

**Case syncretism in and out of Indo-European**  
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## 1 Introduction

The familiar paradigm of Latin first declension nouns in (1) illustrates case syncretism: although at least five cases are recognised, neither the singular nor the plural has five distinct forms: in the singular the genitive and dative are identical, and in the plural the dative and ablative are identical.

(1) Latin first declension<sup>2</sup>

	‘farmer’	‘farmers’
NOM	agricola	agricolae
ACC	agricolam	agricolās
GEN	agricolae	agricolārum
DAT		agricolīs
ABL	agricolā	

Viewed synchronically, case syncretism can be taken as either a purely morphological fact, or as an indication that there is some underlying morphosyntactic or semantic affinity between the syncretised cases. The latter assumption has indeed been attractive to many researchers, who have formalised it in terms of feature underspecification, either in the context of unordered feature bundles (e.g. Jakobson 1936, Bierwisch 1967, Neidle 1988, Calabrese 1998, Wiese 1996 and Kiparsky 2001) or hierarchical tree structures (e.g. Williams 1981, Johnston 1997); cf. Johnston (1997) for an overview of both approaches.

In the present paper it is our purpose to consider the extent to which different instances of case syncretism fit with the morphological or the morphosyntactic/semantic approach. Hindering an objective assessment are two features which the aforementioned works have in common: (i) they treat solely Indo-European languages (with the exception of Kiparsky 2001); (ii) there is almost no consensus as to the inventory of semantic or morphosyntactic features which are supposed to be responsible for case syncretism, even when treating the same language; e.g. for German Bierwisch (1967) has the two features  $\pm$ Oblique and  $\pm$ Objective, while Wiese (1996) has the four features  $\pm$ Oblique,  $\pm$ Objective,  $\pm$ Standard and  $\pm$ Special. Though one could argue that resolution of the second point would merely require some terminological and conceptual coordination, we believe that the problem lies rather with the first point. The patterns of case syncretism found in Indo-European languages are notoriously complex and typologically unusual. But neither case inflection nor case syncretism is restricted to IE: in a cross-linguistic study (Baerman and Brown, in progress), with no particular IE bias, we find that roughly half the languages in a controlled sample which mark case inflectionally evince case syncretism.<sup>3</sup>

(2) Statistics from the controlled sample (Baerman and Brown, in progress)

Case inflection	Case syncretism
Case marked inflectionally.....87	Syncretism present..... 41
Case not marked inflectionally..... 113	No syncretism present..... 46
Total..... 200	Total.....87

If case syncretism can indeed be ascribed to some non-morphological factors, be they semantic or morphosyntactic, we should expect to find some evidence of that outside of one single language family. To that end we have constructed a typology of case syncretism, consisting of five types. Significantly, all are represented in IE, but not all are equally well represented outside of it.<sup>4</sup>

## 2 Typology

### 2.1 Type 1: syncretism of the core grammatical cases

Syncretism of the cases representing the core grammatical functions of subject and object or agent and patient is the most common type, found in more than two-thirds of the languages in the sample (29/41). It is manifested either as nominative=accusative or ergative=absolutive; both variants may be seen in so-called split ergative systems, where case marking is correlated with animacy and markedness (Silverstein 1976): a distinct accusative is reserved for high animacy arguments and a distinct ergative for low animacy arguments, where animacy is gauged along such parameters as person (first/second > third), number (non-singular > singular) and personhood (humans > other animates > inanimates). This is illustrated in (3) by Wagaya (Pama-Nyungan; Breen 1976: 591), where first and second person pronouns are the highest in the hierarchy, third person pronouns in the middle, and other nominals at the bottom.

(3) Ergative, accusative = nominative (absolutive) in Wagaya

distinct accusative ----->  
 <----- distinct ergative

	'you.PL'	cf. 'he'	'that.MASC'
ACC	iriny	yuwiny	bulu
NOM(ABS)	ir	yuwu	
ERG		yuwə!	bulə!

Type 1 syncretism is equally well represented both within and outside of IE. In (4) examples of accusative=nominative syncretism are illustrated by Latin second declension neuter nouns and by plural pronouns in Yurok (Algic; Robins 1958), and in (5) examples of ergative=absolutive syncretism are illustrated by personal pronouns in Dumāki (Indo-Aryan; Lorimer 1939) and in Tsakhur (Northeast Caucasian; Kibrik 1999).

- (4) Accusative = nominative

Indo-European			Non Indo-European		
Latin: neuter II declension			Yurok: plural pronouns		
	'war'	<i>cf. masc. 'servant'</i>		'we'	<i>cf. 'I'</i>
NOM	bellum	<i>servus</i>	NOM	nekah	<i>nek</i>
ACC		<i>servum</i>	ACC		<i>nekac</i>
GEN	bellī	<i>servī</i>	COM	neka:noł	<i>nekaʔał</i>
DAT	bellō	<i>servō</i>	LOC	(ʔ)neya:ʔik	<i>(ʔ)neya:ʔik</i>
ABL					

- (5) Ergative = absolutive

Indo-European			Non Indo-European		
Dumāki: pronouns (except 'I') <sup>5</sup>			Tsakhur: pronouns		
	'you.SG'	<i>cf. 'man'</i>		'I'	<i>cf. 'brother'</i>
NOM(ABS)	tu	<i>māniš</i>	ABS	zɨ	<i>čož</i>
ERG		<i>mānišan</i>	ERG		<i>čože</i>
GEN	tɛ	<i>mānišei</i>	DAT	zas	<i>čožus</i>
ACC	tus	<i>māniš(ek)</i>			
DAT	tʊšu	<i>mānišāšo</i>			

Although most examples of type 1 syncretism appear to be connected with the animacy hierarchy, it is often only a rough correlation; e.g. in Latin it is true that in the singular only neuters display nominative=accusative syncretism, but those nouns we call "neuter" represent inflectional classes whose connection with animacy is more diachronic than semantic.

## 2.2 Type 2: syncretism of the marked core case with a non-core case

This is reasonably common both in IE and elsewhere, found in two-fifths (17/41) of the languages in the sample. In contrast to type 1, the core cases are kept distinct, but the form of the marked core case (accusative or ergative) coincides with that of some non-core case. Type 2 syncretism with the accusative is illustrated in (6). In Russian the accusative case takes the form of the genitive for animate nouns (with some morphological restrictions), while in Bao'an (Mongolian; Todaeva 1964) the accusative takes the form of the genitive in nouns and of the dative-locative (a single case in Bao'an) in pronouns.

## (6) Accusative = some non-core case

Indo-European

Russian: accusative = genitive

	'brother'	<i>cf. 'table'</i>
NOM	brat	<i>stol</i>
ACC	brata	
GEN		<i>stola</i>
DAT	bratu	<i>stolu</i>
LOC	brate	<i>stole</i>
INSTR	bratom	<i>stolom</i>

Non Indo-European

Bao'an: accusative = genitive or dative-locative

	'bird'	'you.SG'
NOM	bendžer	če
GEN	bendžerne	čene
ACC		čo:de
DAT-LOC	bendžerde	
ABL	bendžerse	čo:se
INSTR	bendžerGale	čeGale

Syncretism involving the ergative is shown in (7). In the Koryak example (Chukoto-Kamchatkan; Žukova 1972) the ergative of declension II nouns ("specific humans") is identical to the locative, while in the Dumāki example (Lorimer 1939) the genitive is used to form an ergative case for the first person singular pronoun.

## (7) Ergative = some non-core case

Indo-European

Dumāki: 'I'

	'I'	<i>cf. 'you.SG'</i>
NOM(ABS)	u	<i>tu</i>
ERG	me	
GEN		<i>te</i>
ACC	mas	<i>tus</i>
DAT	mašu	<i>tušu</i>

Non Indo-European

Koryak: declension II nouns

	declension II 'papa'	<i>cf. declension I 'father'</i>
ABS	appa	<i>en'pič</i>
LOC	appa-na-k	<i>en'piči-k</i>
ERG		<i>en'piči-te</i>
ABL	appa-na-ηqo	<i>an'peče-ηqo</i>
TRANS	appa-na-jpəŋ	<i>an'peče-jpəŋ</i>
DAT	appa-na-η	<i>an'peče-η</i>
ADIT	appa-na-jtəŋ	<i>an'peče-jtəŋ</i>
DES	appa-na-no	<i>en'piči-nu</i>
NARR	appa-na-kjet	<i>en'piči-kjit</i>
CONT	appa-jeta	<i>en'piči-jite</i>

Most of the examples at our disposal conform to the definition of "takeover" in Carstairs (1987: 117): "the realisation of two or more morphosyntactic properties (A and B) in some context by an inflexion which elsewhere realises only one of these properties. In such circumstances we can say that B takes over A". The implication here is that the marked core case has no form of its own in some paradigms, and that it assumes the form which properly belongs to a non-core case in order to maintain the distinction between the core cases. However, there are a few instances of type 2 syncretism where the takeover would appear to happen in the opposite direction. For example, in the isolate language Burushaski (Berger 1998), when we compare the masculine noun 'man' and the feminine noun 'woman', it looks as if the ergative=genitive syncretism of the former is a result of the genitive having assumed the form of the ergative.

(8) Ergative ≠ genitive in feminine nouns in Burushaski

	‘man’	‘woman’
ABS	hir	gus
ERG	hire	guse
GEN		gusmo
DAT	hirar	gusmur
ALL	hirale	gusmule

However, it may be that this pattern ultimately lends itself to the same interpretation as the others, at least diachronically. Ergative=genitive syncretism in Burushaski embraces all noun classes except for a small group denoting human females, which makes it look as if the polyfunctional ergative-genitive is primary<sup>6</sup> and the distinct genitive form secondary. Historically it may have been that the genitive case form was used for the ergative function, and that feminine nouns later developed a new, uniquely genitive form.

We have treated type 2 syncretism thus far as a purely morphological operation, with the marked core case assuming the form of a non-core case. The question remains though as to why a particular non-core case is chosen. Is there some semantic or syntactic motivation? The answer seems to be yes, although such motivation probably accounts more for the origins of such patterns than their maintenance. With the accusative, the non-core case is typically one which can serve for objects in some lexical or syntactic contexts in the language (e.g. the genitive in Russian is used for direct objects under negation and historically was used with verbs of perception). The non-core case used for the ergative is typically the genitive or instrumental, reflecting perhaps the possessive or passive origin of ergative constructions in these languages (Marianne Mithun, p.c.).

### 2.3 Type 3: oblique case syncretism

This is not an especially common phenomenon, occurring in one-eighth of the languages in the sample (5/41),<sup>7</sup> though to the extent it does occur there is no particular IE bias. It entails the reduction of the paradigm to an opposition between the unmarked core case and another form, to which we apply the conventional label oblique. Alongside this, the *marked* core case will display either type 1 or type 2 syncretism. Both patterns are illustrated by weak adjectives in German, where the choice of paradigm evincing type 1 or type 2 syncretism is determined by gender.

(9) Oblique case syncretism in German weak adjectives

	accusative = nominative (type 1 syncretism)			accusative ≠ nominative (type 2 syncretism)		
	‘a bad child’			‘a bad man’		
NOM	<i>ein</i>	böses	<i>Kind</i>	<i>ein</i>	böser	<i>Mann</i>
ACC				<i>einen</i>	bösen	
GEN	<i>eines</i>	bösen	<i>Kindes</i>	<i>eines</i>		<i>Mannes</i>
DAT	<i>einem</i>		<i>Kind(e)</i>	<i>einem</i>		<i>Mann(e)</i>

From outside of IE all the examples entail the opposition of ergative to oblique, as in one of the two alternative plural paradigms in Georgian (inherited from Old Georgian, but little used; Hewitt 1995).

## (10) Oblique case syncretism in Georgian

	'man'	
	PL <sup>8</sup>	<i>cf. SG</i>
NOM(ABS)	k'ac-n-i	<i>k'ac-i</i>
GEN	k'ac-t	<i>k'ac-is</i>
DAT		<i>k'ac-s</i>
ERG		<i>k'ac-ma</i>
VOC	k'ac-n-o	<i>k'ac-o</i>

Although this is not a common pattern for case syncretism, the use of a single oblique form is a common parameter for stem alternations, both within IE and outside, and so is a notion of undoubted use in morphological descriptions. Indeed, most of the examples at our disposal appear to entail paradigms where the case endings have been stripped away, leaving only a stem alternation. It would not be unreasonable to suppose that the morphological opposition of nominative/absolute vs. oblique corresponds to a morphosyntactic opposition of unmarked to marked; however, a satisfying *syntactic* account of the nature of oblique remains elusive (Nichols 1983).

**2.4 Type 4: syncretism among non-core cases**

As opposed to type 3, type 4 entails syncretism of some, but not all, non-core cases. It is characteristic of all IE languages with multiple non-core cases, where it may attain considerable complexity, e.g. as in Czech, where six distinct patterns are displayed (in (11) only non-core cases are shown).

## (11) Syncretism among non-core cases in Czech

	'new.PL'	'woman'	'bone'	'two'	'castle'
GEN	nových	ženy	kosti	dvou	hradu
LOC		ženě			hradě
DAT	novým	ženou	kostí	dvěma	= GEN
INSTR	novými				hradem

Similar patterns provided much of the material for Jakobson's (1936) discussion of the *Gesamtbedeutung* of Russian cases, and continue to generate interest (e.g. Calabrese 1998), because there is typically no obvious semantic or morphosyntactic connection between the syncretised cases; indeed, most observers would concur that they are the result of accidental phonological developments. Thus any analysis which attempts to portray such syncretism as something other than an arbitrary morphological quirk must break case down into abstract features, e.g. directionality, scope, peripherality and shaping for Russian in Jakobson (1936), or subject, direct, possessor, location, source and association for Latin in Calabrese (1998).

It is precisely these sorts of syncretic patterns which are rare outside of IE. Most examples occur where there is indeed a relatively transparent relationship between the syncretised cases, typically entailing the expression of "goal" and "location". For example, in Erzja Mordvin (Volga Finnic; Feoktistov 1966) the illative is expressed by the dative in singular definite nouns (and optionally in plural definites).

## (12) Dative=illative syncretism in Erzja Mordvin

'house'	definite sg	definite pl	cf. indefinite sg
NOM	kudos'	kudotne	<i>kudo</i>
GEN	kudont'	kudotnen'	<i>kudon'</i>
DAT	kudonten'	kudotnemen'	<i>kudonen'</i>
ILL		(kudotnes)	<i>kudos</i>
ABL	kudodont'	kudotnede	<i>kudodo</i>
INESS	kudosont'	kudotnesë	<i>kudoso</i>
EL	kudostont'	kudotnestë	<i>kudosto</i>
PROL	kudovant'	kudotneva	<i>kudova</i>
COMP	kudoškant'	kudotneška	<i>kudoška</i>
ABESS	kudovtomont'	kudotnevteme	<i>kudovtomo</i>

Similarly, in Diyari (Austin 1981: 47-61) the allative has no distinct form of its own, being identical to the dative for singular nouns and male personal names, and to the locative elsewhere. In Djapu (Morphy 1983) human nouns as well as personal pronouns lack the distinct locative and allative forms found elsewhere, using instead the oblique stem -- which is also used for the instrumental. Although it remains an open question why, in a given language, this syncretism should affect one class of nominals and not another, the affiliation of allative/illative, locative and dative are familiar enough. For example, the prepositions *in* in Latin or *в* in Russian mark location or the goal of motion, depending on case government, while in Turkish the dative is used for goal of motion as well as for indirect objects (cf. Blake 1994: 145).

Other examples are scattered, and show no obvious common features, either with each other or with IE. For example, attributive adjectives in Georgian display a truncated system of case marking, lacking the elements *-s* 'GEN', *-t* 'INSTR', *-s* 'DAT' and *-ad* 'ADV', found in nouns (Aronson 1991: 236).<sup>9</sup>

## (13) Syncretism among non-core cases in attributive adjectives in Georgian

	'old book'	
NOM(ABS)	dzveli	c'igni
GEN		c'igni-s
INSTR		c'igni-t
DAT	dzvel	c'ign-s
ADV		c'ign-ad
ERG	dzvelma	c'ignma
VOC	dzvelo	c'igno

Other instances are probably results of coincidence, e.g. the Kil'dinskij dialect of Saami (Kert 1971: 141-177) displays essive=comitative syncretism in many stem types; this is however predictable from the phonological composition of the stem, and so is probably better construed as accidental homophony.

### 2.5 Type 5: case and number syncretism.

Type 5 is not case syncretism per se, but rather syncretism of two otherwise unconnected forms in a paradigm; i.e. a single form is used for one case in one number a different case in a different number. Such patterns are attested from throughout IE, some typical examples being given (14).

## (14) Case and number syncretism in Indo-European

Language	Form	Morphosyntactic function	gloss
Slovenian	prôstora	GEN SG, NOM-ACC DU	‘space’
	dobrâve	GEN SG, NOM-ACC PL	‘grove’
Old Irish	fir	NOM PL, GEN SG	‘man’
	airig	NOM PL-DU, DAT-ACC SG	‘chief’
Kashmiri	gobran	ERG SG, DAT PL	‘child’
	kul’	ERG SG, ABS PL	‘tree’

Outside of IE examples may be found in Finnic languages, e.g. in Finnish, where nominative and genitive singular and nominative plural all fall together in nouns with a possessive marker (Abondolo 1998: 30) and in Saami (see discussion below).

Few would dispute that these patterns have come about by chance as a result of independent phonological developments, and it is generally conceded that no *Gesamtbedeutung* should be sought. There has however been at least one attempt to do so: Béjar and Hall (1999), analyse Old Church Slavic nouns on analogy with the phenomenon of polarity in Cushitic languages (Serzisko 1982). Polarity may be exemplified by determiners in Somali, which have two forms: the k-series agrees with masculine nouns in the singular or feminine nouns in the plural, while the t-series agrees with feminine nouns in the singular or masculine nouns in the plural. Serzisko (1982) analyses this in terms of markedness congruence: the k-series is used when both gender and number have the same markedness value, while the t-series when they have conflicting markedness values. However, the analysis in Béjar and Hall (1999) accounts for only a subset of the type 5 patterns encountered in Old Church Slavic,<sup>10</sup> so even if the approach is accepted one must still acknowledge that some syncretisms remain without a unifying meaning.

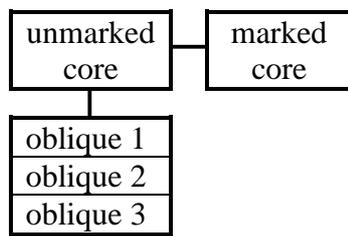
Yet the semantic/morphosyntactic arbitrariness of the forms associated through type 5 syncretism does not obviate the possibility of a stable morphological relationship between them. Although examples can be found in historical studies of IE languages (e.g. Meillet 1934: 398 on the extension of accusative plural=genitive singular from a-stems to ja-stems in Common Slavic), the most convincing example comes, surprisingly enough, from outside of IE. Hansson (1996) argues that just such a syncretic pattern in North Saami was extended by analogy across word classes. In nouns the comitative singular and inessive-relative plural fell together in nouns by a regular sound change, but typically remained distinct in pronouns. In one group of dialects, however, this syncretism was extended to the pronominal paradigm as well, with the inessive-relative plural displaying a form identical to the comitative singular, rather than the historically expected form.

### 3 Conclusion

The patterns of syncretism characterised as types 1-3 are widespread and common enough cross-linguistically to warrant proposing a unified model of the mismatches between morphosyntax and morphology that they imply. At the level of morphosyntax we assume that there is an unmarked core case (nominative or absolutive) opposed, on the one hand, to a marked core case (accusative or ergative),

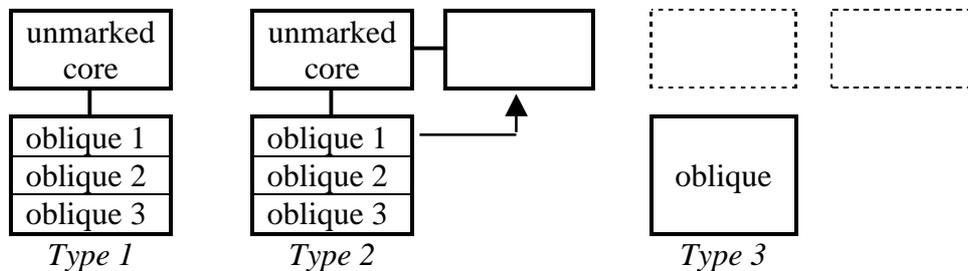
and on the other hand, to some number of oblique or non-core cases. These are represented in (15) as three cells, with the oblique cell being subdivided as needed.

(15) Morphosyntax



At the level of morphology, type 1 syncretism entails the absence of a form for the marked core case, that is to say, the absence of the corresponding marked cell. In type 2 syncretism, morphological structure mirrors morphosyntactic structure, but the cell for the marked core case is filled by one of the oblique forms. Type 3 entails the effacement of the distinctions within the oblique cell.

(16) Morphology of types 1-3



This simple model of the organisation of declensional morphosyntax corresponds to the bulk of the syncretic patterns we encounter in the languages of the world (types 1-3), whether IE or not. Against this background other types of syncretism can only be described as local relationships between cells, owing nothing to morphosyntactic structure.<sup>11</sup>

The *motivation* for the appearance of any one of these patterns remains a difficult question. For example, types 1 and 2 do seem correlated with the animacy hierarchy, but this hierarchy alone is hardly sufficient to predict whether a given word in a given language will distinguish the core grammatical cases, or which oblique form will be used for the marked core case in type 2. Those instances of type 4 syncretism where the notions of goal and location are conflated do seem to have a semantic basis, but their distribution across morphological classes does not. Rather, what we observe at any synchronic stage of a language is the morphologised residue of developments that may once have a clear morphosyntactic or semantic basis -- or, in the case of types 4 and 5, no real basis. The resulting paradigmatic patterns seem to be equally vigorous regardless of their original motivation (cf. the discussion of North Saami above). That the bulk of what we observe seems explicable in terms of morphosyntax and semantics is rather testimony to the fact that they are always available as a parameter for change (witness the continual renewal of nominative=accusative syncretism in IE; Ringe 1995), while the random events that produce the miscellaneous patterns do not submit themselves to generalisation.

## Appendix

Languages in the controlled sample (Baerman and Brown, in progress).

- a. Indo-European (10):  
Armenian, English, French, German, Greek, Hindi, Kashmiri, Latvian, Russian, Spanish.
- b. Other families (31):  
Araona, Basque, Beja, Boumaa Fijian, Burushaski, Central Alaskan Yup'ik Eskimo, Chukchi, Comanche, Finnish, Georgian, Haida, Harar Oromo, Ingush, Krongo, Lak, Lezgian, Limbu, Mangarayi, Martuthunira, Murle, Nenets, Ngiyambaa, Paumari, Pitjantjatjara, Suena, Wambaya, Warao, West Greenlandic, Yaqui, Yidiny, Yurok.

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## Notes

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<sup>1</sup> Matthew Baerman is the first author of this paper.

<sup>2</sup> The following abbreviations of case names are used in the paradigms (in alphabetical order): ABESS(ive), ABL(ative), ABS(olutive), ACC(usative), ADIT(ive), ADV(erbial), ALL(ative) COM(itative), COMP(arative), CONT(iguative), DAT(ive), DES(ignative), EL(ative), ERG(ative) GEN(itive), INESS(ive), INSTR(umental), LOC(ative) NARR(ative), NOM(inative), TRANS(lative), VOC(ative).

<sup>3</sup> In the following sections, when citing statistics only the languages from the controlled sample are used. The examples themselves though have been freely drawn from languages that the authors have worked with.

<sup>4</sup> Note that we define syncretism strictly on a language-internal basis: a given case is postulated for a language if there is some class of words in that language where it has a distinct form; cf. Comrie (1991).

<sup>5</sup> Cf. (7) below.

<sup>6</sup> Cf. the relative case of the Eskimo languages, which combines just these two functions (Blake 1994: 151-52; Berger 1998: 58).

<sup>7</sup> There is a potential ambiguity in languages with a three case system; for example, Modern Greek has a distinct nominative, accusative and dative, and evinces accusative=genitive syncretism in a number of contexts. Does this represent type 2, with the core accusative identical to the non-core genitive, or type 3, the nominative opposed to a single oblique form? We hold that the affiliation of the marked core case with respect to the oblique cases is undefined, so that if it has no distinct form of its own, its behavior must be identified in terms of type 1 or type 2 syncretism. Therefore the Greek example is classed here as type 2, and similarly with all three case systems.

<sup>8</sup> This alternative plural paradigm is defective in that the adverbial and instrumental cases are not found.

<sup>9</sup> Similarly, the markers for four of the fourteen cases of Estonian (viz. the terminative, essive, abessive and comitative) appear only on the final noun of a phrase. These cases are formed by the addition of a marker to a base which is identical to the genitive. Thus an attributive adjective or a nonfinal noun in a conjoined noun phrase will display syncretism of all these cases with the genitive (Hasselblatt 1992: 102-03). However, it is questionable whether these represent inflectional case endings or instead enclitics; historically these forms descend from a postposition governing the genitive.

<sup>10</sup> Case and number are construed as having two degrees of markedness. The ending *-a*, found with neuter o-stems, is construed as marking first degree markedness for one feature; thus it is the marked case in the unmarked number (genitive singular) or the unmarked case in the marked number (nominative-accusative plural). However, what is undisputedly the same ending is used with masculine o-stems, where besides the genitive singular it is used for the nominative-accusative *dual*, whose markedness specifications do not match those of the genitive singular.

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<sup>11</sup> There have been a number of attempts to describe and constrain case syncretism in terms of the geometry of the paradigm (McCreight and Chvany 1991, Plank 1991, Johnston 1997), which is essentially the approach adopted here for types 1-3 and one which could be extended to account at least for patterns classed as type 4. However, as is clear from Plank (1991), if there are such constraints, they are language-specific.

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