



# Reciprocals Across Languages

## Reciprocals across Languages<sup>1</sup>. Field questionnaire materials. Nicholas Evans & Rachel Nordlinger

**Version note:** this is a draft version made available at this point for the benefit of fieldworkers beginning their research in September 2004, and superseding an earlier version distributed to some fieldworkers in June 2004. We will be improving it through the inclusion of further commentary, though for the sake of cross-version comparability we will retain the same example and section numbering and any additional stimulus material added during through that period will be flagged. The most up-to-date version at any one time is downloadable from <http://www.linguistics.unimelb.edu.au/research/projects/reciprocals/index.html>

### Part 1. The semantic boundaries to reciprocal encoding

This part of the survey examines which semantic dimensions the language encodes in reciprocal-type constructions, and what are the boundaries to the use of reciprocal encoding. Are there distinctions between symmetric situations involving two and more than two participants? Is there a distinction between simultaneous and sequential reciprocity? Once there are more than two participants, do reciprocal constructions get used in such less-than-canonical situations as chaining (e.g. people following each other in a line, where symmetric relations do not hold between all members of the pair), melees (the bar-room brawl situation), pairwise reciprocals (the group breaking down into pairs between whom there is a symmetric relationship), and so on.

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A series of 64 video clips contains a series of permutations of these variables which can be used as stimuli for obtaining naturalistic descriptions likely to include reciprocal constructions from the language you are studying. A fuller description of this elicitation task will be downloadable from our project web-site (see above under 'Version Notes').

To obtain the accompanying CD containing all clips as MPG files, write to Edith Sjoerdsma,

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Finally, note that bibliographic references are keyed to a further document, 'Bibliography on Reciprocals', also downloadable from the project website.

## Part 2. Reciprocals and syntactico-logical positions

This second part of the questionnaire explores the various syntactico-logical <-> form relations between the two reciprocants, since, in many languages, these must be expressed by different constructional options – or even require extensive paraphrase. A preliminary typology of attested reciprocal constructions is contained in a separate document, entitled *Preliminary Typology of Reciprocal Constructions*. This is also downloadable from the project web-site and will be updated over the coming months.

We use the rather cumbersome term ‘syntactico-logical’ positions because the variation we are exploring is partly a matter of logical form, and partly determined by language-specific syntax, independent of semantics and presumed ultimate logical form – for example, the difference in the treatment of direct objects and indirect objects may reflect language-specific projections from semantics into the syntactic (‘seek’ vs ‘look for’), as may language-specific differences depending on whether it has grammaticalized subjects, a system of ergative syntax, a Philippine-style focus system that separates topic properties from agent properties, and so forth. On the logical form side, because languages vary so much in their syntax – e.g. in how many clauses are used to express causatives, or indeed reciprocal relations – the only way we can hold our elicitation list at least partly constant is to characterise the elicitation sentences in terms of logical structure that is at least partly language-independent.

A note on terminology: we use ‘reciprocant’ to mean ‘entity involved in a reciprocal relation’, ‘reciprocating argument’ to mean ‘syntactic entity participating in a reciprocal relation’, and ‘antecedent reciprocating argument’ to mean ‘the syntactic relation of that reciprocant argument position which governs the other one’: thus in English ‘*Mary and John love each other*’ *Mary and John* are both reciprocants, both *Mary and John* and *each other* are reciprocating arguments, but *Mary and John* is the *antecedent reciprocating argument*.

As an example of the interaction between syntactico-logical position and construction type, contrast the behaviour of English and Dalabon on four (among many) position combinations.

In English the binomial reciprocal pronoun ‘each other’ is used for just about every possible syntactic combination where the main predicate is a reciprocal (they saw each other; they introduced their in-laws to each other; they saw each other’s children; they want to live with each other) but it is either unavailable or unnatural with some two-place predicates lexicalized in English as nouns, such as kinship expressions: ‘? they are each other’s brothers’ is dispreferred and an alternative strategy using the kin term as complement, and a simple plural pronoun, is used in such cases: ‘they are brothers’.

In Dalabon, where the primary means for encoding reciprocals is the verbal suffix *rr*, this can be used where the reciprocating arguments would be subject and object in the corresponding basic clause (*barrah-na-rr-inj* ‘they (two) saw each other’; cf *bùkah-na-ng* ‘(s)he saw him/her’). But adnominally possessed reciprocals cannot be directly encoded in this way and need first to be promoted to indirect object position through the benefactive applicative, then fed into the reciprocal construction: *barrah-marnû-na-rr-inj wurd-burrng*, lit. ‘they-for-saw-each.other children-their’.

Because kin relations can be expressed either by nouns or by verbs in Dalabon, it is possible to use the canonical reciprocal construction with kinship expressions in a way not possible with English – *barrah-wawurdngandu-rr-ûn* ‘they call each other brother’ but there is also a special ‘dyad’ suffix that can be used for marking reciprocity on two-place nouns: *wawurd-ko* ‘pair of brothers’. Finally, in Dalabon it is not possible to form grammaticalized reciprocal constructions in which the antecedent reciprocating argument is not the subject, so ‘they introduced them to each another’ requires an alternative, biclausal construction.

The upshot of this is that, for each language, we need to examine the distribution of construction types across syntactic/logical relations: it is rare for a language to have just one construction type, and initial findings suggest there are strong cross-linguistic correlations between construction type and the syntactic/logical relations it ‘prefers’ – for example, verb-coded reciprocals seem to be much more restrictive about the syntactic roles of the two reciprocants than ‘NP-coded reciprocals’ like ‘each other’, though this can be compensated for to some extent through the use of applicatives, voice alternations and so on (Malagasy being a good example of a language with verb-coded reciprocals whose application is extended across most relational combinations by these means).

Note that, to save space, examples below generally employ only canonical reciprocal situations, i.e. dual simultaneous symmetric relations, since the goal in this part of the questionnaire is to vary syntactic relations rather than to explore the range in situation types explored in Part 1, which essentially held the syntactic relation constant as being between subject and object. However, in principle it is possible to take any one of the syntactic types given below and then permute the situation type, and if any investigator has relevant data here we would welcome it.

In general the sentences given below are rather bland, simply to show up the structure more clearly; obviously it may make sense in fieldwork to adapt them by substituting different verbs or participants into the same structure.

Side comments mention particular claims that have been made in the literature for key languages, giving examples where possible from a range of languages; ideally the translation equivalents of these (often complex) examples should also be tried out (they are marked with a • before the example number). Note also that various sentences claimed from the literature to be unacceptable are also included here (marked \*) and it is also worth trying these out if possible.

## **2.1. Permuting the syntactic position of reciprocating arguments.**

### **2.1.1 Arguments at clause level.**

#### **2.1.1.1 *Transitive: subject and object.***

- (1) John and Mary love / saw / kissed each other.

*Note 1.* In a language with psych verbs or other non-canonical subject behaviour it would be worthwhile going through these for all case frames, if possible, e.g. ‘John and Mary resembled each other’ etc.

Note 2. A claimed universal – so far unfalsified – is that the antecedent will always c-command (one wording) or be higher up on the thematic hierarchy (another wording) than the reciprocal expression (this is only readily testable when the reciprocal is expressed by a distinct NP or perhaps affixal or clitic expression). I.e. it is claimed that in no language can one say the equivalent of

(2) \*Each other saw John and Mary.

Merits examination, particularly in ergative languages or those like Tagalog which split subject into topic and actor.

### **2.1.1.2 Semi-transitive (i.e. subject plus indirect object)**

(3) John and Mary looked for / waited for each other.

Note. It is particularly important to include non-transitive examples in languages with verbal-encoding strategies, since these are the ones most likely to restrict the construction to subject/object reciprocant pairs. Some languages have a limited set of non-transitive verbs with which a verb-coding reciprocal marker can be coerced: in Mparntwe Arrernte this is possible only with the verb 'talk' (Wilkins 1987: 256) for 'talk to each other'; in Kayardild this is possible just with semi-transitive verbs like 'look for' and 'wait for' (Evans 1995).

(4) John and Mary talked (to each other).

An example of a language that uses a constructional variant once the reciprocant is a non-object is Usan (Reesink 1987): where reciprocants are subject and object, this is expressed by the recip. prefix *qi-* to the verb (); but where the non-subject role is not the object ('goal' in Reesink's terms), *qi-* is detached from the verb and suffixed with a postpositional clitic (-t).

(5) *munon yâmângâr*      *qi-baub*                      *ig-our*  
man woman              RECIP-take.SS              be-3pl.PR  
'The man and the woman are taking each other.'  
(euph. for sexual intercourse) (Reesink 1987:108)

(6) *wuri*                      *qi-t*                      *ab*                      *ig-urei*  
they                      RECIP-for              call.SS              be-3plFarPast  
'They were calling out for each other.'

### **2.1.1.3 Ditransitive and other three place verbs**

(7) John and Mary gave presents to each other /gave each other presents.

(8) John and Mary stole / borrowed money from each other.

(9) John and Mary showed the tracks to each other / showed each other the tracks.

Note. It appears to be the case that it will always be the non-theme argument which is the non-subject reciprocating argument – regardless

of whether, in languages permitting dative shift, it is expressed as a direct or an indirect object. For example, in Bininj Gun-wok:

- (10) *Barri-warde-wo-rre-ni.*  
3augP-money-give-RR-PI  
'They used to give each other money.'  
\* 'They used to give themselves as money.'
- (11) *An-me                      barri-wo-rre-ni.*  
III-veg.food                  3augP-give-RR-PI  
'They used to give each other food.'  
\* 'They used to give themselves as food.'

This sets up an interesting contrast with reflexives, even in languages where the same morpheme is used for reflexive and reciprocal. For example, in Bininj Gun-wok the reflexive reading cannot be fed by the output of the benefactive applicative (12), whereas the reciprocal reading can (13); 'I bought myself a car' has to be expressed as 'I bought my car / I bought me a car' (14).

- (12) \*Nga-marne-bayahme-rr-inj                  murrikka  
1/3-BEN-buy-RR-PP                                  car  
'I bought myself a car.'
- (13) Bene-marne-bayahme-rr-inj                  murrikka.  
3du-BEN-buy-RR-PP                                  car  
'They bought each other a car.'  
'They bought themselves a car / cars.'
- (14) Nga-bayahme-ng                  ngarduk                  murrikka.  
1/3-buy-PP                                  meOBL                  car  
'I bought a car for myself.'

This may be an epiphenomenon of the fact that it is the non-theme argument that is normally required to be human – and hence ontologically symmetric with the subject – so the real reasons for this effect can only be checked with ditransitive verbs taking two human non-subject arguments, e.g. 'promise X (in marriage) to Y', 'betrotte X to Y', 'introduce X to Y'.

#### **2.1.1.4 Intransitive or transitive verbs with adjuncts or complements.**

- (15) John and Mary left / ran away with each other. (= together)  
(16) John and Mary cooked meat for each other.  
(17) John and Mary told stories about each other.  
(18) John and Mary don't like sleeping without each other.  
(19) John and Mary can't live without each other.

As with semi-transitive verbs, verb-coding languages (and also bound-pronoun affix languages) may often employ different strategies here, though the strategies may be confined to particular thematic relations for the adjunct. Some examples:

Bininj Gun-wok and Dalabon use benefactive applicatives to promote the adjunct to indirect-object status, allowing it to be fed into the

verbal reflexive/reciprocal construction (20); the comitative applicative can likewise be used to promote NPs in an accompaniment (21) or 'reason' (22) role into a derived object slot, where it can likewise be fed into the reciprocal.

- (20) *Bani-marne-kanj-kinje-rr-inj.*  
3uaugP-BEN-meat-cook-RR-PP  
'The two of them cooked meat for each other.'
- (21) *Bani-bo-yi-bawo-rre-ni.*  
3uaugP-liquid-COM-leave-RR-PI  
'They used to leave grog with each other.'
- (22) *Bani-daluk-yi-bu-rr-inj.*  
3uaugP-woman-COM-hit-RR-PP  
'The two of them fought (hit each other) over the woman.'

Many Bantu languages use a wide range of applicatives to get various adjunct-type roles into object position so as to use the verbal reciprocal; Malagasy is similar.

In Amele (Roberts 1987) the verb is reduplicated when coreference is between subject and object, or subject and possessor object, whereas when it is between subject and indirect object 'only the object marker and subject suffixation is duplicated' (Roberts p. 132). [This is Roberts' description; however, it may be possible to reanalyse this as reduplication of serialized 'give', since 'give' is a zero-root verb - see his ex. 634, p. 132; this would make (25) literally 'they tobacco cut he.gives.him he.gives.him they are']

- (23) *Age get-u-do-co-b get-u-do-co-b eig-a*  
3pl cut-pred-3sg-DS-3sg cut-pred-3sg-DS-3sg 3pl-tod.pst  
'They cut each other.' (Roberts 1987:132)
- (24) *Age age na sab je-ce-b je-ce-b eig-a*  
3pl 3pl of food eat-DS-3sg eat-DS-3sg 3pl-tod.pst  
'They ate each other's food.'
- (25) *Age jacas get-i do-co-b do-co-b eig-a*  
3pl tobacco cut-pred. 3sg-DS-3sg 3sg-DS-3sg 3pl-tod.pst  
'They cut tobacco for each other.'

### **2.1.1.5 Reciprocants are object and oblique**

- (26) I introduced John and Mary to each other.  
(27) They separated the girls and the boys from one another.  
(28) I put the knives and forks next to one another on the table.

Notes. Interesting because the antecedent is a non-subject. The general c-command principle is here played out in the unacceptability of:

- (\*29) I introduced each other to John and Mary.

This construction is also interesting because in some languages at least, binomial reciprocals allow object case marking, or at least

object-appropriate prepositions, before their first element, e.g. in Spanish:

- (30) Todas las naciones se reuniran delante de el, y el separara a unos de otros. (Matt. 25:32)
- 'All the people will unite before him, and he will separate them from one another.'

Availability of object/oblique reciprocals seems to be confined to languages with NP reciprocals (because of constraints on verbal reciprocals that the antecedent be the subject), except for the special case of languages which can feed reciprocals into causatives (see below).

### ***2.1.1.6 Reciprocals of adnominal possessives***

[check formulation with Rachel]

- (31) John and Mary looked after each other's children.  
(32) John and Mary stayed at each other's house.  
(33) John and Mary met each other's parents.  
(34) John<sub>i</sub> and Mary<sub>j</sub>'s parents<sub>s<sub>k,l</sub></sub> stay at each other<sub>k,l</sub>'s houses.  
(35) John<sub>i</sub> and Mary<sub>j</sub>'s parents<sub>s<sub>k,l</sub></sub> are looking for one another<sub>k,l</sub>.  
(36) I introduced John<sub>i</sub> and Mary<sub>j</sub>'s supervisors<sub>k,l</sub> to each other<sub>k,l</sub>.

#### Notes

(a) As these examples show, English allows the possessive reciprocating argument to modify either the object argument, or an oblique. However, the antecedent reciprocal argument must always be an argument at clausal level, and cannot be an adnominal.

So far all data conforms to the generalization that the antecedent must occupy a syntactically higher position than the other reciprocal argument (subject may be antecedent for object or oblique, object may be antecedent for oblique). There are no attested examples of languages saying things like 'each other's parents are looking for John and Mary'.

(b) Some Athabaskan languages have special reciprocal possessive prefixes; this seems rare.

Koyukon Athabaskan (Jette & Jones 2000; Krauss 2000): possessive prefixes.

se-ghaale'	'my pack'
ne-ghaale'	'your pack'
denaa-ghaale'	'our pack' [etc.]
k'e-ghaale'	'(indefinite) something's pack'
de-ghaale'	'his/her own pack'
neeL-ghaale'	'each other's packs'



- (37) neeL-kkun'                      ts'enle'aanh  
       recip.poss-husband  
       'we see each other's husbands' (I see yours and you see mine)

(c) In languages where the dominant reciprocal construction is verb-coded, adnominal reciprocants present a problem. A common solution is to promote them to benefactive status, which then allows them to be fed into the verb-coded reciprocal as a derived indirect object, as in Dalabon:

- (38) Barra-h-marnû-yaw-nanHna-rrû-n  
       3du-Ass-Ben-child-look.after-RR-PR  
       'The two of them look after each other's children.'

(d) Though genitives are the commonest type of adnominal relationship, they are not the only one, and it is a moot point whether you get adnominal reciprocals with e.g. proprietives (having, as in Kayardild *wangal-kuru dangkaa* 'boomerang-having man' for 'man having a boomerang'). To test this you would need a language with productive adnominal proprietives and NP-coded reciprocals: could you then say something like 'the women see each-other-having man' for 'they see the men who have each other (as wives)'.

### **2.1.1.7 Reciprocals of two-place predicates that are not verbs**

#### DYADS

Many languages allow referring expressions (known as 'dyads') with the meaning 'two who are [Kin/Relationship] to each other', for referring to pairs of siblings, cousins, enemies ('mutual enemies') etc. (These often also extend to asymmetrical relations like 'father and child', 'mother and child' etc.).

Examples from Kayardild (39), Mianmin (40), Japanese (41), and Mwotlap (42), illustrating different strategies: affixation, dyad root, compounding, and separate dyadic marking word in phrase. (Though the Japanese example is simply a particular case of co-compounding, which has no special constructional specialisation for expressing dyads<sup>2</sup> – cf *kansyo* 'heat and cold', *koosi* 'public and private'.

- |      |                         |                         |
|------|-------------------------|-------------------------|
| (39) | <i>kularrin-ngarrba</i> | <i>ngamathu-ngarrba</i> |
| KAY  | op.sex.sib-DYAD         | mother-DYAD             |
|      | 'brother and sister'    | 'mother and child'      |

- (40) *lum* 'father and child' (Smith & Weston 1974)

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<sup>2</sup> Though Japanese also employs compounds with *dooshi* 'mutual' (etymologically 'brothers-in-arms'), that appear to be dyad-like on the basis of the examples in König & Kokutani (p. 22): *Maya to Mai-wa tomodachi-dooshi-da* 'Maya and Mai are (mutual) friends', *teki-dooshi* 'mutual enemies'.

(41) *oyako* ‘parent and child’ < *oya* ‘parent’ + *ko* ‘child’

MIA *Yoku nite iru oyaku desu.*

‘It is parent and child who resemble each other a lot.’ (McCawley 1971:23)

(42a) *yoge*                    *têta-yô*

MWO Coll.dual            diff.sex.sibling-3duPoss

brothers of them two (two sisters)

(42b) *yoge*                    *matag têta-yô*

MWO Coll.dual            DYAD diff.sex.sibling-3duPoss

‘brother and sister’ (i.e. possessors are sought within the NP) (François 2002)

One way of seeing dyads is as nominalizations of reciprocal expressions, though what have been called dyads in the literature are typically lexicalized and limited to a finite number of roots, typically denoting kinship relations. But some languages, such as Malagasy, appear to allow reciprocal phrases or clauses of considerable complexity to be nominalized, giving referring expressions that characterise pairs of individuals by the reciprocal relationship that exists between them.

(43) *mpifanome*

give:recip:nomz

‘givers to each other of money’

(44) *mpifampilaza*            *ho*            *mpangalatra*

say.as:nomz:rec:active            as            steal:nomz:active

‘those who said each other to be thieves’

#### LOCATIONAL TERMS

Locationals are normally two place predicates (e.g. on top of, underneath), and some languages allow reciprocal constructions with these, though semantically it is rare for the situation to be strictly asymmetric.

E.g. Koyukon Athapaskan (Jetté & Jones 2000) can employ the reciprocal possessive prefix *neeL-* with locationals, as well as in the object slot of verbs or with kin terms in dyads:

(45) *neeL-ttleekk’e*            *dodaaleslo*

RECIP-on.top.of            I piled them

‘I piled them on top of each other.’

In elicitation, worth trying constructions like this with a range of locationals, e.g. ‘next to’, ‘close to’, ‘a long way from’, ‘above’, ‘under’ etc.; many of these depart from strict symmetric relations.

#### ADJECTIVES

Many adjectives are, semantically, two place predicates, and in English allow the reciprocal adverbial ‘mutually’ or, more rarely, special prefixes like *inter-*. It remains to be seen whether there are languages that extend other reciprocal coding strategies into adjectival use.

(46) mutually advantageous (e.g. advantageous to one another)  
mutually irritating

(47) inter-dependent

#### ABSTRACT NOUNS

When based on two place verbs, abstract nouns may also denote symmetric situations that can be encoded as reciprocals. English must employ adjectives like ‘mutual’ or ‘reciprocal’, or prepositional phrases like ‘for one another’, but Malagasy forms these morphologically by nominalizing reciprocal verbs (Keenan & Razafimamonjy 2002):

(48) *fifankatiavana* ‘mutual love’      *fifampitokisana* ‘mutual trust’  
*fifampijaliana* ‘mutual suffering’      *fifampialonana* ‘reciprocal jealousy’

(49) *hotohizana*      *ny fifanalarantsika fanomezana isan-taona*  
fut.continue.thm      DEF rec:offer:circ:by.us.gen.incl gifts each.year  
‘Our yearly giving of gifts to each other will continue.’

## 2.2. Tests for valency and transitivity of reciprocal constructions.

Note that we typologically distinguish valency – the number of syntactic arguments – from transitivity: the degree to which clausal syntax approaches the cluster of morphosyntactic characteristics found with prototypical constructions of a particular valency.

Though claims are often made that reciprocals reduce valency, or leave it unchanged, these are typically based on only one or two indicators, yet more careful work (see Evans, Gaby and Nordlinger submitted, also downloadable from the reciprocals web-site) shows that languages may give very mixed signals in reciprocal constructions, with some indicators pointing to reduced valency and others pointing to full valency. Many of these tests are language specific (e.g. comparing valency indicated by verb agreement, and case) and will not be dealt with here. (But see the Evans et al paper for detailed examples of the argumentation as applied to a range of Australian languages)

Here are some sentences that may furnish useful tests for valency.

### 2.2.1 Control by antecedent

This test can be used in languages like Warlpiri where subordinate clauses reflect the case of their antecedent: in (50a) the allative case *-kurra* is used, under control by a main clause object, while in (50b) the ergative case *-rlu* is used, under control by a main clause

subject. The availability of both control options with a reciprocal main clause furnishes good evidence for the divalent status of Warlpiri reciprocals.

(50) *Kurdu-jarra-rlu ka-pala-nyanu nya-nyi, karri-nja-kurra.*  
WLP child-DU-ERG IMPF-3duSub-RR see-NPST stand-INF-OBJ.COMP  
'The two children see each other (who are) standing.' (Laughren p.c.)

(51) *Kurdu-jarra-rlu ka-pala-nyanu nya-nyi,*  
WLP child-DU-ERG IMPF-3duSub-RR see-NPST

*karri-nja-karra-rlu.*  
stand-INF-REFL.SUBJ.COMP

'The two children see each other (as they are) standing.'<sup>3</sup>  
(Hale 1982:295, also cited in Simpson 1991:165)

## 2.2.2 Case marking

Tests for valence and transitivity employing case.

### 2.2.2.1 Case marking on subject

If there is just one argument in reciprocal constructions, does it take the case appropriate to intransitive verbs, or does it take a case characteristic of transitive constructions (e.g. ergative, accusative)? [See Evans et al for examples, e.g. Badjala, Kuuk Thaayorre]

### 2.2.2.2 Case marking on secondary predicates

Do secondary predicates on this one argument take the case appropriate for agreement with an intransitive subject, or a case associated with a transitive construction? Warlpiri illustrates the use of Ergative case marking on secondary predicates

(52) *Kurdu-jarra-rlu kuja-ka-pala-nyanu paka-rni kulu-ngku*  
WLP child-DU-ERG REL-PR-3duSu-RR hit-NPST in.anger-ERG

*ngati-nyanu-jinta-rlu ...*  
mother-POSS-one-ERG

'When two children have a fight and hit each

<sup>3</sup> We thank Mary Laughren for supplying these sentences, which are the reciprocal versions of the following reflexive counterpart, published in Hale (1982:295) and Simpson (1991:165):

(i) *Kurdu-ngku ka-ø-nyanu nya-nyi, karri-nja-kurra.*  
WLP child-ERG IMPF-3sgSub-RR see-NPST stand-INF-OBJ.COMP  
'The child sees himself standing.'

other *in anger*, (who are) *of the same mother...*'

### 2.2.2.3 Case marking on linked body part nouns

Are there body part nouns linked to the subject by case agreement, and if so, does this give a clue to transitivity?

- (53) They hit each other with their hands [hands.ERG etc.]
- (54) They speared each other in the thigh [thigh.ACC etc.]
- (55) The midwives press on each other's bellies.

See the Kayardild examples cited in Evans et al, where even though there appears that the reciprocal verbal affix reduces the valence to one, body part NPs in examples like (55), take a case that suggests they are agreeing with an underlying object.

### 2.2.2.4 Case marking on oblique roles, e.g. location modifying object; instrument

In some languages case marking of these roles is sensitive to transitivity, e.g. the ergative/instrumental may only be used to mark instruments with transitive predicates, or the allative rather than the locative may be used to give the location of objects.

- (56) They hit each other with big sticks.
- (57) They saw each other in the bushes.

### 2.2.3. Comparative test.

As a test for the presence of objects in reciprocals, in languages where these are encoded by a verbal affix with (apparent) valence reduction, Mchombo (1991; see also Dalrymple 1994) proposes and applies the following 'comparative test' for Chichewa and some other Bantu languages. Transitive sentences with postposed comparison phrases are ambiguous (like their English equivalents), as follows:

- (58) Alenje            á-ma-kónd-á                            mbidzi    kupósá                            asodzi  
Chi    2:hunters        2Subj-HAB-love-final.vowel 10:zebras    exceeding    2:fishermen  
          'The hunters love the zebras more than the fishermen.'

On the 'subject comparison' reading, the comparative NP is the subject of the ellipsed clause, i.e. the hunters love the zebras more than the fishermen love the zebras

On the 'object comparison' reading, the comparative NP is the object of ellipsed clause, i.e. the hunters love the zebras more than they love the fishermen.

Now for comparative ellipsis interpretation to be successful, the comparative NP must have a parallel argument in the full clause. This means that the object-comparison reading should only be possible when the full clause is transitive.

(59) Alenje            á-ma-dzi-kónd-á            kupósá            asodzi  
Chi    2:hunters        2subj-HAB-refl-love-fv        exceeding        2:fishermen  
          ‘The hunters love themselves more than the fishermen.’

Reflexive has 3 readings, including subj and obj comparison:

- (a) subject comparison (strict): The hunters love themselves more than the fishermen love themselves.
- (b) subject comparison (sloppy): The hunters love themselves more than the fishermen love the hunters.
- (c) object comparison: The hunters love themselves more than they love the fishermen.

But recip has only strict subj. comparison reading (English also allows object comparison):

(60) Alenje            á-ma-kónd-án-á            kupósá            asodzi  
Chi    2:hunters        2subj-HAB-love-RECIP-fv        exceeding        2:fishermen  
          ‘The hunters love each other more than the fishermen.’ (Mchombo 1991:9)

Only reading for Chichewa:

- (61) The hunters love each other more than the fishermen love each other.

#### **2.2.4 Situation with ditransitives**

In languages that reduce the clause’s valence in reciprocals, what happens with ditransitives: do they reduce the valence TO one, or BY one (i.e. to two).<sup>4</sup> Few grammars are clear on this point.

To check it you need to go through the above tests, using the reciprocals of ditransitive verbs such as ‘give’, ‘show’, e.g.

- (62) They give each other meat.
- (63) They show each other their scars.

### **2.3 Additional variations due to voice, causatives etc.**

Reciprocals may be input or output from various valence-changing devices such as causatives, passives (or antipassives where appropriate), reflexives, or combinations of these. Depending on which of these are present in the language it is good to work through all possible combinations. Once one allows for the creation of derived objects through applicatives, which can then be fed into causatives, passives and so on, the number of combinations becomes huge, and only some of these are represented here. Watch out for

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<sup>4</sup> A further possibility would be that reciprocals of ditransitives, though apparently suppressing the indirect object under coreference with the subject, not only retain a clear direct object, but also show evidence for the underlying presence of an indirect object, .e.g in the form of dative agreement with secondary predicates or body parts linked to the indirect object. As yet we have no concrete examples of this.

affix ordering, to check that it reflects the mirror principle as expected but not always borne out: i.e. the standard expectation, which needs checking, is that the order of affixes (or morphological composition more generally) mirrors the order of semantic composition.

For an example of a staggering productivity of combinations, see Keenan & Razafimamonjy (2002) on Malagasy, downloadable from [www.linguistics.ucla.edu/people/ keenan/Reciprocals\\_OL\\_final.pdf](http://www.linguistics.ucla.edu/people/keenan/Reciprocals_OL_final.pdf)

Mundari (Munda, Austroasiatic; Jharkand, India; these examples from Osada f/c)  
Causative of reciprocal:

- (64) *Hon-ko hora-re seta-king=ko*  
child-PL street-LOC dog-DU=3plSubj  
  
*go<po>y-rika-ke-d-king-a.*  
kill<RECIP>-CAUS-Compl-TR-3duO-INDIC

‘The children caused two dogs to fight each other on the street.’

Passive of reciprocal:

- (65) *A<pa>d-o?-ta-n-a=le*  
miss<REC>-PASS-PROGR.ORIENTED-INTR-INDIC=1pl.excl  
‘We were almost missed by each other.’  
(because of a non-volitional cause, e.g. fog)

Reflexive of reciprocal:

- (66) *A<pa>d-en-ta-n-a=le*  
miss<REC>-REFL-PROGR.ORIENTED-INTR-INDIC=1pl.excl  
‘We are almost missing each other by ourselves.’

Some examples of various combinations in Chichewa (Bantu), from Hyman (2002):

- (67)
- |                       |   |
|-----------------------|---|
| <i>mang</i>           | ‘tie’   |
| <i>mang-an</i>        | ‘tie each other’  |
| <i>mang-il</i>        | ‘tie for [the benefit of], tie with (something), tie at (some place)’ |
| <i>mang-its</i>       | ‘cause to tie’  |
| <i>mang-its-an</i>    | ‘cause each other to tie’   |
| <i>mang-an-its</i>    | ‘cause to tie each other’   |
| <i>mang-il-an</i>     | ‘tie for each other’  |
| <i>mang-its-il-an</i> | ‘cause to tie each other with’  |

## **2.4 Complex syntax**

Much has been written regarding the interactions of reciprocals with various complex sentence structures, and we do not try to reproduce it all in this questionnaire. But here is a sampling of some particularly interesting problems. A particularly important problem requiring investigation is whether the construction type used for reciprocals interacts with available semantic interpretations for some of these complex sentences.

### **2.4.1 Possibility of reciprocals as subjects of infinitive-type clauses**

(68) *John and Mary brought some friends for each other to meet.*

(69) *It would please the boys very much for each other to win.*

[The significance of these sentences has been pointed out by Lebeaux (1983), who noted that this possibility is not available for the corresponding reflexive sentences

?? *John would like some books for himself to read or*

?? *It would please John very much for himself to win.*

Lebeaux formulates the difference as follows (p. 725): A. Reciprocals are subject to the binding theory; but B. Reflexives (a) are subject to the binding theory, (b) must be properly governed.

Not clear at this stage if similar effects are found in languages other than those using NP reciprocals]

### **2.4.2 Ambiguities with mutual belief sentences.**

Embeddings under belief sentence with plural subject (possible) antecedents for reciprocals

(70) *John and Mary believe they love each other.*

[Claimed to be 3-way ambiguous in English between

‘John and Mary believe that the two of them love each other.’

‘John and Mary each believe they love the other.’

‘John and Mary each believe the other loves them.’

(71) *John and Mary told John they love each other.*

[same triple ambiguity as preceding]

Dalrymple et al (1994) and Mchombo (1999) ask whether the existence of such ambiguities depends on the construction type used for expressing reciprocals, in particular on the choice between NP-coding and verb-coding strategies, comparing English and Chichewa, and conclude that since Chichewa, which is verb-coding, displays identical effects, the ambiguity is independent of coding strategy. (Relevant to the issue of whether the effects are semantics-derived or syntax-derived). This needs checking against a wider range of languages, though the ambiguities are subtle and hard to elicit.



### 2.4.3 Long-distance antecedence

(72) The men told the women to vote for each other.

Note. In English, the antecedent for the reciprocal is usually interpreted as being in the subordinate clause ‘The men told (each of) the women to vote for (the other) woman.’ But some languages, like Italian, have a long-distance reading, i.e.

(73) *Gli uomini dissero alle donne di votare gli uni per gli altri*

means

‘(each of) the men told the women that he would vote for the other.’

In theory a language could distinguish these through the equivalent of a standard reflexive vs long distance reflexive contrast; so far no such creature is attested, but be on the lookout!]

A possible example is the variety of Hausa described by Alidou (1992). In standard Hausa (Newman 2000:531), reciprocals in complex sentences must have clause-mate antecedents; in the following exs. (74, 75a) both reciprocals need to have local antecedents. To get a non-local antecedent a regular pronoun must be used, as in (75b).

(74) ma#\$la\$mai suna#\$ so^ ya^ra# su\$ ta\$ima\$ki ju#na#  
RECIP

‘The teachers want the children to help one another.’

(75a) [ka\$nde da\$ jummai]<sub>i</sub> sun san (ce^wa#) [ba\$la# da\$ tanko\$]<sub>j</sub> sun cu#\$ci ju#na#<sub>j</sub>  
‘Kande and Jummai know that Bala and Tanko cheated each other.’

(75b) [ka\$nde da\$ jummai]<sub>i</sub> sun san (ce^wa#) [ba\$la# da\$ tanko\$]<sub>j</sub> sun cu#\$ci su\$<sub>i,k</sub>

‘Kande and Jummai know that Bala and Tanko cheated them (either Kande and Jummai, or some other people.’

However, in the dialect described by Alidou (1992), the full form jùnansu\$ (i.e. the 3<sup>rd</sup> plural reciprocal, as opposed to the ‘bare form’ ju#na#) can have an antecedent that is outside of its clause; in this case the semantic interpretation is on ‘each of’ rather than ‘each other’.

(76a) [ka\$nde da\$ jummai]<sub>i</sub> sun san  
(ce^wa#) [ba\$la# da\$ tanko\$]<sub>j</sub> sun cu#\$ci jùnansu

1. [Kande and Jummai]<sub>i</sub> know that [Bala and Tanko]<sub>j</sub> cheated each other (i.e. Kande and Jummai) [normal reciprocal]
2. [Kande and Jummai] know (that) [Bala and Tanko]<sub>j</sub> cheated each of them (i.e. Kande and Jummai individually). [long distance reciprocal reference]

This suggests there may be a contrast between the short form (clause-bounded) and long form (not necessarily clause-bounded) in this dialect of Hausa. An interesting further fact about this dialect is that this

construction, when used with long distance reciprocal reference, need not have a plural subject in the downstairs clause:

- (76b) [ka\$nde da\$ jummai]<sub>i</sub> sun san  
(ce^wa#) [ba\$la# da\$ tanko\$]<sub>j</sub> ba\$la# ya# cu\$#ci jùnansu  
'[Kande and Jummai]<sub>i</sub> know that Bala and Tanko cheated each of them.'

#### **2.4.4 Admissibility in ECM constructions**

Siloni (2001) has recently put forward the interesting claim that only syntactically derived reciprocal verbs are admissible in ECM constructions (basically, where complements of perception verbs have had their subjects raised to object in the perception clause), but that lexically-derived ones are not, attributing this to the fact that such constructions involve a link between two predicates, which can be established in a specific sentence, but not in the lexicon. Relevant examples from French or English are:

- (77a) Pierre et Jean se sont mutuellement entendus chanter la Marseillaise.  
(77b) Mark and David noticed each other sneaking out.

### **Part Three. Reciprocals and semantic extension**

#### ***Preliminary note.***

It may of course be possible that NO category is dedicated to the marking of reciprocal relations. There may be one or more construction marker which, in some contexts, may be translated with a reciprocal reading, but for which it is inaccurate to claim its signified is 'reciprocal'. Examples are

- the Imbabura Quechua 'joint action' *-naju-* (see 3.2 below for more details), which gives a contextual reading of reciprocal when combined with some verbs (e.g. hit-*naju*, lit. 'hit together', for 'hit each other' but not with others, e.g. walk-*naju* 'walk together'),
- the Oceanic 'plurality of relations' marker \**paRi-* (see Pawley 1973, Lichtenberk 1999) which may get a reciprocal reading in some contexts (Nêlêmwa *pe-yage-i* 'help each other', where *pe* < \**paRi*) but in other contexts may cover, inter alia, chaining (*paRi*-follow 'follow each other, follow in succession'), collective or communal action (*paRi*-run 'both run'), converses (*paRi*-cut.hair) 'be involved such that one is cutting the hair of the other; be involved together in an activity or relationship', distributed situations (*paRi*-run 'run in all directions'), repetitive actions (*paRi*-lie 'lie again and again'), and so forth. A similar notion to Lichtenberk's is the notion of affixes marking general 'unspecified coparticipation' (Creissels &

Nouguier-Voisin 2004), which ‘imply a plurality of participants in the event they refer to without assigning them distinct roles’.

On encountering, in a given language, a situation where a morpheme applies both to canonical reciprocal situations and some other situation, it is a matter of some analytic delicacy to decide whether one is dealing with

(a) a situation where, by postulating a monosemous meaning (e.g. ‘together’, ‘plurality of relations’), one can get a reciprocal reading to fall out in some contexts, but where one would not want to characterise the basic meaning as reciprocal

(b) a situation where the morpheme is polysemous between (i) reciprocal and (ii) some other meaning

Ideally,

(a) to nail a monosemous analysis, one needs to state an explicit general meaning from which all readings can be derived through regular processes of composition and contextual enrichment.

(b) to nail a polysemous analysis, one needs to

(i) demonstrate the impossibility of a monosemous analysis, e.g. by showing that the purported ‘enrichment to reciprocal reading’ only occurs irregularly, or non-compositionally, or with just a few lexemes, or can’t be fully motivated

(ii) demonstrate some accompanying syntactic difference, e.g., in a case of purported reflexive/reciprocal monosemy (perhaps ‘indistinctness of the two arguments’) that reflexives interact differently with benefactives in a non-motivated way. For example, in Bininj Gun-wok and Dalabon the benefactive applicative can feed the reciprocal reading ‘they cook meat for each other’, but not the reflexive reading ‘he bought a car for himself’), while in Tzotzil (Haviland 1981:320-1) reciprocal interpretations are compatible with the -be dative-adding verbal suffix, e.g. in ditransitives or with reciprocally affected body parts (with the possessor of the body part raised to indirect object status), while reflexive interpretations are incompatible with this construction.<sup>5</sup>

However, arguments like these can be subtle, require large amounts of data, and (unfortunately, owing to the lack of consensus on agreed argumentation) depend to some extent on theoretical preferences. They cannot be foreshadowed by questionnaire, and

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<sup>5</sup> Haviland’s examples: *Skronta sbaik sk’obik, ych’o ixchik’be sbaik snaik* ‘Son enemigos, y por eso quemaron las casas el uno al otro’ ‘they are enemies, so they burned each other’s houses’; *Istz’otbe sbaik sk’obik* ‘el uno al otro se torcieron los brazos’ ‘they twisted each other’s arms’, but it’s impossible to say *\*isbojbe sba yok* for *Él se acuchilló en el pie* ‘he stabbed himself in the foot’; you have to say *Isboj sba ta yok* or *Isboj yok stuk*.

for the analyst it is much easier to note a sharing of form than to mount a definitive semantic argument one way or the other.

The points below do not, therefore, require a final analytic commitment on these issues. They are given to encourage fieldworkers to take the first step along this path, by checking other uses which may have slipped by in the elicitation process. In this document we use the term ‘semantic extension’ when we want to remain non-committal about whether we are dealing with monosemy or polysemy.

A final possibility, easier to deal with analytically, is that the reciprocal may be built on some other category, e.g. by adding a further affix (or vice versa). See Paumarí (discussed below) for an example. In such cases it is obvious that the categories are both distinct, and related; the challenge is to establish whether the reciprocal can be derived from the other by exact processes of semantic composition.

### **3.1 Reflexive / middle / mediopassive**

This semantic extension is widespread and well-known (see e.g. Kemmer 1993). Examples from French (78a), and Bininj Gun-wok (78b-c) (using the gloss ‘RR’ for ‘reflexive/reciprocal’) are:

(78a) *Ils se voient.*  
they RR see.3pl.PRES  
‘They see themselves / each other.’

(78b) *Arri-wok-bekka-rr-en.*  
Dj 1pl-word-listen-RR-NPST  
‘We listen to each other talking.’  
  
OR: ‘We listen to ourselves talk  
(on a tape recorder).’

(78c) *Gabarri-djobge-rre-n.*  
Dj 3pl-cut-RR-NPST  
‘They are cutting themselves/each other.’<sup>6</sup>

It may involve further extensions, e.g. as when ‘middle’ forms spanning passive, reflexive and reciprocal, as in Sikuaní (Guahibo family, Colombia) (Queixalós 2000:206-7):

(79)  $\emptyset$ -*bixatane*- $\emptyset$

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<sup>6</sup> To avoid ambiguity in such cases, an emphatic pronoun can be added to force a reflexive reading:

(ii) *Bedman gabarri-djobge-rre-n.*  
Dj themselves 3a-cut-RR-NP  
‘They are cutting themselves (\*each other).’

3O-reprimand-3Subj  
'He reprimands him.'

(80) *na-bixatane-∅*  
MID-reprimand-3Subj  
'They are arguing.'

(81) *hiwi piwaawirianü na-tae-ena-∅*  
human.being dog:3Poss MID-see-FUT-3Subj  
'(a) The people's dogs will look at themselves.'  
'(b) The people's dogs will look at each other.'  
'(c) The people's dogs will be looked at.'

Other common 'middle' extensions to check for:  
Do for one's own benefit.

(82) My brother built himself a house.

### 3.2 Comitative / sociative / joint action

Typically the interpretation depends on the verb. For example in Asmat (Drabbe 1962:20-21) the prefix *am-* means 'together' with some verbs, 'together' or 'each other' with other verbs, (apparently) 'each other' only with other verbs, with choice of interpretation determined lexically: For example, the combination *am-an-* only means 'eat together' (Drabbe translates this as 'samen eten'), and not the reciprocal.

Imbabura Quechua (Cole 1985:93) is a further example: in addition to the reflexive / reciprocal verbal suffix *-ri-*, the 'joint' suffix *-naju-* (which has been claimed to be a reciprocal suffix by Stark & Carpenter 1973) can implicate reciprocity in some situations (e.g. (83)) but does not entail it, and can be used of intransitive verbs where a reciprocal interpretation does not make sense (e.g. (84)).

(83) *ñukanchi maka-naju-nchi*  
we hit-joint-plural.1  
'We hit jointly (possibly, but not necessarily, each other).'  
Also possible interp: 'We hit jointly (against a third party).'

(84) *ñukanchi puri-naju-nchi*  
we walk-joint-plural.1  
'We walk together.'

### 3.3 Distributives

There are a number of languages where the same marker is used for distributive and reciprocal. Paumarí : (Chapman & Derbyshire 1991:317) is an example:

(85a) *bi-ka-na-pita-khama-vini*  
3sg-DISTRIB-CAUS-divide-DISTRIB-DEP:TRANS  
'He divided them in two parts / two groups.'

(85b) *bi-a-ka-ra-kha-na-khama-vini*  
3sg-away-DISTRIB-CAUS-MOT-MULTIDIR-DISTRIB-DEP:TRANS  
'He handed over some to each one.'

Paumari: reciprocals

(85c) *va-abono va-ka-nofi-khama-vini*  
3pl-self 3pl-DISTRIB-like-DISTRIB-DEP:TRANS  
'They like each other.'

A good example of distributives and reciprocals using the same form, but with subtle syntactic differences, is Madurese *saleng* (Davies 2000). This marks distributives, i.e. comparable events repeated, possibly by different actors at different times (86a, b) as well as reciprocals (86c). Semantic commonality: multiple (sub)events (possibly displaced in time) that are involved in reciprocal actions.

(86a) *Bambang biq Ita saleng berkak.*  
MAD B and I DISTR run  
'Bambang and Ita both ran.' (could be at different times) (Davies 2000:131)

(86b) *Ali biq Hasan saleng ngerem sorat.*  
MAD A and H DISTR AV:send letter  
'Ali and Hasan both sent letters.' (could be on different days) (Davies 2000:133)  
[AV: Actor voice form]

(86c) *Ali biq Hasan saleng pokol.*  
MAD A and H RECIP hit  
'Ali and Hasan hit each other.'

However, there are nonetheless syntactic differences between the distributive and reciprocal uses: distributive uses are compatible with voice prefixation/mutation (85b), whereas reciprocal interpretations are not (85c) (Davies, p. 137-8). Moreover, whereas in the distributive use modals and negatives may either precede *saleng* (85d, e), or follow it (before the verb, in either case). But in the reciprocal they must be placed in immediate preverbal position (p. 140), as in (85f), if it is separated from the verb by the negative *loq*, as in (85g), the sentence becomes unacceptable.

(86d) *Siti biq Marlana loq saleng nob iq kanaq jhuwa.*  
MAD S and M not DIST AV:pinch child that  
'Siti and Marlana did not pinch the child.'

(86e) *Siti biq Marlana saleng loq nob iq kanaq jhuwa.*  
MAD S and M DIST not AV:pinch child that

‘Siti and Merlena did not pinch the child.’

(86f) Siti    biq    Marlana            loq    saleng tob iq.  
S        and    M                        not    DIST pinch  
‘Siti and Merlena did not pinch each other.’

(86g) \*Siti    biq    Marlana            saleng loq    tob iq.  
S        and    M                        DIST not    pinch  
‘Siti and Merlena did not pinch each other.’

### 3.4 Plurality markers outside normal context

‘Plurality of events’ was already commented on above under distributives, and also in the next section, on iteratives. In Lenakel (Lynch 1978:38) the regular NP plural marker *miin* is floated into a non-determiner position in reciprocals (being positioned after the subject pronoun); in this use, it no longer needs to be compatible with nominal number and can co-occur with a dual pronoun, whereas in its nominal use it can only be used with NPs where the cardinality is greater than two. Presumably this is a grammaticization of the plural marker as a quantifier over the reciprocated events (though on a priori grounds one would expect this effect to be commoner with duals than plurals).

(87) *k-n-am-ar-ho*                                    *il-ar miin*  
3nsg-perf-cont-pl-fight                        they-pl pl  
‘They (plural) began to fight one another.’

(88) *nian ker k-<sup>h</sup>m-u-akar kam il-lau miin*  
day one 3:nsg-pst-du-talk dat they-du pl  
‘One day they (dual) spoke to each other.’

### 3.5 Iteratives

Semantic overlap: form is used to describe discrete multiple events, a situation obtaining in reciprocal meanings.

Madurese: left-reduplication of the last syllable of the verb before the root, plus suffixation of *-an*, is used to express both iteratives (89a, b) and reciprocals (89c, d). There is a formal difference, though: suffixation of *-an* is only optional with iteratives, but is obligatory with reciprocals (Davies 2000: 124-5). Note also that with single-occurrence ‘natural reciprocal events’ like ‘meet’ or ‘kiss’ reduplication is not used (89d), though it is when the reciprocal event occurs more than once (89c,e)

(89a) *Hasan kol-mokol(-an) Ali.*  
Hasan REDUP-hit-AN Ali  
‘Hasan hit Ali several times.’ (Davies 2000:125)

(89b) *Siti biq Marlana rem-kerem(-an) sorat d`aq kanca-na.*

- S and M REDUP-send-(AN) letter to friend-DEF  
‘Siti and Marlana sent letters to their friend(s).’ (Davies 2000:125)
- (89c) *Ali biq Hasan buk-tambuk-an bato.*  
A and H REDUP-throw-AN stone  
‘Ali and Hasan threw the stones at each other.’ (Davies 2000:124)
- (89d) *Ali biq Hasan a-temo d`aq taman*  
A and H Act.Voice-meet LOC park  
‘Ali and Hasan met in the park (once).’
- (89e) *Ali biq Hasan mo-temo-an d`aq taman*  
A and H REDUP-meet-AN LOC park  
‘Ali and Hasan met in the park (more than once).’

### 3.6 Random or back-and-forth motion

In Aneityum (Lynch 2000:76) ‘a reciprocal rather than a reflexive sense can be ensured when the verb in such a construction also takes one of the random directional suffixes -sjipe or -sjepe’, as in (90a). In Indonesian (Sneddon 1996:107-9) the confix *ber...-an* denotes random action with some verb, but reciprocal action with others. In Mandarin (Liu 1999) reciprocity can be expressed by the verb compound V-come-V-go (90b)

- (90) *erau isp~a-rau alom~-jepe rau aarau*  
3duAR RR-their look-random them.dual they.dual  
‘The two of them looked at each other.’

- (90a) *Tamen da-lai-da-qu.*  
they hit-come-hit-go  
‘They hit each other.’ (Liu 1999:124)

**3.7 Opposite, facing each other.** Golin (Chimbu family; PNG) though not clear that this has any specialization to reciprocal use, i.e. it may only be useable when participants are really facing one another)

- (91) *Yal ta kol yau-le e-ra aala u-n-g-w-e*  
man one door open-SEQ go-IRR house come-3-Ass-3-Prox
- i yal ta aala milu-n-g-w-a o(?u)-n-g-w-a*  
DEM man one house be-3-Ass-3-DIST come-3-Ass-3-Dist
- kole.kole toone kar-n-g-w-e*  
here.here facing see-3-Ass-3-DIST

‘And the other one in the room stands up and they are facing each other.’



### 3.8 Intensive

There are formal links to markers of intensive action in many languages. In Amharic , Tigrinya and Tigre. the reflexive/reciprocal marker *tä-* combines with the basic form to give a reflexive meaning, but gives a reciprocal reading when combined with either form II (which geminates the second consonant - often called the ‘intensive’) or with form III (which lengthens first vowel of the root - ‘conative’). There are similar patterns in Arabic, and in some Oceanic languages: Mwotlap *vêy-* marks ‘reciprocals, intensity or competition’ (François 2000:250-1); and in Futunan *fe-* expresses reciprocals with dual or plural pronouns (*ge-tuli* ‘chase each other’ but has intensive meaning with singular pronouns *e kau fe-tuli* ‘I’m hurrying up’) (Moyses-Faurie 2004).

**3.9 Terms of relational symmetry** (brother, fellow, neighbour etc.) frequently give rise to reciprocal expressions, through a route that implies their relational interchangeability as the various permutations are worked through. Examples are Welsh *gilydd* ‘fellow’ (92), Koromfe (Gur, Niger-Congo) *domb√* ‘comrade’ (93). Sechellois *kamarat* [Papen 1978:303, cited in Heine & Miyashita 2004]., Hup /*u~h* ‘sibling’ (as free noun), ‘reciprocal’ (as verbal proclitic) (Epps 2004)/

(92a)	<i>Naethon</i>	<i>nhw</i>	<i>gerdded</i>	<i>yn</i>	<i>syth</i>	<i>heibio</i>	<i>i’w</i>	<i>gilydd.</i>
Wel	aux.3pl.pst	3pl	walk	in	straightpast	to 3pl	RECIP	‘fellow’

‘They walked straight past each other.’

(92b)	<i>u</i>	<i>da~i~</i>	<i>hi~i~</i>	<i>jell√√</i>	<i>domb√</i>
	pron.1.pl	house.pl	two	see.PROG	comrade.PL

‘Our two houses see one another.’  
 [Rennison 1996:112, cited in Heine & Miyashita 2004]

In some languages such social-equivalence terms may generate implicatures of reciprocity without yet being grammaticalized as reciprocals outside the bridging contexts. In other words, in a sentence like ‘Each man embraced *his brother*.’, ‘his brother’ could be simply a literal phrase, or a grammaticalized reciprocal. Tok Pisin is an example of a language like this (93); Biblical Hebrew is likely to have been another.

(93)	<i>Orait</i>	<i>yupela</i>	<i>tu</i>	<i>i</i>	<i>mas</i>	<i>was-im</i>	<i>lek</i>
TP	so	2pl	also	PRED	must	wash-TR	foot

*bilong ol*      *brata*   *bilong*   *yupela.*  
 of      PL      brother of      2pl

John 13:14  
 ‘You, then, should wash each other’s feet.’ (GN)  
 ‘Ye also ought to wash one another’s feet’ (KJ)  
 Back translations:

- (a) So you must also wash all your brother's feet.
  - (b) So you must also wash each other's feet.
- [Fedden 2003]

A simple test of whether there is true grammaticalization of a reciprocal meaning, or merely implicature in certain contexts, one should try out a different kinship relation or main referent to see whether 'his brother' remains

- (95) Each woman embraced [her brother|sister] (in referring to women embracing each other)
- (96) The curtains in the temple hung opposite [their brothers] (for 'each other').

### **3.10 Debt, exchange etc.**

Kobon is an example of a language where a reciprocal adverb has developed from a noun meaning 'debt'. (97a) illustrates the basic nominal sense, while (97b, c) illustrate its use as an adverbial (which may be reduplicated, but need not be). (Davies 1989:90-1).

- (97a) Ne    pen    ip                    ñi-mön.  
2sg    debt    1obj.sg                    give-prescrip2s  
'You should pay me the debt.'

- (97b) *Riki Migo Rapio kale pen pen pau-ab-öl*  
[name] [name] [name] 3pl    reciprocally    strike-PRES-3pl  
'Riki, Migo, and Rapi are fighting.'

- (97c) *Dumnab aip Bule aip pen pen hag-ab-il.*  
D.                    with B.    with    reciprocally    talk-PRES-3du  
'Dumnab and Bule are arguing.'

#### **4. ‘Natural reciprocal events’<sup>7</sup>**

##### **(multi-place predicate lexemes yielding two-place interpretations when used with plural subjects but no overt reciprocal marking)**

In English and many other languages, a subset of predicates may be used, with plural or conjoint subjects but no overt marking of reciprocity, to depict reciprocal events. These have sometimes been referred to as depicting ‘naturally reciprocal events’, though the definition of ‘naturally’ needs empirical investigation since the exact set does not coincide exactly from language to language. The goal of this part of the questionnaire is to check, for a sample of verbs, whether this construction is possible.

In English, there are verbs like ‘embrace’ (98a), ‘quarrel’ (98b), ‘separate’ (98c) or ‘meet’ (98d), which can have only a reciprocal interpretation when used with plural subjects; they are said to entail a reciprocal interpretation. (As the entailed material in brackets indicates, a fuller rendition sometimes supplies a direct object, and for others a prepositional phrase).

##### *Entailed reciprocal interpretation*

(98a) Peter and his old father embraced. (-> each other)

[Cannot mean: Peter and his father each embraced someone else.]

(98b) The two friends quarrelled (-> with each other).

[Cannot mean: Each of the two friends quarrelled with a different person.]

(98c) Carol and Keith finally separated. (-> from each other).

[Cannot mean: Each of separated from their respective partner.]

(98d) Sally and Eliza met at the party. (-> each other)

[Cannot mean: Sally met someone at the party, and Eliza met someone else]

[Note, though, that these effects interact subtly with lots of other elements, e.g. inserting ‘both’ makes non-reciprocal readings available for ‘quarrelled’ and ‘separated’, but not for ‘embraced’ or ‘met’ – Carol and Keith both finally separated - can be used of a situation where each separates from their own spouse. This means that it is important to hold the syntactic frame constant here, but also worth exploring the effects of other elements.]

Other lexemes, like ‘fight’ (99) or ‘disagree’ (101), most commonly have a reciprocal interpretation (and are thus said to implicate it, at least in most contexts) but are compatible with other interpretations in the right context. Others, like ‘delouse’ or ‘give’,

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<sup>7</sup> This term is from Kemmer (1993), who defines ‘naturally reciprocal events’ as ‘actions or states in which the relationship among two participants is usually or necessarily mutual or reciprocal. This class includes verbs of fighting, embracing, meeting, greeting, conversing and so forth.’

do not permit this use and are in fact incompatible with the syntax of being used with just a plural subject NP. There is quite a lot of inter-dialect variation (for some speakers, ‘they kissed’ entails reciprocity while for others it merely implicates it) as well as ongoing diachronic change in both directions (for Shakespeare, ‘see’ could be used with a reciprocal reading (‘we will see’ for ‘we will see each other’, but it no longer can).

*Implicated reciprocal interpretation*

(99) John and Richard fought. (+> ‘with each other’)

But the reciprocal implicature can be defeated, as in

(100a) John and Richard fought in the war.

(100b) John and Richard fought, but Oliver stayed home on the farm.

(101) Bob and Anna disagreed. (+> ‘with each other’)

But the reciprocal implicature can be defeated, as in

(102) Most people there liked George’s proposal, but Bob and Anna disagreed.

*No reciprocal interpretation*

(103) The two girls followed. (-> ‘someone else’)

*Omission of object difficult or impossible*

(104) \*The kids hit / shot.

It is not just verbs that display these effects – two place relational nouns, for example, behave similarly:

(105) Jack and Dylan are brothers.

(106) Olwen and Maya are cousins.

(107) Bill and Gary are old enemies.

(108) Since last autumn they have been lovers.

Here is a list of lexical items – far from exhaustive – that it is worth checking for in your language to see which type of patterning they display. Many of them may have been offered as descriptions of scenes in the video set in §1. Note that in some languages – e.g. Bininj Gun-wok – overt reciprocal coding will almost always be used, so there may be no verbs giving the effects.

(109) talk, discuss (and other verbs of communication)

(110) shake hands, embrace, kiss, cuddle (and other verbs of physical contact)

(111) make love (and other verbs of sexual activity)

(112) meet, gather

Some other common predicates of this type, which happen not to be represented in English, illustrate the need to look for language-specific terms not on the above list:

- (113) put arms round each other's shoulders (Tinrin *rùù*)
- (114) not be on speaking terms (Oriya *apada*)

Predicates not allowing this interpretation in English, but worth checking as controls or because they might give this effect in other languages:

- (115) agree
- (116) resemble, be alike, be the same
- (117) hit, shot
- (118) give
- (119) look at, see
- (120) delouse
- (121) bump into
- (122) chase, follow
- (123) lean against
- (124) be next to (adjoin), be opposite (face), be near<sup>8</sup>

## 5. Singular-subject reciprocal constructions

Many languages permit a subset of verbs to occur in reciprocal constructions with a singular subject, either absolutely [roughly, as 'he fights-each-other' for 'he is involved in fighting'] or with one of the reciprocants displaced from subject position into an adjunct-like 'with phrase', i.e. [he fights-each-other with her].<sup>9</sup> Because these constructions are most common with – or perhaps entirely restricted to – lexemes denoting 'naturally reciprocal events', the best chances of eliciting them are with the lexemes listed in §4 above, or on the basis of the examples given in this section.

Indonesian:

- (125a) *Yanti dan Lia tukar-menukar hadiah Natal.*  
Yanti and Lia exchange:RECIP present Christmas  
'Yanti and Lia exchanged Christmas presents.'

- (125b) *Yanti tukar-menukar hadiah Natal dengan Lia.*  
Yanti exchange:RECIP present Christmas with Lia

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<sup>8</sup> Some languages use constructional means to distinguish reciprocal and non-reciprocal meanings of this term: Nêlêmwa (Bril in press) contrasts between *jeuk* 'be near' (not nec. recip) and *pe-jeuk* 'be near one another': *pe-jeuk awôlô ma(h)leena* 'these dwellings are close to one another'; vs *jeuk awôlô ma(h)leena* 'these dwellings are close (to another reference point)'.  
<sup>9</sup> We acknowledge the very helpful input of Leila Behrens in thinking through the issues in this section; a typological survey of the phenomenon is being prepared as Behrens, Evans & Nordlinger forthcoming.

= 4a (Sneddon 1996:105)

The most common semantic effects found so far for this construction are:

- (a) asymmetry in initiation
- (b) asymmetry in involvement
- (c) difference in discourse prominence
- (d) non-identifiability of the second reciprocant
- (e) representing only one subevent of sequential reciprocation sequence
- (f) partition of the reciprocant set into two sides
- (g) syntactic constraints, such as difficulties in conjoining subjects of different genders

Examples follow of each type:

(a) **asymmetry in initiation**, with the subject argument having primary responsibility for initiating the action

Ex. from Tetun Dili (Williams-van-Klinken, Hajek & Nordlinger 2002:60-61)

(126a) *João ho Maria istori malu.*  
TET John and/with Maria quarrel RECIP  
'John and Maria quarrelled (no indication as to who started it).'

(126b) *João istori malu ho Maria.*  
TET John quarrel RECIP and/with Maria  
'John quarrelled with Maria (he started it).'

(b) **asymmetry with regard to certain involvement**, with certainty that the subject argument is involved fully in the action, but a non-committal stance as to whether the non-subject action is totally involved to the point of full reciprocation. Since these cases are not necessarily symmetric, they are sometimes referred to in the literature as '*hypo-reciprocals*' or '*weak reciprocals*'). This relates them to the typological dimension of 'symmetry' discussed in the Field Manual, so that one would expect this construction to be used with some of the video frames depicting asymmetric events.

Malagasy

(127a) *Nifandaka Rabe sy Rakoto*  
*N+if+aN-daka*  
pst-recip-act-kick Rabe and Rakoto  
'Rabe and Rakoto were kicking each other.'

(127b) *Nifandaka t-amin-dRabe Rakoto*  
MAL *N+if+aN-daka* pst-with-Rabe Rakoto  
pst-recip-act-kick  
'Rakoto was engaged in kicking with Rabe.'

[Examples from Keenan & Razafamamonjy to appear]

‘We call ([127b]) “weak” since speaker judgements of reciprocity of the action are weak. ([127b]) clearly entails that the subject Rakoto was kicking Rabe, the object of the preposition. But speakers hesitate to infer that Rabe was kicking Rakoto. By contrast no one hesitates to infer from ([127a]) that each was kicking the other. Out of context, speaker judgments on just how reciprocal the action is with the singular subject vary. For sociologically symmetric verbs like [*mifandray tanana* ‘shake hands’], speakers easily infer that each participant stands in the relation to the other. But for ones like ([127b]), where the involvement of one participant does not invite the involvement of the other, judgments that each stands in the relation to the other are weak.’ (Keenan & Razafimamonjy MS:fn 3)

(c) **difference in discourse prominence**, with the main topic of the discourse appearing in the subject slot and the with-argument denoting a less central participant, as in Hungarian:

(128)	Ma	megyek	az	utcán,	hát	véletlenül
	today	walk.1SG.SUBJ	DEF	street.on	PARTICLE	by chance
	fölnézek	egy	ablakba,	ott	látom	
	look up.1.sgSUBJ	IND	window.in	there	see.1sgSUBJ.DefOBJ	
	a	feleségem,	kibontott	hajjal	csókolódzik	
	DEF	wife.POSS.1.SG	tousled	hair.with	kiss.MIDDLE.3sgSUBJ	
	egy	alacsony		fiatalemberrel. <sup>10</sup>		
	IND	short		young man.with		

'Today, I am walking in the street, and by chance I look up into a window, there I see my wife with tousled hair kissing with a short young man.'

(d) **non-identifiability of the second reciprocant**; this is mainly (only?) found in the absolute singular-subject construction.

(129)	<i>meInkeInkarr</i>	<i>ngay</i>	<i>wuump</i>	<i>wak-rr-nan?</i>
KTh	tomorrow	1sgERG/NOM	INTERROG	hit-RECIP-FUT

'Do you think I'll be in a fight tomorrow?' (A. Gaby field notes)

(130)	<i>Chatsalírá</i>	<i>a-ku-mény-an-a</i>
Chi	Chatsalírá	1SM-pres-hit-recip-fv

‘Chatsalírá is fighting (others).’ (Mchombo 1999:192)<sup>11</sup>

<sup>10</sup> <http://www.kiralyendre.hu/Kepek/Nonap/rendez.html>

(131) Szilárd el\_ször 16 évesen csókolózott.<sup>12</sup>  
 HUN Sz. first time 16 year.ADJ.on kiss.MIDDLE.3sgSUBJ  
 'Szilard kissed for the first time at the age of 16.'

(132) A férfiak 20%-a szeretkezett már  
 DEF men 20 %.POSS.3SG love.MIDDLE.3sgSUBJ already  
 extrém helyeken...<sup>13</sup>  
 extreme places.in  
 '20 percent of the men have (already) made love in extreme places.'

**(e) Representing only one subevent of sequential reciprocation sequence**

This is not a perfect example, since it may be crucial that the 'reflexive focus' suffix also be involved here, but it is given here in the hope of stimulating field researchers to find other examples

Ngiyambaa:

(133) *ngu-dha-la-nha*  
 give-REFL.FOCUS-RECIP-PRES  
 [on someone cadging for a cigarette]: 'someone else has to give her' [and will thereby set up the right to receive one back later.] (Donaldson 1980:178)

(f) *partition of set into sides* to avoid implication of complete reciprocity saturation i.e. between all members of the participant set. E.g. Warrwa (McGregor 1999)

(134) *Wajbal mi-ma-ng-ka-nyjji-n-ngany-jirr*  
 white.person 2:NOM-RR-EPEN-hit-RR-PST-COM.APPL-3augACC  
 'You used to fight with the white people.'

[The fighting is reciprocated between the Actor and various members of the set of Undergoers, separately, but there is no suggestion that the latter group fought amongst themselves (or that the action was reflexive). McGregor 1999:106-7]

(g) *purely morphosyntactic motivation*, to avoid impasse created by gender conflict that would result from conjoining subjects of different genders (Mchombo 1999:184-5; Mchombo & Ngalande 1980:573-4). For further Bantu examples see Mchombo (1999:184-5) on Swahili, and Mchombo & Ngalande (1980:573-4) on Ciyao.

A clearer example from Ciyao (Mchombo and Ngunga 1994, p. 6)

(135) *Diguluve dí-kú-wúlág-á n'óombe*  
 CIY 5-pig 5SM-pres-kill-fv 9-cow  
 'The pig is killing the cow.'

<sup>11</sup> According to Mchombo this construction is extremely limited in Chichewa: the subject needs to be third person, and human.

<sup>12</sup> <http://halovilag.korridor.hu/site/cikk.php?cikk=476>

<sup>13</sup> [http://www.hix.com/hix/friss/MOKA\\_3418\\_all.html](http://www.hix.com/hix/friss/MOKA_3418_all.html)



(136) *Maguluve gá-kú-wúlág-an-á*  
CIY 6-pigs 6SM-pres-kill- recip-fv  
'The pigs are killing each other.'

(137) *Diguluve ní n'óombe ?-kú-wúlág-an-á*  
CIY 5-pig and 9-cow ?-pres-kill- recip-fv  
(attempt at 'The pig and cow are killing each other')

(138) *Diguluve dí-kú-wúlág-an-á ní n'óombe*  
CIY 5-pig 5SM-pres-kill- recip-fv and 9-cow  
'The pig and the cow are killing each other.'  
(Lit. 'The pig is killing each other with the cow.')

#### **4.6 Uses of reciprocals with grammatically singular arguments denoting generics or other semantic plurals.**

Many languages allow reciprocal constructions to be used with grammatically singular generic subjects that can clearly be construed as comprising two or more reciprocants:

(139) ... *eine Nation küßt sich, und die Touristen<sup>14</sup>*  
GER a nation kisses RR and the tourists  
  
*wundern sich über "so viel öffentliche Liebe"*  
be.surprised.pl RR over so much public love  
  
'an (entire) nation kisses each other and the tourists are surprised  
at "so much public love"'

(140) *Ein Japaner küsst sich nicht.*  
GER INDEF:m.sg.nom Japanese.sg.nom kiss.3sg.PR RR not  
'Japanese don't kiss each other.', lit. 'A Japanese doesn't kiss each other.'

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<sup>14</sup> A99/NOV.979610 St. Galler Tagblatt, 24.11.1999, Ressort: TT-SER; Seitenblick

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