

### Interpreting Finnish reciprocals

This paper investigates the referential properties of reciprocal pronouns in Finnish. The reciprocal stem in Finnish is *toinen* ‘other’, which is (i) used alone with a possessive suffix (Px), (**one-word form**, (1a)), or (ii) **doubled** (1b), with the first occurrence of *toinen* being indeclinable and the second marked with a possessive suffix (Hakulinen et al. ‘04). **What guides the choice of the one-word form vs. the doubled form?** I present a Gricean analysis that extends work by Beck (‘01) and Brisson (‘98,‘03) to Finnish and suggest, based on exception effects, that the doubled form increases the salience of certain interpretational possibilities, resulting in the doubled form having less tolerance for exceptions than the one-word form.

**Weak/strong.** Both the one-word and the doubled form can occur with strong (SR, 2a) and weak reciprocal (WR, 2b) readings. (1a,b) can both be judged true when every child tickles every other child *and* when for each child x, there exists at least one child tickled by x and at least one child that tickles x.

**Exception effects.** Dalrymple et al (‘98), Beck (‘01) note that in English (3a) is true in (3b) with an unstared-at pirate (*partial participant*). Beck notes that (3a) is also true in (3c), with a pirate who is neither stared-at nor staring at a pirate (*non-participant*). Beck derives these weakened/exception readings from WR with covers (Schwarzschild ‘96) which enable distribution over salient sub-parts of a plurality. Salient subpluralities constitute ‘cells’ of the cover (Brisson ‘98:73). Beck makes use of *ill-fitting covers* (Brisson ‘98) to explain exception effects; a cover may not have a subset that covers the entire plurality we are concerned with. A pirate not included in the covered subset can be a partial/non-participant, since the semantics ‘doesn’t care’ whether he participates in the staring relation (Brisson ‘98:83). In **Finnish**, the two reciprocal forms differ in their tolerance of exceptions. The one-word form is more tolerant of ill-fit readings: it is better suited for situations with a partial/non-participant than the doubled form. In a context with one child who is a partial/non-participant (cf.3b,3c), the one-word form (1a) is judged to sound better than doubling (1b), which tends to be rejected by native speakers in such contexts. In WR/SR (no partial/non-participants), doubling seems fine.

Building on Brisson’s (‘98) analysis of *all* (also ‘03), I hypothesize *toinen* in the doubled form acts as an operator on the set of contextually-available covers, increasing the prominence of particular covers, such that the function assigning values to cover variables can only choose from these prominent covers. Following Brisson on *all*, I claim *toinen* makes **good-fitting covers** highly salient. A cover is a good fit with a given set (subj DP denotation) if no set member is in a cell with elements that are not members of the set (Brisson). Good-fit covers don’t allow exceptions (no partial/non-participants); ill-fit covers do. Analyzing *toinen* in the doubled form as increasing the salience of good-fit covers correctly predicts the doubled form’s lack of tolerance for ill-fit readings.

If this approach is on the right track, then **other factors that influence cover salience** should also have an effect on use of doubled forms. It has been found that (i) DP form and (ii) plurality size influence cover salience: (i) Non-individuated referential forms are more likely to allow exceptions than specific names (*the men* vs. *Peter, Mike and Harry*, Brisson, Beck), and (ii) larger pluralities are more likely to allow exceptions than small groups (Fiengo/Lasnik ‘73, Brisson). I will show that a **Gricean approach** enables us to capture the interaction of these factors with reciprocal form. I assume two core maxims: *Be brief* (prefer one-word over doubled form); *Avoid ambiguity* (signal when a good-fit reading is intended). Using these maxims I predict: (i) speakers are more likely to use doubled forms when a weakened reading (i.e., with exceptions) might otherwise arise; (ii) when good-fit covers are salient due to other factors, good-fit readings can be available without doubling. Specifically, if doubled forms make good-fit covers salient and are intolerant of exceptions, I predict: (i) with large pluralities and/or non-individuated DPs: doubled forms result in good-fit readings and one-word forms allow ill-fit readings; (ii) with small pluralities and/or specific DPs (predisposed to good-fit): good-fit readings can emerge even with one-word forms.

**DP form.** With names (4), there seems to be a bias for a good-fit reading with both one-word and doubled forms. This contrasts with (1) (non-individuated form), where doubling (1b) induces a bias for a good-fit reading and the one-word form (1a) allows an ill-fit reading. The effects of **plurality size** are similar: With a small plurality, native speaker judgments suggest a bias towards a good-fit interpretation with both one-word and doubled forms. With large pluralities, doubling is important for creating a preference for good-fit readings.

Finnish has a one-word reciprocal pronoun and a doubled form. Based on exception effects, I suggest (building on Beck, Brisson) that *toinen* in the doubled form increases the discourse prominence of good-fit covers. This idea, combined with a Gricean approach, captures the interpretive consequences of the interaction of reciprocal form with DP form and plurality size and contributes to our understanding of the division of labor in reciprocal paradigms of languages with multiple reciprocal forms available.

## Data

(1a) Lapset kutittavat **toisiaan**.

Children-NOM tickle-3-PL other-PL-PARTITIVE-Px3

'The children tickle each other.'

(1b) Lapset kutittavat **toinen toisiaan**.

Children-NOM tickle other-NOM other-PL-PARTITIVE-Px3

'The children tickle each other.'

(2a) Strong reciprocity (from Beck 2001, see also Fiengo/Lasnik 1973)

$\forall x \leq A: \forall y \leq A [y \neq x \rightarrow xRy]$

A = group denoted by antecedent of reciprocal

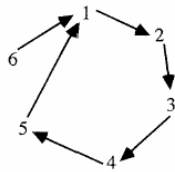
R = relation that holds b/w members of group A

(2b) Weak reciprocity (from Beck 2001)

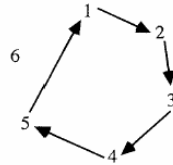
$\forall x \leq A: \exists y \leq A [xRy \ \& \ x \neq y] \ \& \ \forall y \leq A: \exists x \leq A [xRy \ \& \ x \neq y]$

(3a) The pirates stared at each other.

(3b) *Partical participant*



(3c) *Non-participant*



(diagrams from Beck 2001)

(4) *Names*

Liisa, Anu, Mika, Lassi ja Matti kutittavat **toisiaan** // **toinen toisiaan**.

'Liisa, Anu, Mika, Lassi and Matti tickle each other.'

(5) *Large vs. Small pluralities (e.g., 3 children vs. 30 children)*

**Kolme / kolmekymmentä** lasta leikkii pihalla. Lapset kutittavat **toisiaan** / **toinen toisiaan**.

'**Three / thirty** children are playing in the yard. The children tickle each other.'

## References

- Beck, S. (2001) Reciprocals are definites. *Natural Language Semantics* 9:69-138.
- Brisson, C. (1998). *Distributivity, Maximality, and Floating Quantifiers*. PhD Dissertation, Rutgers University.
- Brisson, C. (2003). Plurals, *all*, and the nonuniformity of collective predication. *Linguistics and Philosophy* 26: 129-184.
- Dalrymple, M., Kanazawa, M., Kim, Y., Mchombo, S. & Peters, S. (1998). Reciprocal Expressions and the Concept of Reciprocity. *Linguistics & Philosophy* 21(2):159-210.
- Fiengo, R. & H. Lasnik (1973). The logical structure of reciprocal sentences in English. *Foundations of Language* 9:447-468.
- Hakulinen, A., Vilkuna, M., Korhonen, R., Koivisto, V., Heinonen T. R. & Alho, I. (2004). *Iso suomen kielioppi*. SKS: Helsinki.
- Schwarzschild, R. (1996). *Pluralities*. Dordrecht: Kluwer Academic Publishers.