Cross-linguistic variation in the PPI status of disjunction?
The view from an acceptability rating study

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Although morphosyntactically varied, positive polarity items (PPIs) are unified by their anti-licensing property that they cannot be interpreted in well-defined "negative" contexts, such as the immediate scope of local logical negation. One recent addition to PPIs are disjunctions of certain languages, including Hungarian. As discussed by Szabolcsi (2002, 2004), while in languages like English (as well as Greek, Romanian and Korean) disjunction can be freely interpreted in the scope of a local anti-additive (AA) operator, like negation in a sentence like (1) (the 'neither', i.e. NEG>OR reading), in languages of the Hungarian type (including Russian, Italian and Japanese) disjunction can only have a wide scope interpretation (2) (the 'one or the other not', i.e. OR>NEG reading).

Initially, this hypothesized cross-linguistic dichotomy in the PPI status of disjunction is confirmed by some experimental work (e.g. Hungarian, French, Italian vs. Dutch; Pagliarini et al. 2022). Other studies, however, have yielded conflicting results (French: Larralde et al. 2021, Mandarin Chinese: Jing et al 2005, Jing 2008 vs. Liu & Chen 2017). Based on a rating study of English, Romanian, Italian and French, Lungu et al. (2021) suggest that there may not actually be a genuine cross-linguistic dichotomy at all; specifically, disjunction is a PPI in all languages, which merely differ in the degree of the PPI-effect instigated by local NEG>OR.

We have conducted an acceptability rating study comparing Hungarian (a representative of presumed PPI-disjunction languages) and English (a presumed non-PPI-disjunction language) to find out whether their disjunction has PPI properties, and if so, how strong this PPI effect is. Adult participants (n=30 per language) rated the naturalness of target sentences on a seven-point numerical scale in given contexts. In critical items the contexts served to unambiguously fix whether disjunction in the target sentence was intended to scope below or above a 'negative' operator. The operator was either a local sentential negation, or a non-local (NONLOC) sentential negation (3), or a downward entailing (DE) phrase (4) (the first should anti-license narrow-scope disjunction if disjunction is a PPI, while the latter ones should not). Control conditions contained one of two types of anti-licensed PPIs (5) (*some*, *fortunately*) in the scope of local negation, or one of two types of unlicensed negative polarity items (6) (NPIs; *ever, either*). Finally, we constructed a set of unacceptable ('bad') and a set of highly acceptable ('good') controls without PPIs or NPIs.

Our results, analyzed in GLMM, point to the following main findings. (i) Control conditions show that while giving rise to different degrees of degradation, both anti-licensed PPIs and unlicensed NPIs are significantly degraded compared to 'good' controls in both languages. (ii) By contrast, local NEG>OR is highly acceptable in both languages, and not statistically different from the two control conditions with narrow-scope disjunction that involve *no* anti-licensing. These findings may suggest that disjunction is not a PPI either in English or in Hungarian. Where the two languages diverge systematically is not NEG>OR/DE>OR conditions, but OR>NEG/OR>DE conditions: it is wide-scope disjunction that is degraded in English, compared to Hungarian.

Examples

(1) John didn't open the door or the window.
local NEG>OR: 'he opened neither'
local OR>NEG 'one or the other he didn't open'

(2) János nem nyitotta ki az ajtót vagy az ablakot
John not opened out the door.acc or the window.ACC
'John didn't open the door or he didn't open the window.' (local OR>NEG)

(3) So they don't think that Pete took the appetizer or the dessert.

(4) So they think that few people took the appetizer or the dessert.

(5) So it happened that our company didn't hire someone.

(6) So I think that Lucy has ever been to Paris.

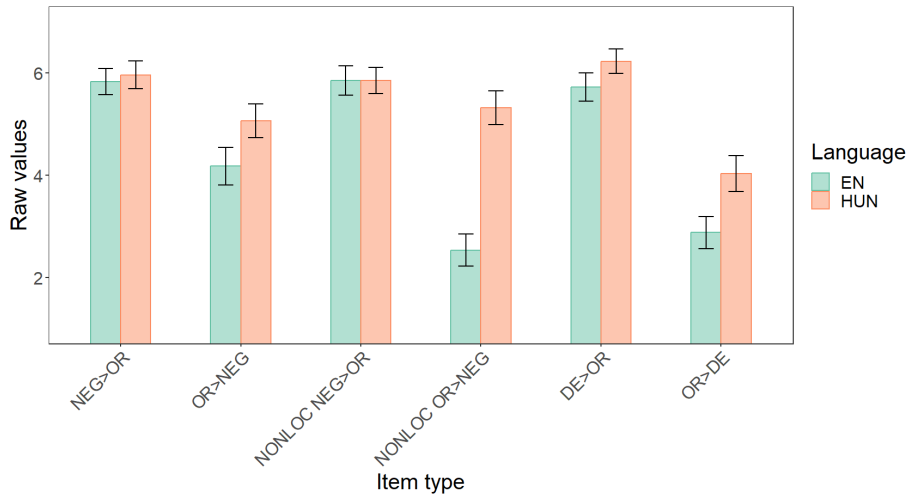

Figure 1: Critical conditions (mean judgments with 95% CI)

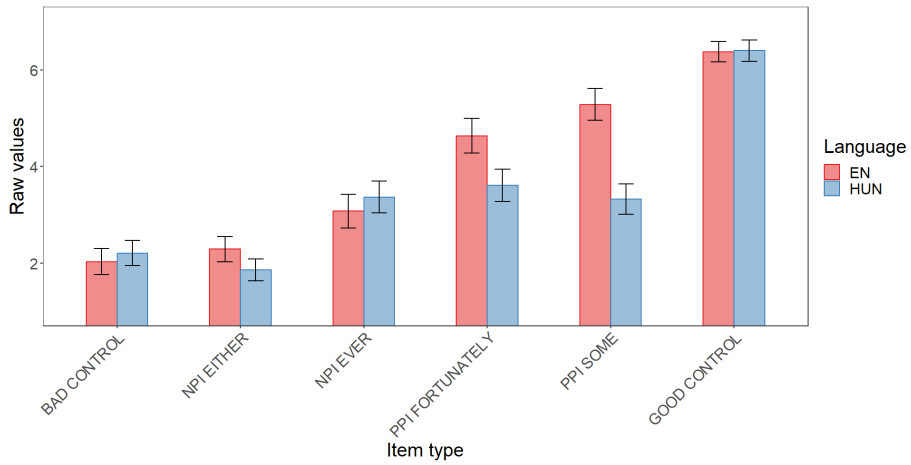

Figure 2: Control conditions (mean judgments with 95% CI)