

## Subject Islands in Slavic: The Syntactic Position Matters!

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Syntactic islands vary in the degree of their opacity, hence the well-known contrast between strong and weak islands (Cinque 1990, Szabolcsi & Zwarts 1993). Subject islands are usually assumed to be strong; however, experimental studies of satiation suggest that subject islands in English can be weak (Hiramatsu 1999, Snyder 2000). These studies, though, considered only subjects of unaccusative verbs, which originate in the internal argument position (Levin & Rappaport 1995). If these studies are an indication, it is possible that subject islands may differ in strength depending on the argument structure of the verb and the structural position of the subject. To test this hypothesis, we conducted experimental studies on subject islands in English, Russian and Czech, where we considered subjects of unaccusatives, unergatives, and transitives. The subjects of unaccusatives are internal arguments and are, as such, positioned post-verbally within the VP, [<sub>IP</sub>[<sub>VP</sub>[<sub>VP</sub>V DP]]]. The subjects of unergatives and transitives, on the other hand, appear in a specifier position above the verb, [<sub>IP</sub>[<sub>VP</sub>DP [<sub>VP</sub>V ]]].

Czech is an important test case for the unaccusatives because the base position of its unaccusatives is clearly visible in the surface structure. In English unaccusatives, it is unclear whether extraction takes place from the base position, [<sub>IP</sub>[<sub>VP</sub>[<sub>VP</sub>V DP]]], or from a derived position, [<sub>IP</sub>[<sub>VP</sub>DP<sub>I</sub>[<sub>VP</sub>V t<sub>I</sub>]]]; in Russian, it is difficult to determine the correct structures due to extensive scrambling. Czech has more restricted scrambling, and thus allows us to compare subject arguments in their base positions, see (1)-(3). Further, Czech has a clearly identified derived initial position ([Spec, IP]), which is separated from the rest of the clause by a second position clitic cluster (Sturgeon 2008). Subjects in this position are interpreted as regular topics or contrastive topics, while those below this position can generally be assumed to be in their base position.

The extraction from subjects of unaccusatives in Czech, Russian, and English was judged more felicitous and had a significantly lower processing cost than extraction from subjects of unergatives and transitives. In Czech and Russian, the extraction out of a postverbal unaccusative subject, (1), caused a similar slowdown as the extraction out of a postverbal object, (4), as measured at the gap position. These results yield support to Merchant's 2001 proposal that extraction targets the base position of a chain, not the highest. Unaccusative subject islands are therefore weaker because the subject originates as an internal argument, and this base position is accessible for extraction (judgment data and reading times for object extraction further support that).

However, the base position is not the only factor that determines the transparency of subject islands. The experimental results show that Russian and Czech, extraction from the postverbal surface position (VS structure) is more felicitous and is read faster in all the verb types. Since subjects of unergatives and transitives are invariably in the specifier position, regardless of the surface position of the verb, this suggests that subject islands are also sensitive to information structure. The postverbal domain in Slavic contains non-topics, while the preverbal position is more likely to host a topic referent. In Czech, the dedicated preverbal position hosts A-bar topics (Sturgeon 2008), and the experimental results show that the expressions in this position are particularly strong islands. In Russian, there seem to be several structural positions for A-bar topics (cf. King 1995), but overall preverbal DPs are more likely than postverbal ones to receive a topic interpretation, and such DPs are also stronger islands (see Erteschik-Shir 1997 for an information-structural account of this phenomenon). Similar effects are found in Spanish where pre-, but not postverbal subjects, show island effects (Uriagereka 1988, Torrego 1985). The fact that topics are stronger islands may appear as an argument for *freezing* effects: an element moved to higher position associated with a criterial feature is frozen in place (Wexler & Culicover 1980, Rizzi 2005, Stepanov 2007). Since topics in Czech and possibly in Russian have moved into an A-bar position, that position is frozen. However, freezing effects do not hold for topicalized (fronted) subjects of unaccusatives and objects, which remain transparent for extraction despite appearing in an A-bar position. We conclude that topicality and structural position are independent effect and are both relevant to determining the transparency of an island.

### Examples:

- (1) *Jací*            *jsi*            *řekl, že*    *na jevišti* *se ukázali* *herci?*  
what-kind-of    AUX.2SG    said    COMP    on stage    REFL.CL appeared    actors  
'What kind of \_\_ did you say that \_\_ actors appeared on the stage?'    UNACC SUBJ, CZECH
- (2) *Jací*            *jsi*            *řekl, že*    *na zem* *si sedli* *studenti?*  
what-kind-of    AUX.2SG    said    COMP    on floor    REFL.CL sat            students  
'What kind of \_\_ did you say that \_\_ students sat on the floor?'    UNERG SUBJ, CZECH
- (3) *Jaké*            *si*            *myslíš, že*    *auto* *ti naboraly* *holky?*  
what-kind-of    REFL.CL think    COMP car    2SG.CL crashed            girls  
'What kind of \_\_ do you think that the \_\_ girls crashed car?'    TRANS SUBJ, CZECH
- (4) *Jaké*            *jsi*            *řekl, že*    *holka* *ti rozmlátila* *talíře?*  
what-kind-of    AUX.2SG said    COMP girl    2SG.CL broke            plates  
'What kind of \_\_ did you say that the girl broke \_\_ plates?'

### Experimental details

**Experiment 1** (Russian): 50 items, 5x3 design. Items included pre- and post-verbal extraction from transitive, unaccusative, unergative, and passive subjects and transitive objects, and grammatical control questions without extraction. 39 native speaker subjects completed an acceptability rating and self-paced reading task. **Experiment 2** (Czech): 36 items, 4x3x2 design. Items consisted of wh-questions with extraction out of subject/object, statements without subject/object extraction, and subject/object wh-questions as grammatical control items. Transitive, unaccusative, and unergative subjects and transitive objects appeared in pre- and post-verbal position. 39 native speaker subjects completed an acceptability rating and self-paced reading task. **Experiment 3** (English): 36 items, 3x2 design. Stimuli items included wh-extraction out of transitive, unaccusative, and unergative subjects, and grammatical subject wh-questions as control items. 38 native speaker subjects completed an acceptability rating and self-paced reading task.

### References

- Cinque, G. 1990. *Types of A'-dependencies*. Cambridge, Mass.: MIT Press.
- Erteschik-Shir, N. 1997. *The dynamics of focus structure*. Cambridge: CUP.
- Hale, K. and J. Kayser. 1993. *On argument structure and the lexical expression of syntactic relations*. Cambridge: MIT Press.
- Hiramatsu, K. 1999. Subject and adjunct island asymmetries: Evidence from syntactic satiation. *Proceedings of the West Coast Conference on Formal Linguistics*, 18, 183-192.
- King, T.H. 1995. *Configuring topic and focus in Russian*. Stanford: CSLI.
- Levin, B. and M. Rappaport Hovav. 1995. *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge: MIT Press.
- Merchant, J. 2001. *The syntax of silence*. Oxford: Oxford University Press.
- Rizzi, L. 2005. On some properties of subjects and topics. *Proceedings of the XXX incontro di grammatica generativa*, 53-68. Venezia: Cafoscarina.
- Snyder, W. 2000. An experimental investigation of syntactic satiation effects. *Linguistic Inquiry*, 31, 575-582.
- Stepanov, A. 2007. The end of CED? Minimalism and extraction domains. *Syntax*, 10, 80-126.
- Sturgeon, A. 2008. *The left periphery: The interaction of syntax, pragmatics and prosody in Czech*. Amsterdam: John Benjamins.
- Szabolcsi, A. and F. Zwarts. 1993. Weak islands and an algebraic semantics for scope-taking. *Natural Language Semantics* 1, 235-284.
- Torrego, E. 1985. On empty categories in nominals. Ms. U.Mass Boston.
- Uriagereka, J. 1988. *On Government*. Ph.D. dissertation, University of Connecticut.
- Uriagereka, J. 1999. Multiple Spell-out. In Epstein & Hornstein (eds.), *Working Minimalism*, Cambridge: MIT Press.
- Wexler, K., P. Culicover. 1980. *The formal principles of language acquisition*. Cambridge: MIT Press.