



<http://www.linguistics.unimelb.edu.au/research/projects/reciprocals/index.html>

Nicholas Evans,
Linguistics and
Applied Linguistics,
U. Melbourne
nrde@unimelb.edu.au

*Reciprocity and reflexivity – description, typology
and theory*

Freie Universität Berlin, Forschungsbereich
“Kulturen des Performativen”, 1-2.10.2004

Reciprocal constructions: towards a structural typology

1. Some preliminaries

1.1 Assumptions about what to keep separate from a structural typology:

(a) *semantic typology of reciprocal constructions* – varying on such dimensions as number of participants (e.g. dual vs plural reciprocals), reciprocity saturation (strong vs melee interpretations etc.¹), simultaneity vs sequentiality, and possibly also full vs partial symmetry².

(b) *patterns of polysemy/heterosemy with various related senses* – reflexive, comitative/sociative, iterative, distributive, random motion, brother/fellow terms, substitutive, etc. To qualify for inclusion a reciprocal construction must have a sense specialized for the expression of symmetric predications; there may well be other senses (possibly with different combinatorics). It may require subtle analysis to distinguish such

¹ See e.g. Dalrymple et al (1994) for an elaborated semantic typology, building on observations in Langendoen (1978).

² Reciprocal constructions are normally defined as expressing completely symmetric situations, but many languages extend the same marking to less than completely symmetric situations (cf ‘the students followed each other onto the stage’). Though these can be excluded by definitional fiat, this then rules out the possibility of discovering lexical or other semantic regularities in what partially symmetric situations get encoded, as well as many of the situations encoded by ‘discontinuous reciprocals’. Accordingly, my own preference is to extend the semantic typology to include situations of only partial symmetry.

cases from the situation where the meaning of the relevant construction is NOT specialised for expressing symmetric meanings³

(c) **assumptions about the word-class (part-of-speech) representing the symmetric predicate.** The literature on reciprocals has an inherited bias towards focussing on verbal expressions of reciprocity, but any predicate of two or more places is in principle able to participate in reciprocal constructions, e.g. adjectives and deverbal nouns (1), nouns expressing kinship relationship (2, employing what is usually known as a ‘dyad’ suffix in the Australianist literature), and positionals (3)

(1a) quasi che lo scienziato e il letterato appartenessero a due sottospecie umane diverse, *reciprocamente* alloglotte_{adj.}, destinate a ignorare_{v.t.} *si* e non interfeconde_{adj.} (Levi 1985:vi)

(1b) as if the scientist and literary man belong to two different human subspecies, *reciprocally* incomprehensible, fated to ignore *each other* and not apt to engage in *cross-fertilization* (Levi [transl. Rosenthal] 1989:10)

(2) *kularrin-ngarrba*
KAY opposite.sex.sibling-DYAD
‘pair of opposite sex siblings, pair who are each other’s opposite sex siblings, i.e. brother and sister’ (Evans 1995)

(3) *neeL-ttleekk’e* *dodaaleslo*
KOY RECIP-on.top.of I piled them
‘I piled them on top of each other.’ (Jetté & Jones 2000)

(d) **syntactic position of NPs representing reciprocants**

reciprocants may be in a range of syntactic positions – e.g. subject and object (John and Mary kissed each other), object and oblique (My friend introduced John and Mary to each other), subject and possessor (John and Mary gave me each other’s addresses), etc. These facts should, as far as possible, be investigated independently of the typology of construction types for expressing them

(e) **separation of defining features**

syntactic effects (e.g. changes to valence) should be typologised separately from types of exponent (e.g. verbal affix) – otherwise one cannot see whether these features necessarily cooccur.

(f) **semiotic ecology**

³ See Davies 2000 for nice arguments for the recognition of two reciprocal constructions in Madurese, each heterosemous with another, semantically-related construction. For examples of arguments against postulating a specialised reciprocal category in a number of Oceanic languages, with reciprocal readings derived from lexical and other context, see Lichtenberk (1999), Pawley (1973) and Dixon (1988).

most languages have more than one reciprocal construction, and in addition they may make widespread use of implicature in generating reciprocal readings in context. Ideally, for each language one needs to establish the ecology of expressive alternatives, including those generated by pragmatics (which are particularly helpful in establishing grammaticization pathways); some typological correlates will apply between (a) constructions, e.g. arranged on some kind of hierarchy, and (b) the set of expressive alternatives within a language

1.2 Assumptions about what is being typologised

1.2.1 constructional focus

the units for which the typology is being developed are *constructions* – conventionalized triplets linking a meaning with a signifier and a combinatorics. The signifier may be *complex signs*, e.g. it may involve more than one clause, or the chaining of two or more verbs within a clause – all that matters is that it is *specialised for* the expression of symmetry.

Insofar as constructions may involve several coordinated signs (e.g. valence change plus adverb, or predicate affix plus valence change, or a combination of prefix plus suffix) there will be a huge number of composite sign types; the typology given below only lists individual elements (it is long enough already!)

1.3 Assumptions about typological correlates

these may be between any of the dimensions kept separate above, e.g.

(a) between particular patterns of polysemy and particular constructions (e.g. H: reflexive/reciprocal polysemy is found with verbal affixes and pronouns, comitative/reciprocal polysemy is only found with verbal affixes)

(b) between particular constructions and syntactic features of the predicate or clause, e.g. if a language has several construction types, can one predict which will be chosen on the basis of the word-class expressing the predicate, or the syntactic relations holding between the reciprocants?⁴

(c) between constructions and semantic subtypes of reciprocal, e.g. one might find that, if a language distinguishes simultaneous from sequential reciprocals, or dual from plural reciprocals, that certain constructional alternatives will correlate with one semantic type

(d) between constructions and semantic subclasses of lexeme, e.g. the preference for ‘light’ constructions (essentially defined by relative position on a hierarchy of constructional options) for ‘naturally reciprocal’ verbs (see Kemmer 1993)

⁴ For some proposals of this type see König & Kokutani in press.

(e) between distinct grammatical features of the construction, e.g. between type of exponent (verbal affix vs bipartite quantifier) and effects on valence⁵

Note that some of these correlates require us to look within the semiotic ecology of individual languages as well as making a cross-linguistic comparison (e.g. b, c, d), while others can be tested by cross-linguistic comparison of attested constructions without regard to the alternatives that exist in a single language (e.g. a, e).

2. An expanded reciprocal typology: overview

	Entailed	Implicated
1. Monoclausal		
1.1 Free NP		
1.1.1 Bipartite quantifier Typological notes: Variability in how ‘merged’ the two elements are, whether they can be independently assigned case, adpositions etc.	Bipartite: quantifier + quantifier (distrib alterity/equivalence expression) Engl. <i>each other</i> , It. <i>l’uno il altro</i> , Sp. (prep.) <i>los unos</i> (prep.) <i>los otros</i> , Russian <i>drug druga</i> etc.	Biblical Hebrew <i>ish el-akhiv</i> [each his.brother] on road to grammaticalization as bipartite quantifier, since is used also in situations where ‘brother’ is not literally appropriate, e.g. curtains in tabernacle
1.1.2 Noun-like Typological notes: typically take form of a possessed noun (Welsh)	Possessed equivalent token Welsh <i>POSS gilydd</i> , lit. ‘tPOSS.fellow’;	Tok Pisin <i>ol brata</i>
1.2 Free pronoun Grammars define as pronoun rather than possessed noun, though likely to originate etymologically from possessed noun, either ‘fellow/friend/brother’, or (esp. if via reflexive) ‘body’ or ‘head’. Open question whether ever originate via functional specialisation from original pronouns	Grammaticalized reciprocal pronoun Hausa <i>jūna</i> , Warluwarra RR pronouns	Languages like Tinrin, Mwotlap etc. where ‘they saw them’ can include reciprocal interpretations in certain contexts (perhaps favoured by partic. vb lexemes) alongside disjunct and reflexive interpns
1.3 Bound pronoun Mostly possess both Recip and Refl functions, though Koyukon has a dedicated reciprocal form	Clitics: Romance RR clitic pronouns (<i>se</i> etc.); Warlpiri <i>-nyanu</i> ; Somali <i>is</i> .	Languages like Sa, where ‘they shot them’ allow reciprocal interpns alongside disjunct and reflexive

⁵ See Evans, Gaby & Nordlinger (submitted) for a discussion of the complex relation between reciprocals and valency change in Australian languages, and Brill’s grammar of Nêlêmwa (Brill 2002) for an example of a reciprocal coded by verbal affix that need not alter valency.

<p>Variation in impact on valence: Warlpiri clearly leaves valency untouched; subtle indications of valence reduction in some lgs; Karrwa and Wanyi have a single merged form for RRs, simultaneously the exponent of both Su and O roles. In most languages the bound pronoun is restricted to verbal predicates, but not in Koyukon</p>	<p>Pronominal affix: Nahuatl, Koyukon.</p>	<p>interpretations</p>
<p>1.4 Special auxiliary Nyulnyulan languages form verbs by combining ‘auxiliary’ (aka inflecting verb) with ‘coverb’; one member of the auxiliary set forces reflexive/reciprocal reading; etymologically appears to be old reciprocal-affixed verb with meaning ‘exchange’</p>	<p>Nyulnyul, Bardi, Skou</p>	
<p>1.5 Affix to predicate Same as reflexive and/or sociative/collective in many lgs (e.g. BGW, Dalabon) but not all (e.g. distinct in Kayardild). Many languages have affixes for nominalized verbs not found with corresponding finite verbs (e.g. English cross-, inter-; Japanese soogo;) while others (e.g. Malagasy) simply use the same affix, in addition to nominalizing morphology</p>	<p>Often claimed to always be associated with reduction in valence, but isn’t in Nêlêmwa (Bril 2002)</p>	<p>Verbal affixes with other meanings (reflexive; iterative; comitative) often implicate reciprocal readings in certain contexts</p>
<p>1.6 Adverbial typically polysemous/heterosemous with meanings like ‘back and forth’, ‘randomly’; Kayardild <i>junkuyunku, riinda bathinda</i>; Kobon <i>pen (pen)</i> ‘debt, reciprocation, compensation; reciprocally’; poss. substitutive</p>	<p>Various adverbs, (e.g. Eng. ‘mutually’ in mutually independent). Though in English this is mainly used where the predicate is adjectival, in some languages (e.g. Mandarin <i>xiang-hu</i> or <i>hu-xiang</i>) this is also the main strategy with verbs</p>	<p>Many languages implicate reciprocity from some adverbs with just a subclass of predicates, e.g. Golin <i>toone</i> ‘face to face’ implicates reciprocity just with verbs implying directed head orientation, such as ‘look at’</p>
<p>1.7 Adjectival arguable development from adjective to secondary predicate use on to adverbial if one looks at the history of Latin <i>mu:tuus</i> ‘borrowed, lent’ (<<i>mu:ta:re</i> ‘change, alter, exchange, barter’), via object complement depictive uses like <i>mu:tuum dare</i> ‘lend’, <i>mu:tuum facere</i> ‘return like for</p>	<p>E.g. English ‘mutual / reciprocal obligation’. This strategy appears to be a minor strategy in all lgs that have it, limited to the qualification of 2-place nominal predicates</p>	

like'		
1.8 Valence reduction⁶	E.g. Gumbayngir, where same verb is used in intransitive rather than transitive frame (usually accompanied by the reciprocal particle <i>galagala</i>). This type also covers the lexically-specific use of (normally) transitive verbs with plural subjects and no objects in languages like English, e.g. 'embrace'	Whether reciprocal is entailed or implicated may depend on the lexical predicate Verb implicates reciprocal meaning when used with plural subject e.g. 'they danced', 'they disagreed'; hardening of implicatures to entailments over time may produce new lexical reciprocals
2. Multiclausal		
2.1 Bare biclausal description (not specialised for reciprocal construction)	'X Ved Y and Y Ved X', e.g. Golin	
2.2 Biclausal description with reciprocal adverb , and construction-specific constraints	Yidiny (in turn)	Golin 'again'
2.3. Serialized multiclausal description with single-subject verb for each subevent conjoined with plural subject auxiliary	Amele	
3. Sesquiclausal		
3.1 Serialized / clause union with 'meet', 'return' etc.	Jap. <i>aw-</i> construction: V- <i>aw</i> , lit. 'V-meet' = 'V one another'	
3.2. Serialized 'V come V go'		Mandarin (with reciprocal reading still just contextual)
3.3 With contrastive pronoun in same clause	Iwaidja, Mawng 'he kissed her and she.in.turn'	
3.4 With two ergative-marked NPs in same clause	Bangla <i>brother-ERG brother-ERG fight</i> construction	
3.5 Symmetric signing	Various sign languages, incl. Indo-Pakistani sign language	
3.6 With conjoined	Eng. 'and vice versa'	

⁶ The lexical category could be eliminated if we require that the expressed reciprocal component be productively combinable with other predicates, not just a subpart of one predicate. However, it is retained here because (a) lexical reciprocals are a common grammaticization source for some other types, e.g. adverbial, auxiliary, affix, verb-chaining, and (b) lexical reciprocals play an important role in some typologizing about 'naturally reciprocal events', e.g. that in Kemmer.

<i>reciprocal pro-clause at clause margin</i>		
---	--	--

1. Monoclausal

1.1 Free NP

1.1.1 *Bipartite quantifier*

Two part (bipartite reciprocal anaphor), e.g. English *each other/ one another*, Russian *drug druga*.

(4a) *Oni vide-l-i drug drug-a.*
 Rus 3plNOM see-PST-PL other other-ACC
 ‘They saw each other.’

(4b) *Oni pomoga-l-i drug drug-u.*
 Rus 3plNOM help-PST-3pl other other-DAT
 ‘They helped each other.’ [verb subcategorizes for DAT]

1.1.2 *Single ‘noun of equivalence’*

One part (rare, e.g. Welsh POSS RECIP < from ‘X’s fellow’)

(5) *Naethon nhw gerdded yn syth heibio i’w gilydd.*
 Wel aux.3pl.pst 3pl walk in straightpast to 3pl RECIP
 ‘fellow’
 ‘They walked straight past each other.’

Example of a language where a comparable construction is still at the implicature stage:
 Tok Pisin (Fedden 2003)

(6) *Orait yupela tu i mas was-im lek*
 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.

1.2 Free pronoun

Definitionally:

(a) typically show person/number categories as well as reciprocal function [though Hausa has a ‘fourth person’ form that is substitutable for the person-specific reciprocal pronoun forms)

(b) distributionally equivalent to free NPs

(c) boundary with 1.1.2 may be hard to draw (and may etymologically derive from possessed nouns), but the relationship to any source noun-root is no longer transparent and the sources treat them as a pronoun rather than a noun allowing a reciprocal reading

As with bound pronouns (see below), these often additionally have a reflexive function, e.g. Warluwarra (Warluwarric, Pama-Nyungan, Australia), but sometimes (as in Hausa (8)) they are specialized to reciprocal function

(7) *Warrawurla-wiya-gu wulaba danmarna.*
 WLW dog-DU-ERG 3duRR bite:PST
 ‘The two dogs bit one another.’ (Breen forthcoming:919)

(8a) *mun tsallàkē jūnan-mù / jūnā*
 1pl:AUX jumped RECIP-1pl RECIP
 ‘We jumped over one another.’ (Newman 2000)

(8b) *kù tàimàki jūnan-kù*
 2pl:AUX help RECIP-2pl
 ‘You (pl) should help one another.’ (Newman 2000)

Analytic problem: if these are invariant, can they always be distinguished from reciprocal adverbs (e.g. Oromo is problematic here).

Problem for generative accounts: are these anaphors or pronouns?

Implicatures from languages that simply use free pronouns:

(9) *rri see havai rri*
 TIN 3pl NEG call 3pl
 ‘They don’t call each other names.’ (Osumi 1995:207)

1.3 Bound pronoun

Operational definition defines a RR clitic series even if the non-third person forms are non-distinct from the normal object forms. However, could also be the case (see Warlpiri) that an invariant bound RR form is used for all persons, or that some persons have their own distinct RR forms (e.g. Nahuatl).

1.3.1 Clitics

To verb

French, Spanish *se*, Italian *si* (see 1a), German *sich* etc.

- (10) Durante el tiempo que caminamos juntos *la mujer y yo nos amamos* tanto que ya no deseábamos *separarnos*.
Isabel Allende. [Walimai]

1.3.2 Affixes

To auxiliary

- (11) *Ngarrka-jarra-rlu ka-pala-nyanu paka-rni.*
WLP man-DU-ERG IMPF-3duSUBJ-RR strike-NPST
'The (two) men are striking themselves / each other.' (Hale, Laughren & Simpson 1995:1437)

To verb, e.g. Nahuatl (note that, as this illustrates, this distinguishes a RR form in some non-third persons as well)

- (12) *mos□a kwalkan to-hta-s-ke moči t-ikni-wan*
NAH tomorrow early 1sRR-see-fut-PL all 1-brother-POS.PL
'All of us (who are) brothers, we will see each other early tomorrow.'
(Ramirez 2003:101)

1.3.3 Floating reduced pronouns

Single merged bound pronoun for subject and object: Karrwa, Wanyi (these have reduced pronouns that float in the sentence, rather than being morphologically bound to anything else (the past marker can cliticize to a number of elements, and is therefore not an auxiliary base). Karrwa and Wanyi are interesting examples of apparent valency reduction in connection with an encoding strategy that does not involve a predicate affix

- (13) *jala daba yalu-ngk=i.*
Kar then hit 3pl-RR=PST
'then they hit each other.'

Implicatures from bound pronouns:

- (14) *ir-ben-ir*
Sa 3plS-shoot-3plO
(a) they shot them
(b) they shot themselves
(c) they shot each other (most likely interpretation in some contexts)

1.4 Auxiliary / light-verb coded

(usually in languages where many, or the majority, of verb lexemes are two-part, with a coverb + auxiliary/light verb structure)

Yawurru (Nyulnyulan, Australian)⁷ (Hosokawa 1991:175)

[Cf auxiliary substitutions with other coverb + auxiliary combinations:

rdii	i-na- ra -nda	rdii	i-ny- ju -nda
break	3-EN-SPEAR-PF	break	3-EN-SAY-PF
	‘(s)he broke (something)’		‘(it) got broken’

(15a) *Ngaw inga-rr-banji-nda*
kiss 3:NOM-aug-EXCHANGE-PF
 coverb auxiliary
 ‘They kissed one another.’

[obvious original structure as ‘they exchanged kisses’, but the auxiliary *banji* now has a much wider range of uses, including reflexive, e.g. for ‘the girl groom her hair’ (ibid:176: comb - *banji* - head. Note also that the auxiliary *banji* descends etymologically from an original free verb, which actually includes a reciprocal suffix -*nji* cognate with the Kayardild suffix -NTHU- (see Alpher, Evans & Harvey 2003)]

Nyulnyul ‘inflecting verb’ -*barnj*- ‘exchange’, which is used for ‘reflexive/reciprocal activities; activity directed and constrained within delimited set of actants’; it occurs in the following combinations with uninflecting verbs (McGregor 2002:110-114): *kur* ‘embrace’, *wirrwirr* ‘scratch’, *barbar* ‘flagellate’, *bard* ‘catch hold of’.

Further reciprocal and reflexive examples from McGregor (2002:113-114): *daarr ...-BARNJ* ‘meet together’ (*daarr* ‘arrive’); *durr -BARNJ* ‘push one another’ (*durr* ‘push, bump’), *jarrbard ... BARNJ* ‘lift oneself up’. See also McGregor (1999) for more sentence examples.

Skou (Sko family, PNG) < Mark Donohue email to NE

(15b) Te=Máwo te Te=Téme ping te=r-ú
 3pl=Skou.Mabo 3pl 3pl=Nafri bow 3pl=3pl-release.PL
 ‘The Skou Mabos shot the Nafris.’
 [Unidirectional. construc. coded with ping ú [bow release]]

(15c) Te=Téme Te=Máwo ping te=ti
 3pl=Nafri 3pl=Skou.Mabo bow 3pl=release.PL
 ‘The Nafris and the Mabos shot each other.’
 [Recip. construc. coded with ping ti [bow do]]

⁷ Yawurru uses the verbal suffix -*nji*- plus a special prefix for the minority of lexemes expressible by a one-part inflecting verb; for others, it replaces the regular auxiliary with the reflexive/reciprocal auxiliary *banji*, combining this with the lexical coverb.

1.5 Derivational affix to predicate

E.g. Kayardild reciprocal suffix *-NTHu-tha* (Evans 1995), Mundari reciprocal infix *<-pV->* (Osada forthcoming). Effectively derive new verbs paraphraseable as ‘reciprocally V’, ‘engage in reciprocal Ving’, ‘share in Ving’

(16) *Bil-da miila-thu-n-d.*
 Kay 3pl-NOM delouse-RECIP-NMZR-NOM
 ‘They are delousing each other.’
 [of scene where people take it in turns to look for lice on one another]
 (cf *bilda miilatha niwaninj* ‘they are delousing him/her’)

(17) *siku-ko=ko da<pa>Ra-ta-n-a*
 Mun louse-PL=3plSubj search<RECIP>-PROGR.ORIENTED-INTR-IND
 ‘They are delousing one another.’

Typological issues:

(a) normally said that languages with such verbal derivations produce intransitive reciprocal clauses, by Faltz intransitivization⁸ (Faltz 1985):

$$P(x,x) = P_R(x). \dots$$

This accounts for the fact that Kayardild (16) and Mundari (17) have an apparent valence reduction, by one, in reciprocals.

However, such languages often give rather mixed signals about transitivity once you look at their syntax in detail (see Evans et al, submitted), showing conflicting evidence about whether the object is present or not. e.g. they might have only one argument, but in the ergative, as in Kuuk Thaayorre (with ergative elsewhere limited to transitive clauses)

(18) *parr-n peln ii waarin-rr*
 KTh kid-ERG 3plERG there chase-RECIP
 ‘All the kids are chasing each other.’ [Gaby in prep.]

(b) though most languages marking reciprocal on verbs manifest argument reduction, this is not always the case. Two New Caledonian examples are Nêlêmwa (Bril 2002) and Xaragure (Moyses-Faurie 2004):

(19a) *Hli pe-tuâ-i-hli.*
 Nel 3DUSub RECIP-deceive-TR-3duObj
 ‘They deceived each other.’

⁸ Faltz’s formulation was aimed primarily at reflexives, but given the many languages that use the same forms (and effectively have the same syntax) for both reflexives and reciprocals – many represented in his important book – it can be taken to apply to reciprocals as well.

- (19b) *nyära pu-kêgai nyära*
3pl REC⁹-pinch epl
'They are pinching each other.'
[Cf *nyära kêgai nyära* 'they pinch them', *nyära pu-kêgai* 'they are pinching people (i.e. people who pinch)', *nyära kêgai nyära mûgé* 'they are pinching themselves']

In these cases, there are still two surface arguments that need linking to thematic roles

(c) I formulate this as 'derivational affix to predicate' rather than 'to verb' since there are many languages that allow reciprocals of two-place relational nouns (particularly kin terms), in the so-called 'dyad construction' (Evans forthcoming). For example in Puyuma (Austronesian, Taiwan; data from Zeitoun 2004) the reciprocal prefix *mar-* can be used with two-place verbs like

- (20a) *sagar* 'love' > *mar-ka-sagar* 'love each other'

but also with two-place relational nouns like

- (20b) *ali* 'friend (male)' > *mar-ali* 'male (friends)' and
(20c) *kartaguin* 'spouse' > *mar-kartaguin* 'husband and wife, couple, pair who are each other's spouses'.

(the additional *ka-* prefix is selected by the dynamicity of the predicate).

Likewise there are languages that use affixes to verbal nouns to obtain 'reciprocal verbal nouns', e.g. Japanese *soogo* (König & Kokutani in press), as in

- fujo* 'help' > *soogo-fujo* 'reciprocal help'
shien 'support' > *soogo-shien* 'mutual support'

and, more marginally, English 'cross-' in e.g. 'cross-fertilization'

1.6 Adverbial

Adverbial reciprocal are predominantly found in European languages where the predicate is non-verbal, e.g. an adjective (mutually advantageous / incomprehensible; see the examples with *reciprocamente* / *reciprocally* in (1)). The same is true for many languages from other parts of the world, which use reciprocal adverbs as a secondary strategy when verbal-affix or bipartite strategies are not available. For example in Kayardild, where the primary strategy is a reciprocal suffix on the verb, the adverb *junkuyunku* is used either where the reciprocants are not in an appropriate pair of grammatical relations for verbal

⁹ This is Moyses-Faurie's gloss; given the functional range, 'middle' might be accurate.

coding (21a), or where the predicate is not a verb and therefore not eligible to bear the reciprocal suffix (21b):

(21a) *maarra junkuyunku munirr-wu-j*
 all reciprocally breast-give-ACT
 ‘(In the old days) all (the women) suckled each other’s children.’
 (Evans 1995:228)

(21b) *Karndi-ya dun-da jungarrba bayi junkuyunku*
 wife-NOM husband-NOM big angry mutually

maarra miburl-da kurri-nju-n-d
 only eye-NOM see-RECIP-NMZR-NOM

‘The husband and wife and very angry with one another,
 they are just staring at each other.’
 [Kayardild, recip. stimulus set #11]

In other languages, however, such as Mandarin and Tetun, reciprocal adverbs are the primary strategy:

(22) Tamen hu-xiang gong-ji.
 Man they mutually attack
 ‘They attacked each other.’

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

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

Some descriptions, though analysing the reciprocal marker as adverbial, indicate a nominal source etymologically, as in Kobon, where it derives from a noun meaning ‘debt, reciprocation, compensation’¹⁰

¹⁰ Use of adverbial *pen* (or reduplicated *pen pen*) which as a nominal means ‘reciprocation’, ‘debt’, ‘compensation’ (Davies 1989:90-1).

Basic nominal use:

(12) Ne pen ip ñi-mön.
 2sg debt lobj.sg give-prescrip2s
 ‘You should pay me the debt.’

Use as reciprocal adverb (looks like this is mainly found with ‘naturally reciprocal events’, with others employing the serialized alternation construction discussed in §2.5):

(13) *Riki Migo Rapio kale pen pen pau-ab-öl*

1.7 Adjectival

This is a minor type, used in English and many other languages when expressing reciprocals of verbal nouns: *mutual* distrust, *reciprocal* obligation etc.

There are of course languages which, by allowing reciprocal-marked predicates to be nominalized, retain the predicate-affixation strategy with verbal nouns, e.g. Malagasy (Keenan & Razafimamonjy 2002):

(25a) I find it difficult .. to conceive that complex spoken language ... evolved more as a form of *reciprocal grooming* and gossip than as a means to extend out cooperation productively and to teach our offspring y transmitting practical information (Oppenheimer 2003:25)

(25b) *mpifanome*
 MLG give:recip:nomz
 ‘givers to each other of money; mutual donors’

1.8 Valence reduction

Mentioned as the basic reciprocal strategy for at least one language, Gumbayngir (Eades 1979:318)¹¹ though ‘usually’ accompanied by ‘reciprocal particle’ galagala: reciprocals keep an unaltered verb form, but replace the ERG:ACC argument array with a single NOM argument representing the conjoint set:

(26a) *ngiya:la bu:rwaw ngi:na*
 1pl.inc:ERG paint:FUT 2sgACC
 ‘We will paint you.’

(26b) *ngiya: galagala bu:rwaw*
 1pl.inc:NOM PARTICLE paint:FUT
 ‘We will paint each other.’

Much commoner for this to be a restricted strategy with a delimited set of verbs denoting ‘natural reciprocal events’ (Kemmer 1993), though it is normal for these to break down into some that entail, and others that merely implicate, reciprocals.

	[name]	[name]	[name]	3pl	reciprocally	strike-PRES-3pl	
	‘Riki, Migo, and Rapi are fighting.’						
(14)	<i>Dumnab</i>	<i>aip</i>	<i>Bule</i>	<i>aip</i>	<i>pen pen</i>	<i>hag-ab-il.</i>	
	D.		with	B.	with	reciprocally	talk-PRES-3du
	‘Dumnab and Bule are arguing.’						

¹¹ For just one verb in Gumbaynggir, namely ‘hit’, there is a special reciprocal form derived by suffixation: bum ‘hit, kill’ (base form), bumiri ‘hit-RECIP’. Eades suggests the affixal strategy would once have been more widespread. The reciprocal form fits into a detransitivized construction like other reciprocals.

Some lexical predicates MUST have a reciprocal interpretation, e.g. ‘swap’, ‘exchange’, though note that the symmetric predicate then denotes a subevent rather than the whole event: ‘John and Mary swapped shirts’ does not mean ‘John swapped shirts with Mary and Mary swapped shirts with John’ so much as ‘John gave his shirt to Mary and Mary gave her shirt to John’. It is these verbs that tend to be the grammaticalization source for auxiliaries or light verbs forming reciprocal constructions.

A larger class of verbs allow a subset of predicates to have reciprocal interpretations when used with plural subjects and no object. These are discussed extensively in Kemmer (1993) and elsewhere; cross-linguistically, they usually refer to ‘naturally reciprocal events’. Typically, in a given language, some predicates will entail reciprocal interpretations with conjoined subjects:

(27a) John and Mary kissed → John kissed Mary and Mary kissed John\

others merely implicate reciprocal interpretations

(27b) John and Mary disagreed

(27c) John and Mary disagreed with each other

(27d) John and Mary both disagreed with Bob

and others are simply unavailable to the construction

(27e) *John and Mary saw/hit

Typological issues:

(a) in many languages with predicate-affixation for reciprocity, such lexical reciprocals are simply non-existent, or else are limited to a subclass of predicates that cannot host reciprocal affixes (e.g. in Bininj Gun-wok and Dalabon, ‘meet’, ‘kiss’ etc. all take overt reciprocal affixes, but ‘resemble/be alike’, which as an adjective cannot take the reciprocal suffix, can be used with a conjoint subject and no overt marking to give a reciprocal reading

(b) again, the scope of the phenomenon is 2-place predicates, rather than verbs: kinship terms, for example, often yield comparable interpretations.

(28) Maria and Anna are sisters.

or the nice contrast in Don Quixote:

(29a) *Yo voy aquí porque me burlé demasiado con dos primas mías y con dos hermanas que no eran mías; finalmente, tanto me burlé con todas, que resultó de la burla crecer la parentela tan intrincadamente, que no hay diablo que la declare* (Don Quixote, Parte Primera: Capitulo XXII)

- (29b) I'm here because I played around with *two cousins of mine* and with *two sisters who weren't mine* [i.e. they were sisters of each other] [transl. mine]

2. Biclausal

Logical representation involves 2 predicates:

love (j, m) & love (m, j)

2.1 Bare biclausal description

One method of rendering reciprocals is to use biclausal descriptions. E.g. all renderings of John [14,11] that I have been able to find use this method (presumably following the Greek original) rather than a monoclausal reciprocal like 'the Father and I are in each other', though note that in Luther's translation the construction is partly compacted in the sense that it is conjoined under a single copula, with third person singular agreement.

- (30) Believe me that *I am in the Father, and the Father is in me.* [John 14,11]
 Glaubet mir, daß *ich im Vater und der Vater in mir ist.*
 Croyez-moi, *je suis dans le Père, et Père est en moi.*
 Geloofst Mij, dat *Ik in de Vader ben en de Vader in Mij is.*
... que el Padre esta en mi, y que yo estoy en el Padre
 Wal yumob garra bilib weya mi dalim yumob *mi jidan garram main dedi en main dedi jidan garram mi.* [Australian Kriol]
 Kandiwoybukwo kore ngahyime ngudberre bu *ngaye ngahni kore kukange Ngabbard nuye, dja Ngabbard nungka kahni kore kukange ngardduk.* [Kunwinjku]

Most investigators have not considered these to be *reciprocal constructions*: rather, they exploit the recursive and concatenative possibilities of natural language to construct biclausal depictions that mirror the symmetric, 2-predicate semantic representation.

There are languages where this is the main strategy, rather than the marked strategy it is in all seven languages in (30). Golin is one example; Cantonese is another (see Matthews & Yip 1994:87)

Golin (Chimbu; Papuan)

- (31) *Abal su i yal paunan aato-n-g-w-e*
 woman two DEM man jaw touch-3-Ass-3-PROX

i yal su abal su paunan aato-n-g-w-e.
 DEM man two woman two jaw touch-3-Ass-3-PROX
 Two girls touch the two men on the jaws, and the two men touch the two girls' jaws. [I.e. the girls and the men are touching each other's jaws]

2.2 Conventionalized biclausal description

But merely being biclausal should not automatically disqualify a form of expression from being considered a reciprocal construction, since, on our definition above, the key criterion is whether there *is conventionalization* or *constructional specialization*.

Marginal cases are presented by languages like Yidiny (Dixon 1977:379-80) which use a biclausal construction but need to include a particle *jaybar* or *jaymbi* meaning something like ‘in return’. Conventionalization is shown by the fact that:

- (a) the choice between these particles depends on the person of the actor of the ‘redress’ clause: *jaybar* when the actor is the speaker, *jaymbi* elsewhere
- (b) the option of including the appropriate redress particle in *both* clauses when describing situations in which neither actor is the speaker.

2.3 Zigzag summative multiclausal constructions

Clearer cases of biclausal reciprocal constructions are presented by languages like Amele (Papuan), which employ a complex form of verb chaining zigzagging between subevents (successive transitive verbs, each marked with a different subject marker, and agreeing with one actor in person and number) followed by an intransitive summary auxiliary agreeing with the whole set.

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).¹²

- (32) *Age qet-u-do-co-b qet-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)
 [how many clauses? 3?]

- (33) *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.’

It is pretty clear that we are dealing here with a constructionally specialized 3-clause construction (2 dependent clauses whose verbs inflect for subject, plus a final clause whose verb bears agreement for subject, plus tense). Situation a bit more complicated when the roles of reciprocants are other than agent | patient, e.g. when they include a beneficiary role:

¹² This is Roberts’ analysis; 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 (24) literally ‘they tobacco cut he.gives.him he.gives.him they are’.

- (34) *Age jacas qet-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.’
 [how many clauses? 3? 1?]

Additional evidence in favour of the agreement-showing verbs not being real clauses comes from the conventionalization of their person-marking: whatever the person of the overall subject, that of the ‘zig-zag’ verbs is frozen at third person:

- () *Ele ew-udo-co-b ew-udo-co-b ow-a*
 1du despise-IO.3sg-DS-3sg despise-IO.3sg-DS-3sg 1du:subj-PST
 [Roberts 1987:307]

3. Sesquiclausal constructions

i.e. where it is difficult to decide whether there is one clause or two: either through clause union (verb chaining, verb serialization etc.), or through ‘unintegrated’ argument exponents that suggest that fragments of argument arrays from more than one clause have been constructionally integrated with a single verb.

Initial candidates:

3.1 Verb compounding with ‘meet’ etc.

E.g. Japanese: compounding with *au* ‘meet, fit’ [> *at-* in many contexts] (Nishigauchi 1992; König & Kokutani in press)

- (35a) *Taroo-ga Hanako-ni/to machi-de au*
 Taroo-NOM Hanako-DAT/COM street-LOC meet
 ‘Taroo meets Hanako on the street.’ (K&K in press:20)

- (35b) *John to Mary ga ai-si-au-te iru*
 COM NOM love-do-meet/RECIP-DEP be
 ‘John and Mary love each other.’

[but could be treated as heterosemy, with the reciprocal marker analysed, synchronically as a verbal suffix]

3.2 Verb compounding with ‘come’ / ‘go’ etc. e.g. Mandarin

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

[Though Liu’s analysis suggests that reciprocal interpretations are contextual readings of a more general reading of repetition and interaction, e.g. *la-lai-la-qu* ‘pulled and pulled’]

(the door), *paolai paoqu* ‘chased and chased’, *ma-lai-ma-qu* ‘kept scolding’. Reciprocal readings are only obtained when the subject refers to multiple equal-animacy participants, and V is a transitive verb reporting a non-reversible activity]

[but could be treated as a compound that, for syntactic purposes, is a single lexical item]

3.3 The Iwaidja / Mawng ‘in turn’ construction

Basic function of contrastive pronouns: signalling change of subjects in discourse:

(37) *ngabi j-ara-n* *ajbut lda* *jamin* *yaw-urraka*
 Iwa 1sg 1sg.away-go-PST beach and 3sg:CONTR 3sg.away-go.home
 ‘I went to the beach and he went home.’

The Iwaidja - Mawng reciprocal construction

Semantics: V {x,y} & V {y,x}

[**Subj:x > Obj:y**-V (Oblique) and **y¹³:Contr** Object (Subject)]

(38a) *a-ldindi* *k-aya-n* *lda* *jamin* *kurrkbung*
 Iw 3plS-stand:DU 3FemsgA>3sgO-see-NPst and 3sgCONTR louse
 ‘They (two) are delousing one another.’

[lit. ‘they.two stand, she looks at him – and he in return – for lice’, but all under one intonation contour, and inside overt clausal NPs such as object or (in other examples) subject]

(38b) *anb-uku-n* *lda* *wamin* *a-ngurnaj*
 Iw 3plA>3plO-give-NPST and 3plCONTR 3pl-name
 ‘They used to give each other their (clan) names.’

(39) *Ngani-yiwakang-ung* *la* *ngapimung* *mata* *magarnpa*
 Maw 3m.sgA>1sgO-snatch-Pcont and 1sgCONTR VE:ART fishing.line

mata *wakij* *ja* *Nawangari*
 VE:ART fishing.line MA:ART [name]
 ‘Nawangari and I were struggling against each other for the fishing line.’
 [Hinch, unpubl]

(40) *Ngani-wu-ng* *la* *ngapimung*
 Maw 3masc>1.sg-hit-PP CONJ 1sgCONTR

‘He and I hit each other.’
 Lit: ‘He hit me, and I in turn.’ (Singer in prep.)

¹³ When both arguments are third person, the contrastive pronoun always marks the argument that was object on the verbal prefix, but with combinations of second and third person the situation is more complex, and for some combinations (e.g. 1st>2nd) the emphatic pronoun may actually represent the subject a second time.

- expanded typology makes formulation of correlations harder, but necessary to give fuller account of the data, and also to show the evolutionary relationships between construction types
- listing so many runs the risk of suggesting ‘anything is possible’, because of the huge number of types. However
 - (a) there remain many logically conceivable types that do NOT occur, e.g. special marking on reciprocating nouns (imagine a special ‘reciprocator case’, ‘reciprocal definite articles’ accompanied by 2 unchanged arguments
 - (b) clear correlations between construction types and the syntactic status of the symmetric predicate and its arguments
- need to include conventionalized constructions beyond one clause in size; this may help motivate the structure of rather awkward types (e.g. some of the sesquiclausal types) through partial ellipsis

References

- Alpher, Barry, Evans, Nicholas & Harvey, Mark. Proto-Gunwinyguan verb suffixes. In N. Evans, ed., *The non-Pama-Nyungan languages of northern Australia: comparative studies of the continent's most linguistically complex region*. Canberra: Pacific Linguistics. Pp. 305-352.
- Bril, Isabelle. 2002. *Le Nêlêmwa (Nouvelle-Calédonie): Analyse syntaxique et sémantique*. Collection Langues et Cultures du Pacifique, LCP 16. Paris: Peeters.
- Dalrymple, Mary, Kanazawa, Makoto, Kim, Yookyung, Mchombo, Sam and Peters, Stanley 1998, Reciprocal Expressions and the Concept of Reciprocity. *Linguistics & Philosophy* 21.2: 159-210.
- Davies, William D. 2000. Events in Madurese reciprocals. *Oceanic Linguistics* 39.1:123-143.
- Dixon, R.M.W. 1988. *A grammar of Boumaa Fijian*. Cambridge: CUP.
- Eades, Diana. 1979. Gumbaynggir. In R.M.W. Dixon & Barry J. Blake (eds.), *Handbook of Australian Languages*, Vol. 1. Pp. 244-361.
- Evans, Nicholas. 1995. *A grammar of Kayardild*. Berlin: Mouton de Gruyter.
- Evans, Nicholas. Forthcoming. Dyad constructions. In Keith Brown, ed., *Encyclopaedia of Language and Linguistics*.
- Evans, Nicholas, Gaby, Alice and Rachel Nordlinger. Submitted. Compromising transitivity: the problem of reciprocals. Submitted to *Language*.
- Faltz, Leonard. 1985. *Reflexivization. A Study in Universal Syntax*. New York: Garland.
- Fedden, Sebastian Olcher. 2003. Reciprocals in Tok Pisin. Handout for Seminar ‘Reciprocals and Lexical Typology’, Dept. Linguistics and Applied Linguistics, University of Melbourne.
- Hosokawa, Komei. 1991. The Yawuru language of West Kimberley: a meaning-based description. ANU: Unpublished Ph.D Dissertation

- Jetté, Jules & Eliza Jones. 2000. *Koyukon Athapaskan dictionary*. Fairbanks: Alaska Native Languages Centre.
- Keenan, Edward L. & Jean Paulin Razafimamonjy. 2002. Reciprocals in Malagasy. Unpublished MS.
- Kemmer, Suzanne. 1993. *The middle voice*. Amsterdam / Philadelphia: John Benjamins.
- König, Ekkehard & Shigehiro Kokutani. In press. Towards a typology of reciprocal constructions: focus on German and Japanese. *Linguistics*.
- Langendoen, D. Terence. 1978. The Logic of Reciprocity. *Linguistic Inquiry* 9(2): 177-197.
- Lichtenberk, Frantisek. 1999. Reciprocals without reflexives. In Frajzyngier & Curl (eds.), pp. 31-62.
- Matthews, Stephen & Moira Virginia. 1994. *Cantonese: a comprehensive grammar*. London: Routledge.
- Moyse-Faurie, Claire. 2004. Reciprocals in some Kanak and Polynesian languages. Paper presented to Reciprocals Working Group, University of Melbourne, 2004.
- Osumi, Midori. 1995. *Tinrin grammar* (Oceanic Linguistics Special Publication No. 25). Hawaii: University of Hawaii Press.
- Pawley, Andrew. 1973. Some problems in Proto-Oceanic grammar. *Oceanic Linguistics* 12: 103-88.
- Ramirez, Valentin Peralta. 2003. Tipos de construcciones causativas en el Nahuatl de Amanalco, Teztcoco Edo. de Mexico. MA Thesis, CIESAS, Mexico.
- Singer, Ruth. 2003. The encoding of reciprocal meanings in Mawung bible translations. Unpublished essay for course 'Reciprocals and Lexical Typology'. Department of Linguistics and Applied Linguistics, University of Melbourne
- Singer, Ruth. In prep. Agreement in Mawng. Ph.D. Dissertation, Department of Linguistics and Applied Linguistics, University of Melbourne.
- Williams-Van Klinken, Katerina, Nordlinger, Rachel & John Hajek. 2002. *Tetun Dili. A grammar of an East Timorese language*. Canberra: Pacific Linguistics.
- Zeitoun, Elisabeth. 2002. Reciprocals in the Formosan languages: a preliminary study. Paper presented at the Ninth International Conference on Austronesian languages (9-ICAL), Canberra, 8-11 January 2002. [Unpublished MS]
- Zeshan, Ulrike. Reciprocals in Indo-Pakistani sign language. Paper presented to Reciprocals Working Group, University of Melbourne, 2002.

Sources

Bible sources:

KJ: King James Translation (English). Oxford: University Press.

GN: Good News for Modern Man (English). Canberra: The British and Foreign Bible Society.

German: Das neue Testament (nach der deutschen Übersetzung Luthers)

French: Le Nouveau Testament (traduction d'après le Texte grec par Louis Segond)

Dutch: Het Nieuwe Testament (Nederlands Bijbelgenootschap - vertaling 1951)

Kunwinjku: *God Kanbengdayhke Kadberre*. Bible Society: Canberra

Kriol: *Holi Baibul*. Bible Society in Australia: Canberra.

Allende, Isabel. Walimai [short story]

Nicholas Evans. *Reciprocal constructions: towards a structural typology*

Levi, Primo. 1985. *L'altrui mestiere*. Torino: Einaudi.

Levi, Primo. 1989. *Other people's trades*. [Transl. Raymond Rosenthal]. New York: Summit Books

Oppenheimer, Stephen. 2003. *Out of Eden. The peopling of the world*. London: Robinson