

Background: Russian (like Hungarian and many other languages) exhibits PPI disjunction: it cannot take scope under negation. More precisely, it has been observed that PPIs are anti-licensed in anti-additive contexts (where $f(a \vee b) \equiv f(a) \wedge f(b)$, like negation in (1); see the discussion in Szabolcsi 2002). In some contexts, however, PPI disjunction is able to do so: here, I focus on disjunction of CPs (2).

- (1) a. *Grisha ne govorit po-russki ili po-anglijski*
 G. not speaks Russian or English
 ‘Grisha doesn’t speak Russian or English.’ $(\vee > \neg, * \neg > \vee)$
- b. *Maria ne думаet что Grisha durak ili что Vanja debil*
 M. not thinks that G. fool or V. moron
 ‘Maria doesn’t think that Grisha is a fool or that Vanja is a moron.’ $(\vee > \neg, \neg > \vee)$

Syntactic assumptions: I assume that wide scope of disjunction in Russian results from clausal disjunction with ellipsis whereas narrow scope of disjunction results from true phrasal disjunction. Evidence from that comes from behavior of sentence-medial disjunction in ditransitive constructions. It is ungrammatical (when the parse can’t involved topicalized disjunction of NPs; see below): presumably, due to lack of a licit parse with clausal disjunction and ellipsis.

- (2) a. *Grisha ne dal Vanje ručku ili karandaš*
 G. not gave V. pen or pencil
 ‘Grisha did not give Vanja a pen or a pencil.’ $(\vee > \neg, * \neg > \vee)$
- b. Implied question under discussion: *What happened?*
 **Grisha ne dal ručku ili karandaš Vanje*
 G. not gave V. pen or pencil

Our puzzle is therefore why phrasal PPI disjunction of finite CPs is licensed under negation.

Why phrasal disjunction of CPs is special: Bassi and Bondarenko (2020), Bondarenko (2022) show that equality semantics for embedded CPs (Elliott 2020) correctly predicts that embedded CPs cannot be phrasally conjoined due to violation of uniqueness of thematic roles (underlined). For example, they show that [ATT [CP1 and CP2]] is necessarily interpreted as conjunction of two independent attitudinal eventualities (suggesting a clausal conjunction parse).

- (3) $\llbracket \text{ATT} [p \text{ and } q] \rrbracket = \exists e. \text{ATT}(e) \wedge \text{CONT}(e) = \{w | \llbracket p \rrbracket(w) = 1\} \wedge \text{CONT}(e) = \{w | \llbracket q \rrbracket(w) = 1\}$

This observation suggests that anti-licensing of PPI disjunction under negation requires a felicitous conjunctive scalar alternative: when it is absent, disjunction is licit.

Role of conjunction: Szabolcsi (2002) notes that Russian PPI disjunction is anti-licensed in anti-additive environments, where $f(a \vee b) \equiv f(a) \wedge f(b)$: I suggest to refine this condition by adding that, contextually, it should be the case that $f(a \wedge b) \equiv_C f(a) \wedge f(b)$ and that phrasal conjunctive alternative should be felicitous.

- (4) Condition on anti-licensing of PPI disjunction in Russian
- Environment is anti-additive: $f(a \vee b) \equiv f(a) \wedge f(b)$
 - Contextually, $f(a \wedge b) \equiv_C f(a) \wedge f(b)$
 - $a \wedge b$ should be relevant

For negation, for example, the second condition amounts to homogeneity effects observed with conjunction in Russian (Szabolcsi and Haddican 2004): since negation of conjunction is required to be interpreted as conjunction of negation (5).

- (5) *Grisha ne kupil ručku i karandaš Vanje. #On kupil emu toljko ručku.*
 G. not bought pen and pencil V. he bought him only pen
 Int.: ‘Grisha did not buy Vanja pen and pencil. He only bought him a pen.’

Theoretical upshot: Unlike regular anti-additivity, this condition can be derived from independent mechanisms: namely, this can be seen as a *Maximize Presupposition!* effect, assuming that homogeneity is a presupposition (Schwarzschild 1993; see Ren 2024 for experimental evidence). If disjunctive and conjunctive variants are contextually equivalent (as they are if 4a and 4b are satisfied), the conjunctive variant is preferred since it carries the homogeneity presupposition absent from disjunctive variant. Conjunction of CPs, discussed in introduction, does not meet the condition of contextual equivalence, since phrasal conjunction of CPs happens to be trivially false (unlike phrasal disjunction of CPs).

A prediction: Given that MP! effects have been reduced to exhaustification phenomena (e.g., Marty and Romoli 2021), we might expect that PPI anti-licensing will not occur in contexts where there is no scalar competition between disjunction and conjunction. One such context is topicalization of disjunction where the scalar implicature does not arise (6a; see also Zondervan 2010): as predicted, narrow scope of disjunction is possible (see 6b; as observed by Rudnev 2017).

- (6) a. [*Po-anglijski ili po-nemetski*]_{TOP} ja čitaju. Ja oba jazyka prekrasno znaju.
 English or German I read I both language very.well know
 ‘English or German, I know how to read. I know both languages very well.’
 b. [*Po-ruski ili po-anglijski*]_{TOP} Grisha ne govorit
 Russian or English G. not speaks
 ‘Grisha doesn’t speak Russian or English.’ (¬ > ∨)

Conclusion: This abstract presented a novel violation of the anti-additivity condition on PPI distribution in disjunction of CPs in Russian and argued that anti-additivity anti-licenses PPI disjunction only when there is a relevant, contextually equivalent conjunctive alternative, making the novel contribution that PPI anti-licensing is related to the present scalar alternatives.

References: • Bassi, I. and Bondarenko, T. (2020). Composing CPs: Evidence from disjunction and conjunction. In *Semantics and Linguistic Theory*, pages 583–602. • Bondarenko, T. (2022). *Anatomy of an Attitude*. PhD thesis, Massachusetts Institute of Technology. • Elliott, P. D. (2020). *Elements of clausal embedding*. PhD thesis, UCL (University College London). • Marty, P. and Romoli, J. (2021). Presuppositions, implicatures, and contextual equivalence. *Natural Language Semantics*, 29:229–280. • Ren, J. (2024). An experimental investigation of the homogeneity of conjunctions. Talk at SuB 2024. • Rudnev, P. (2017). Disjunct size, positive polarity, and the scope of disjunction in Russian. Slides of a talk at IATL33. • Schwarzschild, R. (1993). Plurals, presuppositions and the sources of distributivity. *Natural Language Semantics*, 2(3):201–248. • Szabolcsi, A. (2002). Hungarian disjunctions and positive polarity. • Szabolcsi, A. and Haddican, B. (2004). Conjunction meets negation: A Study in Cross-linguistic Variation. *Journal of Semantics*, 21(3):219–249. • Zondervan, A. (2010). *Scalar implicatures or focus: An experimental approach*. LOT.