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Languages Across Boundaries

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Studies in Memory of Anna Siewierska

Edited by
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Preface

On Tuesday 19 July 2011, Anna and I finished a co-authored article on suppletion in person forms. It was the 19th article we had written together; we were not to know that it would be the last. A few days later, we flew to Hong Kong in order to attend the 9th Conference of the Association for Linguistic Typology (ALT), of which Anna was president at the time. During earlier discussions by the ALT board, Anna had managed to convince her colleagues that the 2011 conference should be held in Asia rather than in Europe or the Americas, and preferably in China. She saw the enormous potential for the ALT in that part of the world, especially after a very successful trip we had made to universities in Beijing, Xi'an and Shanghai two years earlier. After the conference, we left Hong Kong for Hanoi and set out on a tour of Vietnam, a country that Anna had long wanted to visit. Towards the end of our holiday, on 6 August 2011, near the town of Dalat, a truck that was overtaking in the opposite direction ran into our minibus, hitting the exact part of the vehicle where Anna was sitting. She died in my arms, on the way to the hospital, just 55 years young, taking with her all that she still had to give to the world, as a linguist, a teacher and a wonderful human being.

On 27 April 2012, the Max Planck Institute for Evolutionary Anthropology in Leipzig, where Anna had been a visiting scholar on several occasions over the previous decade, organized a one-day memorial workshop for her. The workshop brought together many of the most prominent figures in the field of linguistic typology and functional linguistics, who came to pay tribute to Anna, to her work, her role in linguistics and above all to her. As a further tribute, it was proposed to put together a joint special issue of *Folia Linguistica* and *Linguistic Typology*, the respective journals of the Societas Linguistica Europaea (SLE) and the ALT, two organizations of which Anna had been the president and an active member, and in nearly every of whose conferences she had loyally participated over the previous twenty years. However, De Gruyter Mouton, the publisher of both journals, suggested that it would be a better idea to compile a book and to distribute it to the combined membership of SLE and ALT, which together numbers around 1400 linguists from around 75 countries all over the globe.

The result is in your hands. This book contains thirteen chapters (co-) authored by nineteen leading scholars in the field – Anna's peers, many of whom she also counted as personal friends. She first met most of them at meetings of the European Science Foundation's EUROTYP project (1990–1995) or at the biennial conferences of the ALT, which were the natural sequel to it. Johan van der Auwera chaired a EUROTYP group, as did Anna, and both were part of the EUROTYP core group. Bernard Comrie was an advisory member of this group and

later regularly invited Anna over to the Max Planck Institute in Leipzig. Marianne Mithun was Anna's predecessor as president of the ALT and Johanna Nichols her successor, while Christian Lehmann took over from Anna as president of the SLE. Balthasar Bickel, Martin Haspelmath and Volker Gast organized Syntax of the World's Languages conferences in 2004 and 2008, while Anna organized the 2006 conference in Lancaster. Grev Corbett and (during his Manchester years) Bill Croft were her closest typological colleagues in England. Through Bill, Anna met Sonia Cristofaro, with whom she shared many a conference, many a linguistic discussion and many a chat over the years, both on professional occasions and privately. Andrej Malchukov she met several times at the Max Planck Institute in Leipzig; with him she co-organized an SLE workshop and co-edited a book on impersonal constructions. Andrej Kibrik was encouraged by Anna to write a book proposal for the Oxford typology series, which resulted in his monograph *Reference in Discourse*. Giorgo Iemmolo was invited by Anna for a stay at Lancaster University. Alena Witzlack-Makarevich worked with Anna, Giorgio and Balthasar on the Referential Hierarchies in Morphosyntax project (RHIM, 2009–2012). Denis Creissels invited Anna to Lyon.

Together, these colleagues and friends have written the chapters of this book, which discuss some of Anna's favourite topics in linguistics: typological hierarchies, ditransitives and above all, since her seminal 2004 book on the subject, person forms and person marking. I am extremely grateful to these colleagues, who constitute, in my view, the cream of linguistic typologists, and whose names will probably never be found together again as contributors to a single volume. The book also contains the article that Anna and I finished before we left on that fateful journey, as well as a comprehensive bibliography of her work. So she is also very much present here herself.

I am also very grateful to De Gruyter Mouton, and above all to our friends in their linguistics section in Berlin. It was they who suggested the idea for the book and took care of its production, generously contributing to the expenses involved. I would also like to express my gratitude to the boards of both the SLE and the ALT, who immediately agreed to cover the remaining costs, thus making it possible to distribute the book among the linguistic community on an unparalleled scale.

Finally, I am greatly indebted to my co-editor Martin Haspelmath, without whom the book would not have been what I hope it is now. I first met Martin in 1987 when he was still an MA student. This was at the 14th International Congress of Linguists, in what was then East Berlin. It was at the same conference that I first met Anna.

Borders meant little to Anna. She was born in Poland, in Gdynia, but for long periods, she lived and worked in other countries: Australia, the Netherlands and

England. Her real world was that of languages, which cannot be stopped by borders. May this volume find its way to bookshelves and libraries all over the planet, to linguists of all lands, and so help to perpetuate her memory, her work and her dreams.

Dik Bakker

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Matthew Baerman and Greville G. Corbett

Person by other means[1]

1 Introduction

As Anna Siewierska notes (2004: 8) 'the universality of person as a grammatical category is sometimes called into question.' And indeed, in some languages, an interesting minority, it is not obvious whether there is a person feature as part of the morphosyntactic system or not. We find conflicting analyses of individual languages, and there are instances of intriguingly similar systems being analysed differently, because of distinct traditions. Cross-linguistically there is a relatively short list of features which are genuinely morphosyntactic; that is, they are referred to by rules of syntax and by rules of inflectional morphology. Person is often such a feature, being referred to by rules of agreement, and being relevant to verbal inflection. Such morphosyntactic features are to be distinguished from purely morphological features, such as inflectional class, which allow generalizations across lexemes but which are not accessible to rules of syntax. While languages in which person is straightforwardly a morphosyntactic feature are numerous and well-known, we are concerned here with languages where its expression is bound up with that of another feature, namely gender, so that its status is far from certain. We consider several such instances, from different linguistic and geographical areas.

Consider first this paradigm, traditionally laid out, of verb agreement forms from Archi, a Daghestanian language of the Lezgic group.

(1) Gender-number markers for the verb 'be' in the present tense in Archi (Kibrik et al. 1977a: 55, 63)

	NUMBER	
GENDER	SINGULAR	PLURAL
I (male human)	*w-i*	*b-i*
II (female human)	*d-i*	
III (some animates, all insects, some inanimates)	*b-i*	*Ø-i*
IV (some animates, some inanimates, abstracts)	*Ø-i*	

1 The support of the European Research Council (grant ERC-2008-AdG-230268 MORPHOLOGY) and of the Arts and Humanities Research Council (grant AH/I027193/1 From competing theories to fieldwork) is gratefully acknowledged.

There are four gender values, glossed with the Roman numerals I-IV, with the semantic assignments indicated. For some agreement targets the markers may be prefixal, as in 1), for others infixal, and there are interesting syncretisms. Agreement is always with the absolutive argument but not all verbs show agreement. Here are examples with a verb which has infixal agreement:[2]

(2) *bošor* *a<w>χu*
man(I)[SG.ABS] <I.SG>lie.down.PFV
'the man lay down'

(3) *kɬele* *a<b>χu*
man(I)PL.ABS <I/II.PL> lie.down.PFV
'the men lay down' (Marina Chumakina, fieldwork)

Bošor 'man' in (2) above belongs to gender I, and it has a suppletive plural, *kɬele*. Comparable examples can be given for the other gender values. By and large gender agreement is simply a matter of matching the gender of the controller. The traditional paradigm has no mention of person, and in the singular part of the paradigm, it indeed plays no role, since personal pronouns take the expected gender-number agreement:

(4) *zon* *d-irχːʷin*
1SG.ABS II.SG-work.IPFV
'I work' (woman speaking) (Kibrik et al. 1977b: 117)

In (4) we may label the pronoun as first person singular, but there is no evidence for person on the verb, which is gender II singular. That is, the verb agrees, in gender and number, but shows no evidence of person. The same is found with the second person singular pronoun:

(5) *un* *hanžugur* *da-qˤa?*
2SG.ABS what.way II.SG-come.PFV
'How did you get here?' (to a woman) (Kibrik et al. 1977b: 121)

2 For examples (2), (3), (6) and (7) we thank Marina Chumakina and our Archi consultants, especially Bulbul Musaeva, Zumzum Magomedova and Dzhalil Samedov.

The third person pronouns, singular and plural, have the expected gender and number agreements (four genders, two numbers). Now consider the first and second person pronouns in the plural:

(6) *nen* *aχu*
1PL.EXCL.ABS [III/IV.PL]lie.down.PFV
'We lay down.'

(7) *ž^{w}en* *aχu*
2PL.ABS [III/IV.PL]lie.down.PFV
'You (plural) lay down.' (Marina Chumakina, fieldwork)

The agreement form is that of the genders III and IV in the plural. Yet the first and second person pronouns are used practically always of humans.[3] This is indeed a curious relation between gender and person. One analysis, that of Kibrik et al. (1977a), treats the pronouns as irregular lexical items; their irregularity is seen in terms of gender. If this were an isolated pattern it might indeed be best to treat it as a lexical peculiarity. But rare though it is, it does turn up in other languages in the world, which suggests that something more systematic is going on. To make comparison clearer, consider the table in (8a) below, in which the paradigm in (1) is reconfigured with person agreement information factored in. Recall that in Archi genders I and II are for nouns with human referents, genders III and IV are for non-humans. In the singular there is only gender agreement (with no indication of person). In the plural, however, first and second person take the same form as the non-human genders. Now compare the Archi paradigm (8a) with one from Ingush (8b). (Archi is from the Daghestanian branch of Nakh-Daghestanian and Ingush from the Nakh branch.) Though the forms and inventory of genders are somewhat different, the pattern is essentially the same, with first and second person plural taking the same agreement form as (one set of) inanimates. (Note that the names that Nichols uses for the non-human genders are simply based on their typical agreement forms in the singular and the plural.)

3 Pronouns may be omitted in Archi, and to date we have no evidence that the pronouns of interest, as in (6) and (7), behave any differently from the others in this respect.

(8) a. Archi 'be.PRS'

SINGULAR	
I (MASC)	*w-i*
II (FEM)	*d-i*
III	*b-i*
IV	*Ø-i*

PLURAL	
1	*Ø-i*
2	
III	
IV	
I (3 MASC)	*b-i*
II (3 FEM)	

b. Ingush 'be.PRS' (Nichols 2011: 143, 431)

SINGULAR	
MASC	*v-y*
FEM	*j-y*
J/J	
B/B	*b-y*
B/D	
D/D	*d-y*

PLURAL	
J/J	*j-y*
1	*d-y*
2	
B/D	
D/D	
B/B	*b-y*
3 MASC	
3 FEM	

Now consider the paradigms in (9) below, from much further afield: (9a) is from Tucano (Tucanoan, Columbia), and (9b) is from Krongo (Kadugli, Sudan).[4] Again we find first and second person taking the same agreement form as inanimates, though in these cases it is not restricted to the plural: in Tucano number is not distinguished at all for these values, and in Krongo the plural is not sensitive to gender.

(9) a. Tucano 'do' (West & Welch 2004: 37)

	SINGULAR	PLURAL
1	*wee-ʔe*	
2		
3 NEUT		
3 MASC	*wee-mí*	*wee-má*
3 FEM	*wee-mó*	

b. Krongo 'saw' (Reh 1985: 186)

	SINGULAR	PLURAL
1	*n-àasàlà*	*k-àasàlà*
2		
3 NEUT		
3 MASC	*àasàlà*	
3 FEM	*m-àasàlà*	

4 Another possible representative of this sort of system is Andoke, a language isolate of Columbia. Witte (1977: 55) gives the paradigm for the word (or part of speech) he terms the *copulative*, in which third person arguments show six gender distinctions. First and second person arguments take the same agreement forms as the third person neuter. However, Landaburu (1979: 112f, 159), who calls this the *assertif*, gives a fuller but at the same time rather different picture. The forms which correspond to those given by Witte are morphologically analyzed as a lexical base plus suffixed demonstrative pronoun, but in addition he gives forms with the first and second person (singular and plural) suffixed too, yielding full person agreement. Unfortunately, none of the examples in Witte's text would involve first or second person agreement anyway, so it is impossible to know what to make of this discrepancy.

It seems clear that both gender and person are involved in the paradigms in (8) and (9), but how can we account for the unusual configuration that they share? If we take the Nakh-Daghestanian examples as a point of departure, this suggests a fundamental asymmetry between gender and person in these paradigms. The inflectional markers are primarily gender markers; indeed, in most of the languages of this family they are EXCLUSIVELY gender markers. From that perspective these paradigms are made up of gender markers whose distribution has been perturbed by values of person. We therefore suggest the following possible interpretation of the interaction of gender and person in the Nakh-Daghestanian, Tucano and Krongo paradigms:

- In each paradigm there are only gender-number forms, but no person forms as such.
- In each paradigm there is a default form, which serves for the neuter (or one of the non-human genders).
- Gender agreement is restricted to third person arguments in part of the system (the plural in Archi) or all of the system.
- First and second person, since they lack gender agreement, take the default form.
- Person marking is thus a by-product of this restriction on the distribution of gender agreement.
- On this interpretation, the patterns in (8) and (9) are a result of gender agreement being restricted to third person arguments. This mirrors the familiar restriction of pronominal gender distinctions to third person (Siewierska 2004: 104–105), which is found in these languages as well, so it appears that this pattern is not entirely arbitrary. On the other hand, it is very rare, so that the mere fact that we may have a ready explanation at hand is not enough to show that the pattern itself is more than an accident. A useful next step, therefore, will be to look at comparative evidence, particularly from the Tucanoan family. This evidence suggests that the proposal, based on the restriction of gender agreement, may be on the right track.

2 Tucanoan evidence

The basic elements of the system described above are found through the whole Tucanoan family, but with numerous subtle and not-so-subtle variants. In some cases these provide further support for the analysis proposal above. In other cases, they caution against an overly facile interpretation of the data. Two key elements of our proposal find support in the Tucanoan languages. First, that a

person-based restriction on gender agreement is a distinct notion from person agreement. Second, that the characteristic shape of these paradigms is due to the interplay of forms with gender agreement and an underspecified 'elsewhere' form.

Evidence that we can treat apparent person marking as the surface manifestation of a person-based restriction on gender agreement comes particularly from Orejón (Western Tucanoan, southern branch). Before highlighting the relevant points, it should be noted that Orejón differs from the languages presented so far, in that there are only two genders, masculine and feminine, and nouns which denote inanimates take masculine agreement. With that in mind, consider first the indicative present-future paradigm in (10a) below. This is in effect the two-gender analogue of the Tucano paradigm, with gender agreement in the third person singular, and one form for the rest of the singular. Contrast this with the corresponding interrogative paradigm in (10b). Each paradigm comprises four suffixes which, while not identical (two of the four differ slightly), are clearly morphologically related. But the striking fact is that their distribution is different: while in the indicative the gender-agreeing suffixes are restricted to the third person singular, in the interrogative their range is extended to the second person singular. This can be seen even more clearly in the past tense paradigms (10c,d), which have only three forms each: two gender-agreeing forms, and a single form for the rest. The indicative and interrogative paradigms thus have different configurations of person syncretism, as a consequence, we would contend, of differing restrictions on gender agreement.

(10) Orejón suffixes (Velie & Velie 1981: 123f)

a. indicative present-future

	FEM	MASC
1SG	*-yi*	
2SG		
3SG	*-ko*	*-hɨ*
PL	*-yo*	

b. interrogative present-future

	FEM	MASC
1SG	*-yi*	
2SG	*-ko*	*-kɨ*
3SG		
PL	*-ye*	

c. indicative past

	FEM	MASC
PL	*-bɨ*	
1SG		
2SG		
3SG	*-go*	*-gɨ*

d. interrogative past

	FEM	MASC
PL	*-de*	
1SG		
2SG	*-go*	*-gɨ*
3SG		

Note, however, that the nature of these restrictions is not entirely clear. It is tempting to see them as morphosyntactic, in the way that the restriction on plural agreement to animate arguments, also a characteristic of the Tucanoan languages, surely is. In at least some languages, however, we cannot treat the restriction as morphosyntactic. Consider Tucano again. Many verbal constructions involve a nominal form, termed gerundive in the description. The nominal form marks gender-number using suffixes identical to those found on nouns, as in (11) below.[5] This gerundive forms a periphrastic construction together with an auxiliary verb (the verb 'do' shown above in (9a)). But while the auxiliary displays the apparent person-based restrictions on gender agreement, the gerundive does not. The result is a periphrastic construction, such as that shown in (12) below, whose individual members display different gender agreement patterns. If we treat this as a single agreement domain, then clearly the gender restriction is morphological and not morphosyntactic.

(11) Tucano nominal forms (West & Welch 2004: 37, 81, 85)

a. gerundive 'wash'

	SINGULAR	PLURAL
MASC	*coe-gʉ*	*coe-rã*
FEM	*coe-go*	
NEUT	*coe-ro*	

b. comparable suffixes on nouns

acaweré-gʉ	'male relative'
acaweré-go	'female relative'
acaweré-rã	'relatives'
acá-ro	'box'

(12) Tucano present progressive paradigm (gerundive + auxiliary) 'is washing'; the non-agreeing default form of the auxiliary is shown in boldface (West & Welch 2004: 37)

	SINGULAR		PLURAL
1 MASC	*coe-gʉ*	***wee-ʔe***	*coe-rã wee-má*
2 MASC			
3 MASC	*coe-gʉ*	*wee-mí*	
1 FEM	*coe-go*	***wee-ʔe***	
2 FEM			
3 FEM	*coe-go*	*wee-mó*	
3 NEUT	*coe-ro*	***wee-ʔe***	

5 The noun system includes a large number of different singular and plural suffixes, but gerundive inflection is limited to this set of four. Note that inanimate count nouns typically have a distinct plural form (e.g. *acá-ri* 'boxes'), but always take singular agreement.

In most other Eastern Tucanoan languages the auxiliary element is suffixed to the nominal form; this means that the morphological unity of the construction is even more apparent, as in the non-past conjectural paradigm of Carapana in (13) below. Note here that the syncretic auxiliary form is simply zero.

(13) Carapana non-past conjectural 'work' (Metzger 2000: 154)

<table>
<tr><th></th><th>SINGULAR</th><th>PLURAL</th></tr>
<tr><td>1 MASC</td><td rowspan="2">paa-ʉ</td><td rowspan="7">paa-rã</td></tr>
<tr><td>2 MASC</td></tr>
<tr><td>3 MASC</td><td>paa-ʉ-mi</td></tr>
<tr><td>1 FEM</td><td rowspan="2">paa-o</td></tr>
<tr><td>2 FEM</td></tr>
<tr><td>3 FEM</td><td>paa-o-mo</td></tr>
<tr><td>3 NEUT</td><td>paa-ro</td></tr>
</table>

The second key element of our proposal is that the non-gender-agreeing form should be treated as a default form. This of course is an easy way to explain away forms with an eclectic paradigmatic distribution, but there are some positive indications. First, if there is any zero exponence in the paradigm, it realizes the non-gender-agreeing cells. This was already apparent in (13), and can be more clearly seen in Macuna in (14), also from the Eastern Tucanoan branch, where the first person/second person/third person neuter form has no suffix.

(14) Macuna present 'fall' (Frank, Smothermon & Smothermon 1995: 48)

<table>
<tr><th></th><th>SINGULAR</th><th>PLURAL</th></tr>
<tr><td>1</td><td colspan="2" rowspan="3">kedia</td></tr>
<tr><td>2</td></tr>
<tr><td>3 NEUT</td></tr>
<tr><td>3 MASC</td><td>kedia-bĩ</td><td rowspan="2">kedia-bã</td></tr>
<tr><td>3 FEM</td><td>kedia-bõ</td></tr>
</table>

Still, in spite of what is often assumed, there is no necessary connection between zero exponence and underspecification. Perhaps more telling then is the evidence from Cubeo (Eastern Tucanoan, as is Tucano). In (15) below, consider first

the middle paradigm (15b), illustrating the so-called class I unmarked evidential forms. *Class I* and *class II* refer to tense-aspect distinctions whose actual interpretation depends on the lexical class (stative/dynamic) of the verb. The shape of the paradigm is exactly that of the Tucano paradigm shown above in (9a). In Cubeo, there is a suffix *-wɨ* found in the first and second person, and the third person neuter. The other two paradigms (15a) and (15c) have a form *-awĩ*, which is similar to *-wɨ*, and which we speculate is related, though the evidence is uncertain.[6] On the assumption that *-wɨ* and *-awĩ* can be equated, the differences in their distribution are interesting to consider. In the class II paradigm in (15a), the range of this affix is restricted by dedicated suffixes for first person singular and first person plural (exclusive), while in the assumed remote past (15c), this suffix is used throughout. This pattern can be understood if we think of *-wɨ*/*-awĩ* as being unspecified both for person and gender, and so being used as an 'elsewhere' form just in case no more specific suffix has been assigned.

(15) Cubeo (Chacon 2012: 270, 272f)

a. class II tense-aspect

	SINGULAR	PLURAL
1 MASC	*-ka-kɨ*	*-ka-rã*
1 FEM	*-ka-ko*	
2	*-awĩ*	
3 NEUT		
3 MASC	*-ãbe*	*-ibã*
3 FEM	*-ako*	

b. class I tense-aspect

SINGULAR	PLURAL
-wɨ	
-bi	*-bã*
-biko	

c. assumed remote past

-kẽbã-awĩ

The Cubeo data also illustrate an additional complication to our account. If we contrast the class II paradigm to the class I paradigm, we see a spreading of gender agreement from the third person to the first person. Superficially we might compare this to the behaviour seen above in the interrogative paradigms in Orejón in (10b), where gender agreement is extended from the third person to the second, but there is an important difference. In Cubeo there is a bona fide first person marker *-ka*, which in turn serves as a host for gender markers, which are in

6 Chacon (2012) equates the forms in (15a) and (15c), while Maxwell & Morse (1999: 43f) in their description give the form of the assumed remote past as *-kebã-wɨ*, and explicitly relate its terminal *-wɨ* with that found in (15c), thus equating (15b) and (15c). Combining these views suggests that the idea that there is a diachronic relationship between all three is not implausible.

fact distinct from the gender markers found in the third person. The extension of gender marking to the first person thus seems to depend on the 1st person suffix *-ka*, and is not an independent phenomenon.

Thus, not all variant gender-person configurations in the Tucanoan languages can be attributed to the same factors. A particularly striking deviation is found in the Wanano (Eastern Tucanoan, northern branch) paradigm shown in (16a) below, which is practically the mirror image of the Tucano paradigm in (9a): it has gender agreement ONLY in the first and second person. But judging by the suffixes, this paradigm has a different origin. The Wanano suffixes correspond not to the verbal suffixes of Tucano, but to the nominal gerundive suffixes in (11a) (shown again in 16b)[7], which distinguish gender only, not person. The major differences in Wanano with respect to Tucano are that (i) the suffix *-ro*, which is neuter in many of the other Eastern Tucanonan languages, has been generalized as a gender-neutral third person singular suffix (paralleling the gender-neutral use of *-ro* in the noun system; see Stenzel 2004: 128), and (ii) the plural has a parallel first/second versus third person split, mirroring the contrast in the noun system between the plural suffix for higher animates (*-na*) versus general animate *-a*; see Stenzel (2004: 138).

(16) a. Wanano 'sell.FUT' (Waltz 1976: 30)

	SINGULAR	PLURAL
1 MASC	*ta-**cʉ**-hca*	*ta-**na**-hca*
2 MASC		
1 FEM	*ta-**co**-hca*	
2 FEM		
3	*ta-**ro**-hca*	*ta-**a**-hca*

b. Tucano gerundive 'wash'

	SINGULAR	PLURAL
MASC	*coe-gʉ*	*coe-rã*
FEM	*coe-go*	
NEUT	*coe-ro*	

Both the singular and plural forms of Wanano are of particular interest because they manifest person marking through morphology which originally was unconnected with person distinctions, and they do so through means distinct from that seen in the other examples in this article.

7 The resemblance between Wanano *-co*, *-cʉ* and *-ro* and Tucano *-go*, *-gʉ* and *-ro* is clear. Wanano *-na* and Tucano *-rã* are also likely to be related (Tucano /r/ is actually realized as a nasalized flap in this environment; Welch & West 1967: 16, 20).

3 Comparing the data

The similarity of the patterning cross-linguistically and its correspondence with familiar patterns of pronominal gender distribution could suggest that this phenomenon has extra-morphological motivation. We might look for some sort of syntactic or semantic restriction on gender marking in these languages. However, it is not at all clear what level it would operate on, and the Tucano evidence presented in (12) suggests it is after all morphologically stipulated.

In many of the examples given above the only evidence for morphosyntactic person is the asymmetrical distribution of gender marking. This might be taken as a reason not to posit a person feature at all. This claim has been made specifically for Archi (Kibrik et al. 1977a: 55, 63–64). Let us go back to the Archi paradigm in (1), since the data appear clear-cut and have been discussed in the literature. Archi has no marker that is unique to person; all the markers in (1) are part of the gender-number system, and so the claim in Kibrik et al. (1977a), following Kibrik (1972), appears reasonable. Nevertheless this point of view has been contested; Chumakina, Kibort & Corbett (2007), following Corbett (1991: 127–128, 272) suggest that a morphosyntactic feature person is required for Archi. There are two main arguments. The first is the additional complexity required in the gender system. Kibrik postulates two extra values of the gender feature to allow for the agreement of the first and second person pronouns (these take, as we saw, gender I (masculine) or gender II (feminine) according to the speaker or hearer, and in the plural they take the form of interest here, equivalent to the non-human plural). Since these are combinations of gender across the singular-plural divide which are not otherwise found in the gender system, two additional gender values are required by Kibrik. However, it is possible if unusual for the personal pronouns to be used of non-humans, in which case genders III and IV are found in the singular, which means that there are two further possible featural specifications for the first and second person pronouns. In other words, an analysis which avoids postulating a person feature in Archi proves relatively costly in terms of the gender system. The stronger argument concerns resolution – the rules determining the agreements with conjoined noun phrases. If we treat Archi as having a gender feature but no person feature, the resolution rules need to be complex and are typologically rather strange. They involve ranking the gender values into a hierarchy which has no motivation except to allow the necessary reference to the personal pronouns. If we allow a person feature the resolution rules are straightforward and typologically normal (see Corbett 2012: 239–251 for more detail). Hence, taking these points into account, it is arguable that the Archi forms given in (1) realize a morphosyntactic system which includes a person feature, in addition to gender and number.

There is an interesting comparison in Dargi, another member of the Daghestanian family, as shown in (17).

(17) Akusha Dargi (Daghestanian; van den Berg 1999: 154, 157)[8]

a. 'gender' markers

SINGULAR	
MASC	*w-*
FEM	*r-*
NEUT	*d-, <r>, -r*

PLURAL	
1	*d-, <r>, -r*
2	
NEUT	
3 MASC	*b-*
3 FEM	

\+

b. intransitive imperfect endings

1SG	*-asi*
2SG	*-adi*
3	*-i*
1PL	*-eħeri*
2PL	*-adari*

→

c. 'come' (imperfect

	FEM	MASC	NEUT
1SG	*r-aš-asi*	*w-aš-asi*	*d-aš-i*
2SG	*r-aš-adi*	*w-aš-adi*	
3SG	*r-aš-i*	*w-aš-i*	
1PL	*d-aš-eħeri*		
2PL	*d-aš-adari*		
3PL	*b-aš-i*		

If we look just at (17a), the situation is comparable to that in Archi, except that Akusha Dargi has three genders rather than four. We might hesitate to propose a person feature perhaps. On the other hand, the inflections given in (17b) clearly justify a person feature. When the two are found together, as in (17c), it would surely be perverse to have a person feature to account for the distribution of the suffixes but not for that of the prefixes. These data in turn may make us rethink our view of Archi.

There are indeed difficult issues here. If for Archi we accept a morphosyntactic person feature, we have done so in the absence of any unique form. Now non-autonomous *values* of features are well-known. For instance, Zaliznjak (1973: 69–74) discusses values of the case feature which have no unique form, but where excluding a given value would create odd rules of government (verbs would have to govern different cases in the singular and plural). Non-autonomous *features* are a bigger step; and yet the syntax of Archi does appear to require a morphosyntactic feature person, for which the morphology has no unique form.

8 For simplicity we give paradigms for agreement with a single argument. For the complexity of the transitive paradigm, where the two markers behave differently, see van den Berg (1999).

4 Conclusion

An obvious but no less important conclusion is that all of these systems need careful analysis. We should not assume that a person feature comes for free, merely because it is widespread; we should justify its use for each language. Equally the lack of a unique person form should not make us immediately jump to the opposite conclusion.

We have seen instances of a strange pattern, where a default form in the gender system also serves within the person system. The fact that a similar pattern recurs in languages very distant both geographically and genealogically suggests that it is a significant one. There is even a possible explanation for it, based on common patterns found in personal pronouns. And yet when we compare carefully within each family the apparently simple pattern becomes less simple, and the analyses without a person feature become less attractive. The issues are genuinely difficult, since proposing a non-autonomous feature is normally something we would wish to avoid. Thus even on the fringe of the person system there remain some intriguing issues.

Abbreviations

1 first person, 2 second person, 3 third person, ABS absolutive, EXCL exclusive, FEM feminine, IPFV imperfective, MASC masculine, NEUT neuter, PFV perfective, PL plural, PRS present, SG singular.

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Patterns of alignment in verb agreement[1]

1 Siewierska's Problem

A highly productive inquiry in typology concerns the alignment of argument roles, especially the identical vs. different treatment of the three core roles S, A, and P by the rules of case assignment and agreement marking. With regard to case marking, determining alignment is straightforward: one can simply check which argumental NPs are assigned the same case markers. With regard to agreement, the issue is more complex. Whereas argumental NPs exist independently of case marking, agreement consist of two components: (i) whether or not it exists (i.e. whether certain argument features like person, number of gender, show up at all in the verb morphology), and (ii) if agreement exists, how its markers align roles. In many cases, the answers to these question are still straightforward and one can easily observe that the agreement markers of, e.g., Latin show accusative alignment.

However, when expanding the typological scope, one often runs into what we call here "Siewierska's Problem": argument marking in agreement is often complex and does not allow simple answers. As a matter of fact, the analysis of an agreement system as being primarily ergative, accusative or neutral heavily depends on which criteria one employs. As Siewierska (2003) notes in her seminal article on the determination of the alignment of agreement in ditransitive constructions, in some instances the consideration of different criteria gives rise to conflicting classifications, i.e. the criteria may not converge in identifying a unique alignment type. Siewierska (2003: 342) considers the following four criteria that apply to the determination the alignment of agreement:[2]

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2 A further criterion, not considered by Siewierska (2003), concerns the host(s) of agreement marker(s), i.e. auxiliaries, lexical verbs, etc. We will not consider this criterion here either.

1. *Trigger Potential:* which argument(s) do and which do not trigger agreement marking (i.e. does agreement exist at all)?
2. *Form:* which argument(s) are covered by the markers with the same phonological form?
3. *Position:* which arguments trigger agreement in the same position relative to the verbal stem and/or relative to each other (e.g. pre, post, etc.)?
4. *Conditions:* which arguments trigger agreement under the same condition?

As observed by Siewierska, often these four factors converge in establishing an overall agreement pattern, as, e.g., in German in (1) below, where all the criteria listed above give a consistent alignment pattern. In terms of Trigger Potential, German displays accusative alignment: only S and A trigger agreement. When we take into consideration the Form and Position criteria, we see that they comply with the Trigger Potential characterization: with respect to the Form criterion, the system is consistently accusative, with S and A marked differently from P, since P is never overtly marked in German verb agreement.[3] Likewise, with regard to the Position criterion, we have again S=A≠P, since agreement is realized by means of an overt suffix only for S and A.

(1) German

a. *Ich* *schlaf-e.*
1SG.NOM sleep-1SG.S/A
'I sleep.'

b. *Du* *schläf-st.*
2SG.NOM sleep-2SG.S/A
'You sleep.'

c. *Er* *schläf-t.*
3SG.M.NOM sleep-3SG.S/A
'He sleeps.

d. *Ich* *seh-e* *sie.*
1sg.nom see-1SG.S/A 3SG.F.ACC
'I see her.'

3 Here and in the remainder of the paper, we simplify. We only consider default lexical classes and do not discuss deviating valency classes such as experiencer verbs. Also see below on this point.

e. *Du* *sieh-st* *mich.*
2SG.NOM see-2SG.S/A 1SG.ACC
'You see me.'

f. *Er* *sieh-t* *dich.*
3SG.M.NOM see-3SG.S/A 2SG.ACC
'He sees you.'

However, in many other languages these criteria diverge in defining the alignment of agreement, thus giving rise to discrepancies. The situation can be illustrated with English: most English verbs in the present indicative are marked with the suffix *-s* when the subject is third person singular and are unmarked otherwise, as in (2):

(2) a. *They like sailing.*
b. *He like-s sailing.*

With respect to the Trigger Potential criterion, the English present indicative agreement system can be characterized as exhibiting accusative alignment. However, when the distribution of zero versus overt agreement markers is taken into account (i.e. the Form criterion), S/A is marked differently from P only in the third person singular, whereas the alignment is neutral (S=A=P) in the rest of the paradigm, as none of the argument roles triggers an overt agreement marker.

More complex discrepancies arise in systems with multiple markers per argument. An illustration of such a system comes from the imperfective agreement paradigm found in Tirmaga (Surmic; Bryant 1999), which has three slots of agreement marking: one prefix and two suffix slots. Table 1 shows the paradigms separately for each of the three roles S, A, and P.

Table 1. Agreement paradigms for S, A, and P in the Tirmaga Imperfective aspect

Person	**pf**	**sf1**	**sf2**	**pf**	**sf1**	**sf2**	**pf**	**sf1**	**sf2**
1s	*k-*	—	*-i*	*k-*	—	*-i*	—	*-aŋ*	—
1pi	*k-*	—	—	*k-*	—	—	—	*-ey*	—
1pe	*k-*	—	*-(G)o*	*k-*	—	*-(G)o*	—	*-ey*	—
2s	—	—	*-i*	—	—	*-i*	—	*-aŋ*	—
2p	—	—	*-(G)o*	—	—	*-(G)o*	—	*-oŋ*	—
3s	—	—	—	—	—	—	—	—	—
3p	—	—	*-(G)ɛ*	—	—	*-(G)ɛ*	—	—	—
		S			**A**			**P**	

The application of the criteria to the Tirmaga paradigm provides conflicting evidence on the alignment pattern. When one considers the Trigger Potential criterion, the resulting alignment is neutral, since all the three roles S, A, and P display some kind of agreement marking, at least in part of the system. With regard to the Position criterion, Tirmaga shows accusative alignment, since S and A are marked in the prefix ('pf') slot and in the second suffix ('sf2') slot respectively, as opposed to the markers for P, which occupy the first suffix ('sf1') slot. Under the Form criterion, finally, one considers the phonological shape of individual markers and asks which argument roles are marked by identical vs. distinct markers. The Form criterion does not establish a unique alignment pattern in the Tirmaga paradigm: the prefix position shows accusative alignment in the first person (S and A is marked with *k-* and thus differently from P), whereas other persons have zero exponence which covers all roles alike, thereby constituting neutral alignment. In the first suffix slot non-third person argument is accusatively aligned due to the suffixes *-aŋ, -ey, -oŋ*, whereas the absence of overt markers for the third person arguments establishes neutral alignment. In the final suffix slot, there is again a number of markers (*-i, -(G)o, -(G)ɛ*) which establish the accusative alignment, whereas arguments of those referential categories which have zero exponents for all three argument roles (i.e. the first person plural inclusive and the third person singular) align neutrally. The alignment patterns established on the basis of these three criteria and the observed discrepancies are summarized in (3).

(3) Tirmaga agreement alignment

a. *Trigger Potential:* S=A=P
b. *Form:* S=A≠P, S=A=P
c. *Position:* S=A≠P

With the exception of Siewierska (2003), discrepancies like these have received little attention in the typological literature or in the description of individual languages. This article intends to explore the distribution and influence of such discrepancies in the determination of the alignment in agreement systems, focusing specifically on discrepancies between alignments in terms of Trigger Potentials and alignments in terms of Form. We explore two research questions:

1. How frequent and how strong are these discrepancies cross-linguistically?
2. Do these discrepancies have an impact on our generalizations about the distribution of alignment systems?

We begin by describing the database used for this study and then address these questions in turn.

2 Data, analysis and coding methods

We surveyed 260 languages and coded their agreement systems for alignment patterns as part of the AUTOTYP database of grammatical relations.[4]

Unlike Siewierska (2003), whose focus was on person agreement only, we also considered instances of gender, number and honorificity agreement. To keep our dataset manageable in size, however, we treated gender-differentiating agreement markers as if they were just one marker, i.e. we did not track the difference between for example third person masculine vs. feminine agreement, but simply third person gender agreement. We considered a particular person-number-gender combination as overtly marked if it is overtly marked for at least one gender.

Also departing from Siewierska, we only looked at grammatical agreement in the sense of Bickel & Nichols (2007), i.e. we only coded verbal markers of argument properties that can in principle co-occur with a coreferential noun phrase in the same clause (regardless of whether this co-occurrence is frequent or rare in discourse). Grammatical agreement in this sense corresponds to what Siewierska (2004) treats as the union of syntactic and ambiguous agreement. Cliticized or incorporated pronouns that cannot co-occur with co-referential noun phrases were not analyzed as instances of agreement.

For coding alignments, we considered only the coding of S, A, and P argument roles and excluded arguments of ditransitive verbs from our present purview. S, A, and P are defined by numerical valency and semantic entailment properties of lexical predicates, following earlier proposals of ours (Bickel & Nichols 2009, Bickel et al. 2010, Bickel 2011a, Witzlack-Makarevich 2011). We furthermore limited our attention to lexical predicates that qualify as open, default classes of their language and excluded predicates with non-canonical agreement patterns, other special behavior, or lexical constraints of any kind.

We analyzed the alignment of agreement systems under the two criteria of (i) Trigger Potential, i.e. which argument(s) trigger(s) agreement; and (ii) identity of Morphological Marking, which implies identity of both phonological form and morphological slot.[5] The formulation of the second criterion is similar to Siewierska's Form and Position criteria but departs from her original proposal in so far as we took into consideration individual slots in which given phonological forms appear in the string of morphemes, rather than a binary prefix vs. suffix distinction.

4 The dataset used in this study is available for download at http://www.spw.uzh.ch/autotyp/available.html

5 An alternative approach would be to take into account just phonological properties, abstracted, if possible, across positions. While possible and interesting, we leave the exploration of this alternative for another occasion.

The two criteria basically equate the Trigger Potential with syntax and Morphological Marking with morphology, allowing us to frame the question in terms of possible discrepancies between how argument roles are aligned in agreement syntax as opposed to agreement morphology. Agreement syntax in this sense refers to whether or not the verb – or more generally, any predicate complex that heads a clause – registers features contained in S, A or P and therefore systematically interacts with these arguments. If a specific argument does not trigger agreement at all (e.g., P arguments in German), this means that the verb does not interact with this argument at all in the syntax. Such questions of verb-argument interaction are fundamental for the organization of syntax, typically requiring specific modeling in formal theories.

This conceptualization of Trigger Potentials and Morphological Marking as two dimensions of agreement does not match traditional grammar, where they are not kept separate. For data like those from Tirmaga in Table 1, one would traditionally focus on the form and position of markers and argue that the paradigms show (mostly) accusative alignment. The fact that all three arguments behave alike in triggering agreement would not be considered an interesting fact. For other languages, however, traditional grammar would focus precisely on triggering behavior and not consider form and position criteria. For German for example, one would traditionally say that only S and A arguments trigger agreement; one would not say that German is accusatively aligned because S and A have overt agreement markers whereas P shows zero markers. Applying different criteria in Tirmaga and in German is typologically inconsistent, as Siewierska has noted.

Furthermore, it is essential to keep apart cases (i) where an argument has a Trigger Potential but the morphology happens to be zero in a specific category (such as third person singular in Tirmaga) and (ii) where an argument never triggers agreement (like German P arguments). In type (i), the grammar of the verb has to check for the presence of specific features in all arguments, and as a result, the verb enters a specific morphosyntactic relationship with all arguments.

The same morphosyntactic relationship does not exist between the verb morphology and arguments that never trigger verb agreement, i.e. in type (ii). In other words, there is a fundamental difference between accusative alignment in a language like Tirmaga and accusative alignment in a language like German, and this difference can only be captured by following Siewierska's innovation and consider Trigger Potentials independently of Morphological Marking.

Trigger Potential is a notion that is uniquely tied to agreement: it is only for agreement that it makes sense to ask whether there exists a specific syntactic relationship between the verb and features of a specific set of arguments. There is no equivalent of this in case assignment: the syntactic relationship that is marked

by case exists independently of case assignment, as argumental NPs always bear a syntactic relationship to the predicate since they are assigned a semantic role by it. The relationship is not **established** by the presence of case morphology, and so one would not say that P arguments in, say, Thai bear no syntactic relation to the verb just because there is no case marking. Instead, case morphology can be said to **mark** the existing relationship. As a result of this, the absence of case morphology is equivalent to zero marking and not to the absence of syntactic relationships. Therefore, in contrast to agreement marking, case marking can be fully determined by considering Morphological Marking; the Trigger Potential has no role to play here.

When looking at Morphological Marking in agreement, we considered which roles trigger overt agreement morphology per referential category (i.e. per every person/number combination) in every relevant morphological slot in the predicate. Consider the data in (4) from the Uto-Aztecan language Pipil:

(4) Pipil (Uto-Aztecan; Campbell 1985)

a. *ni-panu*
1SG.S/A-pass
'I pass'

b. *ni-mits-ita-k*
1SG.S/A-2SG.P-see-PST
'I saw you'

c. *ti-nech-ita-k*
2SG.S/A-1SG.P-see-PST
'You saw me'

d. *panu*
[3S/A-]pass
'he passes'

e. *ki-neki*
[3S/A-]3SG.P-want
'he wants it'

f. *ni-k-neki*
1SG.S/A-3SG.P-want
'I want it'

If we consider the morphological realization of agreement in the first prefix slot in Pipil, we observe a S=A≠P alignment for the first person singular: there is *ni-*

'1sS/A' for S in (4a) and for A in (4b), but zero exponence for the first person singular P role in this slot, as (4c) shows; first person singular P is instead marked in the second slot (*-ne* in (4c)). The situation is identical for the first person plural and for the second person. However, when we consider the morphological marking of the third person within the first prefix slot, we observe that three roles behave alike (S=A=P), in that none of them shows up with an overt morphological trace in this slot (be it a dedicated marker or a portemanteau affix, cf. (4d–f)). The markers in the first prefix slot here only register first person (4f)). This is different for the second prefix position, filled by *mits-* in (4b), and *ki-* in (4e) and (4f). Here one obtains S=A≠P alignment, since the markers that appear in this slot encode the P argument, as opposed to S and A, which leave no overt morphological trace in this slot.

The situation is again different in the suffix position. Here we have neutral alignment for singular arguments, since this category never results in overt morphology across all persons. For plural arguments, however, there is an opposition between overt marking of S and A (cf. *-t* in (5a) and (5b)) vs. no marking for P (5c), again across all persons:

(5) Pipil (Uto-Aztecan; Campbell 1985)

a. *panu-t*
[3S/A-]pass-PL.S/A
'they pass (S)'

b. *tech-ita-ke-t*
1PL.P-see-PST-PL.S/A
'they saw us (A)'

c. *ni-kin-ita-k*
1SG.S/A-3PL.P-see-PST[-PL.P]
'I saw them (P)'

The example of Pipil also shows that alignment can differ across referential categories. In the first prefix we get S=A=P for the third person and S=A≠P elsewhere; in the suffix slot, we get S=A=P in the singular and S=A≠P in the plural. The second prefix slot, by contrast, shows consistent S=A≠P alignment for all referential categories.

In case a language has multiple allomorphs of agreement markers (e.g. conditioned by inflectional classes), we proceeded as follows: morphologically overt allomorphs were encoded as the same marker for the present purposes. If one of the allomorphs has zero exponence, we considered the size and productivity of individual inflectional classes. Only the major pattern of marking – either in