Two-term case systems: Typology and theoretical implications

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1. Introduction

Two-term case (or bicasual) systems (for a definition of the term, see Section 1.1) are quite widespread in the world's languages (see Section 1.2 for a geographical survey), but have not so far received enough attention in typological and theoretical linguistics. General introductions to case, such as Blake 2001, mention bicasual systems only in passing, as if hurrying to turn to richer — and, supposedly, more instructive case systems.[1]

Two-term case systems constitute an interesting phenomenon whose study may be fruitful for both empirical typology and linguistic theory. Bicasual systems show which meanings of case markers may go together and how different patterns of argument encoding (accusative, ergative etc.) may interact under extremely limited expressive possibilities (see Section 2). From the purely morphological point of view, such systems constitute valuable examples of minimal paradigmatic structures (see Section 3). In this article I am going to discuss the aforementioned issues, leaving aside some other important topics, e.g. the role of bicasual systems in the diachronic development of case systems (see Arkadiev 2008b).

1.1. Defining two-term case systems

Though case is an 'exemplar' grammatical category, and surely one of the most studied, 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, Blake 2001, Mel'čuk 1986 for different approaches to these questions). In this article I am certainly not going to discuss in detail any of the problems arising when one tries to define 'case', and will simply point out the properties which I consider important for the purposes of my study.

First, following Blake (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. However, I believe that it is reasonable to restrict the set of possible syntactic heads of a case-bearing NP to finite verbs. 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 in appellative function, are not case systems either.

Second, 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 morphological case (e.g. that of Japanese or of the languages of Polynesia) but which are encoded by elements not bound to the stem. Such 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) 'layers' of markers whose function is to mark syntactic dependency of NPs. A good example comes from the Indo-Aryan languages (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 grammaticalised postpositions. Two factors are of importance in the analysis of such situations,: the degree of morphologization of the 'outer' levels of 'case-markers' and again the 'finite verb' requirement. If the morphemes in question have already become bound affixes inseparable from the stem and undergoing some word-level morphophonological processes, then it is legitimate to consider them case markers. Otherwise, the distribution of the 'inner' level affixes is important. When both of them may appear without any elements of the 'outer' layers, and conform to the 'finite verb' requirement, then I regard only the 'inner level' of markers as an instance of the category of case.

Thus, I assume that a language has a two-term case system if it has a grammatical category G (defined on NPs) which has two formally distinct members both of which can mark types of semantico-syntactic dependency of NP with respect to the finite verb. 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.

1.2. 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 not even (cf. Iggesen 2005). 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, and in some Scandinavian dialects, as well as in modern English pronominals. In Asia bicasual systems are abundant in the Iranian, Dardic and Nuristani languages, less in the Indo-Aryan 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), in the Nilotic languages, and in some Mande languages.

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 the Tsimshianic languages, in some Uto-Aztecan languages, in Choktaw (a Muskogean language), in a Bolivian isolate Movima, and in some Tupí-Guaraní and Chibchan languages, but it is probable that a closer investigation reveals more such languages in that rather under-documented 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.

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.

2. Functional properties of two-term case systems

2.1. General typology

The principal question to be answered in order to characterise a case system concerns the range of meanings the cases are able to express. With respect to bicasual 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 labour' between the cases in the 'case zone'.

Most languages with morphological cases possess also a 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). A legitimate expectation would be 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 such a 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 telling example comes from Vafsi, an Iranian language from Central Iran, where not only Obl is quite polysemous, but where it is possible to express several different functions in a single clause, cf. ex. (1) (Stilo 2008).

(1) *æhmæd-i* *ær-go* *vaar-i* *mæhmud-i*
P.N.-OBL.SG TAM-want spring-OBL.SG P.N.-OBL.SG
Experiencer Temporal Possessor
æsb-i *ha-do-æ* *jævad-i.*
horse-OBL.SG PVB-give-3SG P.N.-OBL.SG
Patient Recipient
'In spring Ahmad wants to give Mahmud's horse to Javad.'

Other functions found in two-term case systems include Instrument, ex. (2) from Salish language Squamish), Location, ex. (3) from Yimas, Goal of motion, ex. (4) from Old French, Comitative, ex. (5) from Movima:

(2) *na=λič'itas* *ta=smic* ***t=ta=λač'tn***.
ASP=cut:3SG.A/3SG.P ART=meat OBL=ART=knife
'He cut the meat with a knife.' (Kuipers 1967: 169)

(3) ***ŋaŋk-ɲan*** *ama-na-irm-n*.
grass-OBL 1SG-DEF-stand-PRS
'I am standing in the grass.' (Foley 1991: 166)

(4) *...qui* ***cele*** ***part*** *le* *menast.*
that:DIR.SG this:OBL.SG place:OBL.SG he.OBL.SG would.lead
'[a road] that would lead him to that place' (Moignet 1976: 96)

(5) *kide: da'* *kaykay* *jayna* ***n=us*** ***alwaja='ne***.
they DUR eat:RED now OBL=ART spouse=3SG.F
'They are eating now with her husband.' (Haude 2006: 282)

Functionally rich systems like that of Vafsi are very common; by contrast, '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 tendency of highly grammaticalised case markers to encode particular functions only with those nominals which 'naturally' combine with these meanings (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.

Turning to the general patterns of the functional organization of two-term case systems, we 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; Recipient, 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. By contrast, in the 'distributing' systems such as that of Kati the only obvious rationale for the 'division of labour' between the cases is their diachronic origin: the Indo-Iranian 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 had 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; Recipient, Possessor, Goal, Location, Temporal

Another point to consider is the markedness relations between the members of two-term case systems. Cross-linguistically, it is common for the citation form of the noun (i.e. for Dir in our case) to encode the S participant of intransitive verbs, and usually to be extended to cover either the A (in nominative-accusative systems) or the P (in ergative-absolutive systems) of transitive verbs (cf. Comrie 1978). In two-term case systems, the S/A or S/P participant is usually encoded by Dir, but there are notable exceptions, cf. Kabyle (Berber, nominative-accusative), ex. (6a), (6b), and Nias (ergative-absolutive), ex. (7):

(6) a. *fɣ-n* ***y-rgaz-n***.
left-3PL OBL.PL-man-PL

'The men left.' (Chaker 1983: 276)

b. *y-wt* ***aqšiš-ni*** ***w-rgaz-im***.
3SG-hit DIR:boy-this OBL.SG-man-2SG
'Your husband hit this boy.' (Chaker 1983: 279)

(7) *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.' (Brown 2001: 94)

In Berber languages, and also in Nilotic, Cushitic, Tsimshianic, and Muskogean languages, it is the S/A relation which is marked by Obl, not the P, while in Nias the S/P rather then the A participant receives morphological marking (Obl). The rationale of such systems lies not in the alleged 'unmarkedness' of the S relation (cf. Comrie 1978), but in the more 'global' markedness principles (cf. Givón 1995): 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 Dir which is used for the Recipient as well as Patient (8a) and locative functions, (8b):

(8) a. *kí:-ka:cì* *kípe:t* ***la:kwé:t*** ***ce:kà***.
PST-give Kibet:OBL child:DIR milk:DIR
'Kibet gave milk to the child.'

b. *mì:téykípro:no* ***kitâ:li***.
be Kiprono:OBL Kitale:DIR
'Kiprono is in Kitale.'

By contrast, the case whose only function is to encode the 'subject' (S/A) argument, is both functionally and formally marked (here, by a special tonal pattern, see section 3). The reason why in these languages the 'subject' function is not encoded by the 'default' Dir probably lies in the realm of information structure: it is usually only the non-topicalised and thus functionally marked 'subject' participant which receives Obl encoding, cf. ex. (9) from Tachelhit Berber (Galand 1964: 34, 40):

(9) a. *ikrz* ***u-rgaz*** *igr*.
cultivated OBL-man DIR:field
'[It was] the man [who] cultivated the field.'

b. ***a-rgaz*** *ikrz* *igr*.
DIR-man cultivated DIR:field
'[As for] the man [he] cultivated the field.'

Therefore, such 'marked nominative' systems are in fact functionally well motivated.

To summarise, in this section it was shown, first, that the members of two-term case systems usually cover a broad range of meanings, including both core grammatical relations and peripheral functions (locative, temporal, manner etc.), and, second, that the functions of the 'case zone' are more often than not distributed in such a way that all peripheral functions are subsumed under one of the cases only. Finally, 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 non-restricted distribution is usually the morphologically unmarked Dir, even though the 'subject' relation may be encoded by the other case.

2.2. Argument neutralizations in two-term case systems

Is we look at the ways core grammatical functions are encoded in two-term case systems, we find almost any kinds of 'alignment' patterns. 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 ergative-absolutive marking is dominant only in the Circassian languages, and in Nias and Päri, a Nilotic language, but occurs as an option in Aleut, Tsimshianic, and in many Indo-Iranian languages.

Among the two-term case systems 'split' case marking is very common; in the Indo-Iranian group, where there is both a tense-aspect split in the marking of A, and definiteness/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 (Stilo 2004: 243–244):

(10) a. *tæ* *in* *xær-i* *næ-ruš-i?*
you(DIR) this donkey-OBL.SG NEG-sell-2SG
'Won't you sell this donkey?'

b. *bæ-ss-e* *yey* *xær* *ha-gir-e.*
PFV-went-3SG one donkey(DIR) PVB-take-3SG
'He went to buy a donkey'.

c. *in* *luti-an* *yey* *xær=esan* *æ-ruttæ.*
this wise.guy-OBL.PL one donkey(DIR)=3PL DUR-sold
'These wise guys were selling a donkey'.

d. *luas-i* *kærg-e=s* *bæ-værdæ.*
fox-OBL.SG chicken-OBL.SG=3SG PFV-take.PST
'The fox took the chicken'.

The functional correlates of the constructions exemplified in ex. (10) are summarised in Table 3.

Table 3. Patterns of argument marking in Vafsi

A	P	alignment type	conditioning factor
Dir	Dir	neutral	non-past; non-individuated P
Dir	Obl	accusative (10a)	non-past; individuated P
Obl	Dir	ergative (10c)	past; non-individuated P
Obl	Obl	double-oblique (10d)	past; individuated P

The double-oblique pattern in (10d) is a feature quite widespread in the Iranian languages (cf. Payne 1979, 1980 for such structures in the languages of Pamir, and Stilo 2008 for a general perspective), but almost non-attested outside this linguistic group. Despite its rarity, such a pattern of argument encoding is perfectly motivated (cf. Arkadiev 2008a for a discussion). In order to reveal its 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. Similarly to Vafsi, Hindi encodes A according to the tense-aspect value of the verb, and shows an animacy/specificity based split in the marking of P, cf. the following examples (Mohanan 1994: 59, 80) and table 4:

(11) a. *Ravī* *kelā* *khā* *rahā* *thā.*
Ravi(NOM.SG) banana(NOM.SG) eat DUR COP.PST
'Ravi was eating a banana'.

b. *Nīnā* *bacce=ko* *uṭhāyegī.*
Nina(NOM.SG) child.OBL.SG[2]=ACC pick.up.FUT
'Nina will pick the child up'.

c. *bacce=ne* *kītāb* *paḍhī.*
child.OBL.SG=ERG book(NOM.SG) read.PFV
'The child read a book'.

d. *Īlā=ne* *bacce=ko* *uṭhāyā.*
Ila=ERG child.OBL.SG=ACC lift.PFV
'Ila lifted the child'.

Table 4. Patterns of argument marking in Hindi

A	P	alignment type	conditioning factor
Nom	Nom	neutral (11a)	imperfective; non-individuated P
Nom	Obj	accusative (11b)	imperfective; individuated P
Erg	Nom	ergative (11c)	perfective; non-individuated P
Erg	Obj	tripartite (11d)	perfective; individuated P

Comparison of the Vafsi examples (10) with the Hindi ones (11), and of table 3 with table 4, shows clearly 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 in the two languages. 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, Lazard 1994) are formally implemented in the two languages. In Hindi a whole array of postpositions is used to mark arguments, and this makes it 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 different overt case markers, cf. (11d). By contrast, in Vafsi there are only two cases, and postpositions do not co-occur with core arguments, so the only way to realise the 'marked' clause type is to put both the A and the P NPs into the Oblique case; thus a double-oblique structure emerges, cf. (10d).

Thus, we have seen not only that the double-oblique pattern of case marking does exist[3], but that moreover it is clearly motivated by the universal functional principle of iconicity. What is important here is the role that the inventory of case markers a language possesses plays in the encoding 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 system is very low.

A clause-type split leads to non-distinction of arguments in the Uto-Aztecan languages, where the S/A participant is marked by Obl in subordinate clauses, cf. the following examples from Yaqui:

(12) a. *hu-ka* ***oʔoo-ta*** *yepsa-k-o* *itepo* *saha-k.*
this-OBL man-OBL arrive-PRF-NML we.DIR go-PRF
'When this man arrived we left'. (Lindenfeld 1973: 81)

b. *na=a* *bičа* *ke* ***hu-ka*** ***usi-ta*** *čuʔu-ta*
I.DIR=3SG seethat this-OBL child-OBL dog-OBL
kipwe-ʔu.
have-NML
'I see that this child has a dog.' (Lindenfeld 1973: 103)

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 encode their subjects like adnominal possessors. This is especially evident with personal pronouns which have a separate possessive form (e.g. *nee* 'me' vs. *in* 'my'), and it is this form which is used to encode the pronominal subject of subordinate clauses, cf. (13):

(13) *ini-ka* *bači-ta* ***em*** *hinuk-aʔu* *nee* *maka.*
ART-OBL grain-OBL 2SG:POSS buy-NML 1SG:OBL give:IMP
'Give me the grain that you bought!' (Lindenfeld 1973: 72)

Two-term case systems exhibit peculiar patterns not only in the marking of the S, A, and P participants, but also in the ditransitive alignment (see Haspelmath 2006 for a typology). In Adyghe and Kabardian, Agents and Recipients of three-argument verbs are not distinguished by case-marking, cf. ex. (14a) from Adyghe[4]; this is not surprising, since Obl in these languages is used, besides A, for a whole variety of other semantic roles, such as goal of motion, cf. (14b), with which Recipient naturally falls together.

(14) a. *ç'ale-m* ***pŝaŝe-m*** *məʔeresə-r* *r-jə-tə-ʁ.*
boy-OBL girl-OBL apple-DIR 3SG.REC-3SG.A-give-PST
'The boy gave the apple to the girl.'

b. *ç'ale-r* ***wəne-m*** *ča-ʁe.*
boy-DIR house-OBL run-PST
'The boy ran home.'

In Kati, similar pattern arises as a by-product of the variable encoding of core arguments interacting with a uniform marking of peripheral functions, among them Recipient, cf. ex. (15a) and (15b):

(15) a. *amki paři yīmo **tu** **nuř-e** pt'e.*
this apple(DIR.SG) 1PL:OBL your mother-OBL.SG gave
'We gave this apple to your mother.' (Grjunberg 1980: 153)

b. *uze **kuřy-e** ano šenu-m.*
1SG:DIR dog-OBL.SG meat(DIR.SG) throw-1SG.PRS
'I am throwing some meat to the dog.' (Grjunberg 1980: 151)

So far we have dealt with the neutralizations of participant encoding resulting in the syntagmatic non-distinction of arguments; a very special type of neutralization along the paradigmatic rather than the syntagmatic axis is found in Interior Tsimshian. In this language, a clause-type based split is observed: in the so-called 'indicative' (verb-initial) clauses the Obl clitic[5] patterns ergatively, marking only the A, whereas the so-called 'subjunctive' (non verb-initial) clauses exhibit accusative (more precisely, 'marked nominative') alignment on the syntagmatic dimension, but neutral alignment on the paradigmatic dimension: Obl marks any verb-adjacent core argument regardless of its role, cf. ex. (16a), (16b), and (16c) (Peterson 2006: 76).

(16) a. *needii-t hlimoo-t=[**s** **(t)=John**] t=Peter.*
NEG-3 help-3=OBL PNC=John PNC=Peter
'John didn't help Peter.'

b. *yukw=hl litsxxw-(t)=[**s (t)=John**].*
PROG=CNC read-3=OBL PNC=John
'John is reading.'

c. *needii=tap gya'-(t)=[**s (t)=John**].*
NEG=1PL see-3=OBL PNC=John
'We didn't see John.'

The following conclusion can be drawn from the previous discussion. *Iconicity* (encoding of paradigmatic distinctions, e.g. individuated vs. non-individuated P) may often outrank *distinguishability* (syntagmatic distinction between A and P) in case-marking. 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 encoding in Vafsi). That otherwise rare patterns of argument encoding are more or less commonly found in bicasual systems is not accidental: they have less expressive possibilities that richer case systems, and under certain circumstances neutralizations emerge as mere by-products of otherwise well-motivated functional principles.

3. Morphological properties of two-term case systems

Having surveyed the cross-linguistic trends in the functional organization of two-term case systems, let us now consider their morphological make-up. 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 (cf. Dryer 2005), is a bound affix, but there are deviations from this prototype in both directions. Thus, in Tsimshianic and some Salish languages, in Amharic, and in Persian Obl is a clitic. In Amharic the Obl case marker *-ən* behaves as a second-position clitic attaching to the preposed adjective rather than to the head noun (Leslau 1995: 184):

(17) *wəšša=w təlləq=**u**=**n** 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 (18a) and an NP with a postposed modifier in (18b) (Amin-Madani and Lutz 1972: 53, 321):

(18) a. *Faršid* [*kaqaz va medād*]*=**rā** bord.*
Farshid paper and pencil=OBL take:PST
'Farshid took paper and a pencil.'

b. *in* [*gol-e qašang*]*=**rā** barāye=šomā*
he flower-EZF beautiful=OBL for=you(PL)
avarde ast.
brought AUX:3SG
'He brought these beautiful flowers for you.'

In Interior Tsimshian, as we have already seen, a typologically extremely rare situation is found: the Obl case marker is syntactically a preposition to the NP in its scope but morphophonologically an enclitic to the preceding word.

On the opposite end of the boundedness continuum we find Obl in Nias, which is realised by the 'mutation' of the initial consonant of the stem, cf. Table 5 (Brown 2001: 39–40):

Table 5. Mutation as case exponence in Nias

	'rice'	'land'	'stick'	'pig'
Dir	*fakhe*	*tanö*	*si'o*	*baβi*
Obl	*vakhe*	*danö*	*zi'o*	*mbaβi*

Morphophonological alternations function as case exponents, usually alongside with affixes, also in Old French and Old Provençal, in many Indo-Iranian and Afroasiatic languages. Finally, in Nilotic and Cushitic languages the primary and often the only exponence of case is tone (see Bennett 1974), cf. the paradigms from Maasai in Table 6 (Tucker and Bryan 1966: 459):

Table 6. Tone as case exponence in Maasai

	'knife'	'water'	'girl'	'shepherd'	'giraffe'
Dir	*ɛŋkálém*	*ɛŋkárέ*	*entíto*	*encekût*	*ɔlmɛút*
Obl	*ɛŋkalém*	*ɛŋkárὲ*	*entitó*	*encékùt*	*ɔlméʊt*

If we now look at the position of case markers with respect to the stem, we find that the well known 'suffixal preference' (Hawkins and 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% of the languages with grammaticalised cases. However, among the languages with bicasual systems prefixal case markers are found in about 30% of linguistic groups, i.e. in Berber, Salish, and Tsimshianic languages, Nias, and Movima. The reasons for such a skewed distribution are by no means obvious.

Nominal paradigmatic structures observed in two-term case systems are often non-trivial. Though a separate exponent of case (usually only of the Oblique) invariable across different kinds of nominals is the most common option, various deviations from this simple structure are attested. 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 7.

Table 7. 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***	*žižaw-**ān***

Various types of neutralization of categories are found, too. Yaqui and Aleut have no case distinction in the plural, but the opposite is attested, too: we find case distinctions neutralised in the singular in some Pamir languages, cf. Wakhi (Pakhalina 1975: 41–42) in table 8.

Table 8. Nominal paradigm in Wakhi (‘house’)

	Sg	Pl
Dir	*xūn*	*xūn-išt*
Obl	*xūn*	*xūn-əv*

Some languages (many Indo-Iranian throughout all nominals, as well as Old French in the subset of demonstratives) neutralise number in the Dir, cf. the Kati (Nuristani, Edelman 1983: 60) paradigm in Table 9.

Table 9. Nominal paradigms in Kati (‘girl’ and ‘man’)

	Sg	Pl	Sg	Pl
Dir	*ĵuk*		*manči*	
Obl	*ĵuka*	*ĵuko*	*manče*	*mančo*

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.

Even more ‘exotic’ patterns of syncretism are found in the Indo-European two-term case systems. For instance, the identity of Oblique Singular and Direct Plural is observed in many Indo-Iranian languages, cf. Table 10 with Pashto paradigms (Skjærvø 1989: 390).

Table 10. Nominal paradigm in Pashto (‘Pashto man’)

	Sg	Pl
Dir	*paṣtun*	***paṣtānə***
Obl	***paṣtānə***	*paṣtāno*

In Old French and Old Provençal 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 11 (Pope 1934: 311):

Table 11. Nominal paradigm in Old French (‘wall’)

	Sg	Pl
Dir	*mur-**s***	*mur*
Obl	*mur*	*mur-**s***

To summarise, we may observe that from the morphological point of view, bicasual systems have some peculiar characteristics which are never or seldom attested in richer case systems (cf. Rhodes 1987 for general observations on 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 ‘weird’ patterns of paradigmatic neutralization. This is probably due to the fact that the ‘cost’ of non-iconic and non-economical morphological structures in bicasual systems is low in comparison to larger systems.

4. Conclusion

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

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

Second, languages with two-term case systems not only tolerate a high degree of polysemy of case markers, but also allow for various types of

neutralizations of core grammatical relations under the marked Obl, which is an otherwise rarely attested situation. That such structures, as well as the 'marked nominative' patterns, systematically occur in different languages with bicasual systems can be explained by appeal to general functional considerations.

Third, in two-term case systems such typologically rare case exponents as prefixes, proclitics, or tonal modification are attested. 'Minimal' systems also allow for such paradigmatic structures which are usually not found in richer case systems.

The general conclusion which may be drawn from the abovementioned points is that two-term case systems form a *cross-linguistically valid type* of grammatical systems, characterised by common functional and morphological properties, and by shared constraints on cross-linguistic variation. The data from the languages with bicasual systems may present valuable evidence for or against some theoretical generalizations which have been formulated without regard to such systems.

Notes

1. I am grateful to the audience of ALT-VII (Paris, September 2007) for comments and suggestions on the talk on which this paper is partly based, and to Alexander Arkhipov and Patience Epps for having kindly invited me to participate in this volume. All faults and shortcomings are mine.
2. As many Iranian languages, Hindi has retained an older distinction between a Direct and an Oblique morphological case, to which the newly grammaticalised case markers (postpositions) attach.
3. Comrie (1978) claims that such 'non-economical' and 'non-distinctive' patterns of case marking are ruled out by functional principles and do not appear in languages at all; this was shown not to be the case already in Payne (1979, 1980).
4. Adyghe data comes from my personal field-notes (2004–2005).
5. Case marking is observed only with proper names; case particle =*s* is positioned *before* the NP it marks and is cliticised to the *preceding* constituent.

References

Amin-Madani, Sadegh, and Dorothea Lutz
1972 *Persische Grammatik*. Heidelberg: Groos.

Aristar, Anthony R.
1997 Marking and hierarchy types and the grammaticalization of case-markers. *Studies in Language*, 21: 313–368.
Arkadiev, Peter M.
2008a Differential argument marking in two-term case systems and its implications for the general theory of case marking. In *Differential Subject Marking*, Helen de Hoop, and Peter de Swart (eds.), 151—171. Dordrecht: Springer.
2008b Poor (two-term) case systems: Limits of neutralization. In Malchukov and Spencer (eds.) 2008: pp–pp.
Bennett, Patrick R.
1974 Tone and the Nilotic case system. *Bulletin of the School of Oriental and African Studies* 37 (1): 19–28.
Blake, Barry J.
2001 *Case*. 2nd ed. Cambridge: Cambridge University Press.
Brown, Lea
2001 A grammar of Nias Selatan. Ph.D. diss., University of Sydney.
Chaker, Salem
1983 *Un Parler Berbère d' Algérie (Kabylie). Syntaxe*. Aix-en-Provence: Publications de l'Université de Provence.
Comrie, Bernard
1978 Ergativity. In *Syntactic Typology. Studies in the Phenomenology of Language*, Winfred P. Lehmann (ed.), 329–394. Austin/London: The University of Texas Press.
1991 Form and function in identifying cases. In *Paradigms: The Economy of Inflection*, Frans Plank (ed.), 41–56. Berlin/New York: Mouton de Gruyter.
Creider, Chet A. and 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): 626–667.
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.
Galand, Lionel
1964 L'énoncé verbal en berbère. *Cahiers Ferdinand de Saussure* 21: 33–53.

Givón, Talmy
1995 *Functionalism and Grammar*. Amsterdam/Philadelphia: John Benjamins.
Greenberg, Joseph H.
1966 *Language Universals. With Special Reference to Feature Hierarchies*. Hague/Paris: Mouton.
Grjunberg, Alexandr L.
1980 *Jazyk kati* [The Kati Language]. Moscow: Nauka.
Haspelmath, Martin
2006 Argument marking in ditransitive alignment types. *Linguistic Discovery* 3(1): 1–21.
Haude, Katharina
2006 A grammar of Movima. Ph.D. diss., Radboud University, Nijmegen.
Hawkins, John A. and Cutler, Ann
1988 Psycholinguistic factors in morphological asymmetry. In *Explaining Language Universals*, John A. Hawkins (ed.), 280–317. Cambridge: Cambridge University Press.
Iggesen, Oliver A.
2005 Number of cases. In *World Atlas of Language Structures*, Matthew Dryer, Martin Haspelmath, David Gil and Bernard Comrie (eds.), pp–pp. Oxford: Oxford University Press.
Kuipers, Aert H.
1967 *The Squamish Language. Grammar, Texts, Dictionary*. Hague/Paris: Mouton.
Lazard, Gilbert
1994 *L'actance*. Paris: Presse Universitaire de France.
Leslau, Wolff
1995 *Reference Grammar of Amharic*. Wiesbaden: Harrassowitz.
Lindenfeld, Jacqueline
1973 *Yaqui Syntax*. Berkeley: University of California Press.
Malchukov, Andrey, and Andrew Spencer (eds.)
2008 *Handbook of Case*. Oxford: Oxford University Press.
Masica, Colin
1991 *The Indo-Aryan Languages*. Cambridge: Cambridge University Press.
McKenzie, David Neil
1961 *Kurdish Dialect Studies, I*. London: Oxford University Press.
Mel'čuk, Igor A.
1986 Toward a definition of case. In *Case in Slavic*, Richard D. Brecht, and James S. Levine (eds.), 35–85. Columbus: Slavica.
Mohanan, Tara
1994 *Argument Structure in Hindi*. Stanford: CSLI Publications.

Moignet, Gérard
1976 *Grammaire de l'ancien français. Morphologie – Syntaxe*. 2-me éd. Paris: Klincksieck.
Pakhalina, Tatiana N.
1975 *Vakhanskij jazyk* [The Wakhi Language]. Moscow: Nauka.
Payne, John
1979 Transitivity and intransitivity in the Iranian languages of the U.S.S.R. In *The Elements (The 15th Annual Meeting of the Chicago Linguistic Society)*. Chicago, 436–447.
1980 The decay of ergativity in Pamir languages. *Lingua* 51: 147–186.
Peterson, Tyler
2006 Issues of morphological ergativity in the Tsimshian languages: Agreement, determiners and the reconstruction of case. In *Case, Valency and Transitivity*, Leonid Kulikov, Andrey Malchukov, and Peter de Swart (eds.), 65–90. Amsterdam/Philadelphia: John Benjamins.
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 13th Annual Meeting of the Berkeley Linguistics Society*. Berkeley, 223–234.
Skjærvø, Prods O.
1989 Pashto. In *Compendium Linguarum Iranicarum*, Rüdiger Schmitt (ed.), 384–410. Wiesbaden: Reichert.
Stilo, Donald
2004 Grammar notes. In *Vafsi Folk Tales*. Wiesbaden: Reichert, 223–244.
2008 Case in Iranian: From reduction and loss to innovation and renewal. In Malchukov and Spencer (eds.): pp–pp.
Tsunoda, Tasaku
1981 Split case-marking patterns in verb-types and tense/aspect/mood. *Linguistics* 19 (5/6): 389–438.
Tucker, Archibald N. and Bryan, Mary A.
1966 *Linguistic Analyses. The Non-Bantu Languages of North-Eastern Africa*. London: Oxford University Press.
Zaliznjak, Andrej A.
1973 O ponimanii termina "padezh" v lingvisticheskikh opisanijakh. [On the understanding the term 'case' in linguistic descriptions] In *Problemy grammaticheskogo modelirovanija* [Problems of Modelling Grammar], Andrej A. Zaliznjak (ed.), 53–88. Moscow: Nauka.