

Higher order exceptionality in inflectional morphology

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Abstract. We start from the notion of ‘canonical’ inflection, and we adopt an inferential-realizational approach. We assume that we have already established the features and their values for a given system (while acknowledging that this may be a substantial analytic task). In a canonical system, feature values “should” multiply out so that all possible cells exist. Paradigms “should” be consistent, both internally (within the lexeme) and externally (across lexemes). Such a scheme would make perfect sense in functional terms: it provides maximal differentiation for minimal phonological material. However, real systems show great divergences from this idealization. A typology of divergences from the canonical scheme situates the types of morphological exceptionality, including: periphrasis, anti-periphrasis, defectiveness, overdifferentiation, suppletion, syncretism, heteroclitisis and deponency.

These types of exceptionality provide the basis for an investigation of *higher order exceptionality*, which results from *interactions* of these phenomena, where the exceptional phenomena target the same cells of the paradigm. While some examples are vanishingly rare, they are of great importance for establishing what is a possible word in human language, since they push the limits considerably beyond normal exceptionality.*

1. Introduction

We propose a part of a typology of inflectional morphology, and within it we concentrate on extreme instances of exceptionality.

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1.1. Canonicity in typology

If we are to tackle some of the most difficult areas of language from a typological perspective, we shall need new methods. The one suggested here is the ‘canonical’ approach (Corbett 2005). The basic idea is that we define carefully a theoretical space, and only then situate the real language phenomena within it. The canonical point, specified by converging definitions, is where we find the best, clearest, most indisputable examples (for applications of the approach see Seifart 2005: 156–74; Suthar 2006: 178–98; Corbett 2006, 2007a). However, canonical examples may be rare or even non-existent, hence it is vital to maintain a distinction between what is canonical, and what is usual or frequent. What is canonical gives us the measure against which real examples can be situated, and from which different degrees of irregularity can be calibrated. It also gives us a way of analyzing and celebrating the diversity of inflectional morphology by confronting it with an elegant order.

1.2. Canonical inflection

Linguists are interested in what is a possible human language. A part of that account is coming to understand what is a possible word. In this paper we narrow that question down to looking at possible word from the point of view of inflection. We set up a framework of canonical inflection, within which we can situate different morphological phenomena. The system of terms for inflectional morphology is still inconsistent in places, despite interesting work by Mel’čuk (1993) and others. Greater consistency in terminology gives us a surer way to identify exceptions. All the predicted individual deviations from canonicity are found, and we shall illustrate only some of these types of possible word (for illustration of some other types see Corbett 2007b). This is because we are concerned in this paper with even less canonical items.

1.3. Higher order exceptionality

Our specific focus is on ‘higher order’ exceptionality. By this we mean the interaction of exceptional phenomena. These examples are of interest because they show us extreme cases of possible word. Here too we must look at a subset of the possible interactions. Examples are very scarce, partly because they are genuinely rare, but also because they have been little discussed, and so linguists have not been on the lookout for them. It is hoped that this discussion will lead specialists working on various languages to be aware of them, so that the general inventory of these examples is increased.

2. Assumptions

We start from the point where the features and their values are established for the language in question; in other words, analysis of the ‘syntactic’ part of morphosyntax is well advanced. This is not to minimize the problems; this task can involve complex analytical decisions (see Zaliznjak 1973 [2002]; Comrie 1986; Corbett 1991: 145–188 for examples). Our general stance will be that of inferential-realizational morphology, as defined and discussed in Stump (2001: 1–30). The specific variant in mind is Network Morphology (for which see Corbett and Fraser 1993; Evans, Brown and Corbett 2002, and references there). It is important for the reader to be aware of this orientation, but the main points of this general typology could be restated in other frameworks. We assume further that geometry is not relevant to inflectional morphology, but that nevertheless presenting paradigms in tabular form is a helpful method of representation. The final assumption is that when discussing particular phenomena we always imply “all other things being equal”. For instance, when discussing whether inflections are the same or different in particular cells of the paradigm we assume, unless specifically mentioned, that the stem remains the same.

3. Canonical inflection

We will now outline the notion of canonical inflection, which will serve as the basic for approaching various interesting deviations from canonicity in §5. As noted earlier, we assume that we have the features and their values established. Given that, in a canonical system these should ‘multiply out’, so that all possible cells in a paradigm exist. For example, if a given language has four cases and three numbers in its nominal system, the paradigm of a noun should have twelve cells. (This is equivalent to Spencer’s notion of ‘exhaustivity’ 2003: 252.)

Furthermore, to be fully canonical, a paradigm should be ‘consistent’, according to the following criteria:

(1) Canonical inflection

	comparison across <i>cells</i> of a lexeme (level one comparison)	comparison across <i>lexemes</i> (level two comparison)
1. composition/structure	same	same cf. §4.2.1
2. lexical material (≈ shape of stem)	same cf. §4.1.1	different
3. inflectional material (≈ shape of inflection)	different cf. §4.1.2	same cf. §4.2.2
outcome (≈ shape of inflected word)	different	different

This schema implies two levels of comparison:

level one: we start from the abstract paradigm gained by multiplying out the features and their values. We then examine any one lexeme fitted within this paradigm. The centre column of (1) compares cell with cell, within a single paradigm. We take in turn the criteria in the left column:

1. we look at the *composition and structure* of the cells; suppose the first consists of a stem and a prefix: for this lexeme to have a canonical paradigm, every other cell must be the ‘same’ in this regard. Finding a suffix, or a clitic, or any different means of exponence would reveal non-canonicity.
2. in terms of the *lexical material* in the cell, we require absolute identity (the stem should remain the same).
3. on the other hand, the *inflectional material* ‘should’ be different in every cell.

The outcome for such a lexeme (last row) is that every cell in its paradigm will realize the morphosyntactic specification in a way distinct from that of every other cell.

level two: this involves comparing lexemes with lexemes within the given language (right column). We use the same criteria as before:

1. a canonical system requires that the composition and structure of each cell remains the same, comparing across lexemes.
2. we require that the lexical information be different (we are, after all, comparing different lexemes).

3. in the canonical situation, the inflectional material is identical. That is, if our first lexeme marks dative plural in *-du*, so does every other.

The outcome is that every cell of every lexeme is distinct. We illustrate this with a hypothetical example:

(2) Illustration (hypothetical)

DOG-a	DOG-i	CAT-a	CAT-i
DOG-e	DOG-o	CAT-e	CAT-o

This system of canonical inflection would make perfect sense in functional terms. There is perfect differentiation within the morphology, while using the minimal material.

4. Deviations from canonical inflection

Real systems, however, show great divergences from this idealization. Its value is that we can use the notion of canonicity as a way of calibrating the phenomena we find. We look at the deviations from canonicity first internally, comparing the cells of a single lexeme, then externally, comparing across lexemes. It is the typology of these divergences which allows us to move towards a consistent set of terms. A general pattern is that where we actually find ‘same’ in place of canonical ‘different’ this will give a non-functional outcome. If we find ‘different’ in place of canonical ‘same’ this will lead to increased complexity and/or redundancy.

Working through the different deviations gives us an overall classification of the phenomena of inflectional morphology. That is a long undertaking, and space does not allow us to complete it here. Instead we will take some illustrative instances, selecting as examples those that we shall need for the discussion of higher order exceptionality.

4.1. Internal non-canonicity

We start with phenomena that can be defined within the lexeme, and we take two key types.

4.1.1. *Lexical material*

In the canonical situation, lexical meaning (and only that) is conveyed by lexical material, the stem; grammatical meaning, and only that, is conveyed by the inflection. Thus the stem is inert, and all the differentiation in the paradigm is

due to the inflectional material. Contrary to this canonical situation, we find all sorts of alternations of stem, from the predictable, through the less regular, right up to full *suppletion* as, for example, in Russian *rebenok* ‘child’ *deti* ‘children’. Suppletion has rightly attracted a good deal of interest, as in Carstairs-McCarthy (1994), Mel’čuk (1994), Corbett (2007a); see Chumakina (2004) for an annotated bibliography, and Brown, Chumakina, Corbett and Hippisley (2004) for an on-line typological database. In terms of possible words, suppletion is of particular interest because it means that there are lexemes which have forms with no phonological shape in common.

4.1.2. *Inflectional material*

Since inflectional material conveys grammatical meaning, in the canonical situation we find a different inflection in each cell. Contrast this with the following paradigm from Slovene:

(3) Paradigm of Slovene *kot* ‘corner’ (Priestly 1993: 400–402)

	SINGULAR	DUAL	PLURAL
NOMINATIVE	kot	kota	koti
ACCUSATIVE	kot	kota	kote
GENITIVE	kota	kotov	kotov
DATIVE	kotu	kotoma	kotom
INSTRUMENTAL	kotom	kotoma	koti
LOCATIVE	kotu	kotih	kotih

A morphosyntactic analysis of Slovene produces good evidence for six cases and three numbers. We therefore expect a paradigm with eighteen cells. This particular lexeme has only nine phonologically distinct forms filling these cells. It shows numerous examples of *syncretism*, that is, instances where we have a single form which realizes more than one morphosyntactic specification. We use syncretism as a cover term; different examples may be analysed in different ways (see Baerman, Brown and Corbett 2005 for extensive discussion).

4.2. External non-canonicity

We now move on to deviations which are to be defined in terms of comparisons across lexemes.

4.2.1. Composition/structure

In the canonical situation, the composition and structure of a lexeme's paradigm will be constant when we compare across the class. For instance, if we find that nouns in a given language distinguish singular and plural, in the canonical situation this will hold generally true. One of the deviations from this canonical situation is *overdifferentiation* (Bloomfield 1933: 223–224; Nübling, this volume). Lexemes which are overdifferentiated stand out from the rest of the group in that they have an additional cell in their paradigm. For example, in Maltese most nouns distinguish singular from plural. Now consider *uqija* 'ounce':

(4) Example of the Maltese dual

SINGULAR	DUAL	PLURAL
uqija	uqitejn	uqijiet

Around 30 nouns distinguish singular from dual from plural; this is a 'minor number' (Corbett 2000: 96). With only eight of them, according to Fenech (1996), is the use of the dual obligatory. *Uqija* 'ounce' is overdifferentiated in having a dual, but its use is not obligatory; for 'two ounces' one can use either the dual *uqitejn* or the form with the numeral: *żewġ uqijiet*.

4.2.2. Inflectional material

In the canonical situation, inflectional material is the same across lexemes. We can specify that the first singular present tense active has a particular form just once in the grammar. Of course there are many deviations from this. One of the most interesting, and least studied, is deponency, for which see Embick (1998, 2000), Corbett (1999), Sadler and Spencer (2001), Stump (2002), Kiparsky (2005), Baerman, Corbett, Brown and Hippisley (2007), and for on-line typological material see Baerman (2005).

Deponency goes against the notion of 'regularity of inflection': in particular the expectation that certain forms have certain functions. Consider the partial paradigm of two Latin verbs (Kennedy 1955: 72, 82):

(5) Partial paradigm of a regular Latin verb

<i>amāre</i> 'to love'		
	active	passive
1 SG	amō	amor
2 SG	amās	amāris
3 SG	amat	amātur
1 PL	amāmus	amāmur
2 PL	amātis	amāminī
3 PL	amant	amantur

Here we see a regular differentiation of active and passive. There are many verbs like this one. In principle, given a particular inflection, one can tell immediately whether it the form is active or passive. Now contrast this with deponent verb:

(6) Partial paradigm of a deponent Latin verb

<i>vēnārī</i> 'to hunt'	
	active
1 SG	vēnor
2 SG	vēnāris
3 SG	vēnātur
1 PL	vēnāmur
2 PL	vēnāminī
3 PL	vēnantur

With this verb we have the forms which 'ought' to be passive taking the role of active inflections. We can say this only by comparison across lexemes: there are many verbs with the pattern of *amāre* 'to love' and relatively few like *vēnārī* 'to hunt'.

Deponency is generally discussed with reference to Latin. Indeed it is sometimes even defined as being a phenomenon found in Latin: "Class of verbs in Latin, intransitive or active in syntax but with inflections that usually mark passives." Matthews (1997: 93). However, the basic phenomenon, which we shall call 'extended deponency', need not be restricted to Latin, to voice, nor even to verbs. The phenomenon consists of inflections which have an established function in the morphological system being used in a minority of instances for the opposite function. This covers the Latin deponent verbs, and extends to a range of interesting phenomena which, because they have had no name, have been little studied. For a range of examples see Baerman (2005); an example of deponency in this wider sense will also be analysed in § 6.4.

5. Interactions

Some of the examples examined so far are well-known and present fairly minor instances of exceptionality. However, they provide the basis for an investigation of *higher order exceptionality*, which results from *interactions* of these phenomena. By interactions, we mean not simply that a given lexical item shows more than one type of exceptionality, but that the exceptional phenomena target the same cells of the paradigm. That is, we are dealing not just with a small subclass (Moravcsik, this volume) but with the intersection of small subclasses.

5.1. Suppletion and syncretism

One interaction that has been discussed is from the South Slavonic language Slovene, found in the noun *človek* ‘man, person’; see Priestly (1993: 401), Plank (1994), Corbett and Fraser (1997), Evans, Brown and Corbett (2001: 215), Baerman, Brown and Corbett (2005: §5.1.1). This is a particularly interesting case, which deserves further mention here. It shows an interaction of suppletion and syncretism. The suppletion involves a plural stem as opposed to that for singular and dual. This interacts with a more general syncretism: Slovene nouns always have the genitive dual syncretic with the genitive plural (similarly the locative dual is syncretic with the locative plural). This is one of the syncretisms in (3) above. Clearly, then, the genitive and locative dual will involve an interaction of these suppletion and syncretism. The effect can be seen in (7):

(7) Slovene *človek* ‘man, person’ (Priestly 1993: 401)

	SINGULAR	DUAL	PLURAL
NOMINATIVE	človek	človeka	ljudje
ACCUSATIVE	človeka	človeka	ljudi
GENITIVE	človeka	ljudi	ljudi
DATIVE	človeku	človekoma	ljudem
INSTRUMENTAL	človekom	človekoma	ljudmi
LOCATIVE	človeku	ljudeh	ljudeh

In this interesting paradigm certain cells are targeted both by suppletion and by syncretism. The interaction creates an unusual pattern of stems; the general rule of syncretism seems to ‘win out’ over the suppletion.

5.2. Suppletion and overdifferentiation

Our second example also concerns suppletion, this time interacting with overdifferentiation. Consider these East Norwegian dialect forms for the adjective ‘small’:

Norwegian (East Norwegian dialect, Hans-Olav Enger, personal communication)

- | | | | |
|------|--|----------------------------------|--|
| (8) | <i>en</i>
ART.M.SG.INDF
‘a small boy’ | <i>lit-en</i>
small-M.SG.INDF | <i>gutt.</i> ¹
boy(M)[SG.INDF] |
| (9) | <i>den</i>
ART.M/F.SG.DEF
‘the small boy’ | <i>vesle</i>
small.SG.DEF | <i>gutt-en</i>
boy(M)-SG.DEF |
| (10) | <i>ei</i>
ART.F.SG.INDF
‘a small girl’ | <i>lit-a</i>
small-F.SG.INDF | <i>jent-e</i>
girl(F)-SG.INDF |
| (11) | <i>den</i>
ART.M/F.SG.DEF
‘the small girl’ | <i>vesle</i>
small.SG.DEF | <i>jent-a</i>
girl(F)-SG.DEF |
| (12) | <i>et</i>
ART.N.SG.INDF
‘a small child’ | <i>lit-e</i>
small-N.SG.INDF | <i>barn</i>
child(N)[INDF] |
| (13) | <i>det</i>
ART.N.SG.DEF
‘the small child’ | <i>vesle</i>
small.SG.DEF | <i>barn-et</i>
child(N)-SG.DEF |

This adjective has three suppletive stems, *lit-* in the singular indefinite, *vesle* in the singular definite,² and in the plural there is *små*. This latter also deserves illustration:

- | | | |
|------|--|----------------------------------|
| (14) | <i>små</i>
small.PL
‘small boys’ | <i>gutt-er</i>
boy(M)-PL.INDF |
|------|--|----------------------------------|

1. The Leipzig Glossing Rules are adopted (for details see <http://www.eva.mpg.de/lingua/index.html>).

2. In the dialect cited these forms are obligatory. Various other Norwegian speakers I have asked accept these forms, but for them *vesle* is optional.

- (15) *små* *jent-er*
 small.PL girl(F)-PL.INDF
 ‘small girls’
- (16) *små* *barn*
 small.PL child(N)[INDF]
 ‘small children’
- (17) *de* *små* *gutt-ene*
 ART.PL.DEF small.PL boy(M)-PL.DEF
 ‘the small boys’
- (18) *de* *små* *jent-ene*
 ART.PL.DEF small.PL girl(F)-PL.DEF
 ‘the small girls’
- (19) *de* *små* *barn-a*
 ART.PL.DEF small.PL child(N)-PL.DEF
 ‘the small children’

We can see the evidence for suppletion just looking within this one lexeme. To demonstrate that this adjective is also overdifferentiated, we need to compare it with an ordinary adjective:

- (20) Regular *tjukk* ‘thick, fat’ and *liten* ‘small’ in East Norwegian (Hans-Olav Enger, personal communication)

	SINGULAR		PLURAL		SINGULAR		PLURAL
	INDF	DEF			INDF	DEF	
M	tjukk	tjukke		M	liten	vesle	små
F				F	lita		
N	tjukt			N	lite		

This dialect has three genders, as shown by the articles. Yet a normal adjective like *tjukk* ‘thick, fat’ does not distinguish all three; rather, it makes only one distinction, masculine and feminine together versus neuter (Enger and Kristoffersen 2000: 104). The instance of overdifferentiation involving *liten* ‘small’ is *within* one of the suppletive stems. Besides this, *tjukk* ‘thick, fat’ and other normal adjectives do not distinguish definite plural from definite singular; *tjukk-e* functions for both. However, *vesle* is the definite singular, but in the plural *små* is used. This distinction, not made by normal adjectives, is *between* the suppletive stems which bring about the overdifferentiation. Putting all this together we see that in the positive, a normal adjective has three forms, while *liten* has five forms, resulting from the interaction of suppletion and overdifferentiation.

5.3. Overdifferentiation and syncretism

Given the number of relevant morphological phenomena, the number of potential interactions, in addition to those we have seen, is potentially rather large. It is therefore an attractive idea to ask whether there are logical restrictions on which two-way interactions are possible. To date, none has been established. Quite on the contrary, one of the most likely restrictions is disproved by data already available.

At first sight it would seem impossible to have an interaction of overdifferentiation and syncretism. After all, one creates ‘too many’ forms, and the other ‘too few’. They would therefore, apparently, cancel each other out. The data are more complex than that. They involve the Russian ‘second genitive’. Russian has unarguably six primary cases. But there are additional forms which are harder to analyse (see Zaliznjak 1973; Worth 1984; Comrie 1986 for discussion). Contrast these forms of the nouns *kisel* ‘kissel’ (a Russian fruit drink, a bit like thin blancmange) and *čaj* ‘tea’. First both have a regular genitive:

(21) *vkus kiselj-a*
taste kissel-SG.GEN
‘the taste of kissel’

(22) *vkus čaj-a*
taste tea-SG.GEN
‘the taste of tea’

However, in certain partitive expressions we find a contrast:

(23) *stakan kiselj-a*
glass kissel-SG.GEN
‘a glass of kissel’

(24) *stakan čaj-u*
glass tea-SG.GEN²
‘a glass of tea’

Here *kisel* ‘kissel’ is now an example of a normal regular noun, while *čaj* ‘tea’ is one of a subclass which has a separate form, the so-called second genitive. The number of nouns with this second genitive is restricted, but they number dozens rather than a handful.³ Within those nouns which have a second genitive,

3. Ilola and Mustajoki (1989: 41–41) identify 396. However, some of these are rather rare nouns. Moreover, Ilola and Mustajoki’s source is Zaliznjak (1977), and the form has been in decline since then. Thus *kisel* ‘kissel’ is given as having the second genitive; however, my consultants do not accept this form, and Google gives over

for some of them the second genitive is normally used in partitive expressions, for the others the second genitive is a possibility in competition with the ordinary genitive; for data on this see Panov (1968: 180), Graudina, Ickovič and Katlinskaja (1976: 121–125) and Comrie, Stone and Polinsky (1996: 124–125).

What concerns us particularly is the form of the second genitive, *čaju*. Consider the following partial paradigms:

(25) Russian partial singular paradigms

NOMINATIVE	kiselʹ	čaj
GENITIVE	kiselja	čaja
GENITIVE 2	as genitive	čaju
DATIVE	kiselju	čaju

Here we see that the ‘extra’ form of *čaj* ‘tea’, the second genitive, is syncretic with the dative. Note that we cannot push the problem into syntax and claim that the form used *is* the dative, since any agreements are indeed genitive. This is not obvious, since in the modern language the inclusion of an agreeing modifier strongly disfavours the use of the second genitive; instead the ordinary genitive is more likely:

- (26) *stakan zelen-ogo čaj-a*
 glass green-M.SG.GEN tea(M)-SG.GEN
 ‘a glass of green tea’

Here the presence of the modifier *zelenogo* ‘green-M.SG.GEN’ makes much more likely the use of the ordinary genitive *čaja*. However, in those instances where the noun stands in the less likely second genitive in an expression similar to (26) genitive agreement is still required. Thus *zelenogo čaju* ‘green tea’ is possible – if rare – as a second genitive. We should therefore test what happens if we put the attributive modifier in the dative:

- (27) *zelen-omu čaj-u*
 green-M.SG.DAT tea(M)-SG.DAT
 ‘green tea’

(27) can be used only in syntactic positions where a dative is required. It is not a second genitive, and could not be used in (26). The problem is therefore a morphological one and not a syntactic issue: second genitives are not syntactic datives. We can conclude that the nouns with a second genitive are overdifferen-

200 examples of *stakan kiselja* ‘glass of kisel’ and none of *stakan kiselju*. Thus the 396 figure is rather high.

tiated, and that the additional form is expressed by syncretism (with the dative). We do indeed have an interaction of overdifferentiation and syncretism. This in turn means that the most promising suggestion for a logical restriction on two-way interactions (that we could not find an interaction of overdifferentiation and syncretism) does not in fact hold.

5.4. (Extended) deponency, suppletion and overdifferentiation

A second natural way in which we might hope to constrain the possibilities for interactions is simply in terms of quantity. The examples we have seen have been of two-way interaction. Can we state that as the limit? Clearly, if three-way interactions are found, then the space of possibilities expands dramatically. The laws of chance are likely to make three-way interactions rare, but an example has been found:

(28) Serbian *dete* ‘child’ and *žena* ‘woman, wife’

NOMINATIVE	dete	deca	žena
VOCATIVE	dete	deco	ženo
ACCUSATIVE	dete	decu	ženu
GENITIVE	deteta	dece	žene
DATIVE	detetu	deci	ženi
INSTRUMENTAL	detetom	decom	ženom
LOCATIVE	detetu	deci	ženi
	SINGULAR		SINGULAR

Consider the forms in the unlabelled column (*deca* and so on). These function as the plural of *dete* ‘child’. Viewed against the rest of the inflectional system they look odd. First there is a problem with the stem (*dec-* instead of *det-*). This is not a possible alternation in modern Serbian, and so we must recognize the stems as being suppletive. Not fully suppletive of course, but partially suppletive (or as showing a completely irregular alternation, if preferred). Second, and rather worse, are the inflections. They are apparently completely out of place as plural; the plural inflections look rather different from these.⁴ A

4. Agreements are complex and interesting. In brief, there are some instances in which an unambiguously feminine singular form is used. There are others where a clear plural is used, and still others where a gender/number form is used and where it can be argued that this is best analysed as neuter plural. Personal pronouns with a noun phrase headed by *deca* ‘children’ as antecedent can stand in the neuter plural or the masculine plural, dependent on the type of reading, which means that overall it can control three different types of agreement (feminine singular, neuter plural and

comparison with the singular forms of *žena* ‘woman, wife’, a regular noun of a different inflectional class, shows what is going on. We have a set of inflections which have an established function in the morphological system being used in a minority of instances for the opposite function. That is, an instance of extended deponency. And third, a noun in the plural in Serbian normally distinguishes three case forms (nominative-vocative-accusative *versus* genitive *versus* dative-instrumental-locative) though one large group has four forms (this group has also a unique form for the accusative). *Deca* ‘children’ has six forms and so is overdifferentiated. Thus it is possible to find an instance of a three-way interaction. This means that the space of possible items which we characterize as showing higher order exceptionality is potentially very large.

6. Conclusion

The paper represents part of a new attempt to bring the phenomena of inflection into a coherent scheme. This is done within a canonical approach to typology. Such an approach has the advantage of conceptual clarity.⁵ It allows us to systematize the various minor irregularities of inflectional morphology. However, our focus was rather on those lexemes that are more than merely exceptional. We concentrated on those which show interactions of non-canonical phenomena and so represent a higher order of exceptionality. Such examples are of great importance for establishing what is a possible word in human language, since they push the limits considerably beyond normal exceptionality. In terms of the theoretical possibilities, we were not able to eliminate any of the possible two-way interactions of non-canonicity, which shows that there are a good many potential types. Furthermore, we identified a three-way interaction, which demonstrates that the potential space is large. The initial picture that emerges is that individual lexemes can indeed be exceptionally exceptional: they can show higher order exceptionality in various ways. The range of possible words is re-

masculine plural), if personal pronouns are counted as agreement targets. See Corbett (1983: 76–86), Wechsler and Zlatić (2000: 816–821) and Corbett (2006) for details. In part the patterns fall under the typological regularities governing the distribution of syntactic and semantic agreement. However, there are remaining issues, notably the interaction of these choices with case, which make *deca* ‘children’ problematic for agreement. While particular items may be highly irregular in morphological terms, this does not normally lead to any impact on syntax. *Deca* ‘children’ is particularly challenging in that its aberrant behaviour appears not to be restricted to morphology.

5. It also has the practical advantage of proving a good basis for typological databases, see: <http://www.smg.surrey.ac.uk/> for examples.

markable broad. As yet only some of the potential types have been found, but it seems likely that several others exist. From the perspective of a language's lexicon as a whole, however, lexemes showing higher order exceptionality are – not surprisingly – rare.

Abbreviations

ART	article
DAT	dative
DEF	definite
F	feminine
GEN	genitive
INDF	indefinite
M	masculine
N	neuter
PL	plural
SG	singular

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