

## Intrusive pronouns in Russian: experimental study

Dmitry Petelin, Higher School of Economics

**Abstract.** This paper focuses on the acceptability of intrusive pronouns in Russian. Intrusive pronouns ameliorate illicit island extractions in various languages (e.g., English, Italian). Using different experimental methods, we show that it is not the case in Russian, where intrusive pronouns only make sentences less acceptable.

**Background.** Intrusive pronouns are pronouns that fill the gap while being co-indexed with the moved constituent. Sells (1984) claims that they are used as a “last resort” to ameliorate island effects or to “repair” island structures from which the constituent has moved. Alexopoulou, Keller (2007) investigate acceptability of German, Greek and English intrusive pronouns in different types of constructions (strong islands, weak islands and non-islands) and notice that different languages show different patterns of acceptability of these constructions with and without intrusive pronouns: intrusive pronouns can rise, lower or do nothing with the acceptability of different constructions depending on language. In the experimental results of Ackerman et al. (2018) we also notice that there is a difference in acceptability for intrusive pronouns within island and non-island constructions. Their investigations show that intrusive pronouns lower the acceptability of non-island constructions, while raising it for islands.

In the study we test this idea experimentally on Russian material. Russian intrusive pronouns have only been studied in the context of relative sentences with *kotoruj* ‘which’ (Lyutikova, 2009). E. Lyutikova does not find any differences in acceptability depending on the presence/absence of intrusive pronouns in sentences with an island of adverbial relative clause. However, since there is information only about one island type, we present an extended investigation, where we used experimental methods for verify ability and reliability of data.

**Research question.** We investigate the hypothesis that intrusive pronouns are more preferable to gaps in sentences with extraction from island constructions and less preferable in non-islands and, as a consequence, that using intrusive pronouns we can distinguish island and non-island constructions.

**Present study.** Since the results of using different experimental methods may vary (cf. Sprouse and Almeida, 2017), we studied acceptability using both 7-point Likert scale and forced-choice task. Following (Alexopoulou and Keller, 2007), we considered as the main factor three structures that exhibit different properties with regard to extraction: non-island subjunctive relative clauses with complementizer *chtoby* ‘so that’, weak islands with indicative complementizer *cto* ‘that’, and strong complex noun phrase islands. The other factor was presence of intrusive pronouns (yes/no). In all sentences the extracted constituent was a direct object. Therefore, the design of the experiment was 2x3, 4 lexicalizations per condition. Thus, one experimental list contained 24 stimuli sentences and 24 filler sentences. Below you can see an example of stimuli:

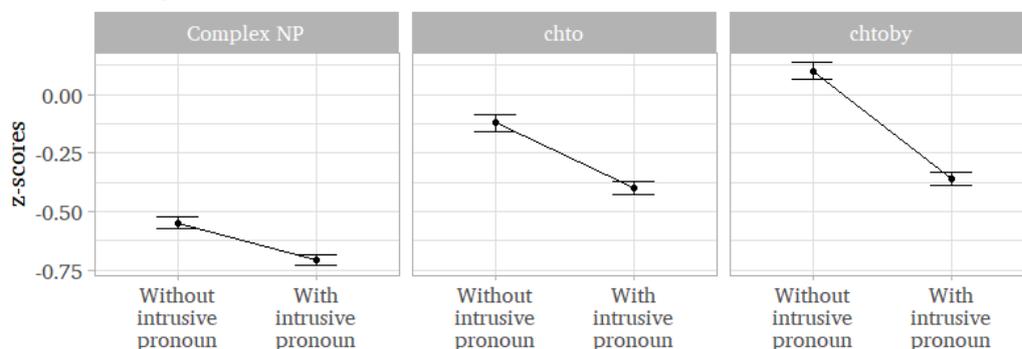
- (1) *na ulitse stojala mashina kotoruju Vasja povetil objavlenie chto Petja uberjot (eyo)*  
on street stayed car which V hang notice that P. remove it  
*na sledujuschej nedele.*  
on next week  
‘There was a car in the street, which Vasya put up a notice that Petya would remove it next week’.
- (2) *na ulitse stojala mashina kotoruju Vasja poobesh'al chto Petja uberjot (eyo)*  
on street stayed car which V promised that P. remove it  
*na sledujuschej nedele.*  
on next week  
‘There was a car in the street, which Vasya promised that Petya would remove it next week’.
- (3) *na ulitse stojala mashina kotoruju Vasja poprosil chtoby Petja ubral (eyo)*

on street stayed car which V asked so.that P. remove **it**  
*na sledujuschej nedele.*

on next week

‘There was a car in the street, which Vasya asked so that Petya would remove **it** next week’.

**Results.** We used ANOVA and Tukey pairwise comparisons for Likert scale experiments (112 respondents) and a sign test for the forced-choice experiment (89 respondents). ANOVA showed significance for all factors and their combinations (p-value  $\ll 0.01$  for all factors and island type presence of intrusive pronoun combination. The results of both experiments show that the presence of intrusive pronouns not only does not increase the acceptability but decreases it for strong (Sign test for forced-choice: p-value  $< 0.01$ , Tukey test for Likert scale: p-value  $< 0.01$ ), weak (Sign test for forced choice: p-value  $< 0.01$ , Tukey test for Likert scale: p-value  $< 0.01$ ) and non-island constructions (Sign test for forced choice: p-value  $< 0.01$ , Tukey test for Likert scale: p-value  $< 0.01$ ).



**Discussion.** The results disprove the hypothesis of amelioration of illicit island extraction for Russian. Moreover, it is true for both methods, which have earlier shown different results for English. Therefore, intrusive pronouns cannot be used as indicators of different types of constructions, since they lower the acceptability both for island and non-island structures, in contrast to data obtained by previous studies. In my talk I will show possible ways of future investigations, which may include using animacy of an intrusive pronoun as an indicator of structure type.

## References

- Ackerman, L., Frazier, M., & Yoshida, M. (2018). Resumptive pronouns can ameliorate illicit island extractions. *Linguistic Inquiry*, 49(4), 847-859. Alexopoulou, T., & Keller, F. (2007). Locality, cyclicity, and resumption: At the interface between the grammar and the human sentence processor. *Language*, 110-160.. *Language* 83:110–160. Lyutikova E. A. (2009) Relative sentences with the relative pronoun *kotoryj*: general characteristics and properties of movement. In *Corpus Studies in Russian Grammar* (pp. 436-511). Moscow. McCloskey, J. (1990). Resumptive pronouns,  $\bar{A}$ -binding, and levels of representation in Irish. In *The syntax of the modern Celtic languages* (pp., 199-248). Brill. Ross, J. R. (1967). Constraints on Variables in Syntax. *Unpublished Doctoral dissertation*. Sells, Peter, (1984). Syntax and Semantics of Resumptive Pronouns. *Doctoral Dissertations Available from Proquest*. Sprouse, J., & Almeida, D. (2017). Design sensitivity and statistical power in acceptability judgment experiments. *Glossa*, 2(1), 1.