Towards a Typology of Reciprocity: Concepts and Patterns of Encoding

Ekkehard König (FU Berlin) & Claire Moyse-Faurie (LACITO, CNRS)

0. Introduction

(P. Geluylens, Le Chat)

- Reciprocity lies at the very root of social organization and ethics. It is not surprising therefore that it should have preoccupied scholars from many disciplines.
- From a linguistic perspective the most remarkable thing is that an enormous semantic complexity (plurality of participants, symmetry, double (thematic) roles of arguments, joint action) is more often than not expressed by a simple clause or sentence. It should not come as a surprise therefore that languages have come up with a huge variety of solutions;
- After a period of complete neglect, reciprocity has received a great deal of attention during the last ten years (i. a. V. Nedjalkov, N. Evans, E. König, etc.);

1. Concepts of reciprocity out side of linguistics

Some frequent questions:

Is reciprocity also found among animals?

What are the origins of reciprocity in human society?

Is there an essential link between reciprocity and self-interest?

Which role does reciprocity play in the interplay between parties that have similar, opposed or mixed interests?

a. Biology

both the theory of 'kin selection' (Hamilton, 1971) and the theory of 'reciprocal altruism' (Trivers, 1971) set out to explain the evolution of cooperative behaviour among animals (among kin and among non-kin; the vampire bats, Wilkinson, 1984)

- reciprocity among primates; reciprocity mechanisms (Frans de Waal, 2005)

- (a) symmetry based (mutual affection; without need to keep track of daily give-and-take)
- (b) attitudinal (conditional; parties mirror one another's attitude, exchanging favours on the spot; humans: strategies with strangers)
- (c) calculated (individuals keep track of the benefits they exchange with particular partners, which helps them to decide to whom they want to return favours; humans: in distant and professional relationships)

b. Applied mathematics/economics (The tit-for-tat strategy in the Prisoner's Dilemma, Axelrod, 1984))

- the live-and-let-live strategy in the trench warfare of World War I (Ashworthy, 1980).

c. Sociology and anthropology

- reciprocity as a prerequisite for ending a condition of war of everyone against everyone" (Hobbes)



- the gift as a total social phenomenon; a community is founded on a ritualized recognition of interdependence (Marcel Mauss)
- forms of reciprocity (Sociology: Stegbauer, 2002)
- (a) **direct** reciprocity; the one who gives also receives; tit for tat)
- (b) **generalized** reciprocity (no direct exchange; group membership; time delay; solidarity)
- (c) reciprocity of **roles** (exchange is determined by positions of complementary roles: doctor patient; artist audience; friend friend) \rightarrow converseness;
- (d) reciprocity of **perspectives** (mind reading; understanding; to put oneself in somebody's place; try to see it my way)

2. Concepts of 'Reciprocity' in Linguistics (cf. Dalrymple et. al., 1998)

- (1) Inhabitants of this village help each other. (positive, weak)
- (2) Paul and Mary hate/ruined each other. (negative, simultaneous/sequential)
- (3) The boxes were stacked on top of each other. (chaining)
- (4) Inhabitants of these islands used to eat each other. (generalized)
- (5) People in this house know each other. (strong)
- (6) The students stared at each other. (weak)
- (7) Many people at the party are married to each other. (pair wise reciprocal)
- (differences depend on verb, tense, number, etc.)

- essential semantic properties

- (i) plurality of arguments/participants ($|A| \ge 2$)
- (ii) double thematic role of all participants
- (iii) symmetry expressed by predicate
- (iv) the relevant sentences express a symmetric relation, **a joint action** or plurality of events depending on the lexical meaning of the predicate
- **Reciprocal constructions** are grammatical means for the expression of symmetrical relations for any n-ary predicate and for at least a set of semantic arguments A, with |A| = 2;
- **3.** Reciprocal constructions: an overview (cf. Evans, 2008)

3.1. A first distinction: mono-clausal vs. multi-clausal strategies

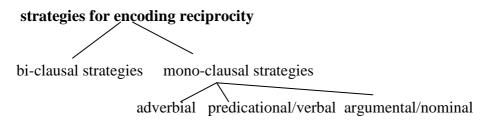
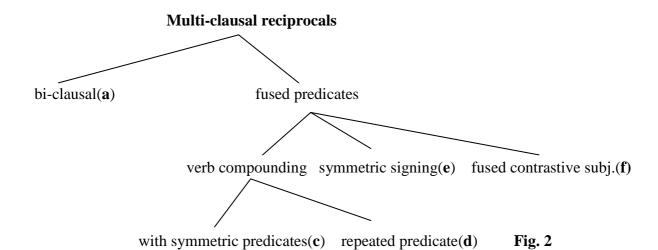


Fig. 1

- How many types should we distinguish? (more than 15 in Evans, 2008; 9 in Nedjalkov, 2007; 4 in Koenig & Kokutani, 2006)
- Dedicated and specialized markers vs. non-dedicated markers
- Can we describe interactions with other grammatical categories for all those types?
- In creoles the affixal strategy is not found.



Type a:

CANTONESE

- (8) Léih mohng ngóh, ngóh mohng léih. 'We stare at each other'
 - I stare at you, you stare at me
- (9)a. John loves Mary and she loves him, too.
 - b. John tends to avoid Bill and vice versa.
 - c. Madonna loves the British and they love her back.

MANDARIN

(11) Tāmen zŏngshi nĭ bāng-zhù wŏ, wŏ bāng-zhù nĭ.

They always you help me I help you 'They always help each other.'

(12) $\forall_{x,y \in A} (x \neq y \rightarrow help (x,y))$

Type c:

Lexical specification of action + joint/symmetric action

- (13) JAPANESE tasukeru 'help' > tasuke-au 'help each other' (with accusative)
 - a. Hanako-ga Taro-o tasuke-ta. Hanako-NOM Taro-ACC help-PAST 'Hanako helped Taro.'
 - b. futari -wa tasuke-at-ta. two.CLASS(person)-TOP help-meet-PAST 'These two helped each other.'

(14) MANDARIN

Tāmen dă-lái-dă-qù. 3PL beat-come-beat-go 'They beat each other'

Type d:

Tok Pisin (Mosel 1980 : 108) Godié/Kru (Marchese 1986: 231) (15) Tupela i pait-im-pait-im. (9) wa wà-wà

3<u>du</u> <u>pred_hit-tr</u>-hit-<u>tr</u> 'They hit each other.' They love each other.'

3.2. Mono-clausal reciprocals

Single clause argument-marking strategy predicate-marking conjunct (\mathbf{o}) adverbial(\mathbf{p}) bi-partite quantifier(\mathbf{g}) nominal \mathbf{h} pronoun affix(\mathbf{l}) auxiliary(\mathbf{m}) lexical(\mathbf{n}) free(\mathbf{i}) bound

Fig. 3

Type g:

(16) ITALIAN

Si ammirano (l'un l'altro)

RUSSIAN

- (17) Oni často vid'at drug drug-a.

 They often see ach other.'
- variables; change of direction; different degrees of grammaticalization;

clitic(j) affix(k)

Type h:

(18) SEYCHELLES CREOLE

Nu a kapav trôp kamarad ê zur. we FUT be.capable deceive REC one day 'One day we will be able to deceive each other.'

(19) CHALCATONGO MIXTEC

Ni-ká-ku-manì nnù tã?ã CP-PL-INCHO-love face companion 'They love each other.'

Type i:

(20) HAUSA (Newman, 2000)

Kù tàimàki jūnan-kù 2PL:AUX help RECIP-2PL (NUMBER MARKING) 'You should help each other.'

Type j:

FRENCH

(21) Paul et sa femme ne s'entendent plus du tout. 'Paul and his wife don't get along anymore.'

Type 1:

SWAHILI, Ashton, 1956

(22) Ali na Fatuma wa-na- pend-an -a Ali and Fatuma 3.Pl-PRES-love-REC-final vowel 'Ali and Fatuma like each other.'

Type o:

(23) John and Mary met ____.

Type p:

(24) MANDARIN

Tāmen hù-xīang daò-qian-le.

They mutually apologize-PERF

'They apologized to each other.'

FRENCH

(25)a. Jean aime Marie et réciproquement. (bi-clausal)

b. Aidons-nous mutuellement! (mono-clausal)

3.3. Nedjalkov's typology

- 9 basic types are distinguished:
 - (A) Clause doubling (with inversion of arguments)
 - (B) (pro)nominal marking (frequent)
 - (C) Periphrastic marking
 - (D) Compounding
 - (E) Affixing (frequent)
 - (F) Root duplication
 - (G) Clitics
- additional differentiations:
 - (i) light vs. heavy
 - (ii) argumental (b), predicational (B, C, D, E, F) multi-clausal strategies (A)

4. Interaction with other categories, implicational connections

4.1. Interaction with predicates (three classes of predicates)

- (a) **symmetric** predicates (*meet, divorce, agree, similar, friend, exchange, with*, etc.), (b) **non-symmetric** predicates (*love, avoid, help*, etc.), (c) **asymmetric** predicates (*follow, chase, talk at, on top of*, etc.)
- with class (a): parsimonious encoding of reciprocity (natural reciprocal situations): often simple valency reduction; discontinuous reciprocal constructions;
- with class (b): use of standard markers
- with class (c): frequent use of special markers; chaining;

- $(26) a.\ They\ met/dated/danced/embraced/kissed/agreed/married/quarrelled/split\ up/divorced...$
 - b. Mary quarrelled/agreed/danced/met with Peter.

4.2. Interaction with transitivity

reciprocal constructions are often (though not exclusively) intransitive; the **oscillation between transitivity and intransitivity** is a reflection of conflicting demands made on the syntax of reciprocal constructions (→ optimality theory); in ergative languages subjects sometimes exhibit ergative sometimes absolutive marking; contradictory signs of transitivity (cf. Evans, 2004):

In Oceanic languages reflexive constructions are always transitive, whereas reciprocal ones are often **intransitive** and invariably so (with one or two exceptions) with circumfixes as reciprocal markers:

KUSAIEAN (Micronesian)

(27) Macrike ac Sacpacinis **a**-mweun-**i** ke 1942. America and Japan REC-fight-REC in 1942 'America and Japan fought against each other in 1942.' (Lee, 1975: 201)

IAAI (Loyalty islands)

(28) Ödrine i-hmehmë-köu.

3PL.RESTR+PRES REC-be ashamed-REC

'They are ashamed of each other.'

In many languages (Hebrew, Russian, Swedish, Finnish, Turkic, Hungarian, Somali, etc.) **intransitive reciprocal verbs** are the result of derivational processes.

```
(29) De hjälps åt.
They help-MID to/for
'They help each other.'
```

The 3rd person "reflexive" pronoun in Continental European languages loses its **reciprocal interpretation** under stress (and in the context of a PP). The relevant constructions are intransitive (cf. Gast & Haas, 2004):

GERMAN

(30)a. Vor allem bewundern sie sich (selbst)/SICH.

'Above all they admire each other/themselves.'

b. SICH bewundern sie. (only reflexive)

- iconicity, intransitivity (conflicting demands on the syntax), semantic motivation

- discontinuous reciprocals:

Russian

(30')a. Anja obja-la-s' s Mashej. 'Anja and Masha hugged (each other).' Anja hug-PAST-RCP with Masha

b. Karl traf sich mit Maria. 'Charles met with Mary.'

4.3. Interaction with grammatical relations (syntactic function of a nominal marker)

direct object > indirect object > possessive > subject

 \rightarrow Eskimo \rightarrow German \rightarrow English \rightarrow Finnish

- (31)a. They admire each other's house.
 - b. They gave each other presents.
 - c. They hate each other.
- (32) FINNISH
 - a. Matti ja Liisa pitä-vät toi-si-sta-an. 'Matti and Liisa like each other.' Matti and Liisa like-3PL other-PL-ELA-3POSS
 - b. Matti ja Liisa pita-vät toinen toise-sta-an.

Matti and Liisa like-3PL other other-ELA-3POSS

- c. Toinen toise-nne tuotta-a teille ilo-a. 'Each of you brings joy to the other.' other the other-2PL.POSS brings 2PL.ILL joy-PART
- (33)a. Türk. birbir-imiz-e yardım ediyor-zu 'We are helping each other.'

One-one-2PL.POSS-DAT help be.PROG-2PL

b. Jap. tagai-ga tagai-o tasukeau, sore-ga ii.
each-other-NOM each-other-ACC help.RECIP such-NOM be-good
'It is good to help each other.'

canonical > indirect > possessive > adverbial > irreversible (Nedjelkov, p.69)

4.4. Possible 'antecedents' (position of the expression denoting the set of reciprocants)

subjects > direct objects > indirect object

German

(34)a. Der Koch mischte die Zutaten miteinander.

'The cook mixed the ingredients together.'

b. Bill introduced the guests to each other.

- (35)? Die Mutter bereitete den Kindern die Geschenke für einander vor.
 - Several additional **implicational universals** are formulated in Haspelmath (2007)
 - I. Mono-clausal reciprocals are at least as complex as the corresponding non-reciprocal constructions (iconicity)
 - II. All languages have reciprocal constructions in which the reciprocants are expressed in a single argument. (economy, iconicity)
 - III. In all languages there are prominence related restrictions and locality-related restrictions on the relation between antecedent and reciprocal anaphor.
 - IV. Argumental reciprocals are younger and etymologically more transparent than verbmarked reciprocals.
 - V. All languages have 'symmetric' predicates.
 - VI. Symmetric predicates express joint actions. Sequential mutual events can only be expressed by grammatical reciprocals.
 - VII. If a language has two reciprocal markers that differ in length and if this language treats frequent mutual actions differently from rare mutual actions with respect to these markers, then the frequent mutual actions are always expressed by the shorter marker and the rare mutual actions are expressed by the longer marker.
 - **19** additional generalizations

5. Semantic Motivation of reciprocal markers

Semantic property	Polysemy	formal correlate
plurality of participants	sociative, dispersive,	PL argument, discontinuous
		constructions, quantification
double roles	Reflexivity	two clauses, two variables,
same set of participants		disjoint; one another;
		indication of referential
		dependence; interchanging
		arguments
symmetry	role of symmetric predicates;	intransitive; anti-passive
	'return'; creation of	
	symmetric predicates	
joint action	sociativity	intransitive
several actions/relations	iterativity	verb doubling, two clauses;
		transitive
polysemy		disambiguating devices,
		multiple marking

References

Axelrod, R. (1984) The evolution of cooperation. New York: Basic Books.

Benveniste, Emile (1966). "Don et échange dans la vocabulaire indoeuropéen", *Problèmes de linguistique générale*. Paris: Galimard, 315-326.

Dalrymple, Mary et. al. (1998). Reciprocal expressions and the concept of reciprocity. *Linguistics and Philosophy* 21, 159-210.

De Waal, Frans (2005) "How animals do business", Scientific American.

Ellis, Bruce J. & Bjorklund, David, F. (2005). *Origins of the social mind: Evolutionary psychology and child development*. New York: Guilford Press.

Evans, Nick (2008). "Reciprocal constructions: toward a structural typology", In König, E. & Gast, V. (eds.) *Reciprocity and Reflexivity: Cross-linguistic explorations*, Berlin, Mouton de Gruyter.

Field, Alexander J. (2001). *Altruistically Inclined? The Behavioural Sciences, Evolutionary Theory, and the Origins of Reciprocity*. Ann Arbor: University of Michigan Press.

Frajzyngier, Zygmunt & Curl, Tracy S. (eds.) (2000). *Reciprocals*: Form and Function. Amsterdam: Benjamins.

Gast, Volker & Haas, Florian (2008) "Why are there no reciprocal uses of German *sich* in PPs?" In König & Gast (eds.) *Reciprocity and Reflexivity: Cross-linguistic Explorations*. Berlin: Mouton.

Hamilton, W.D. (1971) Selection of selfish and altruistic behaviour", in: Eisenberg, J.F. & Dillon, W.S. (eds.) *Man and Beast: Comparative Social Behaviour*. Washington: Smithsonian Institution Press.

Haspelmath, M. (2007) "Further remarks on reciprocal constructions." In: Nedjalkov (ed.), pp.2087-2115).

Heine, Bernd & Mayashita, Hiroyuki (2008). "The intersection between reflexives and reciprocals: A grammaticalization perspective." In König & Gast (eds.) Reciprocity and reflexivity: Crosslinguistic Explorations. Berlin: Mouton.

König, Ekkehard & Kokutani, Shigehiro (2006). "Towards a typology of reciprocal constructions: Focus on German and Japanese." *Linguistics* 44-2.271-302.

- Liu, Meichun (2000). Reciprocal marking with deictic verbs "come and "go" in Mandarin. In Frajzyngier, Z. and Curl, T. (eds.), 123-132
- Maslova, Elena & Nedjalkov, Vladimir P. (2004). Reciprocal constructions. Dryer, Matthew et al. (eds.) *World Atlas of Language Structures*. Oxford: Oxford University Press.
- Mauss, Marcel (1923-4) "Essai sur le don. Forme et raison de l'échange dans les sociétés archaïques." L'Année Sociologique, seconde série, 1923-1924.
- Moyse-Faurie, Claire (2008). "Constructions expressing middle, reflexive and reciprocal situations in some Oceanic languages" In König & Gast (eds.) *Reflexivity and Reciprocity: Cross-linguistic Explorations*. Berlin: Mouton de Gruyter.
- Nedjalkov, Vladimir (ed.) (2007). Reciprocal constructions. 5 vols. Amsterdam: Benjamins.
- Osteen, Mark (2002). The Question of the Gift: Essays Across Disciplines. London: Routledge.
- Stegbauer, Christian (2002) *Reziprozität. Einführung in soziale Formen der Gegenseitigkeit.* Wiesbaden: Westdeutscher Verlag.
- Trivers, R.S. (1971). "Evolution of reciprocal altruism." Quarterly Review of Biology. 46: 35.
- Wiemer, Björn (1999). "The light and the heavy form of the Polish reflexive pronoun and their role in diathesis." In Böttger, Karl et al. (Eds.) Beiträge der Europäischen Slavischen Linguistik. München: Sagner, 300-313.
- Wilkinson, G.S. (1984) "Reciprocal food sharing in the vampire bat." *Nature* 308: 181-184.