

**CASE, TYPOLOGY
AND GRAMMAR**

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The great Daghestanian case hoax

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1. Introduction¹

Case marking systems have played a prominent role in Barry Blake's linguistic work, from his early description of Kalkatungu (Blake 1968) and his overview of case systems in Australian languages (Blake 1977) to his comprehensive monograph on case as a linguistic category (Blake 1994). With that in mind, we are happy to expand his unmatched collection of data on case systems by the following material from an area particularly rich in case forms.

The Daghestanian languages are well-known in the linguistic literature for their rich case systems. Indeed, this richness has passed beyond technical literature in linguistics. In *The Guinness Book of Records* for 1997 (Young 1997: 249), in a subsection of the general section on Language, we find the following:

Most complex language Tabassaran, a language of Daghestan . . . uses the most noun cases, 48.

In the scientific literature, perhaps the most famous reference to the Tabasaran case system is Hjelmslev (1935: 138, 139), where Tabasaran is presented as having the "empirical maximum" number of cases. Hjelmslev analyzes Tabasaran as having 52 cases, but two of these occur only on adjectives, so the number of noun cases is 50. We do not dispute that Daghestanian languages have rich case systems. What we do find questionable, however, is the high counts of the number of "cases" that are presented in both scientific and popular accounts. In order to demonstrate that the number of case morphemes is far lower than would be arrived at by the methodology implied by the above statement from *The Guinness Book of Records*, we have

chosen two Daghestanian languages as illustrations: Tabasaran, for the simple reason that is cited in the quotation given above, and Tsez (also known as Dido), the latter not only because it is the subject of our own ongoing research (see note 1) but also because, using the same methodology as is used to give about the 48 cases for Tabasaran, Tsez would end up having far more.

As background information, we would note that the Daghestanian languages form one branch of the Nakh-Daghestanian or Northeast Caucasian language family, the other branch being the Nakh languages. The Daghestanian languages are spoken in Daghestan (Daghestan Republic), one of the republics in the Russian Federation, especially in the north and west of that republic, and in neighboring parts of Azerbaijan.² Although the internal classification of Nakh-Daghestanian is not without problems (especially in the light of new hypotheses advanced in Nikolayev and Starostin 1994), for the purposes of this paper it will suffice to note that Tabasaran and Tsez belong to different subgroups of Daghestanian, namely Lezgetic and Tsezic respectively. They are thus not particularly closely related to one another genetically within Daghestanian, nor are they in areal contact, so that their common property of a rich case system can be taken as symptomatic for Daghestanian as a whole.

In presenting the data on the case systems of Tabasaran and Tsez below, we make a distinction between non-local (grammatical, abstract) and local cases, since the main source of morphological richness in Daghestanian case systems is provided by the local cases. As we shall see, there are, however, some cases that are on the border-line between local and non-local, so that the distinction should be considered, at least for present purposes, one of convenience rather than principle.

Our main source for Tabasaran is Magometov (1965: 97–141), which marshals data from the various dialects, supplemented by Xanmagomedov (1967: 548–550), which deals primarily with the standard language. Our main source for Tsez is our own ongoing work on the language, of which a summary is provided in Comrie et al. (forthcoming); all claims relate to the Ceboru subdialect of the Asaq dialect of Tsez, although as far as we are aware these claims are of general applicability to the Tsez language (though precise morphological and phonological forms may vary from dialect to dialect). For earlier descriptions of Tsez (other dialects), see Bokarev (1959) and Imnajšvili (1963).

2. The case system of Tabasaran

Given one way of counting cases, the total of 48 noun cases given in the quotation in Section 1 for Tabasaran seems at least close to correct. If one counts the total number of cases given by Magometov (1965), then this is 47 for the Southern dialects of Tabasaran, on which the standard language is based, and 53 for the Northern

dialects. It is thus conceivable that there is some variety of Tabasaran with exactly 48 cases, and certainly this figure is within the right range. But let us now turn to the structure of these "cases."

2.1. *Non-local cases in Tabasaran*

Tabasaran has 4 non-local or core (Blake 1994: 88–97, 119–44) cases: absolutive, ergative, genitive, and dative, although as we shall see in Section 2.2 the dative actually stands at the border-line between non-local and local cases. The absolutive case, which is unmarked, is the citation form of the noun. The ergative is formed by attaching a suffix to the absolutive, occasionally with minor morphophonemic change, but in the singular the form of this suffix is not always predictable. The regular formation of the ergative singular is by the suffix *-i*; the irregular or non-productive formations include suffixes *-di*, *-ri*, *-yi*, *-li*, *-ni*, *-u*, *-ru*, *-nu* (Kibrik and Kodzasov 1990: 253–4, 285–7). For example, the ergative of *ul* 'eye' is *ul-i*, that of *t'ub* 'finger' is *t'ub-ri*, that of *xwar* 'mare' is *xwar-u*. In the plural, which has the suffix *-ar* (constant in all cases) attached to the absolutive singular, the ergative suffix is always *-i*, e.g. *ul-ar-i*, *t'ub-ar-i*.

All other cases in Tabasaran are formed by attaching the appropriate ending to the ergative form, and this applies to both singular and plural. (There are occasional morphophonemic alternations of the vowel of the ergative suffix in the singular.) The genitive is formed by attaching *-n* to the ergative, e.g. *ul-i-n*, *t'ub-ri-n*, *ul-ar-i-n*. The dative is formed by attaching *-z*, e.g. *ul-i-z*, *t'ub-ri-z*, *ul-ar-i-z*. The dative is used, as in Daghestanian languages generally, for the semantic roles of recipient and experiencer; in Tabasaran it is also often used, however, to encode direction (motion towards), replacing more specific local cases, and in this sense we will need to return to the dative in Section 2.2.

There are various ways of analyzing this part of the system, but all boil down to recognizing 4 argument cases (a similar analysis is given in Kibrik and Seleznev 1982: 21, 33), which are opposed to a number of local cases, typically used to encode adjuncts.

The endingless absolutive is clearly distinct from the other case forms, and must therefore be considered a distinct case, whether one wants to assume that it has a zero ($-\emptyset$) case formative or that it has no case formative. In addition to analyzing the ergative as having a suffix, as done above, one might rather consider that the form of the ergative is a thematic stem variant (oblique stem per Kibrik and Kodzasov 1990), but either way it is distinct from all other cases. If one analyzes the ergative as having a suffix, then the genitive and dative each has composite case suffixes, $-(\text{ergative})-n$ and $-(\text{ergative})-z$, respectively; if the ergative is analyzed as a stem variant, the genitive and dative each has a single suffix, *-n* and *-z*

respectively. Either way, each of the genitive and dative has a unique case formative, so we are dealing so far with a total of 4 cases.

2.2. Local cases in Tabasaran

As in other Daghestanian languages, it is the local or adjunct cases in Tabasaran that provide motivation for assigning a large number of noun cases to the language. The basic system is as follows. Depending on dialect, either 7 or 8 series of local cases can be distinguished; the distinction is based on the concept of spatial orientation, alternatively described as the position of the reference point, as in Table 1.

The distinction between the series 'at' and 'near' is neutralized in the southern dialects, and does not appear in the standard language. These suffixes are attached to the ergative form, e.g. *cal* 'wall', ergative *cal-i*, local cases: *cal-i-?* 'in the wall', *cal-i-q* 'behind the wall', *cal-i-kk* 'under the wall', *cal-i-h* 'by the wall', *cal-i-k* 'on (the vertical surface of) the wall'; *ust'ul* 'table', ergative *ust'ul-i*, local case: *ust'ul-i-?in* 'on the table'; *lik* 'leg', ergative plural *lik-ar-i*, local case: *lik-ar-i-y'* 'between the legs'. (The 'on (horizontal)' marker is perhaps to be analyzed as a sequence of two markers, 'in (hollow space)' *-?* followed by an 'on (horizontal)' formative *-in*, as suggested by Magometov (1965: 121). The number of case formatives that has to be recognized remains the same whether or not one adopts this analysis, the choice boiling down to whether the 'on (horizontal)' formative is *-?in* or *-in*. The argument is the same as used above for the genitive and dative, and of course this same argument is needed in any event for all the local cases to account for the appearance of the ergative form before the local suffix proper.)

The local forms discussed so far have the meaning of essive, i.e. location at a place, alternatively described as absence of motion. In order to express direction (motion towards a place) or source (motion from a place), these local cases require a further suffix, respectively allative *-na* and ablative *-an*, to give triads like essive

Table 1. Tabasaran morphemes encoding spatial orientation

'in (hollow space)'	-?
'on (horizontal)'	-?in
'behind'	-q
'under'	-kk
'at'	-x'
'near, in front of'	-h
'among'	-y'
'on (vertical)'	-k

cal-i-q '(located) behind the wall', allative *cal-i-q-na* '(to) behind the wall', ablative *cal-i-q-an* 'from behind the wall'. Each of these three possibilities—essive, allative, ablative—can be combined with each of the 7 or 8 series (according to dialect), to give a total of 21 or 24 "cases," in the way in which cases have been conventionally counted in Daghestanian languages. It is clear, however, that this count is misleading. Tabasaran does not really have a primary 21- or 24-way distinction among local cases. Rather, it has two morphological positions in the nominal paradigm, one encoding spatial orientation (reference point) with a 7- or 8-way opposition, the other encoding type of motion with a 3-way opposition. There is thus, so far, a total of 10 or 11 local case morphemes. Some of these can be combined with one another to give the richness of the system, but it is crucial to recognize that this richness comes from the combination of case morphemes, and not from a particularly rich set of morphemes per se; compare Kibrik and Seleznev (1982), who also speak of local case forms rather than local cases in the Dubeq dialect of Tabasaran.

In fact, the possibilities for combination are even richer, since each of the 21 or 24 local forms discussed so far, plus the dative discussed in Section 2.1, can take a further case suffix *-di* (translative). The general effect of this suffix is to indicate more general rather than more specific location or motion; in somewhat more detail, attached to an essive it carries the meaning of 'along, over, across', to an allative (and the dative) the meaning of 'in the direction of', and to an ablative the meaning of 'from the direction of', e.g. (Northern dialect forms, cited from Magometov (1965: 129): *nir* 'river, ergative *nir-i*: *nir-i-q* 'at (on the bank of) the river', *nir-i-q-ri* 'along (the bank of) the river', *nir-i-q-na* 'to (the bank of) the river', *nir-i-q-in-di* 'towards (the bank of) the river', *nir-q-an* 'from (the bank of) the river', *nir-q-an-di* 'from the direction of (the bank of) the river'. (It will be noted that there is some morphophonemic alternation in these examples; see further Magometov (1965:129-130), who notes that at least in some dialects such alternations are optional.)

To summarize the Tabasaran material, there are basically 14 or 15 case suffixes (depending on dialect), including the \emptyset marker used for the absolutive (and also indicating location after an orientational suffix, and more specific location in contrast with *-di*): the non-local case suffixes absolutive \emptyset , ergative *-i* (and other allomorphs), genitive *-n*, dative *-z*; the orientational local case suffixes 'in' *-ʔ*, 'on (horizontal)' *-ʔin* (or *-in*), 'behind' *-q*, 'under' *-kk*, 'at' *-x*, 'near, in front of' *-h* (these last two distinct only in Northern dialects), 'among' *-y*, 'on (vertical)' *-k*; two directional suffixes allative *-na*, ablative *-an*; and the general-locational suffix *-di*. The combinatorial richness is made up as shown in Table 2.

However, these overwhelming numbers do not imply that there are anywhere between 47 and 53 cases in Tabasaran, but rather that there is a wide range of inflectional forms.

Table 2. Tabasaran cases

non-local cases not combining with others	3×1	3
non-local case combining with <i>-di</i>	1×2	2
local cases combining orientation with direction with <i>-di</i>		
Southern dialects	$7 \times 3 \times 2$	42
Northern dialects	$8 \times 3 \times 2$	48
total		
Southern dialects	$3 + 2 + 42$	47
Northern dialects	$3 + 2 + 48$	53

In Section 3, we will apply the principles of our discussion of Tabasaran to the Tsez language, which turns out to have an even richer system than that of Tabasaran.

3. The case system of Tsez

The case morphology of Tsez surpasses that of Tabasaran, both in terms of the range of oppositions and in terms of their formal exponency. The following preliminary remarks concern properties of the system that do not relate to the number of cases. While some Tsez nouns use the same stem in the absolutive and the oblique cases, many nouns use different stems; with such nouns, the oblique stem usually involves the addition of a segment or segments to the absolutive form, but other alternations are also found, e.g. subtraction of a segment of the absolutive or internal vowel change. For several nouns, alternatives are allowed, and perhaps as a result of this some nouns use or may use the absolutive as the stem for some oblique cases, but not for others. In what follows, we simply take such stem variation for granted. The presence of the alternation is, however, sometimes useful as a criterion for identifying something as an oblique stem. In the plural, the situation is somewhat easier, in that, barring a handful of irregularities, the absolutive plural always has the suffix *-bi*, while the oblique plural always has the suffix *-za* (to which further suffixes expressing case are added). Which stem these plural suffixes attach to is not predictable, but at least the *-bi/-za* opposition provides a clear indication of absolutive versus oblique. In following the material below, it should be borne in mind that there is a certain amount of usually transparent morphophonemics at morpheme boundaries; general rules include one dropping vowels before another vowel, and a second inserting the vowel *e* to break up disallowed consonant clusters.

3.1 Core cases in Tsez

The core non-local case system of Tsez contains 6 cases: absolutive, ergative, genitive-1, genitive-2, dative, and instrumental. The absolutive is identical to the citation form, i.e. has a \emptyset suffix. The ergative of many nouns takes a distinct suffix *-o*, i.e. one that is different from all other case suffixes and suffix combinations, as in *ʃ'it'* 'serap', oblique stem *ʃ'it'-r-*, ergative *ʃ'it'-r-o-*, and this suffix is productive, being found for instance with loans from Arabic ending in *-at*. Most nouns, however, use the essive of the 'in' local series (suffix *-ā*) to express the ergative function (subject of a transitive verb), and this is also productive. Given that some nouns have a distinct ergative, and that this is a substantial and productive set of nouns, we assume that there is a distinct ergative case in Tsez.

The dative and instrumental have straightforward forms, with suffixes *-r* and *-d* respectively, although we will need to return to the dative in the discussion of local cases, where it will be suggested that the dative is a special instance of the allative suffix. From *besuro* 'fish', we have ergative *besur-ā*, dative *besuro-r* and instrumental *besuro-d*; from *mec* 'tongue', oblique stem *mec-r-*, we have ergative *mec-r-ā*, dative *mec-re-s*, instrumental *mec-re-d*. In the plural of *besuro* we have absolutive *besuro-bi*, ergative *besuro-z-ā*, dative *besuro-za-r*, instrumental *besuro-za-d*.

The genitive-1 and genitive-2 have the endings *-s* and *-z* respectively, e.g. *besuro-s*, *besuro-z*, *besuro-za-s*, *besuro-za-z*. The two genitives are distinguished functionally as follows: Genitive-1 is used when its head noun is in the absolutive case; genitive-2 is used when its head noun is in an oblique case—thus providing another criterion for distinguishing between absolutive and oblique cases. Functionally, one might consider genitive 1 to be, decompositionally, the absolutive of the genitive and genitive 2 to be the oblique of the genitive. However, this functional decomposition has no formal correlate, and so we treat genitive-1 and genitive-2 as two distinct cases.

The distinction between genitive 1 and genitive 2 reflects the category of concord, which can be distinguished from agreement (Blake 1994: 197, 199.) For further discussion of this type of case agreement, against a more general typological background, see Kibrik (1995).

There are some further suffixes that are at least good candidates for recognition as non-local cases. In particular, there are two equative forms, equative-1 in *-ce* and equative-2 in *-q'āy*. The equative-2 in *-q'āy* has all the properties of a case suffix, attaching to the oblique stem, and in particular requiring the *-za* allomorph in the plural; it also requires a dependent genitive to be genitive-2; it does not attach to anything other than a singular or plural nominal stem. The equative-1 in *-ce* also attaches to the oblique stem, requires the *-za* alternant of the plural marker, and

requires a dependent genitive to be genitive-2. It thus appears to be a case marker. However, unlike the equative-2, the equative-1 suffix can also attach to other case suffixes, indeed to all other case suffixes and suffix combinations, even to the equative-2 to give the combination *-q'āy-ce*. Thus if we assume that *-ce* is a case suffix, as seems required by the general considerations given above, then we must for consistency consider the combinations with *-ce* to be case combinations. If we assume that everything listed so far (absolutive, ergative, genitive-1, genitive-2, dative, instrumental, equative-1, equative-2) is a case, we have so far 8 non-local cases plus a further 6 case combinations (equative-1 combined with everything except absolutive—or rather, absolutive plus equative-1 gives simply *-ce*, what we have been considering uncombined equative-1—and itself).

There are yet further possibilities, namely three suffixes that are on the borderline between case and derivational suffixes, namely *-šay*, *-xu* 'characterized by',³ and *-tay* 'lacking', treated in Comrie et al. (forthcoming) as derivational. One case property lacking with these suffixes is the following: Personal pronouns can form all other cases, to the extent that the result makes sense, e.g. *dī* 'me', oblique stem *dā-*, dative *dā-r* 'to me', equative-1 *dā-ce* 'as me', equative-2 *dā-q'āy* 'as me'. However, they do not allow the forms with these three suffixes: **dā-šay*, **dā-xu*, **dā-tay*. On the other hand, where semantically appropriate, these three suffixes can be used with a plural noun, in which case the noun takes the oblique plural suffix *-za*, e.g.

- (1) a. *q'ot'ur-za-šay-ni ged*
 button-PL-WITH-DEF shirt
 'shirt with buttons'
- b. *q'ot'ur-za-tay-ni ged*
 button-PL-WITHOUT-DEF shirt
 'shirt without buttons'
- (2) a. *čakar-yo-xu-ni čay*
 sugar-TH-WITH-DEF tea
 'tea with sugar'
- b. *čakar-yo-tay-ni čay*
 sugar-TH-WITHOUT-DEF tea
 'tea without sugar'

In similar vein, one can ask whether these three suffixes can combine with a genitive-2—they certainly cannot combine with a genitive-1; unfortunately, the results are not unequivocal, examples with the positive suffixes *-šay* and *-xu* being judged just about possible, those with the negative suffix *-tay* impossible:

- (3) a. *gere-z q'ot'ur-za-šay-ni ged*
 iron-GEN2 button-PL-WITH-DEF shirt
 'shirt with iron buttons'
- b. **gere-z q'ot'ur-za-tay-ni ged*
 iron-GEN2 button-PL-WITHOUT-DEF shirt
 'shirt without iron buttons'
-
- (4) a. *kuba-z čakar-yo-xu-ni čay*
 Cuba-GEN2 sugar-TH-WITH-DEF tea
 'tea with Cuban sugar'
- b. **kuba-z čakar-yo-tay-ni čay*
 Cuba-GEN2 sugar-TH-WITHOUT-DEF tea
 'tea without Cuban sugar'
- (5) a. *andi-za-z ciyo-xu-ni reĭ*
 Andi-PL-GEN2 salt-WITH-DEF meat
 'meat with Andi⁴ salt'
- b. **andi-za-z ciyo-tay-ni reĭ*
 Andi-PL-GEN2 salt-WITHOUT-DEF meat
 'meat without Andi salt'.

In what follows, we will exclude *-šay*, *-xu*, and *-tay* from the calculation of cases and case combinations, on the basis of the equivocal results of applying the relevant criteria.

3.2 Local cases in Tsez

As in Tabasaran, the real richness of the Tsez case system, in particular with regard to case combinations, emerges primarily with consideration of local cases, since in Tsez too we find a multiplicity of combinations resulting from the intersection of three parameters: orientation (with a 7-way distinction in Tsez), direction (with a 4-way distinction in Tsez), and distality (with a 2-way distinction). Distality, which involves a distinction between formally marked distal ('over there') and formally unmarked non-distal, is not found in Tabasaran, but on the other hand Tsez lacks the specific/general parameter of Tabasaran.

Looking ahead, we can see that multiplying out these possibilities will give 56 case combinations, all of which are in fact found. And since each of these can in principle be followed by the equative-1 suffix *-ce*, this gives a grand total of 112 local case combinations, to which we can add the 14 case combinations from Section 3.1 for a grand total of 126.

Table 3. Tsez local case forms: non-distal.

		Case			
		essive	allative	ablative	versative (‘towards’)
Spatial orientation	‘in’	-ā	-ā-r	-āy	-āyor
	‘among’	-λ	-λ-er	-λ-āy	-λ-xor
	‘on (horizontal)’	-λ'(o)	-λ'o-r	-λ'-āy	-λ'-āyor, -λ'-ār
	‘under’	-λ̄	-λ̄-er	-λ̄-āy	-λ̄-xor
	‘at’	-x(o)	-xo-r	-x-āy	-x-āyor, -x-ār
	‘near’	-de	-de-r	-d-āy	-d-āyor, -d-ār
	‘on (vertical)’	-q(o)	-qo-r	-q-āy	-q-āyor, -q-ār

Since the Tsez local case combinations are not quite as transparently segmentable as their Tabasaran counterparts, we present two tables giving the non-distal (Table 3) and distal (Table 4) case combinations; note that the alternative forms in the versative column of Table 3 are contracted forms in free variation with the fuller forms.

The individual morphemes can now be analyzed as follows. The basic forms of the 7 orientation suffixes are: ‘in’ -ā, ‘among’ -λ, ‘on (horizontal)’ -λ'(o), ‘under’ -λ̄, ‘at’ -x(o), ‘near’ -de, ‘on (vertical)’ -q(o). For the forms given with *o* in parenthesis, the form without *o* is used word-finally after a vowel, e.g. *besuro* ‘fish’, *besuro-x*, but *is* ‘bull’, *is-xo*. When further suffixes are attached, the *o* is always present, e.g. *besuro-xo-r*, unless it drops regularly before another vowel, e.g. *besuro-x-āy*, *is-x-āy*.

The directional suffixes are essive -∅, allative -r, ablative -āy, versative -yor/-a. The essive suffix is thus identical with the absolutive suffix, and only one zero suffix need be posited. The allative suffix is identical to the dative suffix, and therefore they must be subsumed as a single suffix, which we will arbitrarily call dative; thus, the so-called “dative” is the dative attached to the bare stem, while the so-called “allative” is the dative attached to a local stem bearing a suffix of local orientation. The ablative is basically -āy, but shortens to -ay after the vowel ā in a preceding inflectional suffix, as in the distal forms.⁵ The versative suffix is the only real problem, since it must be given two completely distinct representations, namely -yor in the non-distal (devoicing to -xor after a voiceless consonant), but -a in the distal. This is the only instance of suppletion, although it does not affect segmentability. It should further be noted that these directional suffixes also occur, without a preceding orientation suffix, after certain nouns with inherently locational semantics, e.g. *idu* ‘home, at home’, *idu-r* ‘to home’, *id-āy* ‘from home’, *idu-yor* ‘towards home’.

A remaining problem in the non-distal combination is the vowel ā that appears

Table 4. Tsez local case forms: distal.

	essive	allative	Case ablative	versative (‘towards’)
Spatial orientation				
‘in’	-āz	-āz-a-r	-āz-ay	-āz-a
‘among’	-λ-āz	-λ-āz-a-r	-λ-āz-ay	-λ-āz-a
‘on (horizontal)’	-λ’-āz	-λ’-āz-a-r	-λ’-āz-ay	-λ’-āz-a
‘under’	-λ-āz	-λ-āz-a-r	-λ-āz-ay	-λ-āz-a
‘at’	-x-āz	-x-āz-a-r	-x-āz-ay	-x-āz-a
‘near’	-d-āz	-d-āz-a-r	-d-āz-ay	-d-āz-a
‘on (vertical)’	-q-āz	-q-āz-a-r	-q-āz-ay	-q-āz-a

in many forms at morpheme boundaries but has not been accounted for so far. In the versative forms, its occurrence can readily be predicted by a combination of phonological and morphological factors: If the orientation suffix ends in a vowel (which may be the “parentetical *o*” of Table 3, plausibly so since this would normally show up before a further suffix), then *ā* is obligatory placed after the orientation suffixes; in other versative forms, it is disallowed.

The distal suffix is *-āz*, located immediately after the orientation suffix. Before a following allative suffix, an inserted *a* (perhaps *ā*, undergoing shortening after the preceding *ā*) is obligatory.

All other changes are regular: note in particular that the ‘in’ suffix *-ā* is regularly deleted before another vowel, as in its distal equivalent *-āz* (for *-ā-āz*). We leave open whether the various instances of *ā* (‘in’; epenthetic/‘general’; perhaps versative, where *a* could be shortened from *ā*) are to be identified with one another, since we have no evidence for or against such an identification.

As against the 126 case combinations, we have the following set of case morphemes: 8 non-local cases (including the absolutive in \emptyset , and therefore not counting any further instances of \emptyset as distinct); 7 orientation suffixes; 2 directional suffixes (bearing in mind that allative *-r* is subsumed under dative); 1 distal suffix—for a total of 18 case suffixes, a respectable total, but hardly one meriting an entry in *The Guinness Book of Records*.

4. Implications for a theory of case

We have tried to show that in both Tabasaran and Tsez, we have a moderately rich number of cases: 14 or 15 in Tabasaran, depending on dialect, and 18 in Tsez. The richness that gives rise to claims such as Tabasaran having 48, 47, or 53 cases, or Tsez having 126 cases, derives from the possibilities of combining these cases with

one another. It is not the case that children acquiring Tabasaran and Tsez have to learn 47, 53, or 126 cases; rather, they have to learn the 14, 15, or 18 suffixes and the general principles for combining them. There are two important considerations to bear in mind here, morphological and semantic transparency, both of which are brought up by Blake in his discussion of similar systems (Blake 1994: 153–4).

4.1 Morphological transparency

First, the combinations are morphologically transparent, as one would expect from the generally agglutinative morphological structure of these languages. In other words, forms that we analyze as a combination of “behind” and “ablative” can be shown to have a formative that expresses ‘behind’ and a formative (possibly a zero formative, though always in contrast with one or more overt formatives) expressing “ablative.” There may be some morphophonemic alternation, but this is never sufficient to remove the possibility of identifying the two formatives. One might contrast this with two other languages that are analyzed as having rich case systems, namely Finnish and, especially, Hungarian. The comparison is interesting in that these two languages are also largely agglutinative, with number and case (and also possessor) in general readily identifiable in combinations.

In Finnish, the relevant local case suffixes are as presented in Table 5, in a paradigm which one usually finds in Finnish grammars. It is possible to rewrite this paradigm into a combination of “orientation points” ‘in’ and ‘on’ and three cases. In terms of a componential analysis of the semantics, one can clearly identify a two-way opposition of orientation (‘in’ versus ‘on’) and a three-way opposition of direction (essive versus allative versus ablative), as in Table 6.

All the ‘on’ forms have initial *-l*, so one might abstract this as the suffix for ‘on’ (though the remaining *-le* of *-lle* would not be identifiable with any independently occurring morpheme). This would suggest perhaps analyzing *-lta* as *-l-ta*, in which case *-sta* would plausibly be analyzed as *-s-ta*. The *-s* and *-l* recur in *-ssa* and *-lla*, which would then have to be analyzed as *-s-Ca* and *-l-Ca*, where C is a consonant slot assimilating to the preceding segment. This, incidentally, mirrors the historical

Table 5. Finnish local case suffixes,
Version 1

inessive	-ssa
illative	-hVn
elative	-sta
adessive	-lla
allative	-lle
ablative	-lta

Table 6. Finnish local case suffixes, Version 2

	'in'	'on'
essive	-ssa	-lla
allative	-hVn	-lle
ablative	-sta	-lta

development, where *Ca* reflects **na* (Hakulinen 1979: 103–105). The *-hVn* suffix is more problematic. It has allomorphs *-hVn*, *-Vn* (in both of which V takes on the quality of the immediately preceding vocalic segment), *-seen* (singular)/*-siin* (plural); etymologically, the *s/h* (for **s*) is probably the same *s* as in the other 'in' forms, but the remainder is not to be identified with any part of the other local case suffixes (Hakulinen 1979: 103–104). Thus, with the Finnish material one can carry out a certain amount of internal analysis, but of the 6 forms one remains completely unanalyzed, one shows a suffix that occurs only in that form, and for the remaining 4 forms one needs 4 formatives; in other words, it is not clear that the decompositional analysis at a synchronic level has any real advantage over saying that there are just 6 unanalyzable case suffixes. There is a real difference between such a system and one as found in Tabasaran and Tsez, where the formal evidence for the decomposition is clear.

Hungarian presents a richer set of local cases, since it distinguishes three orientations, with citation both of the case suffixes attached to nouns (Table 7) and the corresponding case forms of the third person singular pronoun (which also serve as bases for corresponding forms of the other person–numbers) (Table 8). But the picture is much the same as in Finnish. With the case suffixes and the pronouns, the three forms in the 'at' column are totally unrelated to one another. The case suffix

Table 7. Hungarian local case suffixes

	'in'	'on'	'at'
essive	-ban	-n	-hoz
allative	-ba	-ra	-nál
ablative	-ból	-ról	-től

Table 8. Hungarian third person singular pronoun in local cases

	'in'	'on'	'at'
essive	benne	rajta	hozzá
allative	belé	rá	nála
ablative	belőle	róla	tőle

for essive 'on' bears no relation to the other two forms in that column. The ablative row items share a common element *-ól* (or its vowel-harmony variant), and bear a constant relation in the 'in' and 'on' series to the allative, but these are not in turn regularly related to the essive. Decomposition seems to give even less advantage than in the case of Finnish, and traditional Hungarian grammars are surely correct in listing these 9 forms as distinct cases.

4.2 *Semantic transparency*

The second consideration is that the combinations of case morphemes are also semantically transparent, i.e. at least the basic, literal meaning of each combination is predictable from the combination of the meanings of the individual parts. Thus, a form like Tabasaran *xul-x'-an-di* 'house-at-ablative-general' has the meaning 'from the direction of at the house', predictable from the meaning of the individual components. This is not to deny that Daghestanian local cases often have non-local uses alongside their local uses, this in part compensating for the small inventories of non-local cases. In Tsez, for instance, the essive of the 'on (vertical)' in *-q* is also used to express the possessor in predicative constructions, for example:

- (6) *žek'-qo-Ø* ⁵*omoy* *yoλ.*
 man-ON-ESS donkey:ABS be:PRS
 'The man has a donkey.'

In Tabasaran, the ablative of the 'on (vertical)' series in *-k-an* is used to translate English 'about, concerning'. In Tsez, orientation 'at' in the essive case has the secondary meanings of goal or purpose, and orientation 'near' has the secondary interpretation of the comitative. We assume that these are secondary, at least etymologically metaphorical uses of the same case suffixes; many of them are paralleled in other languages, e.g. the use of the same form to express location and possession. It is of course conceivable that with time the non-local use could take over as the basic meaning of a case, as has happened with the so-called essive case of Finnish *-na*, which was originally a local case etymologically identical to the *-Ca* element hypothesized above, but in modern Finnish means 'as, in the role of', as in *opettaja-na* 'as a teacher'; Matsumura (1994) argues that this has also already happened with the adessive in the closely related Estonian language. But this does not yet seem to have happened to the basic local cases in Tabasaran or Tsez.

4.3 *Dative: core or non-core case?*

One problem that has arisen in our consideration of the case systems of Daghestanian languages has been the precise delimitation between grammatical and

semantic cases, in particular between grammatical and local cases—always assuming, of course, that there is a precise delimitation to be made. Indeed, part of our argument below will be that there is no such clear delimitation in Daghestanian languages, because of the tendency for cases and case forms from the rich set of local case forms to enter the domain that in other languages would be covered by grammatical cases. This can be illustrated particularly clearly by the dative. Blake (1994: 144–151, especially 145) sets out the range of functions that dative cases frequently cover cross-linguistically, claiming that the most typical functions are indirect object and, in a somewhat smaller set of languages, beneficiary, goal, and purpose.⁶ Other functions, in particular destination, are found even less typically, though still quite frequently. Blake does, however, also note that it is possible for datives to derive from local cases, as in the case of Romance *a* (Spanish, Italian *a*, French *à*), which both expresses indirect object and retains local functions of the kind associated with its Latin etymon *ad* 'to', expressing direction (Blake 1994: 173).

From the semantic viewpoint, the function of the protoypical dative can be decomposed into that of direction, as in the act of transfer, and that of the beneficiary ("interested party," as suggested in van Belle and van Langendonck 1996: xv–xviii). Arguably, both of these functions are consistent with the semantics of local cases. The directional function clearly implies a locative reading and is therefore consistent with the encoding of goal, destination, or purpose (as an abstract goal which has to be reached, attained, etc.). All these functions evoke the semantics of the allative, and we will refer to this function below as the allative function. The beneficiary bears resemblance to a possessor, and possession is often construed as location at or with the possessor, thus compatible with the semantics of the essive, hence the essive function below.⁷ In theory, one language can maintain both functions within the confines of one morphological form. However, since the functions, although semantically related, are still distinct, one of them may be suppressed and the other made prominent. Since the essive implies absence of motion, if the essive function is made prominent, that can easily allow for the reanalysis into a more abstract and therefore, more grammatical meaning. This is the situation in classical Latin or in Old Church Slavic, where multiple dative functions are all rather abstract and motion towards can be encoded by another argument case, the accusative, but not by the dative. Likewise, Hungarian has a clear dative (the case in *-nak/-nek*), with little or no locative semantics.

If the essive function is suppressed and /or the allative function is made more prominent, one can expect that the directional semantics of the case would be maintained. This expectation is borne out by the above mentioned prepositional dative of modern Romance languages as well as by Finnish and Daghestanian, to which we now turn. The way of encoding indirect objects in Finnish is to use the so-called allative in *-lle*. However, this case clearly fits into a set of local cases, and has the

literal meaning 'onto'. Grammars of Finnish almost invariably give the local meaning as primary, which is surely correct historically, and given the tightly knit system of local cases may well also be correct synchronically, in which case the allative would be basically a local case which has nonetheless acquired the function of encoding indirect objects, i.e. a function typical of grammatical case.

Let us now turn to Daghestanian languages, starting with Tabasaran. Magometov (1965) treats the Tabasaran-dative-along-with-the-absolutive (in his terminology, nominative), ergative and genitive, i.e. as a grammatical case, and not with the local cases. However, Magometov also notes that the dative is frequently used in Tabasaran to express motion towards, in place of the more specific local cases with orientation suffixes, and, moreover, that the dative can be combined with the non-specific suffix *-di*, which otherwise occurs only with local cases; the combination of dative with *-di* has clearly local meaning, 'in the direction of, towards', e.g. *xal* 'house' (oblique stem *xul-a-*), dative *xul-a-z* '(to) home', *xul-a-z-di* 'homewards' (Magometov 1965: 128). The Tabasaran dative, then, seems to stand on the borderline between local and grammatical case. Another aspect in which it behaves more like a grammatical case is its use to encode the experiencer of certain verbs expressing psychological predicates (Kibrik 1985: 282-283), accidental events, etc., e.g.

- (7) *izu-s b-iqun-is bay.*
 I-DAT ANIM-found-SG I boy
 'I found the boy.'

In (7), the prefix *b-* on the verb agrees with the animate noun phrase *bay* in the absolutive case, while the suffix *-is* agrees with the dative pronoun *izus*, this agreement again suggesting grammatical rather than local status for the dative noun phrase. In Tabasaran, then, alongside the clearly grammatical absolutive, ergative, and genitive, the dative occupies an intermediate status between grammatical and local case, combining features that are otherwise typical of each set of cases.

The nature of the dative in Tsez leads to similar conclusions, although the precise details are somewhat different, in addition to which we have more information on the behavior of the dative than is available in the literature on Tabasaran. First, let us note the salient feature that makes it similar to a local case. The suffix *-r*, which we are somewhat arbitrarily labelling 'dative' can occur after orientation suffixes, and in this combination its meaning is that of motion towards, i.e. local. Only when it occurs without an orientation suffix does it acquire the function of encoding an indirect object (in addition to some other non-local functions noted below). Thus the single suffix with which we are concerned has both clearly local and clearly grammatical functions.

Restricting ourselves now to the Tsez dative suffix without an orientational suffix, we observe that, as in Tabasaran, it has a grammatical function in addition to

that of encoding indirect object, namely that of encoding the experiencer of psychological predicates, etc., e.g.

- (8) *madina-r obiy Ø-eti-x.*
 Madina-DAT father II-like-PRS
 'Madina likes father.'

(In (8), the null prefix on the verb shows agreement in class with the absolutive noun phrase *obiy*; only vowel-initial verbs show agreement in Tsez, and agreement is only with the absolutive noun phrase.) But in fact, in Tsez we find even further evidence of the permeation between local and grammatical cases. Surely the most striking example is the fact that most nouns use the essive of the 'in' local series in ergative (transitive subject) function, as in:

- (9) *obiy-ā magalu b-is-si*
 father-in:ESS bread III-buy-PSTEVID
 'Father bought the bread.'

(The word *magalu* 'bread' belongs to class III.) Note that Tabasaran, by contrast, has a distinct ergative case, as do most Daghestanian languages. A Tsez local case form from the 'on (vertical)' orientation series, namely the essive in *-q(o)*, also plays a role as a grammatical case marker in ways similar to the dative in Tsez. In Tsez, indirect objects can take either *-r* or *-q(o)*, the latter being the dative of the 'on (vertical)' series and expressing temporary possession by the recipient, while the simple dative without an orientation suffix expresses permanent possession, e.g.

- (10) *už-ā kid-be-r elu teλ-si.*
 boy-ERG girl-TH-DAT blueberry give-PSTEVID
 'The boy gave (the) blueberries to the girl (to keep).'

- (11) *už-ā kid-be-q elu teλ-si.*
 boy-ERG girl-TH-on:VERT:ESS blueberry give-PSTEVID
 'The boy gave (the) blueberries to the girl (for a while).'

Just as the dative is used to express the subject of certain verbs, such as psychological predicates, so too the essive of the 'on (vertical)' series is used to express the subject in a construction expressing accidental action, as in (12):

- (12) *dā-q č'ikay y-exu-s.*
 I-on:VERT:ESS glass II-break-PSTEVID
 'I accidentally broke the glass.'

(The word *č'ikay* 'glass' belongs to class II.)

What these data suggest is an increased tendency in languages with rich case

systems for local cases to permeate the domain of grammatical cases. Only further investigation will tell whether this typological correlation does indeed hold up, and also what other typological correlates there may be in this area.

5. Conclusion

As a final note, we observe that *The Guinness Book of Records*, in discussing complexity in verbal morphology, says (Young 1997: 249), in the same paragraph cited in Section 1:

The Ample language of Papua New Guinea has over 69,000 finite forms and 860 infinitive forms of the verb.

Crucially, this statement does not refer to the number of tenses, moods, or whatever, but simply to the number of forms, i.e. the number of possible combinations. Had its reference been to noun forms, rather than to cases, then the number for Tabasaran might have seemed both more plausible, and indeed rather low: given that Tabasaran has distinct singular and plural forms, its dialects have 94 or 106 forms, while by the same token Tsez has 252. But crucially, we are here dependent on the power of multiplication, so that even a small number of morphological oppositions that can combine with one another can soon give a large number of forms. Imagine a somewhat idealized Turkic language, with 2 numbers, 6 cases, and 6 sets of possessive suffixes (for each of three persons and two numbers). None of the individual morphological oppositions is particularly rich, but the total number of combinations is already 72. Add in one more number, i.e. a dual, and the total goes up to 162 (surpassing Tabasaran). The moral of this is that the enterprise of counting combinations of morphological categories, while no doubt in some sense "fun," may detract from the more serious task of identifying the number of morphological categories and the principles that permit their combination.

Notes

1. This paper is based in part on work supported by the National Science Foundation under grant SBR-9220219. It incorporates material provided by Ramazan Rajabov, Research Assistant to this project. Some of the material on the case system of Tsez was presented by Comrie at a meeting of the research group *Frontiers in Morphology* at the University of Surrey, England, in June of 1996; we are grateful to other participants in the meeting, and also to Margarte Langdon, for their comments.
2. The full last clause of the quotation given in the text is "Tabassaran, a language of Daghestan, Azerbaijan, uses the most noun cases." As indicated in the text, Daghestan is not part of Azerbaijan,

and indeed Tabasaran (also spelled: Tabassaran) is spoken in Daghestan, not in Azerbaijan, though perhaps confusingly Azeri (Azerbaijani) is used as a lingua franca by speakers of northern varieties of Tabasaran. The misleading geo-political information is not included in the British edition of *The Guinness Book of Records*.

3. The suffix *-šay* indicates inseparability, *-xu* separability, but the two tend not to be distinguished in modern Tsez, and the distinction is not made in the examples cited in the text.
4. The Andi are another Daghestanian people.
5. It does not, however, shorten after an *ā* that is part of the stem, e.g. $\lambda' \overset{f}{\bar{a}}-\lambda'-\bar{a}y$ 'off the roof', where $\lambda' \overset{f}{u}$ 'roof' has the oblique stem $\lambda' \overset{f}{\bar{a}}$. The alternation is thus both phonologically and morphologically conditioned.
6. One of the problems with such an account seems to be confusion between a grammatical function (indirect object) and several semantic functions commonly but not necessarily associated with that grammatical function. This underscores the problems inherent in a cross-linguistic categorization of the dative (see also van Belle and van Langendonck 1996: xvi-xvii).
7. The literature on this particular issue is unusually extensive and we will limit ourselves to the classical work by Benveniste (1960), which has subsequently inspired a large number of studies, including purely structural analyses (Hoekstra 1995).

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