Semantic effects on pronouns and reflexives in picture-NPs: Similarities and differences

Elsi Kaiser & Monica Do
emkaiser@usc.edu, monicado@usc.edu
University of Southern California

Research on Binding Theory has shown that the syntactically-conditioned complementarity normally exhibited by pronouns and reflexives (e.g. Chomsky 1981) breaks down in certain syntactic environments, e.g. picture-NPs (PNPs, *picture of {her/herself}*, e.g. Reinhart & Reuland 1993, Keller & Asudeh 2001). In PNPs, pronouns can – at least in some contexts – refer to the subject of the sentence, just like reflexives. We report two psycholinguistic studies that investigate how complete the breakdown of complementarity really is, thereby contributing to our understanding of the constraints on 'exempt' anaphora.

 Opposing preferences: Kaiser, Runner, Sussman & Tanenhaus (2009) showed that pronouns and reflexives in English PNPs are guided by contrasting syntactic and semantic preferences. Using sentences with *told* and *heard* (ex.1), Kaiser et al. found that in possessorless PNPs, reflexives are guided by a strong subject preference and a weaker source-of-information preference, and pronouns are guided by two more evenly weighted constraints: an anti-subject preference and a perceiver preference. So, although pronouns and reflexives are not, syntactically speaking, in strict complementary distribution, they exhibit *complementary biases:* subject/object, source/perceiver.

 Similar preferences: This opposition seems to be at odds with observations pointing to greater parallelism: Kuno (1987) claims PNP *reflexives* are sensitive to logophoric properties such as *point-of-view (POV)* – which fits with the source preference, i.e. a bias to refer to the person whose words/thoughts are being conveyed. Interestingly, a similar claim has been made for *pronouns*: Tenny (2003) suggests that PNP pronouns refer to the person whose POV is being represented. Together, these yield the prediction that *both pronouns and reflexives prefer POV antecedents*. This unified prediction creates an interesting juxtaposition with Kaiser et al.'s findings, which point to pronouns and reflexives having opposing preferences. It raises the question of whether pronouns and reflexives in BT-exempt environments might underlyingly be guided by a shared set of preferences. E.g., is it the case that in PNPs, pronouns and reflexives reveal a shared sensitivity to POV? Or do pronouns and reflexives, normally in strict complementary distribution, maintain complementary preferences even in PNPs? The first option seems potentially problematic given Kaiser et al., but the second option goes against the combination of Kuno and Tenny.

 Exp1: Because judgments on these issues are rather delicate and the POV preferences of PNP pronouns are not yet well-investigated, we conducted an experiment to test whether pronouns and reflexives do indeed exhibit sensitivity to POV. Furthermore, we investigated whether there is evidence of pronouns and reflexives simultaneously exhibiting both *(a)* opposing preferences (subject/object, source/perceiver) and *(b)* similar preferences (POV antecedents). **Design**: In a written questionnaire, we manipulated (i) referential form (pro/refl), (ii) source/perceiver status (*told/was told*) and (iii) form of the perceiver[1] (name/*someone*) (8 conditions, ex.2). Participants (n=24) read sentences and answered questions about them ("Who was in the picture?").

 We used voice to manipulate *source/perceiver status*: in (2a,b), the subject is the source and the object is the perceiver; in (2c,d), the subject is the perceiver and the object is the source. Using passive allowed us to change the mapping between subject/object and source/perceiver while

---

[1] Because Kaiser et al. (2009) found that pronouns are more sensitive to non-syntactic information that reflexives, we manipulated the form of the perceiver (what pronouns are sensitive to), to maximize our chances of detecting potential effects of the name/*someone* manipulation.

keeping verb semantics parallel across conditions. To manipulate *availability of POV*, we used the distinction between proper names and the indefinite quantifier *someone*. If someone's identity is referentially unspecified/indefinite, then due to this missing information, that entity is not a suitable POV anchor (see also Kuno (1987)). *Thus, if a particular form is used to refer to the person whose POV is being represented, that form should show a dispreference for 'someone'.*

Results: We find a significant difference in the overall syntactic sensitivity of pronouns and reflexives: Reflexives show an overall subject preference (81.5% subject choices), but pronouns are split between subjects and objects (53% subjects). We replicate Kaiser et al.'s source/perceiver findings with the active/passive alternation: (i) Reflexives' subject preference is modulated by a *source preference* (significantly more subject choices when the subject is the source than when it is the perceiver); (ii) pronouns show a *perceiver preference* (significantly more object choices when the object is the perceiver). Crucially, these biases are modulated by a unidirectional POV effect: *Both pronouns and reflexives show a significant preference for names over 'someone.'* Thus, when it comes to this dimension, pronouns and reflexives exhibit a potentially unexpected similarity.

To probe the generalizability of these findings, **Exp2** (n=16) used the same method to test whether other referentially-unspecified elements, *who* and *which of the X*, pattern like *someone*. **Results**: These three forms pattern alike; dispreferred by pronouns and reflexives. This provides further evidence for POV-sensitivity.

Conclusions: We found no evidence for a full-scale breakdown of complementarity in PNPs. However, although we replicated Kaiser et al.'s *complementary subject/object and source/perceiver* biases – with a novel extension to passives – we also found that pronouns and reflexives *share a dislike of unspecified, non-POV antecedents*. This suggests that pronouns and reflexives are guided by some shared and some non-overlapping constraints. We will also discuss the possibility of the shared dislike of 'someone' and *wh*-forms being related to the distinction between bound variable vs. coreferential interpretations. As a whole, our findings point to a decompositional/multi-constraint account, e.g. Sell's (1987) view that logophoricity stems from three interacting primitives.

Examples

(1a) Peter$_{SOURCE}$ told John$_{PERCEIVER}$ about the picture of {him/himself} on the wall.
(1b) Peter$_{PERCEIVER}$ heard from John$_{SOURCE}$ about the picture of {him/himself} on the wall.

(2a) Nick$_{SOURCE}$ told Jeff$_{PERCEIVER}$ about the picture of {him/himself}.　　　　[active, name/name]
(2b) Nick$_{SOURCE}$ told someone$_{PERCEIVER}$ about the picture of {him/himself}.　　　[active, name/someone]
(2c) Jeff$_{PERCEIVER}$ was told by Nick$_{SOURCE}$ about the picture of {him/himself}.　　　[passive, name/name]
(2d) Someone$_{PERCEIVER}$ was told by Nick$_{SOURCE}$ about the picture of {him/himself}.　[passive, someone/name]

References

Chomsky, N. (1981). *Lectures on Government and Binding*. Dordrecht: Foris.
Kaiser, E., Runner, J.T., Sussman, R.S. & Tanenhaus, M.K. (2009). Structural and semantic constraints on the resolution of pronouns and reflexives. *Cognition,* 112, 55-80.
Keller, F. and A. Asudeh. (2001). Constraints on linguistic coreference: Structural vs. pragmatic factors, in *Proceedings of 23rd Annual Conference of the Cognitive Science Society*.
Kuno, S. (1987). *Functional Syntax: Anaphora, discourse & empathy*. University of Chicago Press.
Reinhart, T. and E. Reuland. (1993). Reflexivity, *Linguistic Inquiry* 24:657-720.
Sells, P. (1987). Aspects of Logophoricity, *Linguistic Inquiry* 18.3:445-479.
Tenny, C. (2003). *Short distance pronouns in representational noun phrases and a grammar of sentience*. Ms. Available online at http://www.linguist.org/