# Two-TERM Case Systems in Cross-Linguistic Perspective 

Peter M. Arkadiev<br>Institute of Slavic Studies, Russian Academy of Sciences, Moscow

## Introduction

Although two-term case (or bicasual) systems (for a rigorous definition of the term, see Section 1) are quite widespread in the world's languages (see Section 2), they quite surprisingly have not received enough attention from linguists, especially from typologists and theoreticians. General introductions to case, such as Blake 1994/2001, mention such systems in passing, as if hurrying to turn to richer - and, obviously, more instructive case systems.

Nevertheless, two-term case systems constitute quite an interesting phenomenon whose study may be fruitful from various points of view: bicasual systems show what a 'minimal' case system may be like, which meanings of case markers may go together, how different patterns of argument encoding (accusative, ergative etc.) may interact under extremely limited expressive possibilities (see Sections 3 and 4). Two-term systems are of especial relevance to the diachrony of cases systems: very often such systems represent either the last or the first stage of the existence of case in the language, and their study is important for our understanding of how case systems emerge and dissolve (see Section 5). These are the issues which are going to be discussed in this article.

## 1. Defining two-term case systems

Case is probably a 'prototypical' grammatical category, and surely one of the most extensively studied. Nevertheless, one cannot say that all linguists agree on what 'case' is and how to discriminate between 'genuine' cases and those grammatical elements which are only similar to cases proper (see, e.g. Zaliznjak 1973, Comrie 1991, Anderson 1994, Blake 1994/2001, Mel'čuk 1986, 2006 for different approaches to these questions). In this article I am certainly not going to discuss in detail any of the problems arising when linguists try to define the category of case, and will simply point out some important properties which I consider characteristic of this category.

First of all, I do not consider here 'abstract case' in the sense of Chomsky (1981) and subsequent work in the Generative tradition. I adhere to the traditional, 'close to the surface' conception of case as a morphological category that by no means is universal, i.e. a given language may lack case at all, and case systems of different languages may be quite different from one another. That, however, does not imply that there are no universal tendencies and constraints case systems are subject to.

Second, following Blake (1994/2001: 1), I regard case as a grammatical category which marks the semantico-syntactic role of a noun phrase (NP) with respect to its syntactic head (or, in constituency terms, with respect to the syntactic domain it is contained in). However, I believe that it is reasonable to restrict the set of possible syntactic heads (resp. domains) of a case-bearing NP to finite verbs (resp. finite clauses). That is, a grammatical category marking dependency relations between some X and NPs is case if it has at least two members which appear when X is a finite verb. Under this definition, such categories as English or Swedish possessive suffixes which only appear on NPs embedded into other NPs are not case. Similarly, systems like Bulgarian where there is a 'common' form of nouns appearing in all syntactic contexts, and a vocative form used for appealing to a person, are not case either.

Next, although typically case is a word-level morphological category expressed by bound affixes, there are some instances of grammatical systems which are functionally similar to case (e.g. that of Japanese or of the languages of Polynesia) but which are expressed by ele-
elements not bound to the stem, i. e. by clitics. Such postpositional and prepositional markers are considered case here, if they fall under the 'finite verb' requirement of the previous paragraph.

Finally, there are instances, when a language has two (or even more) levels or 'layers' (in terms of Hopper 1991) of markers whose function is to mark syntactic dependency of NPs. A good example present the Indo-Aryan languages (see Masica 1991: 238-248), where the 'inner' level of case-markers is constituted by two bound affixes, while on the 'outer' levels appear more or less grammaticalized postpositions. The obvious question is where to draw the line between case and non-case in such situations. Two factors are of importance here: the degree of morphologization of the 'outer' levels of 'case-markers' and again the 'finite verb' requirement. If the former adpositions have already become bound affixes inseparable from the stem and undergoing some word-level morphophonological processes, then it is absolutely legitimate to consider them case markers. Otherwise, the distribution of the 'inner' level affixes is important. If both of them may appear without any elements of the 'outer' layers, and do not violate the 'finite verb' requirement, then only the 'inner level' of markers is regarded as an instance of the category of case.

Thus, we have arrived at a more or less rigorous definition of a two-term case system:
(1) A language has a two-term case system if it has a grammatical category $G$ with the following properties:
a. G is defined on NPs and is expressed within NPs;
b. G has two (formally distinct) members;
c. both members of G can mark the type of semantico-syntactic dependency of NP with respect to the finite verb.

The following terminological remark is in order here. To avoid confusion and aprioristic labels, the members of a bicasual system will be called Dir(ect) and Obl(ique). The label Dir is assigned to the case which coincides with the citation form of the noun - without any commitments about other possible functions of this case.

## 2. Areal and genetic distribution of two-term case systems

Two-term case systems are attested in almost all major linguistic areas, although their distribution is far from being even. They are sporadically found in Europe, most notably in such already extinct languages as Old French and Old Provençal, but also in the Balkans, where they are found in literary Romanian and in some Greek, Bulgarian, Macedonian and Serbian dialects, in some Scandinavian dialects, and in modern English pronominals. In Asia bicasual systems are abundant in the Iranian, Dardic and Nuristani languages, less in the IndoAryan languages, and they are also attested in the Circassian languages of the North-West Caucasus (Adyghe and Kabardian). Such systems figure prominently in Africa, where they are found in almost all Berber languages, in the Ethiopian branch of the Semitic family, in many Cushitic languages (all belong to the Afroasiatic phylum), and in the Nilotic languages, which belong to the Nilo-Saharan phylum.

In the New World two-term case systems are not so common, probably due to the overall aversion of these languages towards dependent-marking. Here such systems are attested in the Salish language family, in some Uto-Aztecan languages, in Choktaw (a Muskogean language). In the South America only a Bolivian isolate Movima and some Chibchan languages show a two-term case system (the latter with personal pronouns only), but it is probable that a closer investigation reveals more such languages in that rather underdocumented region.

In the Pacific area two-term case systems are only sporadically attested, being found in Nias (an Austronesian language of Western Indonesia), in Yimas (a Papuan language of

New Guinea Highlands), in Maung (a Yiwaidjan language of Northern Australia, where case is restricted to independent pronominals), and in Aleut.

Thus, the languages with bicasual systems show great areal and genetic diversity, and it is no surprise that the case systems themselves exhibit a considerable cross-linguistic variability. However, commonalities among two-term case systems found in the languages of the world are also quite noteworthy. Both similarities and differences among such systems will be discussed in the next sections.

## 3. Functional properties of two-term case systems

When we look at a case system of a language, there are several questions we must answer in order to sufficiently characterize it. The principal one concerns the range of meanings the cases are able to express. With respect to two-term case systems this question is rather divided into two:

1. Which semantico-syntactic functions are expressed by cases themselves (and not by other means, e.g. by adpositions)?
2. How are these functions distributed between Dir and Obl?

Thus, there are two major functional parameters of the typology of two-term case systems:

1. The 'case zone', i.e. the range of functions covered by the 'bare' cases.
2. The 'division of labor' between the cases in the 'case zone'.

Most languages with morphological cases possess also a more or less rich system of adpositions which express various meanings; bicasual systems are no exception, although among them are found languages with almost no adpositions (e.g. Salish and Yimas). We would expect that in a language with only two morphological cases and an array of adpositions the range of functions which cases themselves can express must be rather limited, since in a two-term case system polysemy may easily lead to ambiguity. What we actually find, however, is that in the overwhelming majority of two-term case systems the 'case zone' is quite broad and usually includes, besides the core roles of S (ole), A (gent), and P (atient), also such functions as Recipient, Possessor, various locative and other circumstantial relations. A typical system of this kind is found in Old French, cf. the following examples:

S, the sole argument of an intransitive predicate (Foulet 1970: 4)
(2) li chevalier-s $s=e n$ part.
the:DIR knight-DIR.SG REFL=CL depart:PRS
'The knight departs from there.'
A and P of a transitive verb (Moignet 1976: 90)

| il | vit $\quad$ un | home | crucefié. |  |
| :--- | :--- | :--- | :--- | :--- |
| he:DIR | see:PST | a:OBL.SG | man:OBL.SG | crucified:OBL.SG |

'He saw a crucified man.'
nominal predicate (Foulet 1970: 8)
il est me-s pere.
he:DIR is my-DIR.SG father:DIR.SG
'He is my father.'
Addressee/Recipient with ditransitive verbs (Moignet 1976: 91)
dites le roi que...
say:IMP.2PL the:OBL.SG king:OBL.SG that
'Tell the king that...'
adnominal Possessor (Foulet 1970: 14)
(6) la niece le duc
the niece the:OBL.SG duke:OBL.SG
'the niece of the duke'
goal of motion (Moignet 1976: 96)
(7) droit sentier qui cele part le menast. direct:OBL.SG road:OBL.SG that:DIR.SG this:OBL.SG place:OBL.SG he.oblwould.lead '[He could not find] a direct road that would lead him to that place.'
temporal interval (Moignet 1976: 95)
Erec dormi po cele nuit.
Eric:DIR.SG sleep:PST little this:OBL.SG night:OBL.SG
'Eric slept a little this night.'
manner of action (Foulet 1970: 32)
$s$ ' $=e n$ part le-s gran-z galop-s.
REFL=CL depart:PRS the-OBL.PL great-OBL.PL gallop-OBL.PL
'[And the knight] departs in great gallop.'
Other functions found in two-term case systems include Instrument, cf. (10) (Squamish, Salish, Kuipers 1967: 169), Location, cf. (11) (Yimas, Foley 1991: 166), Comitative, cf. (12) (Movima, Haude 2006: 282):

$$
\begin{array}{lll}
\text { na }=\lambda i c ̌ \text { ' } \text { tas } & t a=s m i c \quad t=t a=\lambda a c ̌ ' t n . ~  \tag{10}\\
\text { ASP=cut:3SG.A/3SG.P } & \text { ART=meat } & \text { OBL=ART=knife } \\
\text { 'He cut the meat with a knife.' }
\end{array}
$$

(11) そaŋk-nan ama-na-irm-n.
grass-OBL 1SG-DEF-stand-PRES
'I am standing in the grass.'
(12) kide: da' kaykay jayna $n=u s$ alwaja='ne. they DUR eat:RED now OBL=ART spouse=3SG.F
'They are eating now with her husband.'
Functionally rich systems like the Old French one are very common; on the contrary, 'narrow' systems, where the 'case zone' is limited just to core cases, or includes only one or two peripheral functions, are rare (cf. the Berber languages, Aleut, and Wakhi, an Iranian language of Pamir). Such a cross-linguistic distribution of 'broad' vs. 'narrow' two-term case systems implies that languages perfectly tolerate extended polysemy of case markers. This is partly due to the general tendency of highly grammaticalized case markers to encode particular functions only with those nominals which are 'natural' with these meanings (see Aristar 1997). For instance, Obl may be interpreted as "locative" with the names of locations, as "instrumental" with names of instruments, and as "dative" with animate nominals.

Let us turn to the second parameter, i.e. the distribution of functions among the two cases. If we first look at the encoding of core grammatical relations, in the languages with bicasual systems we will find all possible kinds of marking. The nominative-accusative marking is the most common one (e.g., Old French, Uto-Aztecan, Berber, Nilotic, Amharic, Persian etc.); next comes the neutral encoding (Salish, Yimas, Movima, Aleut). The ergativeabsolutive marking is dominant only in the Circassian languages, and in Nias and Päri, a Nilotic language, but occurs as an option in Aleut and in many Indo-Iranian languages. The S/A or S/P participant is usually encoded by Dir, but there are notable exceptions, cf. Kabyle
(Berber, nominative-accusative, Chaker 1983: 276, 279) (13), (14), and Nias (ergativeabsolutive, Brown 2001: 94), (15):
fy-n $\quad y$-rgaz-n.
left-3pL obL.PL-man-PL
'The men left.'
$y$-wt aqšiš-ni w-rgaz-im.
3SG-hit DIR:boy-this OBL.SG-man-2SG
'Your husband hit this boy.'
me mofanö ya, la-roro ya niha fefu.
when left he:OBL 3SG-follow he:OBL DIR:person all
'When he left, everyone followed him.'
In Kabyle, as well as in Berber, Nilotic, Cushitic, and Muskogean languages, it is the S/A relation which is marked by Obl, not the P. Similarly, in Nias the A is encoded by Dir, whereas the S/P participant receives morphological marking. The rationale of such systems lies not in the alleged 'unmarkedness' of the S relation (cf. Comrie 1978), but in the general markedness principles (cf. Givón 1995, Haspelmath 2006a): among the two cases in a minimal system it is the 'default' case employed to encode many different functions, which remains the unmarked member of the morphological opposition; cf. the following examples from Nandi (Nilotic, Creider \& Creider 1989: 124, 123), where it is the unmarked Direct case which is used for the Recipient as well as Patient (16) and locative functions, (17) and (18):
kí:-ka:cì kípe:t la:kwé:t ce:kà.
PST-give Kibet:OBL child:DIR milk:DIR
'Kibet gave milk to the child.'
wê:ntí: cé:pyó:sé:t oltôret.
go woman:OBL Eldoret:DIR
'The woman is going to Eldoret.'
mì:téy kípro:no kitâ:li.
be Kiprono:OBL Kitale:DIR
'Kiprono is in Kitale.'
On the contrary, the case whose only function is to encode the 'subject' (S/A) argument, is both functionally and formally marked. The next question is why the 'subject' function is not encoded by the 'default' Direct case in these languages. The answer probably lies in the realm of pragmatics: it is usually only the non-topicalized and thus functionally marked 'subject' participant which receives Obl encoding in these languages, cf. the following examples from Nandi (Creider \& Creider 1989: 121-125):
kè:réy kipe:t kípro:no.
sees Kibet:OBL Kiprono:DIR
'[It is] Kibet [who] sees Kiprono.'

| kipe:t | kó | kê:réy | la:kwé:t. |
| :--- | :--- | :--- | :--- |
| Kibet:DIR | TOP sees | child:DIR |  |
| 'Kibet, he sees a child.' |  |  |  |

Therefore, such 'marked nominative' systems are in fact functionally well motivated.
Among the two-term case systems 'split' case marking is very common; in the IndoIranian group, where there is both a tense-aspect split in the marking of A, and definite-
ness/animacy split in the marking of P , up to four constructions (neutral, accusative, ergative, and double-oblique) may co-exist in a single language, cf. the following examples from Vafsi (Iranian, Central Iran, Stilo 2004):
accusative (non-past, individuated P; Stilo 2004: 243)

| $t æ$ | in | $x \nVdash r-i$ | $n æ-$ ruš- $i ?$ |
| :--- | :--- | :--- | :--- |
| you(DIR) | this | donkey-OBL | NEG-sell-2SG |

'Won't you sell this donkey?'
neutral (non-past, non-individuated P; Stilo 2004: 243)
$\begin{array}{llll}b æ-s s-e & \text { yey } & x æ r & \text { ha-gir-e. } \\ \text { PFV-went-3SG one } & \text { donkey(DIR) } & \text { PVB-take-3SG }\end{array}$
'He went to buy a donkey'.
ergative (past, non-individuated P; Stilo 2004: 244)

| in | luti-an | yey | xær=esan |
| :--- | :--- | :--- | :--- |
| this | wise.guy-OBL.PL | one | donkey(DIR)=3PL |$\quad$ DUR-sell.PST.

'These wise guys were selling a donkey'.
double-oblique (past, individuated P; Stilo 2004: 244)

```
luas-i kærg-e=s bæ-værdæ.
fox-OBL chicken-OBL=3SG PFV-take.PST
```

'The fox took the chicken'.
The double-oblique pattern exemplified in (24) is a feature quite widespread in the Iranian languages (cf. Payne 1979, 1980, 1989 for such structures in the languages of Pamir, and Stilo, to appear, for a general perspective), but almost non-attested outside this linguistic group. Despite its rarity, such a pattern of argument encoding is perfectly motivated. In order to reveal such a motivation, let us turn to a related language, viz. Hindi (Indo-Aryan), which differs from Vafsi in having rich postpositional marking of core grammatical relations. Just as in Vafsi, in Hindi there is a tense-aspect split in the marking of A, and an animacy/specificity based split in the marking of P, cf. the following examples from Mohanan 1994:
neutral (non-perfective, inanimate P; Mohanan 1994: 59)
(25) Ravī kelā khā rahā thā.

Ravi(NOM) banana(NOM) eat DUR COP.PST
'Ravi was eating a banana'.
accusative (non-perfective, animate P; Mohanan 1994: 59)
(26) Nīn $\bar{a} \quad$ bacce $=k o \quad$ uthāyegī.

Nina(NOM) child. $\mathrm{OBL}^{1}=$ ACC pick.up.FUT
'Nina will pick the child up'.
ergative (perfective, inanimate P; Mohanan 1994: 59)
(27) bacce=ne kītāb padhī.
child.OBL=ERG book(NOM) read.PFV
'The child read a book'.

[^0]tripartite (perfective, animate P; Mohanan 1994: 80)
Īlā=ne bacce=ko uthāyā.
Ila=ERG child.OBL=ACC lift.PFV
'Ila lifted the child'.
If we now compare the Vafsi examples (21)-(24) with the Hindi ones (25)-(28) we will clearly see that the motivations for marking arguments with particular overt case markers (Obl in Vafsi, Acc and Erg in Hindi) or for leaving them unmarked (Dir in Vafsi, Nom in Hindi) are almost identical. A is marked in the Past tense/Perfective aspect, and unmarked otherwise; P is marked if it is individuated (definite in Vafsi and animate in Hindi) and left unmarked if it is not. The difference lies in the way these well-known functional motivations (cf. DeLancey 1981, Tsunoda 1981, Dixon 1994, Lazard 1994) are formally implemented in the two languages. Since in Hindi a whole array of postpositions is used to mark arguments, it is possible to encode A in the Perfective distinctly from the animate P; thus, when both 'marked' options are chosen (i.e. Perfective and animate P ), the result is a 'tripartite' encoding of core relations, where both A and P bear overt case markers and those case markers are different, cf. (28). On the contrary, in Vafsi there are only two cases, and postpositions are not allowed in core grammatical functions, so the only way to realize the 'marked' clause type is to put both the A and the P NPs into the Oblique case; thus a double-oblique (or 'quasineutral') structure emerges, cf. (24).

Thus, we have seen not only that the 'quasi-neutral' pattern of case marking does exist (that claims, cf. Comrie (1978), that such 'non-economical' and 'non-distinctive' patterns of case marking are ruled out by general functional principles and do not appear in the languages of the world, were shown to be empirically inadequate already in the aforementioned papers by John Payne, cf. also an earlier paper by Skalmowski (1974)), but that moreover it is clearly motivated by universal functional principles of iconicity. What is important here is the role that the inventory of case markers a language possesses plays in the marking of core relations. It seems that 'double-oblique' pattern can emerge only in bicasual systems, at least, the probability of its presence in a language with a richer case systems is very low.
'Non-distinctive' structures like those in Vafsi emerge when both 'splits' in case marking apply independently of one another; this is not the only possibility, however. In some languages of the same Iranian group the individuation split in the encoding of P is observed only in the non-past tenses, i.e. precisely in those contexts where the other transitive argument is unmarked. Examples of such more complex interaction of different motivations come from Zaza (Turkey, Selcan 1998: 277-279):
neutral (non-past, inanimate P)

| televe | kitav | cên-o. |
| :--- | :--- | :--- |
| student(DIR) | book(DIR) | take-PRS.3SG |

'The student is taking the book'.
accusative (non-past, animate P)
televe malm-i vinen-o.
student(DIR) teacher-OBL see-PRS.3SG
'The student sees the teacher'.
ergative (past, any kind of P )
televe-y kitav di.
student-OBL book(DIR) see:PST
'The student saw the book'.
(32) televe-y malim( $\left.{ }^{*}-i\right)$ di.
student-OBL teacher(*OBL) see:PST
'The student saw the teacher'.
It is obvious from these examples, that in Zaza the need to morphologically distinguish between the arguments of a transitive clause is ranked higher than in Vafsi: the differential marking of P is suspended in the Past tense precisely because otherwise the nondistinctive 'quasi-neutral' encoding would have emerged ${ }^{2}$.

A clause-type split is found in the Uto-Aztecan languages, where the S/A participant is marked by Obl in subordinate clauses, cf. the following examples from Yaqui (Lindenfeld 1973: 81, 103):
(33) hu-ka o?oo-ta yepsa-k-o itepo saha-k.
this-OBL man-OBL arrive-PRF-NML we.DIR go-PRF
'When this man arrived we left'.
(34) $n a=a$ biča $k e \quad h u-k a \quad u s i-t a \quad \check{c} u ? u-t a \quad k i p w e-? u$.
I.DIR=3SG see that this-OBL child-OBL dog-OBL have-NML
'I see that this child has a dog.'
Main vs. subordinate split in Yaqui (and in other Uto-Aztecan languages as well) is motivated by the nominal character of the non-finite verb forms, which require that their subjects are encoded like adnominal possessors. This is especially evident with personal pronouns which have a separate possessive form (cf. (35) vs. (36), Lindenfeld 1973: 17, 56), and it is this form which is used to encode the pronominal subject of subordinate clauses (cf. (37), Lindenfeld 1973: 72):
(35) hu-me misi-m nee maka
this-PL cat-PL I:OBL give:IMP
'Give me these cats!'
(36) in ačai-ta čonim tosali

I:POSS father-OBL hair white
'My father's hair is white.'
(37) ini-ka bači-ta em hinuk-a?u nee maka

ART-OBL grain-OBL you:POSS buy-NML I:OBL дать:IMP
'Give me the grain that you bought!'
Two-term case systems exhibit peculiar patterns not only in the marking of the core participants, but also in the ditransitive alignment (for a recent extensive typology of argument encoding of three-place verbs see Haspelmath 2006b). For instance, secundative alignment (linking the Recipient of the ditransitive verb to the Patient of the transitive), quite common in general, but rather rare in dependent marking, is quite well attested in bicasual systems. Cf. the following examples from Movima (Haude 2006: 281, 282):
(38) usko bay-a-cho=us as wa:so.
he:DIR hit-TR-into=3SG.M ART:DIR glass
'He broke the window.'
(39) kayałe=us os pa:ko n-os charke.
give:TR=3SG.M ART:DIR dog OBL-ART meat
'He gave the meat to the dog.'

[^1]and from Phalura (Dardic, Pakistan, Buddruss 1967: 33, 32):

```
mi la monuṣ-e dorsōno.
I:OBL this man-OBL see:PST
'I saw this man.'
```

```
la monus-e i i dè!
this man-OBL water(DIR) give:IMP
```

'Give this man some water!'
From these examples we may observe an important difference in argument marking between Movima (and also Salish languages) and Phalura (and other Indo-Iranian languages): in the former the 'primary object' (using Dryer's (1986) term) is unmarked and treated as a core argument; this is especially evident in the Salish languages, where the primary object is expressed on the verb by a pronominal affix, cf. example (42) from Halkomelem (Kroeber 1999: 30).

$$
\begin{align*}
& n i=c ə n \quad \theta \partial y \partial \not c \theta \text { - amə } \quad \rho \partial=k^{w} \theta-ə n ?=\operatorname{sn} \partial x^{w} \partial t .  \tag{42}\\
& \text { AUX=1SG fix-2SG OBL=ART- } 2 \mathrm{SG}=\mathrm{canoe} \\
& \text { 'I fixed your canoe for you' }
\end{align*}
$$

On the contrary, in the Indo-Iranian languages it is the Theme of the ditransitive predicate which is encoded by the (usually unmarked) Direct case, whereas the 'primary object' is marked by Obl. This is due to the aforementioned 'differential object marking', which requires that individuated (non-subject) participants are marked - and individuation (especially animacy) is one of the defining characteristics of Recipients. Moreover, what we observe in (40) and (41) from Phalura is not secundative alignment per se, but rather a result of the interaction of different patterns of argument marking; actually, if we juxtapose (41) to (43) (Buddruss 1967:33) we will observe not the secundative alignment, but the indirective one, which links the Theme of the ditransitive predicate to the Patient of the transitive:
bāb-e monuṣ dēšålo.
father-OBL man(DIR) send:PST
'Father has sent a man there.'
Thus again what is important when we determine the alignment system of a language is not the rather evasive 'global' patterns which result from generalizations over different types of clauses, but the semantico-pragmatically motivated patterns of encoding of particular arguments.

If we now turn to the general patterns of the functional organization of two-term case systems, we may find two main types of distribution of meanings between the cases:

1. 'Dividing' systems, where all peripheral functions are attributed to a single case (usually Obl ), which may also have a core function.
2. 'Distributing' systems, where both cases have core as well as peripheral functions.
'Dividing' systems are by far the most common, while the genuine 'distributing' systems occur only in some languages of the Pamir and Hindukush region, e.g. in the Nuristani language Kati (see Table 1, Edelman 1983: 60-61).

Table 1. Functions of cases in Kati

| Dir | S, A, P; Goal, Locative |
| :--- | :--- |
| Obl | A in the past tenses, definite P; Re- <br> cipient, Possessor |

Such an uneven distribution of the two types of bicasual systems is probably due to the general tendency of cases to encode natural classes of functions, e.g. core vs. peripheral or S/A vs. all others. On the contrary, in the 'distributing' systems such as that of Kati the only rationale for the 'division of labor' between the cases is their diachronic origin: the IndoIranian Dir stems from the collapse of the older Nominative and Accusative, while Obl derives from the former Genitive-Dative. In the 'distributing' systems the two cases retain the functions which belonged to different cases they originate from. It is noteworthy that the majority of the Indo-Iranian languages must have undergone a functional change and redistributed the functions of cases, so that now their two-term case systems are of a genuinely 'dividing' type, cf. the functions of cases in Mukre, a Central Kurdish dialect of Iraq (McKenzie 1961), Table 2.

Table 2. Functions of cases in Mukre

| Dir | S, A, P |
| :--- | :--- |
| Obl | A in the past tenses, definite P; Re- <br> cipient, Possessor, Goal, Location, <br> Temporal |

To summarize, from the point of view of the semantic content of a case system, bicasual systems may be characterized by the following properties:

1. The cases usually cover a broad range of meanings, including both core grammatical relations and peripheral functions (locative, temporal, manner etc.).
2. The markedness relations between Dir and Obl tend to iconically reflect the functional load of these forms: the case with a greater variety of uses and a nonrestricted distribution is usually the morphologically unmarked Dir, even though the 'subject' relation may be encoded by the other case.
3. The distribution of functions between cases more often than not follows the pattern where all peripheral functions are subsumed under one of the cases only.
4. Iconicity (encoding of paradigmatic distinctions, e.g. individuated vs. nonindividuated P ) may often outrank distinguishability (syntagmatic distinction between A and P ) in case-marking.
5. Different 'alignments' ('global' systems of encoding of core arguments) are epiphenomenal to iconic patterns of encoding of particular arguments and the inventory of case markers (cf. similarly motivated tripartite encoding in Hindi vs. 'double-oblique' in Vafsi).

## 3. Morphological properties of two-term case systems

In the previous section the cross-linguistic trends in the functional organization of two-term case systems were surveyed. Now let us consider the morphological make-up of such systems. Here we find that typologically rare and unusual patterns appear with a frequency greater than average. This concerns both form and position of case exponents attested in bicasual systems. The most frequent type of marker used in such a system, with accordance to a well-known cross-linguistic tendency, is a bound affix, but there are deviations from this prototype in both directions. Thus, in Halkomelem and some other Salish languages, in Amharic, and in Persian Obl is a clitic, cf. e.g. the following examples from Amharic where the case marker - $ə n$ behaves as a second-position clitic attaching to the preposed adjective rather than to the head noun (Leslau 1995: 184):

| wวšša=w | toll $\partial q=u=n \quad$ bäqlo | näkkäsä. |
| :--- | :--- | :--- |
| dog=ART | big=ART=OBL mule | bite:PST |

'The dog bit the big mule.'

In Persian Obl is a right-edge enclitic, appearing on the last word of an NP, cf. a conjoined NP in (45) and an NP with a postposed modifier in (46) (Amin-Madani \& Lutz 1972: 53, 321):
(45) Faršid kaqaz va medād=rā bord.

Farshid paper and pencil=OBL take:PST
'Farshid took paper and a pencil.'
$\begin{array}{llll}\text { in gol-e qašang=rā } & \text { barāye }=\check{s} o m a \bar{a} & \text { avarde ast. } \\ \text { he flower-EZF beautiful=OBL } & \text { for=you(PL) } & \text { brought AUX:3SG }\end{array}$
'He brought these beautiful flowers for you.'
On the contrary, in Nias Obl is realized by a morphophonological process, i.e. 'mutation' of the initial consonant of the stem, cf. Table 3 (Brown 2001: 39-40):

Table 3. Mutation as case exponence in Nias

|  | 'rice' | 'land' | 'stick' | 'pig' |
| :--- | :--- | :--- | :--- | :--- |
| Dir | fakhe | tanö | si'o | baßi |
| Obl | vakhe | danö | zi'o | mbaßi |

Morphophonological alternations function as case exponents, usually alongside with affixes, also in Old French and Old Provencal, in many Indo-Iranian and Afroasiatic languages. Finally, in Nilotic and Cushitic languages the primary and more often than not the only exponence of case is tone (see Bennett 1974), cf. the paradigms from Maasai in Table 4 (Tucker \& Bryan 1966: 459):

Table 4. Tone as case exponence in Maasai

|  | 'knife' | 'water' | 'girl' | 'shepherd' | 'giraffe' |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dir | eıkálem | eykaré | entito | encekut | slmeut |
| Obl | हŋkalém | eykare | entito | enceekut | slmeot |

If we now look at the position of case markers with respect to the stem, we find that the well known 'suffixal preference' (see e.g. Hawkins \& Cutler 1988) is less prominent in bicasual systems than in the languages of the world in general. According to Dryer (2005), preposed case markers are found in less than 10 per cent of the languages with grammaticalized cases; however, among the languages with bicasual systems prefixal case markers are found in about 30 per cent of linguistic groups, i.e. in Berber and Salish languages, Nias, and Movima. It is not at all obvious how these figures are to be interpreted, but they are nevertheless quite significant.

Turning to more complex issues, nominal paradigmatic structures observed in twoterm case systems are often non-trivial. Certainly, a separate exponent of case (usually only of the Oblique) invariable across different kinds of nominals is the most common option; however, various deviations from this simple structure are attested in various languages. First of all, number and sometimes gender may be encoded cumulatively with case, as e.g. in the Indo-Iranian languages. Moreover, number may be expressed separately, case exponent being nevertheless sensitive to it, cf. the Khowar (Dardic, Edelman 1983: 212) paradigms in Table 5 .

Table 5. Case and number exponents in Khowar

|  | 'brother' |  | 'son’ |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: |
|  | Sg |  | Pl | Sg |  | Pl |
| Dir | brār | brār-gini | žau | žižau |  |  |
| Obl | brār-o | brār-gini-ān | žaw-o | žizaw-ān |  |  |

Various types of neutralization of categories are found, too. It is certainly common to have no case distinction in the plural, as e.g. in Yaqui and Aleut, but some languages (many Indo-Iranian throughout all nominals, as well as Old French in the subset of demonstratives) neutralize number in the Direct case, cf. the Kati (Nuristani, Edelman 1983: 60) paradigm in Table 6.

Table 6. Nominal paradigms in Kati

|  | 'girl' |  | 'man' |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Sg | Pl | Sg | Pl |
| Dir | juk |  | manči |  |
| Obl | juka | juko | manče | mančo |

In concomitance with the 'complexity reversal' observed in Kati, we find case distinctions neutralized in the singular rather than in the plural in some Pamir languages, cf. Wakhi (Paxalina 1975: 41-42) in table 7.

Table 7. Nominal paradigm in Wakhi

|  | 'house' |  |
| :--- | :---: | :---: |
|  | Sg | $\mathbf{P l}$ |
| Dir | $x \bar{u} n$ | $x \bar{u} n-i \check{s} t$ |
| $\mathbf{O b l}$ | $x \bar{u} n-\partial v$ |  |

According to the usually assumed markedness theory (Greenberg 1966, Croft 1990), such patterns should be ruled out as highly 'unnatural'; nevertheless, they not only exist but do not seem to be diachronically unstable.

In the Indo-European two-term case systems are found also some more 'exotic' patterns of syncretism, i.e. the identity of Oblique Singular and Direct Plural, observed in many Indo-Iranian languages, cf. Table 8 with Pashto paradigms (Skjærvø 1989: 390) and Table 9 with similar patterns in Old Provençal (Anglade 1921: 228).

Table 8. Nominal paradigm in Pashto

|  | 'Pashto' |  |
| :--- | :--- | :--- |
|  | Sg | Pl |
| Dir | pas̆́tun | paş́tānə |
| Obl | paṣ̂tānə | paṣ̂tāno |

Table 9. Nominal paradigm in Old Provençal

|  | 'emperor' |  |
| :--- | :--- | :--- |
|  | $\mathbf{S g}$ |  |
| $\mathbf{P l}$ |  |  |
| Dir | emperáire | emperadór |
| Obl | emperadór | emperadórs |

In Old French not only Oblique Singular and Direct Plural fall together, but quite often Direct Singular and Oblique Plural, too; this has lead to a situation when four paradigmatic cells are filled with only one overt affix, cf. Table 10 (Pope 1934: 311):

Table 10. Nominal paradigm in Old French

|  | 'wall' |  |
| :--- | :--- | :--- |
|  | Sg | $\mathbf{P l}$ |
| Dir | mur $-s$ | mur |
| Obl | mur | mur $-s$ |

Other types of paradigms with only one overt case marker include those where a general form is opposed to DirSg, cf. Romanian in Table 11 (Mallinson 1987: 311) and those where, on the contrary, exists only a separate OblPl, cf. Dardic Tirahi in Table 12 (Edelman 1983: 193).

Table 11. Nominal paradigm in Romanian

|  | 'house' |  |  |
| :--- | :---: | :---: | :---: |
|  | Sg |  |  |
| Pl |  |  |  |
| Dir | casă |  |  |
| Obl | case |  |  |

Table 12. Nominal paradigm in Tirahi

|  | 'father' |  |  |
| :--- | :---: | :---: | :---: |
|  | Sg | Pl |  |
| Dir | mala |  |  |
| Obl | mala-n |  |  |

To conclude this section, we may observe that the morphological make-up of bicasual systems has some peculiar characteristics which are never or seldom attested in richer case systems (cf. Rhodes 1987 for general observations concerning possible relationships between the size of a morphological paradigm and the degree of idiosyncrasy it allows). Minimal systems are more prone to prefixal or non-concatenative case marking, as well as to 'queer' patterns of paradigmatic neutralization. This is probably due to the fact that the 'cost' of noniconic and non-economical morphological structures in bicasual systems is low in comparison to larger systems.

## 4. Diachronic issues

There are two main questions concerning the diachrony of two-term case systems, i.e.

1. What are their possible diachronic sources?
2. What happens to them in the course of their history?

These issues are going to be briefly discussed in this section.
For the majority of the languages discussed in this paper, no written sources concerning their history are available. Therefore, any hypotheses about the origins of two-term case systems outside of the Indo-European family are rather tentative. It is possible to discern the following two general processes leading to a two-term case system: (i) reduction of a richer case system (as in the Indo-European languages); (ii) grammaticalization from other types of markers, viz. adpositions (as in Salish, Movima, Nias and probably Yimas) or demonstratives/articles (as in Berber, see Chaker (1988), and Ethiopian Semitic). The origins of tonal case systems of the Nilotic languages remain, to my knowledge, rather obscure.

The process of disintegration of polycasual systems into bicasual ones is well documented both for the Romance languages (e.g. Pope 1934) and for the Indo-Iranian languages (e.g. Kerimova \& Rastorgueva 1975). It seems that various factors were interacting in the course of this development. Besides the obvious phonological erosion of case endings, syntac-tico-semantic processes were also of utmost importance: the fact that the range of uses of the original cases often overlapped led to their becoming interchangeable in many contexts, and to the decrease of the number of grammatical oppositions. Numerous case syncretisms existing already in the older polycasual systems also facilitated functional and morphological merger of originally different cases.

Of especial interest in this connection is the situation observed in Sogdian (Middle Eastern Iranian, Sims-Williams 1982), where an older system of five cases co-existed with a
newer two-term case system (similar to that observed in Yaghnobi - a direct descendant of Sogdian). Such a rare situation became possible because of the so called 'rhythmical law' (Tedesco 1926), which caused reduction of final syllables with the 'heavy stems', while the 'light stems' remained intact, cf. paradigms of masculine nouns of both types in the singular in Table 13 (Sims-Williams 1982: 67, 68):

Table 13. Nominal inflexion in Sogdian (masculine, singular)

|  | 'people' (light) |  | 'day' (heavy) |
| :--- | :--- | :--- | :--- |
| Nom | ram-i | Dir | $m \bar{e} \theta$ |
| Acc | ram-u | Obl | $m \bar{e} \theta-\bar{l}$ |
| Gen | ram-e $e$ |  |  |
| Loc | ram-ya |  |  |
| Abl | ram- $a$ |  |  |
|  |  |  |  |

However, the rhythmical law was not the only reason for the emergence of the bicasual subsystem in Sogdian; the Dir ~ Obl distinction was observed throughout the feminine gender and in the plural of all types of nouns, where it appeared probably even prior to the operation of the rhythmical law. Thus the older polycasual system was a marked option restricted to a limited subset of nominals, in contrast to a newer two-term case system appearing elsewhere.

In the process of reduction of an older polycasual system into a bicasual one several older cases fall together thus forming a new case with a broader range of meanings. The resulting set of functions is not necessarily the simple unification of the uses of the predecessors of the new case, but the way the older system collapsed into a bicasual one crucially affects the structure of the latter. We have already seen (section 3) that the 'distributing' systems in the languages of the Hindukush-Pamir region reflect an earlier stage of development and retain the uses of the older cases, while the majority of the 'dividing' systems in the IndoIranian languages must have redistributed the original case functions. If we compare the IndoIranian and the Old Romance two-term case systems, we see that the neutral alignment attested in the former and the predominant accusative alignment of the latter have clear diachronic origins. Indeed, during the disintegration of the Ancient Indo-Iranian polycasual system the original Nominative and Accusative fell together, whereas in the course of the decline of the Latin case system the distinction between the Nominative and all other cases was usually retained (see e.g. Plank 1979).

Let us now turn to the fate of two-term case systems. Besides persisting for a long period without major changes (as probably is the case in the Nilotic languages), there are two major pathways of change:

1. A bicasual system may serve as a base for a newly grammaticalized polycasual system.
2. A bicasual system may disintegrate thus leaving the language without the case category altogether.

The first scenario is observed in the Indo-Aryan languages, where the primary function of the older inflectional two-term case system is to host a whole series of postpositions or even already bound case affixes (see the aforementioned chapter in Masica (1991) for details). The postpositions usually attach to the Oblique case, and the new declensional system thus has two stems, one for the Direct (or Nominative) case, and another for all or most oblique cases (cf. the examples from Hindi in section 3). The older Oblique itself in some languages may be used in isolation, thus becoming a new case, e.g. Accusative (as in Romani, table 14, Ventzel 1964: 52), paradigmatically opposed to other cases formed upon its base, or, in others, functions only as the bound oblique stem, as in Gujarati (table 15, Saveljeva 1965: 2425).

Table 14. Nominal declension in Romani

|  | 'pigeon' |
| :--- | :--- |
| Nom | golumbo |
| Acc | golumbo-s |
| Loc | golumbo-s-te |
| Dat | golumbo-s-ke |
| Abl | golumbo-s-tyr |
| Ins | golumbo-s- $a$ |

Table 15. Nominal declension in Gujarati

|  | 'dog' |
| :--- | :--- |
| Nom | $k \bar{u} t r o$ |
| Gen | $k \bar{u} t r \bar{a}-n \tilde{u}$ |
| Acc | $k \bar{t} t r \bar{a}-n e$ |
| Ins | $k \bar{t} t r \bar{a}-e$ |
| Abl | $k \bar{u} t r a \bar{a}-t h \bar{l}$ |
| Loc | $k \bar{u} t r a \bar{a}-m \tilde{a}$ |

The postpositional origin of such polycasual systems reveals itself in the behaviour of adjectives and other prenominal modifiers, which usually show up in a common Oblique form with all non-Nominative heads, cf. example (47) from Gujarati (Saveljeva 1964: 28):
glelã̃ svapn-o-mãa
delirious:OBL.PL dream-OBL.PL-LOC
'in delirious dreams'
Similar phenomena are observed in the Circassian languages, where the Instrumental case is formed on the basis of the Oblique case, cf. the following example from Adyghe (my personal fieldwork):

```
pŝâe-m \check{'mane-r maste-m-c̣`e je-do}
girl-OBL dress-DIR needle-OBL-INS 3SG.A-sew
```

'The girl is sewing a dress with the needle'
On the basis of these data it is possible to hypothesize that some polycasual systems of modern languages go back to older bicasual systems. E.g. in the Eskimo languages some peripheral case forms show clear traces of being formed on the basis of the Ergative (or, using traditional labels, Relative) case, cf. the data from Naukan Eskimo, Russian Far East (Menovschikov 1975: 99-100) in Table 16:

Table 16. Nominal paradigms in Naukan Eskimo

|  | 'woman' |  |  |
| :---: | :---: | :---: | :---: |
|  | Sg | Du | PI |
| Nom | a 2 na-q | a 2 na-k | a ma-t |
| Erg | apna-m | arna-k | a ma-t |
| Ins |  | a $n$ na-g-n和 | ama-n的 |
| All | ama-m-un | ama-g-nun | a ma-nun |
| Loc ${ }_{1}$ | a $\quad$ na-m-i | arna-g-ni | a ma-ni |
| $\mathrm{Loc}_{2}$ | a ma-kun | arna-g.n-kun | ama-t-xun |
| Equ | amax-situn | arna-x-situn | ama-situn |

The formative $-m$ - is probably cognate to the Oblique case suffix of Aleut, which has a genuine bicasual system, cf. Table 17 (Bergsland 1997: 50)

Table 17. Nominal paradigm in Aleut

|  | 'house' |  |  |
| :--- | :--- | :--- | :--- |
|  | Sg | Du | Pl |
| Dir | ula- $\hat{x}$ | ula-x | ula-n |
| Obl | ula- $m$ |  |  |

At last, let us look at the situations when a two-term case system disintegrates. As in the fall of a rich case system, many factors play a role here. Sometimes the process looks like that Dir extends its usage simply ousting Obl from its original contexts. Thus, in some Norwegian dialects Obl with nouns is used in the following functions: (i) as the Recipient of ditransitives; (ii) as a 'quirky' object of some non-canonical bivalent predicates; (iii) as the object of some prepositions with a locational meaning ('live in the town'), contrasting to the allative meaning of Dir ('go to the town'); (iv) as a governed object of other prepositions. It appears (Sandøy 1996: 134) that Dir is taking over the more syntactic uses of Obl, viz. (ii) and (iv), while the latter persists in those contexts where it is semantically opposed to Dir, viz. (i) and (iii). Thus the range of functions Obl can encode gradually shrinks, and not in an unprincipled way.

A more complex situation was observed in the late Medieval French (XIV - XV centuries, see Laubscher 1921, Schøsler 1984). Here the system was inherently unstable due to the typologically unusual markedness of the Direct case, coupled with its rather restricted range of functions, as well as the loss of phonologically overt markers, so that the situation attested in the written sources no more represented the actual speech. The less marked and more frequently used Obl began to gradually take over the uses of Dir, but there was a short period of free variation. As a result, in most cases Obl was retained and Dir lost, but sometimes they gave rise to different lexemes (e.g. sire $<$ Dir in vocative function vs. seigneur $<\mathrm{Obl}$ ), and in others it was Dir rather than Obl which persisted (e.g. père 'father').

## Conclusions

In the preceding sections we have discussed various properties of two-term case systems, both functional and formal. Let us briefly review the principal points.

First of all, despite the seeming poverty of expressive means, two-term case systems more often then not cover quite a wide range of different semantic roles, not only the core grammatical relations, but also a more or less rich array of peripheral and circumstantial roles; 'poor' two-term case systems covering only the core relations are rather rare.

Second, markedness relations between cases in two-term case systems are usually driven not only by the typologically stable associations of marked expression with more 'peripheral' semantic roles and unmarked expression with more 'central' semantic roles, but also with the functional load of the cases; 'marked nominative' systems, where the $S$ relation is encoded by a marked case, while other semantic roles fall under the unmarked case, are quite widespread here.

Third, in two-term case systems are attested such typologically rare case exponents as prefixes and proclitics, or tonal modification. Also, 'minimal' systems allow for such paradigmatic structures which are usually not found in richer case systems, e.g. the Old French X-like neutralization of case and number.

Finally, from a diachronic perspective, two term case systems constitute an important stage in the development of case in a language. They may be either the last stage of the reduction of an older polycasual system, as in the Romance and Iranian languages, or serve as the
basis for a newer case system emerging from the grammaticalization of adpositions attaching to the Oblique case as the stem, as in the Indo-Aryan and some other languages.

The general conclusion which may be drawn from the abovementioned points is that two-term case systems form a cross-linguistically valid type of case systems, characterized by common functional and morphological properties, and by common constraints on crosslinguistic variation. The data from the languages with bicasual systems, especially when presented in a typologically oriented way, may give crucial evidence for or against some theoretical generalizations which were formulated without regard to such systems.

## Abbreviations

A - agent, ABL - ablative, ACC - accusative, ALL - allative, ART - article, ASP - aspect, AUX - auxiliary, CL - clitic, COP - copula, DAT - dative, DEF - definite, DIR - direct, DUR durative, EQU - equative, ERG - ergative, EZF - ezafe, F - feminine, FUT - future, GEN - genitive, IMP - imperative, INS - instrumental, LOC - locative, M - masculine, NEG - negation, NML - nominalization, NOM - nominative, OBL - oblique, P - patient, PFV - perfective, PL plural, POSS - possessive, PRF - perfect, PRS - present, PST - past, PVB - preverb, RED - reduplication, REFL - reflexive, SG - singular, TOP - topic, TR - transitive

## References

Anderson, John M. (1994). Case, in R. E. Asher (ed.), Encyclopedia of Languages and Linguistics, Oxford etc.: Pergamon Press, Vol. 4, 447-453.

Amin-Madani, Sadegh \& Lutz, Dorothea (1972). Persische Grammatik. Heidelberg: Groos.

Anglade, Joseph (1921). Grammaire de l'ancien provençal. Paris: Klincksieck.
Aristar, Anthony R. (1997). Marking and hierarchy types and the grammaticalization of case-markers, Studies in Language, 21, 313-368.

Arkadiev, Peter M. (in print). Differential argument marking in two-term case systems and its implications for the general theory of case marking, in H. de Hoop, P. de Swart (eds.), Differential Subject Marking. Dordrecht: Springer.

Bennett, Patrick R. (1974). Tone and the Nilotic case system, Bulletin of the School of Oriental and African Studies, 37, 1, 19-28.

Bergsland, Knud (1997). Aleut Grammar. Fairbanks: Alaska Native Language Center.
Blake, Barry J. (1994/2001). Case. $2^{\text {nd }}$ ed. Cambridge: Cambridge University Press.
Brown, Lea (2001). A Grammar of Nias Selatan. PhD Thesis, University of Sydney.
Buddruss, Georg (1967). Die Sprache von Sau in Ostafghanistan. Beitrag zur Kenntnis des dardischen Phalūra. München: Kitzinger.

Chaker, Salem (1983). Un parler berbère d' Algérie (Kabylie). Syntaxe. Aix-enProvence: Publications de l'Université de Provence.

- (1988). L'état d'annexion du nom, in Encyclopédie berbère, V. Paris: EDISUD, 686-695.

Chomsky, Noam A. (1981). Lectures on Government and Binding. Dordrecht: Foris.
Comrie, Bernard (1978). Ergativity, in W. P. Lehmann (ed.), Syntactic Typology. Studies in the Phenomenology of Language. Austin, London: The University of Texas Press, 329-394.

- (1991). Form and function in identifying cases, in F. Plank (ed.), Paradigms: The Economy of Inflection. Berlin, New York: Mouton de Gruyter, 41-56.

Creider, Chet A. \& Creider, Jane T. (1989). A Grammar of Nandi. Hamburg: Buske.
Croft, William C. (1990). Typology and Universals. Cambridge: Cambridge University Press.

DeLancey, Scott (1981). An interpretation of split ergativity and related patterns, Language, 57, 3, 626-567.

Dixon, Robert M. W. (1994). Ergativity. Cambridge: Cambridge University Press.
Dryer, Matthew (1986). Primary objects, secondary objects, and antidative, in Language, 62, 4, 808-845.

- (2005). Position of case affixes, in M. Dryer, M. Haspelmath, D. Gil \& B. Comrie (eds.), World Atlas of Language Structures. Oxford: Oxford University Press, 210-211.

Edelman, Dshoi I. (1983). The Dardic and Nuristani Languages. Moscow: Nauka.
Foley, William A. (1991). The Yimas Language of New Guinea. Stanford: Stanford University Press.

Foulet, Lucien (1970). Petite syntaxe de l'ancien français. 3-ème éd. revue. Paris: Champion.

Givón, Talmy (1995). Functionalism and Grammar. Amsterdam, Philadelphia: John Benjamins.

Greenberg, Joseph H. (1966). Language Universals. With Special Reference to Feature Hierarchies. The Hague, Paris: Mouton.

Haspelmath, Martin (2006a). Against markedness (and what to replace it with), Journal of Linguistics, 41, 2, 1-46.

- (2006b). Argument marking in ditransitive alignment types, Linguistic Discovery, 3, 1, 1-21.

Haude, Katharina (2006). A Grammar of Movima. PhD Thesis, Radboud University, Nijmegen.

Hawkins, John A. \& Cutler, Ann (1988). Psycholinguistic factors in morphological asymmetry, in J. A. Hawkins (ed.), Explaining Language Universals. Cambridge: Cambridge University Press, 280-317.

Hopper, Paul J. (1991). On some principles of grammaticization, in B. Heine, E. C. Traugott (eds.), Approaches to Grammaticalization. Amsterdam \& Philadelphia: John Benjamins, Vol. I, 17-36.

Kerimova, Aza A. \& Rastorgueva, Vera S. (1975). Kategroija padezha [The category of case], in V. S. Rastorgueva (ed.), Opyt istoriko-tipologicheskogo issledovanija iranskix jazykov [A Diachronic-Typological Study of the Iranian Languages.] Vol. 2. Moscow: Nauka, 117-199.

Kuipers, Aert H. (1967). The Squamish Language. Grammar, Texts, Dictionary. The Hague, Paris: Mouton.

Lazard, Gilbert (1994). L'actance. Paris: Presse Universitaire de France.
Leslau, Wolff (1995). Reference Grammar of Amharic. Wiesbaden: Harrassowitz.
Laubscher, G. G. (1921). The Syntactical Causes of Case Reduction in Old French. Princeton (NJ): Princeton University Press.

Lindenfeld, Jacqueline (1973). Yaqui Syntax. Berkeley: University of California Press.
Mallinson, Graham (1987). Romanian. In: B. Comrie (ed.), The World's Major Languages. London, Sydney: Croom Helm, 303-321.

Masica, Colin (1991). The Indo-Aryan Languages. Cambridge: Cambridge University Press.

McKenzie, D.N. (1961). Kurdish Dialect Studies, I. London: Oxford University Press.
Mel'čuk, Igor A. (1986). Toward a definition of case, in R. D. Brecht, J. S. Levine (eds.), Case in Slavic. Columbus (OH): Slavica, 35-85.

- (2006). Aspects of the Theory of Morphology. Berlin, N.Y.: Mouton de Gruyter.

Menovschikov, Georgij A. (1975). Jazyk naukanskix eskimosov [The Language of the Naukan Eskimos]. Leningrad: Nauka.

Mohanan, Tara (1994). Argument Structure in Hindi. Stanford (CA): CSLI Publications.

Moignet, Gérard (1976). Grammaire de l'ancien français. Morphologie - Syntaxe. 2-me éd. rev. et. corr.. Paris: Klincksieck.

Paxalina, Tatiana N. (1975). Vaxanskij jazyk [Wakhi Language]. Moscow: Nauka.
Payne, John (1979). Transitivity and intransitivity in the Iranian languages of the U.S.S.R, in P. R. Clyne, W. F. Hanks, C. L. Hofbauer (eds.), The Elements: A Parasession on Linguistic Units and Levels, Including Papers from the Conference on Non-Slavic Languages of the USSR (The $15^{\text {th }}$ Annual Meeting of the Chicago Linguistic Society). Chicago, 436-447.

- (1980). The decay of ergativity in Pamir languages, Lingua, Vol. 51, 147-186.
- (1989). Pāmir languages, in Schmitt (ed.) 1989, 417-444.

Plank, Frans (1979). The functional basis of case systems and declension classes: from Latin to Old French, Linguistics, 17, 7/8, 611-640.

Pope, Mildred K. (1934). From Latin to Modern French with especial consideration of Anglo-Norman. Phonology and Morphology. Manchester: Manchester University Press.

Rhodes, Richard (1987). Paradigms large and small, in Proceedings of the $13^{\text {th }}$ Annual Meeting of the Berkeley Linguistics Society. Berkeley, 223-234.

Sandøy, Helge (1996). Talemål. Oslo: Novus.
Saveljeva, L.V. (1965). Jazyk gudzharati. [The Gujarati Language.] Moscow: Nauka.
Schmitt, Rüdiger (ed.) (1989). Compendium Linguarum Iranicarum. Wiesbaden: Reichert.

Schøsler, Lene. La déclinaison bicasuelle de l'ancien français: Son rôle dans la syntaxe de la phrase, les cause de sa disparition. Odense.

Selcan, Zülfü (1998). Grammatik der Zaza-Sprache. Nord-Dialekt (Dersim-Dialekt). Berlin: Wissenschaft und Technik.

Sims-Williams, Nicholas (1982). The double system of nominal inflection in Sogdian, Transactions of the Philological Society, 67-76.

Skalmowski, Wojciech (1974). Transitive verb constructions in the Pamir and Dardic languages, Studia Indoeuropejskie, Polska Akademia Nauk - Oddziat w Krakowie. Prace Komisji Jezykoznawstwa, Nr. 37, 205-212.

Skjærvø, Prods O. (1989). Pashto, in Schmitt (ed.) 1989, 384-410.
Stilo, Donald A. (2004). Grammar notes, in D. Stilo, Vafsi Folk Tales. Wiesbaden: Reichert, 223-244.

- (to appear). Case in Iranian: From reduction and loss to innovation and renewal, to appear in A. Spencer, A. Malchukov (eds.), The Handbook of Case. Oxford: Oxford University Press.

Tedesco, Paolo (1926). Ostiranische Nominalflexion, Zeitschrift für Indologie und Iranistik, 4, 94-166.

Tsunoda, Tasaku (1981). Split case-marking patterns in verb-types and tense/aspect/mood, Linguistics, 19, 5/6, 389-438.

Tucker, Archibald N. \& Bryan, Mary A. (1966). Linguistic Analyses. The Non-Bantu Languages of North-Eastern Africa. London: Oxford University Press.

Ventzel, T.V. (1964). Cyganskij jazyk (severnorusskij dialekt). [The Romani Language (The North-Russian Dialect)]. Moscow: Nauka.

Zaliznjak, Andrej A. (1973). O ponimanii termina "padezh" v lingvisticheskix opisanijax. [On the understanding the term 'case' in linguistic descriptions] In A. A. Zaliznjak (ed.) Problemy grammaticheskogo modelirovanija. [Problems of Modelling Grammar]. Moscow: Nauka, 53-88.


[^0]:    ${ }^{1}$ Just as many Iranian languages, Hindi has retained an older distinction between a Direct (unmarked) and an Oblique morphological case, which, under the view that the grammaticalized postpositions are rather new case suffixes, may be regarded as Direct vs. Oblique stems.

[^1]:    ${ }^{2}$ These data and the functional motivations behind them are discussed in more detail in my paper (Arkadiev, in print), where a formal Optimality-theoretic account is attempted.

