

Consequences of Using One Form and Not the Other: Interpreting Finnish Reciprocals

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1. Introduction

This paper investigates the division of labor between two reciprocal forms in Finnish, namely the one-word form and the doubled form (ex.1). The research presented here builds on the analysis I presented in Kaiser (to appear) hypothesizing 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. This paper tackles issues not addressed in the earlier paper, namely the question of whether the interpretational differences between the two reciprocal forms can potentially be reduced to general reasoning regarding prolixity vs. brevity of expression and what the interpretational consequences are of using the doubled form in a context where an exceptionless reading is already favored by other factors. This paper aims to take steps towards improving our understanding of the semantics and pragmatics of reciprocity in a non-Indo-European language with multiple reciprocal forms.

The Finnish reciprocal stem is *toinen* ‘other,’ which has a one-word form and a doubled form:

- (1) Lapset kutittavat **toisiaan** / **toinen toisiaan**.
Children-NOM tickle-3PL **other-PL-PAR-Px3** / **other-NOM other-PL-PAR-Px3**
‘The children tickle **each other**.’

In the doubled form, the first occurrence of *toinen* is singular and indeclinable (always nominative) whereas the second is plural, case-marked and marked with a possessive suffix and case (Hakulinen et al. 2004).¹ In the one-word form, the reciprocal is also plural, marked for case, and carries a possessive suffix. The case-marking on the occurrence of *toinen* with the possessive suffix is assigned by the verb (e.g., partitive case in (1)).² In Finnish, possessive suffixes (Px’s) occur on reflexives, reciprocals and certain possessed nouns (depending on the referential form of the possessor), and agree with the antecedent in person and number. Finnish has no definite or indefinite articles, and the reciprocal stem is distinct from the reflexive stem *itse* (self). Thus, unlike many other languages, Finnish has no reciprocal-reflexive polysemy and *itse+Px* ‘self+Px’ does not have a reciprocal reading, unlike German *sich* or French *se* (see Geniušienė 1987, Kemmer 1993 and others).

The structure of this paper is as follows. In Section 2, I review the evidence from Kaiser (to appear) that the distinction between strong and weak reciprocity cannot satisfactorily account for the distribution of the Finnish one-word form vs. the doubled form. In Section 3, I present a brief summary of work by Schwarzschild (1996), Brisson (1998, 2003) and Beck (2000, 2001) on the formal notion of ‘cover’ and on how so-called exception effects in sentences with definite DPs and reciprocals can be captured using covers. Sections 4 and 5 focus on the interpretational differences between one-word reciprocal forms and doubled reciprocal forms in Finnish, in particular my hypothesis (presented in

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¹ In this paper, I focus on examples where the occurrence of *toinen* that bears the possessive suffix (commonly abbreviated Px) is plural. The singular form of *toinen+Px* is also used in some contexts (see Hakulinen et al. 2004:720 for further discussion) but its properties and use are not yet well-understood.

² NOM=nominative, PAR=partitive, ADESS=adessive, ESS=essive, INESS=inessive, PL=plural, Px3=3rd person possessive suffix.

Kaiser, to appear) that the doubled form increases the discourse prominence of good-fit covers. In Section 6, I consider whether the good-fit preference of the doubled form could stem from general reasoning about prolixity vs. brevity of expression, rather than specific effects of repeated *toinen* on the accessibility of good-fit covers. I discuss data from ‘zero reciprocals’ that pose a challenge for the ‘general reasoning’ approach. Conclusions and directions for future work are presented in Section 7.

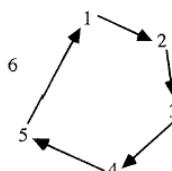
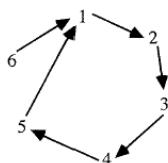
2. Two kinds of reciprocity

When faced with two reciprocal forms, one of the first things that comes to mind is whether the choice of one form over the other correlates with the distinction between strong reciprocity and weak reciprocity. Under a strongly reciprocal reading of “The children tickle each other”, every child must tickle (and be tickled by) every other child. Under a weakly reciprocal reading, it is sufficient for every child to tickle some other child and to be tickled by some other child. In Finnish, native speaker judgments indicate that in ex.(1), both the one-word form and the doubled form can occur with strong and weak reciprocal readings.³ Thus, I concluded that the choice of the one-word vs. the doubled form cannot be satisfactorily explained by the strong vs. weak reciprocity distinction (Kaiser, to appear).

3. Exception effects

In English, *each other* can be used in situations whose truth conditions are weaker than strong or weak reciprocity (see e.g. Dalrymple et al. 1998, Beck 2001).⁴ For example, as noted by Dalrymple et al. (1998) and Beck (2001), ex.(2a) is true in a situation with a *partial participant*, an unstarred-at pirate (ex.3a). Beck (2001:109) also notes that (2a) is judged to be true in a situation with a non-staring pirate, i.e., a situation where the partial participant participates in the staring relation as a patient but not as an agent (i.e., if the arrow for pirate 6 in situation (3a) is reversed). Furthermore, Beck notes that (2a) is also judged true in a situation with a *non-participant*, a pirate who is not staring at another pirate nor stared-at by another pirate (3b). Crucially, addition of the word *all* disallows readings with partial participants or non-participants (ex.2b), see Brisson (1998). (Diagrams are from Beck 2001.)

- (2a) The pirates stared at each other. (2b) The pirates all stared at each other.
 (3a) Partial participant (below) (3b) Non-participant (below)



In Finnish, when we consider the availability of exception effects, the two reciprocal forms pattern differently. In a situation with a partial participant or a non-participant, the one-word form in ex.(1) is judged to sound fine, whereas the doubled form tends to be rejected by native speakers in such

³ A majority of my informants provided judgments indicating that both forms can have strong as well as weak readings, an observation supported by corpus data (see ex.(4)). However, it appears that for a smaller set of speakers, the doubled form strongly prefers a pairwise reading, i.e., an antecedent consisting of a two-membered group. I hope to supplement judgment data with corpus data and psycholinguistic experiments in future work (see Section 7).

⁴ I focus here on strong and weak reciprocity and exception effects of the type outlined in Section 3. However, as Dalrymple et al. (1998) note, there are also other kinds of readings, e.g. “The plates are stacked on top of each other” (Beck 2001), where the topmost plate has no plate on top of it and the bottom-most plate has no plate below it (see also Schein 2003). This reading is called Inclusive Alternative Ordering. Beck (2001)’s analysis – which uses ill-fitting covers, described below – covers a range of reciprocal readings but does not extend to IAO interpretations. In a recent paper, Beck and von Stechow (2007) suggest that IAO reciprocals are fundamentally different from ‘proper’ reciprocals and receive a different semantic analysis. Thus, I leave them aside for now.

situations (Kaiser, to appear). Thus, the two forms appear to differ in how tolerant they are of exceptions, with the one-word form tolerating exceptions better than the doubled form.

Naturally-occurring corpus examples are given in (4a-d). Example (4a) shows the one-word form in an exceptionless context. Ex.(4b) shows the one-word form used in a context that is best understood as including exceptions. The most natural interpretation of this sentence is that when the writer's grandmother was in school, students teased other students – it is not necessarily the case that each and every student teased someone or was teased by someone, i.e., exceptions are allowed. In contrast, (4c) and (4d) use the doubled form and involve situations without exceptions. In (4c), the dual nature of the set makes it clear that no exceptions are possible. Even (4d), with a larger set, is most naturally interpreted as stating that the best case scenario is one where *all* the youths communicating with other teenagers online are involved in helping and encouraging each other and there are no 'neglected', unhelpful or un-encouraged youths – that's why it is the best case scenario, after all.

- (4a) ne kaksi idioottia pieksevät **toisiaan**.
those-NOM two-NOM idiots beat-up-3PL **other-PL-PAR-Px3**
'those two idiots are beating **each other** up'
[Comment posted on the website of the *Helsingin Sanomat* newspaper, 7/27/2008]
- (4b) Mummon kouluvuosina oppilaat kiusasivat **toisiaan**
Grandmother-GEN school-years-ESS students-NOM teased-3PL **other-PL-PAR-Px3**
'During grandmother's school years, students teased **each other**.'
[From an article on the website of the newspaper *Aamulehti*, 8/1/2008]
- (4c) Venäjä ja Euroopan unioni tarvitsevat **toinen toisiaan**.
Russia-NOM and Europe-GEN union-NOM need **other-NOM other-PL-PAR-Px3**
'Russia and the European Union need **each other**.'
[Quote by the Finnish foreign minister in announcement posted online by the Finnish Embassy in London, 10/16/2007]
- (4d) Parhaimmassa tapauksessa nuoret auttavat ja kannustavat **toinen toisiaan**.
Best-INESS case-INESS youth-PL help and encourage **other-NOM other-PL-PAR-Px3**
'In the best case scenario, youths help and encourage **each other**.' (about children and teenagers providing peer-to-peer support over the internet)
[From an editorial on the website of the *Helsingin Sanomat* newspaper, 7/12/2008]

The existence of exception effects raises the question of how to account for them. Let us start by considering an intuitively appealing account that turns out to be insufficient, an account that builds on the (correct) observation that exception effects are not specific to reciprocals. For example, as illustrated in (5a), plural NPs can also give rise to exception effects (see Brisson 1998, 2003, Landman 1989, 1996, Lasersohn 1990, etc). Ex.(5a) is judged true in a context where only some of the girls jumped in the lake but not all of them did – in other words, it can receive a *non-maximal* interpretation, in Brisson's terms. This contrasts with (5b), where use of *all* forces an exceptionless (maximal) interpretation (e.g. Brisson 1998). It is tempting to attribute the non-maximal interpretation of (5a) to the interpretation of the DP 'the girls' (see Brisson 1998), but as Brisson points out, this makes the wrong prediction for (5c). In (5c), the non-maximal set of girls who played basketball does not have to be the same non-maximal set who went swimming: the exceptions can be different. As Brisson explains, this is unexpected if nonmaximality stems from the interpretation of the DP 'the girls.'

- (5a) The girls jumped in the lake. (5b) The girls all jumped in the lake.
(5c) The girls played basketball, and then they went swimming. (Brisson 2003:140)

Let us now turn to Brisson's (1998, 2003) approach to capturing exception effects, which builds on Schwarzschild (1996). However, before turning to the details, we review some key properties of distributivity. Following Lasersohn (1995) and others, I assume distributivity to be a property of the verb phrase, represented by the D operator. As noted by Schwarzschild (1996), Higginbotham (1980), Gillon (1987) and others, a two-way distinction between fully distributive and fully collective interpretations is not sufficient, because predicates can receive intermediately distributive

interpretations. In (6), the set of men refers to Rodgers, Hammerstein and Hart, but although Rodgers and Hammerstein wrote musicals together and Rodgers and Hart wrote musicals together, the three men did not write musicals together (or individually, for that matter). Thus, we have “distributivity down to subpluralities of the plural subject but not all the way down to atoms” (Brisson 1998:73).

- (6) The men wrote musicals. (example from Gillon 1987) [intermediate distributivity]
 [[the men']] = {Rodgers, Hammerstein, Hart}

In Schwarzschild’s framework, the notion of ‘cover’ is a formal means of distributing not only over the atoms of a plurality but also over salient subpluralities. More concretely, intermediate distributivity is achieved by having the D operator be associated with a context-dependent domain selection variable *Cov* (short for cover), defined in (7).

- (7) X covers Y iff: (a) X is a set of nonempty subsets of Y (b) $\forall y \in Y \exists x \in X[y \in x]$

Brisson (1998, 2003) extends Schwarzschild’s analysis to exception effects by drawing a distinction between good-fit covers and ill-fit covers.⁵ To illustrate the distinction between them, let us consider example (8) from Brisson. Here, the domain of discourse includes three girls, Alice, Betty and Carmen, and two boys, Stan and Tim. If the value assigned to the cover variable Cov_i is J, the sentence receives a maximal, exceptionless interpretation: each of the three girls jumped in the lake. This is because in cover J, each girl is in her own singleton set and thus we have distribution down to individuals. Brisson refers to J as a good-fit cover, defined in (9).

However, if the value assigned to the cover variable is K, a different interpretation arises. In K, one of the girls – Betty – is in a set with two of the boys. Thus, there is no set of cells whose union equals the set of girls (see Brisson 2003:137), and Betty is in a cell that does not satisfy the restriction of the quantifier. As a consequence, the sentence comes out as true regardless of whether Betty jumped in the lake or not – i.e., we have an exception effect. Brisson refers to covers like K as ill-fit covers.

- (8) The girls jumped in the lake.
 $\forall x[x \in [[Cov_i]] \ \& \ x \subseteq [[\text{the girls}']] \rightarrow x \in [[\text{jumped in the lake}']]]$
 [[the girls']] = {a,b,c}
 J = {{a},{b},{c}, {s,t}} K = {{a},{c},{b,s,t}}

- (9) *Good fit* (Brisson 2003:141)
 For some cover of the universe of discourse *Cov* and some DP denotation X, *Cov* is a good fit with respect to X iff $\forall y[y \in X \rightarrow \exists Z[Z \in Cov \ \& \ y \in Z \ \& \ Z \subseteq X]]$

Brisson uses the distinction of good-fit vs. ill-fit to capture the distinction between maximal (exceptionless) and non-maximal interpretations, as exhibited by examples (5a) and (5b). Specifically, she claims that *all* requires a good-fit cover and eliminates ill-fit covers such as K from consideration, with the consequence that sentences with *all* can only receive exceptionless interpretations. Brisson analyses *all* as an operator that acts on the set of contextually available covers and increases the discourse prominence of good-fitting covers (Brisson 1998:95). As a result, the function assigning values to cover variables is restricted to choosing one of these prominent covers, with the consequence that readings involving partial participants or non-participant do not arise (Brisson 1998:98).

Beck (2000, 2001) builds on the good-fit vs. ill-fit cover distinction and analyzes exception effects with reciprocals in contexts like (3a) and (3b) as being derived from a weak reciprocal reading with the help of cover variables. As Beck notes, an ill-fit cover allows us to overlook a pirate not included in the covered subset. Thus, (2a) can come out as true even when one of the pirates is a partial participant or a non-participant. For reasons of brevity, I do not present details here; please see Beck (2000, 2001) for implementation. The core idea parallels the analysis of definite NPs in Brisson’s work: ill-fit covers

⁵ The terms ‘good’ and ‘ill’ do not refer to (un)acceptability or (un)grammaticality of a sentence.

allow exceptions to emerge; good-fit covers create exceptionless (maximal) interpretations.

4. Applying covers to Finnish reciprocals

As I noted in Kaiser (to appear) and summarized here in Section 3, in Finnish the one-word reciprocal form and the doubled form seem to differ in their tolerance of exceptions. I hypothesized that *toinen* in the doubled form *toinen toisiaan* is an operator that acts on the set of contextually available covers, and increases the discourse prominence of good-fit covers. As a result, the cover variable is chosen from among the good-fit covers. This predicts that when *toinen* is present, ill-fit covers are not selected and exception effects do not arise. In contrast, without the doubled *toinen*, an ill-fitting cover (ex.10a, see Beck 2001) can be chosen, and member(s) of the set of children not contained in that cover are not affected by the quantification over group members in (10b, based on Beck 2001) – so we can end up with exceptions.

(10a) $\cup\text{Cov}[\text{Children}] < \text{Children}$

(10b) The children tickle each other.

$\forall x [x \leq \text{Children} \ \& \ \text{Cov}(x) \rightarrow \exists y [y \leq \text{Children} \ \& \ \text{Cov}(y) \ \& \ x \neq y \ \& \ x \text{ tickles } y]] \ \&$

$\forall y [y \leq \text{Children} \ \& \ \text{Cov}(y) \rightarrow \exists x [x \leq \text{Children} \ \& \ \text{Cov}(x) \ \& \ x \neq y \ \& \ x \text{ tickles } y]]$

Given that I proposed extending Brisson's analysis of English *all* to the doubled reciprocal form in Finnish, one might wonder about the contribution of the Finnish counterpart of *all* (*kaikki*), in particular the interpretative consequences of *kaikki* co-occurring with the doubled form. This issue was not addressed in Kaiser (to appear), but we consider it here in Section 6. In that section we also explore the possibility that the effect of the doubled form may in fact be less specific than assumed in Kaiser (to appear). In particular, we will consider whether the good-fit effect could be a consequence of a general preference (associated with the doubled form) for interpretations that are marked or 'emphatic,' rather than being the specific result of *toinen* operating on the set of cover variables.

5. Connections between cover choice and reciprocal use

In the preceding section I suggested that the one-word form is flexible in allowing selection of good-fit or ill-fit covers, whereas the doubled form wants a good-fit cover (like English *all*). If this claim is on the right track, we predict that other factors influencing the choice of a good-fit vs. ill-fit cover should interact with the interpretation of the two reciprocal forms.

Two related factors that have been argued to influence the likelihood of exception effects are plurality size and DP form. Larger pluralities are more likely to allow exceptions than small groups (e.g., Brisson 1998:49, Fiengo & Lasnik 1973), and non-individuated referential forms (e.g. *the girls* in ex.11a) are more likely to allow exceptions than a sentence in which each girl is identified by name, as in ex.(11b) (see e.g., Brisson 1998, 2003, Fiengo & Lasnik 1973).⁶ These two factors are of course connected; large groups are often referred to with less individuated DP forms than small groups.

(11a) The girls jumped in the lake. (Brisson 2003:129)

(11b) Alice, Betty, Carmen, and Diane jumped in the lake.

In Finnish, if the doubled form wants a good-fit cover (i.e., is intolerant of exceptions), and the one-word form is underspecified in that it allows both ill-fit and good-fit interpretations, the prediction is that even sentences with the one-word reciprocal form can receive exceptionless interpretations if other factors (e.g. DP form and plurality size) push towards a good-fit interpretation.

⁶ Saying that DP form and plurality size rule out exceptions entirely is stating things too strongly. It would be more accurate to say that exceptions are not easily allowed, but can occur if overridden with a sufficiently rich context (see Brisson 1998:50, see also Lasersohn 1990 on 'team credit').

The effects of DP form are illustrated in (12a) and (12b). As I noted in Kaiser (to appear), when specific names are used (ex.12a), a bias for a good-fit reading arises with both the one-word form and the doubled form. In contrast, when a non-specific form is used (ex.12b), the doubled form induces a bias for a good-fit reading, whereas the one-word form allows ill-fit readings.

- (12a) Liisa, Anu, Mika, Lassi ja Matti kutittavat **toisiaan / toinen toisiaan.**
 L, A, M, L and M tickle-3PL **other-PL-PAR-Px3 / other-NOM other-PL-PAR-Px3**
 ‘Liisa, Anu, Mika, Lassi and Matti tickle each other.’
- (12b) Lapset kutittavat **toisiaan / toinen toisiaan.**
 Children-NOM tickle-3PL **other-PL-PAR-Px3 / other-NOM other-PL-PAR-Px3**
 ‘The children tickle each other.’

Plurality size effects show a parallel pattern. When we are dealing with a small group, both one-word and doubled forms exhibit a bias towards the good-fit reading, but when the plurality is large, doubling is important for creating a preference for good-fit readings (see Kaiser, to appear for details). The effects of DP form and plurality size are also evident in naturally-occurring corpus data, as illustrated by the examples in (4c) through (4d) presented at the start of this paper.

Thus, when a good fit reading is made salient by another factor (e.g. DP form, small plurality size), both the one-word and the doubled form can receive a good-fit reading. However, in a situation where an ill-fit reading could emerge (e.g. due to a non-individuated subject, large plurality size), use of the one-word form allows the ill-fit reading to emerge but it appears that use of the doubled form results in a bias towards a good-fit reading. The observation that factors that influence cover choice interact with reciprocal use fits with the hypothesis that covers are relevant to the distinction between the one-word and the doubled form (Kaiser, to appear).

6. General interpretative consequences of using a prolix form

So far, the discussion has implicitly focused on the importance and consequences of avoiding ambiguous or misleading interpretations. For example, I suggested that speakers who want to convey a good-fit reading are more likely to use doubled forms when a nonmaximal reading (exceptions) might otherwise arise due to factors such as plurality size or DP form (e.g. 12b). When there is little or no danger of interpretational ambiguity – i.e., if other factors already bias towards a good-fit reading (small plurality and/or specific DP form) – good-fit readings are possible not only with the doubled form but also with one-word form (e.g. 12a). (See discussion of “Avoid Ambiguity” in Kaiser, to appear.) This approach allows us to capture the observation that the one-word form can occur both with good-fit and ill-fit interpretations, a point I return to below.

However, examples like (12a), where either the one-word or the doubled form can be used, raise an important question not addressed in Kaiser (to appear): If a good-fit reading is available with the one-word form, why use the doubled form? Clearly, use of the doubled form does not render examples such as (12a) and (4c) infelicitous, and a similar observation can be made for English. In (13b) and (13c), a small plurality and the use of specific names already bias towards a good-fit interpretation, such that use of *all* is not needed for a good-fit reading to arise – in contrast to (13a) where *all* is the only cue towards a good-fit reading. However, (13b) and (13c) nevertheless do not sound infelicitous.

- (13a) The girls all jumped in the lake. (13b) The three girls all jumped in the lake.
 (13c) Lisa, Kate and Anne all jumped in the lake.

It has been argued in previous work that choice of a more prolix/marked form over a simpler form tends to trigger a special interpretation: “The use of a marked (relatively complex and/or prolix) expression when a corresponding unmarked (simpler, less ‘effortful’) alternative expression is available tends to be interpreted as conveying a marked message (one that the unmarked alternative would not or could not have conveyed)” (Horn 1984:22, see also Levinson’s M-Principle, Levinson 1987, 2000, Huang 2000, Safir 2004, and others for related discussion). Without going into details of Neo-Gricean analyses, I would like to note that Horn’s observation, as well as other related work on

pragmatic approaches to anaphora, suggests that use of the doubled reciprocal form (more prolix expression) in a context where other factors already bias towards a good-fit reading, as in ex.(12a) and ex.(4c), may be interpreted as conveying some kind of additional information. The question of what kind of “marked message” is conveyed by use of the doubled form under such circumstances is an important question. To investigate this issue, we will need to look closely at examples like (12a), (4c) and (14a,b).

In ex.(14a), with a plurality of size 2 (and therefore an automatic good-fit reading), both the one-word and the doubled form are grammatical (see also (4c)). The question is, does use of the doubled form trigger a more marked meaning than use of the one-word form? A similar question arises for (14b), where the doubled form is used with *kaikki* ‘all’, which already enforces a good-fit reading,

- (14a) Liisa ja Matti kutittivat **toisiaan/toinen toisiaan**.
Liisa-NOM and Matti-NOM tickled **other-PL-PAR-Px3 / other-NOM other-PL-PAR-Px3**.
‘Liisa and Matti tickled each other.’
- (14b) **Kaikki** lapset kutittivat **toisiaan/toinen toisiaan**.
All children-NOM tickled **other-PL-PAR-Px3 / other-NOM other-PL-PAR-Px3**
‘All (the) children tickled each other.’

The interpretational consequences of the doubled form in these contexts are not yet clear and require further research, but preliminary inquiries suggest that the notion of ‘event distinguishability’ (see Kemmer 1993) may play a role. In particular, use of the doubled form may be construed as emphasizing the degree of distinguishability of the two events, which fits with Kemmer’s observations for other languages.⁷

6.1. Effects of general reasoning stemming from use of non-minimal form?

If ‘unnecessary’ uses of the doubled form as discussed above (14a,b) are interpreted as carrying some extra meaning, could it be the case that the doubled form’s preference for exceptionless interpretations (which I’ve attributed to the doubled *toinen* operating on the set of cover variables), is also an instantiation of prolixity-triggered extra meaning? In other words, could the doubled form’s preference for maximal/exceptional readings be derived from a general preference for marked or emphatic readings? So far we have been discussing the doubled form’s interpretation as resulting from the doubled *toinen* increasing the discourse-prominence of good-fit covers. However, a broader interpretation of the data would treat the preference for maximal interpretation as just one instantiation of the doubled form’s general bias towards more marked/more specific meanings. This type of general account leaves open the possibility that the doubled form may result in another kind of special meaning being triggered. Under this view, the doubled form is not inherently connected to exceptionless readings or good-fit covers – it could be that, under certain circumstances, use of a doubled form results not in an exceptionless reading but in some other kind of marked/specific interpretation. Whether this prediction is empirically supported merits further investigation, as outlined in Section 7.

This kind of ‘general reasoning’ approach would have the advantage of situating the Finnish data within a larger set of observations on the use of more prolix referential forms across languages (e.g. Kemmer 1993), but does it encounter difficulties with the observation that good-fit readings arise with the doubled *and* the one-word form? If the good-fit reading is a particular kind of ‘marked message’ triggered by use of the doubled form, how can we explain its availability with the one-word form? In fact, this same question arises when we treat the doubled form as involving a specific operation on cover variables. In Kaiser (to appear) I argued that if the one-word form is preferred over the doubled form (e.g. due to a maxim along the lines of “Be Brief”, but see also Levinson’s I-Principle, in particular the ‘Recipient’s Corollary’), then in a situation where a good-fit reading is made salient by

⁷ Whether or not the two events can overlap in time (i.e., whether they are sequential or simultaneous) presumably depends on the semantics of the verb (e.g. compare *embraced* vs. *tickled*). The interactions between verb type and reciprocal form pose intriguing questions for future research.

other factors (e.g., DP form, plurality size), an exceptionless interpretation can be available even if the doubled form is not used. Thus, according to this line of reasoning, the occurrence of good-fit readings with the one-word form as well as with the doubled form is not problematic.

6.2. Zero reciprocal verbs

In this section I present evidence from ‘zero reciprocal’ verbs (i.e., verbs that can receive a reciprocal interpretation without an overt reciprocal marker being present) indicating that even if there are interpretational effects associated with reciprocal sentences in Finnish that stem from general reasoning regarding prolixity vs. brevity of the reciprocal form, it is not the case that all aspects of reciprocal meaning can be straightforwardly derived from such a general principle.

In Finnish, verbs like *kätellä* ‘to shake hands’ and *halata* ‘to hug’ can be used with a null object and no overt reciprocal marker (ex.15a), as well as with the one-word reciprocal form (ex.15b) or with the doubled form (ex.15c). Thus, with these verbs, the lightest/shortest available form is the ‘zero’ reciprocal marker. If the good-fit preference that we observed for the doubled form with verbs like ‘tickle’ is purely a consequence of a speaker opting to use a form other than the minimal form, the prediction is that with verbs like ‘shake hands’, we should observe one-word forms showing a preference for good-fit interpretations, because now the one-word form is a non-minimal form.

- | | | |
|-------|---|-------------------|
| (15a) | Vieraat kättelivät aulassa.
Guests-NOM shook-hands \emptyset foyer-INNESS
‘The guests shook hands in the foyer.’ | [zero reciprocal] |
| (15b) | Vieraat kättelivät toisiaan aulassa.
Guests-NOM shook-hands other-PL-PAR-Px3 foyer-INNESS
‘The guests shook hands in the foyer.’ | [one-word form] |
| (15c) | Vieraat kättelivät toinen toisiaan aulassa.
Guests-NOM shook-hands other-NOM other-PL-PAR-Px3 foyer-INNESS
‘The guests shook hands in the foyer.’ | [doubled form] |

However, native speaker judgments suggest that both the zero reciprocal form and the one-word form allow both ill-fit readings (with exceptions) and good-fit readings (without exceptions). In fact, it seems that it is not until the doubled form that the non-maximal ill-fit readings become dispreferred.⁸ This pattern of results suggests that it is the presence of *toinen* that discourages exceptions (i.e., ill-fitting covers) and that exceptionless readings do not automatically arise as a result of the failure to use the lightest/shortest available form (or, in other words, from using a more prolix form when a less prolix form would also have been available).

In sum, if one wants to argue that the interpretative effects of the doubled form vs. the one-word form derive from general reasoning regarding prolixity, data such as (15) suggest that applicability of such inferences does not extend to zero reciprocals.

7. Conclusions

This paper explored the referential properties of the one-word reciprocal form *toisiaan* ‘other-PL-Px’ and the doubled reciprocal form *toinen toisiaan* ‘other other-PL-Px’ in Finnish. This research builds on work presented in Kaiser (to appear), where I argued that the distinction between strong vs. weak reciprocity is not sufficient to explain the division of labor between the one-word form and the doubled form, and hypothesized that the doubled form is less tolerant of exceptions than one one-word form. Building on work by Beck and Brisson, I suggested that *toinen* in the doubled form increases the discourse-prominence of good-fit covers.

The present paper extends this research by investigating the consequences of using the doubled form in contexts where good-fit readings are already favored by other factors and by comparing ‘zero

⁸ The same pattern seems to arise with predicates that are not inherently reciprocal, e.g. *halata* ‘to hug’.

reciprocal' verbs to the one-word and the doubled forms. I note that using the doubled form 'unnecessarily', in a context where a good-fit reading is already preferred, does not result in infelicity and may in fact be interpreted as conveying some additional information, possibly regarding the distinguishability of the events – an issue in need of further research. Furthermore, I consider the possibility that the interpretational effects of the doubled form could be due to general reasoning/inferences regarding prolixity vs. brevity of referential form, with the exceptionless preference of the doubled form being one type of 'marked meaning' conveyed by the choice of a prolix form. However, data from the zero reciprocal paradigm present a challenge for this type of analysis. Thus, even if use of the one-word vs. doubled form is analyzed as being guided by general Gricean principles regarding use of heavy vs. short forms, it seems that such principles will not be sufficient to capture the data from the zero reciprocal paradigm.

Clearly, a number of questions remain open for future work, and the present paper is best regarded as a small step towards a better understanding of the semantics and pragmatics of reciprocity in a language with multiple reciprocal forms. To progress further towards this goal, I hope to expand on the corpus examples presented here by conducting a detailed analysis of the distribution and referential properties of the one-word and doubled forms in naturally-occurring text. In fact, a corpus study in combination with psycholinguistic experiments would be especially useful given that judgments of pragmatic/semantic preferences of the type discussed here can be rather delicate. In addition, the question of whether the differences between the one-word and the doubled form can be analyzed as resulting from general reasoning regarding prolixity vs. brevity needs further work. The hypothesis that *toinen* 'other' increases the salience of good-fit covers would be strengthened by a compositional analysis illustrating how this follows from the semantics of the expression itself.

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