Syntactic islands and focality in Russian

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Abstract

One approach to syntactic islands appeals to information structure as an explanation. According to Goldberg (2006), backgrounded constructions are islands (BCI). The goal of this paper is to test the BCI hypothesis for Russian. Following Ambridge & Goldberg (2008), I concentrate on the extraction out of the complements of three groups of verbs (light verbs, manner-of-speaking verbs and factive verbs) to see whether the acceptability judgements for extraction correlate with the potential interpretation of the corresponding element as being in focus. Results indeed show strong and significant correlation ($r = 0.68$, $p = 0.0144$), providing support the BCI hypothesis.

Keywords: syntactic islands, information structure, Russian

Introduction

An island is a syntactic construction that contains an element that cannot be extracted from it. Three main approaches attempt to explain the island phenomena (Newmeyer 2015). The syntactic-based approach postulates certain constraints on extraction in terms of syntactic categories of the island or the extracted phrase (Ross 1984, Chomsky 1973). The resource-based approach argues that processing such sentences puts too much strain on our cognitive apparatus (Phillips 2013). Finally, the communicative approach states that islands result from a clash in information structure. Pioneered by Erteschik-Shir (1973), the latter developed into a simple hypothesis – backgrounded constructions are islands (BCI) as formulated by Goldberg (2006).

Ambridge & Goldberg (2008) tested WH-extraction from the complements of three verb groups: light, manner-of-speaking and factive verbs, together with their focality/backgroundedness status. As a metric of islandhood, they used the difference score between the acceptability judgements of sentences with and without extraction. As a focality metric, they employed a negation test – to what degree negation of the main sentence implies negation of the complement.

Their analysis indicates a strong correlation between focus judgements and the difference score ($r = -0.83$, $p = 0.001$). The correlation between focus and extraction acceptability judgments is lower, yes still statistically significant ($r = 0.58$, $p < 0.05$). Their data provide support for the BCI hypothesis.

In this study, I performed a similar experiment for Russian, examining the correlation between extraction and focality judgements.

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Methodology

I utilized the same three groups of verbs, with four verbs in each group:

1. Light verbs: govorit' (say), dumat' (think), schitat' (believe), polagat' (suppose)
2. Manner-of-speaking verbs: krichat' (shout), sheptat' (whisper), bormotat' (mumble), lepetat' (babble)
3. Factive verbs: znat' (know), pomnit' (remember), radovat'sja (be glad), sozhalet' (regret)

The experiment consisted of two parts. In the first part, participants were asked to rate, on a scale from 1 to 7, the grammatical acceptability of sentences with WH-extraction and those without it:

- Dina krichit, chto Seva ispachkal shtany
  (Dina shouts that Seva has soiled his pants)
- Chto Dina krichit, chto Seva ispachkal?
  (What Dina shouts that Seva has soiled?)

In the second part, they were asked to evaluate how natural the sentence sounded as an answer to the question regarding the complement of the verb:

- Chto Luba sshila?
  (What did Luba sew?)
- Venya znaet, chto Luba sshila sarafan
  (Venya knows that Luba sewed a sundress)

Sentence variability was controlled. The main verb in each sentence was always in the present tense and imperfect aspect. The verb in the dependent clause was consistently transitive, in the past tense and perfect aspect. The extracted element was always a direct object.

In the first part, every participant evaluated 24 target sentences and 24 fillers, and in the second part, they assessed 12 target sentences and 12 fillers, amounting to a total of 72 sentences.

The experiment was conducted online in May 2020 using Ibex farm software. It was advertised on Facebook and VK social networks and on the "Russian reddit" website d3.ru. A total of 515 participants were attracted (56 from social networks and 459 from d3.ru) with diverse age (ranging from 25 to 72 with the mean of 42 years old) and geographical locations within Russia (only 27% from Moscow), predominantly male (82%) and with higher education (79%).

Participants and their responses underwent filtration based on their evaluation of fillers and reaction times. Those who rated positive fillers below 5 on average or negative fillers above 4 on average were excluded. Judgements with a reaction time less than 2 seconds were excluded. Participants with an average reaction time less than 2 seconds were excluded altogether. Overall, this led to the exclusion of 30 participants from the first part and 71 from the second part (including 13 from both parts).

Results

A one-way ANOVA with the independent variable of verb group showed a significant overall impact on the dependent variables of z-scores for both extraction judgements ($F = 22$, $p < 0.001$) and focus judgements ($F = 414$, $p < 0.001$). However, Tukey's test indicated that for extraction judgements, the effect is driven by the light verbs being rated significantly higher than the other two groups, while the manner-of-speaking and factive verbs did not show a significant difference between them. This is likely because manner-of-speaking verbs are strongly dispreferred by the participants even without extraction.

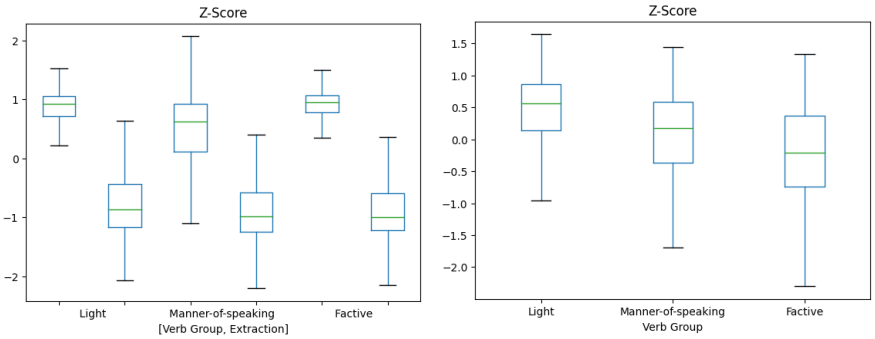

Figure 1. Rating z-scores for each part of the experiment based on verb groups and the presence of extraction (for the first part).

Correlation analysis shows a strong and significant correlation between the average focus ratings and the average extraction ratings for verbs ($r = 0.68$, $p = 0.0144$). However, the scatter plot illustrates that the groups are not homogenous. The verbs krichat' (shout) and dumat' (think) appear to be outliers within their respective groups. Factive verbs split into two subgroups – cognitive verbs znat' (know) and pomnit' (remember) and emotional verbs radovat'sja (be glad) and sozhalet' (regret).

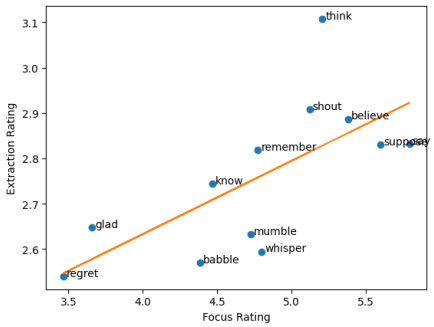

Figure 2. Correlation between the average focus ratings and extraction ratings.

Discussion

Given the significant correlation between the focus ratings and the extraction ratings, we can conclude that non-focality is a good predictor of islandhood. This supports the BCI hypothesis.

On the other hand, if we assess islandhood based on the difference score, we might infer that the manner-of-speaking verbs are the best for extraction (as their difference score is the lowest), which does not correlate with the focality judgements. However, this discrepancy likely stems from two factors: a) the strong dispreference for manner-of-speaking verbs even without extraction, and b) the overall greater restrictions on extraction from 'chto' complements in Russian compared to 'that' complements in English (Lyutikova and Gerasimova 2021). The extraction acceptability judgements are situated near the lower boundary of the range (2-3 out of 7). In such a situation, the simple difference score might not be a good metric to use.

Anyway, the study shows that focality is not the only factor that plays a role in the islandhood status of the constituent. Focus judgements are about 2 points higher than extraction acceptability judgements. Speakers would not always accept extraction even when they accept the declarative statement with a focus on the complement. Probably, grammatical factors also play a role.

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