Coding of the Reciprocal Function:
Two solutions

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1. Terms and problems

The term "reciprocal" in the present paper refers to the situation or event, when A acts on B and B acts on A. A and B may each be singular or plural, as always assumed in the literature on reciprocals (cf. Lichtenberk 1994: 3508). A reciprocal marker is one that has been grammaticalized to encode such a situation. More generally perhaps, reciprocal function refers to the function when two or more participants in an event share more than one semantic relation to the verb, e.g. agent and patient, agent and benefactive, possessives, etc. However, not every marker that is deployed to code a reciprocal situation is a reciprocal marker.

The aim of the present paper is to examine why some rather than other grammatical markers are deployed for the coding of reciprocal function. The factors responsible for the choice of the markers may be morphological, syntactic, semantic (i.e. resulting from inherent semantic properties of lexical items and grammatical morphemes), or cognitive, i.e. resulting from the speakers evaluation of the situation and evaluation of the means available in the language. The discovery of the factors involved can give insight into the functioning of language and of the human mind. The scope of this paper supplements generalizations proposed in Heine (this volume) by providing specific motivation for various processes. While discussing motivation I will also present the coding of the reciprocal in some Chadic languages. Data for three of these languages have not been previously available.

A prerequisite for the coding of the reciprocal is the plurality of participants. By definition this prerequisite is met by all constructions under consideration, and it is not going to be noted each time it occurs. It appears that regardless of whether the
language has a dedicated grammatical form for the coding of the reciprocal or exploits grammatical means already existing for the coding of other functions, there exist only a limited number of characteristics that a language explores in the search of forms to code the reciprocal. The first characteristic is the coding of the collective participation in the event. The second characteristic is the repetitive event (Liu, this volume). Consequently, any form that encodes these characteristics may be deployed for the coding of the reciprocal. In the search for these characteristics, languages employ several strategies: One of the most familiar for the scholars of Western Indo-European languages is the deployment of forms that have been often labeled “reflexive.” Another is the deployment of adverbial expressions corresponding to “mutually,” “one another” (one of the means deployed in Polish), “together” (Mupun, Frajzyngier 1993). The third one is the grammaticalization of markers whose primary function is that of coding reciprocal (Halkomelem, Gerdts, this volume).

This paper focuses on two strategies in the expression of reciprocal: through the point of view of an argument (the reflexive) and through the markers whose reciprocal function is the first product in the grammaticalization chain. The two strategies are in contrast in that in the first case one cannot talk about the existence of reciprocal markers. The second case is important because, contrary to the implications of Heine’s grammaticalization chain (Heine, this volume), the reciprocal may be the first product of grammaticalization, unrelated to the reflexive function. The second case is also important because at least on face value, the selection of the form was not motivated by the collective or repetitive characteristics. I will attempt to discover what characteristics motivate the choice of the second form. The scope of this paper is as follows: For the reflexive strategy I discuss Polish and Amharic (Ethio-Semitic). For the grammaticalization of the reciprocal I discuss Chadic languages.

2. Point of view

2.1. The possibilities

Starting from a situation with two sets of participants A and B, the speaker of a language can choose to represent the event from the point of view$^1$ of A or of B. This choice, which can be motivated by a number of discourse or cognitive factors, is essentially responsible for the distinction between nominative-accusative and absolutive-ergative languages in their grammatical systems, and also in the choice of reflexive markers in the nominative-accusative. The unmarked form in these languages represents the point of view of the goal. Consider now two sets of participants A and B such that A has the same semantic relationship to B as B has to A.
If the speakers want to encode this fact, i.e. the existence of the same kind of relationship, choosing the point of view of A or the point of view of B will not achieve the desired result, because these points of view are identical. In a number of languages the reflexive form is selected for the coding of reciprocal because it is a default form that, by representing the point of view of the subject, without any other participants mentioned, excludes the existence of other participants. So when the verb allows it, the result is a reciprocal interpretation. Here is a description of the coding of the reciprocal that supports the proposed hypothesis from Polish and Amharic.

2.2. Polish

In Polish the reciprocal function is coded by the plural form of the verb in any person accompanied by the point of view of the subject (reflexive) clitic się (but not the coreferential marker siebie), which may occur before or after the verb. The reciprocal meaning is a result not only of the combination of plural participants and the reflexive marker but also of the inherent properties of the verb. If the verb allows a reciprocal situation, then the clause is interpreted as reciprocal. The reciprocal interpretation is assured provided no other argument is present:

(1) Spotkamy się na Nowym Świecie,
    meet: ipl:FUT REFL on N.Ś. (street name)
    ‘We shall meet on Nowy Świat.’ (Sources)¹

If another argument is present, the scope of the reciprocal is automatically extended to include the other argument as a co-participant:

(2) Spotkamy się na Nowym Świecie z Michalem.
    meet: ipl:FUT REFL on N.Ś. (street name) conj michal:instr
    ‘We shall meet Michal on Nowy Świat.’ (The first participant is plural but members of its set are not in reciprocal relationship to each other, but rather all are in reciprocal relation with Michal.)

(3) O przecież sto lat już nie widzieliśmy się.
    oh but hundred years already neg see: ipl:F:PAST REFL
    ‘Oh, we (f.) have not seen each other for ages’ (Sources)

(4) O przecież sto lat już nie widzieliśmy się z
    oh but hundred years already neg see: ipl:F:PAST REFL conj
    Magdą.
    Magda
    ‘Oh, we (f.) and Magda have not seen each other for ages.’
(5) To wyjść się tutaj poznali.
    So 2PL refl here know:perf
    'So you met here?' (Sources)

(6) To wyjść się tutaj poznali z jej rodziną.
    So 2PL refl here know:M:PL:PERF with her family:instr
    'So you met her family here?'

(7) A zalogujmy się.
    conj bet:1PL refl
    'Do you want to bet?' (Sources)

(8) A zalogujmy się z nim.
    conj bet:1PL refl with him
    'Shall we make a bet with him?'

The above examples might suggest that Polish has a reciprocal marker się whose scope is determined by the presence or absence of another noun phrase in addition to the subject. But this is not the case, because the marker się actually codes the point of view of the subject. Since this function is discussed in Frajzyngier (1999), here are just a few examples. First singular subject, which automatically rules out the reciprocal function:

(9) Niech się Pan lepiej nie zagram.
    let refl sir better neg bet
    'Sir, you better not bet.'

Plural subject but not reciprocal:

(10) Myślę sobie młodzi pobiegli się bawić.
    think:1SG ISG:DAT young:PL:M run:PL:M refl play
    'So I think: young ones ran to play.' (Sources)

(11) Z miejsca poznali się na mnie wszysty.
    from place learn:PL:M refl on 1SG all
    'Everybody immediately recognized what kind of person I am' (Sources)

(12) Bywa i tak, że pieniądze się znajdą, uchwała jest.
    be:freq conj such comp money refl find:PL:FUT decision is
    'It also happens that money can be found, that there is a decision.'
    (Sources)
(13) Potem to już byśmy się umówili
later DEM already HYP: IPL REFL agree:PL:M:PAST
what PREP conditions
‘Later we could agree regarding the conditions.’ (Sources)

(14) W tym roku chybaście się dobrze przygotowali,
in DEM year probably:2PL REFL well prepare:PL:M:PAST
‘I assume this year you are well prepared.’ (Sources)

(15) Bo my kończymy już zapórę w przyszłym roku i
because IPL finish: IPL: PRES already dam: ACC in coming year and
likwidujemy się.
liquidate: IPL: PRES REFL
‘Because we are going to finish the dam next year and then we will cease to exist.’ (Sources)

Reflexive verbs are verbs that always occur with a reflexive marker. The deployment of such verbs does not evoke a reciprocal or even collective interpretation:

(16) Dlaczego my tak się dobijamy o jakiś lokal na występy?
why IPL so REFL fight PREP some place PREP show
‘Why are we fighting so much to get a place for our show?’ (Sources)

(17) Bo gdyby firanki ofaîczyły się to byłaby szkoda większa.
because if drapes burn REFL then be: HYP damage great:COMP
‘If the drapes had caught fire the damage would have been greater.’
(Sources)

(18) Jak się wujkowi podobają.
how REFL uncle:DAT please: 3PL:PRES
‘So how does uncle like them?’ (Sources)

2.3. An explanation of Reuland’s question

Reuland (1999) has drawn attention to the puzzling question as to why in Dutch and German one can use the equivalent of the SE reflexive with some verbs but not with others. One can say:

(19) Oscar schaamt sich.
Oscar shames SE
‘Oscar is ashamed.’

But one cannot say:
(20) *Oscar haat zich.
Oscar hate se  
‘Oscar hates himself.’ (both examples from Reuland 1999)

The same facts hold for Polish:

(21) Oskar się wstydzi.
Oskar refl be ashamed  
‘Oskar is ashamed.’

(22) *Oskar się nienawidzi.
Oskar refl hate  
For ‘Oskar is in the state of hate’ (or any other meaning)

Reuland’s answer to the question of ungrammaticality of the reflexive with the verb “hate” is that se (unlike the self anaphor) does not allow local binding. König and Siemund’s explanation is that “hate” is an other-oriented verb. Both of these explanations can be subsumed by a more general one that also sheds light on why the “short” reflexive form has been selected for the coding of reciprocal function. In order to assure the accuracy of data and interpretation I will limit the discussion here to Polish.

In addition to the verb nienawidzieć ‘hate’ several other verbs may not be used with the singular participant and the reflexive marker się, viz. nie cierpić ‘not to tolerate’, nie znosić ‘not to bear’.

(23) *On się nie znosi.
he refl neg bear  
For ‘he cannot bear himself.’ (or any other meaning)

Without the marker się the preceding clause would also be ungrammatical unless one were to add a direct object.

The next example is also ungrammatical with the form się:

(24) *On się nie cierpi.
he refl neg suffer  
For ‘he cannot tolerate himself.’ (or any other meaning)

The preceding clause is grammatical without się and without any additional object, but then it means ‘he does not suffer’. In order to obtain the interpretation ‘he does not tolerate X’, one would need to add an object to serve in the function of X.

With plural participants, however, the verbs nienawidzieć ‘hate’, nie cierpić ‘not to tolerate’, nie znosić ‘not to bear’ can be used with the reflexive form się, just like any other verb:
25) *Oni się nie znoszą.*  
   they refl neg bear:pl  
   'They cannot bear each other.'

26) *Oni się nie cierpią.*  
   they refl neg suffer:pl  
   'They cannot tolerate each other.'

The explanation of ungrammaticality in the singular and grammaticality in the plural follows from two observations: the observation that verbs are other-oriented (cf. König and Siemund 1999 and references there) and the fact that the reflexive form excludes other participants. The requirement of other-orientation and the exclusion of other participants together force the interpretation that the plural participants of the event "hate," etc., hate each other.

2.4. Amharic

In Amharic the reciprocal function is coded by a combination of two markers: the marker *tə*, which otherwise codes passive/reflexive function, and the marker *a* added after the first consonant of the verb (my analysis of examples provided in Leslau 1968 and Cohen 1970):

28) *Täg-a-ddä-l-u.*  
   refl-kill-con-kill-3pl  
   'They killed each other.' (verb *gääddäl* ‘kill’) (Leslau 1968: 409)

The form does not necessarily indicate X acting on Y and Y acting on X, but may code the participation of many participants together in the event:

29) *Täqallädu.*  
   'They joked with each other.'

30) *Tälmäädü.*  
   'They got used to each other.'
   Lämmäädä ‘get used to’

While we know that the reflexive/passive marker is subject-oriented, the function of the vowel *a* is more elusive. The stems with this vowel are considered one of the three fundamental types of stems whose functions in contemporary language are not productive. Cohen (1970: 208) states that the vowel *a* represents the old conative
(i.e. increased effort) or extensive form that indicates "un effort vers quelque chose." The examples Cohen gives do not provide a clear picture of the function of this form:

(31) Barrākā ‘bless’ vs. bārrākā ‘kneel’
qat̪t̪a ‘threaten’ vs. qaṭṭā ‘punish’ (Cohen 1970: 210)

The stem with the vowel a after the first consonant does not occur without the reflexive prefix ā, except in verbs that have this vowel as a part of the underlying form (Mengistu Amberer, p.c.).

The two markers that are deployed in the coding of reciprocal, even taken together, do not necessarily code the reciprocal function. The evidence that the form with the prefix ā and the plural form of the verb does not encode reciprocity is provided by the fact that the form can be used with a singular subject. All examples are in the imperfective aspect, i.e. in the aspect that implies non-boundedness of the event:

(32) Yā-umatt-al.
3M:SG-hit:REFL:CON-IMPF
‘He has the habit of hitting, he is liable to hit.’
matta ‘hit’ (the prefix ā assimilated to the following consonant resulting in geminated first consonant of the stem)

(33) Yā-ssaddāb-al.
3M:SG-hit:REFL:CON-IMPF
‘He has the habit of insulting.’
sāddābā ‘insult’ (Leslau 1968: 410)

3. Reciprocal coding in Chadic: Body as a marker of exclusion

3.1. The grammaticalization of ‘body’

Schladt (1999) postulates that reflexive markers in many languages across the world derive from the name for “body” or from the name for part of the body, most often “head.” Heine (this volume) postulates that in the grammaticalization chain the reciprocal markers occupy the middle position, between reflexive and the middle (in the sense of Kemmer 1993) markers: nominal source → emphatic marker → reflexive → reciprocal → middle → passive. Chadic reciprocal markers are interesting because in the great majority of cases they are different from reflexive markers. One cannot say, therefore, that they are derived, in any sense of the word, from reflexive markers. Moreover, there is no indication that the reciprocal markers be-
long to the same grammaticalization chain as reflexive markers. The third point about reciprocal markers in Chadic is that they have been grammaticalized from the same source from which other languages have grammaticalized their reflexive markers (cf. Schladt 1999; Heine this volume).

The global picture for Chadic languages for which we have data, whether published or gathered in the field, is as follows: Some languages have markers coding the point of view of the subject, whether controlling or not, i.e., the subject’s control is not affected by the addition of the point-of-view markers. The point-of-view marker is realized by a morpheme derived from or identical with the lexeme “head.” Some languages have also a reciprocal marker. The reciprocal marker is derived from or identical with the lexeme “body.”

The explanation for the use of the lexeme “body” for the reciprocal is as follows: The lexeme “body,” whether followed by possessive pronouns or not, rules out participation in the event of anyone but the participants already mentioned, whether the third person plural subject or an associative noun phrase.

Table 1 presents a selection of languages from different branches of Chadic. The column “Reflexive” includes the point-of-view, coreferentiality, and intensifier functions, the last one often in conjunction with independent pronouns or nouns.

In what follows is the illustration of the properties listed in Table 1 and comments and discussion of some interesting cases included in the table. I shall start with a language that appears to represent a typical Chadic situation, viz. coding of the reflexive by the lexeme “head” and of reciprocal by the lexeme “body.” Then a

<table>
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<tr>
<th>Language</th>
<th>“Reflexive”</th>
<th>Reciprocal</th>
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<tbody>
<tr>
<td>Hausa</td>
<td>kai ‘head’</td>
<td>juna ‘each other’</td>
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<td>Kanakuru (Newman 1974)</td>
<td>ko ‘head’</td>
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<td>Pero (Frajzyngier 1989)</td>
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<td>Mupun (Frajzyngier 1993)</td>
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<tr>
<td>Ngizim (Schuh 1972)</td>
<td>adi ‘head’</td>
<td>gi’tku ‘each other’; ti’ta ‘body’</td>
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<tr>
<td>Pa’a (Skinner 1979)</td>
<td>iama ‘head’</td>
<td>kwur ‘body’</td>
</tr>
<tr>
<td>Margi (Hoffmann 1963)</td>
<td>k’ir ‘head’</td>
<td>Reflexive + plural participants</td>
</tr>
<tr>
<td>Gude (Hoskison 1983)</td>
<td>na ‘head’</td>
<td>-shi (verbal extension) = verb ‘come’ (cf. Liu, this volume)</td>
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<tr>
<td>Gidar (field notes)</td>
<td>no reflexive marker</td>
<td>z’i ‘body’</td>
</tr>
<tr>
<td>Xdi (field notes)</td>
<td>ugb’i ‘body’</td>
<td>vgh’i ‘body’</td>
</tr>
<tr>
<td>Mina (field notes)</td>
<td>ks’om ‘body’</td>
<td>ks’om ‘body’</td>
</tr>
<tr>
<td>Lele (field notes)</td>
<td>ca ‘head’</td>
<td>kus’u ‘body’</td>
</tr>
<tr>
<td>Bidiya (Alio 1986)</td>
<td>k’i ‘solitude, unity’</td>
<td>milo ‘owner’</td>
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</table>
few less typical cases will be discussed to illustrate (1) the independence of the two functional domains and (2) the limited number of characteristics that guide the speakers in the choice of reflexive marker.

3.2. Gidar

Gidar is an SVO language. It provides an interesting piece of evidence against the derivation of the reciprocal from the reflexive, in that the language does not have a reflexive marker. Instead the unmarked form of the transitive verb has the subject undergoing the event. In order to indicate that the subject is controlling, one has to add a pronominal object to the verb.

The reciprocal in Gidar is coded by the same means as the affected subject of the transitive verb, viz. by the lexeme zó “body”:

(34) Á mú lā zó-m pūmūm sā.
    FUT 1PL see body-1PL tomorrow Q
    ‘Will we see each other tomorrow?’

(35) Á kū lā-nā-n zū-kūm pūmūm sā.
    FUT 2 see-3–PL body-2PL tomorrow Q
    ‘Will you see each other tomorrow?’

This form is deployed in various grammatical functions, as in the following example in which the reciprocal is beneficiary:

(36) Á-zó-ŋgū-k kā bbó sā-n zū-ti.
    3–come-PL-PL PURP help DAT-3PL body-3PL
    ‘They came to help each other.’

3.3. Lele

Similarly in Lele (East-Chadic) the reciprocal is marked by the same means through which the coreferentiality of subject and object is marked, viz. through the word kūs ‘body’ followed by appropriate possessive pronouns:

(37) Ngá gól-é kūs-t-ngā wàyān-gā.
    1PL see-NOM body-1PL tomorrow-INTERR
    ‘Will we see each other tomorrow.’

(38) Ngù gól-é kūsū-ngū wàyān gā.
    2PL see-NOM body-2PL tomorrow INTERR
    ‘Will you see each other tomorrow?’
(39) Éjê-gé kòlò ój-è kūsī-gē.
come-3PL because help-NOM body-3PL
'They came to help each other.'

Compare the coding of coreference of subject and object:

(40) Nà éjê-dì nà ṣṣ-jé màgl-è kūsī-ŋ mbóbè-ì.
come-3M then 1SG-PROG prepare-NOMIN body-1SG wait-3M
'If he comes I should prepare myself to wait for him.'

(41) Tèy-dì kūs-ì
hit-3M body-3M
'He hit himself.'

The form kūs ‘body’ serves as intensifier in constructions Pronoun body-poss.
where the possessive pronoun is coreferential with the preceding independent
pronoun:

(42) Nē dâ kūs-ì bà nē bê-ŋ.
cop 3M body-3M CONTR cop give-1SG
'It was he himself who gave it to me.'

(43) Tòb dì nà ñ-ìrà ñ-diýlā-ì dâŋ kūs-ìŋ.
want 3M COMP 1SG-go 1SG-hear-3M 1SG body-1SG
'He wants me to go, I heard him myself [say so].'
Cf. the reciprocal:

(46) Tá tá tsk-áy-lù tá vřá tá hldáy mántsà yālyá rà.
  COM IMPF gather-UO-UNSP OBJ body PREP often like once Q
  ‘Do people gather as they used to?’

Once the coreference of the subject and the object has been established by the object vřá, subsequent sentences do not have the marker vřá repeated, even if the subject and the object are the same. Thus the preceding sentence is followed in the conversation by the following sentences:

(47) Tá tsk-áy-xùn dé. (← dái Hausa)
  IMPF gather-UO-3PL indeed
  ‘They gather indeed.’

(48) Tá tsk-áy-xùn-wà.
  IMPF gather-UO-3PL-NEG
  ‘They gather, don’t they?’

Margi is a Chadic language that does confirm to Heine’s chain where the reciprocal derives from the reflexive. Hoffmann (1963: 106) states that the reflexive marker combined with the dual or plural possessive forms codes reciprocal.

3.5. Mupun

Mupun has two means within the domain of reflexive: one codes point of view of subject, and the other codes coreferentiality. Neither of these means is used for the coding of the reciprocal. Moreover, unlike many other Chadic languages, Mupun does not deploy the lexeme “body” for the coding of the reciprocal function. Instead the language uses an adverb šak ‘together’. When this adverb occurs with a plural subject and a verb that allows a reciprocal event, the meaning is reciprocal:

(49) òwet ám giá ár dé sìvè dé n̄̄mbò kàm lá mìs kò lá réép
  pour water on ANAPH FUT show child man ASSC child girl
  n̄̄sá n̄̄sá pò dém šak.
  DEF 3PL:PL PROG like together
  ‘Pouring water on [on each other] is a way of showing that the boy and the girl love each other.’

(50) Kàt á zìyà mò kò jìrùp mò mò ji kàat šak bè mò yá
  when man PL ASSOC girl PL 3PL come meet RECIP SEQ 3PL start
  wòkò kò n̄̄s.
  spoil ASSOC ANAPH
  ‘When boys and girls meet they spoil it [language]’
Compare Polish and French, which have reflexive markers for the same types of clauses:

(51) _Gdy chłopcy i dziewczyny spotykają się._
    when boys:nom conj girls:nom meet:pl refl
    'When boys and girls meet.'

(52) _Quand les garçons et les filles se rencontrent._
    when boys conj girls refl meet:pl
    'When boys and girls meet.'

(53) _Àši¥è som mó nô yák šak fá._
    indeed (H) name pl def match rec indeed
    'Their names match each other indeed,' i.e., 'their names are similar.'

Cf. French:

(54) _Leur noms se ressemblent._
    their names refl be similar:pl
    'Their names are similar.'

The evidence that the marker šak is an adverb meaning ‘together’ is provided by the following clauses where the reciprocal interpretation is ruled out:

(55) _N-klôn mó sát nô mó wàyyâ pák màkaràntá nô mó lé šak._
    I hear 3pl say comp 3pl bind some school def 3pl put together
    together
    'I heard it said that they merged some schools'

The implication of the facts in Mupun is that when it comes to the coding of reciprocal, the language deploys a marker that codes a very general collective notion rather than point of view of the subject.

3.6. Conclusions repeating “body”

The marker “body” thus functions as a marker excluding the participation of persons or animals other than the ones mentioned in the subject position. This is the same function that is performed by the point-of-view marker se in many Indo-European languages. The marker of coreferentiality, equivalent of the Polish siebie, Dutch zichzelf, etc., does not have the function of ruling out other participants. The evidence for this is provided by the fact that such markers can be followed by an associative or conjoined phrase:
(56) Henryk wybawił siebie i jego z przykrojej sytuacji.
    Henry extricate:3M:PAST coref conj him from unpleasant situation
    'Henry extricated himself and him from an unpleasant situation.'

(57)*Henryk wybawił się i jego z przykrojej sytuacji.
    Henry extricate:3M:PAST refl conj him from unpleasant situation
    For 'Henry extricated himself and him from an unpleasant situation.'

4. Conclusions

There have been a number of cognitive motivations proposed for the grammaticalization of reciprocal markers. The collective, associative coding has been deployed in many unrelated languages. This paper has demonstrated that the development from the point-of-view marker and from the word “body” in a number of Chadic languages is motivated by quite different cognitive considerations. What is involved in both grammaticalizations is the notion of the exclusion of other participants. Once other participants are excluded as potential objects, the only objects that remain available are the same as the subjects.

Abbreviations

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<th>FOR</th>
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CODING OF THE RECIPROCAL FUNCTION

POSS possessive
PREP preposition
PRES present
PROG progressive
PURP purpos
Q question
QUANT quantifier
RECI reciprocal

REFL reflexive
REL relative
SG singular
SUBJ subjunctive
UNSP unspecified human
UP extension encoding

movement upwards

Acknowledgements

The work on the present paper was inspired by Frank Lichtenberk's paper in the present volume and by the issues raised in Reuland (1999) and König and Siemund (1999). The influences of these and other papers read at the Symposium in Boulder bear witness of how inspiring was the symposium for this author. The work on Mupun, Xdi, Gidar, Lele, Pero was at various times supported by the National Endowment for the Humanities, American Philosophical Society, National Science Foundation, Fulbright-Hays Grant for Faculty Research Abroad, and by the University of Colorado. The most current work on Lele, Gidar, and Mina is supported by the National Science Foundation. I am very grateful to all these institutions.

Notes

1. For a more general discussion of the point of view cf. Frązyngier (1999) and references there, especially Zribi-Hertz 1989.
2. Polish also has an adverbial marker of reciprocity nawzajem 'mutually'. It is not used very often. Kurcz et al. 1991 list only 8 instances of the occurrence of this adverb in the written corpus of a half million words. This is not the frequency of a grammatical morpheme. Consider that the form się, which codes the point of view of the subject, occurs 9,302 times in the sample of 500,000 words. For comparison, in the Brown Corpus of one million words, the form "each other," which codes reciprocal, occurs 217 times. I am grateful to Michelle Gregory for running the string "each other" in the Brown Corpus.
3. Examples from Polish, when no source is given, are from sources for Kurcz et al. 1990 (cited as 'Sources'). Grammaticality judgments in Polish are mine.
4. Data for Gidar, Lele, Xdi, and Mina come from my own field notes.

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