

Intensifiers in German and Dutch anaphor resolution

According to standard binding theory, pronouns and reflexives are in (nearly) complementary distribution. However, this complementarity breaks down in representational NPs (RNPs, e.g., *picture of {her/herself}*). In English, (i) interpretation of RNP-reflexives is guided by a strong structural subject preference and a weaker semantic *source-of-information preference* [5], and (ii) interpretation of RNP-pronouns is guided by a non-subject preference and a *perceiver-of-information preference* [6]. These preferences are robust in off-line data and on-line processing [2], but the nature of the semantic preferences is not well-understood. Our experiments (Exp.1 on German, Exp.2 on Dutch) have two main aims: to test the cross-linguistic validity of the English-style source/perceiver effects (see also [3]) and to further our understanding of the source/nature of these effects. By testing the interpretation of pronouns, reflexives and emphatics in RNPs in German and Dutch, we aim to shed light on two aspects of the source preference in particular:

Q1: Can the source preference be attributed to intensifiers? English emphatic intensifiers (ex.(1)) have the same form as syntactic reflexives. It has been suggested (e.g.[7], see also [1]) that intensified object pronouns surface as reflexives (*him himself=>himself). Thus reflexives in RNPs could be either proper reflexives or intensified pronouns. If use of intensifiers is guided by semantics (e.g.[4]), could the source effects observed for English reflexives be attributed to intensifiers? German can be used to test this: Emphatic intensifiers (*selbst*) are distinct from reflexives (*sich*). Source effects for English reflexives could be due to intensification and thus would not arise with non-intensifier reflexives, predicting that in German RNPs, refl+intensifier *sich selbst*, but not plain reflexive *sich*, should prefer sources.

Q2: Can the source preference be derived from a general prominence bias? Existing psycholinguistic research does not explain *why* pronouns prefer perceivers and reflexives prefer sources. Does this follow from the fundamental distinction between pronouns and anaphors/reflexives? We explore another hypothesis, namely that the source preference is due to a general preference for prominent antecedents. Under this view, reflexives' subject preference follows from a preference for structural prominence, and their source preference from a preference for thematic prominence (the sources in [2]'s sentences were also agentive, see also [5]). Thus, referential forms that prefer prominent antecedents should prefer sources, *independently* of pro/refl status. Dutch allows us to test this: emphatics (pro+intensifier, syntactically pronominal, see [7]) prefer antecedents that are prominent ([7]). If source preference is part of a general *prominent antecedent preference*, Dutch emphatics should prefer sources. If pro/refl status determines source/perceiver bias, emphatics (which are pronominal) should prefer perceivers.

Both experiments crossed verb type (*tell/hear*) and anaphoric form (*pronoun/reflexive/emphatic*), creating six conditions. Participants read sentences (ex.2) and indicated who was shown in the picture (subject/object/either one possible/third person).

Exp.1--German. Reflexives and emphatics pattern alike: Both preferred the subject (>70%); but this was modulated by a source preference: more subject choices with *tell* (Subj=source) than *hear* (Subj=perceiver), $p's < .01$. **Pronouns** trigger more object-choices (overall >50% object-choices, <20% subject-choices, >20% both-choices), but also exhibit a perceiver preference: more object-choices with *tell* (Obj=perceiver, 65%) than *hear* (47%), $p's < .01$. **Discussion:** The pronoun results resemble English data [2]. Crucially, since both the plain and the emphatic reflexive prefer sources, source preference cannot be attributed to an intensifier. This shows that semantic factors must be acknowledged even for plain reflexives.

Exp.2--Dutch. Reflexives show an overall subject preference, modulated by a source preference: more subject choices with *tell* than *hear* (78% vs. 63%, $p's < .01$). Like reflexives, **emphatics** show a subject preference (50% vs. 18%, $p's < .01$), and a source preference. However, the subject preference is weaker with emphatics than reflexives ($p's < .01$). **Pronouns** trigger approx.50% *both* responses (=both subj/obj possible) regardless of verb, but also exhibit a perceiver preference: more object-choices with *tell* (35%) than *hear* (17%), $p's < .01$. **Discussion:** The difference between the pronouns and the emphatics indicates that the source/perceive preference is independent of pro/refl status, and is compatible with the hypothesis that source preference is part of a general prominence preference.

Conclusions. German and Dutch exhibit a source preference with reflexives and a perceiver preference with pronouns, showing that this phenomenon is not restricted to English, and providing further evidence that a purely structurally-oriented approach to anaphor resolution is not sufficient. In addition, the German data show that a source preference arises with reflexives even when an intensifier is clearly not present. The Dutch data indicate that source/perceiver patterns can be separated from the refl/pro distinction. Put together, our results suggest that, in the languages we investigated, the source preference cannot be blamed on intensification, and instead may be part of a general preference for prominent antecedents. If this approach is on the right track, it provides a potentially promising means of connecting at least some of the seemingly disparate factors that influence anaphor resolution.

Keywords: Psycholinguistics, German, Dutch, Binding Theory, semantics

Examples:

(1)

a. Himself used as adnominal intensifier: The king himself opened the doors.

b. Himself used as adverbial intensifier: The king opened the doors himself.

(See [4] for further details and references)

(2)

a. GERMAN: Tobias {erzählte/hörte von} Peter von dem Bild von {ihm/sich/sich selbst}.

b. DUTCH: Arne {vertelde/hoorde van} Hans over de foto van {hem/zichzelf/hemzelf}.

X {told/heard from} Y about the picture of {pronoun/refl/emphatic}

(In Dutch, RNPs with the monomorphemic reflexive *zich* are ungrammatical).

References:

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