Interpretation of Reflexives under Ellipsis in Russian
Svetlana Kuznetsova (Higher School of Economics)

Introduction

This paper is devoted to the availability of strict and sloppy readings of Russian reflexives under ellipsis. The strict/sloppy ambiguity is illustrated in (1): if a pronoun is restored with its original index, then the reading is considered strict, while a change in the index indicates a sloppy reading.

(1) *John corrected himself, before Bill did.*
 John corrected himself, before Bill [$_{VP}$ corrected himself (=John/Bill)].

Reflexives were initially thought to give rise only to sloppy readings. However, Dahl (1973) has shown that sometimes, the strict reading is also available. The question is which factors influence the availability of the strict reading. Ong and Brasoveanu's (2013) experimental study suggests that the main factor affecting the availability of the strict/sloppy readings of reflexives in English are Implicit Causality (IC) biases introduced by certain predicates rather than the coordination type (Hestvik, 1995) or discourse relation (Kehler, 2000, 2022) used in the sentence.

Different verbs are associated with different prototypical cause-effect structures, e.g.:

(2) *John disappointed Bill because he (=John) stole the book.*
(3) *John scolded Bill because he (=Bill) stole the book.* (from Ong & Brasoveanu, 2013)

According to Garvey and Caramazza (1974), part of the root of IC1 type verbs infers that the underlying causal event indicated by a predicate involves a subject, while IC2 type verbs imply that the causal event is denoted by an object.

Ong and Brasoveanu (2013) did not consider possessive reflexives in their study, so the decision was made to check whether their hypothesis works for Russian possessive reflexives, since they cannot perform a "de-transitivizing" function for the verb, the IC should not affect the accessibility of the strict reading. However, it could be influenced by the fact that possessive reflexives are not co-argument with the subject. This would mean that it is not the IC that uniquely affects the choice of reading, but rather the salience of the entity in the discourse, and the IC is but one of the ways to make one of the readings more salient.

Experimental design

Two experimental studies were conducted: one with the reflexive pronoun *sebja* and another with the possessive reflexive *svoj*. The experimental design was adopted from Ong and Brasoveanu (2013). In each experiment, there were 4 experimental items with 9 examples (e.g. (4) or (5)) in which the type of verb and the type of sentence coordinator varied (a total of 36 examples for each experiment). To test the hypothesis about the influence of other factors on the salience of the object, respondents were divided into two groups: the first group was given sentences with a neutral context (control group), and the other with a bias for a strict reading (experimental group). In total, 80 participants completed the experiments. 1566 responses were collected for the first experiment, and 1348 for the second.

Mixed-effect binary logistic regression without factor interaction was chosen as the model to compute statistical data. The Causality-Effect did not have any statistical significance, so it was not included in the final model.

Results: Experiment 1

The results of Experiment 1 almost completely replicate those of Ong and Brasoveanu (2013). The IC verb type ($\chi2=-11.253$, $df=2$, p-$value=0.004$) and the presence of a context bias ($\chi2=-54.578$, $df=2$, p-$value<0.001$) turned out to be significant for the presence of a strict reading, while the coordinator type ($\chi2=-17.428$, $df=2$, p-$value<0.001$) and the context bias ($\chi2=-113.4$, $df=2$, p-$value<0.001$) were significant for the sloppy reading. Within each parameter, the presence of IC2 verb type ($\beta_{IC2}=0.456$, $SE=0.143$, p-$value=0.002$) increased the percentage of strict readings by 7%, and the absence of context bias ($\beta_{NO\_BIAS}=-0.963$, $SE=0.137$, p-$value<0.001$) had the most influence on the availability of a strict reading, reducing the percentage of strict readings by 17%, therefore supporting the claims that the IC2 verb type and the presence of context bias influence the choice of the strict reading. IC1 type verbs in the Russian language are especially "de-transitivized" by reflexives: reflexivization turns a 2-place predicate into a 1-place predicate by identifying two of its arguments as identical, "de-transitivizing" the verb, thus yielding the sloppy reading.

(4) *Vitja   shokiru-et   seb-ja,   i   Vanja tože [e].*
    Vitja   shock-NPST.3SG   self-ACC   and   Vanja too
    Vitya will shock himself, and Vanya will [e] too.

(5) *Vitja   pohval-it   seb-ja,   i   Vanja tože [e].*
    Vitja   praise-NPST.3SG   self-ACC   and   Vanja too
    Vitja will praise himself, and Vanja will [e] too.

In (4), the possibility of the strict reading '*Vanja will shock Vitja*' is significantly lower than that of the strict reading '*Vanja will praise Vitja*' in (5).

Results: Experiment 2

The context bias showed significance for the availability of a sloppy reading ($\chi2=-47.638$, $df=2$, p-$value<0.001$), while IC verb type proved to be significant for the availability for both strict ($\chi2=-70.905$, $df=2$, p-$value<0.001$) and sloppy readings ($\chi2=-20.629$, $df=2$, p-$value<0.001$). The results showed a higher probability of strict readings in sentences containing IC2 verbs ($\beta_{IC2}=0.686$, $SE=0.138$, p-$value<0.001$) and a higher probability of sloppy readings without context bias ($\beta_{NO\_BIAS}=0.932$, $SE=0.140$, p-$value<0.001$), each of these factors increased the number of corresponding readings by 16%. In both experiments, if all factors implied the choice of a sloppy reading by the speaker, but the context had a strict reading bias, then speakers were more likely to choose the strict reading.

Russian possessive reflexives do not coincide in form with pronominal reflexives, but rather act as an index role for the nouns they define. That is, these reflexives do not carry any "de-transitivizing" function for the verb, and implicit causality still works as expected. This suggests that it is not the "de-transitivization" of the verb which is important, but rather the semantic bias towards either subject or object, and the resulting argument salience.

Discussion

Despite the fact that the theory of Ong and Brasoveanu (2013) turned out to be true for Russian (i.e., Implicit Causality does indeed affect the presence of strict or sloppy reading), their argumentation is refuted by the results of the test with possessive reflexives.

This research proposes a solution for such results: not only Implicit Causality, but also pragmatics, can enhance the salience of an object. It is considered that pragmatics operate independently of syntax and affect the bias of reading. Pragmatics can boost the salience of

one of the arguments of the verb, and, hence, affect the choice of identity. Finally, the most important factor that affects the choice of the reading is which of the recoverable objects (the subject of the antecedent clause or the subject binding the omitted reflexive) is more salient, which can be achieved in many ways.

References

Akmajian, A. (1973). The role of focus in the interpretation of anaphoric expressions. In *A Festschrift for Morris Halle* (pp. 215–226). Holt, Rinehart and Winston.

Clark, H., & Bangerter, A. (2004). Changing ideas about reference. In I. A. Noveck & D. Sperber (Eds.), *Experimental Pragmatics* (pp. 25–49). London: Palgrave Macmillan UK. https://doi.org/10.1057/9780230524125_2

Dahl, Ö. (1973). On so-called 'sloppy identity'. *Synthese, 26*(1), 81–112. https://doi.org/10.1007/bf00869757

Fox, D. (2000). *Economy and Semantic Interpretation* (Vol. 35). MIT press.

Foley, C., Del Prado, Z. N., Barbier, I., & Lust, B. (2003). Knowledge of variable binding in VP–Ellipsis: Language Acquisition Research and Theory converge. *Syntax, 6*(1), 52–83. https://doi.org/10.1111/1467-9612.00056

Garvey, C., & Caramazza, A. (1974). Implicit causality in verbs. *Linguistic inquiry, 5*(3), 459-464.

Hestvik, A. (1995). Reflexives and ellipsis. *Natural Language Semantics, 3*(2), 211–237. https://doi.org/10.1007/bf01249838

Johnson, K. (2001). What VP Ellipsis Can Do, and What it Can't, But Not Why. *The Handbook of Contemporary Syntactic Theory*, 439–479. https://doi.org/10.1002/9780470756416.ch14

Kehler, A. (2000). Coherence and the resolution of ellipsis. *Linguistics and Philosophy, 23*(6), 533–575. https://doi.org/10.1023/a:1005677819813

Kehler, A. (2002). *Coherence, reference, and the theory of grammar*. CSLI Publications.

Ong, M., & Brasoveanu, A. (2013). Strict and sloppy reflexives in VP-ellipsis. *Empirical Issues in Syntax and Semantics, 10*, 251–268.

Sag, I. (1976). *Deletion and Logical Form*. Doctoral dissertation, MIT.

Williams, E. S. (1977). Discourse and Logical Form. *Linguistic Inquiry, 8*(1), 101–139.