

# Deponency, Syncretism, and What Lies Between\*

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## 1. Introduction

IN ATTEMPTING TO DEFINE THE NOTION ‘possible human language’, linguists must be able to define what is a possible word. Part of that enterprise is establishing the possible phenomena within inflectional morphology. This paper contributes to that goal by giving a schema of these phenomena. As such it is part of a more general canonical approach to typology. Thus one aim of the paper is ‘intellectual housekeeping’, putting order into the description of inflectional morphology. This will allow us to analyse the diversity of inflectional morphology by confronting it with an elegant order.

Within the overall schema, our focus is naturally on deponency; we shall look in particular at how it is to be differentiated from syncretism, since the two show important similarities. Establishing the differences sheds light on both phenomena; it also allows us to recognize related phenomena that have not been given due attention, in part because there were no terms for them. We begin by clarifying our assumptions (§2), then laying out the canonical approach to inflectional morphology (§3), and the types of phenomena which can be described in terms of various relaxations of canonicity (§4). We then concentrate on deponency, syncretism, and related phenomena of interest (§5). Finally we investigate how deponency interacts with other morphological phenomena (§6).

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## 2. Assumptions

We start from the point where the features and their values are already established for the language in question, in other words, analysis of the ‘syntactic’ part of morphosyntax is well advanced.<sup>1</sup> Underlying our work is the approach to morphology termed ‘inferential-realizational’ morphology, as defined and discussed in Stump (2001: 1–30). This covers the family of theories known as ‘Word and Paradigm’ theories (as in Matthews 1972). The specific variant in mind is Network Morphology (for which see Corbett and Fraser 1993; Evans, Brown, and Corbett 2002; Baerman, Brown, and Corbett 2005; and references there). Though this is the general orientation, the essentials of the typology could be restated to accommodate other assumptions. We shall present paradigms in tabular form, since this is often helpful, but we do not assume that geometry has any relevance for inflectional morphology. The reader should also bear in mind that throughout the discussion there is an implied ‘all other things being equal’. For instance, when discussing whether inflectional markers are the same in particular paradigm cells we assume, unless otherwise stated, that the stem remains the same.

## 3. Canonicity

We consider canonicity in general, and then see how it applies specifically to inflectional morphology.

### 3.1. The canonical approach in typology

In the canonical approach we take definitions to their logical end point. This enables us to construct theoretical spaces of possibilities. It is only at this point that we investigate how this space is populated with real instances. The canonical instances are the clearest, the indisputable ones (those closely matching the canon), in a sense they are the ‘best’ examples. Such instances are unlikely to be frequent. On the contrary they are likely to be either rare or even non-existent. To take a comparison from a quite different domain: ‘there are so many more ways of being disorderly than there are of being orderly, so that disarray wins hands down’.<sup>2</sup> This expected dearth of canonical instances is not a problem, since the convergence of criteria fixes a canonical point from which

<sup>1</sup> This is not to minimize the problems; this task can involve complex analytical decisions (see Comrie 1986; Zaliznjak 1973 [2002] for examples).

<sup>2</sup> The source is: John Polkinghorne, *Quantum theory: a very short introduction*, Oxford: Oxford University Press, 2002, p. 50. The quote continues: ‘Just think of your desk, if you do not intervene from time to time to tidy it up.’

the phenomena actually found can be calibrated.<sup>3</sup> There can subsequently be illuminating investigation of frequency distributions.

The canonical approach has been applied in syntactic typology, in particular in investigating agreement (Corbett 2003, 2006), where the theoretical space is defined in terms of twenty criteria. The criteria are used in accounts of Miraña by Seifart (2005: 156–74) and of Gujarati by Suthar (2006: 178–98). A preliminary discussion of canonicity can be found in Corbett (2005). The canonical approach is applied to inflectional morphology, and specifically to suppletion, in Corbett (2007). That paper shows how the notion can be applied recursively. Suppletion is a highly non-canonical phenomenon in inflectional morphology; having defined it, we can in turn establish canonical and less canonical instances of suppletion. A further application to inflectional morphology is in the investigation of ‘higher order exceptionality’, that is to say, of instances which involve the interaction of exceptional phenomena (Corbett forthcoming).

### 3.2. Canonical inflection

As pointed out in section 2, we begin from the point where the features and their values have been established. Once that is done, the feature values should ‘multiply out’, so that all possible cells in a paradigm exist. For example, if a language has five cases and three numbers in its nominal system, a noun paradigm should have fifteen cells. (This matches Spencer’s notion of ‘exhaustivity’ 2003: 252.) In addition, to be fully canonical, a paradigm should be ‘consistent’, according to the following criteria:

- (1) Canonical inflection: the criteria

	comparison across <i>cells</i> of a lexeme (level one)	comparison across <i>lexemes</i> (level two)
composition/structure (of the inflected <i>word</i> )	same	same
lexical material (≈shape of <i>stem</i> )	same	different
inflectional material (≈shape of <i>affix</i> )	different	same
outcome (≈shape of inflected <i>word</i> )	different	different

We shall go through this schema step by step. There are two levels of comparison:

<sup>3</sup> Note that the criteria converge on the canonical point; there is no ranking of criteria, in contrast to an OT approach (compare McCarthy 2005).

*level one:* we begin with the abstract paradigm gained by multiplying out the features and their values. We examine any one lexeme fitted within this paradigm. The centre column of (1) applies to a comparison cell with cell, within a single paradigm. Let us 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 the given 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, absolute identity is required (the stem should remain the same).
3. On the other hand, the *inflectional material* 'should' be different in every cell.

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

*level two:* here we compare 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. The lexical information must 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 genitive singular in *q-u-*, so does every other.

The interesting overall outcome is that every cell of every lexeme is distinct. In other words, the realization of every morphosyntactic specification is different.<sup>4</sup> We illustrate this with a hypothetical example:

(2) Illustration of canonical inflection (hypothetical)

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

Such canonical inflection would make perfect sense in functional terms. Every morphosyntactic distinction is drawn unambiguously, for the smallest amount of phonological material.<sup>5</sup> Furthermore, the system is so simple that Item and Arrangement morphology would be able to account for it.

<sup>4</sup> Canonicity is not to be compared with the various paradigm-organizing principles which have been proposed in the literature. It is rather a yardstick against which typological variation can be measured.

<sup>5</sup> The inflections *a, e, i, o* indicate only that the realizations are distinct. They are not intended as actual inflections. We do not in this paper go down into the canonicity of particular inflections. At that level it might be claimed that, for instance, cumulative exponence of two features (which would be found if *a, e, i, o* were actual affixes) would not be fully canonical.

## 4. Deviations from Canonical Inflection

We now turn to real language, using the notion of canonicity as a way of calibrating the phenomena of inflectional morphology. The overall typology would take us too far from our main concern. We shall therefore sketch it briefly, and look at just a four illustrative phenomena, before focusing on deponency and syncretism.

### 4.1. Comparison across the cells of a lexeme (level one comparison)

We look at the deviations from canonicity first in terms of cells of a lexeme, then in terms of lexemes. Note that in general, 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.

(3) Deviations established by comparison across the *cells* of a lexeme

	canonical behaviour	deviant behaviour	types of deviation
composition/structure (of the inflected <i>word</i> )	same	different	fused exponence periphrasis
lexical material (≈shape of <i>stem</i> )	same	different	alternations suppletion
inflectional material (≈shape of <i>affix</i> )	different	same	syncretism uninflectability

We start with *composition/structure*, where in canonical instances we find identity. For instance, if we find an inflectional prefix in one cell of the paradigm, canonicity would require this same structure in all cells. We might instead find fused exponence, the situation where the structure found in other cells is not available: the morphosyntactic distinctions are realized but not according the pattern of the remaining paradigm. A second type of deviation is periphrasis, the use of an analytic form when the paradigm pattern is of synthetic forms.

Let us move on to *lexical material*. In the canonical situation we again find identity across the cells of a particular lexeme. However, we may find various types of alternations, predictable to a greater or lesser extent. The least canonical situation is that in which the lexical material is completely different, which is what we find in suppletion:

(4) Illustration of suppletion (hypothetical)

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

Here is a genuine example from Polish:

(5) Suppletion in Polish *być* 'be' (present tense)

PERSON	SINGULAR	PLURAL
1	jest-em	jest-eśmy
2	jest-eś	jest-eście
3	jest	s-ą

Suppletion is an interesting part of the typology of possible words, and fourteen criteria have been established to determine canonical suppletion, which is one of the extremes of non-canonicity (Corbett 2007).

Finally within the comparison across the cells of a single lexeme we should examine *inflectional material*. In the canonical situation, the inflectional material is different in every cell of the lexeme. The major deviation here is syncretism, which we may represent as follows:

(6) Illustration of syncretism (hypothetical)

DOG-a	<b>DOG-i</b>
DOG-e	<b>DOG-i</b>

With this lexical item there is the expectation of four forms, which would represent the canonical situation, but in fact only three distinct forms are found. The basis for the expectation may differ, as may the means used for modelling the syncretism. The key point is that two morphosyntactic descriptions share a single realization. Here is a Russian example:

(7) Examples of syncretism in the Russian noun *komnata* 'room'

	SINGULAR	PLURAL
NOMINATIVE	komnata	<b>komnaty</b>
ACCUSATIVE	komnatu	<b>komnaty</b>
GENITIVE	komnaty	komnat
DATIVE	<b>komnate</b>	komnatam
INSTRUMENTAL	komnatoj	komnatami
LOCATIVE	<b>komnate</b>	komnatax

Russian gives good evidence for two numbers and (at least) six cases. We can therefore expect twelve distinct forms. This noun shows syncretism of the dative and locative singular (though these cases are distinguished by the same noun in the plural), and of the nominative and accusative in the plural (distinguished in the singular).<sup>6</sup> For discussion of the significance of syncretism, with extensive examples, see Baerman, Brown, and Corbett (2005).

The ultimate failure to distinguish cells by inflectional material is uninflectability. Once we have established that there is an inflectional paradigm to

<sup>6</sup> This noun is a fully regular member of an inflectional class with many thousands of nouns.

which a particular item would be expected to conform, then uninflectability stands out as non-canonical. It is also an end point in that it could be seen as the extreme case of syncretism.

**4.2. Comparison across the lexemes (level two comparison)**

We now move on to deviations from canonicity which emerge when we compare lexemes with each other cell by cell. The canonical situation, and types of deviation are as follows:

- (8) Deviations established by comparison across *lexemes*
- |  |                        |                      |  |
|--|------------------------|----------------------|--|
|  | canonical<br>behaviour | deviant<br>behaviour | types of deviation                                       |
| composition/structure<br>(of the inflected <i>word</i> ) | same                   | different            | defectiveness<br>overdifferentiation<br>anti-periphrasis |
| lexical material<br>(≈shape of <i>stem</i> )             | different              | same                 | homonymy   |
| inflectional material<br>(≈shape of <i>affix</i> )       | same                   | different            | inflectional classes<br>heteroclis<br>deponency          |

Again we shall discuss these briefly, looking in more detail at just two.

In terms of composition/structure, there are different types of deviation, of which defectiveness is particularly interesting:

- (9) Illustration of defectiveness (hypothetical)

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

We can recognize the last item as defective by comparison: the other lexemes set up the expectation of the cells which should be realized. This is evident in Matthews’s definition of defective: ‘(Lexical item) whose paradigm is incomplete in comparison with others of the major class that it belongs to.’ Matthews (1997: 89). Here is an example of a defective Russian noun. We noted earlier that Russian nouns have at least twelve paradigm cells. For many speakers the noun *mečta* ‘dream’ lacks a realization for one cell, the genitive plural:

- (10) The defective Russian noun *mečta* ‘dream’

	<i>mečta</i> ‘dream’		compare: <i>mačta</i> ‘mast’	
	SINGULAR	PLURAL	SINGULAR	PLURAL
NOMINATIVE	mečta	mečty	mačta	mačty
ACCUSATIVE	mečtu	mečty	mačtu	mačty
GENITIVE	mečty	***	mačty	mačt

	<i>mečta</i> ‘dream’		compare: <i>mačta</i> ‘mast’	
	SINGULAR	PLURAL	SINGULAR	PLURAL
DATIVE	mečte	mečtam	mačte	mačtam
INSTRUMENTAL	mečtoj	mečtami	mačtoj	mačtami
LOCATIVE	mečte	mečtax	mačte	mačtax

Note that there is no phonological problem with the expected genitive plural \**mečt* since *mačta* ‘mast’ has the genitive plural *mačt* (Mel’čuk 1993: 360–1, 1996: 176–7). Equally there is no semantic motivation for the gap. For further discussion of defectiveness see Corbett (2000: 174–6), Baerman and Corbett (2006) and references there.

In contrast, overdifferentiation is shown by a lexeme which, in comparison with others, has additional cells. Thus in the Dravidian language Kolami, there are two genders, basically male human and other. However, the lower numerals ‘2’, ‘3’, and ‘4’ have an additional form for female human (Emeneau 1955: 56). As compared with all the other agreement targets these three lexemes are overdifferentiated.

Finally within this type we find ‘anti-periphrasis’, the situation where there is a synthetic form in a particular cell contrary to a pattern found in the majority of lexemes. This term is from Haspelmath (2000), who provides an example from Maltese.

The question of *lexical material* is relatively straightforward. Naturally we expect lexemes to be phonologically distinct. However, we find non-canonical instances like English *bank*. Such instances may be completely indistinguishable, as with *bank*, or there may be differences elsewhere in the system. Thus Russian *byk* ‘bull’ and *byk* ‘pier of bridge’ have different accusative case forms since the first is animate and the second is not.

Finally in this section we turn to deviations in terms of inflectional material. In the canonical situation, if we compare across lexemes, cell by cell, we find the same inflectional material. If one lexeme realizes the genitive plural in *-dh-a*, all do. Of course we find the well-known inflectional classes, where sets of formatives realize the morphosyntactic specifications. Furthermore, there may be small numbers of lexemes, heteroclites, which take some of their forms from one inflectional class and others from another. We shall now concentrate on deponency. Compared with our other hypothetical illustrations, this is the most complex:

(11) Illustration of deponency (hypothetical)

Feature value:	a	b	a	b	a
	DOG-a	DOG-i	CAT-a	CAT-i	PIG-i
	DOG-e	DOG-o	CAT-e	CAT-o	PIG-o

It is worth noting that deponency can be identified only by comparison with the majority of lexemes. If all items were like PIG in our example there would be nothing to indicate any non-canonicity. The point is that we have forms whose function is apparently clear from the majority of lexemes but whose function is different for a minority of lexemes. The best instances of deponency are found in Latin. Here is part of the paradigm of a regular verb, representing a large number of lexemes.

(12) Partial paradigm of a regular Latin verb

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

Here the passive forms are clearly distinguished from the active. Compare now a deponent verb:

(13) Partial paradigm of a deponent Latin verb

	<i>mīror</i> ‘admire’	
	active	passive (virtual)
1 SG	mīror	<del>mīror</del>
2 SG	mīrāris	<del>mīrāris</del>
3 SG	mīrātur	<del>mīrātur</del>
1 PL	mīrāmur	<del>mīrāmur</del>
2 PL	mīrāmini	<del>mīrāmini</del>
3 PL	mīrantur	<del>mīrantur</del>

We have labelled the right column ‘virtual’. These are cells which would be realized in this way, if they existed. They are struck through because they do not. (Similarly, English *health* may be said to have the virtual plural ~~healths~~: that is what the plural would be, if it existed.) The actual forms are active in use, but they have the appearance of passive forms (by comparison with the majority). This mismatch is of course deponency.<sup>7</sup> While the term has been traditionally reserved for verbs and for voice (and even restricted to Latin and Greek by some scholars), we use ‘(extended) deponency’ as a term for all similar mismatches, extending to other parts of speech, grammatical

<sup>7</sup> For earlier discussion and references see Embick (2000), Sadler and Spencer (2001), and Stump (2002).

features, and languages (see Baerman, this volume). We return to deponency in section 5.

### 4.3. Types of deviation

We now present the different types of deviation together for comparison:

(14) Both types of deviation (levels one and two comparison)

	canonical situation		types of deviation	
	cells (level one)	lexemes (level two)	cells (level one)	lexemes (level two)
composition/structure (of the inflected <i>word</i> )	same	same	fused ex- ponence periphrasis	defectiveness overdifferentiation anti-periphrasis
lexical material (≈shape of <i>stem</i> )	same	different	alternations suppletion	homonymy
inflectional material (≈shape of <i>affix</i> )	different	same	<b>syncretism</b> uninflectability	inflectional classes heteroclis <b>deponency</b>

While all the deviations are non-canonical, we can apply the notion of canonicity to these phenomena too. This will prove helpful particularly when we consider more unusual phenomena. One approach to the degree of canonicity is to consider what part of the paradigm in question is involved. We might consider a single cell (or a set not representing a morphosyntactic pattern), a set of cells forming a natural class (a ‘slab’), or all the cells.

For all the phenomena defined in terms of composition or structure, it is sufficient for a single cell to be involved. Indeed we might argue that such instances are the canonical ones. The general requirement (within and across lexemes) is identity. Therefore a single cell behaving in a way out of line with all others is a clear deviation. This is particularly evident with defectiveness: a single missing cell (as in (10)) is striking. A lexeme lacking, say, all the singular can still be defective, but less canonically so. A lexeme lacking all cells would be of rather uncertain status. The general point here is that all of these deviations represent a formal distinction with no apparent functional motivation. If a slab of cells is involved, then the formal distinction may be seen as realizing the function associated with those forms (e.g. plural number) and so the mismatch is less clear and the deviation less canonical.

For deviations involving lexical material or inflectional material the picture is different according to whether we consider the phenomena found by comparing across cells or across lexemes. For alternations and suppletion, the canonical situation is for individual cells (or morphological patterns of cells) to be involved. Once we have a slab involved, then that may introduce some

functional validity to the phenomena. And if all cells are involved, then the phenomenon disappears. For syncretism again the canonical situation is for one cell to be involved (syncretic on another). As more cells are involved, the contrast with the rest of the paradigm is reduced. Uninflectability can be seen as the special case of all cells being syncretic with each other.

Turning now to those phenomena established by comparison across lexemes. For homonymy, which goes against the expectation of lexical material being different, the canonical situation is for all cells to be involved. The fewer cells involved, the more like normal lexemes we have. For inflectional classes, the more cells involved the more clearly we have distinct classes. Each additional cell gives more evidence that the 'same' requirement is not met. The same is true of heteroclisis in the sense that the more cells from each contributing class, the clearer it is that we have heteroclisis and not simply a lexeme with some odd forms. And finally for deponency, the more cells that are involved (up to and including all) the clearer the failure to meet the identity requirement and the more canonical the instance of deponency.

## 5. Extremes Which Have No Name: Syncretism or Deponency?

It is now time to analyse some interesting data on lexemes exhibiting behaviour for which there is currently no name, but clearly falling in the area of syncretism and deponency. We shall approach the data by first examining the characteristics of syncretism and deponency. Both phenomena are of course non-canonical. However, since that is true of both, we may look for canonical instances of syncretism and of deponency. The notion of canonical deponency is discussed also by Stump (this volume).

### 5.1. Canonical syncretism and canonical deponency

At an abstract level, both phenomena involve relations between cells in a paradigm. In the case of syncretism, there are some instances where we can see that one cell 'takes over' the form of another (those where there is a good reason for appealing to a rule of referral; see Evans, Brown, and Corbett (2001: 215), and Baerman, Brown, and Corbett (2005: 175–7)). In our example above (7), nominative and accusative plural are syncretic. Closer inspection of the nominal system reveals an asymmetrical relationship here, in that there are nouns which are otherwise similar, which would have the same nominative plural, but for which the accusative plural would be syncretic with the genitive (these are animate nouns). In instances like these the source cell retains its original function. That is, the nominative plural form is taken over

by the accusative plural, but it is available for the nominative plural too. Contrast that with instances of deponency, as in (13). Here the passive is taken over to be used as the active, but it is not also available as the passive. This is our first criterion for contrast:

(15) Comparison of syncretism and deponency [criterion 1]<sup>8</sup>

	Syncretism	Deponency
[1]	Syncretic form retains ‘original’ function.	Deponent form does not retain ‘original’ function.

Recall the distinction between real and virtual forms. How will this affect the two phenomena? Consider first syncretism. This normally affects real forms. Thus in the *komnata* ‘room’ example (7), *komnaty* is the real nominative plural but since, as just discussed, using it as the accusative also does not prevent it being used as nominative plural, this means that the paradigm remains complete.

There is a possible instance of syncretism involving a virtual form, from the Daghestanian language Tsez. Consider the forms of the ergative singular, in these partial paradigms:

(16) The ergative in Tsez (Bernard Comrie, personal communication)

	‘fish’	‘apricot’	‘water’
ABSOLUTIVE	besuro	kukum	li
GENITIVE 1	besuro-s	kukum-yo-s	l-ā-s
INESSIVE	<b>besur-ā</b>	<b>kukum-y-ā</b>	none, alternative local case used
ERGATIVE	<b>besur-ā</b>	kukum-yo / <b>kukum-y-ā</b>	<b>l-ā</b> / liy-ā

- Notes: (i) l is a voiceless lateral fricative.  
(ii) a vowel is dropped before a following vowel.

*Besuro* ‘fish’ is a regular noun. In regular nouns, the inessive and ergative are identical. There is some evidence that the ergative refers to the inessive. In the simple instances, the inessive is in -ā, as is the ergative. However, some nouns have the ergative in -o, as with *kukum* ‘apricot’. These are a large and increasing minority; there is no obvious semantic motivation for the particular nouns involved (some are phonologically determined). The inessive is not affected. However, many of them have as an alternative the expected ergative in -ā, as with our example *kukum* ‘apricot’. Thus it appears that the ergative refers to the inessive, rather than the reverse, because the doublets do not appear in the inessive.

<sup>8</sup> For those who think in terms of processes, syncretism may be thought of as ‘copy and paste’ while deponency is ‘cut and paste’.

Many nouns (including those denoting humans) have no inessive; thus *li* ‘water’ does not, perhaps for semantic reasons. It does have an ergative, and this can be equivalent to what would be the inessive. The situation is muddled somewhat by the existence of an alternative ergative, a dialectal or perhaps idiolectal variant. Such forms appear to exist in order to avoid deforming very short stems. Thus nouns like *li* ‘water’ have an ergative syncretic with the inessive (as other nouns) but with an inessive form which is virtual. This takes us to the edge of what could be called ‘syncretism’. Note that referring to a virtual form does not reduce the paradigm: this retains all the forms it otherwise had.

As a consequence of the first point (retaining or not retaining the original function), the difference between real and virtual has a greater effect on items showing deponency than on those showing syncretism. Suppose we have a Latin verb which is transitive; its passive is therefore real. Suppose too that the verb is deponent. The passive is taken over as the active, and as a result the verb is defective (the passive forms were needed for the passive). If on the other hand we have an intransitive verb, the passive forms are virtual (the verb does not need a passive). If the verb is deponent, the passive forms are used for the active and the verb’s paradigm is complete.

(17) Comparison of syncretism and deponency [criterion 2]

	Syncretism	Deponency
[2]	If (as usually is the case) the form is from the ‘real’ paradigm, then the paradigm remains complete.	If the form is from the real paradigm, then the paradigm will be defective.
[2.1]	If (as exceptionally in the Tsez ergative) the form is from the ‘virtual’ paradigm, then the paradigm is not thereby reduced.	If the form is from virtual paradigm, then the paradigm will be complete.

Next we should consider the extent of the two phenomena within a paradigm. In canonical syncretism, two single cells are involved, one as source and the other as goal. Thus in (7) the accusative plural is syncretic with the nominative plural. To specify such a syncretism needs reference to more than one feature (in this instance, case and number). However, we also find instances where syncretism extends further, as in Slovene nouns:

(18) Syncretism in Slovene *grad* ‘castle’

	SINGULAR	DUAL	PLURAL
NOM	grad	gradova	gradovi
ACC	grad	gradova	gradove
GEN	grada/gradu	<b>gradov</b>	<b>gradov</b>
DAT	gradu	gradovoma	gradovom
INST	gradom	gradovoma	gradovi
LOC	gradu	<b>gradovih</b>	<b>gradovih</b>

The forms in bold show that the genitive dual and genitive plural are syncretic; the locative dual and locative plural are similarly syncretic (and these syncretisms are both general for nouns). We could of course treat each as separate. But this appears to be missing a generalization. They fit together as part of a more general pattern (particularly given that the remaining four dual forms are realized by only two distinct forms, since there are two more syncretisms within the dual). Within Network Morphology the dual-plural syncretism of Slovene is treated as a ‘generalized referral’ (Evans, Brown, and Corbett 2001: 216, and Baerman, Brown, and Corbett 2005: 186–204). The analysis would be that the dual (as a whole) is syncretic with the plural; this is overridden by the nominative dual (and the accusative is syncretic with that) and by the dative (and the instrumental is syncretic with that).

The main point is that we have an instance of syncretism which applies to more than one cell as source and goal. This would be the canonical situation with deponency, and thus syncretism and deponency contrast at this point, as discussed in section 4.3 above. However, the source and goal for deponency can be reduced. This is the situation we find with semi-deponents, where for instance a verb is deponent in one aspect. This requires a more specific feature specification and so a reduced number of cells is involved:

(19) Comparison of syncretism and deponency [criterion 3]

Syncretism	Deponency
[3] Refers to single cell as source and as goal (so refers to more than one feature).	Takes ‘slab’ as source and goal (refers to a single feature).
[3.1] May refer to more than one cell, as in Slovene GEN and LOC DUAL syncretic with GEN and LOC PL.	If there is reference to more than one feature this can give rise to a semi-deponent.

Thus the canonical instance of syncretism involves fewer cells, while canonical deponency involved all cells of a lexeme.

Let us now move on to compare the domain of the two phenomena, that is the lexemes to which they apply. Syncretism may apply to larger or smaller numbers of lexemes; put another way, it may be stated at different points on the inheritance hierarchy (Baerman, Brown, and Corbett 2005: 206–17). The higher it is (the more lexemes are involved) the more canonical. This fits also with Matthews’s (1997: 367) definition of syncretism: ‘The relation between words which have different \*morphosyntactic features but are identical in form. . . . Used especially when the identity is regular across all paradigms.’ For deponency, by contrast, the canonical situation is for the lexemes involved to have to be listed. Thus we have the following contrast:

(20) Comparison of syncretism and deponency [criterion 4]

Syncretism	Deponency
[4] Generalizes across lexemes (so, given [3] and [4]: few cells, many items).	Generalizes across cells (so, given [3] and [4]: few items, many cells).

For convenience we bring together the points of comparison here:

(21) Comparison of syncretism and deponency (overview)

Syncretism	Deponency
[1] Syncretic form retains ‘original’ function.	Deponent form does not retain ‘original’ function.
[2] If (as usually is the case) the form is from the ‘real’ paradigm, then the paradigm remains complete.	If the form is from the real paradigm, then the paradigm will be defective.
[2.1] If (as exceptionally in the Tsez ergative) the form is from the ‘virtual’ paradigm, then the paradigm is not thereby reduced.	If the form is from virtual paradigm, then the paradigm will be complete.
[3] Refers to single cell as source and as goal (so refers to more than one feature).	Takes ‘slab’ as source and goal (refers to a single feature).
[3.1] May refer to more than one cell, as in Slovene GEN and LOC DUAL syncretic with GEN and LOC PL.	If there is reference to more than one feature this can give rise to a semi-deponent.
[4] Generalizes across lexemes (so, given [3] and [4]: few cells, many items).	Generalizes across cells (so, given [3] and [4]: few items, many cells).

Why do these properties cluster in this way? Recall that syncretism and deponency share the fact that there is a reuse of forms within a paradigm (including the possibility of using virtual forms). They differ in that syncretism involves cells being the ‘same’ against a background of ‘different’. For syncretism, having two forms the same, against a system of otherwise full differentiation, is the clearest, canonical case. For deponency, we are dealing with forms with the ‘wrong’ function, which is seen against the background of other lexemes. Here the more cells involved, the clearer and more canonical the case.

Thus canonical syncretism and deponency are as far apart as possible, with syncretism being identifiable within lexeme, and deponency only by comparison with other lexemes.

**5.2. Between syncretism and deponency: Tsez *xexbi* ‘child(ren)’**

An interesting example is from the Nakh-Daghestanian language Tsez (Bernard Comrie, personal communication). It is *xexbi* ‘child(ren)’; this noun

is plural in form (the *-bi* is a regular plural marker) and it has a full plural paradigm of case forms (thus the genitive is *xex-za-s*). It may denote one or more children, and takes the appropriate agreements, singular for one and plural for more than one. The noun *ɣʷanabi* ‘woman/women’ behaves similarly.

Consider first a regular noun in Tsez:

- (22) Regular Tsez noun *besuro* ‘fish’ (Bernard Comrie, personal communication)

	SINGULAR	PLURAL
ABSOLUTIVE	besuro	besuro-bi
GENITIVE I	besuro-s	besuro-za-s
INESSIVE/ERGATIVE	besur-ā	besuro-z-ā
•	•	•
•	•	•
•	•	•

Note: a vowel is dropped before a following vowel.

It is against that background that we should consider *xexbi* ‘child(ren)’:

- (23) Paradigm of Tsez *xexbi* ‘child(ren)’

	SINGULAR	PLURAL
ABSOLUTIVE	xex-bi	xex-bi
GENITIVE I	xex-za-s	xex-za-s
INESSIVE/ERGATIVE	xex-z-ā	xex-z-ā
•	•	•
•	•	•
•	•	•

According to this paradigm, *xexbi* ‘child(ren)’ is both singular and plural. Before discussing the significance of these forms, we need to demonstrate that this surprising situation is indeed right. For this we need agreement evidence, and agreement involves four genders as well as two numbers. Assignment to these genders is by a combination of semantic and formal criteria. The main semantic rules are: male humans are assigned to gender I; female humans (also some inanimates) to gender II; animals (and some inanimates) to gender III; and the residue is in gender IV (Polinsky and Comrie 1999: 110). The agreement forms for Tsez verbs are as follows:

- (24) Gender and number agreement forms in Tsez

	SINGULAR	PLURAL
I	∅-	b-
II	y-	r-
III	b-	
IV	r-	

The syncretisms in this system are somewhat unhelpful for our purposes. There is in addition the demonstrative, which distinguishes singular and

plural, and Comrie takes advantage of this to provide clear diagnostic frames. Examples (25)–(27) show the forms for singular nouns (gender III and gender I) and for the plural of gender I.

Tsez (Comrie 2001: 381–3)

- (25) howdu                      k'et'u                      b-ik'i-s.  
 this.II/III/IV.SG.ABS      cat(III)[SG.ABS]      III-go-PST.WIT  
 'This cat went.'
- (26) howda                      uži                      Ø-ik'i-s.  
 this.I.SG.ABS              boy(I)[SG.ABS]      I-go-PST.WIT  
 'This boy went.'
- (27) howziri                      uži-bi                      b-ik'i-s.  
 this.PL.ABS              boy(I)-PL.ABS      I.PL-go-PST.WIT  
 'These boys went.'

While the verb agreements are the same in (25) and (27), the different forms of the demonstrative distinguish the two situations. Given these diagnostic environments we can now turn to *xexbi* 'child(ren)'.

The first example is exactly as we might expect:

- (28) howziri                      xex-bi                      b-ik'i-s.  
 this.PL.ABS              child-PL.ABS      I.PL-go-PST.WIT  
 'These children went.'

Here more than one child is referred to and the agreements are plural. Now consider what happens for one child. There are two possibilities here. Traditional usage is as follows:

- (29) traditional usage (gender III in the singular)  
 howdu                      xex-bi                      b-ik'i-s.  
 this.II/III/IV.SG.ABS      child-PL.ABS      III-go-PST.WIT  
 'This child went.'

Here the combination of agreements makes it clear that we have gender III singular agreement. The noun itself is unchanged. Younger usage has gender I:

- (30) younger speaker's version (gender I in the singular)  
 howda                      xex-bi                      Ø-ik'i-s.  
 this.I.SG.ABS              child-PL.ABS      I-go-PST.WIT  
 'This child went.'

Here again one child is referred to, and the agreements are singular. The agreements are singular or plural as appropriate, but the forms of the noun stay the same, irrespective of number. Tsez has a substantial paradigm of cases (Comrie and Polinsky 1998), and *xexbi* 'child(ren)' has just one number form for each of them.

Having elucidated the behaviour of *xexbi* ‘child(ren)’, we can now ask how it measures up to the criteria we established earlier.

(31) Tsez *xexbi* ‘child(ren)’ evaluated for syncretism and deponency

	Syncretism	Deponency	Tsez <i>xexbi</i> ‘child(ren)’
1.	Syncretic form retains ‘original’ function.	Deponent form does not retain ‘original’ function.	Retains original function ( <i>syncretic</i> ).
2.	If (as usually is the case) the form is from the ‘real’ paradigm, then the paradigm remains complete.	If the form is from the real paradigm, then the paradigm will be defective.	From real paradigm, remaining complete ( <i>syncretic</i> ).
3.	Refers to single cell as source and as goal (so refers to more than one feature).	Takes ‘slab’ as source and goal (refers to a single feature).	Takes slab ( <i>deponent</i> ).
4.	Generalizes across exemes (so, given [3] and [4]: few cells, many items).	Generalizes across cells (so, given [3] and [4]: few items, many cells).	Few items (two in fact), many cells ( <i>deponent</i> ).

Note: the special factors 2.1 and 3.1 of (21) above do not apply and so are omitted

In terms of our first criterion, *xexbi* ‘child(ren)’ retains its original function. *Xexbi*, and all the other forms, can certainly be used as plurals. Thus, though these forms, when used as singulars, are taken from the real paradigm, the paradigm remains complete. All the cells are filled. In terms of these first two criteria, it seems rather that we are dealing with syncretism. However, when we look at the cells involved, we see that a whole slab (the entire plural) is involved. Moreover, in terms of domain, only two nouns behave this way. These two factors therefore point in the other direction, suggesting that we are dealing with deponency. One may choose to give more weight to one or other factor. It is clear, however, that *xexbi* ‘child(ren)’ represents neither canonical syncretism nor canonical deponency. It falls between these two, and is rather far from either canonical type. It is a very unusual lexeme.

## 6. Interactions Involving Deponency

It is possible for deponency to interact with other non-canonical phenomena, giving rise to lexemes which are even less canonical.

**6.1. Deponency interacting with suppletion and overdifferentiation**

Our first example (32) shows a complex interaction:

(32) 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). Viewed against the rest of the inflectional system they look odd. First there is a problem with the stem (*dec-* instead of *detet-*). Even leaving aside the augment, *t ~ c* 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 plurals; the plural inflections look rather different from these.<sup>9</sup> A comparison with the singular forms of *žena* ‘woman, wife’, a regular noun of a different inflectional class from *dete*, shows what is going on. We have a set of inflections which have an established function (marking singular) in the morphological system here 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 (there is a unique form for the accusative). *Deca* ‘children’ has six forms and so is overdifferentiated. Thus we find deponency interacting both with partial suppletion and with overdifferentiation.<sup>10</sup> More generally, if interactions involving three of the phenomena investigated are possible, the space of possible words is potentially very large.

**6.2. Examples from Archi**

There are other examples from Archi which, like Tsez, is a Daghestanian language. For these we should start with the typical paradigm structure of a noun. The main distinctions are between singular and plural and, crosscutting

<sup>9</sup> Agreements are complex and interesting; see Corbett (1983: 76–86) and Wechsler and Zlatić (2000: 816–21).

<sup>10</sup> Such items are characterized as showing ‘higher order exceptionality’ in Corbett (forthcoming b).

that distinction, between absolutive and ergative. The ergative stems also function as the oblique stems (in the singular and in the plural), on which the remaining eight grammatical cases are built. In addition there are twenty-eight spatial cases (Kibrik 1998: 468–73). The basic schema is as follows:

(33) Schema for Archi noun paradigms (simplest instances)

	SINGULAR	PLURAL
ABSOLUTIVE	bare stem	stem + plural marker
ERGATIVE	stem + oblique singular marker	stem + plural marker + oblique plural marker
DATIVE	stem + oblique singular marker + dative inflection	stem + plural marker + oblique plural marker + dative inflection
•	•	•
•	•	•
•	•	•

Here is an example:

(34) Partial paradigm of the Archi noun *a<sup>s</sup>nš* ‘apple’ (Kibrik 1998: 471)

	SINGULAR	PLURAL
ABSOLUTIVE	a <sup>s</sup> nš	a <sup>s</sup> nš-um
ERGATIVE	a <sup>s</sup> nš-li	a <sup>s</sup> nš-um-čaj
DATIVE	a <sup>s</sup> nš-li-s	a <sup>s</sup> nš-um-če-s
•	•	•
•	•	•
•	•	•

There are various alternations, as here with *-čaj* and *-če*. There are different irregular possibilities, detailed in Kibrik and Kodzasov (1990: 283–4), but the regular markers are as follows:

(35) Regular markers for Archi nouns (Kibrik 1998: 468)

	SINGULAR	PLURAL
ABSOLUTIVE	bare stem	-mul (after consonant) -tu (after vowel)
ERGATIVE	-li	-(č)aj

The case markers added further are regular.

Given this essential information, we can now consider three interesting Archi nouns (Marina Chumakina, personal communication). The first two show limited deponency, in that a form with a function clearly established from the main noun lexicon has the ‘wrong’ function in two items:

- (36) Archi *c'aj* 'female goat' (Marina Chumakina, personal communication)

	SINGULAR	PLURAL
ABSOLUTIVE	c'aj	c'ohor
ERGATIVE	c'ej-t̄aj	c'ohor-čaj

In this item the marker *-t̄aj*, an allomorph of *-čaj*, which is the regular ergative plural marker, is used for the ergative singular.

The following item is similar:

- (37) Archi *ha<sup>s</sup>təra* 'river' (Marina Chumakina, personal communication)

	SINGULAR	PLURAL
ABSOLUTIVE	ha <sup>s</sup> təra	ha <sup>s</sup> tər-mul
ERGATIVE	ha <sup>s</sup> tər-čaj	ha <sup>s</sup> tər-mul-čaj

Here the marker *-čaj*, the regular ergative plural marker, is used for the ergative singular.

Examples (36) and (37) represent interesting if minor instances of deponency. The main reason for considering Archi is, however, this item:

- (38) Archi *χ<sup>s</sup>on* 'cow' (Marina Chumakina, personal communication)

	SINGULAR	PLURAL
ABSOLUTIVE	χ <sup>s</sup> on	būc'i
ERGATIVE	χ <sup>s</sup> ini	būc'i-li

This item is suppletive. On top of that it is deponent in that the form *būc'i-li* is clearly marked with the regular singular ergative marker *-li*, yet it is ergative plural. Thus besides the minor instances of deponency, Archi also provides an example of an interaction of deponency and suppletion.

## 7. Conclusion

We have brought the phenomena of inflection, especially deponency, into a coherent scheme. We adopted a canonical approach, which has previously been applied more widely in syntax. Our approach reveals that there are types of lexeme (like Tsez *xexbi* 'child(ren)') whose interest and importance had not previously been fully recognized. We also noted instances like Serbian *deca* 'children', which are more than merely exceptional; they involve an interaction of deponency with other phenomena, and so represent a higher order of exceptionality. Such extremes of inflection are of interest not only to morphologists and typologists but also to psycholinguists.

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