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**DIFFERENTIAL ARGUMENT MARKING IN TWO-TERM CASE
SYSTEMS AND ITS IMPLICATIONS FOR THE GENERAL
THEORY OF CASE MARKING¹**

INTRODUCTION

In this paper I present a view of case marking that explicitly rejects a commonly assumed position that its primary function is to merely distinguish arguments from one another (cf. Comrie 1978, 1989; Dixon 1979, 1994; Kibrik 1979, 1997), while marking them according to their specific semantic or pragmatic functions is a secondary phenomenon. In order to show that such a view (which has already been challenged by many linguists, see section 1) is untenable, I will investigate data from argument-encoding variations in the languages which possess only two cases, and will compare them with similar phenomena from languages with richer case systems. As it will be seen, ‘nondiscriminative’ coding strategies found in two-term case systems, though typologically unusual, can be easily accounted for under the assumption that case marking of a particular argument is subject to ‘local’ ‘indexing’ rules and constraints dealing rather with this particular argument, than with the overall ‘global’ relational structure of the clause. ‘Discriminatory’ function, though retaining its importance, is, in this view, no more than just one of the constraints relevant for argument marking, whose ranking with regards to other such constraints is not always and not necessarily high.

Also, I am going to argue that, contrary to some recent Optimality-theoretic proposals (see e.g. Woolford 2001), the case inventory found in a particular language cannot be always derived from a universal set of constraints (see Wunderlich & Lakämper 2001 for a similar proposal). As it will be shown, in order to account for case marking patterns in the languages with two-term case systems it is inevitable to regard the case inventory as a part of the input, and not as a feature of the candidates.

In section 1 I will briefly outline the ‘discriminatory’ theory of case marking and summarize some arguments against it which have already been discussed in the literature. In section 2 I will discuss data from argument encoding variations (in

particular, the interrelationships between tense/aspect conditioned ‘split ergativity’ and ‘differential object marking’) in the Indo-Iranian languages, and will show that their evidence is crucial with regards to the point I make here. In section 3 I will discuss subject marking in main vs. subordinate clauses in some Uto-Aztecan languages, which is also relevant for this topic. In section 4 I will present an Optimality-theoretic conception of case marking which, I believe, is able to uncontroversially explain these facts.

1. ‘DISCRIMINATORY’ THEORY OF CASE MARKING

The conception of case marking most commonly assumed among typologists is based on the assumption, clearly formulated by Comrie (1978: 379—380; 1989: 124—127), and pursued to different extents also, among others, by Dixon (1979, 1994), Givón (1984: 184), Kibrik (1979, 1997), Legendre et al. (1993), Aissen (1999), Woolford (2001) and many others, that one and perhaps the most prominent function of case marking is to distinguish between those arguments which may be confused when simultaneously present in the clause (I will later call it the Syntagmatic Discrimination Principle, SDP). Thus, in transitive sentences, when both the A(gent) and the P(atient) arguments are present, it is necessary to mark either of them so that one might not confuse them. Cf. the formulation of the DISTINGUISHABILITY constraint by de Hoop and Narasimhan (to appear), de Hoop and Lamers (to appear):

(1) **Distinguishability:**

The two arguments of a transitive relation should be distinguishable.

On the contrary, it is not necessary to mark the S(ingle) argument of the intransitive predicate in any special way, because it cannot be confused with anything in its clause, and its marking would be redundant and uneconomical. So, there are two constraints on the possible argument marking strategies: (i) SDP, which precludes A from being identical to P, and (ii) economy-driven *I(ndependent)-S, which prohibits special marking of the ‘intransitive subject’. Recasting these well-known insights in an Optimality-theoretic fashion, we get the following predictions concerning the possible types of case marking strategies, see Tableau 1.

Tableau 1. OT account of case marking strategies

V_{tr} : A,P; V_{itr} : S	*I-S	SDP
☞ a. accusative: S/A vs. P		
☞ b. ergative: S/P vs. A		
c. neutral: S/A/P		*
d. tripartite: S vs. A vs. P	*	
e. ‘quasi-neutral’: S vs. A/P	*	*

Both functionally motivated constraints predict that **accusative** and **ergative** systems of case-marking, neither of which violates any of the constraints in question, will be the most wide-spread case-marking patterns attested in the languages of the world, which is actually the case² (see Nichols 1992: 90 for the relevant statistics). A considerable difference in the frequency of occurrence between **neutral** coding strategy, which marks all (or, to be more precise, does not mark any) arguments similarly (5 %), and **tripartite** coding strategy, which marks all three basic clausal arguments differently (< 1 %), suggests the following tentative ranking of our constraints: *I-S >> SDP. The **quasi-neutral**, as I call it (or ‘double-oblique’, see Payne 1979, 1980, 1989), coding strategy, which does not distinguish between A and P, but separately marks S and thus violates both constraints, is predicted to be the rarest one if not non-existent at all (cf., e.g. Kibrik 1979: 63 — 66).

Under the ‘discriminatory’ theory of case marking it is also predicted that A and P must be marked differently only when it is not inferable from the lexical semantics of the respective nominals who is who, otherwise they may be left undistinguished. Thus, it is really the case that in a transitive clause with animate and inanimate participants the former will be the Agent and the latter the Patient with much greater probability than vice versa. The important generalization by Silverstein (1976; see also Moravcsik 1978a) concerning the person/animacy split of case marking is explained in this vein by Comrie (1978) and Dixon (1979). Also, in some languages, e.g., Hua (Papuan; see Comrie 1978: 384 — 385), the special marker is used only when there is a possibility of confusion between A and P, so it is claimed that in this language SDP is the only factor determining case marking. The same holds, as it were, for the widely attested differential object marking (Bossong 1985, Aissen 2003), when definite and/or animate Ps are encoded differently from indefinite and/or inanimate, which usually pattern with unmarked As (Comrie 1979).

A more rigorous formulation of SDP capturing this intuition may be found in (2); I cast it in terms of Dowty’s (1991) Proto-Properties (cf. Primus 2003):

(2) **Syntagmatic Discrimination Principle:**

Arguments of a predicate, for which the latter entails sufficiently dissimilar sets of Proto-role properties, and whose semantic and/or referential properties are, on the contrary, similar enough, must be encoded by distinct formal means.

It should be noted that (2) is less general than (1), in that it pertains only to *formal* distinguishability of semantically and pragmatically similar clausal participants (see de Hoop & Lamers, to appear, for a more comprehensible account of factors pertaining to distinguishability of As and Ps).

The conception of case marking outlined above, as is well known, correctly predicts and attempts to coherently explain some important cross-linguistic generalizations concerning the types and distribution of argument-marking strategies. However, this theory is subject to objections of both theoretical and empirical sort. First of all, the assumption that one of the primary functions of case marking is that distinguishing between the arguments of transitive clauses, is in need of independent motivation, which, as far as I know, has never been presented (the relevance of SDP has always been taken for granted as self-evident). On the contrary, as it has been often shown (see, inter alia, Wierzbicka 1980, 1981, 1983, 1988: Ch. 8; Mallinson, Blake 1981: Ch. 2; Du Bois 1987; Testelec 2003: 64 — 68; Primus 1999; Wunderlich & Lakämper 2001, Song 2001: 156 — 167), cases usually have more or less coherent and more or less abstract semantic functions, which dictate the pattern of their usage. This is in accordance with the grammaticalization theory which claims and convincingly shows that ‘grammatical’ cases arise diachronically from morphemes with more ‘concrete’ functions (see Lehmann 1995/1982: 66 — 107); it is hardly conceivable how one could place the discriminatory function on any of the well documented grammaticalization paths of case morphemes. Second, there are large pieces of evidence that languages perfectly tolerate almost any degree of Agent-Patient ambiguity (see, e.g., Moravcsik 1978b, Plank 1980; cf. also de Hoop and Lamers, to appear), and that quite a number of languages (5 % in the Nichols’ (1992) sample) lack any kind of grammaticalized discriminatory devices (Riau Indonesian, see Gil 1994, 1999, is a well-known example). Third, this theory incorrectly predicts that both ‘optimal’ case marking strategies, viz. accusative and ergative, must show

comparable frequency of occurrence. Why such a prediction fails is not obvious; for a tentative explanation see Primus 1999.

Therefore, one has to admit, I believe, that however appealing the ‘discriminatory’ theory may seem, it cannot be adopted without serious amendments. Some steps towards a more balanced theory of case-marking have been made in current OT literature, see especially already mentioned contributions by Aissen (1999, 2003), Primus (1999, 2003), Wunderlich and Lakämper (2001), de Hoop and Narasimhan (to appear) and some other (e.g., Butt and King 2002a). In their approaches, different though they are, it is assumed that there are two main functions of case marking (see discussion in de Hoop & Narasimhan, to appear, section 2): the already discussed ‘discriminatory’ function, and the so called ‘indexing’ function, which pertains to encoding of particular semantic features of arguments. These functions quite often compete with one another and their tension is resolved by relative ranking of the relevant constraints.

OT approaches to case also assume (tacitly or explicitly) that not only case marking **patterns** in individual languages, but also language-particular case **inventories** may be predicted by universal constraints and their different rankings. Such an approach is advocated, e.g., by Woolford (2001), see also Aissen (1999: 685 — 686). However, I believe that such a view is basically not correct; abstaining from a detailed and thorough criticism of Woolford’s (mis)conception of case marking, I will simply present data which unequivocally contradicts the aforementioned view.

In the following sections I will attempt to show that the data usually disregarded by typologists may present important empirical evidence against the primary role of SDP in argument encoding, and outline a conception of case marking which, in my view, is free of the disadvantages of the ‘discriminatory’ theory, though it incorporates its basic insights.

2. DIFFERENTIAL ARGUMENT MARKING IN INDO-IRANIAN

The modern Indo-Iranian languages possess a variety of argument marking patterns, which, however, have not been subject of detailed investigation of the adherents of the ‘discriminatory’ theory of case marking. A closer look at them reveals that case marking in these languages is hard to explain in terms of the effects

of SDP. In this section I will present the relevant facts, paying special attention to the data from the languages with two-term case systems (viz. Iranian and Dardic).

Let us look at the patterns of argument marking in Vafsi, an Iranian language with two cases: unmarked Dir(ect) and marked Obl(ique). As quite a number of its neighbors it exhibits two types of differential argument marking: the tense/aspect split, which affects the marking of the A, and the animacy/definiteness split, which is relevant for the marking of the P. In the non-perfect tenses, S and A are encoded by Dir, which has zero exponence (Stilo 2004: 231, 243):

(3) *tæ æten bæ- ssæ in kelj- i palu*
 you(DIR) now PFV- go this girl- OBL to
 ‘Now you go to this girl’

(4) *tæ in xær- i næ- ruš- i*
 you(DIR) this donkey- OBL NEG- sell- 2SG
 ‘Won’t you sell this donkey?’

P may be marked by Obl if it is animate and specific (*individuated*, in Lazard’s (1984), (1994) sense), as in (4), or left unmarked otherwise (Stilo 2004: 243):

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

In the perfect tense, however, A is invariably encoded by Obl, and S by Dir (Stilo 2004: 244):

(6) *in luti- an yey xær= esan æ- ruttæ*
 this wise.guy- OBL.PL one donkey(DIR)= 3PL DUR-sell.PST
 ‘These wise guys were selling a donkey’

(7) *qondaq bidara næ- væ?*
 swaddled(DIR) wake.up NEG- become
 ‘Didn’t the infant wake up?’

However, the differentiation of animate vs. inanimate Ps remains intact in the perfect tense, resulting in the following ‘nondistinctive’ quasi-neutral structures (Stilo 2004: 244):

(8) *luas- i kærg- e= s bæ- værdæ*
 fox-OBL chicken-OBL=3SG PFV- take.PST
 ‘The fox took the chicken’

Similar patterns can be found in other languages of this region, cf. the following examples from Southern Tati dialect Chali (Yar-Shater 1969: 75—76):

- (9) *bar beškiaš*
 door(DIR) broke
 ‘The door broke’
- (10) *varziar-ō barr- ōn= ešō bāšind*
 peasant-OBL.PL spade- OBL.PL=3PL threw.away
 ‘The peasants threw away their spades’

and from Roshani, a Pamir language, where only demonstrative pronouns decline for case (Payne 1980: 154—155):

- (11) *dāδ xawrič- ēn= an tar Xarag sat*
 these.DIR boy- PL= 3PL to Xorog go.PST
 ‘These boys went to Xorog’
- (12) *duf xawrič- ēn um kitōb xēyt*
 these.OBL boy- PL this.OBL book read.PST
 ‘These boys (have) read that book’

In spite of the rarity (quasi-neutral patterns are, to my knowledge, attested only in the Iranian and perhaps also Dardic languages, see Skalmowski 1974, Payne 1979, 1980, 1989, Bossong 1985) and apparent ‘disfunctionality’ of these structures, it is evident that they are clearly motivated (see, e.g., DeLancey 1981, Tsunoda 1981, Lazard 1994 for important insights into the nature of functional motivation of various types of ‘split case marking’), notably *not* by the SDP. The alleged need to discriminate between the syntagmatically co-occurring arguments seems to be altogether irrelevant here.

Let us compare Vafsi data with that of Hindi/Urdu, which uses postposition-like case markers for the encoding of core grammatical functions (see Mohanan 1994, Butt & King 2002a,b, Lee 2003, and de Hoop & Narasimhan, to appear, for detailed accounts), its case system thus radically differing from two-term case systems common in the Iranian languages. Hindi is similar to Vafsi, however, in one crucial respect: it possesses the same two types of argument encoding alternations, viz. tense/aspect ergativity split and differential object marking. The difference lies only in how these patterns are realized by the surface morphology.

As in Vafsi, in Hindi/Urdu both S and A are unmarked in the non-past tenses (Dymshic 1962: 34):

- (13) *merā dost yahānī hai*
 my friend(NOM) here COP.3SG
 ‘My friend is here’

- (14) *laṛka patthar phenktā hai*
 boy(NOM) stone.PL(NOM) throwing COP.3SG
 ‘The boy is throwing stones’

If P is individuated, it is marked by the postposition =*ko*, which is also used to mark the Recipient/Addressee; I will gloss it Acc(usative) (Mohanana 1994: 59):

- (15) *Nīnā bacce= ko uṭhāyegī*
 Nīna(NOM) child.OBL= ACC pick.up.FUT
 ‘Nina will pick the child up’

In the past tenses the A argument is marked by the postposition =*ne* here glossed as Erg(ative) (Mohanana 1994: 59):

- (16) *bacce= ne kītāb paḍhī*
 child.OBL= ERG book read.PRF
 ‘The child read a book’

It is necessary to mention here that not only transitive Agents are marked by =*ne* in Perfect tenses, but intransitive Agents as well; here the Ergative encoding is clearly semantically motivated: the presence of =*ne* implies volitionality and control on the part of the subject, cf. the following pair (Mohanana 1994: 72)

- (17) a. *rām=ne cillāyā* b. *rām cillāyā*
 Ram=ERG scream.PRF Ram(NOM) scream.PRF
 ‘Ram deliberately screamed’ ‘Ram screamed (e.g. because of fright)’

Just like in Vafsi, ‘differential object marking’ in Hindi/Urdu is present in all tenses, regardless of whether there is any need to distinguish P from A; cf. the following example, where both Ergative and Accusative postpositions are present (Mohanana 1994: 80):

- (18) *Īlā= ne bacce= ko uṭhāyā*
 Īla= ERG child.OBL= ACC lift.PRF
 ‘Īla lifted the child’

It is clearly seen from the examples above, that the ‘global’ strategies of argument marking which exist in Vafsi and other Iranian languages and Hindi/Urdu are no more than the automatic consequence of (i) functionally motivated argument-marking rules, assigning special case markers to As in the past/perfect tenses and to individuated Ps, and most importantly (ii) the actual number of core case markers in these languages. In Vafsi there is only one non-zero case marker, which is thus used as the output of both rules; in Hindi/Urdu there are many different postpositions, thus no quasi-neutral pattern arises. The patterns of argument marking in these languages are summarized in Tables 2 and 3.

Table 2. Patterns of argument marking in Vafsi

S	A	P	strategy	conditioning factor
Dir	Dir	Dir	neutral	imperfective; non-individuated P
Dir	Dir	Obl	accusative	imperfective; individuated P
Dir	Obl	Dir	ergative	perfective; non-individuated P
Dir	Obl	Obl	quasi-neutral	perfective; individuated P

Table 3. Patterns of argument marking in Hindi/Urdu

S	A	P	strategy	conditioning factor
Nom	Nom	Nom	neutral	imperfective; non-individuated P
Nom	Nom	Acc	accusative	imperfective; individuated P
Nom ~ Erg	Erg	Nom	ergative	perfective; non-individuated P
Nom ~ Erg	Erg	Acc	tripartite	perfective; individuated P

It is thus evident that both the ‘nondistinctive’ quasi-neutral pattern of Vafsi, Chali and Roshani and the ‘over-distinctive’ tripartite pattern of Hindi/Urdu are conditioned by the very same functional-semantic factors and differ only with respect to their surface realizations, which is merely a consequence of such more or less arbitrary factor as the number of core case markers in a particular language.

3. MAIN VS. SUBORDINATE CLAUSE SPLIT IN THE UTO-AZTECAN

Some Uto-Aztecan languages have two-term case systems for nouns. The dominant pattern of case marking is accusative, when S/A is encoded by Dir, and P by Obl. A typical example is Chemehuevi (Press 1979:73, 78):

- (19) *maŋ nakwi- j*
 he(DIR) run- PRS
 ‘He is running’
- (20) *maŋ puŋkuc- i kiŋ- vi*
 he(DIR) dog- OBL bit- PST
 ‘He bit the dog’

However, in many types of subordinate clauses (relative clauses, complement clauses, and adjunct clauses) the marking of the S/A argument switches to Obl (Press 1979: 108, 11, 115):

- (21) [*puŋkuc- i havitu- g*] *aipac ay tka- vi*
 dog- OBL sing- SIM boy(DIR) that eat- PST
 ‘While the dog sang, the boy ate’
- (22) *waampakwic [nini paka-mpa- n] aipac- i kwipa- vi*
 scorpion(DIR) I.OBL kill- FUT- NML boy- OBL sting- PST
 ‘The scorpion I am going to kill stung the boy’

- (23) *John [Ann-i karñia- j kñaw taya- kai- n] putucuga-j*
 John Ann- OBL chair- OBL yesterday kick- PRF- NML know- PRS
 ‘John knows that Ann kicked the chair yesterday’

Example (23) is of particular interest here. As it clearly shows, both arguments of the subordinate clause are marked by the same Obl case, thus resulting in a ‘non-distinctive’ neutral structure (cf. a similar Yaqui sentence in (29)).

The same holds for another language of this family, Yaqui, which, too, happens to have only two fully grammaticalized cases on nouns (personal and demonstrative pronouns have, apart from that, also a separate possessive form). In main clauses, argument-encoding follows the accusative pattern (Lindenfeld 1973: 11, 54):

- (24) *itom čuuñu bem kari= po yeewe*
 we.POSS dog(DIR) they.POSS house= in play
 ‘Our dog is playing in their house’
- (25) *inipo em misi- ta biča- l*
 I(DIR) you.POSS cat- OBL see- REAL
 ‘I saw your cat’

The Obl case fulfills also the function of the genitive, marking possessors (Lindenfeld 1973: 56):

- (26) *itom pare- ta kari si weela*
 we.POSS priest- OBL house(DIR) very old
 ‘Our priest’s house is very old’

Like in Chemehuevi, Yaqui subjects are encoded with Obl in subordinate clauses, cf. the following examples from Lindenfeld (1979: 65, 81, 103):

- (27) *hu kari [in ačai- ta hinuk- añu] weče-k*
 this house.DIR I.POSS father- OBL buy- NML fall- REAL
 ‘The house my father bought fell down’
- (28) *[hu- ka oño- ta yepsa- k- o] itepo saha- k*
 this- OBL man- OBL arrive- REAL-TEMP we.DIR go- REAL
 ‘When this man arrived we left’
- (29) *na= a biča ke [hu- ka usi- ta čuñu- ta kipwe- ñu]*
 I.DIR= it see that this- OBL child-OBL dog- OBL have- NML
 ‘I see that this child has a dog’

The explanation for this pattern of case marking in subordinate clauses in both languages is relatively straightforward: as is well attested cross-linguistically (see, e.g., Keenan 1985: 160 — 161, Lehmann 1988: 195 — 200), verbs in subordinate

clauses are often nominalized, and their subjects pattern with the possessor NPs. Cf. similar structures in English:

(30) *John visited Bill.*

(31) [*John's visiting Bill*] *was a disaster.*

That this is the case in the Uto-Aztecan languages as well is proven by the evidence from Yaqui, where the pronominal subject of the embedded clause is encoded similarly to the pronominal possessor, and not to pronominal direct object, cf. the following (Lindenfeld 1973: 72):

(32) *ini- ka bači- ta [em hinu- k- aʔu] nee maka*
 this- OBL corn- OBL you.POSS buy- REAL-NML I.OBL give
 'Give me the corn that you bought'

Here only the possessive form of the pronoun (*em* 'your', as in (25)) is possible, and not the form used for direct/indirect objects (*enči* 'you.OBL').

From the evidence presented in this section it is possible to arrive at a conclusion similar to that of the previous one where I dealt with case-marking alternations in the Indo-Iranian languages: neutral argument marking pattern in embedded clauses in Yaqui and Chemehuevi is no more than an epiphenomenon of the typologically natural situation when subordinate clauses are headed by verbal nouns triggering possessor inflection on their subjects, and the fact that these languages happen to mark (nominal) possessors in the same way as direct objects.

4. TOWARDS A UNIFIED APPROACH TO CASE MARKING

In order to account for the facts presented in the previous two sections, I would like to outline a conception of case marking which, on the one hand, would capture the major insights of the 'discriminatory' theory, and, on the other hand, would be devoid of its disadvantages. The main idea behind my proposal is that the Syntagmatic Discrimination Principle (SDP) is only one of the factors which may determine the actual patterns of argument encoding in a particular language and across languages, and that it may be (and often is) overridden by other principles.

The most important rival of SDP that operates in all the languages I have surveyed, is best regarded as a family of rules constraining the marking of particular arguments in particular contexts, which are itself determined by universal tendencies. For instance, in the Indo-Iranian languages there is a rule PERFA which requires the A

argument to be marked differently according to tense/aspect of the verb, and a rule INDIVP which is responsible for the dissimilar encoding of indefinite/inanimate (less individuated) vs. definite/animate (more individuated) Ps. A corresponding Uto-Aztecan rule is EMBEDSB, assigning non-nominative case to the subjects of embedded clauses. It is important that the surface realization of these rules, viz. the actual case marking device which is used to mark the argument they apply to, is determined on the language-particular level and crucially depends on the inventory of formal means a language possesses.

What all these rules (which, of course, operate in a large number of different languages, not just in those surveyed here; see Lazard 1994) have in common is the fact that their application creates context-sensitive alternations in the encoding of a single argument (A, P, S/A, etc.) regardless of the properties of other NPs present in the clause. I believe them to be possible instantiations of a more general principle, which I will call the Paradigmatic Discrimination Principle (PDP). The rigorous formulation of PDP is not so easy to arrive at, so I will only attempt to give an informal characterization³:

(33) **Paradigmatic Discrimination Principle (PDP):**

The argument of a predicate for which the latter entails more or less constant set of Proto-role properties may be encoded differently depending on contextual and/or inherent factors, such as its position of empathy and referentiality hierarchies, viewpoint distinctions (\approx tense/aspect of the clause), or the independent/embedded status of the clause (see DeLancey 1981).

What is most important about PDP, is that, unlike SDP, it is not a rule straightforwardly applying to any possible clause. As a general principle, it can be regarded only as a typological tendency; which PDP-driven rule or rules are operating in a particular language is a matter of its history, just as the presence or absence of nominal case marking.

Each instantiation of PDP may be seen as a constraint contributing to the determination of the actual inventory and distribution of argument encoding types in a given language. SDP also plays an important role here, but the relative ranking of these constraints varies from language to language, and it is not always the case that SDP is higher in rank than any of the PDP-constraints.

Let us see how the data surveyed above may be accounted for in these terms, cast in the functionally-based Optimality-theoretic framework (see Aissen 1999, 2003, Aissen & Bresnan 2002 and others). First let us formulate the relevant PDP-based constraints. In order to do this it is necessary to bear in mind not only that there are certain (gradual or binary) distinctions relevant for differential argument marking, such as semantic role, grammatical function, animacy, person, definiteness, volitionality, perfective/imperfective, independent/embedded, etc, but also the fact that there are more ‘prototypical’ or less ‘marked’ configurations of these properties and less ‘prototypical’ and correspondingly more ‘marked’ constellations of these (see especially DeLancey (1981) for an initial proposal and Aissen (1999, 2003) for an enlightening OT account). For instance, it is known that it is less typical for Patients to be animate and/or definite (‘individuated’) than inanimate and/or indefinite (‘non-individuated’); also, following DeLancey (1981), I assume that it is unmarked for Agents to be ‘viewpoint foci’, that is to occur in Imperfective clauses where the activity of the Agent is foregrounded, rather than in Perfective clauses which underscore the change of state undergone by the Patient. Observations of similar kind follow also for subject of syntactically embedded (and thus pragmatically backgrounded) and independent (pragmatically foregrounded) clauses. These generalizations may be stated as in the following harmonic scales and corresponding constraint hierarchies (where ‘>’ should be read as ‘more harmonic than’), see Table 4.

Table 4. PDP-based harmonic scales and constraint hierarchies

Harmonic scales	Constraint hierarchies
NonIndiv/P > Indiv/P	*INDIV/P >> *NONINDIV/P
Imperf/A > Perf/A	*PERF/A >> *IMPERF/A
Indep/Sb > Embed/Sb	*EMBED/SB > *INDEP/SB

As in the languages surveyed both marked and unmarked constellations of argument properties are permitted and differ only in their relative *formal* markedness, it is necessary to supplement the constrain hierarchies in Table 4 with additional constraints which would predict that individuated Ps are case-marked while non-individuated ones are not, and similarly with As in imperfective and perfective clauses. Here I follow proposals by Aissen (1999, 2003) and Primus (2003) postulating the following markedness constraints, see table 5. X/*∅ should be

understood as ‘the feature constellation X should not receive default (Nominative/Direct) case marking’⁴.

Table 5. Constraint hierarchies conjoined with *Ø

*INDIVP/Ø >> *NONINDIVP/Ø
*PERFA/Ø >> *IMPERFA/Ø
*EMBEDSB/Ø >> INDEPSB/Ø

In order to account for those patterns of case marking where one or several arguments get unmarked (Nominative/Direct) case I assume, again following Aissen, the constraint *STRUC which penalizes assignment of marked cases; this constraint may be interpolated at various points of the relevant hierarchies thus predicting a sufficient range of cross-linguistic variation in differential argument marking.

Another very important and already mentioned aspect of the account I propose here is the treatment of the language-particular case inventories. Contrary to current OT practice which attempts at accounting for the number and character of cases in individual languages on the basis of universal constraints and their language-particular rankings, I propose to treat case inventory of each language as a part of the input, and not just as a feature specification of the candidates, generated by GEN. I believe that this approach is more consistent with the actually attested data, which proves to be not so ‘elegant’ as some proponents of OT believe. The case inventory of a particular language is a result of various and often conflicting tendencies, many of which are better looked upon as historical ‘accidents’ rather than instantiations of universal ‘laws’. The data from two-term case systems, in my opinion, supports such a view.

Let us now turn to how the actual case marking patterns found in the languages surveyed in sections 2 and 3 can be accounted for under these assumptions.

Let us begin with the Uto-Aztecan patterns, where only one PDP-driven rule is operating, namely EMBEDSB. Let the input be an embedded clause with both Agent and Patient; there are only two cases in these languages (Dir and Obl). The set of candidates I consider here consists of (i) the actual one, where both A and P are marked by Obl, and where SDP is violated; (ii) the one where SDP is satisfied by leaving A unmarked, thus violating *EmbedSb/Ø; and (iii) where both *EmbedSb/Ø and SDP are satisfied by suspending case marking of the P, which violates either *INDIVP/Ø or *NONINDIVP/Ø, which in these languages are both ranked over *STRUC

thus securing that all Patients are marked⁵, see constraint ranking in (34) and Tableau 6.

(34) *EMBEDSB/Ø >> *INDIVP/Ø >> *NONINDIVP/Ø >> *SDP >> *STRUC

Tableau 6. Case-marking of embedded clause subjects in Yaqui and Chemehuevi

A,P,Embed;{Dir,Obl}	*EMBEDSB/Ø	*INDIVP/Ø	*NONINDIVP/Ø	*SDP	*STRUC
a. <A:Dir, P:Obl>	*!				*
☞ b. <A:Obl, P:Obl>				*	*
c. <A:Obl, P:Dir>		*!	*!		*

Let us now turn to the more complicated Indo-Iranian case. In Vafsi and other Iranian languages, as has already been shown, the ‘need’ to differentially mark As according to aspect and Ps according to their degree of individuation is stronger than the ‘need’ to discriminate between As and Ps; thus we may assume that PDP-driven constraints are here ranked above the SDP, but not with respect to each other; since only individuated Ps and As in the perfective are marked in these languages, *STRUC is ranked above the lower-ranked *IMPERFA/Ø and *NONINDIVP/Ø see (35):

(35) *PERFA/Ø, *INDIVP/Ø >> SDP >> *STRUC >> *IMPERFA/Ø, *NONINDIVP/Ø

Let us first see how these constraints account for the most ‘unmarked’ transitive clauses, where the aspect is imperfective and the Patientive argument is non-individuated; since there are only two cases in these languages, the possible set of candidates is straightforwardly derivable. See Tableau 7.

Tableau 7. ‘Unmarked’ transitive clause in Vafsi

A,P _[non-ind] ,Imperf, {Dir,Obl}	*PERFA/Ø	*INDIVP/Ø	*STRUC	SDP	*IMPERFA/Ø	*NONINDIVP/Ø
☞ a. <A:Dir, P:Dir>					*	*
b. <A:Dir, P:Obl>			*!		*	
c. <A:Obl, P:Dir>			*!			*
d. <A:Obl, P:Obl>			*!*			

Note that *PERFA/Ø and *INDIVP/Ø are of no relevance here, as well as SDP, which is satisfied due to the non-individuated character of the P. The candidates with one or both arguments marked are ruled out by *STRUC; the resulting pattern may be regarded as an instance of the ‘emergence of the unmarked’ structure (McCarthy and Prince 1994).

Let us now look at the most complex case, where both PDP-driven rules operate, viz. clauses with perfective aspect and individuated Patient, see Tableau 8.

Tableau 8. Perfective transitive clause with individuated Ps in Vafsi

A,P _[ind] ,Perf, {Dir,Obl}	*PERFA/∅	*INDIVP/∅	*STRUC	SDP	*IMPERFA/∅	*NONINDIVP/∅
a. <A:Dir, P:Dir>	*!	*!		*		
b. <A:Dir, P:Obl>	*!		*			
c. <A:Obl, P:Dir>		*!	*			
☞ d. <A:Obl, P:Obl>			**	*		

From Tableau 8 it is clearly seen that the optimal candidate, viz. the ‘double oblique’ pattern of case marking is the sole candidate which does not violate any of the highest-ranked PDP-driven constraints; other candidates, most importantly those which satisfy SDP, are ruled either by *PERFA/∅ or by *INDIVP/∅.

If we now turn to Hindi/Urdu, we will find that the constraint ranking in (35) applies to this language as well; the only difference between Hindi and the Iranian languages lies in the realm of the input, where the case inventory is registered. See tableaux 9 and 10.

Tableau 9. ‘Unmarked’ transitive clause in Hindi/Urdu

A,P _[non-ind] ,Imperf, {Nom,Acc,Erg}	*PERFA/∅	*INDIVP/∅	*STRUC	SDP	*IMPERFA/∅	*NONINDIVP/∅
☞ a. <A:Nom,P:Nom>					*	*
b. <A:Nom,P:Acc>			*!		*	
c. <A:Erg,P:Nom>			*!			*
d. <A:Erg,P:Acc>			*!*			

Tableau 10. Perfective transitive clause with individuated Ps in Hindi/Urdu

A,P _[ind] ,Perf, {Nom,Acc,Erg}	*PERFA/∅	*INDIVP/∅	*STRUC	SDP	*IMPERFA/∅	*NONINDIVP/∅
a. <A:Nom,P:Nom>	*!	*!		*		
b. <A:Nom,P:Acc>	*!		*			
c. <A:Erg,P:Nom>		*!	*			
☞ d. <A:Erg,P:Acc>			**	✓		

Optimal output candidates for the most marked input in Vafsi and Hindi differ only with regards to SDP: Vafsi double-oblique pattern violates the low-ranked SDP, while Hindi tripartite pattern satisfies it. Nevertheless, both these superficially different case marking patterns are clearly motivated by identical functional tendencies.

Evidently, PDP-driven constraints are not invariably ranked higher than SDP; first of all, instances when these principles may come into conflict are not so widespread, and are probably limited to languages with relatively poor case systems, such as modern Iranian. Second, when two PDP-driven rules apply ‘across-the-board’, as in Vafsi, Southern Tati and Roshani, it is possible that one of them is suspended in

favor of the SDP. Let us look at some examples from another Iranian language with a well developed two-term case system, *Zaza*. Here also both the tense/aspect split ergativity and animacy-driven differential object marking are present, but the latter applies only to non-past tenses, thus not creating the notorious quasi-neutral patterns. Cf. the following examples from Selcan 1998: 277 — 279:

- (36) *televe kitav cên- o*
 student(DIR) book(DIR) take- PRS.3SG
 ‘The student is taking the book’
- (37) *televe malim- i vinen- o*
 student(DIR) teacher- OBL see- PRS.3SG
 ‘The student sees the teacher’
- (38) *televe- y kitav di*
 student-OBL book(DIR) saw
 ‘The student saw the book’
- (39) *televe- y malim(*-i) di*
 student-OBL teacher(*OBL) saw
 ‘The student saw the teacher’

As is seen from the examples, INDIVP rule does not operate in the past tenses in *Zaza*, resulting in the ‘pure ergative’ construction. This pattern may be accounted for by reranking SDP higher than *IndivP/∅, see the ranking in (40)⁶:

- (40) *PERFA/∅ >> SDP >> *INDIVP/∅ >> *STRUC >> *IMPERFA/∅,
 *NONINDIVP/∅

Let us see how this ranking predicts the mirror-like case-marking patterns of (37) and (39), where the Patient is animate (that is, individuated), and only tense switches from Present to Past. The relevant evaluations are shown in Tableaux 11 and 12.

Tableau 11. Present tense and individuated Patient in *Zaza*

A,P _[ind] ,Present,{Dir,Obl}	*PERFA/∅	SDP	*INDIVP/∅	*STRUC	*IMPERFA/∅	*NONINDIVP/∅
a. <A:Dir, P:Dir>		*!	*		*	
b. <A:Dir, P:Obl>				*	*	
c. <A:Obl, P:Dir>			*!	*		
d. <A:Obl, P:Obl>		*!		**		

Tableau 12. Past tense and individuated Patient in Zaza

A,P _[ind] ,Past, {Dir,Obl}	*PERFA/∅	SDP	*INDIVP/∅	*STRUC	*IMPERFA/∅	*NONINDIVP/∅
a. <A:Dir, P:Dir>	*!	*	*			
b. <A:Dir, P:Obl>	*!			*		
☞ c. <A:Obl, P:Dir>			*	*		
d. <A:Obl, P:Obl>		*!		**		

As is seen from Tableaux 11 and 12, in the present tense, when the Agentive argument is left unmarked, nothing prevents INDIVP to apply in order to satisfy the corresponding constraint; SDP is satisfied by this candidate, too. However, in the Past tense, when the Agentive argument is marked by Obl, it is precisely SDP which prevents INDIVP rule from applying.

The Zaza example constitutes an important argument for my proposal that case inventories of the individual languages are to be regarded as features of the input rather than as epiphenomena of the constraints and their ranking. Indeed, if we were to derive Zaza case system by the independently motivated constraint ranking in (40), we could as well arrive at a Hindi-like system with separate Accusative and Ergative, see Tableau 13 for an evaluation of ‘Pseudo-Zaza’ past tense clause with an individuated patientive argument, where instead of Direct and Oblique the case system includes at least three cases: Nominative, Accusative, and Ergative.

Tableau 13. ‘Pseudo-Zaza’ with a three-case system

A,P _[ind] ,Past, {Nom,Erg,Acc}	*PERFA/∅	SDP	*INDIVP/∅	*STRUC	*IMPERFA/∅	*NONINDIVP/∅
a. <A:Nom,P:Nom>	*!	*	*			
b. <A:Nom,P:Acc>	*!			*		
c. <A:Erg,P:Nom>			*!	*		
☞ d. <A:Erg,P:Acc>				**		

Tableau 13 clearly shows that since SDP is now irrelevant, it is the tripartite structure rather than ergative structure that wins; in order to account for the fact that it is candidate (c), and not (d) that wins, we would need to stipulate some other economy-based constraint, which would be ranked low in Hindi and Vafsi, and high in Zaza. Such a solution is certainly always possible, but I am reluctant to supply the theory outlined here with further probably *ad hoc* constraints.

From the foregoing discussion it is clear that SDP and PDP-driven rules may be ranked differently in the grammars of particular languages, resulting in various patterns of case marking. It is a matter of empirical investigation whether the universally preferred ranking is SDP >> PDP or PDP >> SDP. If the former is the

case, than the ‘discriminatory’ theory of case marking is proven to be basically true. But this would not, I believe, undermine the claim that the ‘discriminatory’ function of case marking, though it plays its role, is not the sole and not always the principal determinant of existing argument encoding structures. In any case, the universal ranking of the two basic functions of case marking is an empirical, and not an *a priori*, issue.

CONCLUSION

In this article I have presented data from argument encoding variations in the languages with two-term case systems, which constitute strong evidence against the widely assumed ‘discriminatory’ conception of case marking, which states that the main factor determining the ‘global’ strategies of argument marking in the languages of the world is the Syntagmatic Discrimination Principle (SDP): A and P in a transitive clause must be somehow distinguished from one another. As the data from Indo-Iranian and Uto-Aztecan languages shows, however, this simplistic view is empirically disconfirmed, since these languages tolerate severe violations of the SDP. In order to account for these facts I proposed that another factor is at work here, namely the Paradigmatic Discrimination Principle (PDP): arguments with similar semantic or grammatical functions may be encoded differently if there are strong contextual factors favoring their differentiation. Since different such factors may be grammaticalized in different languages, there are various instantiations of PDP. Also, the comparison of languages with different case systems shows that language-particular surface realization of various PDP-driven rules depends on the inventory of formal devices the language possesses. SDP and PDP may have different ranking, which results in variable distribution of particular argument-encoding strategies. It is not *a priori* obvious which of the two principles, both of which seem to be functionally motivated, cross-linguistically tend to be ranked higher. An Optimality Theory based framework, which incorporates both kind of factors as universal and language-particular constraints, and regards language-particular case inventories as relevant characteristics of the input, seems to be useful for the uniform description of these facts.

NOTES

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² Here I disregard the fact that, according to Nichols, the most frequent pattern of nominal case-marking is actually the ‘nondiscriminative’ neutral one. This fact is not surprising, however, since most languages in her sample simply lack any case marking on nouns. Neutral is the dominant ‘global’ alignment type only in a small, but noticeable (5 %, according to Nichols) number of languages. Also, there must be independent reasons for ergative alignment being, contrary to the prediction of Table 1, almost two times less frequent than accusative.

³ The distinction between SDP and PDP is akin to the difference between the Syntagmatic and Paradigmatic Argument Selection Principles of Ackerman and Moore (2001); it is probable that similar semantic factors operate in both domains.

⁴ Aissen (op. cit.) and de Hoop & Narasimhan (to appear) assume that ‘default’ marking is identical to ‘no case marking at all’, which view I am somewhat reluctant to adhere to (e.g. because there are languages, such as Japanese or Aleut, where Nominative case is actually not formally unmarked).

⁵ It is actually not important which of the PDP-driven constraints, viz. subject-oriented *EMBEDSB/∅ or object-oriented *INDIVP/∅ is ranked higher; here it is possible to assume that they are not ranked with regards to each other. However, as the discussion of the Indo-Iranian data will show, sometimes the relative ranking of different PDP-driven constraints is crucial.

⁶ Another possible ranking, viz. *INDIVP/∅ >> SDP >> *PERFA/∅, is, to my knowledge, non-attested, at least all putative examples from the Indo-Iranian languages are not very reliable; why it is so, I do not feel competent enough to speculate, but I do not think that nothing should preclude languages with such ranking.

ABBREVIATIONS

A Agent	Nml Nominalizer
Acc Accusative	Non-Ind Non-individuated
Cop Copula	Obj Objective
Dir Direct	Obl Oblique
Erg Ergative	P Patient
Fut Future tense	Perf Perfect(ive)
Imperf Imperfective	Pl Plural
Ind Individuated	Poss Possessive
Izf Izafe	PP Past participle

Prf	Perfect tense	S	Intransitive subject
Prs	Present tense	Sg	Singular
Pst	Past tense	Sim	Simultaneous
Real	Realis	Temp	Temporal

REFERENCES

- Ackerman, Farrel, and John Moore: 2001, *Proto-Properties and Grammatical Encoding. A Correspondence Theory of Argument Selection*, CSLI, Stanford.
- Aissen, Judith: 1999, Markedness and subject choice in optimality theory, in *Natural Language and Linguistic Theory* **17**, 673 — 711.
- Aissen, Judith: 2003, Differential object marking: Iconicity vs. economy, *Natural Language and Linguistic Theory* **21**, 435—483.
- Aissen, Judith, and Joan Bresnan: 2002, Optimality and functionality: Objections and refutations, *Natural language and linguistic theory* **20**, 81—95.
- Bossong, Georg: 1985, *Empirische Universalienforschung: Differentielle Objektmarkierung in den neuiranischen Sprachen*, Narr, Tübingen.
- Butt, Miriam, and Tracy H. King: 2002a, Case systems: Beyond structural distinctions, in E. Brandner, and H. Zinmeister (eds.), *New Perspectives on Case Theory*, CSLI Publications, Stanford (CA), pp. 53 — 87.
- Butt, Miriam, and Tracy H. King: 2002b, The status of case. Unpublished manuscript, University of Konstanz.
- Comrie, Bernard: 1978, Ergativity, in W. P. Lehmann (ed.), *Syntactic Typology. Studies in the Phenomenology of Language*, The University of Texas Press, Austin, pp. 329—394.
- Comrie, Bernard: 1979, Definite and animate: A natural class, *Linguistica Silesiana* **3**, 13—21.
- Comrie, Bernard: 1989, *Language Universals and Linguistic Typology*, 2nd ed., Blackwell, Oxford.
- de Hoop, Helen, and Bhuvana Narasimhan: Differential case-marking in Hindi, to appear in M. Amberber, and H. de Hoop (eds.), *Competition and Variation in Natural Languages: The Case for Case*.
- de Hoop, Helen, and Monique Lamers: Incremental distinguishability of subject and object, to appear in L. Kulikov et al. (eds.), *Case, Valency, and Transitivity*. John Benjamins, Amsterdam & Philadelphia.
- DeLancey, Scott: 1981, An interpretation of split ergativity and related patterns, *Language* **57**, 626—567.
- Dixon, Robert M. W.: 1979, Ergativity, *Language* **55**, 59—138.

- Dixon, Robert M. W.: 1994, *Ergativity*, Cambridge University Press, Cambridge.
- Dowty, David: 1991, Thematic proto-roles and argument selection, *Language* **67**, 547—619.
- Du Bois, John W.: 1987, The discourse basis of ergativity, *Language* **63**, 805—855.
- Dymshic, Z. M.: 1962, *Jazyk urdu [The Urdu Language]*, Vostochnaja Literatura, Moscow.
- Gil, David: 1994, The structure of Riau Indonesian, *Nordic Journal of Linguistics* **17**, 179—200.
- Gil, David: 1999, Riau Indonesian as a pivotless language, in E. V. Rakhilina, and J. G. Testelec (eds.), *Tipologija i teorija jazyka: Ot opisanija k objasneniju [Typology and Linguistic Theory. From Description to Explanation]*. Festschrift for Alexander E. Kibrik. Jazyki Slavjanskoj Kul'tury, Moscow, pp. 187—211.
- Givón, Talmy: 1984, *Syntax. A Functional-Typological Introduction. Vol. I*. John Benjamins, Amsterdam/Philadelphia.
- Keenan, Edward L.: 1985, Relative clauses, in T. Shopen (ed.), *Language Typology and Syntactic Description. Vol. II. Complex Constructions*, Cambridge University Press, Cambridge, pp. 141—170.
- Kibrik, Alexander E.: 1979, Canonical ergativity and Daghestan languages, in F. Plank (ed.), *Ergativity: Towards a Theory of Grammatical Relations*, Academic Press, London, pp. 61—78.
- Kibrik, Alexander E.: 1997, Beyond subject and object: Toward a comprehensive relational typology, *Linguistic Typology* **1**, 279—346.
- Lazard, Gilbert: 1984, Actance variations and categories of the object, in F. Plank (ed.), *Objects: Towards a Theory of Grammatical Relations*. Academic Press, London, pp. 269—292.
- Lazard, Gilbert: 1994, *L'actance*. Presses Universitaires de France, Paris.
- Lee, Hanjung: 1999, The emergence of the unmarked order. Ms., Stanford University, 1999. (available at <http://roa.rutgers.edu>)
- Lee, Hanjung: 2003, Parallel optimization in case systems, in M. Butt, and T. H. King (eds.), *Nominals: Inside and Out*, CSLI Publications, Stanford (CA), pp. 15 — 58.
- Legendre, Géraldine, William Raynold and Paul Smolensky: 1993, An Optimality-Theoretic typology of case and grammatical voice systems, *Proceedings of the 19th Annual Meeting of the Berkeley Linguistics Society*, pp. 464 — 478.
- Lehmann, Christian: 1988, Towards a typology of clause linkage, in J. Haiman, S. A. Thompson (eds.), *Clause Combining in Grammar and Discourse*. John Benjamins, Amsterdam & Philadelphia, pp. 181—226.
- Lehmann, Christian: 1995, *Thoughts on Grammaticalization*. LINCOM Europa, München & Newcastle. (Appeared as ms. in 1982)
- Lindenfeld, J.: 1973, *Yaqui Syntax*. University of California Press, Berkeley.

- Mallinson, Graham, and Barry J. Blake: 1981, *Language Typology. Cross-linguistic Studies in Syntax*. North Holland, Amsterdam.
- McCarthy, John, and Alan Prince: 1994, The emergence of the unmarked. Optimality in Prosodic Morphology, in *Proceedings of NELS-24*, pp. 333 — 379.
- Mohanan, Tara: 1994, *Argument Structure in Hindi*. CSLI, Stanford.
- Moravcsik, Edith A.: 1978a, On the distribution of ergative and accusative patterns, *Lingua* **45**, 233—279.
- Moravcsik, Edith A.: 1978b, On the limits of subject-object ambiguity tolerance, *Papers in Linguistics* **11**, 255—259.
- Nichols, Johanna: 1992, *Linguistic Diversity in Space and Time*. The University of Chicago Press, Chicago & London.
- Payne, John R.: 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 15th Annual Meeting of the Chicago Linguistic Society)*, Chicago, pp. 436—447.
- Payne, John R.: 1980, The decay of ergativity in Pamir languages, *Lingua* **51**, 147—186.
- Payne, John R.: 1989, Pāmīr languages, in R. Schmitt (ed.), *Compendium Linguarum Iranicarum*. Reichert, Wiesbaden, pp. 417 — 444.
- Plank, Frans: 1980, Encoding grammatical relations: Acceptable and unacceptable non-distinctness, in J. Fisiak (ed.), *Historical morphology*, Mouton, The Hague, pp. 289—325.
- Press, M. L.: 1979, *Chemehuevi: A Grammar and Lexicon*. University of California Press, Berkeley.
- Primus, Beatrice: 1999, *Cases and Thematic Roles. Ergative, Accusative and Active*, Niemeyer, Tübingen.
- Primus, Beatrice: 2003, Proto-roles and case selection in Optimality Theory. *Arbeiten des SFB 282 "Theorie des Lexikons"*, Nr. 122.
- Selcan, Zülfü, 1998: *Grammatik der Zaza-Sprache. Nord-Dialekt (Dersim-Dialekt)*. Wissenschaft und Technik, Berlin.
- Silverstein, Michael: 1976, Hierarchy of features and ergativity, in R. M. W. Dixon (ed.), *Grammatical Categories in Australian Languages*, Australian Institute for Aboriginal Studies, Canberra, pp. 112—171.
- Skalmowski, Wojciech: 1974, Transitive verb constructions in the Pamir and Dardic languages, *Studia Indoeuropejskie, Polska Akademia Nauk — Oddział w Krakowie. Prace Komisji Językoznawstwa* **37**, 205—212.
- Song, Jae-Jung.: 2001, *Linguistic Typology. Morphology and Syntax*. Longman, London.

- Stilo, Donalg L.: 2004, *Vafsi Folk Tales*. Reichert, Wiesbaden.
- Testelec, Jakov G.: 2003, *Grammaticheskie ierarxii i tipologija predlozhenija*. [Grammatical Hierarchies and the Typology of the Clause] Doctoral dissertation, RSUH, Moscow.
- Tsunoda, Tasaku: 1981, Split case-marking patterns in verb-types and tense/aspect/mood, *Linguistics* **19**, 389—438.
- Wierzbicka, Anna: 1980, *The Case for Surface Case*, Karoma, Ann Arbor.
- Wierzbicka, Anna: 1981, Case marking and human nature, *Australian Journal of Linguistics*, **1**, 43—80.
- Wierzbicka, Anna: 1983, The semantics of case marking, *Studies in Language* **7**, 247—275.
- Wierzbicka, Anna: 1988, *The Semantics of Grammar*, John Benjamins, Amsterdam & Philadelphia.
- Woolford, Ellen: 2001, Case patterns, in G. Legendre, J. Grimshaw & S. Vikner (eds.), *Optimality Theoretic Syntax*, MIT Press, Cambridge (MA), pp. 509 — 543.
- Wunderlich, Dieter and Renate Lakämper: 2001, On the interaction of structural and semantic case, *Lingua*, **111**, special issue *On the Effects of Morphological Case*, Helen de Hoop et al. (eds.), pp. 377 — 418.
- Yar-Shater, Ehsan: 1969, *A Grammar of Southern Tati Dialects*, Mouton, The Hague, Paris.

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