32.11.

clause, is construed as being caused by that situation.⁶⁴ However, here any locative meaning is completely metaphorical rather than concrete, as in the clear case of the locative use of this form in example (14) above. While there is very strong typological evidence for the unidirectionality of extension from place to cause (which has never been observed in the opposite direction),⁶⁵ more and clearer examples would be needed to strengthen the case for this path of change in this particular instance. In light of this, it may be preferable to see the causal use of בְּאַשֶׁר not as an extension of the locative use of בְּאַשֶׁר , but rather as the combination of אֲשֶׁר with the causal use of prepositional -בְּ , allowing it to head finite clauses,⁶⁶ a common path of development from preposition to adverbial conjunction.⁶⁷

In the case of the other polysemous locative conjunction, עַל אֲשֶׁר , there is a lack of plausible bridging contexts linking from a locative to causal sense. Additionally, it seems more likely (and simpler) that the causal use developed by licensing עַל as a causal

⁶⁴ A LOCATIVE > CAUSAL path is noted in Kortmann (1997, 193–94) and Heine and Kuteva (2002, 200), but along different lines. Kortmann notes the path: place ‘where p, q ’ > indefinite place ‘wherever p, q ’ > contingency ‘whenever p, q ’, which can then develop into condition ‘if p, q ’. He also notes the path indefinite place ‘wherever p, q ’ > concessive condition ‘even if p, q ’. Heine and Kuteva note the path LOCATIVE > CAUSE with prepositions.

⁶⁵ Kortmann (1997, 178).

⁶⁶ But note the observation by Givón on multiple sources for semantic extension cited above in fn. 45.

⁶⁷ See references cited in fn. 25. For examples of -בְּ as a causal preposition, see Gen. 18.28; Zech. 9.11; Dan. 10.12. See further HALOT (105).

preposition to head finite clauses with the addition of אָשַׁר.⁶⁸ As mentioned above, the polysemy pattern of adverbial conjunctions involving locative and causal senses is universally attested to proceed from the former to the latter. However, in this case the causal sense of the collocation does not seem to have developed from the locative use of the collocation, but from its use as a causal preposition.⁶⁹ Nevertheless, it is important to note that this is still compatible with the observation of unidirectionality from ‘locative’ to ‘causal’. In this case, it simply seems to have occurred at another location on the category continuum presented above in Figure 4.⁷⁰

5.4. Extension within the CCC (Cause, Condition, Concession, etc.) Semantic Space

Coming now to the prototypical goal network in the development of interclausal relations, the CCC semantic space is the most internally complex, with several paths of development between its members. The following examples of אַם and כִּי illustrate several plausible bridging contexts within the CCC semantic

⁶⁸ The fuller construction אָשַׁר עַל-דִּבְרֵי אָשַׁר was perhaps part of this development (e.g., Deut. 22.24; 23.5; 2 Sam. 13.2).

⁶⁹ This does not seem to have been the case with אַחֲרֵי and כִּי, since their prepositional forms do not show a causal sense like that of prepositional עַל. However, as noted above, this may also have been the case with כִּי.

⁷⁰ Additionally, as mentioned with above, עַל has also developed the ability to head finite clauses as a causal conjunction by itself without the help of אָשַׁר. See for example, Gen. 31.20; Ps. 119.136, cited in HALOT (827).

space which accord with the diachronic hypotheses generated using the semantic map presented in §4.0 above.

(43) CONTIN > COND ('whenever p , q ' > 'if p , q ')

וְהָיָה אִם-זָרַע יִשְׂרָאֵל וְעָלָה מִדְּיָן וְעַמְלֵק וּבְנֵי-קְדָם וְעָלוּ עֲלֵיוֹ:

'Now, it happened that **whenever/if** Israel would plant seed, then the Midianites and Amalekites and the sons of the East would come up against them.' (Judg. 6.3; LXX ὄταν; Tg. Neb. כַּד; Syr. ܟܕܢܐ)

(44) COND > COCOND > CON ('if p , q ' > 'even if p , q ' > 'although p , q ')

וְרָאִיתִי אֶת-כָּל-מַעֲשֵׂה הָאֱלֹהִים כִּי לֹא יוּכַל הָאָדָם לְמַצּוֹא אֶת-הַמַּעֲשֵׂה אֲשֶׁר נַעֲשֶׂה תַּחַת-הַשֶּׁמֶשׁ בְּשׂוֹל אֲשֶׁר יַעֲמַל הָאָדָם לְבַקֵּשׁ וְלֹא יִמְצָא וְגַם אִם-יֹאמֵר הַחֲכָם לְדַעַת לֹא יוּכַל לְמַצּוֹא:

'And I saw every work of God, that man is not able to discover the work which is wrought under the sun. Although man toils to seek it, he will not discover it. And **even if/although** a wise man says he knows, he will not be able to find it.' (Eccl. 8.17)

These examples illustrate typologically common bridging contexts that facilitate the path: contingency > condition > concessive condition > concessive. Beginning with contingency in example (43), the interclausal relationship does not simply state a hypothetical condition. Rather, it presents as actual events an ongoing situation in which Israel's agricultural activity temporally coincided with Midianite campaigns against Israel in a contingent way, such that whenever Israel attempted planting, this would be disrupted. Indefinite time is closely related to condition and crosslinguistically is a common source for it. Thus,

intermediate uses between these senses invite a conditional implicature and are not always easily distinguishable.

Example (44) illustrates the development from conditional to concessive via concessive conditional. Here, conditional ׀ invites the implicature ‘although’. The reason for the semantic affinity between these senses is due to the following elements of conceptual overlap. Conditional relations essentially involve hypothetical causation and thus do not typically entail the reality or certainty of the conditional clause, as in (45). Concessive relations are essentially unrealised or negated causal relations that would otherwise be typically expected and typically do assume the reality of the clauses, as in (46). Thus, in order for a conditional to develop a concessive meaning, it must acquire the implicatures that both clauses are factual and generally incompatible. Therefore, when a conditional conjunction is used in a context where the main clause is explicitly negated or the clauses are thought to be generally incompatible, this yields a concessive conditional interpretation, as in (47). When a concessive conditional relation is used in a context where the clauses are assumed to be factual, this yields a concessive reading, as in (48).⁷¹

(45) If I could easily afford it, I would buy a mansion.

(46) Although I can easily afford it, I would not buy a mansion.

(47) (Even) if I could easily afford it, I would not buy a mansion.

(48) Even if/although I cannot afford it, I would buy a mansion.

⁷¹ See Traugott and König (1991, 202); Kortmann (1997, 160, 199–201); Haspelmath and König (1998); König and Siemund (2000, 343); Hilpert (2005, 69).

concessive cases, like (28), where *כִּי* communicates a concessive meaning by itself without *גַּם*.

Less common among the developments within the CCC semantic space is the path from cause to concession, as seen in the following example with *כִּי*.

- (50) CAUSE > CONCESSION ('because *p*, *q*' > 'although *p*, *q*')
 לֹא-תִירָא אוֹתָם וְלֹא-תִתַּח מִפְּנֵיהֶם כִּי בַיִת-מְרִי הֵמָּה:
 'Do not fear them or be dismayed before them,
because/although they are a rebellious house.' (Ezek.
 3.9b)⁷³

Here, a causal interclausal relation with broad-scope negation can be reinterpreted as a concessive interclausal relation with narrow-scope negation. König and Siemund (2000, 344) provide the following examples showing the mechanism for this reanalysis.⁷⁴

- (51) / The house is no less comfortable because it dispenses with
 AIR-conditioning. /
 (52) / The house is no LESS comfortable / although it dispenses
 with AIR-conditioning. /

In the first utterance, both clauses are spoken as a single tone group with the nuclear accent on 'air'. In this case, the scope of the negator in the main clause extends over the adverbial clause as well. This results in negated causation, which again is conceptually identical to concession. In such contexts, the

⁷³ Cf. Gen. 8.21.

⁷⁴ Cf. Hilpert (2005). Capitalisation indicates the nuclear accent of the tone group delimited by the forward slashes.

adverbial clause is equivalent to a concessive clause, where the scope of negation is confined to the main clause and where each clause is a separate tone group with its own nuclear accent, as in the second utterance. This same bridging context in Ezek. 3.9 provides the means for causal ׀ to invite such a concessive implicature.⁷⁵

5.5. Comparative Support

When available, comparative data on cognate forms in related languages can help confirm and modify (as well as falsify) the hypotheses generated by semantic maps like that presented in §4.0. For example, some of the developmental paths of ׀ and ׀ presented above can be considered by way of illustration. So far, only attested uses have been discussed. However, diachronic semantic maps can also generate hypotheses of the sources of attested senses, even when those putatively original uses are themselves unattested in the available data. Consider again the portion of the map filled by ׀. Comparing ׀ to adverbial conjunctions with similar profiles suggests that its temporal use, while arguably the oldest attested use (both on typological and textual grounds⁷⁶), initially arose from an earlier comparative

⁷⁵ For a discussion of the following paths of development for ׀ within the CCC semantic space not treated here, see Locatell (2017, 243–63): COND > COCOND > CONC; CAUSE > PURPOSE/RESULT; CAUSE > CONTRA.

⁷⁶ For example, temporal ׀ is found in the earliest strata of the language in the Archaic Hebrew of Deut. 32.36, which is dated as early as the pre-monarchal period of Israel, ca. eleventh century B.C.E. (Sanders 1996).

use. Indeed, the fact that its cognate in earlier Semitic languages can function as a modal adverbial conjunction (e.g., communicating similarity and manner), such as Akkadian *kī* (CAD K, 319b–20a; Ahw, 469b; GAG, 211) and Ugaritic *k(y)* (DULAT, 418–19), suggests that this is the correct diachronic reconstruction.⁷⁷

A similar observation can be made about $\square\aleph$. The fact that it is found marking contingent (i.e., ‘whenever *p*, *q*’) interclausal relations, the prototypical bridge between temporal and conditional uses in the semantic map, suggests that it may have had an earlier use within the definite time senses of the temporal semantic space. Comparative evidence supports this hypothesis. For example, Phoenician $\aleph m$ is used in the sense of ‘when’ (Krahmalkov 2001, 266)⁷⁸ and Ugaritic *hn* is used to communicate immediate anteriority ‘as soon as *p*, *q*’ (DULAT 335–36), e.g., KTU 2.87:20. As for the bridge between condition and concession via concessive condition reinforced with a focus particle—this is also seen with Phoenician $\square\aleph \aleph$ (see Segert 1976, 262).

Semantic maps also have strong implications in the opposite direction, that is in terms of subsequent development. For example, as Kortmann (2001, 849) observes, “The CCC network is always a goal domain of semantic change, with Concession as the absolute endpoint.” That is, concession is consistently a late and terminal point in the development of

⁷⁷ Also see the modal uses of *kī*, alone and with various affixes, in so-called Amarna Canaanite (Rainey 1996, 137–43).

⁷⁸ This sense, however, is not mentioned in Friedrich and Röllig (1999).

interclausal relations (cf. König 1985, 263–64; Haspelmath and König 1998, 620). Therefore, as portrayed in the above semantic map, the concessive use of כִּי is expected to have been a late development relative to the other interclausal relations it is found to communicate. Evidence that this reconstruction is correct comes from the fact that while Akkadian *kī* developed comparative, temporal, causal, and conditional adverbial uses, it did not develop a concessive use (Bandstra 1982, 402–5). A similar situation holds for Ugaritic *k(y)* (DULAT, 417). This all makes typological sense in light of the fact that concession is the endpoint of semantic development within the CCC semantic space. Thus, it is expected to develop late, if at all.

In fact, evidence from Akkadian *kī* is instructive for the whole development from the modal semantic space to the temporal and then CCC, since modal and temporal *kī* already appeared in Old Akkadian, while causal *kī* only appeared in Middle and Late Babylonian (Lipiński 1997, 527; cf. Gelb 1957, 136–37; Hasselbach 2005, 173). Similarly, conditional *kī* only appeared in Late Babylonian (Miller and Ship 1996, 36). This is summarised in the following table.

Table 2: Emergence of adverbial *kī* in Akkadian

Old Akkadian	Middle/Late Babylonian	Late Babylonian
Comparative	Comparative	Comparative
Temporal	Temporal	Temporal
	Causal	Causal
		Conditional

As mentioned above, *kī* in Akkadian never developed a concessive use. This also supports the hypothesis suggested by the diachronic semantic map in Figure 3 that concessive יָּ was the last of its adverbial senses to develop. Cases where such comparative evidence exists to corroborate reconstruction based on diachronic semantic maps suggests that they are relatively reliable, at least for making plausible hypotheses, even when only synchronic data is available. The more robustly attested the grammaticalisation path in a diachronic semantic map, the more plausible the hypotheses it generates. In the case of universally attested and uncontroversially unidirectional grammaticalisation paths, the hypotheses generated by diachronic semantic maps involving such paths constitute strong evidence in their own right.

6.0. Conclusion

This article has attempted to shed some light on adverbial conjunctions in the Hebrew Bible, a relatively understudied word class. The focus has been on polysemous adverbial conjunctions—the conceptual relationship between their different senses, the diachronic organisation of their uses as sources and goals of semantic extension relative to one another, and the inferential processes that facilitated their development. As such, this study has employed diachronic semantic maps in order to generate hypotheses along these lines and test them against corpus data and comparative evidence where available. This has proceeded with the following methodological steps: (1) construct a usage profile of the form(s) in question, (2)

heuristically employ diachronic semantic maps to generate hypotheses about the conceptual and diachronic organisation of uses, (3) test these hypotheses by examining corpus data for plausible bridging contexts, (4) compare these results to comparative data where available.⁷⁹ With this procedure, this study has shown that the usage profile of polysemous adverbial conjunctions in the Hebrew Bible indeed fill a contiguous portion of diachronic semantic maps based on well-documented polysemy patterns and historical developments across many languages, as visualised in Figures 3 and 5 and discussed in §4.0. This hypothesised diachronic organisation was tested in §5.0 by examining the corpus data for bridging contexts of selected paths and analysing them for possible inferential processes responsible for the semantic extensions. In the majority of cases, the hypothesised diachronic developments found strong support in corpus data. Examples of available cognate data were also shown to aid in this analysis, and in this case support the proposed reconstruction. In the case of *בְּאִשֶּׁר*, the hypothesised path was found to be plausible. However, due to relatively sparse data, a mutually compatible (and perhaps more likely) alternate explanation was also offered. In the case of *עַל אֲשֶׁר*, the data did not yield plausible bridging contexts between its locative and causal senses as an adverbial conjunction. Rather, the extension seemed to have already taken place within its function as a preposition.

⁷⁹ There should, of course, be occasional returns to previous steps as hypotheses become refined in the process.

More broadly, the picture that emerges from this study is that diachronic semantic maps, when based on robust cross-linguistic polysemy patterns and directly observable historical developments, generate plausible hypotheses about the conceptual relation and diachronic organisation of the different uses of linguistic forms, in this case adverbial conjunctions in the Hebrew Bible. Even when only relatively synchronic material is available, typologically robust diachronic semantic maps can point to plausible reconstructions of a form's developmental history from earliest use to most recently developed and suggest where to look for the most likely bridging contexts and inferential processes that facilitated semantic extension.

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DIFFERENTIATING LEFT DISLOCATION CONSTRUCTIONS IN BIBLICAL HEBREW¹

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1.0. Introduction

Left dislocation (as opposed to topicalisation) involves a constituent that occurs outside of the left edge of the sentence boundary and has resumption within the sentence. Characteristic features of left dislocation include the following (Alexiadou 2006, 668–71): (1) a referential constituent is dislocated and precedes a matrix sentence and is accompanied by a separate intonation contour; (2) an alternative position for the dislocated constituent exists within the matrix sentence, which is filled by an anaphoric, coreferential resumptive element; and (3) the matrix sentence is considered to be ‘about’ the left dislocated element (the ‘aboutness requirement’).

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Crosslinguistically, left dislocation constructions exhibit considerable syntactic variation.² In our previous publications (especially, Naudé 1990 and Miller-Naudé and Naudé 2019) syntactic variation within left dislocation was noted, but not analysed. In this chapter, the types of left dislocation in Biblical Hebrew will be differentiated on the basis of the following three considerations.³ The first relates to the grammatical features of the coreferential resumptive element (Oosthuizen 2016). The second concerns the relationship of the left dislocated constituent to the resumptive element, especially with respect to case agreement. The third relates to the relationship of the sentence involving left dislocation to the broader syntactic context.⁴ By considering these questions within the context of contemporary linguistic

² See, for example, Ben-Horin (1976); Gross (1987); Khan (1988); (2016); Anagnostopoulou (1997); Anagnostopoulou, Van Riemsdijk, and Zwarts (1997); Rizzi (1997); Alexopoulou, Doron, and Heycock (2004); Alexiadou (2006); Korchin (2015); López (2016).

³ In a future article we consider the kind of intonational breaks between the dislocated constituent and the matrix sentence for each type of left dislocation, insofar as they can be determined in the Masoretic system of accents. For a prosodic account for differentiating left-dislocated and tripartite verbless clauses in Biblical Hebrew, see Naudé and Miller-Naudé (2017). For a prosodic account of the Masoretic accents and a preliminary examination of the intonational break in left dislocation and other constructions exhibiting the syntax-phonology interface, see Pitcher (2020, 241–358).

⁴ An additional type of left dislocation which is distinct from clitic left dislocation—broad subject—has been identified for Modern Hebrew (Alexopoulou, Doron and Heycock 2004; Doron and Heycock 2010), although the category has been disputed (Landau 2009).

theory we can determine in a more precise and principled way the kinds of left dislocation constructions that are differentiated in Biblical Hebrew and their essential characteristics.⁵

2.0. Topicalisation and Left Dislocation

Preparatory to the following discussion, we briefly summarise some of the ways in which the syntactic constructions topicalisation (or fronting) and left dislocation differ from one another. Although topicalisation and left dislocation have been differentiated in linguistic analyses of Biblical Hebrew,⁶ an alternative position considers the two to be varieties of ‘fronting’, which optionally exhibits resumption.⁷

The following verse provides contrastive examples of left dislocation and topicalisation in adjacent sentences.

- (1) כָּל־הַבֵּן הַיֵּלֹד הַיְאֹרָה תִשְׁלִיכֶהוּ וְכָל־הַבַּת תְּחַיֶּינָהּ
 ‘Every son that is born, into the Nile you will throw him,
 but every daughter you will allow to live every daughter.’ (Exod.
 1.22)

Topicalisation involves a constituent that is moved to the very beginning of the sentence. In the second sentence in (1) the object (‘every daughter’) is topicalised before the verb; it has been

⁵ Throughout we use representative examples of the syntactic phenomena discussed rather than comprehensive lists.

⁶ Naudé (1990; 1994a; 1994b; 1999); Holmstedt (2014); see also Shlonsky (2014).

⁷ Westbury (2014; 2016); see Van der Merwe, Naudé, and Kroeze (2017, 510–18) for a description of both positions.

moved from its unmarked position after the verb in the sentence.⁸ A zero trace marks the location where the constituent originally occurred in the sentence; this is indicated by the small subscripted type.⁹ What is important is that the object constituent remains inside the sentence, although it has been moved to initial position within the sentence. It is for this reason that there is no resumption of the constituent in its original position in the sentence—the topicalised constituent is required to complete the sentence. By contrast, in the first sentence in (1), the object constituent (‘every son that is born’) is left dislocated—it occurs outside of the sentence and has a coreferential resumptive element (also called a ‘correlate’, see López 2016) that occurs within the sentence, viz. the object suffix on the verb (‘him’). The matrix sentence ‘you will throw him’ (consisting of a verb and its object suffix) is a fully-formed predication apart from the dislocated constituent.

In the first sentence in (1), the resumptive element of the dislocated constituent occurs in situ, that is, in the normal position after the verb that the constituent would have had within

⁸ We understand Biblical Hebrew to exhibit unmarked word order of VSO (verb-subject-object) followed by other adjuncts (Naudé 1994b), although theoretically underlying word order in generative grammar is SVO. As a result, topicalisation may involve any non-verbal constituent occurring before the verb without a resumptive element. Multiple instances of topicalisation may occur within a sentence (e.g., Gen. 17.6, in which both the subject and a prepositional phrase are topicalised).

⁹ The object regularly follows this verb, either with (Exod. 1.17) or without (Num. 31.15) the definite object marker. For another example of the topicalised object preceding this verb, see Gen. 12.12.

the sentence without dislocation.¹⁰ However, it is also possible for the resumptive element itself to be topicalised within the matrix sentence so that it occurs at the beginning of the matrix sentence:

- (2) אֶת־יְהוָה צְבָאוֹת אַתּוֹן תִּקְדֹּשׁוּ
 ‘The LORD of hosts, him you will regard _{him} as holy.’ (Isa. 8.13)

The object noun phrase (NP) (‘the LORD of hosts’) is dislocated. Its resumptive element (‘him’) is topicalised (moved to the beginning of the matrix sentence); semantically, it conveys contrastive focus.

The sentence boundary between the left dislocated constituent and the matrix sentence can be detected on the basis of the appearance of the following items at the sentence boundary: a parenthetical element,¹¹ a quotative frame,¹² a consecutive verb

¹⁰ For representative examples of the unmarked order of the object occurring after this verb, see Gen. 21.15 (for an NP object) and Gen. 37.22 (for an independent pronominal object). For topicalisation of the object constituent with this verb, see 1 Kgs 14.9.

¹¹ For example, in Num. 14.24, the dislocated NP וְעַבְדִּי כָלֵב ‘and my servant Caleb’ is separated from the matrix sentence by a parenthetical sentence עֵקֶב הַיְיִתָּה רִיחַ אַחֲרַת עָמוֹ וַיִּמְלֵא אַחֲרָי ‘because another spirit is within him and he has followed after me’. The separation of the dislocated element and the parenthetical sentences is also indicated by the fact that the matrix sentence begins with a consecutive verb with an objective suffix, which serves as the resumptive element (וְהִבֵּיאתִיו ‘I will bring him’): וְעַבְדִּי כָלֵב עֵקֶב הַיְיִתָּה רִיחַ אַחֲרַת עָמוֹ וַיִּמְלֵא אַחֲרָי וְהִבֵּיאתִיו אֶל־הָאָרֶץ אֲשֶׁר: But my servant Caleb—because a different spirit is with him and he has fully followed after me—I will bring him into the land that he has entered and his offspring will inherit it.’

¹² For example, in Gen. 3.3, the quotative frame אָמַר אֱלֹהִים ‘God said’ intervenes between the dislocated prepositional phrase (וּמִפְּרִי הָעֵץ אֲשֶׁר)

form,¹³ and an interrogative.¹⁴ The fact that a topicalised constituent remains within the left boundary of the sentence, whereas a left dislocated constituent occurs outside of the left boundary, results in two additional syntactic features useful for categorising the two types of constructions.

First, the topicalised constituent has the same form that it would have in its unmarked position within the sentence, especially with respect to case marking (Naudé 1990, 126). This is especially evident with respect to the various ways in which the object may be marked—with the definite object marker (3a), as a definite NP without the definite object marker (3b), an indefinite object (3c), or a prepositional complement (3d):

(3a) אֶת־קוֹלְךָ שָׁמַעְתִּי בַגֶּן

‘Your voice I heard your voice in the garden.’ (Gen. 3.10)

(3b) וְעֵרוֹת אֲבִיהֶם לֹא רָאוּ

‘And the nakedness of their father they did not see the nakedness of their father.’ (Gen. 9.23)

and its resumption as a pronominal suffix on a preposition (בְּתוֹךְ־הַגֶּן) and its resumption as a pronominal suffix on a preposition (מִמֶּנּוּ): (מִמֶּנּוּ) וּמִפְרֵי הָעֵץ אֲשֶׁר בְּתוֹךְ־הַגֶּן אָמַר אֱלֹהִים לֹא תֹאכְלוּ מִמֶּנּוּ וְלֹא תִגְעוּ בוֹ פֶן־תָּמוּתוּ: (מִמֶּנּוּ) ‘and from the tree which is in the middle of the garden, God said, “you must not eat **from it** and you must not touch it lest you die.”’

¹³ For example, in Exod. 12.15, the matrix sentence begins with a perfect consecutive verb (וְנִכְרְתָהּ) הַגֶּפֶשׁ הַהוּא מִיִּשְׂרָאֵל: (וְנִכְרְתָהּ) כִּי בְּלֹאֲכַל חֶמֶץ וְנִכְרְתָהּ הַגֶּפֶשׁ הַהוּא מִיִּשְׂרָאֵל: (וְנִכְרְתָהּ) ‘For every one who eats leavened bread, **that person** will be cut off from Israel.’

¹⁴ For example, in Job 38.29, the interrogative marker (מִי) intervenes between the dislocated NP (כִּפֹּר שָׁמַיִם) and the matrix sentence (יִלְדוּ): (יִלְדוּ) מִי יִלְדוּ וְכִפֹּר שָׁמַיִם מִי יִלְדוּ ‘and the frost of heaven, who bore **it**?’

(3c) וְקוֹץ וְדַרְדָּר תִּצְמִיחַ לָךְ

‘And thorns and thistles will sprout thorns and thistles for you.’

(Gen. 3.18)

(3d) מִפְּרֵי עֵץ-הַגָּן נֹאכֵל

‘From the fruit of the trees of the garden we may eat from the fruit of the trees of the garden.’ (Gen. 3.2)

As is described below, the question of the case of the dislocated constituent in left dislocation constructions serves as a diagnostic tool for differentiating various types.

Second, topicalisation and left dislocation are differentiated with respect to negation (see Miller-Naudé and Naudé 2019). To name just one example, topicalised constituents may exhibit negation of the topicalised constituent apart from the matrix sentence as a whole when the negative marker precedes the topicalised constituent. In (4a) negation extends only to the prepositional phrase and not to the predication as a whole:

(4a) לֹא בְגִבּוֹרַת הַסּוּס יִחַפֵּץ

‘Not in the strength of a horse he delights not in the strength of a horse.’ (Ps. 147:10)

By contrast, left dislocated constituents cannot be negated apart from their matrix sentence.¹⁵ As illustrated in (4b), both a topicalised constituent (first poetic line) and a left dislocated constituent (second poetic line) may precede the negative marker that negates the entire sentence:

¹⁵ Negation with the interrogative marker and לֹא, viz., לֹא־הֲ, is a special case; see Snyman and Naudé (2003) and Miller-Naudé and Naudé (2019).

(4b) לֹסֶה לֹא יִחְשְׁבוּ / וְזָהָב לֹא יִתְפָּצְוּבוּ

‘Silver they do not regard_{silver} / and gold they do not delight in it.’ (Isa. 13.17)

This difference in the possibility of constituent negation of topicalised constituents as opposed to left dislocated constructions is a direct result of their respective syntactic structures—the topicalised constituent remains within the matrix sentence, whereas the dislocated constituent is outside the left boundary of the matrix sentence.

3.0. Types of Left Dislocation in Biblical Hebrew

3.1. Clitic Left Dislocation

The first type of left dislocation in Biblical Hebrew involves a dislocated constituent that exhibits case agreement with its resumptive,¹⁶ and the resumptive is a pronominal clitic:

(5) אֶת־זִמְתְּךָ וְאֶת־תּוֹעֲבוֹתֶיךָ אַתָּה נֹשֵׂאתָם

‘Your wickedness and your abominations, you bear them.’
(Ezek. 16.58)

The dislocated NP is explicitly marked as the definite object with the definite object marker and its resumptive within the matrix sentence is an pronominal object suffix on the verb. Because the resumptive is a pronominal clitic, this kind of left dislocation has been called ‘clitic left dislocation’.

¹⁶ Case agreement is used in the sense of abstract case marking within generative linguistics. Abstract case is assigned structurally, regardless of whether or not a language has morphologically realised case.

Clitic left dislocation may involve an object NP (as in [5]) or a subject NP (as in [6]):

(6) וְאֲנִי הַנְּגִי יֵשֶׁב בְּמִצְפָּה

‘And I, behold I will dwell at Mizpah.’ (Jer. 40.10)

The dislocated subject pronoun is separated from the matrix sentence by the presentative הִנֵּה ‘behold’. The subject is resumed with the pronominal subject suffix on the presentative.

Clitic left dislocation may involve a prepositional phrase (PP) (as in [7]), where the dislocated PP contains a relative clause and the resumptive is topicalised:

(7) וּבְעוֹלוֹ אֲשֶׁר-עָשָׂה בְּיָמָיו

‘And in his injustice which he has done, in it he will die _{in it}.’ (Ezek. 33.13)¹⁷

In Biblical Hebrew, clitic left dislocation, unlike topicalisation, can involve a resumptive element that crosses subordinate sentence boundaries. In (8), the pronominal resumptive is embedded within an infinitival complement clause:

(8) וְאֶת-הַיְבוּסִי יוֹשְׁבֵי יְרוּשָׁלַם לֹא-יָבִילוּ [Q] בְּנִי-יְהוּדָה לְהוֹרִישָׁם

‘But the Jebusites, the inhabitants of Jerusalem—the sons of Judah were not able to drive them out.’ (Josh. 15.63)

¹⁷ See also 2 Sam. 6.23.

Crosslinguistically, clitic left dislocation constructions are usually sensitive to ‘island’ constraints, although these are language specific; by contrast, hanging topic left dislocation constructions (see §3.2) are not usually subject to these constraints.¹⁸

Biblical Hebrew is a *pro*-drop language, which means that when a finite verb is present in the sentence, the pronominal subject is null or covert, rather than expressed (Naudé 1991; 1993; 1996; 2001). However, the phonologically null subject *pro* on finite verbs cannot serve as an unexpressed resumptive pronoun within left dislocation constructions (Naudé 1996; 1999; Holmstedt 2014; cf. Cowper and DeCaen 2017). Such an analysis would mean that in sentences such as (9), there is no explanation for the independent subject pronoun, since the phonologically null subject *pro* on the finite verb serves as the resumptive:

(9) וְקָנְיִי הַיְהוָה הַיְהוָה יִישׁוּבֵנִי אֶרֶץ

‘But those who wait for the LORD, **they** (*pro* they) will inherit the land.’ (Ps. 37.9)

3.2. Hanging Topic Left Dislocation

In the second sub-type of left dislocation in Biblical Hebrew, the dislocated constituent is always a noun phrase (not a prepositional phrase or an adverbial phrase), but the resumptive within the matrix sentence may bear any grammatical relation to the predication. In (10), the noun phrase ‘north and south’ is not

¹⁸ Alexiadou (2006, 673–74, 682–85); see also Alexopoulou, Doron, and Heycock (2004). For an overview of the long linguistic history of ‘islands’, see Szabolcsi (2006).

marked as an object, but its resumptive element within the matrix sentence is an object verbal suffix:

(10) צָפוֹן וְיָמִין אֵתָהּ בְּרָאתָם

‘North and south, you created **them**.’ (Ps. 89.13)

Because the dislocated NP does not exhibit the case agreement with its resumptive, this construction has traditionally been referred to as *casus pendens*. It is referred to in the linguistics literature as ‘hanging topic left dislocation’.

In (11), the dislocated NP has a resumptive that is a pronominal clitic on the preposition -ל:

(11) וְהָאִישׁ מִיכָה לֹוּ בֵּית אֱלֹהִים

‘(As for) the man Micah, **he** had a shrine.’ (Literally: ‘and the man Micah, to **him** a house of gods_{to him}’) (Judg. 17.5)

The NP may be realised by an independent subject pronoun whose resumptive element is a possessive pronominal clitic:

(12) אֲנִי הִנֵּה בְרִיתִי אִתְּךָ

‘I, behold, **my** covenant is with you.’ (Gen. 17.4)

The difference between example (12), as a hanging topic left dislocation, and example (6) (repeated here), with a clitic resumptive exhibiting case agreement, is very striking:

(6) וְאֲנִי הִנֵּנִי יֹשֵׁב בַּמִּצְפָּה

‘And I, behold I will dwell at Mizpah.’ (Jer. 40.10)

Hanging topic left dislocation, like clitic left dislocation, allows the resumptive element to be deeply embedded within a subordinate clause; compare (8) above with (13):

(13) זֶה | מֹשֶׁה הָאִישׁ אֲשֶׁר הֶעֱלֵנוּ מֵאֶרֶץ מִצְרַיִם לֹא יָדַעְנוּ מִה־הָיָה לוֹ:

‘This Moses, the man who brought us from the land of Egypt, we do not know what happened to **him**.’ (Exod. 32.1)

This syntactic feature, therefore, does not serve to differentiate these two kinds of left dislocation in Biblical Hebrew. By contrast, topicalisation is a movement construction, which is constrained by its sentence boundaries—a topicalised constituent cannot move to the beginning of the matrix sentence from an embedded sentence. We see this in (14a), in which the topicalised NP moves only to the beginning of its embedded sentence:

(14a) וּזְכַרְתָּ כִּי־עֶבֶד הָיִיתָ בְּמִצְרַיִם

‘You must remember that a slave you were _{a slave} in Egypt.’
(Deut. 16.12)

If a topicalised constituent could move past a sentence boundary, then the unattested sentence in (14b), in which the topicalised NP has moved from a deeply embedded sentence to the beginning of the matrix sentence, would be possible:

(14b) *A slave you must remember that you were _{a slave} in Egypt

3.3. Left Dislocation with a Deictic Resumptive

The third type of left dislocation involves a deictic resumptive which is coreferential with the dislocated constituent. In (15), the deictic resumptive is the pronominal deictic אֵלֶּה ‘these’ and the dislocated constituent exhibits case agreement:

(15) וְלִבְנֹתַי מִה־אֲעֻשֶׂה לְאֵלֶּה הַיּוֹם אֲזוֹ לְבָנִיהֶן אֲשֶׁר יִלְדוּ:

‘...and for my daughters, what should I do for these today or for their sons which they have borne?’ (Gen. 31.43)

In (16), the dislocated constituent is a prepositional phrase and the resumptive element is the deictic שם ‘there’ (Naudé 1990, 115; Holmstedt 2014, 121).¹⁹

(16) על נהרות | בְּבָבֶל שָׁם יִשְׁבּוּ
 ‘By the rivers of Babylon, **there** we sat _{there}.’ (Ps. 137.1)

In (17), the deictic resumptive is אז ‘then’:

(17) בַּעֲשֵׂתוֹ לִמְטֵר חֶק וְדֶרֶךְ לַחַיִּיז קִלּוֹת: אַז רָאָה וַיִּסְפְּרָה הַכִּינָה וְגַם-חִקְקָה:
 ‘When he made a rule for the wind and a path for the thun-
derstorms, **then** he saw it [= the wisdom, Job 28.12] and
 gauged it, he measured it and probed it.’ (Job 28.26–27)

In (16) and (17) there is no case agreement between the resumptive deictic and the dislocated constituent, but in a different sense than we have seen thus far. The dislocated constituent is headed by a prepositional phrase, whereas the resumptive element is not headed by a preposition, but is an adverb.

This category of left dislocation with a deictic resumptive cannot be considered a sub-category of the two categories of left dislocation previously identified. It is not a sub-category of clitic left dislocation (§3.1), because the resumptive element is not a clitic and there is not necessarily case agreement between the dislocated constituent and the resumptive element. Neither is it a sub-category of hanging-topic left dislocation (§3.2), because the dislocated element is not a NP.

¹⁹ See also Gen. 25.10; Deut. 12.11; Qoh. 3.16.

3.4. Left Dislocation with an Independent Pronominal Resumptive

The fourth type of left dislocation involves a dislocated noun phrase whose resumptive element is a strong, tonic pronoun, rather than a pronominal clitic. In Biblical Hebrew, only independent subject pronouns are strong, tonic pronouns:

(18) יְהוָה אֱלֹהֵיכֶם הֵהָלֵךְ לְפָנֵיכֶם הוּא יִלָּחֶם לְכֶם

‘The LORD your God who goes before you, **he** will fight for you.’ (Deut. 1.30)²⁰

Semantically, the resumptive independent pronoun conveys contrastive focus when it occurs as the first element in the matrix sentence; in (18), the meaning is ‘he (and no one else) will fight for you’.

In cases where the matrix sentence is a verbless clause, it is important to distinguish constructions involving left dislocation and those which are tripartite verbless clauses (see Naudé 1994a; 2002; Naudé and Miller-Naudé 2017 for the argumentation and additional bibliographic sources). Left dislocation constructions have an intonational break (indicated by a disjunctive Masoretic accent) after the dislocated constituent (19):

(19) וְדָוִד הוּא הַקָּטָן

‘As for David, **he** was the youngest.’ (1 Sam. 17.14)

The pronoun (הוא) as resumptive agrees in person, gender, and number with the dislocated element and semantically conveys

²⁰ See also Gen. 37.30; 47.6; Deut. 30.1; 1 Sam. 17.14; 2 Sam. 21.2; Zech. 1.5.

contrastive focus. When the predicate rather than the subject of a verbless predication is in contrastive focus, it will be topicalised so that it precedes the pronominal subject; in (20) the prepositional predicate לְפָנֶיךָ is topicalised:

- (20) $\text{אֶרֶץ מִצְרַיִם לְפָנֶיךָ הוּא}$
 ‘As for the land of Egypt, before you it is before you.’ (Gen. 47.6)

By contrast, in tripartite verbless clauses, the pronominal element after the first constituent is joined to it by *maqṣef* or a conjunctive accent; the pronominal element is neither a resumptive element nor a copula:

- (21) $\text{אַתָּה־הוּא מַלְכִּי אֱלֹהִים}$
 ‘You are my king, O God.’ (Ps. 44.5)

The pronominal element הוּא is a ‘last resort strategy’ to avoid ambiguity in the identification of the nominal subject. In (21), an additional argument against viewing the third person pronoun as a resumptive element in a dislocation construction involves the lack of agreement between the subject (אַתָּה) and the pronoun הוּא that follows—a third person pronominal element cannot function as an anaphoric pronoun resuming a second person pronoun. Instead, the pronoun הוּא functions in a ‘last resort’ strategy to insure that אַתָּה is understood as the subject of a verbless predication in which מַלְכִּי is the predicate.

3.5. Left Dislocation with a Noun Phrase Resumptive

The fifth type of left dislocation involves a noun phrase resumptive which is coreferential with a dislocated noun phrase:

- (22) הַנֶּפֶשׁ אֲשֶׁר-תֹאכַל בְּשֶׂר מִזִּבְחַ הַשְּׁלָמִים אֲשֶׁר לַיהוָה וְטִמְאַתָּהּ עָלָיו וְנִכְרַתָּהּ
הַנֶּפֶשׁ הַהוּא מֵעַמִּיהָ:

‘But the person who eats flesh from the sacrifices of well-being which belong to the LORD and his uncleanness is upon him, **that person** shall be cut off from his relatives.’ (Lev. 7.20)

When the resumptive element is the subject, the dislocated NP exhibits case agreement with it, as illustrated in (22). However, when the resumptive is not the subject, there is no case agreement between the dislocated NP and its resumption as the object of the verb:

- (23) עֲרוֹת בֵּית-בְּנֵךְ אֹו בֵּית-בְּתוּךְ לֹא תִגְלֶה עֲרוֹתָן

‘The nakedness of the daughter of your son or the daughter of your daughter—you must not uncover **their nakedness**’.
(Lev. 18.10)

3.6. Marginal Constructions

We now briefly consider two marginal constructions. The first construction is illustrated in (24). The first constituent (‘the word which he shows me’) has no resumptive element within the matrix sentence and thus is not a variety of left dislocation. However, some scholars have understood the so-called consecutive

verb form in the matrix sentence to indicate a sentence boundary which should block the topicalisation of a constituent.

- (24) וּדְבַר מֵה־יִרְאֵנִי וְהַגִּדְתִּי לָךְ
 ‘...and the word which he shows me and I will declare ^{the}
 word which he shows me to you.’ (Num. 23.3)

This construction was first identified in Naudé (1990). It was called ‘heavy topic focus’ by Holmstedt (2014), who argued that the so-called consecutive verbal forms, which obligatorily begin with *waw*, should not be considered uncrossable boundaries for the movement of constituents. Miller-Naudé (2019) and Miller-Naudé and Naudé (2019) call the construction ‘heavy topicalisation’ and provide additional arguments against viewing it as a type of left dislocation.

The second marginal construction is exemplified in (25):²¹

- (25) וְהַדְּבָר אֲשֶׁר דִּבַּרְנוּ אִנִּי וְאַתָּה הִנֵּה בֵּינִי וּבֵינֶךָ עַד־עוֹלָם:
 ‘And the word which we spoke, I and you—behold the LORD
 is between me and between you for ever.’ (1 Sam. 20.23)

The noun phrase ‘the word which we spoke, I and you’ cannot be understood as a topicalised constituent, because it cannot be understood as playing a grammatical role in the matrix sentence. The construction is also not a type of left dislocation, properly speaking, because there is no resumption of the dislocated noun phrase within the matrix sentence.

Van Riemsdijk (1997) has identified a similar construction in French, which he refers to as ‘Loose Aboutness Left Dislocation’; however, the only feature of left dislocation that is present

²¹ See also Lev. 25.32; 2 Kgs 22.18b–19.

is the semantic ‘aboutness requirement.’ O’Connor (1993) refers to the Biblical Hebrew construction as ‘thematization’, and insists that it must not be grouped together with left dislocation, because the absence of the resumptive is ‘definitive’. We agree with O’Connor’s analysis and describe the noun phrase as providing the ‘frame of reference’ for the following discourse in a construction that is neither topicalisation nor left dislocation (see also Blau 1977).

In (26), a complicated construction is found:

(26) וְעַבְדְּךָ וְאִמְתְּךָ אֲשֶׁר יִהְיוּ לְךָ מֵאֶת הַגּוֹיִם אֲשֶׁר סְבִיבֹתֶיךָ מֵהֶם תִּקְנוּ עֶבֶד
וְאִמָּה:

‘And your male slave and your female slave which will belong to you—**from the nations which are around you, from them** you will buy a male slave and a female slave from them’ (Lev. 25.44)

The left dislocated prepositional phrase ‘from the nations which are around you’ has its resumption in the matrix sentence (‘from them’). The coordinate noun phrase ‘your male slave and your female slave which will belong to you’ seems to function as a frame of reference rather than a dislocated constituent, because the relative clause dependent upon it (‘which will belong to you’) does not appear with the NP in the matrix sentence. The verse, then, has a frame of reference that introduces a left dislocated construction. The matrix sentence echoes the coordinate noun phrase of the frame of reference without resuming it syntactically.

4.0. Conclusions

In conclusion, we have attempted to further the analysis of left dislocations in Biblical Hebrew in four ways. First, we differentiated left dislocation constructions on the basis of the grammatical features of the coreferential resumptive element. Second, we examined the relationship between the left dislocated constituent and the resumptive element, especially with respect to case agreement. Third, we examined the role of matrix sentences and ‘islands’ in the framework of left dislocation constructions. Fourth, we provided additional clarity on two marginal constructions, neither of which can be categorised as left dislocation. The first, ‘heavy topicalisation’, we identify as a marginal type of topicalisation. The second, ‘frame of reference’, is neither left dislocation nor topicalisation, but rather a detached noun phrase which provides the frame of reference for the following discourse.

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BIBLICAL HEBREW AND COGNITIVE LINGUISTICS: A GENERAL ORIENTATION

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1.0. Introduction

Since the beginning of the millennium, a growing number of studies of the Hebrew Bible have used insights from a novel paradigm in the study of language, namely, cognitive linguistics (= CL).¹ New linguistic models take time to become established and are sometimes accompanied by a variety of schools of thought, often each with its own meta-language. It is no wonder that biblical scholars typically show some resistance to engaging with “another new linguistic model.”² More problematic is the fact that CL is not a coherent model that is ready-made to be applied to the analysis and description of a non-spoken ancient language with a limited corpus.³ Like most other modern linguistic models, it assumes the availability of living speakers and/or

¹ For CL applications to Biblical Studies in general, see Howe and Green (2014).

² See Burton (2017, 17).

³ Shead (2011, 181–87) provides a relatively detailed and sobering discussion of the “ancient language problem” and the “corpus of BH.” See also Burton (2017, 34–41).

large written corpora to consult. Nevertheless, CL has been embraced by a number of BH scholars. For example, De Blois (2002) announced a new *Semantic Dictionary of Biblical Hebrew* that is based on CL principles. Van Wolde (2009) called for a “Reframing of Biblical Studies” in a monograph based on the cognitive concepts of Ronald Langacker. Van Hecke (2011) used insights from cognitive semantics to better understand Job 12–14. Burton (2017) called her study of the semantics of glory “A cognitive, corpus-based approach to Hebrew word meaning.” And Coleman (2018) provided a cognitive linguistic perspective on BH transitivity alternation.⁴ A number of studies have focused on the conceptual metaphors and/or metonyms that undergird the use of language (especially figurative language) in the Hebrew Bible, e.g., Kruger (2000); Kotze (2004; 2005); Van Hecke (2005); Basson (2006); Jindo (2010); Van Hecke and Labahn (2010); Chau (2011; 2014; 2015); De Joode and van Loon (2014); Lamprecht (2015); De Joode (2018); van Loon (2018); and Ruark (2019).

The problem for BH scholars is that CL is a vast field of study,⁵ and to determine what exactly is meant by a cognitive approach, or even to start critically assessing its advantages, is a challenge. The aim of this descriptive study is to enable scholars of BH to orientate themselves as far as a substantial number of applications of CL insights into BH are concerned. I postulate that for these purposes a basic understanding of what CL is, and which

⁴ See also §3.0 of this study.

⁵ Cf. Dirvin (2005, 50); Geeraerts and Cuyckens (2007); Taylor and Littlemore (2014); Dąbrowska and Divjak (2015); Dancygier (2017); and Evans (2019).

different stands of CL can be distinguished is needed. Furthermore, in order to be aware of the most promising, but also the more controversial, aspects of CL, it is also important to have basic insight into current CL developments and acknowledged challenges.

Concerns of space preclude a full discussion of applications of CL insights to BH. Those that focus on conceptual metaphor and metonymy,⁶ for example, are excluded, as well as those considering the BH verbal system from a CL perspective.⁷ Nor has it been possible to critically assess the contributions of those insights that are dealt with here. It is assumed that a general methodological orientation is pivotal for the introduction I have in mind; hence the focus on the methodological orientation(s) of the exponents discussed.

We begin in §2.0 with a brief overview of CL, explaining its main focus, positioning it within the field of linguistics, and describing its commitments and basic points of departure. This is followed by a bird's eye view of the different schools of thought, referred to as 'strands' within CL. The section concludes with a summary of current developments in CL and some of the widely acknowledged challenges. In §3.0 the scope and the theoretical underpinnings of a range of applications of insights from CL to

⁶ Most of these studies almost uncritically accept Lakoff and Johnson (1980). See §2.2.2 below.

⁷ See, e.g., Robar (2014). The significant contribution (and substantial number of publications) by Andrason on the verbal system of BH and other Semitic languages merits a paper of its own. See, e.g., Andrason (2011; 2012) and, more recently, his work on serial verb constructions (2019).

BH are profiled in the light of the bigger picture of CL. In conclusion, a few general trends are pointed out.

2.0. Overview of CL

2.1. Commitments and Hypotheses

CL is a label that is used for a “broad movement within modern linguistics” (Taylor 2002, 3). In this movement ‘meaning’ is put at the heart of the linguistic enterprise. Dąbrowska (2016, 479) states succinctly:

Cognitive Linguistics is an approach to language study based on three central premises: that the function of language is to convey meaning, that linguistic description must rely on constructs that are psychologically real and that grammar emerges from usage.

CL emerged in the late 1970s out of dissatisfaction with the generative approaches of that time that treated language as an abstract and decontextualised system.

This recontextualising and maximalist approach to meaning is nothing new. Geeraerts (2010, 1–45) illustrates how much in common it has with pre-structuralist historical-philological semantics. Van Hecke (2011, 290–94) explains in what ways CL refines the latter, but also “often gratefully adopts the structuralist field descriptions and the componential analyses as valid descriptive tools.”

CL, however, differs from the latter approaches in that it is guided by two primary commitments: (1) to view and describe language in terms of what is known about the brain and cognitive processes (*the cognitive commitment*) and (2) to describe linguistic

knowledge as the outcome of general cognitive abilities and not specific modules of the mind (*the generalisation commitment*). Geeraerts (2016, 537) has recently provided convincing arguments as to why the cognitive commitment has to be complemented with a *socio-semiotic commitment*, which is

to make one's account of human language accord with the status of language as a social semiotic, i.e., intersubjective, historically and socially variable tool, and to base that account on a methodology that likewise transcends the individual.⁸

What is crucial is that such a functional view of language “fits well into the currently popular conception of language as a Complex Dynamic System” (Geeraerts 2016a, 530).⁹ This implies that linguistic meaning is dynamic and flexible, and able to change in order accommodate new experiences and situations.

Apart from these commitments, the theoretical approaches that can be subsumed under the label CL are undergirded by a sophisticated view of categorisation.¹⁰ One of the basic tenets of

⁸ Geeraerts (2016a, 528), however, states:

This social turn, it should be pointed out, is not a complete novelty in the history of Cognitive Linguistics, given that, for instance, the notion of ‘cultural model’ played a significant role in the emergence of the new framework.... It is therefore best characterized as a deliberate strengthening and foregrounding of an initially secondary feature.

⁹ See also Andrason (2014).

¹⁰ For a monograph on categorisation in CL, see Taylor (2003). For a brief summary, see Taylor (2015, 562–79). For a critical perspective, see Murphy (2002).

this view of categorisation is that members of a category are not equal, with some members more salient and/or central than others.¹¹ The former are regarded as the prototypical members. Those that share some sort of family relationship form overlapping clusters within their category; e.g., in the category *fruit*, one gets *fruit that is sweet*, *fruit that is juicy*, *fruit that grows on trees*, etc. In short, members of a category often display what has been called a ‘radially structured network’.¹² A crucial extension of these insights has been that the same type of clustering that takes place within one sense category (like *fruit*) also takes place among the different extended senses that the lexeme may acquire

¹¹ According to Langacker (1987, 102), the human ability to compare, pick out differences, and establish similarities between entities is fundamental to all human cognition. However, entities that are similar are not always similar to the same degree, for a number of reasons; e.g., on the one hand, perception is influenced by both individual and shared social values and, on the other hand, perception tends to take place in terms of figure-and-ground configurations in particular contexts by specific individuals. This is why one of the primary ways that humans organise their worlds, i.e., in terms of categories, is regarded by Langacker (1987, 371) as forming conceptual structures that involves schemas, prototypes, and instances. Schemas are patterns that are abstracted on the basis of the features that all instances share. Prototypes are typical instances of a category, but not all instances of a category are prototypical. A crucial feature of prototypes is that they are not objective realities, but construals that are “culture-dependent, content-dependent and mind-dependent” (Van Wolde 2009, 26).

¹² For a diagram in this regard, see Geeraerts (2010, 191).

through a process of generalisation (*fruits of nature*) or metaphorical extension (e.g., *fruits of someone's labour*).¹³ The fact that these types of extensions occur is not a novel insight of CL; it was already one of the focal points of historical-philological semantics. However, what is novel are insights into the 'drivers' of sense extensions, e.g., the vagueness and under-specification of less prototypical members of a sense category in cases of specialisation and generalisation; the bodily and/or culturally conventionalised experiential contingency, as well as any perceived contingency in the case of the metonymic, and similarities in the case of metaphorical extensions, as well as the role that established conceptual metonyms and metaphors play.¹⁴ Also crucial is the insight that radially structured maps of polysemous senses are not stored as static entities in the brain, but that context is always "needed to pin down an actual, currently active sense" (Dirven 2005, 26). Also novel are the nature and effects of sense extensions. Sense extension is a gradual process and the semantic potential of a sense category may constitute a continuum of senses rather than discrete units. A third novelty is the pervasiveness of polysemy at all levels of linguistic description.¹⁵

¹³ For a diagram, see Geeraerts (2010, 194).

¹⁴ See Gries (2015, 473–78) and Geeraerts (2016b, 233–47).

¹⁵ Compare the polysemy of the constructions discussed in Locatelli (2017); Van der Merwe (2018); Coleman (2018); and Khan and Van der Merwe (2020).

Approaches that are labelled as CL also tend to adhere to a number of basic hypotheses.¹⁶ The first is the *symbolic thesis*.¹⁷ According to this thesis, language is a structured collection of conventionalised linguistic units, each representing a *form-meaning pair*¹⁸ or ‘symbolic unit’.¹⁹ This implies, firstly, that forms cannot be studied independently of their meanings. The forms that are involved may range from a phoneme, a grammatical morpheme, a syntactic construction (e.g., a phrase or a clause) to a lexical construction. The meanings of these forms may range from the highly schematic meanings of grammatical constructions,²⁰ at one end of the continuum, to very specific meanings of lexical units, at the other end of the grammar-lexicon continuum. For this reason, the second implication of the symbolic thesis is that there is no qualitative distinction between syntax and the study

¹⁶ The hypotheses listed here are a combination of those described by Croft and Cruse (2004); Geeraerts (2006); and Evans (2012, 2019). See also Riemer (2010, 238). Most of these theses can be related to the way in which humans categorise.

¹⁷ See also Langacker (2013, 14–26) and Evans (2019, 566–68).

¹⁸ The symbolic thesis has some resemblance to Saussure’s view of language as a system of signs and his distinction between the signifier and the signified. However, for CL there is not a simple one-to-one relationship between a phonological entity (the signifier) and a semantic entity (the signified); see Taylor (2002, 53–58).

¹⁹ The symbolic unit is also referred to as a ‘symbolic assembly’ or ‘symbolic construction’.

²⁰ At the level of syntax, the form of a symbolic assembly or construction may be NP1:SUBJECT VERB NP2:OBJECT and the meaning be: X ACTED ON and AFFECTS Y.

of semantics. The main difference between grammatical and lexical meaning is that the former is more internally complex and schematic than the latter.

According to the second hypothesis, the *usage-based thesis*, “categories and structures in semantics, syntax, morphology and phonology are built from our cognition of specific occasions of use” (Croft and Cruse 2004, 2–3). Symbolic units are in essence mental routines, i.e., the creation of form and meaning pairs that emerge through convention as language is used.²¹ Symbolic units that are used frequently become entrenched and often shape the language system as patterns of usage. This implies that knowledge of a language is knowing how it is used. An implication of this thesis is that corpora are a prime source of linguistic evidence.

The third hypothesis is that of *embodied cognition*.²² This means that when humans interact with (and/or talk about) the world that they live in, the ‘reality’ that they represent linguistically is always the outcome of their bodily experiences as both individuals and members of a social group in specific situations. Hence the notion ‘situated embodiment’ (Dirven 2005, 30). Language therefore does not reflect the world objectively; it represents an embodied (i.e., a bodily construed) perspective on the

²¹ Crucial to keep in mind is that symbolic units may differ in terms of schematicity. Some may be nouns with specific meanings, e.g., *cat*, *house*, *car*. Some may be phrases, e.g., prepositional phrases with the more generic meaning of *location of an entity in space*. Others may be clause types, e.g., transitive clauses, with a highly schematic meaning referred to in the previous footnote.

²² See also Bergen (2015, 10–30).

world. Furthermore, these mental representations do not emerge from, or exist in, a vacuum. They are grounded in the past experiences of the individual and the shared experiences, values, and conventions of the social group that they belong to—and those, of course, are symbolised in terms of the entrenched patterns of use of that group.

The fourth thesis is that of *encyclopaedic semantics*. The structures at the semantic pole of symbolic units, i.e., the semantic representations of linguistic constructions, interface with the conceptual worlds of the speakers of a speech community.²³ These conceptual worlds are made up of vast interrelated networks of knowledge. When a particular linguistic expression is used, access to a particular network of knowledge is facilitated. This particular network of knowledge is called the ‘semantic potential’ of a particular semantic structure. Evans (2019, 356–57) uses the lexical item *red* as an example to explain the notion ‘semantic potential’. When it is used, a range of hues of reds may be invoked. Which hues are invoked are determined first and foremost by the hues that have become associated with *red* for a particular speaker (and his/her speech community), e.g., the vivid red of red lipstick and the brownish red of a squirrel. Which aspect of the semantic potential is profiled is, in the case of adjectives, typically determined (constrained) by the noun that it is modifying—in this case *lipstick* or *squirrel*. Langacker regards the specific referent of the noun that is used in this case as the ‘base’

²³ Langacker (1987) equates semantic structure with conceptual structure, while Evans (2009; 2012, 132) maintains that semantic structure and conceptual structure are two distinct representational formats.

against which the concept *red* is profiled.²⁴ In each of the constructions ‘red lipstick’ and ‘red squirrel’ different domains,²⁵ i.e., different parts of the encyclopaedic networks of a hearer’s knowledge, are activated.

The fifth hypothesis is that *linguistic meaning* does not reflect an objective world ‘out there’, but is *conceptualisation*²⁶—an implication of the thesis of embodied cognition. This is true of the specific meanings of lexical items as well as the schematic meanings of grammatical constructions. Langacker (2017, 263) states “an expression’s meaning depends not only on the conceptual *content* it invokes but also a *construal*, our capacity to conceive and portray the same situation in alternative ways.”²⁷

²⁴ For the notions ‘profile’ and ‘base’, see Taylor (2002, 192–94). For the difference between a ‘base’ and ‘domain’, see Taylor (2002, 195). Some scholars, like Croft and Cruse (2004, 15), use the notions ‘base’, ‘frame’, and ‘domain’ nearly interchangeably. In essence, the notions ‘base’, ‘domain’, and ‘domain matrix’ represent a continuum of increasing complexity of ‘frames’ of knowledge.

²⁵ For a brief overview of the difference between the notions ‘domain’, ‘frame’, ‘scenario’ and ‘idealised cognitive model’ (ICM), cf. Taylor (2002, 203).

²⁶ A concept is “a mental representation that can serve as the meaning of a linguistic expression;” see Shead (2011, 33–34).

²⁷ For the parameters that can constrain a construal, see Shead (2011, 37–38).

2.2. Strands, Developments, and Challenges

As I indicated in the first line of §2.1 above, CL is by no means a unified model. Since cognition involves a variety of human faculties, it is in a sense inevitably multidisciplinary. Dirven (2005, 17–68) has identified five strands, the first two of which may be regarded as “lexico-grammatical-pragmatic theories of language” (Van Wolde 2009, 30).

2.2.1. The Gestalt-psychological Strand

A gestalt-psychological strand was pioneered by Talmy²⁸ and then further worked out by Langacker in his *Cognitive Grammar*²⁹ (1987, 1991). A key principle in this regard is that human perception typically takes place in terms of a prominent figure and a less salient ground. Langacker “applies this principle to linguistic structuring at all levels” (Dirven 2005, 19).

According to Langacker (2017, 262), the initial phase of Cognitive Grammar “provided a unified account of lexicon, morphology and syntax... comprising a continuum of form-meaning pairs.” The second phase of Cognitive Grammar, which, according to Langacker (2017, 262), started around 2008, “envisages a unified account of structure, processing and discourse.”³⁰

²⁸ For an overview of Talmy’s work, see Evans (2019, 241–66).

²⁹ Grammar is understood by Langacker not merely as morphology plus syntax, but in a broad sense as a theory of language that accounts for the meaning of linguistic constructions at all levels of linguistic description.

³⁰ According to Langacker (2017, 283), the early results of the latter phase are still at best preliminary.

Some approaches, such as Fillmore's Construction Grammars,³¹ Goldberg (1995) and Croft's (2001) Radical Construction Grammar, and Embodied Construction Grammar (Bergen and Chang 2013), developed relatively independently of Cognitive Grammar, but share with Langacker's approach the symbolic and usage-based theses, as well as the insight that grammatical constructions represent figure-ground perspectives on situations.³² However, a major difference is that while Cognitive Grammar "sees constructions as pairings of a semantic pole with a phonological pole," Construction grammarians "also postulate (morpho)-syntactic information in their form pole" (Hoffmann 2017, 326). Their 'form pole', in other words, includes two types of information, i.e., phonological and grammatical information. For them, grammatical constructions, contra Langacker, are therefore a separate level of organisation. Evans (2019, 712–13) categorises Langacker's Cognitive Grammar as a constructional approach to grammar. For him, the essential difference between the various constructional approaches is their definition of what constitutes a construction.

³¹ See, e.g., Kay and Fillmore (1999). Fillmore's notion of Frame Semantics is encapsulated by his approach to Construction Grammar. In his templates for the description of constructions, a slot is provided for the relevant semantic and pragmatic features of a construction; see Evans (2019, 672–79). For the relationship between Frame Semantics and the FrameNet project, see Sheard (2011, 108).

³² For a discussion on the different construction grammars, see Hoffman and Trousdale (2013) and, for an overview of them, Evans (2019, 661–716).

2.2.2. The Phenomenological Strand

A phenomenological strand developed by Lakoff and Johnson (1980) and Lakoff (1987) focuses on embodied meaning.³³ In this strand, prototype theory, the radially structured networks of sense relations, conceptual metaphor theory,³⁴ conceptual metonymic theory, and the notion of idealised cognitive models play pivotal roles.

2.2.3. The Cognitive Sociolinguistic Strand

A cognitive sociolinguistic strand associated with Geeraerts (1997; 2016a) focuses on an understanding of the social drivers of polysemy and linguistic variation. The strand also emphasises the cultural and ideological models that in general undergird the language of specific social groups. A conviction shared by the European scholars of this strand is that usage-data require the methods of corpus linguistics.³⁵

³³ This strand is typically regarded as Cognitive Semantics. It must be distinguished from Talmy's notion of cognitive semantics; see Evans (2019, 241–66).

³⁴ The essence of conceptual metaphor theory is “that the human mind maps elements from concrete source domains onto the more abstract target domains of emotion, causality, event structure, and dozens of others. The concrete categories themselves are categorised on the basis of pre-conceptual spatial configurations shared by most living beings” (Dirven 2005, 27).

³⁵ For corpus-driven approaches see, for example, Gries and Stefanowitsch (2006) and Glynn and Fischer (2010).

2.2.4. The Cognitive Discourse Strand

A cognitive discourse strand focuses on the textual levels of language structure. Here any proponent of mental space theory (Fauconnier 1997) and blending theory (Fauconnier and Turner 2002) “deals with the online processing of discourse via mental maps (‘mental spaces’) and their conceptual blending.”³⁶ A seminal work in the application of conceptual metaphor theory to literature is that by Lakoff and Turner (1989). Turner’s (1996) work on the cognitive mechanisms that are involved in the construction of stories plays a foundational role in the application of CL to the study and analysis of literature, a sub-discipline called cognitive poetics.³⁷ The latter sub-discipline also benefitted much from what Dirven (2005, 37–39) referred to as the cognitive discourse study of coherence links.³⁸

2.2.5. The Psycholinguistic Strand

A psycholinguistic strand is represented by experimental research on the cognitive processes that undergird the use of figurative

³⁶ Insights from mental space theory and blending theory were eventually used to better understand metaphor and metonymy (Fauconnier and Turner 1995). Mental space theory also provided an innovative model for interpreting conditional constructions; see Dancygier and Sweetser (2005).

³⁷ For a succinct overview of cognitive poetics, see Evans (2019, 786–95).

³⁸ See also, e.g., Sanders and Sweetser (2009).

language and language acquisition. Among the most pertinent recent findings are that metaphors are often understood without invoking first their literal meaning (Dirven 2005, 50).

2.2.6. Recent Developments

Most recent developments in CL may be regarded as a logical outcome of its user-based thesis (see above). The so-called quantitative turn,³⁹ i.e., a greater appreciation for, and use of, quantitative data, was sparked by the need to study the behaviour of linguistic constructions in their contexts of use. The complexity of the task of hand, i.e., all the relevant parameters involved when corpora have to be tagged and analysed, required sophisticated statistical methods. Although there has been some critique of all the ‘number crunching’ (e.g., Langacker 2016, 465–77), it is described by Divjak et al. (2016, 452) as the “catalyst for the ‘social revolution’” in CL (see Geeraerts’s call for a “*socio-semiotic commitment*” above, in §2.1). The quantitative turn confronted scholars with a wide range of socio-semiotic parameters that could be relevant for, on the one hand, fully understanding the use of specific linguistic constructions and, on the other hand, the diachronic development of the linguistic stock of a language.

While the majority of earlier CL studies focus on English and other Indo-European languages, in recent times some progress has been made in the cross-linguistic comparison of lan-

³⁹ This shift from the use of introspection as a way to extract data to the use of statistical analyses of corpus data started in the mid-1990s, but really took off only around 2008; see Janda (2013, 1–32).

guages from a CL perspective in the field of lexical semantic typology,⁴⁰ e.g., how the body parts are labelled and used in figurative extensions across languages.⁴¹ The study of language change has until recently been fairly marginal in CL (Divjak et al. 2016, 455). Another implication of the user-based thesis is that meaning is always emerging. Hilpert (2015, 347–51; 361–62), therefore, aptly argues that historical linguistics should be one of CL's central concerns. In this regard, in particular as far as lexical semantic change is concerned, the works of Geeraerts (see the sociolinguistic strand above) have been seminal.⁴² As far as the evolution of grammar is concerned, Bybee et al. (1994), Heine et al. (1991), Traugott and Dasher (2002), Hopper and Traugott (2003) are the trail-blazers.⁴³

In a recent article, Dąbrowska (2016, 479–91) lists seven challenges that cognitive linguists currently face. The most general concerns are, first, the fact that many cognitive linguistics still use intuition as their main data source and, second, that the Cognitive Commitment is apparently not always treated seriously (Dąbrowska 2016, 480–83). Of particular relevance for scholars of ancient languages are the following questions:

- (1) How can the pivotal concept in CL, viz. subjective construal, be measured 'objectively'?

⁴⁰ See Koptjevskaja-Tamm (2015) and Divjak *et al* (2016, 456–57).

⁴¹ See Kraska-Szlenk (2014, 15–39; 2020).

⁴² See Geeraerts (1997; 2010; 2015; 2016b; 2017).

⁴³ See also Hilpert (2015, 353–57) and Evans (2019, 717–43).

(2) How does one establish which are the relevant parameters (or frame elements) to tag when the distributional analysis of an expression is conducted? and

(3) How much insight into the mental representations of speakers of a language can patterns of use really provide? After all, the distribution of an expression may provide clues to its meaning, but does not equal its meaning.

According to Dirven (2005, 50–51), up to 2005 Langacker’s model was the most stable, most influential, and least criticised one.⁴⁴ The irony is that Lakoff’s views on prototype theory and radial lexical networks, conceptual metaphor, and idealised cognitive models, which were more heavily criticised, have also been very popular (2005, 51). Nearly fifteen years later, it can be argued that Langacker’s views, although also drawing some critique, have stood the test of time. He has also recently advanced his research beyond the boundaries of sentences. In the meanwhile, some of the critiques levelled against Lakoff’s ideas have been addressed; see, e.g., Evans (2019, 267–97) for how weaknesses in prototype theory and the theory of idealised cognitive models have been addressed. In the same vein, Evans (2019, 300–46) reports about more refined versions of conceptual metaphor and metonymy theory.⁴⁵ Of significance is Evans’s Access Semantic approach (2019, 458–90), which steers away from Lakoff’s

⁴⁴ It is for this reason that Van Wolde (2009, 34) opted for Langacker’s model “to reframe biblical studies.”

⁴⁵ See also Kovecses (2008, 168–84).

full-specification approach and associates itself with the latter's "network" model (420–54).⁴⁶

Particularly relevant for scholars of BH has been the greater focus on how the meanings of linguistic expressions change over time; the use of linguistic-typological data; insights into grammaticalisation;⁴⁷ and how the use of corpus linguistic methods can be used to study polysemy at all levels of language use.

3.0. Cognitive Approaches to Biblical Hebrew Studies

3.1. Introduction

The purpose of this section is to 'profile' the application of CL insights against the 'base' of the overview provided above. I will make a distinction—whenever possible—between two major

⁴⁶ See Falkum and Vicente (2015, 11–13) for a positive assessment of Evans's semantic model.

⁴⁷ Grammaticalisation is a sub-field of linguistics in general and not restricted to CL. There are various definitions of grammaticalisation, but according to Narrog and Heine (2011, 3), whenever there is debate as to whether a phenomenon is an instance of grammaticalisation or not, the classic definition of Kuryłowicz (1975 [1965]) is consulted, viz. "Grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a grammatical to a more grammatical status." Since CL focuses on the mechanism of meaning, i.e., how meaning works and how new meanings emerge as language is used, the diachronic perspective of grammaticalisation is foundational to the CL enterprise; see Chapter 7 of Langacker (1987).

groups, viz. those studies that can be associated mainly with Langacker and/or his approach, i.e., the Gestalt-psychological strand (§2.2.1, above), and those who appear to be more influenced by the initiatives of Lakoff and his cognitive semantics, i.e., the phenomenological strand (§2.2.2, above). Since, many of the latter's views were refined in particular in the light of the greater appreciation for, and use of, quantitative and social data sparked by the 'European' CL wave, I will consider them part of the second group. Studies that are difficult to classify will be regarded as group 3.

3.2. Group 1

I commence with works that can be associated with Langacker. I do not list them chronologically, but rather according to how 'closely' they can be associated with Langacker.

Van Wolde (2009), with reference to Dirven (2005), restricts herself to the 'stable' model of Langacker. Not only is Van Wolde's the most comprehensive attempt to apply CL insights to BH, it is also the broadest in scope.⁴⁸ This is because it proposes a detailed cognitive method of OT exegesis (2009, 204), indicating how to account for (1) the socio-cultural embeddedness of the text the Hebrew Bible; (2) the lexical meaning of usage events; and (3) the meaning structure of biblical texts. She has also formulated an abridged version of her model (2009, 205). What is particularly helpful in Van Wolde's approach is that she

⁴⁸ It should also be noted that Van Wolde's (2009) is one of a few CL applications to BH that is not based on a PhD project, but represents the work of an established scholar.

provides detailed examples of how each aspect of her model can be applied.

It is impossible to detail each of these examples here. I will focus on one, i.e., שַׁעַר. The lexeme (i.e., the symbolic unit at the phonological pole) is typically used in a cognitive domain that can be labelled *human artifacts* > *buildings* > *city*⁴⁹ and illustrates in particular the sociocultural embeddedness of BH. By carefully comparing the archaeological evidence of city gates from the ninth to the fifth century BCE with instances in the Hebrew Bible where the base of שַׁעַר is a city, Van Wolde shows how the integration of archaeological and co-textual evidence is needed to fully understanding the semantic (conceptual) content of שַׁעַר in particular instances of use (2009, 72–103). It is, for example, for modern readers impossible to understand וַדָּוִד יוֹשֵׁב בֵּין שְׁנַי הַשְּׁעָרִים ‘David was sitting between the two gates’ (2 Sam. 18.24), if they do not know that a complex gate structure includes an outer gate, an inner gate, and a space in-between. In the same vein, modern readers will not fully appreciate Ruth 4, if they lack knowledge of the scenarios (e.g., judicial) typically associated with the space provided by the city gate complex. Most exegetes rightly claim that such use of context to understand language use is common sense. CL is indeed a ‘common sense’ approach that attempts to account for the parameters involved when humans construe the

⁴⁹ Van Wolde (2009, 83) shows that in this domain שַׁעַר can have as its base, *city*, *tabernacle*, or *palace*. In other words, the ‘gate’ of the city, tabernacle, or palace can be referred to by this lexical item. The conceptual content profiled by שַׁעַר in each case will depend on the specific base that is involved. A ‘city gate’ implies conceptual content that differs from that of the gate of the tabernacle or a palace, respectively.

meaning of a linguistic construction in a particular context of use. This is also the reason why Cognitive Semantics is associated with the wisdom of traditional historical-philological semantics (Geeraerts 2010, 276).

Since the appearance of her book in 2009, Van Wolde has published further applications of her ‘cognitive relational approach’ on a regular basis.⁵⁰ Not all of her interpretations have been accepted uncritically.⁵¹ It is not clear if and how she has incorporated the second (post-2008) phase of Langacker’s views into her model.⁵²

Peters (2016) describes Langacker’s model as “at the same time complex, accounting for language as a whole, and deceptively simple, based on only a few key principles.” Peters uses Van Wolde’s abridged version (2009, 205) for his study of the concept of ‘cooking’ in the Hebrew Bible. This study represents an exemplary application of the foundational work done by Van

⁵⁰ Van Wolde (2013a; 2013b; 2014; 2015, 2017; 2019).

⁵¹ See, e.g., the critique by Bosman (2011, 115) of Van Wolde (2008). Consider also the debate sparked by her views (2009, 197–200) on the interpretation of אָרָב. See also Van Wolde and Rezetko (2011) and Wardlaw (2014). Some of the linguistic arguments that she uses in a recent contribution to the debate (Van Wolde 2017, 611–47) have convinced me that the debate is by no means over.

⁵² Kamp’s (2004) PhD study supervised by Van Wolde calls itself “a cognitive linguistic approach to the book of Jonah.” It can be regarded as an attempt to integrate basic CL insights into cognitive processes (2004, 9–13) with functional models of how information is processed in texts for purposes of analysing the book of Jonah (2004, 4–5). For a relatively similar approach, but focusing only on discourse units, see Robar (2014).

Wolde. He illustrates how encyclopaedic information on cooking practices can be integrated with careful linguistic analyses of the lexical items that are typically used to ground and profile acts of cooking in the Hebrew Bible.

Coleman (2018) addresses the problem of ‘transitivity alternations’, i.e., why, on the one hand, one and the same verbal lexeme may have a different number of complements and, on the other hand, one and the same verbal lexeme may profile different participant roles. In this regard, he draws primarily on Langacker’s *Cognitive Grammar* and Goldberg’s *Construction Grammar* (2018, 253) and argues that transitivity is a conceptual phenomenon that is scalar in nature. The transitive construction constitutes a symbolic unit, with a prototypical form-meaning pairing, but it may also have units that differ to various degrees from the prototype. These differences can be explained in terms of extensions and/or different construals of the prototype. For these purposes, Coleman uses insights from linguistic typology and functional grammar to establish the nature (e.g., the range) and functions of transitive constructions across languages. He uses insights from corpus linguistics (Hanks 2013) to establish what can be regarded as canonical uses (i.e., the norm) and exploitations (i.e., construals) of the constructions that he distinguishes in BH. A feature of Coleman’s work is that he illustrates how Langacker’s insights can be complemented with studies in linguistic typology, as well as functional and corpus linguistics, to describe a grammatical construction in BH.⁵³

⁵³ For a relatively detailed review of Coleman, in particular a critique of his use of the notion ‘focus’, see Van der Merwe (2019a, 121–28).

To better appreciate Coleman (2018), his treatment of verbs of ‘dressing’ and ‘undressing’ illustrates his concept of ‘transitivity alteration’. He investigates the various syntactic constructions in which six verbs of dressing and one of undressing occur in the Hebrew Bible. Among other things, he comes to the conclusion that dressing verbs are typically used in transitive constructions, with a direct object that profiles the role of [Dress]. The [Dressee] as direct object is also relatively frequently attested and its use represents a secondary norm. The alternation is attested crosslinguistically and is called ‘metonymic object change’, because the conceptual contiguity of the [Dress] and [Dressee] allows either of them to be profiled in a particular scene. In such cases, no difference in the semantics of the verb needs be postulated; the difference represents only a difference in subjective construal by the speaker. Although either the [Dress] or the [Dressee] may be the direct object of a construction, the latter is typically the ultimate goal of an action and is marked either by תא, a pronominal suffix, or fronting (2018, 119). With dress verbs, an indefinite object may also be omitted, as in לְבֹשׁ וְאִי־זָרְחָם לְוִי לְוִי לְוִי לְוִי literally ‘to clothe, but there is no warm for him’ > ‘you clothe, but no-one is warm’ (Hag. 1.6), “serving a pragmatic function of focusing on the affectedness of the agent” (2018, 119). The intransitive use of dress verbs is relatively infrequent and “limited to certain syntactic-semantic environments” (2018, 119), while passives forms are used only with passives meanings and serve to downplay the agency role of the subject.⁵⁴

⁵⁴ This section is a revision of a section in Van der Merwe (2019a).

Shead's Radical Frame Semantics (2011) can be linked to Langacker via (1) Fillmore's Frame Semantics as developed as part of his Construction Grammar and further refined within its application in the FrameNet project, and (2) Croft's Radical Construction Grammar (see the Gestalt-psychological strand in §2.2.1, above). With this ambitious project, which he acknowledges to be only of exploratory nature (2011, 334–35), Shead illustrates the realities that BH semanticists must face if they want to apply the whole gamut of current CL insights for better understanding the mechanisms of meaning. Croft calls his Construction Grammar 'radical' because he argues that linguistic categories at all levels have to be established in a bottom-up fashion, i.e., there are no universal categories that can be used as a point of departure in linguistic analysis. Shead postulates by implication that the same principle applies to semantic categories; hence he calls his model '*Radical* Frame Semantics'. Although he argues that FrameNET represents one of the most sophisticated tools for a more adequate description of BH relational constructions, e.g., verbs (107–42), he cannot escape the need to modify the model for the investigation of a specific non-spoken language (2011, 145–72). What is more, he was forced to develop his own software (HebrewNet) for these purposes, software that he admits has some limitations (2011, 192). He applies his model and software to describe what he labels חקר terms and establishes that they are typically used in *explore*, *search*, *investigate*, and *examine* frames (2011, 304). I have to concur with Peters (2016, 53) that Shead's work is extremely thorough, and that he has much to

offer “to the discussion of biblical semantics.” However, one cannot escape the impression that he sometimes tends to provide too much detail.

Looking at the bibliography compiled by De Blois (2000), a PhD which he completed at the Free University in Amsterdam, Langacker’s works do not feature. *The Semantic Dictionary of Biblical Hebrew* project, with De Blois as editor, was launched in 2003. The initial project was based predominantly on De Blois (2000).

According to De Blois (2002, 280; 2004, 100–1), he is “heavily indebted” to the *Introduction to Cognitive Linguistics* by Ungerer and Schmid (1996). From De Blois (2000, 6–8), it can be inferred that he was influenced by Martin’s (1994) version of frame theory.⁵⁵ According De Blois (2002, 8), “the strength of frame theory lies both in its *perspective* and its *systematic* approach.” He continues:

As far as its perspective is concerned, the frame theory respects the world view behind a given language.... As far as its systematic approach is concerned, the frame theory enables the lexicographer to describe related concepts in a uniform way, taking into consideration all relevant semantic aspects or attributes of each concept.

From De Blois (2002, 280–81) it is clear that he also embraces CL insights into categorisation and prototype theory, the notion that categories have attributes, as well as the role of metaphoric and metonymic mapping in meaning extensions (De Blois

⁵⁵ Frame theory is typically associated with Fillmore. See, for example, Burton (2017, 13) and Evans (2019, 395–402).

2004). De Blois (2007) interacts critically with Langacker's (1987) model of semantically based word classes, and comes to the conclusion that they can, with minor modifications and additions, be applied to the categorisation of the lexical stock of BH. De Blois (2009) acknowledges Langacker's distinction of only two semantically-based word classes, i.e., RELATIONS and THINGS. As far as RELATIONS are concerned, for De Blois the basic domains that "cover the Hebrew semantic field adequately" are POSITION, CONNECTION, PERCEPTION, and DESCRIPTION.⁵⁶ In this regard he refers to Langacker's distinction between a basic and an abstract domain (1987, 147). Unfortunately, the basic domains of De Blois are extremely schematic and he does not indicate if and how his concept of basic domains differs from that of Langacker (1987).⁵⁷ Furthermore, De Blois's (2004, 100) conviction that CL "requires" a distinction between lexical domains and contextual domains resonates more with Evans's Access Semantics (Evans 2019, 471–90) than with Langacker's view in this regard.⁵⁸

3.2. Group 2

Van Hecke (2011) is a revision of the author's second PhD, completed under the supervision of Ellen van Wolde in 2006. Van

⁵⁶ For these basic domains, subdomains are also distinguished, e.g., DESCRIPTION has the subdomains Attribute, Attitude, and Modification.

⁵⁷ For a user-friendly description of Langacker's distinction between basic versus abstract domains, see Evans (2019, 403–17).

⁵⁸ For other recent publications by the author, see De Blois (2014; 2019).

Hecke (2011, 266–72), like van Wolde (2009), fully embraces Langacker’s views on the role of understanding the meaning of words in terms of a profile and a base in the cognitive domains in which they are used. For understanding the polysemy and semantic structure of words in terms of prototype theory and radial structures, he turns to the seminal work of his colleague at KU Leuven, Dirk Geeraerts.⁵⁹ He also considers the methodological implications of integrating the insights from the Gestalt-psychological strand (§2.2.1) and the Cognitive Sociolinguistic strand (§2.2.3) mentioned above, and then illustrates how his theoretical framework can be applied to a number of key lexical terms and expressions in Job 12–14. Van Hecke (2011, 291–94) describes in exemplary fashion the innovations of Cognitive Semantics.⁶⁰ He does this only after pointing out how it builds on historical-philological semantics (286–88). He also acknowledges the instrumental value of structural semantics, e.g., componential analysis (288–91). In his own study of a number of linguistic expressions in his corpus, Van Hecke illustrates in a user-friendly way how the results of empirical research of the distribution of

⁵⁹ See Geeraerts (1997). See also De Prenter (2012), one of Van Hecke’s PhD students. She uses some of Geeraerts’s views for a description of the polysemy of חרם.

⁶⁰ Van Hecke (2011, 292) acknowledges insights from the Phenomenological strand (§2.2.2, above), i.e., Lakoff and others. He has himself either supervised (see, e.g., De Joode 2018 and Van Loon 2018) or conducted a number of studies on conceptual metaphor (e.g., 2001b; 2003b), conceptual blending (2005b), and the role of metaphor and metonymy in meaning extension (e.g., 2001; 2007).

linguistic expressions can be integrated with critical use of available encyclopaedic information about these expressions.⁶¹

Van der Merwe began to appreciate the potential of CL around 2000. The usage-based thesis of CL aligned with his commitment to describing the ancient language afresh with a bottom-up approach. He was inspired by the perspectives on human categorisation that prototype theory made available, and by the fact that the extensions of linguistic senses could be explained in a principled way and then construed in terms of radially structured maps.⁶² Unlike van Wolde (2009), who made an informed choice to follow Langacker closely, Van der Merwe's advances into CL were undertaken in a much more eclectic and piecemeal fashion.

⁶¹ See also Van Hecke (2001; 2003a). See also Leong (2019), a PhD dissertation obtained at KU Leuven with Pierre van Hecke and Dirk Geeraerts as supervisors. The dissertation is a semasiological study to understand the semantic structure of the verbal root שלם. Leong (2019, 21) regards frame semantics (as postulated by Fillmore) as his “methodological framework and distributional semantics as the systematic approach” to analyse his data. Somewhat surprising about Leong's study is that he hypothesises that a cognitive semantic approach will assist him to better understand the meaning a BH verbal root—and also illustrate the new insights gained (2019, 209–10)—but he does not engage at all with other attempts to better understand BH verbal roots from a CL perspective, e.g., Van Wolde (2009); Shead (2011); Bosman (2011); Widder (2014).

⁶² See Van der Merwe (2003; 2006a).

Encouraged by the work of Rechenmacher (2004) and Van Steenberg (2005),⁶³ his first empirical study from a CL perspective was an onomasiological study of the concept ‘strength’.⁶⁴ Although the study of particles (e.g., conjunctions, focus particles, and discourse markers) has been relatively marginal in CL circles (see the Cognitive Discourse strand in §2.2.4, above), Van der Merwe has conducted a number of cognitively inspired corpus linguistic types of studies in this regard.⁶⁵ In most of his studies, an attempt is made (1) to establish prototypical and less-prototypical uses and (2) to provide possible explanations for their polysemous relationships. For establishing the possible senses of function words, he typically draws on the description of equivalents of this closed class of constructions in English, German, and/or Dutch. Whenever possible, frame elements and/or syn-

⁶³ Van der Merwe supervised this PhD project. Van Steenberg (2005) illustrates the pivotal role of world view in the conceptualisation of negative moral behavior in the book of Isaiah and the implications this has for better understanding the prototypical and less prototypical lexical items referring to negative moral behavior in his corpus. See also Van Steenberg (2002 and 2003) and Burton’s (2017, 24–25) critical assessment of his work.

⁶⁴ See Van der Merwe (2006b). Van der Merwe (2018a) provides a semasiological description of the polysemous relationships of the senses of the verbal root *qtn*.

⁶⁵ See Van der Merwe (2007; 2009a, 2009b; 2010; 2011; 2014). See also Miller-Naudé and Van der Merwe (2011).

tagmatic patterns that can be associated with particular sense distinctions⁶⁶ are identified.⁶⁷ Van der Merwe has also supervised postgraduate projects that describe the polysemy of other function words, each of which can be associated with the Cognitive Discourse strand (§2.2.4, above), e.g., purpose and result relationships in the case of Yoo (2012), conditionals in the case of Bivin (2017),⁶⁸ and causal relationships in the case of Locatell (2017).⁶⁹ A contribution of each of these studies, which drew as much as possible from cross-linguistic attested patterns of use, is the finding that a pivotal frame element for understanding the coherency relationship between utterances is whether a relationship of content, a relation of speech act, or an epistemic relationship is involved.

⁶⁶ A similar approach has been followed by Bosman (2011) in her exploratory onomasiologically oriented study of lexemes that are typically associated with the concept of affection in BH.

⁶⁷ Most of the findings of these studies are reflected in Van der Merwe, Naudé, and Kroeze (2017).

⁶⁸ Dancygier and Sweetser's (2005) use of mental space theory to better understand conditionals in English is the theoretical point of departure of this study. See (§2.2.4, above, on the Cognitive Discourse strand.

⁶⁹ Locatell's study is not limited to the causal functions of *וְ*. Like Follingstad (2001), he investigates all uses of the particle in the Hebrew Bible. However, unlike the latter, Locatell is not convinced that *וְ* must be understood as having "a single, highly abstract and invariant core and that context provides the variation of nuances" (Locatell 2019, 79). He uses cross-linguistic evidence to postulate a development path for the particle which explains its various senses and the polysemous relationships between them. See also Locatell elsewhere in this volume.

Consider, for example, the different types of coherency relationships in instances where causal relationships are involved.

- (1) וְלֶחֶם אֵין בְּכָל־הָאָרֶץ כִּי־כָבֵד הָרָעֵב מְאֹד
 ‘There was as no food in all the land, *for* the famine was very severe.’ (Gen. 47.13)

In (1), a content causal relationship is involved, since the grounds of a state of affairs in nature are due to the objective laws of nature.

- (2) וַיֹּאמֶר יְהוָה אֶל־מֹשֶׁה אַל־תִּירָא אֹתוֹ כִּי בְיָדִי נָתַתִּי אֹתוֹ
 ‘But the LORD said to Moses, “Do not fear him; *for* into your hand I have given him.”’ (Num. 21.34)

In (2), the grounds of a speech act, in this case a directive “Do not be afraid,” are not based on any objective law of nature, but are connected to what a speaker says he/she will do. In other words, the causal relationship is subjectively construed by the speaker.

- (3) וַיֹּאמֶר נָתָן אֲדֹנָי הַמֶּלֶךְ אַתָּה אֲמַרְתָּ אֲדֹנָיְהוּ יִמְלֹךְ אַחֲרָי וְהוּא יֵשֵׁב עַל־כִּסְאִי:
 כִּי יָרַד הַיּוֹם וַיִּזְבַּח שׁוֹר וּמְרִיא־וְצֹאֵן לְרֹב וַיִּקְרָא לְכָל־בְּנֵי הַמֶּלֶךְ וּלְשָׂרֵי
 הָעָבָא וּלְאַבְיָתָר הַכֹּהֵן...
 ‘And Nathan said, “My lord the king, have you said, ‘Adonijah shall reign after me, and he shall sit upon my throne’? *For* he has gone down this day, and has sacrificed oxen, fatlings, and sheep in abundance, and has invited all the king’s sons, the commanders of the army, and Abiathar the priest...’ (1 Kgs 1.24–25)

In (3), again, a subjectively construed causal relationship is involved. In this case, the grounds for making the assertion in 1 Kgs

1.24 are the evidence that a speaker provides in v. 25; hence the label ‘epistemic relationship’. Causal relationships that are construed by speakers may involve one main clause and one dependent causal clause, e.g., in (2). Often, however, more than one ‘main’ and one dependent clause are involved, see, e.g., (3).

- (4) כִּי־יִוָּדַעַ יְהוָה דַּרְךְ צְדִיקִים וְדַרְךְ רָשָׁעִים תֵּאבֵד׃
 ‘For the LORD takes care of [lit. knows] the way of the righteous, but the way of the wicked will perish.’ (Ps. 1.6).

In (4), the grounds for why the psalmist can utter Ps. 1.1–5 is provided. In this case, the grounds provided confirm what has been said in vv. 1–5, in other words, a substantial chunk of text. Since, it could be argued that the grounds refer to something that both the addresser and the addressee already know, the ‘causal’ particle could also be translated in English as ‘yes’, ‘after all’, or ‘the fact of the matter is’. In BH, the common ground shared or not shared by interlocutors is not lexicalised in the case of causal כִּי. However, in English (and many other languages) it could be lexicalised. To translate this particle adequately in English, one therefore needs insight into the possible coherency relationships of connectors.⁷⁰ One type of function word that has received am-

⁷⁰ The notion of different levels of coherency relationship is not a novel insight of CL; see, for example, Claassen (1983). The insights in this regard should rather be regarded as further evidence that languages typically reflect the subjective construals of their speakers; see also Verhagen (2005). This is why it has been fully embraced by CL scholars, see, e.g., Sanders and Sweetser (2009).

ple attention in CL circles is prepositions, in particular the preposition ‘over’.⁷¹ A number of postgraduate projects supervised by Van der Merwe (Lyle 2012; Mena 2012; Lee 2016; Rodriguez 2017) did not use Lakoff’s ‘full specification account’ model, but rather the ‘principled polysemy account’⁷² proposed by Tyler and Evans (2003).⁷³ In these studies the polysemy of BH prepositions is typically explained in terms of crosslinguistically attested patterns of extensions, e.g., from a concrete spatial relationship to more abstract ones and/or paths of grammaticalisation.⁷⁴ The polysemous relationship between the prototypical and less prototypical senses were in most cases construed by means of radially structured maps.

From the conclusion of Widder’s (2014) study, which she labels as an instance of cognitive semantics, it appears that she was influenced by Evans (2009) in the structure of her investigation of a BH lexical set that refers to the concept of ‘teach’ in ancient Israel. She first analysed the syntagmatic frames (e.g., clause types and participant roles) of each of the lexemes (in their

⁷¹ See Lakoff (1987, 416–61) and Tyler and Evans (2003).

⁷² Evans (2019, 445) concedes that the single functional element posited by this model “is empirically inadequate to account for the range of non-spatial, ‘functional’ sense-units that develop over time, from the prototypical spatial sense”. According to him (2019, 454), his current “theory of Access Semantic” addresses this issue more satisfactorily.

⁷³ Lemmer (2014) is not a student of Van der Merwe’s, but also used Tyler and Evans’s (2003) ‘principled polysemy account’ to describe in a Master’s thesis the polysemy of the preposition *ʔ* in the book of Judges.

⁷⁴ See also Hardy (2014), who focuses on grammaticalisation paths of BH prepositions.

various stem formations) of her set to establish each one's semantic potential. In the light of the usage patterns, and with reference to relevant contextual considerations, she then established the prototypical sense of a particular lexical unit. After that, she profiled that prototypical sense against a universal concept of teaching that she had formulated. She acknowledges that in the latter approach she deviates from what is typically the case in CL. In short, Widder draws on basic insights from CL that she hypothesises can help her better understand the concept of teaching in BH and then illustrates the value of her approach.⁷⁵

3.3. Group 3

There are two monographs that are revisions of PhD dissertations that are difficult to associate with any of the trends mentioned above.

Burton (2017) displays acute awareness of the challenges inherent in the semantic analysis of an ancient language such as BH. She therefore sets out to develop a cognitive corpus-based approach that “pay[s] close attention to the textual evidence, and all clues available therein” (2017, 31). Unlike some of the onomasiologically oriented attempts referred to above, e.g., Van der Merwe (2006b), Bosman (2011), and Widder (2014), who merely postulate the possible members of the lexical sets of the concepts that they investigate, Burton develops a model to establish in an inter-subjectively verifiable way the lexical units that belong to

⁷⁵ In this regard, her approach shows some similarities to that of Bosman (2011).

the concept that she investigates, viz. ‘glory’. For the frame analysis of the lexical set, Burton’s range of (admittedly subjective) parameters⁷⁶ to consider is in line with what is called a ‘Behaviour Profile Analysis’.⁷⁷ As far as the lexemes of the concept that she has investigated are concerned, Burton illustrates the benefits of her model for better understanding their use, relationships, and the differences between their uses.⁷⁸

Müller (2018) primarily uses the notion of ‘conceptual metonymy’ to investigate and explain the polysemous senses of the lexeme שׁוֹן. She illustrates convincingly that BH is by no means unique in its use (and extensions) of a body part term to profile a human being in terms of the typical experiences that are associated with that body part, in this case ‘throat’.⁷⁹ Like in many other languages, the active zone body part may also be fully grammaticalised to become a pronoun.⁸⁰

4.0. Concluding remarks

CL is sometimes primarily associated with the study of the conceptualisations and processes behind the metaphors and meto-

⁷⁶ She calls these parameters ‘semantic features’: identity, ascription, giving and taking, verbs, causal relations, reaction, association, metaphor, antonyms, idioms, and distribution.

⁷⁷ See the Cognitive Sociolinguistic strand discussed in §2.3.3, above, and also Thompson and Lyle (2019, 127–48).

⁷⁸ For a critical review of Burton, see Van der Merwe (2018b, 89–93).

⁷⁹ For a critical review of Müller, see Van der Merwe (2019b).

⁸⁰ See also Van der Merwe and Cornelius (2019).

nyms that pervade human language. CL has also, however, confirmed and refined a traditional maxim about linguistic meaning, namely, that it is embedded in situated human communication. Furthermore, it has highlighted the fact that language is a dynamic and complex system, and that meaning is both an individually embodied and socially grounded phenomenon that emerges as human subjects use their language. Since the inception of CL in the late 1970s, its shared commitments and theses have laid a firm foundation for research into both the nature of meaning and the meaning-extension of linguistic constructions.

The founding fathers of CL addressed the complexities of language from different angles. Langacker tried to provide an over-arching explanatory framework, first at clause level and more recently at text level. His framework(s) tends to remain relatively stable and leave room for different methodologies, which, of course, may be scrutinised.⁸¹ Lakoff appears to have embraced sometimes promising findings and methodologies that were popular, but have not always stood the test of time, e.g., his conceptual metaphor theory. Nevertheless, the challenges of refining some of his theses prompted more interdisciplinary initiatives, e.g., the use of corpus linguistics methods, sociolinguistic, and diachronic information, as well as linguistic-typological data and patterns of grammaticalisation to better understand (for example) polysemy.

The BH scholars discussed in this paper have responded in different ways to the promises and challenges brought forth by CL. Most of the studies that have been discussed above address

⁸¹ See, e.g., the critique of Van Wolde referred to above in fn. 51.

specific problems. Van Wolde (2009), and in some sense Van Hecke (2011), given the wider scope of their projects, are the exceptions in this regard. Van Wolde (2009) and Peters (2016) are also unique in opting to use Langacker's model exclusively. Van Hecke has complemented the insights he gained from Langacker with those of, amongst others, Geeraerts. Van der Merwe and his students have been fairly eclectic in terms of methodological frameworks used in their investigations (of mainly function words). These frameworks have employed the basic theses of CL as points of departure. They also have typically been informed by insights from a linguistic-typological perspective.

A challenge for BH scholars remains that CL provides no ready-made 'recipe' for studying an ancient language. The methodological frameworks suggested by Shead (2011) and Burton (2017), as well as the questions noted above about Van Wolde's interpretations, illustrate the problem. What this broad orientation also hints at is that a way to optimally use distributional data and statistical methods for establishing the different senses of linguistic expressions has yet to be established, both in CL and BH.⁸²

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⁸² See the exploratory study of Thompson and Lyle (2019).

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FROM לִיָּהּ TO סֵפֶר AND BACK: AN EPISODE IN BIBLICAL HEBREW HISTORICAL LINGUISTICS¹

Tania Notarius

The Classical Biblical Hebrew (CBH) word סֵפֶר ‘letter, written document’ and its Late Biblical Hebrew (LBH) counterparts אִגָּרָת and כְּתָב are well-known chapters in the historical study of the Hebrew language: the CBH term was partially replaced by new terms, due to the interference of Aramaic, but continued in the usage ‘book, scroll, writing’.²

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² See Hurvitz et al. (2014, 26–27, 149, 194) and the bibliography there; Hendel and Joosten (2018, 20–21). For סֵפֶר as ‘letter’ in LBH cf. 2 Chron. 32.17; Est. 1.22; 3.13; 8.5, 10; 9.20, 25, 30; see Hendel and Joosten (2018, 150 n. 51). The translation ‘book’ does not imply ‘codex’, but rather ‘a long, apparently literary, composition’, transmitted on any physical carrier; see the discussion in Naudé and Miller-Naudé (2016).

Examination of the Ugaritic corpus shows that the ancient Northwest Semitic (NWS) lexeme **spr* was not always the default term for a written document:³ it gained its position gradually, contending with other terms for ‘writing’, the word **lwh* ‘tablet, letter’ the most important among them. The goal of this paper is to demonstrate the relevance of the Ugaritic data for the historical study of Hebrew—particularly of Hebrew lexical items—and to trace the semantic development of the noun **lwh* from Ugarit to Qumran Hebrew (QH), comparing when necessary with the master-term **spr* and other terms for writing.⁴

1.0. Ugaritic *spr* and *lht*

The Ugaritic lexicon (*DULAT*) distinguishes between the nouns *spr* III ‘counting, number’, explicitly related to the root *s-p-r* ‘count; tell’ (see ex. 1), and *spr* II ‘message, writing’, presumably borrowed from Akkadian *šipru* ‘message, matter’:⁵

³ For *spr* ‘writing, inscription’ in Aramaic and Phoenician see *DNWSI* (799–801).

⁴ This research was finalised before Philip Zhakevich’s (2015) dissertation became known to me; I could not fully accommodate the results of his study (especially pp. 125–33) in the present paper.

⁵ See *DULAT* (756–57); it distinguishes between four main functions of *spr* II: (1) “tablet / register, list, inventory; in accounting, record of tribute; of instructions”; (2) “writing, document, warrant”; (3) “letter, mis-sive”; (4) archival note of “reference, matter”. Hawley, Pardee, and Roche-Hawley (2015, 252) derive this noun from the root *s-p-r* ‘count’ and observe (note 64):

- (1a) *ḥḥt d bl spr ḥn d bl ḥg*
 ‘mercenaries without number, archers without count’ (1.14
 II 37–38, and parallels)
- (1b) *b py sprhn b šty mnthm*
 ‘in my mouth (I have) their inventory, on my lips (is) their
 list’ (1.24:45–46).

In my view, there is no need to draw such a distinction, since the *spr* II used about ‘writing’ also has many usages connected to ‘counting, registering, and listing’, as in (2a)–(2b), clearly motivated by the root *s-p-r*, commonly for the sake of ‘accounting’, e.g., (2c):

- (2a) *spr npš d ḥrb bt mlk w b spr l št yrmḥl 3 šry 2...*
 ‘record of the individuals who entered the house of the
 king, but who had not been put in a record: PN—3, PN—
 2...’ (4.338:1–6).⁶
- (2b) *spr bnš mlk d tāršn ḥmsn bšr ḥbn špšyn*
 ‘register of the personnel of the king who claim the cargo:
 PN, PN, PN’ (4.370:1–3).⁷

Its morphological structure was probably /sipru/. The word /sipru/ appears in various literary genres in reference to the inscribed tablet itself, e.g., *spr ḥpr* ‘document of rations’ (RS 17.106), or *spr dbḥ ḫlm* ‘document of sacrifices of the shades’ (RS 34.126, a funerary ritual). It is clear that, as *spr* + X defines the type of document, *spr* + PN defines who put the document into writing.

All Ugaritic examples in this paper are according to *CAT/KTU*.

⁶ See also 4.33:1; 4.288:1; 4.320:1; 4.322:1; 4.561:1; 4.714:1.

⁷ Cf. 4.141 I 1; 4.144:1; 4.367:1; 4.609:1; + many.

(2c) *spr ḥṭbn sbrdnm ḥmš[[x]] kkrm ālp[[x]] kbd ṭṭ*

‘account book of the bronze-smiths: five talents, one thousand (shekels) of copper’ (4.337:1–3).⁸

Apparently, due to interference of the Akkadian lexeme *šipru/šipirtu* ‘message, instruction’,⁹ *spr* acquired the meanings ‘document, instruction’, e.g., (3a)–(3b), ‘matter, document’, e.g., (3c), and ‘warrant, license’, e.g., (3d):

(3a) *spr n^fm ššwm*

‘(book of) instructions about the health of horses’ (1.85:1)

(3b) *spr dbḥ ḏlm*

‘(record of) instructions for the sacrifice of the spirits’ (1.161:1)

(3c) *spr šāb mql[dšt]*

‘document concerning the water carriers of the sanctuary’ (6.25:1)¹⁰

(3d) *spr mlk*

‘royal warrant’ (3.12:13; see also 3.12:9)

Ugaritic had only one substantive *spr*: in poetry it is used twice for ‘number, inventory’; in prose it is used in administrative

⁸ See also 4.181:1; 4.369:1; 4.610 I 1; etc. The semantic link ‘count–recount = tell’ (cf. bank *teller*) / *Zahl–erzählen*, etc., is widely attested crosslinguistically.

⁹ The interference of the Akkadian lexeme *šipru/šipirtu* ‘message, instruction; commission, report, task’; cf. *CAD* (Š 3: 73–84), presumably an early loan, indeed led to convergence with the Northwest Semitic derivative **sipru*; cf. the discussion in Notarius (forthcoming).

¹⁰ See also 4.120:1; 6.24:1; 6.29:1; etc.

and procedural discourse dozens of times (approx. 80 occurrences), meaning both ‘list, record, register, account, document, inventory’ and ‘matter, instruction’.

The lexeme that intersects semantically with *spr* ‘written document’ is *lht* ‘tablet-letter, message’.¹¹ On the surface, *lht* and *spr* demonstrate different distributions: if *spr* is used in administrative and procedural texts, *lht* is attested in correspondence; see ex. (4). I have counted up to 19 cases of *lht* referring to the content of a letter, i.e., ‘message from / about’, as in (4a), or to the ‘tablet-letter’ itself, i.e., ‘letter concerning’, as in (4b). In poetry there is one usage of *lht* ‘tablet(s)’, phrased with *mlāk* ‘message’ (4c):

(4a) *lht šlm d likt*

‘message of greeting that (she) sent’ (2.34:5–6)¹²

(4b) *w lht bt mlk āmr*

‘and the letter (about) the daughter of the king of TN’
(2.72:17)¹³

(4c) *lht mlāk ym*

‘the letter-message of DN’ (1.2 I 26)

Although most usages of *spr* ‘written record’ are in procedural, economic, and administrative texts, occasionally (five times) *spr* occurs in correspondence with the meaning ‘writing’

¹¹ See *DULAT* (490). According to Fox (2003, 76), *lh* is an isolated Proto-Semitic nominal lexeme.

¹² See also 2.39:17; 2.45:22–23; 2.46:10; 2.73:7, 12.

¹³ See also 2.31:43; 2.72:23; 2.87:18; 2.90:4; 2.98:31; 2.100:14, 16; 2.103:11, 12, 17; 2.104:11.

(5a), occasionally overlapping with *lḥt* in the meaning ‘message’, as in (5b)–(5c), although the lexeme *lḥt* ‘message’ also overlaps with *mlāk(t)*; cf. exs. (5c)–(5d). In one case both words are grouped together as the phrase *lḥt spr* ‘the tablet-letter of a message’, an equivalent of the poetic *lḥt mlāk*; compare (5e) with (4c) above:

(5a) *b spr štnn*

‘put it in writing’ (2.108:14)¹⁴

(5b) *k ytnt spr hnd ʿmk*

‘when I gave this message (to be delivered) to you’ (2.88:5)

(5c) *lḥt qnīm d lik[t . bt . m]lk*

‘the message concerning lapis lazuli that the daughter of the king has sent’ (2.73:7)

(5d) *[w] mlātk ʿmy l likt*

‘and your message to me you did not send’ (2.36:11)

(5e) *iky lḥt spr d likt*

‘what about the message tablet that I sent?’ (2.14:6–7)

Ugaritic *spr* also corresponds to Akkadian *tuppu* in the meaning of ‘register, writing’; cf. (6a)–(6b) for parallel cases in Ugaritic and in the Akkadian of Ugarit:

(6a) *spr ʾrgmn špš*

‘record of the tribute(s) to the Sun [= Hittite king]’ (4.610

I 1) || [*tup-pu an-nu-ú*] *ša ma-an-da[-at DINGIR.]UTU-ši*

(PRU 4 47 [RS 11.732]:1)

(6b) *št b spr ʿmy*

¹⁴ See also 2.10:19 (cf. 1.179:43 broken); cf. *w át lḥt rgm* [“and you pronounce the letter” (2.73:12)].

‘put into writing for me’ (2.10:19) || *i-na tuḫ-pí šu-uk-un-ni*
(PRU 6 18 [RS 19:53]:12)

The summary chart shows that Ugaritic *lḫt* is a technical word for ‘tablet-letter, message’, used once in poetry and many times in correspondence (18 times), while *spr* is a term for ‘counting’ in poetry (twice) and for both ‘list, inventory’ and ‘instruction, document’ in administrative and procedural discourse (about 80 times). The lexeme *spr* makes its first steps into the genre of correspondence in the meaning ‘writing; letter-message’ (five cases are attested), extending its functions at the expense of *lḫt*. Seen within the broader NWS context, Ugaritic attests the very beginning of the process:

Table 1

	poetry	letters	administrative, procedural discourse
19	1	18	—
<i>lḫt</i>	‘tablet’	‘tablet-letter, message’	
≈ 87	2	5	≈ 80
<i>spr</i>	‘counting’	‘writing, message’	‘list, inventory; instruction, document’

2.0. לְוּת in Biblical Hebrew

In BH there are 191 cases of סָפַר, referring to some kind of written document—‘inscription, letter, written document, record,

לִוְחַ ‘tablet, plank’ is used 43 times in the Bible—among them, just once in an explicit LBH composition, parallel to a classical usage: ex. (8a); cf. also another time in the poetic Song 8.9 in the meaning ‘plank’. The rest of the cases are in CBH, particularly in the Pentateuch and in poetry; this is an explicitly classical literary usage. Most of cases in Pentateuch (plus one in 1 Kgs 8.9) refer to the two לַחַת הָאֲבָנִים ‘stone tablets’, called לַחַת הָעֵדוּת ‘tablets of testimony’ in Exodus and לַחַת הַבְּרִית in Deuteronomy ‘tablets of covenant’, embodying ‘ten sayings’ (עֲשׂוֹת הַדְּבָרִים), written on both sides (מִשְׁנֵי עֲבָרֵיהֶם) by God, sent, smashed, and rewritten by Moses; see ex. (8b). Several times לִוְחַ refers to a concrete wooden piece of an altar, temple, or other construction (8c):

in a letter as a writing medium, [...] לִוְחָא זִי כְהַבְּ [...] ‘the board which is written / which PN wrote’ (TAD D7 19.9); see DNWSI (569). Schmitz (2009) makes a claim for the notion *spr š lh* ‘scribe on (stone-)tablet’ (KAI 37.15 = CIS I 86 A 14 [Phoenician Kition], and cf. line 17); the problem with this interpretation is that the relative pronoun is ’š everywhere else in this inscription. He also points out a case in a Punic letter/religious hymn: ירד בעמק הלח ואחרסת: ‘went down into the valley, the tablet and the bas-relief’ (KAI 145.8 = Hr. Maktar N^o 64), observing

The Akkadian cognate *lē²u* ‘writing board, document’ can also designate wax-covered writing boards (CAD L, 156–57, 3). The *tupšar le²i* designates a ‘scribe writing on waxed boards’. ...Small limestone or gypsum tablets such as the one on which CIS I 86 A–B is written may also be indicated by the word *lh*.

Cf. DNWSI (570); Branden (1973); Krahmalkov (1975).

- (8a) אִין בְּאֶרְזוֹן רַק שְׁנֵי הַלְחוֹת אֲשֶׁר־נָתַן מֹשֶׁה בְּחֶרֶב
 ‘There was nothing in the ark except the two tablets that
 Moses put there at Horeb’ (2 Chron. 5.10 || 1 Kgs 8.9)
- (8b) וְאֶתְנֶנָּה לָּךְ אֶת־לְחַת הָאֲבָן וְהַתּוֹרָה
 ‘and I will give you the tablets of stone, with the law’ (Exod.
 24.12)¹⁸
- (8c) נִבְּוֵב לְחַת עָשָׂה אֵתוֹ
 ‘he made it hollow, with boards’ (Exod. 38.7)¹⁹

The fossilised use of לוח for ‘tablet of covenant’ generated a metaphoric use לוח לבם ‘tablet of their heart’, referring to an internally incorporated moral demand or memory; see ex. (9a).²⁰ Twice the word is used in prophecy (in Isa. 30.8 parallel to סִפֵּר) to denote a medium for engraving the record of a law or vision (9b):²¹

- (9a) חֲטָאת יְהוּדָה כְּתוּבָה בְּעֵט בְּרִזְלֵי בְּצַפְרֵן שְׁמִיר חֲרוּשָׁה עַל־לִיּוֹחַ לִבָּם וְלִקְרָנֹת
 מִזְבְּחוֹתֵיכֶם:

¹⁸ See also Exod. 27.8; 31.18; 32.15, 16 (2x), 19; 34.1 (3x), 4 (2x), 28, 29; Deut. 4.13; 5.22; 9.9 (2x), 10, 11, 15, 17; 10.1, 2 (2x), 3 (2x), 4, 5; 1 Kgs 8.9.

¹⁹ See also 1 Kgs 7.36 and לוח אֶרֶז ‘cedar plank’ (Ezek. 27.5; Song 8.9).

²⁰ See (M. Fox 2000, 145–47); he rejects Couroyer’s (1983) interpretation of the ‘tablet of the heart’ as a school tablet tied to the neck of a pupil.

²¹ In some interpretations לוח as a writing medium can mean a waxed wood-plank, similar to דלת ‘door, column (of text)’, cf. Jer. 36.23; Lachish 4.3 (כתבתי על הדלת); and cf. the discussion in Galling (1971) and Aḥituv (2008, 71).

‘The sin of Judah is written with an iron pen; with a diamond point it is engraved on the tablet of their hearts, and on the horns of their altars.’ (Jer. 17.1; see also Prov. 3.3; 7.3)

(9b) עֲתָה בּוֹא כְּתֹבָה עַל־לֹחַ אֲתָם וְעַל־סֵפֶר חֻקָּה וּתְהִי לְיוֹם אֲחִרָיוֹן לְעַד עַד־
עוֹלָם:

‘Go now, write it before them on a tablet, and inscribe it in a book, so that it may be for the time to come as a witness forever.’ (Isa. 30.8; see also Hab. 2.2)

In sum, although referring to different writing mediums—stone versus clay—Hebrew לוח for ‘stone-tablets’ semantically correlates with the Ugaritic *lht* ‘clay-tablet, letter, message’:²² just as the way Ugaritic tablet-letters can refer to messages sent by gods to each other, or by the Sun (= Hittite king) to his vassal Ugaritic king, encompassing demands and conditions, so the biblical ‘tablets of covenant’ are a message sent by God to his vassal-people that embodies identification formula, statements, and requirements.²³ However, the Ugaritic usage is much more mundane and flexible, referring to any kind of letter or message, while the Hebrew usage is fossilised and literary: it mainly refers to the covenant tablets and, partly metaphorically, to a medium for writing inner moral demand and visions.

²² Ugaritic *lht* is not used in the case of wooden ornamental pieces or construction.

²³ See 1.2 I 26 in ex. (4c) discussed above and cf. 2.39, on which see Hallo, Younger, and Orton (1997, III:94–95). On the Decalogue as a personal address directly to the people see Tigay (1996, 62): “they are not usual legal ‘cases’ shaped as conditional ‘if ... then...’”

We are also informed of writing on a new medium: ‘a copper tablet’ (11b).

4.0. From **lwh* to **spr* and Back: Conclusions

The distribution and functional scope of **lwh* in the Ugaritic, CBH, LBH, and QH corpora, particularly in correlation with the item **spr* as a default term for ‘written document’, demonstrates that the Ugaritic data are indeed relevant for the historical analysis of the BH lexicon. In absolute numbers the following picture emerges (the percentage in parentheses represents the share of usages of *lwh* out of the combined occurrences of *lwh* and *spr* in the designated corpora):

Table 2

	Ugaritic	CBH and Epigraphy	TBH	LBH	QH
<i>*lwh</i>	19 (21%)	39 + 0 (27%)	3 (11%)	2 (4%)	24 (24%)
<i>*spr</i>	87	122 + 19	27	49	98

These numbers show that in Ugaritic, CBH (here including Iron Age epigraphy) and QH, the proportion of **lwh* and **spr* is about the same, while in TBH and particularly in LBH the share of **lwh* is considerably smaller.

The semantic distributional factor is equally important. In Ugaritic these words refer to the same medium for writing (a clay-tablet), but they show functional complementary distribution: *lht* is for letters; *spr* is for other types of documents, such as lists, accounts, registers, and exhibits just the initial signs of expanding into the sphere of correspondence. In CBH, by contrast,

this process is at its very end, and ספר denotes any kind of written documents, including letters, while the function of לוח is limited, mainly in the Pentateuch, to a fixed literary idiom referring to the Tablets of the Covenant, and, by analogy in poetic language, to a medium for prophetic writing or, metaphorically, for human thoughts; the CBH usage ‘wooden plank’ does not have a parallel in Ugaritic. LBH practically abandons the lexeme. QH revives the classical idiom and enriches its metaphorical and symbolic meaning,²⁸ turning לוח into a medium for eternal, primordial knowledge and law, innovating the phrases לוחות העולם ‘tablets of eternity’ and לוחות השמיים ‘tablets of heaven’, attesting also לוח נחשת ‘tablet of copper’.

To a certain extent the ‘sacred’ sphere shows the most typical evolution of **lht*: from the message-tablet that gods send to each other (in poetic usage), exactly like human communication in Ugaritic; to the divinely written tablets that are transmitted to people in the classical biblical usage; to the heavenly pre-existent eternal tablets with the law, commandments, and historical order in Qumran.

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²⁸ In this sense, the case can be considered a ‘pseudo-classicism’, a result of the conservative reversal of innovative processes, typical of QH; see (Joosten 1999; 2012), and cf. the discussion in Notarius (2018, 209).

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ISRAELIAN HEBREW IN THE BOOK OF AMOS

Gary A. Rendsburg

1.0. The Location of Tekoa

The vast majority of scholars continue to identify the home village of the prophet Amos with Tekoa¹ on the edge of the Judean wilderness—even though there is little or no evidence to support this assertion. A minority of scholars, the present writer included, identifies the home village of Amos with Tekoa in the Galilee—an assertion for which, as we shall see, there is considerable solid evidence.

1.1. Southern Tekoa

The former village is known from several references in Chronicles, especially 2 Chron. 11.6, where it is mentioned, alongside Bethlehem, in a list of cities fortified by Rehoboam in Judah. See also 2 Chron. 20.20, with reference to the journey by Jehoshaphat and his entourage לְמִדְבַּר תְּקוֹעַ ‘to the wilderness of Tekoa’.² The genealogical records in 1 Chron. 2.24 and 4.5, referencing a

¹ More properly *Teqoaʿ* (or even *Təqōāʿ*), but I will continue to use the time-honoured English spelling of Tekoa.

² See also the reference to the ‘wilderness of Tekoa’ in 1 Macc. 9.33.

Judahite named Tekoa, may also encode the name of this village. The name of the site lives on in the name of the Arab village of Tuqu‘ and the adjoining ruin of Khirbet Tequ‘a, about 8 km south of Bethlehem.³

1.2. Northern Tekoa

Northern Tekoa, by contrast, is not mentioned explicitly in the Bible, but its existence is well known from rabbinic sources.⁴ See especially T. Shevi‘it 7.15, where the village is mentioned in connection with Gush Ḥalav. In addition, northern Tekoa is most likely the reference in the saying recorded in התְּיָוִי קָטָה אֶלְפָּה לְשֶׁמֶן ‘Tekoa is the best for oil’ (M. Menahot 8.3 MS Kaufmann), תקועה אלפא לשמן ‘Tekoa is the best for oil’ (T. Menahot 9.5 MS Vienna).⁵ While both of the following passages require elucidation, note the (probable) connection between first-rate olive-oil and the tribe of Asher recorded in מְאִשֶׁר שְׂמֵנָה לְחֶמּוֹ וְהוּא יֵתֵן מִעֲדֻנְיִי מֶלֶךְ: ‘{from} Asher,⁶ his bread is rich-with-oil, and he gives-forth royal

³ As so often in historical-geographical research, the first modern scholar to make the identification was Edward Robinson (1841, II:182–84). For the evidence of the Madaba map, see Donner (1992, 60).

⁴ See the convenient survey in Klein (1938, I:157).

⁵ For discussion, see Graetz (1865, 476).

⁶ I here follow the majority of scholars by removing the initial letter *mem* of this verse and attaching it to the last word of the previous verse, with the sense of ‘their heel’ (see already the Septuagint).

dainties' (Gen. 49.20)⁷ and טָבַל בְּשֶׁמֶן רַגְלֹוֹ: 'he dips his foot in oil' (Deut. 33.24).⁸

Above I stated that northern Tekoa is not mentioned explicitly in the Bible (for example, in the lists of toponyms in the book of Joshua), but closer inspection reveals several references thereto. Jer. 6.1 connects Tekoa and Bet ha-Kerem, with the implication that both are located in the north. As evil (that is, the Babylonians) approaches from the north (see also Jer. 1.13–14; 4.6; 6.22; etc.), the prophet calls for shofar-blasts and fire-signals to warn of the impending danger. Bet ha-Kerem refers to the valley in the northern part of Israel, running on an east-west axis, separating the Upper Galilee to the north and the Lower Galilee to the south, for which see בְּקַעַת בֵּית כְּרֵם 'the valley of Bet-Kerem' (M. Middot 3.4; M. Niddah 2.7 MS Kaufmann), with reference to red soil. See also T. Niddah 3.11, with mention of בְּקַעַת בֵּית כְּרֵם 'the valley of Bet-Kerem' alongside three other Galilean valleys (Sakhne, Yotvat, and Ginnosar).⁹ The former (that is, Tekoa), accordingly, must be identified with northern (and not southern) Tekoa.¹⁰

⁷ Here and throughout this article, my translation technique tends to be hyperliteral; plus, I employ certain devices, for example, hyphenation when two or more English words are required to render a single Hebrew word.

⁸ As we shall see below, one of the possible locations for northern Tekoa is within the territory of Asher.

⁹ In general, see Klein (1939, I:15). In a different context see also Wayyiqra' Rabba 30.1 (689:2).

¹⁰ I realise that the vast majority of commentators on Jeremiah, if not all of them, associate Tekoa in Jer. 6.1 with Tekoa in the wilderness of

The second biblical passage is the most famous of all, namely, the story in 2 Samuel 14: the wise woman of Tekoa, fetched by Joab to speak to David to present her parable before the king, hails from northern Tekoa, as may be observed via the Israelian dialectal features in her speech.¹¹ See also B. *Menahot* 85b, where the sages identify the home of the wise woman of Tekoa with northern Tekoa, located specifically in the tribe of Asher (and see further below).

As to the specific location, based mainly on literary references, historical geographers such as Gustaf Dalman, Shmuel Klein, and Michael Avi-Yonah have identified northern Tekoa with Khirbet Shema^c, located on an eastern spur of Mt. Meron (Jebel Jarmaq).¹² The excavators of the site, led by Eric Meyers, accept the identification.¹³

2.0. The Tekoa of Amos

The foregoing brings us to Amos 1.1, the only mention of Tekoa in the Bible not yet discussed. The book opens as follows, with the first part of the superscription: דְּבַרְי עָמוֹס אֲשֶׁר־הָיָה בְּנִקְדִים מִתְּקוּעַ:

Judah and Bet ha-Kerem with a place near Jerusalem; see, e.g., Holladay (1986, 205); McKane (1986, 139–40); Lundbom (1999, 416); Fretheim (2002, 119–20). These identifications thereby require considerable geographical gymnastics, for example, by assuming that the prophet already is warning sites to the south of Jerusalem, or by assuming a Babylonian approach from the south (starting in Lachish, presumably), even though Jer. 6.1 explicitly states מִצָּפוֹן ‘from the north’.

¹¹ See Rendsburg (2014, 166).

¹² For references, see Meyers, et al. (1976, 11).

¹³ See the discussion in Meyers, et al. (1976, 11–16).

‘the words of Amos, who was among the stockmen from Tekoa’. In Amos 7.14, the prophet refers to himself as a בוקר ‘herder’ and a בולס שקמים ‘tender of sycomores’. Notwithstanding the apparent connection between the former term and בקר ‘cattle’, in the next verse, 7.15, Amos states that God took him מאחרי הצאן ‘from behind the flock’, implying his work with sheep and goats. The more crucial term, of course, is his latter occupation, בולס שקמים ‘tender of sycomores’ (with reference to one who notches the sycomore figs to enhance the ripening process).¹⁴

The problem, recognised by all, including those who would place Amos in southern Tekoa, is that sycomore trees do not and cannot grow in the Judaeian wilderness. Note the following two passages especially:

- (1) ויהו המלך את־הכסף בירושלם כַּאֲבָנִים וְאֵת הָאֲרָזִים נָתַן כְּשִׁקְמִים אֲשֶׁר־
בְּשִׁפְלָה לְרֹב:

‘and the king made the silver in Jerusalem (plentiful) as the stones, and the cedars he made plentiful like the sycomores in the Shephelah.’ (1 Kgs 10.27)—with sycomore trees associated with the Shephelah¹⁵

- (2) מִכְּפַר חֲנַנְיָהּ וְלִמְעֵלָן כָּל שְׂאִינֹ מִגְדַל שִׁיקְמִים גְּלִיל הָעֲלִיֹן מִכְּפַר חֲנַנְיָהּ
וְלִמְטֹן כָּל שֶׁהוּא מִגְדַל שִׁיקְמִים גְּלִיל הַתְּחָתוֹן

‘from Kefar Hananiah upward, wherever one does not raise sycomores, it is the Upper Galilee; from Kefar Hananiah downward, wherever one raises sycomores, it is the Lower Galilee.’ (M. Shevi‘it 9.2)

¹⁴ For a thorough survey of the terms, see Steiner (2003).

¹⁵ See also 1 Chron. 27.28; 2 Chron. 1.15; 9.27.

The presence or absence of sycamore trees is cited as a natural discriminant between Upper Galilee (which lacks them) and Lower Galilee (where the trees grow).

True, there is mention of a sycamore tree in Jericho in Luke 19.4 (the story of Zacchaeus, the chief tax collector), but we can ascribe the presence of the tree there to the lush oasis which makes Jericho possible.

Those who would place Amos in southern Tekoa, on the edge of the Judean wilderness, explain the difficulty by assuming that he tended to sycamore trees in the Shephelah during the ‘off-season’ (as if those engaged in animal husbandry ever have an ‘off-season’) or that he took his flocks with him over a longer-than-average distance.¹⁶

All difficulties are removed, though, if we identify the Tekoa of Amos with the village of that name in the Galilee.¹⁷ Such was stated long ago in Pseudo-Epiphanius, *De vitis prophetarum* (*Lives of the Prophets*), with specific mention of the territory of Zebulun,¹⁸ and then in the Middle Ages by David Qimḥi, with specific mention of the territory of Asher (no doubt derived from B. Menaḥot 85b, mentioned above).¹⁹

¹⁶ See the discussion in Rosenbaum (1990, 49–50); for a more recent opinion promoting this idea, see Steiner (2003, 101–2).

¹⁷ True, if the equation of northern Tekoa with Khirbet Shema^c is accepted (see above), this places us in the Upper Galilee, but only ca. 5 km north of Kefar Ḥananiah.

¹⁸ For the original, see Migne (1864, 405–6).

¹⁹ For these two sources, see Graetz (1865, 476) and Speier (1953, 305–6).

3.0. Amos as a Northern Prophet

In addition to the two sources just cited (with the latter one, David Qimhi, better known), one occasionally finds a modern scholar who argues for a northern homeland of the prophet Amos. The most noteworthy effort in this direction is that of S. N. Rosenbaum (1990). Two significant findings are repeated here.

3.1. Amos Accused of Treason

In the famous passage in Amos 7.10, Amaziah, the priest of Bethel, sent a message to Jeroboam II of Israel accusing Amos of treason: קָשָׁר עָלַיִךְ עָמוּס 'Amos has *qāšar*-ed against you'. In a thorough lexical study, Rosenbaum (1990, 37–39) demonstrated that the verbs and nouns derived from ק-ש-ר *q-š-r* are used in the Bible only when the 'citizen' of one country conspires against his or her own king. A foreigner (which would be Amos's status, had he hailed from Tekoa of Judah) cannot *q-š-r* against the king of his resident land. Examples follow:

- 2 Sam. 15.12 Absalom against David
- 2 Sam. 15.31 Ahitophel with Absalom
- 1 Kgs 15.27 Baasha against Nadab
- 1 Kgs 16.9 Zimri against Elah
- 2 Kgs 9.14 Jehu against Joram
- 2 Kgs 10.9 Jehu against the House of Ahab
- 2 Kgs 11.14 Athaliah accuses Joash קָשָׁר קָשָׁר 'treason, treason'
- 2 Kgs 12.21 servants against Joash
- 2 Kgs 14.19 unnamed Judahites against Amaziah
- 2 Kgs 15 (4x) in northern kingdom
- 2 Kgs 21.23 servants against Amon

As such, Amos must be a ‘citizen’ of the northern kingdom of Israel, implying that he hails from Tekoa in the Galilee.

3.2. Amos Instructed to Flee to Judah

In another famous passage, Amos 7.12, Amaziah orders Amos to *b-r-h* to Judah: חִזֵּה לְךָ בְּרַחֲלֶיךָ אֶל-אֶרֶץ יְהוּדָה ‘seer, go, flee to the land of Judah’. In a second lexical study, Rosenbaum (1990, 35–37) demonstrated that the verb *b-r-h* always refers to fleeing from one’s own country to a foreign land. Examples include:

- Gen. 27.43 Jacob to Harran
- Exod. 2.15 Moses to Midian
- Judg. 9.21 Jotham from Shechem to Be’er
- Judg. 11.3 Jephthah to the land of Tov
- 2 Sam. 4.3 people of Be’erot to Gath
- 2 Sam. 13.37 Absalom to Geshur
- 1 Kgs 11.17 Hadad to Egypt
- 1 Kgs 11.23–24 Rezon from Zobah to Damascus
- 1 Kgs 11.40 Jeroboam to Egypt
- Jer. 26.21 Uriah to Egypt
- Jon. 1.3 Jonah to Tarshish

As such, for Amos to *b-r-h* ‘flee’ to Judah, per Amaziah’s instructions, his home must have been located in the northern kingdom of Israel.

4.0. Israelian Hebrew in the Book of Amos

The first three sections of this article serve as necessary background material, in order to establish the fact (that is, from my perspective) that Amos hails from northern Tekoa, a village in

the Lower Galilee somewhere in the general Asher-Zebulun region. This finding explains why so many Israelian Hebrew (IH) lexical features appear in the prophet's diction.

The single scholar who laid the foundation for this analysis is Chaim Rabin, in his classic article *לשונם של עמוס והושע* (1981). Notwithstanding the title, almost the entire article deals with Hosea, in which, truth be told, there are many more northern features than are present in Amos. The present article, accordingly, picks up the mantle of identifying northern features in the book of Amos, adumbrated by Rabin forty years ago, even if he treated them only marginally.

In what follows, I present the IH features in outline form,²⁰ which should suffice to permit the reader to follow the analysis. For the shorthand references to the dictionaries, translations, etc., see the abbreviations incorporated into the References section at the end of this article.²¹

4.1. IH Features in Amos 6

For reasons that are unclear, Amos 6 contains the greatest concentration of IH features. On the one hand, this may simply be a coincidence. On the other hand, the doom and downfall of the kingdom of Israel is expressed more strongly in this chapter than

²⁰ In both §§4.1 and 4.2, the individual items are presented in order of their appearance in the book of Amos. Some may bear greater weight and have greater significance than others, though I leave that possibility aside for the nonce.

²¹ Note also MH = Mishnaic Hebrew, which to my mind constitutes a northern spoken dialect of the post-biblical period (Rendsburg 2003), and QH = Qumran Hebrew.

elsewhere in the book. Possibly the prophet sought to drive home the point more strongly with the rhetorical flourish created by his employment of lexemes associated especially closely with the northern dialect. While this is a subjective judgment, it may, nonetheless, explain the high concentration of IH traits in the chapter. Note further that all six of the following items are elucidated with recourse specifically to Samaritan Aramaic (with only an occasional nod to other dialects). Did these usages remain in the land for hundreds of years, even after the destruction of the northern kingdom, only to resurface in Samaritan Aramaic centuries later?

4.1.1.1. נ-ד-י 'bring'

- (3) הַמְנַדִּים לְיוֹם רָע וְתִגִּישׁוּן שְׂבַת חָמָס:
 '(you) who bring the day of evil, and you bring-near the seat of violence.' (Amos 6.3)²²

Note the parallelism with נ-ג-ש (*hif'il*) 'bring near', hence in Sam. Aram. נ-ד-י 'bring' (Tal 2000, II:503–4), for example:

- (4) וְהִבִּיאָה לִּי וְאֶכְלָה
 'and bring me that I may eat' (Gen. 27.4) || ותנדי לי ואיכל
 (Sam. Tg.)
- (5) וַיֵּלֶךְ עֵשָׂו הַשָּׂדֶה לְצוּד צִיד לְהִבְיֵא:
 'and Esau went to the field to hunt game to bring.' (Gen. 27.5) || ואזל עשו לברה למצוד ציד למנדאה (Sam. Tg.)

²² Elsewhere only אָמְרוּ אֶחְיִיכֶם שְׂנֵאִיכֶם מְנַדִּיכֶם 'your brothers hate you, cast you out' (Isa. 66.5), where the verb derived from נ-ד-י means 'cast away', for which see Ugaritic *n-d-y* 'emit, throw, take off (clothing)', MH נידוי 'excommunication'.

4.1.2. סְרוּחַ ‘sinful, transgressing’ (of humans only in Amos)

- (6) וְסִרְחִים עַל-עַרְשׂוֹתָם
 ‘and transgressing on their couches’ (Amos 6.4)
- (7) וְסָר מִרְזַח סְרוּחִים:
 ‘and the *mirzeah* of the transgressing-ones shall fall-aside’
 (Amos 6.7)

Sample renderings: ‘stretch’ (RSV) / ‘loll’ (NJV) / ‘loungue’ (Alter 2019). Sam. Aram. ס-ר-ח ‘sin, be guilty, transgress’ (Tal 2000, II:610–11):

- (8) הֲאֵף תִּסְפֶּה צְדִיק עִם-רָשָׁע:
 ‘will you indeed sweep-away the innocent with the guilty?’
 (Gen. 18.23) || הקשט תסתפה זכאה עם סרוחה (Sam. Tg.)

Vulgate rendering of סְרוּחַ: *lascivitis* (v. 4) / *lascivientium* (v. 7).

4.1.3. פ-ר-ט ‘sing, recite, pronounce’

- (9) הַפְּרָטִים עַל-פִּי הַנְּבֵל בְּדָוִד חֲשָׁבוּ לָהֶם כְּלֵי-שִׁיר:
 ‘those who recite to the tune of the harp, (and) like David
 devise for themselves vessels of song.’ (Amos 6.5)

Sam. Aram. (Tal 2000, II:699 s.v. פ-ר-ט, with cross-reference at II:702 s.v. פ-ר-ט), with several instances in *Tibat Marqe*. Montgomery (1906, 51–52) cited a Samaritan Hebrew hymn:²³

²³ According to *Ma’agarim* database of the Academy of the Hebrew Language, the root with this meaning was revived in Payṭanic Hebrew.

- (10) אל נתן לו תשבחון, אל נפרט לו כל שיראן
 ‘God – let us give to him praise, God – let us recite to him
 all songs’

4.1.4. ת-א-ב ‘despise’

- (11) מְתָאֵב אֲנִכִּי אֶת־צִיּוֹן יַעֲקֹב וְאַרְמְנֹתָיו שְׂנֵאתִי
 ‘I despise the pride of Jacob, and his citadels I hate’ (Amos
 6.8)

ת-ע-ב (II) ‘despise’ (hapax), weakening of guttural from ת-ע-ב.²⁴
 Cf. Sam. Heb., with weakening of the gutturals, including ע > א.
 Ben-Hayyim (2000, 38): “Fluctuations of אהה"ע in SP provide
 clear evidence that no later than the end of the Second Temple
 period the guttural consonants began to weaken.”

4.1.5. ש-ר-ף ‘smear with resin’

- (12) וּנְשָׂאוּ דֹדָו וּמְסָרְפוֹ לְהוֹצִיא עֲצָמָיו מִן־הַבַּיִת
 ‘and his kinsman shall carry him and smear-him-with-resin,
 to remove (his) bones from the house’ (Amos 6.10)

G. R. Driver and E. Y. Kutscher independently; see Paul (1991,
 215, n. 28). MH noun: שָׁרֵף / סָרַף ‘resin’ – 7x Mishna / 11x Tosefta;
 MH verb: ש-ר-ף ‘smear with resin’ (T. Miqwa’ot 6.21). Sam. Aram.
 ש-ר-ף ‘press, squeeze’ (Tal 2000, II:612–13):²⁵

²⁴ The connotation of the homonymous root ת-א-ב (I) ‘long for’ (2x in Psalm 119) does not fit here.

²⁵ Both the MH verb (1x: T. Miqwa’ot 6.21) and the Sam. Aram. verb occur in the G-stem (*qal/pe’al*), while the form in Amos 6.10 appears as a D-stem participle. The solution to his problem is to re-analyse וּמְסָרְפוֹ

- (13) זִיתִים יִהְיוּ לְךָ בְּכָל-גְּבוּלְךָ וְשֶׁמֶן לֹא תִסְוֶף
 ‘you will have olive trees throughout your territory, but
 you will not anoint yourselves with oil’ (Deut. 28.40) ||
 זיתים יהוון לך בכל תחומך ומשח לא תסרף (Sam. Tg.)
- (14) שָׂרֵף קֶטֶף || balsam’ (Gen. 37.25) || שרף קטף (Tg. Ps.-J.)

4.1.6. רְסִיסִים ‘splinters’²⁶

- (15) וְהִכָּה הַבַּיִת הַגָּדוֹל רְסִיסִים
 ‘and He shall smite the great house (into) splinters’ (Amos
 6.11)

Aramaic ר-ס-ס ‘crush’ (most dialects), e.g.,

- (16) וּמְעוֹד וְכָתוּת וְנָתוּק וְכָרוּת לֹא תִקְרִיבוּ לַיהוָה
 ‘And anything with its testes bruised or crushed or torn or
 cut you will not offer to YHWH.’ (Lev. 22.24) ||
 וְדַמְרִים וְדַרְסִים || וְדַשְׁלִיף וְדַגִּזִּיר לֹא תִקְרִיבוּן קִדָּם יוֹי
 (Tg. Onq.)
- (17) וּבְרָב גְּאוּנָה תִהְרָס קִמְיָה
 ‘In your great triumph you break your opponents’ (Exod.
 15.7) || ובסגי יכלותך רסרסתה מרגזיך (Sam. Tg.)
- (18) כִּי הִרְסוּ תִהְרָסוּם וְשִׁבְרָה תִשְׁבַּר מֵעַבְתֵּיהֶם:
 ‘but shall tear them down and smash their pillars to bits.’
 (Exod. 23.24) || הלא רסרוס תרסרסנון ותבור תתבר קעמתון
 (Sam. Tg.)

so that the form begins with conjunction *waw* + enclitic *mem*, per Rendsburg (1987, 34).

²⁶ Only here with this meaning; see elsewhere Song 5.2 with the meaning ‘droplets’.

(19) וְעִצְמֹתֵיהֶם יִגְרֹם וְחִצָּיו יִמְחֹץ:

‘and crush their bones, and smash their arrows’ (Num. 24.8) || וגרמיון ירסרס וגריו ימעו (Sam. Tg.)

See Drower and Macuch (1963, 436); Tal (2000, 841); Cook (2008, 268). MH: מְרוֹסֵס ‘broken’ (M. Shabbat 8.5); מְשִׁירֵס ‘after one crushes’ and עַד שִׁירֵס ‘until one crushes’ (M. ‘Uqṣin 2.5–6).

4.2. IH Features Elsewhere in the Book of Amos

Additional IH features appear scattered throughout the book of Amos. In the preceding section, all six features were lexical items (though the case in §4.1.4 includes a phonological aspect). In what follows, the majority once again are lexical features, though a few items constitute grammatical traits.

4.2.1. נוֹקֵד ‘herder, rancher, stockman’

(20) דְּבַרְיֵי עַמּוֹס אֲשֶׁר־הָיָה בְּנוֹקְדִים מִתְּקוֹעַ

‘the words of Amos, who was among the stockmen in Tekoa’ (Amos 1.1)

Elsewhere only 2 Kgs 3.4 (Mesha) and Ugaritic *nqd* (cf. also Akk. *nāqīdu*).²⁷

²⁷ Most scholars (see, e.g., Eidevall 2017, 91–96) consider the superscription in Amos 1.1 to be the result of (presumably Judahite) editorial activity, and thus the presence of the word נוֹקְדִים may not carry any linguistic significance. The point remains, however, that the word appears only in Amos 1.1 and 2 Kgs 3.4, and never in a demonstrably Judahite text.

4.2.2. רַחַם ‘lass’ (with reference to Edom)

(21) וְשָׂחַת רַחֲמָיו וַיִּטְרֹף לְעַד אָפוֹ

‘and he destroyed their lasses, and his anger tore-on forever’ (Amos 1.11)

Elsewhere only Judg. 5.30, Ugaritic, Moabite; see Rendsburg (2014, 174–75).²⁸

4.2.3. עָרֶשׁ ‘couch’

(22) כִּן יִנְצְלוּ בְנֵי יִשְׂרָאֵל הַיֹּשְׁבִים בְּשִׁמְרוֹן בַּפֶּאֶת מִטָּה וּבְדַמְשֶׁק עָרֶשׁ:

‘so shall the children of Israel be saved, those who dwell in Samaria, with the corner of a bed, and with the damask of a couch.’ (Amos 3.12)

(23) הַשֹּׁכְבִים עַל-מִטּוֹת שֵׁן וְסֹרְחִים עַל-עָרֶשׁוֹתָם

‘(you) who lie on beds of ivory, and transgressing on their couches’ (Amos 6.4)

עָרֶשׁ ‘couch’: Deut. 3.11 (Bashan); Prov. 7.16; Job 7.13; Song 1.16;²⁹ Ugaritic (*DULAT*, 185); Aramaic (all dialects); MH עָרִסָה ‘couch’ (2x Mishna / 17x Tosefta).

4.2.4. דְּרִשׁוּ-טוֹב וְאַל-רָע ‘seek good, and not evil’ (Amos 5.14)

Negative particle אַל followed by a noun, as in Deir ‘Alla. For examples, see Rendsburg (2003a, 24, no. 15).

²⁸ For the argument that רַחֲמָיו means ‘his lasses’ here (and not ‘his compassion’), see Paul (1971, 402–3; 1991, 64–65).

²⁹ Admittedly, this lexeme occurs occasionally in Judahite sources as well: Ps. 6.7; 41.4; 132.3 (though the latter also may be an IH poem).

4.2.5. לְקֶשׁ ‘latter growth, late-sown crops’

(24) כֹּה הִרְאֵנִי אֲדֹנָי יְהוִה וְהִנֵּה יוֹצֵר גְּבִי בַתְּחִלַּת עֲלוֹת הַלֶּקֶשׁ וְהִנֵּה לֶקֶשׁ אַחַר
גְּבִי הַמְּלֹד:

‘Thus Adonay YHWH showed me: and behold, (he was) creating locusts at the start of the sprouting of the latter-growth, and behold, the latter-growth after the hay-mows of the king.’ (Amos 7.1)

Cf. Gezer Calendar, ln. 2 ירחו לקש ‘two months of latter-growth’ (= Shevat-Adar). Attested as *laqsi* or *laqšī* in Galilean villages (see Sonnen 1927, 81; Bassal 2005–2007, 99–100).

4.2.6. חֶלֶק ‘field’

(25) וְהִנֵּה קוֹרָא לְרֵב בְּאֵשׁ אֲדֹנָי יְהוִה וְתֹאכַל אֶת־תְּהוֹם רִבָּה וְאָכְלָה אֶת־הַחֶלֶק:
‘and behold, Adonay YHWH was calling to contend with fire;
and it consumed the great deep, and it consumed the field.’
(Amos 7.4)

Elsewhere חֶלֶק יִזְרְעֵאל ‘in the field of Jezreel’ (2 Kgs 9.10, 36, 37)—with reference to the death of Jezebel; perhaps also Hos. 5.7.³⁰ Cf. Aramaic חקלא, Akkadian *eqlu*, both with metathesis.

³⁰ The feminine form חֶלְקָה ‘portion’ occurs throughout the Bible, usually in the phrase חֶלְקַת הַשָּׂדֶה ‘portion of the field’ (7x), but the masculine form is an IH feature.

4.2.7. תִּנְּ ‘tin’ (Amos 7.7–8) (cf. Akk. *annaku*) (‘lead’ [?],
plumb line’ [?])

Regardless of meaning, note the *qəṭāl* nominal form. Alternatively, or concurrently, note the possible pun with the 1cs pronoun ‘I’ in

(26) הִנְנִי שֵׁם אֲנִי בְּקִרְבַּ עַמִּי יִשְׂרָאֵל
‘behold I am placing a plumb-line / myself in the midst of
my people Israel’ (Amos 7.8)

See Novick (2008) and Notarius (2017, esp. 61–63, 70–73), with an eye to the Phoenician form אֲנִי ‘I’.³¹

4.2.8. יִשְׁחַק ‘Isaac’ (Amos 7.9, 16) (instead of the standard
form יִצְחָק)

Elsewhere only Jer. 33.26; Ps. 105.9. Qumran Aramaic (4x), though see also QH: יִשְׁחַק (20x) / יִסְחַק (1x) / יִצְחַק (4x). Cf. Syriac אִסְחַק > Arabic *ishāq*.

4.2.9. קֵץ ‘end’ / קִיץ (in pause) ‘summer-fruit’ (Amos 8.2)

The wordplay works best if the latter form reflects monophthongisation of *ay* > *ē*, as in Ugaritic and Phoenician (Notarius 2017, esp. 63–64, 74–80).

³¹ For the most recent study on the Phoenician 1st common singular pronoun, albeit with a different focus, see Loder (2019).

4.2.10. היכל 'palace'

(27) והלילו שירות היכל ביום ההוא נאם אדני יהוה

'and the songs of the palace shall wail on that day, declaims Adonay YHWH' (Amos 8.3)

The end of Israel (v. 2) will result in the howling female singers in the palace (not the temple).³² IH feature: 1 Kgs 21.1 (Ahab); Hos. 8.14; Joel 4.5 (Phoenicia); Amos 8.3; Ps. 45.9, 16; Prov. 30.28. See also: Ps. 144.12 (? – late); 2 Kgs 20.18 || Isa. 39.7 (king of Babylon); Isa. 13.22 (Babylon); Nah 2.7 (Assyria). Cf. Ugaritic (Aqhat; Kirta) and Aramaic (Aḥiqar; Dan. 5.5; etc.).

5.0. Conclusion

The sixteen features (mainly lexical, several grammatical) analysed above, especially when viewed collectively, reveal the extent to which IH permeates the book of Amos. This crucial point, especially when viewed in conjunction with the geographical considerations outlined above, demonstrates (to my mind at least) that Amos was a northern prophet.³³

Two of the sixteen features (along with a third item) have been discussed in depth by Tania Notarius, though she reached a different conclusion. In her estimation, Amos was “a Judean man,

³² Andersen and Freedman (1989, 798): “The female singers point to the palace rather than the temple.” The form שירות implies ‘songs’, though via metonymy one may assume ‘those (females) who sing the songs’.

³³ Note further that the element עמס is relatively common in Phoenician and Punic personal names (Benz 1972, 378–79; Stamm 1980, 137).

a native speaker of Southern Hebrew who is sensitive to the phonetic peculiarities of different dialectal speech” (Notarius 2017, 81). Clearly this remains possible—I myself have written extensively on the subject of style-switching and addressee-switching (Rendsburg 2013a, 2013b, 2015). But in light of (a) the collective weight of the sixteen features discussed herein and (b) the geographical and political (if you will) considerations presented above in §§1.0–3.0, to my mind one should conclude that Amos was a resident of northern Israel who used his native patois to challenge the *status quo* (on many levels) of king, cult, and society in the kingdom of Israel.³⁴

This conclusion has a far-reaching impact beyond the realm of Hebrew linguistics. If correct, then we must rethink the early history of classical prophecy in ancient Israel, as the first *two* prophets, Amos and Hosea, would then *both* be considered northerners. The unique genre of classical prophecy (unique in the ancient Near East, that is) is a product of northern Israel. Soon thereafter the genre spread to Judah, in the persons of Isaiah and Micah—but this singular enterprise commenced in the northern kingdom of Israel.

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ATTITUDES TOWARDS RABBINIC HEBREW AS REFLECTED IN HEBREW GRAMMARS DURING THE JEWISH ENLIGHTENMENT¹

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1.0. Introduction

Ever since ancient times, Biblical Hebrew (BH) has been considered the ideal form of Hebrew and the exemplary style for Hebrew writing. Rabbinic Hebrew (RH), on the other hand, has usually been viewed as a secondary, epigonic dialect, less suitable as a source of vocabulary and style for later Hebrew.² As is well-

¹ This research was conducted with the support of the Russian Science Foundation (project no. 17-18-01295), Saint Petersburg State University.

² One famous expression of this attitude is found in Judah ibn Tibbon's (Spain and Provence, late 12th–13th centuries) introduction to his translation of *Hovot ha-Levavot*, the well-known Rabbi Bahye ibn Pakuda's (Spain, 11th century) philosophical work. He finds it necessary to apologise for the use of rabbinic words in his translation even when it might have been possible to find a biblical equivalent; see Hal-kin (1963, 246); Sarfatti (2003, 31–32).

known, this approach was clearly reflected in the field of traditional Hebrew linguistics, in which only BH enjoyed systematic investigation and description.³

This basic attitude was essentially still prevalent during the Haskalah period.⁴ Indeed, the hierarchy was strengthened by the Maskilic aspiration to restore the Jewish people to its so-called ‘natural’ situation, in which it is involved and active in all fields of productive life and culture. The situation of the Jewish people during the era of the Bible had been perceived as such, while rabbinic literature was widely perceived as representing the limited, faulty situation of the Jewish people in exile.⁵ Yet, scholars in this period differ from one another in their specific attitude towards RH and its use for writing in various fields.⁶

The Maskilic attitudes towards this matter have already been treated by many scholars.⁷ In this paper, I would like to examine an aspect which has not been discussed yet: if and how

³ See Netzer (1983, 334–35); Téné (1995, 26–27); Charlap (2010, 318) and the references cited therein; Maman (2018, 175–84).

⁴ Barzilay (1979, 14); Kutscher (1982, 184–85); Sáenz-Badillos (1993, 267–68); Eldar (2014, 121; 2018, 148–68); Cohen and Goldblum (2018, 391–92).

⁵ Zemerion (1981, 438); Shavit (1993, 118–19); Kahn (2008, 126; 2009, 3; 2013); Eldar (2014, 120, 125; 2018, 157). On other possible motives for this attitude see Zemerion (1981, 431); Eldar (2014, 121–22; 2018, 158–59).

⁶ Zemerion (1981, 434–37); Sáenz-Badillos (1993, 268); Pelli (2001, 188); Schatz (2009, 18).

⁷ See references in the last three footnotes.

the attitudes towards RH are reflected in grammatical descriptions of Hebrew in this period. I will focus on three Hebrew grammars of the time, each of them representative of a different attitude. Though these three works, like the vast majority of Jewish grammatical works of the time, are devoted to BH, the frequency and nature of incidental references to RH in these works, or their absence, will serve as an indicator for our purpose.

2.0. Chayim Keslin

Let us begin with our first author, Chayim Keslin (1749–1832). Before taking a look into his grammar—*Maslul be-Diqduq Leshon ha-Qodesh* (Berlin, 1788; I used the Vilnius, 1892 edition), which was widely used among the Maskilim as a Hebrew grammar manual, another work of Keslin's should be mentioned—*Be'er Rehovot*. This influential work, initially published in the well-known Maskilic journal *Ha-Me'asef* (3 [1786]: 51–60) and later as an independent pamphlet (Berlin, 1814),⁸ was a contribution to contemporary discussions on the appropriate sources and avenues for expanding the Hebrew language.⁹ Here Keslin eagerly espouses the free use of RH vocabulary for this purpose,¹⁰ claiming that rabbinic sources represent an indigenous Hebrew, which maintains the original Hebrew traits as reliably as BH.¹¹ Essentially, Keslin viewed the two linguistic layers as a single uniform

⁸ It was prefaced with a few short articles, entitled *Qeri'at ha-Torah*.

⁹ Cf. Yizhaki (1970, 43–54); Barzilay (1979, 6–9).

¹⁰ Pelli (2001, 188).

¹¹ See especially Keslin (1814, 34–40); see also Yizhaki (1970, 45–47); Barzilay (1979, 7); Zemerion (1981, 433–34); Rabin (1986, 23).

language, which shared most of their respective vocabulary, the differences between them being considered exceptions.¹²

Considering this stance, it is hardly surprising that his grammatical work, although devoted to BH, contains a large number of references to RH and many comments regarding similarities or, in a few cases, differences between biblical grammar and rabbinic grammar. As will be demonstrated below, for Keslin, such comments are not taken as comparisons between two dialects or layers, but rather as complementary notes, which draw the picture of the Hebrew language as a whole.¹³

This attitude is reflected in many comments dealing with nouns that occur in the Bible only in singular, with their plural form attested in RH, like סֵלָם – סֵלָמוֹת ‘ladder’, פְּרִי – פְּרִיֹת ‘fruit’.¹⁴ For Keslin, this additional data enables a better acquaintance with ancient Hebrew, as RH completes the information missing in BH with the highest level of reliability. Even when, in one case, he points to a rabbinic plural form, חֲמִישִׁיּוֹת ‘fifths’, that differs from its biblical counterpart, i.e., חֲמִישִׁיתִים,¹⁵ it seems that he regards both as equal alternatives.¹⁶

¹² See Keslin (1814a, 35–36).

¹³ He also repeats the main argument of *Be'er Rehovot* in a few places in *Maslul*; cf. *Maslul* (42a–b, 70a).

¹⁴ *Maslul* (77a, 88b). For other comments of this kind, see *Maslul* (71a, 79a–80a, 88a, 89b). For comments in which Keslin learns from RH the singular forms of nouns documented in BH only in the plural, see *Maslul* (85b–86b, 87b).

¹⁵ This form was reconstructed by Keslin on the basis of the form חֲמִישִׁיתִי ‘fifths of it’ (Lev. 5.24).

¹⁶ *Maslul* (80a).

Another striking example that clearly reveals his attitude appears in the chapter on פעלים מורכבים ‘compound verbs’, where he discusses peculiar feminine participle forms, like יולדת ‘giving birth’ (Gen. 16.11) and שכנת ‘dwelling’ (Jer. 51.13).¹⁷ He mentions a former proposal to interpret these forms as a compound of past form and participle,¹⁸ but he prefers another analysis. He suggests that this is a compound of a participle form and a feminine singular personal pronoun: שוכן + אַתָּה, יולד + אַתָּה. Indeed, he admits that such compounds are not customary in BH, but, he maintains that this is a possible analysis on the basis of its prevalence in RH, such as the oath formulas מְדַרְנִי (< אָנִי + מְדַרְ), which means ‘I am forbidden by vow (from your property)’, מְרַחֵקִי (< אָנִי + מְרַחֵק) ‘I swear to keep distance (from you/your property)’ (M. Nedarim 1.1). For Keslin, this comparison provides him with sufficient grounds to assume a similar construction in BH. According to his belief that BH and RH represent the same language, one may analyse BH phenomena in light of RH grammar.

Similarly, in another case he suggests a new analysis of the peculiar form הִתְזוּ ‘spring forth’ (Isa. 18.5), which R. David Kimḥi, the authoritative medieval scholar, perceived as derived from the root תז"ז.¹⁹ On the basis of comparison to similar rabbinic forms, like הִתְזוּ ‘chop off’ (M. Hullin 2.3) and מְתַזֵּז ‘scattering’ (M. Bava Kamma 2.1), Keslin claims that the rabbinic root תז"ז is the root

¹⁷ *Maslul* (45a).

¹⁸ Cf., for example, *Mikhlol* (25a).

¹⁹ *Sefer ha-Shorashim* (819).

of biblical הַתָּזָה as well—this despite his awareness of the morphological difficulties raised by the suggestion.²⁰

Keslin's stance, as we shall see, differs significantly from those reflected by later Maskilic authors.

3.0. Judah Leib Ben-Ze'ev

Our next author is Judah Leib Ben-Ze'ev (1764–1811), who should be considered the greatest Jewish linguist of the Maskilic movement. His work, *Talmud Lashon 'Ivri* (*TLI*; first publication: Breslau, 1796), is the most comprehensive and updated Hebrew grammar that was written in Hebrew of his time. The same could be said of another monumental work by Ben-Ze'ev in this field—*'Ozer ha-Shorashim* (*OhS*; first publication: Vienna 1816). Since our focus here is on comparison of grammar books, the following discussion concentrates on *TLI*, but it appears that the same approach is reflected in *OhS* as well, as is demonstrated below.

Despite its very comprehensive and detailed nature, *TLI* includes only sporadic comments comparing biblical to rabbinic phenomena. These comments are very simple comparisons, mostly of lexical rather than grammatical character. For example, in a comment on fractional numerals, Ben-Ze'ev notes that their BH absolute state form is feminine, e.g., שְׁלִישִׁית 'third' and רְבִיעִית 'fourth part', while in RH it is masculine, like לְרִבִּיעַ and לְשָׁלִישׁ.²¹ It should be stressed here that lexical comparisons of BH to RH have traditionally been perceived of as more acceptable or natural

²⁰ See *Maslul* (49b). One may find further references to RH in *Maslul* (18a, 39b, 41b, 72a, 78a, 90b).

²¹ *TLI* (§136). For more examples of this kind, cf. *TLI* (§§110, 115, 359).

than grammatical comparisons. Thus, in medieval linguistic writings one finds many more lexical comparisons than grammatical comparisons.²² Ben-Ze'ev also adheres to this principle, but the perception behind it, discussed here below, is typical of his era.

Ben-Ze'ev's attitude on this matter²³ is more than once explicitly expressed in the introductions to his *OhS*. The first time comes in his general introduction to the first two volumes of the dictionary, where he enumerates the principles on which his lexical entries are based. The fifth paragraph in this section presents what, on the first glance, seems to be an attitude similar to Keslin's.²⁴ He states that he had made an effort to find words and expressions from the Talmud, which he considered "remnants of the Hebrew language, that accidentally did not occur in the Bible, but were orally preserved in national traditions."²⁵ But the reservation that immediately follows this statement reveals a completely different point of view. With regard to all these words, Ben-Ze'ev explains, he presents only the root, not the form, since the language of the Talmud does not preserve the grammatical

²² Netzer (1983, 51–52, 171–72, 325); Téné (1995, 27). See also Ben-Ḥayyim (1981, 4–5). Ben-Ḥayyim points out the aforementioned distinction between lexical and grammatical comparisons, but his conclusion, namely, that medieval scholars regarded biblical and rabbinic grammar as homogenous, requires re-examination.

²³ On some reflections of the priority of biblical grammar over other Hebrew strata in *TLI*, see Cohen and Goldblum (2018, 390–91).

²⁴ Cf. Barzilay (1979, 10).

²⁵ "אשר מצאתי וראיתי קרובים להיות שרידי לשון עברית המקוימים בפי האומה ממה" שלא נודמן להם מציאות בכתבי הקדש". Page numbers are not given for references to the introductions of *OhS*, since these chapters are unpaginated.

form of the words.²⁶ Essentially, Ben-Ze'ev claims here that RH has some significance, but only as a preserver of 'remnants' of BH. RH is important for its lexical material, but from the perspective of grammar, it is full of faults and thus should not be considered a source of pure Hebrew.²⁷

Accordingly, Ben-Ze'ev writes that all entries taken from RH are marked with asterisk, in order to distinguish between the 'certain' biblical words and rabbinic words, which are always 'uncertain' in terms of faithfulness in representing 'real' Hebrew.

Another statement of this kind is found in the introduction to the third volume of *OhS*, which is a German-Hebrew lexicon.²⁸ Here he makes a distinction between לשון עברית literally 'pure Hebrew', on the one hand, which appears to denote BH,²⁹ and the language of the Talmud and later authors, on the other hand. According to Ben-Ze'ev, only the first type fully represents authentic Hebrew, while the later compilations contain words and expressions that are only "similar" or "close" to Hebrew, as

²⁶ "ובכל מה שמצאתי ממלות העבריות בתלמוד שמרתי רק השרש ולא התמונה, באשר לא שמרו דקדוק המלה בלשון התלמוד".

²⁷ Another question is, to what extent Ben-Ze'ev succeeded in fulfilling his principles of pure Hebrew in his own writings. One may note, for example, the verb נודמן 'occur' quoted in n. 25 above, which has the characteristically rabbinic *nitpa'al* pattern.

²⁸ It is probably the first lexicon of this kind that was ever published.

²⁹ See Barzilay (1979, 10).

well as foreign words.³⁰ He stresses that the latter type was included only for the sake of המון עם 'the masses', who are open to using any word that has occurred in a Hebrew book, but do not pay much heed to the purity of their language.³¹ But for poets, or people who aspire simply to use pure Hebrew, only צחות לשון עברית, i.e., BH, or its 'remnants' in rabbinic literature, is appropriate.³²

Considering these statements, it is hardly surprising that when Ben-Ze'ev compares elements of BH to those found in RH, most of them are lexical, while grammatical comparisons are very few in *TLI*. Still, there are a few comments regarding grammatical phenomena, such as, for example, his comment on sequences of prepositions, like the common rabbinic compound כביכול 'seemingly', which is built of two prepositions and a participle form: $\text{כְּ} + \text{בְּ} + \text{יִכּוֹל}$.³³

Obviously, the difference between Ben-Ze'ev and Keslin in this respect is not just quantitative: while Keslin, as we have seen, is ready to propose innovative insights regarding biblical phe-

³⁰ "ואומר כי לא בקשתי לשמור צחות לשון עברית לבדה, כי אם גם מלות רבות ולשונות מהתלמוד ומשאר ספרי מחברים יקרים, המלות והלשונות הדומים ללשון עברית או קרובים אליה, כנסתי אל תוך בית האוצר הזה"

³¹ Ben-Ze'ev's approach on this point was noted by Kutscher (1982, 185).

³² One may find a full translation of this paragraph in Barzilay (1979, 10–11).

³³ *TLI* (§§356–59).

nomena on the basis of RH, Ben-Ze'ev's comments are of a technical nature only, with no substantial contribution to the understanding of BH.

Ben-Ze'ev, therefore, draws a clear hierarchy between BH and RH: only BH's vocabulary and grammar are considered pure and 'real' Hebrew, appropriate for literary use and poetry. RH, on the other hand, is made up of eclectic vocabulary, of which large parts are not original Hebrew, its morphology is faulty, and it may be used only in vulgar texts. It appears that this is the background of the marginal role of comparisons of BH to RH in *TLI* and of the superficial nature of the comparisons that are included.

4.0. Chayim Zvi Lerner

This basic attitude, which was espoused by Ben-Ze'ev and other early Maskilim,³⁴ became more prominent—perhaps even exaggerated—in later generations of the Haskalah movement. An extreme expression of it is found in Chayim Zvi Lerner's grammatical work. Living in Southern Europe, Lerner (1815–1889) was a Maskil and earned his living as a Hebrew teacher in several institutions. His main work is *Moreh ha-Lashon*, a popular Hebrew grammar, which appeared in Leipzig in 1859 and in many later editions.³⁵ The striking fact about this grammar is that RH is not mentioned there at all. It was probably the first Hebrew grammar written by a Jewish author since early Middle Ages that completely ignores RH.

³⁴ Eldar (2014, 120, 125).

³⁵ On this work see Chomsky (1967, 188).

RH is not mentioned even when one might expect it to be, such as, for example, in the discussion of the second-person singular independent subject pronoun *אַתָּה* 'you' used for masculine, rather than standard feminine reference. Lerner's discussion is based on its use in BH, in which it occurs only a few times, while its much more common usage in RH is not mentioned.³⁶ Similarly, he presents the relative pronoun *-שֶׁ*, which in Late Biblical Hebrew is employed alongside its more common counterpart *אֲשֶׁר*,³⁷ but, of course, is more characteristic to RH—an obvious fact that Lerner ignores. At first glance, this might seem the result of a purely professional decision to concentrate solely on BH. But, if one takes into account Lerner's cultural environment, it seems more likely to stem from intentional omission of RH, reflecting ideological and cultural motives.

The clearest manifestation of the Maskilic ideology of the time is shown in contemporary Maskilic Hebrew literary style. As is well known, the main development of Maskilic Hebrew prose took place in southern Europe in the middle of the nineteenth century. Authors of the time, such as Abraham Mapu, Peretz Smolenskin, and others, ultimately adopted BH, creating a pseudo-biblical style, which they took great pains to cleanse of rabbinic elements.³⁸ These endeavours were an expression of the

³⁶ Lerner (1898, §37).

³⁷ Lerner (1898, §40).

³⁸ Kutscher (1982, 186–89); Eldar (2014, 120–24); Kahn (2013; 2018, 159–60). However, these endeavours met with only limited success; see Kahn (2008; 2009, 281–88; 2013; 2018, especially 181–82).

Maskilic preference for BH over other Hebrew layers, which served as an important component of Maskilic ideology.³⁹

Even though we lack explicit evidence, it is logical to conclude that Lerner also endorsed this ideology to some extent, or at least was influenced by the cultural atmosphere in which it prevailed. This plausibly accounts for the fact that RH is completely absent from his grammar.⁴⁰

5.0. Conclusion

To sum up, we have seen three different ways in which RH is used in Haskalah-period BH grammars: a large number of comparisons and frequent drawing of evidence from RH in Keslin's *Masul*; a few comparisons of technical nature in Ben-Ze'ev's *Talmud Lashon 'Ivri*; and total disregard of RH in Lerner's *Moreh ha-Lashon*. According to the analysis proposed above, the status of RH in each work reflects the author's attitude towards cultural and sociolinguistic questions: Keslin's endorsement of wide use of RH as a main source for expanding the Hebrew language; Ben-Ze'ev's view of RH as a grammatically faulty language and, accordingly, as a less-preferable source for useful Hebrew vocabu-

³⁹ See references above in n. 4.

⁴⁰ Yet, it should be stressed that this is not the situation in all Maskilic grammatical works of the time, as other contemporary authors introduced comparisons to RH in their biblical grammars. Cf., for example, Joshua Steinberg's *Ma'arkhe Leshon 'Ever* (1891, §§136, 140–41, 152); Moses Reichersohn's *Helqat ha-Niqud* (1864, 3, 32, 72).

lary; and Lerner's attitude, which reflects—or at least was affected by—the Maskilic endeavours to introduce a purified biblical Hebrew style.

Our analysis suggests that, although the works in question are scientific books that appear to present an objective linguistic picture, as a matter of fact, they mirror their respective author's personal cultural viewpoint, and might, to some extent, even serve as a vehicle to promote his ideology.

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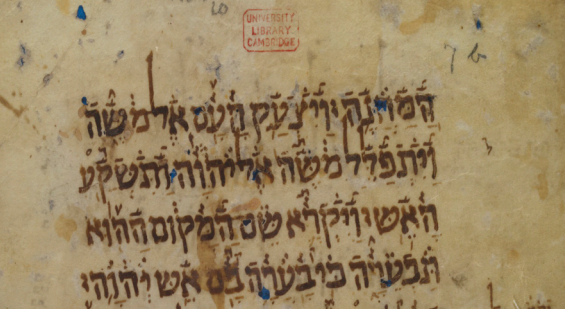
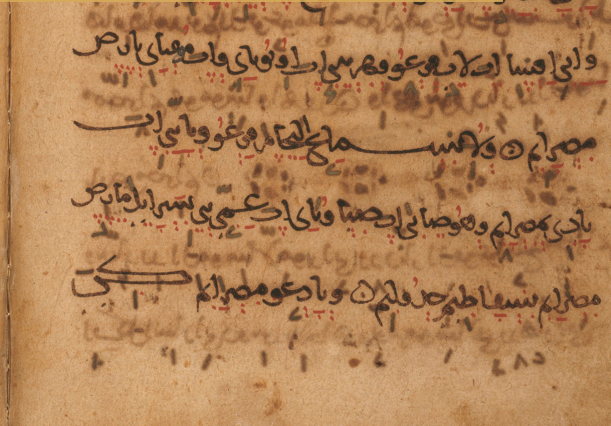
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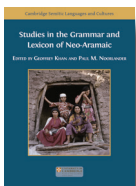
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