

Grammatical relations in a typology of agreement systems

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Abstract

It has been suggested that grammatical relations should be sufficient to determine agreement relations within the clausal domain. Three types of counter-example to this proposal are presented. Then evidence is presented which suggests that the rules for agreement require access to thematic roles and to communicative functions. In addition, they need to refer to surface case. While grammatical relations provide a useful part of a typology of agreement, they are far from sufficient.

1. Introduction

We examine the role which grammatical relations can play in a typology of agreement systems. We first sketch the development of work on grammatical relations, and earlier suggestions about their relevance for agreement. Then we move to a typology, taking as canonical those instances that can be described in terms of grammatical relations, and examining the types of construction which require access to additional information. Examples are taken from various languages. However, Russian will have a special place: although it appears to have a rather ‘standard’ agreement system, it poses interesting problems for an account of agreement based on grammatical relations.

2. The rise of grammatical relations

The notion 'grammatical relation' is well established (see Blake 1994: 48-93, Palmer 1994, Givón 2001: 173-232, Kibrik 2003: 109). It has a continuous tradition in European linguistics, while the attempt in transformational grammar to treat sentence structure in terms of dominance and linear order led to a reaction, particularly in America, in which the need for grammatical relations was carefully justified, rather than being assumed. This is most evident in Relational Grammar, where grammatical relations are central (see Perlmutter 1983a, Perlmutter and Rosen 1984, Postal and Joseph 1990, Blake 1990). A parallel reaction is found in the typology of Keenan and Comrie (1977).²

Grammatical relations are treated hierarchically, as in the Relational Hierarchy (Johnson 1977: 156):

subject > direct object > indirect object > other object

The Accessibility Hierarchy of Keenan and Comrie (1977: 66) extends to further categories. In subsequent years, grammatical relations have been embedded in different theories, with somewhat different interpretations. They have a particularly important role in Lexical Functional Grammar, as 'grammatical functions' (Bresnan 2001: 44-60).

3. Early ideas on grammatical relations and agreement

The Relational Hierarchy was considered directly relevant to agreement. Thus Moravcsik (1978: 364) claimed that if a language shows agreement, then there will be cases of agreement with the intransitive subject; only if there is such agreement will there be agreement with the direct object, and agreement of this type is a precondition

for agreement with the indirect object. This is a typological claim at the level of possible languages. A related claim was made by Johnson (1977: 157):

THE AGREEMENT LAW: *Only terms can trigger verbal agreement.*

(Where ‘term’ covers the first three items on the hierarchy.)

Moreover, there are instances where grammatical relations appear to be the natural way to state agreement rules; thus in the Nakh-Daghestanian language Udi, Harris (1984: 246) states that there is agreement with the subject, though this may be marked ergative or absolutive; we return to this point in §6.

4. Problems with grammatical relations

If Johnson’s claim could be maintained, we would indeed have a highly restricted theory of agreement, and a fine basis for a typology.³ However, there are three types of serious counter-examples. In each of them the term-controller fails to control agreement, and another noun phrase ‘usurps’ its position.

4.1. ‘Brother-in-law’ agreement

The notion was introduced by Perlmutter (1983b); it was taken up by Aissen in various papers, and definitively in (1990). Consider this example:

(1) *There are cows in next door’s garden.*

Such constructions have a dummy element (like English *there*) in the term position; we can see that it is in the term position from the evidence of raising constructions. Yet the agreement controller is *cows*, which Aissen called the ‘brother-in-law’ of the term (in Minimalism it is called an ‘associate’). Perlmutter (1983b) permits ‘silent’ dummies, which allows for analyses in which apparent terms are analysed as brothers-

in-law to zeroes. The construction has been problematic in other frameworks too: see Lasnik (2002) for discussion of Minimalist approaches.

Note that agreement with the brother-in-law is not obligatory (see Schütze 1999); we also find:

(2) *There's cows in next door's garden.*

Here expletive *there* controls agreement. Related constructions provoked an interesting set of squibs, starting from Dixon's (1977) paper concerned with examples like *Where's my pants?*, which led to squibs entitled: 'What's these facts about?' (Nathan 1981) and 'Here's a few more facts' (Sparks 1984).

4.2. 'Back' agreement

In sentences consisting of a subject noun phrase, copula and nominal predicate, we expect agreement with the subject. However, we may find agreement of the copula with the noun phrase in the predicate. This phenomenon is called *back* or *backward agreement*, or sometimes *attraction*. There are various brief references to the phenomenon in the literature, but many are unconvincing. For example, in some languages claimed to show back agreement, predicate-subject order is common, which means that it is not sufficient merely to find examples of agreement with the postverbal noun phrase. Examples of back agreement can be found in Russian: the evidence is assessed in Corbett (1986: 1019-1020); for data see references given there, Crockett (1976: 406-407) and Padučeva & Uspenskij (1997). However, demonstrating that we do indeed have back agreement in Russian is not straightforward, whereas in the West Slavonic language Czech, a relative of Russian, the case is clear-cut. Consider these sentences, from Vanek (1970: 53) and confirmed subsequently by several speakers (also by Panevová 1991: 326-327)

Czech (Vanek 1970: 53)

(3) *jedna a dvě jsou tři*
one and two be.PL three
'one and two are (make) three'

(4) *jedna a tři jsou čtyři*
one and three be.PL four
'one and three are four'

(5) *dvě a tři je pět*
two and three be.SG five
'two and three are five'

(6) *tři a tři je šest*
three and three be.SG six
'three and three are six'

The regularity is that if the numeral to the right (in our examples) of the copula is 'two', 'three' or 'four', then the copula takes plural agreement, while if it is 'five' or above, then the singular is found. Moreover, there are syntactic tests to show that the numeral in question is part of the predicate (Corbett 1986: 1002-1003). More needs to be done to specify the factors which allow this type of agreement to occur in different languages. (For Slavonic languages, this is made more difficult by the fact that its 'habitat' is being eroded by the rise of the instrumental predicate; when the nominal predicate is in the instrumental case we never find back agreement.)

The Nakh-Daghestanian language Tsakhur also shows examples of back agreement (Kibrik 1999: 442-443, and for a further example see p. 825 (ex. 189)):

All three exceptional constructions share two characteristics. First the subject is not a prototypical subject, according to the criteria of Keenan (1976). Second, the noun phrase which controls the agreement is in the expected case of the subject (nominative or absolutive). Significantly, when predicate nominals in Slavonic stand in the instrumental case, then back agreement cannot occur.

5. A typology of agreement using grammatical relations

Since our main focus is agreement, we shall ask how far grammatical relations allow us to determine how agreement operates in different languages. Suppose we can establish the grammatical relations in a particular construction according to other criteria (for instance according to the criteria of Keenan 1976,⁶ that is, controlling reflexives, being the target for promotion, being the missing argument for imperatives, and so on, discussed in Comrie 1989: 104-123). Can we then straightforwardly determine how agreement will operate?

We have seen already that our typology must include instances where the controller is outside the candidate noun phrases provided by an approach based on grammatical relations. But our typology needs to go beyond grammatical relations for a second, more subtle, reason. Even when grammatical relations are sufficient to determine the controller, they may still be insufficient for determining the feature values involved in agreement. When we have agreement options (which are prevalent in Russian, as for instance with quantified expressions),⁷ the feature value assigned can be influenced by considerations outside the scope of grammatical relations. To extend the typology, a suggestion of Polinsky proves useful. Polinsky (1995: 360) gives the following mappings for the ‘regular active transitive construction’:

thematic roles	agent	theme
grammatical relations	subject	direct object
communicative functions	topic	focus

‘the clause is viewed as a linguistic sign having three distinct levels of representation, namely: the meaning of the clause, represented by thematic roles and verbal semantics, and the form of the clause represented by grammatical relations, on the one hand, and by communicative functions, on the other.’ (1995: 360)

Perhaps surprisingly, a typology of agreement requires access to information of all three types. We now give an illustration for the need for the two additional types of information, in addition to grammatical relations.

5.1. Thematic roles

If we consider agreement with conjoined noun phrases in subject position in Russian, the feature value for number depends in part on the semantics of the clause. Corpus-based studies have shown that the more agent-like is the subject (as evidenced by the semantic type of the predicate), the more likely is plural agreement. There is clear evidence from a corpus of literary and of dialect Russian, showing that the choice of singular or plural agreement with conjoined noun phrases is influenced by whether the clause has an activity or non-activity predicate (Corbett 1983: 112-113, 120-122). Here we consider rather different but confirming data from a corpus, compiled by Karen Robblee.

Robblee reports that predicates form a hierarchy of individuation, which she motivates from other phenomena as well as agreement, including the genitive case marking of subjects in negated sentences (Robblee 1993a). There are three main classes, each split into two; the reader is referred to Robblee’s work for justification of these, but the examples in Table 1 give an indication of membership. The six subtypes represent increasing degrees of inherent individuation of the predicate. “A predicate of low inherent individuation may be attributed to and thus occurs with many more kinds of arguments than a predicate of high individuation. For instance, the predicate *byt’* ‘be’ regularly occurs with subject noun phrases that are abstract,

and also with those that are concrete. In contrast, only noun phrases denoting concrete objects normally occur as the subject of the stative predicate *krasnet'* 'redden [intrans.]'." (Robblee 1993b: 425).

The question is whether this hierarchy of predicates is relevant to agreement. Robblee took a corpus of eight works of Russian prose published from 1976 to 1988. She extracted instances of predicate agreement with quantified noun phrases including either a numeral or one of *neskol'ko* 'several', *malo* 'few' or *nemalo* 'several, more than a few' (for details see Robblee 1993b), giving 373 relevant examples. The results are given in Table 1.

Table 1. Agreement with quantified noun phrases according to predicate type
(Robblee 1993b: 428; her percentage figures rounded to whole numbers)

	Examples with singular	Total examples	Percent singular
Subtype Ia <i>byt'</i> 'be'	71	76	93
Subtype Ib, e.g. <i>proizojti</i> 'occur'	42	47	89
CLASS I ("Inversion") subtotal	113	123	92
Subtype IIa, e.g. <i>stojat'</i> 'stand'	66	122	54
Subtype IIb, e.g. <i>krasnet'</i> 'redden'	16	38	42
CLASS II ("Intransitive") subtotal	82	160	51
Subtype IIIa, e.g. <i>rabotat'</i> 'work'	4	13	31
Subtype IIIb, e.g. <i>udarit'</i> 'hit'	8	77	10
CLASS III ("Agentive") subtotal	12	90	13
OVERALL TOTAL	207	373	55

The results are clear; syntactic (singular) agreement is most common with *byt'* and successively less common with more individuated predicates.

The effect of the predicate is substantiated convincingly. However, we need to disentangle the different factors at work. Thus Robblee’s first class comprises ‘inversion predicates’ (a Relational Grammar term). Among other properties, these predicates are more likely to appear in predicate-subject structures than are other predicates; and predicate-subject word-order disfavours semantic agreement (as we shall see in §5.2); it would be helpful, therefore, to have a count in which the factor of word-order is held constant, in order to isolate the effect of the predicate type. Robblee provides this in a later paper; she takes the same 373 examples as in Table 1 and cross-classifies her three main predicate types with word-order.

Table 2. Singular agreement with quantified noun phrases
according to word order and predicate type

(Robblee 1997: 235; her percentage figures rounded to whole numbers)

	SV word order			VS word order			TOTAL		
	SG	total	%SG	SG	total	%SG	SG	total	%SG
CLASS I ("Inversion")	11	13	85	102	110	93	113	123	92
CLASS II ("Intransitive")	16	43	37	66	117	56	82	160	51
CLASS III ("Agentive")	2	55	4	10	35	29	12	90	13

Thus of the class I (inversion) predicates, of the 13 found with subject-verb word-order, 11 (i.e. 85%) had singular agreement. Singular agreement is more likely with verb-subject order than with subject-verb order (and we find this with each class of predicate). But equally, if we keep the word-order constant and consider the class of predicate, then we see that singular is most likely with inversion predicates, less so

with intransitives and least likely with agentives. Here then we have clear evidence that this hierarchy has an effect independent of word-order.⁸

We might ask how this hierarchy relates to Comrie's Predicate Hierarchy (1975). Robblee's Predicate Hierarchy of Individuation provides a cross-cutting classification, as becomes clear when we consider non-verbal predicates. A few of these, such as *vidno* 'visible' are in class Ib (Robblee 1993a: 216), while the majority are lower on the hierarchy (1993a: 230).⁹ In Comrie's Predicate Hierarchy, which has a syntactic and morphological basis, verbs and non-verbs are fully separated. Thus Robblee's hierarchy can be seen as a factor, ranging over the predicate types defined in Comrie's hierarchy. It would be of great interest to know more about the interactions between the two, in particular to know more about how adjectives behave in structures which allow agreement choices.¹⁰

We conclude that thematic roles are relevant to agreement in that they can affect the values of the agreement features expressed on the target. A qualification is required here, since for some researchers the use of a default form (for instance the neuter singular in Russian) can be taken as a sign that there is no agreement. Hence the discussion about agreement with quantified expressions would, for some, be recast as a contrast between agreement (shown by the plural) and no agreement (shown by the neuter singular). However, the claim that thematic roles are relevant can still be upheld, since the other data alluded to (in Corbett 1983: 112-113, 120-122) involves conjoined noun phrases, where the agreement options are: full agreement with the nearest conjunct, or plural agreement.

5.2. Communicative functions

For a full account of agreement we also need access to communicative functions (a useful overview of research and terms used can be found in Nikolaeva (2001: 3-9)). To link with the previous section we begin with evidence that the value of the agreement features is influenced by the communicative function of the controller. In

Slavonic languages, topics typically occur clause-initially. We can therefore use word-order as a good indicator of communicative function, given a sufficient corpus (compare Nichols, Rappaport and Timberlake 1980, and commentary in Corbett 1983: 137, 154, 175). There is evidence from different Slavonic languages, and it involves quantified expressions, conjoined noun phrases and comitative phrases (Corbett 1983: 107-150 *passim*). To give just one part of the evidence: Sand examined a large corpus of Serbian/Croatian/Bosnian texts (literature of the 1960s, non-fiction 1951-1968 and the newspaper *Politika* 1969-1970). The largest controller type investigated was the numerals from *pet* ‘5’ upwards. Table 3 has been drawn up from her data (1971: 73-75):

Table 3. The effect of precedence on agreement with quantified expressions (involving ‘5’ and above) in Serbian/Croatian/Bosnian

	singular	plural	percent plural
subject-predicate	249	61	20
predicate-subject	830	21	2

Clearly subject-predicate word order is more likely to produce plural agreement than is predicate-subject order. We see that the more topic-like the subject (as reflected in word order) the more likely is plural agreement (Corbett 1998).

There is evidence of a different sort, namely the ability of a noun phrase to be the controller or not.¹¹ Here an interesting comparison is provided by Nocentini (1999). In Standard Italian the subject controls agreement, even if it lacks several other characteristics of subjecthood. Thus a subject which is does not precede the verb, is not the topic and does not fill the semantic role of agent, will still control agreement:

Standard Italian (Nocentini 1999: 316)

- (9) *Arriv-ano i prim-i turist-i*
Arrive-3PL DEF.M.PL first-M.PL tourist(M)-PL
'The first tourists are arriving.'

Thus even a poor instance of a subject controls agreement; this situation is familiar from other Indo-European languages. However, in spoken Tuscan Italian, the conditions for controlling agreement are much stricter. The subject must precede the verb and must be topical. Nocentini gives numerous examples, for instance:

Spoken Tuscan Italian (Nocentini 1999: 319, 321)

- (10) *Mi manc-a cinque bollin-i per arriv-are a venti*
1SG.DAT lack-3SG five coupon(M)-PL to get-INF to twenty
'I need five coupons to get to twenty.'

Here standard Italian would have plural *mancano* 'lack', but since the subject does not precede the verb, in spoken Tuscan Italian we find the default agreement form. Now consider an example where the subject does precede:

- (11) *Quant-i bollin-i ti manc-a per arriv-are a venti*
How.many-M.PL coupon(M)-PL 2SG.DAT lack-3SG to get-INF to twenty
'How many coupons do you need to get to twenty.'

Here we have the necessary word order, but still no agreement; this is because the subject is focus and not topic. Only when all the conditions are fulfilled do we find agreement:

- (12) *I bollin-i manc-ano ancora*
 DEF.M.PL coupon(M)-PL lack-3PL still
 ‘The coupons are still missing.’

Thus in spoken Tuscan Italian, being the subject is not sufficient for controlling agreement; the subject must also fulfil the right communicative function in order to control agreement.

In Khanty (Ostyak), an Uralic language with some 13,000 speakers in western Siberia, the effect of communicative function is on object agreement. The basic effect can be seen in these examples (for more data see Nikolaeva 1999):

Khanty (Nikolaeva 2001: 16)

- (13) *ma tam kala:ŋ we:l-s-əm*
 I this reindeer kill-PST-1SG
 ‘I killed this reindeer.’

- (14) *ma tam kala:ŋ we:l-s-∅-e:m*
 I this reindeer kill-PST-SG.OBJ-1SG
 ‘I killed this reindeer.’

- (15) *ma tam kala:ŋ we:l-sə-l-a:m*
 I this reindeer kill-PST-PL.OBJ-1SG
 ‘I killed these reindeer.’

- (16) *ma tam kala:ŋ we:l-sə-ŋil-a:m*
 I this reindeer kill-PST-DU.OBJ-1SG
 ‘I killed these (two) reindeer.’

In (13) there is just subject agreement, while in (14) - (16) there is agreement with the object too. Note that the realization of subject agreement is also affected by the presence of object agreement, as shown by the contrast of (13) and (14). In one sense, then, Khanty has optional object agreement. However, there are conditions on it. When the object is the focus, then object agreement is not possible. The type of object which controls agreement has some topic properties. For instance, it is specific. In fact Nikolaeva (2001) argues that it expresses a secondary topic (the subject being systematically associated with the primary topic). A secondary topic is: 'An entity such that the utterance is construed to be ABOUT the relationship between it and the primary topic.' (Nikolaeva 2001: 26; see that source for examples). Thus in Khanty the occurrence of object agreement depends on conditions which depend on communicative functions.

Thus we have seen that the communicative function can also have an effect on agreement.

6. The role of case

We might expect that if we appeal to grammatical relations we shall not also need to refer to case. Indeed the Relational Grammar literature stressed the importance of instances where the controller was of the 'right' grammatical relation but the 'wrong' case (quirky case) and still controlled agreement. These were discussed in detail with regard to Georgian, notably by Harris (1981); for later analyses giving a greater role to morphology see Anderson (1984) and Kathman (1995). An interesting instance reported recently involved Icarl Dargwa (Nakh-Daghestanian), where with a few affective verbs person agreement can in the right construction be controlled by the experiencer noun phrase in the super-lative case (Sumbatova and Mutalov 2003: 79). However, there are on the other hand clear instances demonstrating the need to refer to case as well as to grammatical relations for specifying agreement. These are of two types.

First, in terms of the controller, we find instances, as in Russian, where a noun phrase in the right grammatical relation (subject) but not in the right case (nominative) cannot control agreement (as in the possessive constructions mentioned above). Moreover, the non-subject noun phrase which is in the nominative does control agreement.

A comparable interesting example is Hindi/Urdu, as described in Butt (2001) following Mohanan (1994: 102-106). Agreement is as follows:

1. if the subject is in the nominative, the verb agrees with it;
2. otherwise, if the object is in the nominative, the verb agrees with that;
3. otherwise the verb shows default agreement (masculine singular):

Hindi/Urdu (Butt 2001)

[T/S NB difference between *a* and *a* in italic script.]

(17) *adnan* *gari* *cala-ta* *he*
 Adnan(M)[NOM] car(F)[NOM] drive-IPFV.M.SG be.PRS.3SG
 ‘Adnan drives a car.’

(18) *nadya=ne / adnan=ne* *gari* *cala-yi* *he*
 Nadya(F)=ERG / Adnan(M)=ERG car(F)[NOM] drive-PFV.F.SG be.PRS.3SG
 ‘Nadya / Adnan has driven a car.’

(19) *nadya=ne* *gari=ko* *cala=ya* *he*
 Nadya(F)=ERG car(F)=ACC drive-PFV.M.SG be.PRS.3SG
 ‘Nadya has driven the car.’

Thus in different configurations, agreement depends in part on case. For other comparable examples in Indo-Aryan see Bickel and Yādava (2000), and for discussion of Inari Sami see Toivonen (2003). Note the regularity that when the noun phrase in the ‘right’ grammatical relation has its controlling potential usurped by

another, that noun phrase is typically in the 'right' case: this is true of the cases just discussed, of back agreement, and of long distance agreement (Polinsky and Comrie 1999).

Second, in terms of agreement choices, we find instances where a modifier in the 'right' (nominative) case outweighs all other factors which may determine the feature value. The examples are again from Russian, and involve determiners and adjectives within quantified expressions. Agreement with quantified expressions in Russian is highly complex, with numerous factors having an influence, and hence differences in speaker judgements. One regularity, however, takes precedence over all others, namely that if there is a plural modifier in the nominative case, then plural agreement is guaranteed. A striking instance is found with the numerals *dva/dve* 'two', *tri* 'three' and *četyre* 'four'. These numerals, when themselves in the nominative (or accusative identical to the nominative) take a noun in the genitive singular. An attributive adjective can be nominative plural or genitive plural, but in the modern language the choice is largely restricted to occurrences with feminine nouns (with masculines and neuters the genitive plural is the overwhelmingly preferred form). For other factors (accusative of the numeral, though identical in form to the accusative, favours genitive, and the higher the numeral the more likely the genitive, that is, four > three > two) see Corbett (1993). Predicate agreement can be in the plural or can be in the default neuter singular form. Suprun (1957: 76-77) investigated a corpus of literary texts, finding 236. He found an interesting effect: of the four outcomes one might theoretically expect, one is excluded:

Table 4. Constructions with ‘two’, ‘three’ and ‘four’ in Russian

attributive modifier	predicate agreement	example
genitive plural	neuter singular	(24) below
nominative plural	plural	(25) below
genitive plural	plural	(26) below
nominative plural	neuter singular	(27) below: EXCLUDED

I examined a larger corpus of 415 examples, from literary texts 1970-1980, and confirmed Suprun’s observation.

To make this concrete, take the phrase *četyre knigi* ‘four books’. As subject, it can in principle take a singular or a plural predicate:

Russian (judgements of Marina Chumakina)

(20) *Ha stol-e leža-l-o četyre knig-i*
on table-SG.LOC lie-PST-SG.N four[NOM] book-SG.GEN
‘On the table lay four books’, ‘There were four books on the table’

(21) *Ha stol-e leža-l-i četyre knig-i*
on table-SG.LOC lie-PST-PL four[NOM] book-SG.GEN
‘On the table lay four books’, ‘There were four books on the table’

Since *kniga* ‘book’ is feminine, an attributive adjective could be nominative plural or genitive plural:

(22) *četyre bolš-ie knig-i*
four[NOM] large-PL.NOM book-SG.GEN
‘four large books’

- (23) *četyre bol's-ix knig-i*
 four[NOM] large-PL.GEN book-SG.GEN
 'four large books'

(Some speakers claim there is a slight difference in meaning, but it is very hard to pin down, and the fact that the choice depends on the gender of the noun makes this a minor distinction at best.) If we put together phrases including an attributive modifier and a predicate we might expect four possibilities. In fact, we find three (for which different speakers will have different preferences; Marina Chumakina accepts all):

- (24) *Na stol-e leža-l-o četyre bol's-ix knig-i*
 on table-SG.LOC lie-PST-SG.N four[NOM] large-PL.GEN book-SG.GEN
 'On the table lay four large books.'

- (25) *Na stol-e leža-l-i četyre bol's-ie knig-i*
 on table-SG.LOC lie-PST-PL four[NOM] large-PL.NOM book-SG.GEN
 'On the table lay four large books.'

- (26) *Na stol-e leža-l-i četyre bol's-ix knig-i*
 on table-SG.LOC lie-PST-PL four[NOM] large-PL.GEN book-SG.GEN
 'On the table lay four large books.'

The following combination it is unacceptable:

- (27) **Na stol-e leža-l-o četyre bol's-ie knig-i*
 on table-SG.LOC lie-PST-SG.N four[NOM] large-PL.NOM book-SG.GEN
 'On the table lay four large books.'

The judgements are clear about (27); if there is a nominative plural modifier, then the predicate must be nominative plural (and this is a much more robust effect than any claim about meaning differences). Within a set of complex conditions, this one effect is clear-cut, and again it involves the nominative case. We find this both in the corpus studies, and in speakers' judgements.

7. Conclusion

Attempts to determine agreement entirely in terms of grammatical relations were overly optimistic. However, grammatical relations provide a useful basis for a typology. The types of extensions needed affect first the determination of the controller, and second the determination of feature values in examples of agreement options. In addition to grammatical relations we need to refer to the meaning of the clause (thematic roles and verbal semantics) and to communicative functions. On top of all this, we also need to refer to (surface) case. All this holds for the clausal domain; this is just one (if the most significant) domain of agreement. A full typology (as attempted in Corbett 2006) must include the other domains of agreement, where not all of the factors described above have a role. Thus agreement involves very much more than just grammatical relations.

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² Note, however, that the argument is not only in one direction. After detailed discussion of Spanish psychological predicates Vogel and Villada (1999) conclude that ‘subject’ is not a particularly helpful notion.

³ It should be pointed out that much of the early discussion dealt with verbal affixes whose status has since been under scrutiny as to whether they are agreement markers or pronominal affixes (see Corbett 2003 for discussion).

⁴ This verb agrees with its absolutive argument *ušaR* ‘baby’ by internal stem change.

⁵ Viktor Dorenko, *Bandity s bol’šoj dorogi*, Moscow, ÈKSMO, 1996, p. 245.

⁶ We must recognise that criteria can differ substantially from researcher to researcher, and so comparison of different claims is often difficult. For careful discussion of dative subjects see Moore and Perlmutter (2000) drawing also on data in Moore and Perlmutter (1999), and see Perlmutter and Moore (2002)..

⁷ A relevant article, fully in the Relational Grammar tradition, arguing that quantified noun phrases in Polish can indeed be subjects, even though the verb does not agree, is Dziwirek (1990).

⁸ Robblee’s figures in this column are correct: my rounding of percentages means that to check that column requires recalculation of the percentages themselves.

⁹ Overall, predicative nouns and adjectives would be more individuating than transitive verbs, so the most individuating in the Predicate Hierarchy of Individuation (Karen Robblee, personal communication).

¹⁰ It is known that when other factors are held constant adjectives favour semantic agreement by comparison with verbs (Corbett 1983: 163–170).

¹¹ We treat this as agreement or failure to agree, since the controller noun phrase has the relevant agreement feature values. This differs from the quantified expressions discussed at the end of §5.1 and the beginning of §5.2, where the quantifier itself is lacking the relevant features, which can give rise to default agreement.