Towards a Cross-Linguistically Valid Constraint on Case Syncretism

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0. Introductory remarks.

In the last three decades quite a few insightful contributions have been dedicated to case syncretism, following both language-particular and cross-linguistic perspectives (see, for example, Hamilton 1974, Krámský 1974, Boeder 1976, Plank 1979, 1986, 1990, 1991, Goddard 1982, Carstairs 1984, 1987: ch. 4, Zwicky 1985, Luraghi 1987, 1991, 2000, Coleman 1991, Gvozdanović 1991, Meiser 1992, Stump 1993, 2001: ch. 7, Johnston 1997, Baerman et al. 2002, Krifka to appear; for an annotated bibliography on syncretism see Baerman 2002; cf. also important earlier works, such as Jakobson 1936 and Bierwisch 1967). Quite a lot is known about the diachronic development of syncretic patterns in various languages, especially Indo-European, which are abundant in case syncretisms, and certain synchronic constraints have been proposed, i. e. those connecting morphological homonymy with the flexive/agglutinative type of the language (see Krámský 1974, Carstairs 1984, 1987: ch. 4, Carstairs, Stemberger 1988, Plank 1986, 1999).

However, it seems to me that the principal question concerning case syncretism has not yet been answered — that is, which cases usually syncretize across languages, and which usually do not. I am aware of only a few publications where such a question has been explicitly raised (i. e. Jakobson 1936, Georgiev 1973, and, more recently and on a much wider sample of data, Baerman et al. 2002, Baerman et al. to appear), and I still see no satisfying solution to it. The problem is really very important because any cross-linguistic generalizations and possible constraints on case syncretism must rely on a fairly representative survey of individual patterns of syncretism in the languages of the world. Until a sort of a database of syncretisms attested in the languages of different genetic phyla and geographic areas is compiled, one cannot be sure that one's hypotheses will not be falsified by a new body of data.

The empirical claim presented in this paper is based on a survey of about 100 languages from various linguistic families and areas (Indo-European, Altaic, Uralic, North-Caucasian, Kartvelian, Paleoasiatic, Australian, Basque and Burushaski[2]). It should be carefully kept in mind that my database is not a language sample (in the sense of, e. g. GramCats sample of Bybee et al. 1994), but an attempt at an extensive survey of patterns of case syncretism in the languages which have the phenomenon in question. Therefore it is not surprising that there is a strong Indo-European bias in the data. Certainly, the survey is seriously affected by the fact that I could not obtain proper data for many languages, such as Semitic, Cushitic, and the languages of Native Americans. Nevertheless, I dare say that my data is reliable enough to make strong empirical claims about which cases can and which cannot syncretize.

The structure of this paper is as follows. In Section 1 I briefly discuss some major parameters of language-particular and cross-linguistic variation of case syncretism. In Section 2 I present the data concerning some types of case syncretism which recur in languages often enough to hypothesize that they do not merely result from a common genetic basis. In Section 3 I give an outline of a universal constraint on such patterns and discuss possible functional explanations for it.

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[2] For the sake of space I only give references to the sources of data for the languages explicitly cited in the text. My sources are chiefly in Russian. Also, not all languages surveyed are mentioned here since not all have the exact phenomena discussed in this paper. Those discussed here are almost excludingly those of the Old World, mainly Indo-European and Altaic.

1. Parameters of case syncretism.

I assume that there are two main parameters of crucial importance for the study of case syncretism:

♦ the degree of systematicity of the pattern of case syncretism in question;

♦ the nature of the cases syncretized.

1.1. Systematic vs. accidental syncretism. Following Carstairs 1987: 91 — 106 (see also Plank 1990: 395 — 400, 405; Coleman 1991: 199 — 201) I employ the term *systematic* for any pattern of case syncretism that cannot be reduced to a result of any synchronic (morpho)phonological rules. A paradigm example is the Latin DatAbl syncretism in the plural:

	urbs 'town'		*rosa* 'rose'	
	Singular	**Plural**	**Singular**	**Plural**
Nom	*urbs*	*urbes*	*rosa*	*rosae*
Acc	*urbem*	*urbes*	*rosam*	*rosās*
Gen	*urbis*	*urbium*	*rosae*	*rosārum*
Dat	*urbi*	*urbibus*	*rosae*	*rosīs*
Abl	*urbe*	*urbibus*	*rosā*	*rosīs*

This example illustrates a crucial feature of systematic syncretism: its independence of particular exponents. Dat and Abl in Latin plurals are always realized identically, no matter which suffixes (*-ibus* or *-īs*) are employed. Thus, systematic syncretism is a feature inherent to the structure of inflectional paradigms of the language, and cannot be accounted for just in terms of inflections (unless one regards it as pure homonymy[3,4]).

Accidental syncretism, on the contrary, arises from phonological reduction or assimilation which causes different inflections to collapse into a single exponent in certain well-defined contexts. Cf. an example from Khakass (Baskakov (ed.) 1975):

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[3] Systematic syncretisms, thus, are best captured by rules of referral, cf. Zwicky 1985, Stump 1993.

[4] It should be kept in mind also, that when a syncretic pattern is attested only in a closed class of nominals, e.g. personal pronouns, it also may be considered systematic, provided it is non-phonological in nature. Such cases are not rare in my data.

	'ski'	'fur-coat'	'my horse'
Nom	sana	ton	adym
Abl	sanadaŋ	tonnaŋ	adymnaŋ
Ins	sananaŋ	tonnaŋ	adymnaŋ

In Khakass Abl and Ins have different inflections (*-daŋ* and *-naŋ*, respectively), which become homonymous after the nasal final consonant of the stem.

Of course, one has to be cautious when distinguishing between systematic and accidental patterns of case syncretism. The two examples I have presented are no more than 'prototypical' instances, while quite a few of the syncretisms lie somewhere in between, thus rendering the opposition 'systematic vs. accidental' a gradual one rather than a binary one. There are instances when one cannot define a plausible phonological rule responsible for a particular syncretic pattern, although the pattern itself cannot be regarded as systematic due to its low type frequency. Consider the following paradigms of Gothic masculine nouns (Wright 1975: Ch. X):

	'day'	'son'	'guest'	'city'
Nom	dags	sunus	gasts	baurgs
Gen	dagis	sunaus	gastis	baurgs
Acc	dag	sunu	gast	baurg
Dat	daga	sunau	gasta	baurg

Nominative and Genitive are usually distinct in Gothic, except for some minor declension classes; although we are reluctant to consider this syncretism as systematic, we cannot come up with a purely surface-phonological rule of the Khakass type which could account for the homonymy of the desinences[5].

Nevertheless, the contrast between systematic and accidental syncretism is at least conceivable if not obvious in the majority of the cases, and the distinction itself has proven its theoretical validity (see e. g. Carstairs 1987: ch. 4, Plank 1990, 1991).

1.2. Nature of the cases syncretized. Following Baerman et al. 2002, I distinguish three main types of case syncretism:

- ♦ syncretism of core grammatical cases (Nom and Acc vs. Abs and Erg);

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[5] Diachronically the syncretism in question arose through the phonological reduction of the originally distinct vowels of the endings, cf. Wright 1975: 103.

♦ syncretism of peripheral cases;

♦ syncretism of one or two core cases with one or more peripheral cases.

As Baerman et al. 2002 show, all three types are fairly well attested cross-linguistically, especially the syncretism of the core cases. My data is consistent with their observation, but it also shows some interesting non-random distributions which will be dealt with in the following sections.

2. The data.

In this section I present the data concerning the distribution of one of the types of case syncretism established in Section 1.2., namely the syncretism of one or both core cases with one or more peripheral cases. This particular type of syncretism is of special interest because, as it will be seen, it shows quite a striking consistency across languages.

This major type is subdivided into the following patterns of case syncretism showing important typological differences:

Pattern 1: syncretism of a 'marked' core case (Acc or Erg) and a 'grammatical' peripheral case (Gen or Dat; other peripheral cases may also syncretize 'into' this pattern);

Pattern 2: syncretism of a 'marked' core case with one or several 'non-grammatical' peripheral cases;

Pattern 3: syncretism of an 'unmarked' core case (Nom or Abs) with one or several peripheral cases;

Pattern 4: syncretism of both core cases with one or several peripheral cases.

The data is organized as follows: I give a pattern of case syncretism and a list of languages it is attested in, indicating their genetic affiliation; the data from nominative-accusative languages is given first, then the data from absolutive-ergative languages (that from the latter is, unfortunately, scarce).

2.1. Pattern 1: syncretism of a 'marked' core case (Acc or Erg) and a 'grammatical' peripheral case (Gen or Dat; other peripheral cases may also syncretize; **only systematic** instances are counted):

AccGen — *Indo-European*: Russian, Belorussian, Czech, Slovak, Upper Sorbian, Ukrainian, Slovene, Icelandic, Old Icelandic, Old Swedish, Modern Greek, Os-

setic; *Turkic*: Balkar; *Mongolian*: Oirat, Bao'an, Daur, Mongor, Shira Yugur; *Uralic*: Saami, Komi; *Semitic*: Arabic, Akkadian

AccDat — *Indo-European*: Middle High German, Modern High German, Icelandic, Old Icelandic, Old Swedish, Gothic, Old Irish, Hittite, Armenian, Albanian, Panjabi, Assamese; *Mongolian*: Bao'an; *Uralic*: Khanty, Saami

AccGenDat — Middle High German, Modern High German, Sanskrit, Armenian

AccGenLoc — various Slavic

AccGenAbl — Ossetic

AccDatGenIns — Old English

ErgGen — *Indo-European*: Phalura; *Burushaski*; *North-East-Caucasian*: Khinalug

ErgDat[6] — *Indo-European*: Kanyawali, Dameli, Phalura

ErgGenDatIns — *Kartvelian*: Georgian

2.2. Pattern 2: syncretism of a 'marked' core case with a 'non-grammatical' peripheral case (**only systematic** instances are counted):

AccIns — Czech, Upper Sorbian, Polish, Slovene, Latvian[7]

AccAbl — Latin, Ossetic

AccLoc — Old Armenian

AccLocDat — Old Armenian

ErgIns — *Indo-European*: Waigali, Kashmiri; *Chukotko-Kamchatkan*: Chukchee

ErgLoc — *Chukotko-Kamchatkan*: Chukchee, Alutor

ErgAbl — *Indo-European*: Torwali

ErgTranslat — *Kartvelian*: Svan

ErgLocDat — *Chukotko-Kamchatkan*: Alutor

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[6] Here I label as Dat the case called 'oblique' in my sources (primarily Edelman 1983); it covers a wide range of functions, including indirect objects and various locative expressions, and coincides with Erg with all nominals except some pronouns.

2.3. **Pattern 3**: *syncretism of an 'unmarked' core case (Nom or Abs) with one or several peripheral cases* (**all** instances are counted, systematic ones are underlined):

NomGen — Czech, Gothic, Old Irish, <u>Hittite</u>, <u>Sakan</u>, Latvian, Latin

NomIns — Czech, Old Church Slavonic, Old Russian, Avestan

NomDat — Medieval Greek

NomDatLoc — Old Church Slavonic, Old Russian

NomGenIns — Old Church Slavonic

AbsIns — Kashmiri

AbsGen — *North-East-Caucasian*: Ingush

2.4. Pattern 4: syncretism of both core cases with one or several peripheral cases (**only systematic** instances are counted):

NomAccGen — *Indo-European*: Czech, Middle High German, Modern High German, Icelandic, Old English, Old Swedish, Old Irish, Sakan, Ossetic; *Uralic*: Mordvin

NomAccDat — Middle High German, Modern High German, Icelandic, Middle English, Old Swedish, Old Irish

NomAccLoc — Old Armenian, Romani

NomAccIns — Czech

NomAccGenDat — Middle High German

2.5. Preliminary discussion. From the data presented above it may be clearly seen that the types of syncretism in question differ considerably in both their frequency and degree of systematicity: while syncretisms following Pattern 1 are abundant, recurring in many different languages both in and out of the Indo-European phylum, instances of syncretism comprising the 'unmarked' core case and one or several peripheral cases (Pattern 3) are, on the contrary, quite rare and predominantly acci-

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[7] Only in case Ins is considered a separate case in Latvian at all, since it is homonymous with Acc in the Singular of all nominals, and with Dat in Plural of all nominals (Nau 1998); cf. Comrie 1986, Andronov 2001 for different approaches to the problem.

dental[8] (it should be also noted that they are almost unattested in the non-Indo-European languages). Patterns 2 and 4 are of intermediate frequency, but is should be observed that NomAccGen and NomAccDat are attested in a far greater number of languages (although almost only Indo-European) than any of the syncretisms following Pattern 2.

Thus the main conclusion which may be drawn from the data so far is that the syncretisms involving a 'marked' core case and a 'grammatical' peripheral case (almost irrespective of whether any other cases are syncretized as well or not) are significantly more frequent in the languages of Eurasia than those comprising either a 'marked' core case and a 'non-grammatical' peripheral case or especially an 'unmarked' core case and a peripheral case of any kind.

It should be also born in mind, that none of the instances of highly frequent AccGen and AccDat (as well as NomAccGen and NomAccDat) syncretisms in the Indo-European languages (those patterns are attested in various stocks, such as Slavic, Germanic, Indo-Aryan etc.) is inherited from the Proto-Indo-European (see Brugmann 1904: 373 — 413 for a survey of Proto-Indo-European case system). All those patterns result from phonological and morphological processes, which operated independently in the course of the development of particular languages. Having that and also evidence from such languages as Turkic, Mongolian, and Finno-Ugric I argue that the syncretic patterns in question are typologically 'natural' (in the sense of 'Natural Morphology', see Dressler (ed.) 1987) and that their frequent recurrence in independently developing languages has to do with some universal tendency.

As an example of development of such a pattern the well-known NomAcc inanimate vs. AccGen animate split in Slavic languages can serve (see Comrie 1978, Huntley 1980 for a discussion), where the phonologically caused collapse of the formerly distinct Nom and Acc singular in many declension classes was resolved with animate nominals by means of a take-over of Acc by Gen, a purely grammatical process.

On the contrary, those patterns which occur only rarely and unsystematically (e. g. NomGen, NomIns and especially NomDat), and whose appearance is mainly due to the operation of phonological processes which blur formerly distinct expo-

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[8] Actually, I just have not enough data on Hittite and Sakan in order to determine whether NomGen there is really so frequent and (synchronically) not due to some phonological reasons.

nents, usually do not resist morphological restructuring and vanish from the language. Here is another example from Slavic languages. The Early Common Slavic desinences of Nom plural *-oi, Acc plural *-ons and Ins plural *-ū (see Meillet 1934) developed into the Late Common Slavic *-i, *-y / *-ę⁹, *-y / *-i respectively, yielding the following Old Church Slavonic paradigms (Lunt 1974):

	hard stems 'wolves'	soft stems 'men'
Nom	*vlьci*	*mǫži*
Acc	*vlьky*	*mǫžę*
Ins	*vlьky*	*mǫži*

Thus the phonological reduction of the desinences resulted in the two instances of syncretism: one following Pattern 2 ('marked' core case, viz. Acc, and a peripheral case, viz. Ins) and another following Pattern 3 ('unmarked' core case, viz. Nom, and a peripheral case, again Ins). In the course of further development of different Slavic dialects these syncretic patterns have undergone considerable change, cf. the following examples from the modern languages (DeBray 1980):

	hard stems		
	Russian 'tables'	Polish 'cats'	Slovak 'cities'
NomPl	*stoly*	*koty*	*hrady*
AccPl	*stoly*	*koty*	*hrady*
InsPl	*stolami*	*kotami*	*hradmi*

	soft stems		
	Russian 'swords'	Polish 'countries'	Slovak 'swords'
NomPl	*meči*	*kraje*	*meče*
AccPl	*meči*	*kraje*	*meče*
InsPl	*mečami*	*krajami*	*mečmi*

It is clearly seen that in the majority of languages both syncretisms have entirely disappeared from the system, which was caused by the generalization of the Ins plural ending *-ami (originally feminine *a*-stems) or *-mi (originally *i*-stems) to all declen-

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⁹ The variants are distributed according to the so-called 'hard' vs. 'soft' variants of the stems (the soft ones reflecting the Indo-European *-jo*-stems, and the hard ones the Indo-European pure *-o*-stems).

sion classes. The only language where such a generalization did not happen is (literary) Czech; however, the latter language did not keep the Late Common Slavic system unchanged either, compare the following paradigms:

	animate				inanimate		
	'Mr.'	'men'	'presidents'	'judges'	'cities'	'machines'	'days'
Nom	*páni*	*muži, mužové*	*předsedové*	*soudci, soudcové*	*hrady*	*stroje*	*dni, dny*
Acc	*pány*	*muže*	*předsedy*	*soudce*	*hrady*	*stroje*	*dny*
Ins	*pány*	*muži*	*předsedy*	*soudci*	*hrady*	*stroji*	*dny*

Instead of restructuring the Ins plural Czech has developed either a new pattern of syncretism, namely NomAccIns plural, which belongs to a more frequent type, or a new form of the Nom plural with animate nouns, viz. that with the ending *-ové*. Thus there are almost no nouns in Czech which would have a Nom plural identical with Ins plural without it being simultaneously syncretized with Acc plural[10].

The question thus arises concerning the explanation of the facts presented. Before I proceed I summarize them:

♦ the syncretisms of Patterns 1 and 4 occur frequently in genetically and areally unrelated languages, and are usually systematic and diachronically stable[11];

♦ the syncretisms of Pattern 3 and to a great extent Pattern 2 occur infrequently and are predominantly accidental and usually diachronically unstable.

3. An outline of a constraint on syncretism and its preliminary explanation.

The data presented in the previous section suggests that there exists a universal constraint on case syncretism, which permits certain cases to syncretize and prevents others from doing so. Such a constraint, certainly, is no more than a statistical tendency, since it has to account for an uneven distribution of the patterns already at-

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[10] The only Slavic language that has retained the 'unnatural' syncretism NomIns, is Slovene. For a more detailed account of the development of these syncretic patterns in Slavic languages see Arkadiev in press.

[11] As a non-Slavic (and non-Indo-European) example of a diachronically stable pattern, cf. Turcic and Mongolian AccGen which is reconstructed for the Altaic proto-language (see Gruntov 2002).

tested in the languages. The constraint in question is formulated in terms of the Case Hierarchy proposed by Blake (1994: 157 — 162)[12]:

Nom/Abs > Acc/Erg > Gen, Dat > other peripheral cases

The Case Hierarchy has been proposed without any reference to syncretism, and thus there is no danger of any circularity in my argumentation (at least, I do not envisage any so far). The constraint on syncretism may be stated as follows:

The Case Hierarchy Constraint on Syncretism (CHC):

Only those patterns of case syncretism are systematic and dia-
chronically stable, in which the cases syncretized are adjacent on
the Case Hierarchy

Thus, the CHC predicts that such syncretisms as AccGen, AccDat (Pattern 1), Nom AccGen, NomAccDat (Pattern 4) will be systematic, frequent and diachronically stable, since the cases syncretized form a continuous string on the Case Hierarchy; on the other hand, CHC correctly accounts for the predominant non-systematicity, low frequency and diachronic instability of syncretic patterns like NomDat, NomGen (Pattern 3) or AccIns (Pattern 2), where the homonymous cases are not adjacent on the Case Hierarchy.

Now a question arises: why should the Case Hierarchy, established on the completely independent basis, have anything to do with case syncretism at all? What could be a possible explanation for that fact? I have to confess that I do not have a satisfactory answer to these questions, and what follows is no more than a preliminary outline of a possible explanation.

Since case syncretism creates potential ambiguity in the domain of syntactic and semantic interpretation of NPs, it might be the case that syncretisms precluded by the CHC are those that lead to 'intolerable' ambiguities, while those that CHC permits do not result in such irresolvable ambiguities. At least in some cases such an assumption seems to be correct. As was pointed out by Moravcsik (1978) and Plank (1979, 1980), syncretisms between Nom and Acc (resp. Abs and Erg), which are the most

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[12] The form of the Case Hierarchy discussed here differs slightly from that of Blake 1994:

Nom/Abs > Acc/Erg > Gen > Dat > Loc > Abl/Ins > others

I do not see any difference in the mutual position of Gen and Dat in the respect of syncretisms they participate in, nor in their cross-linguistic distribution, which is crucial for Blake's formulation; the differentiation of other peripheral cases is not needed here, too.

frequent syncretic patterns attested in the languages of the world, do not lead to unacceptable ambiguity, since it is almost always possible to tell which NP in a transitive sentence is the Subject (resp. Actor in Foley, Van Valin 1984 terms) or the Direct Object (resp. Undergoer) from the inherent lexical content of the nominals themselves: prototypical Actors and Subjects are animate, whereas prototypical Undergoers and Direct Objects are inanimate. The same argument is valid for other two most frequent syncretisms, viz. AccGen and AccDat: since both prototypical Possessors (genitive NPs) and prototypical Recipients (dative NPs) are animate, their homonymy with Direct Objects does not lead to unacceptable ambiguity. On the contrary, as Plank (op. cit.) shows, the NomGen syncretism creates 'unacceptable' ambiguity between two animate NPs, and so does the NomDat syncretism. Thus there is a clear functional basis at least for some of the implications of the CHC.

However, under closer scrutiny arguments of the kind just presented turn out to be not so satisfactory as one may wish. If the NomGen syncretism is precluded because of the 'unacceptable' ambiguity between Actor and Possessor it may create, then the ErgGen syncretism must be even more 'unnatural', since Erg is the very case which marks Actors. Nevertheless, ErgGen is attested in four genetically unrelated languages, and, besides, it is permitted by the CHC[13]. Also, the 'unacceptable ambiguity' hypothesis incorrectly predicts that the NomAccGen syncretism should be as intolerable as the NomGen syncretism, which is not the case. Thus there is at least partial discrepancy between the predictions the CHC makes and those based on the 'unacceptable ambiguity' hypothesis. It is also possible that the CHC is not suitable for absolutive-ergative languages at all, because they often show systems of grammatical relations quite different from that of nominative-accusative languages (see Kibrik 1997, to mention a recent publication on this widely discussed topic). Besides, I do not have enough data from these languages to make generalizations as decisive as it is possible to derive from the nominative-accusative languages.

In spite of such objections, even if we consider the data from the nominative-accusative languages only, the CHC accounts for them fairly well, which shows that it may serve as a cross-linguistically valid constraint on possible patterns of case syncretism.

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[13] It is also noteworthy that in some languages, e. g. Eskimo, the roles of Actor and Possessor are subsumed under a single polysemous case (see Lehmann 1995/1982: 111 for an explanation).

4. Conclusions.

The goal of this paper was to show that on the basis of a large-scale survey of instances of case syncretism attested in the languages of the world one can formulate some typologically valid constraints on the possible patterns of syncretism. Such a constraint, based on the independently established Case Hierarchy, does exist and has both typological and diachronic implications, which again proves that case syncretism is something more than mere result of random phonological change.

Abbreviations

Abl — Ablative

Abs — Absolutive

Acc — Accusative

Allat — Allative

Dat — Dative

Erg — Ergative

Gen — Genitive

Ins — Instrumental

Loc — Locative

Nom — Nominative

Obl — Oblique

Part — Partitive

Translat — Translative

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