

Strength doesn't matter but licensors do: Weak and strong NPI illusions in Czech

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Background: Weak negative polarity items (NPIs, e.g., *ever*) are licensed in conditionals, questions, and under negation; strong NPIs (e.g., *lift a finger*) only under negation. Both are a challenge for online comprehension due to the need for a rapid determination of whether they are licensed. Weak NPIs are prone to illusions from structurally irrelevant licensors [5] These illusions have been found with negative quantifiers (1) but not sentential negation (2) in English [6] although both are valid licensors if they c-command the NPI. Contrary to this, [4] found that in Czech, sentential negation is an effective illusory licensor of NPIs, casting doubt on explanations of NPI illusions such as the active scope [6] and scalar theories [7], which predict negation to be ineffective. However, while the previous literature has focused on illusions with weak NPIs, [4] tested the strong NPI *ani jeden* (“not even one”) and argued that illusions are caused by the high placement of negation in Czech [8], within the feature percolation approach [1]. However, *ani* requires negation and borders on the status of a negative concord item, which are said to be licensed syntactically [8] and elicit illusions in Czech [3]. Thus, its processing could involve different mechanisms from those of weak NPIs, whose illusory licensing has not yet been tested in Czech.

Current study: We tested the vulnerability of Czech weak and strong NPIs to illusory licensing from sentential negation (Exp1, N = 67) and the adverb *málokdy* (“rarely”, Exp2, N = 97) in two RSVP binary speeded acceptability judgement experiments. We contrasted the weak NPI *seběmenší* (lit. “slightest”) with the added strong NPI phrase *ani seběmenší* (“not even the slightest”) in a set of 36 grammatical (negation in the MC), ungrammatical (no licensor) and illusory configurations (negation or *málokdy* in the RC), see Example (3). Following the high negation percolation account [2026], we expected illusions in Exp 1 with both weak and strong NPIs their absence in Exp2, since *málokdy* has no negative feature that can percolate up. The active scope and scalar theories predicted illusions for weak NPIs in Exp2 and no illusions in Exp1, because *málokdy* is a quantifier and a scalar too, crucial properties for the two theories respectively.

Results: See Figure 1 for mean acceptability. Logistic mixed models revealed that the illusory condition differed from the ungrammatical one in the negation Exp1 ($\beta = 1.25$, SE = 0.27, $z = 4.6$, $p < 0.001^{***}$), but not in the “rarely” Exp2 ($\beta = 0.26$, SE = 0.24, $z = 1.1$, $p = 0.274$). In Exp2, there was an interaction between grammaticality and NPI type ($\beta = -0.71$, SE = 0.34, $z = -2.1$, $p = 0.037^*$) with strong NPIs decreasing acceptance. Yet in a nested model, neither type of NPIs showed illusions (Weak: $\beta = 0.26$, SE = 0.24, $z = 1.1$, $p = 0.271$; Strong: $\beta = -0.44$, SE = 0.24, $z = -1.8$, $p = 0.074$).

Discussion: Czech comprehenders showed illusions with both weak and strong NPIs due to an intervening negation but no illusions with *málokdy* (“rarely”) in Exp2. Therein, the results suggest that weak and strong NPIs differ within the critical condition, yet we cannot interpret this as an illusion. Overall, the results are in line with the feature percolation account of [4] and incompatible with the active scope and scalar theories. Thus, illusions in Czech extend to weak NPIs and are tied to the presence of negation. These observations underscore the importance of the variation in the syntactic placement of negation – with a high one, both types of Czech NPIs are prone to illusions. Low placement in English then leads to immunity to illusory licensing from sentential negation.

References

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Figures and Tables

- (1) *The student who no teacher likes has ever passed the course.
- (2) *The student who the teacher does not like has ever passed the course.

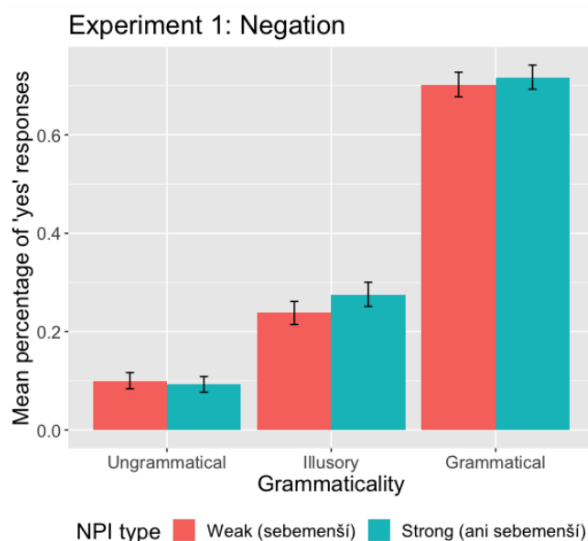


Figure 1: The results of Exp1.

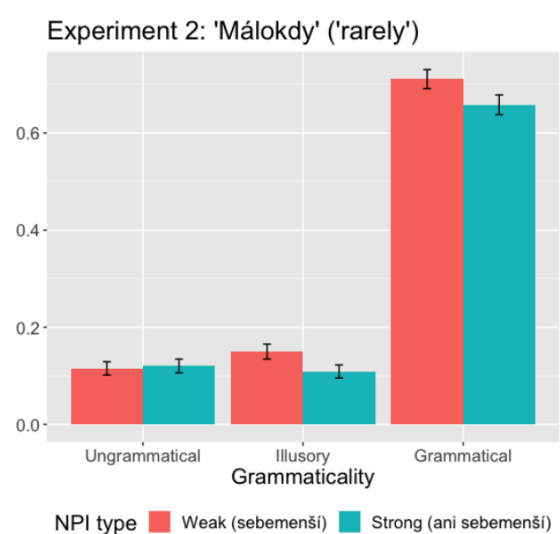


Figure 2: The results of Exp2.

- (3) a. Na minulé schůzi **ne**-jevila Petra, která [občas] chodila mezi nakažené
 on last meeting NEG-showed Petra which [sometimes] walked among infected
 pacienty, (ani) sebemenší příznak chřipky.
 patients.ACC (not.even) slightest symptom.ACC flu.GEN
 (Grammatical)
- b. Na minulé schůzi jevila Petra, která [občas] chodila mezi nakažené
 on last meeting showed Petra which [sometimes] walked among infected
 pacienty, (ani) sebemenší příznak chřipky.
 patients.ACC (not.even) slightest symptom.ACC flu.GEN
 (Ungrammatical)
- c. Na minulé schůzi jevila Petra, která **ne**-chodila mezi nakažené pacienty,
 on last meeting showed Petra which [sometimes] NEG-walked among infected
 (ani) sebemenší příznak chřipky.
 patients.ACC (not.even) slightest symptom.ACC flu.GEN
 (Illusory, Exp1 – negation)
- d. Na minulé schůzi jevila Petra, která **málokdy** chodila mezi nakažené
 on last meeting showed Petra which rarely walked among infected
 pacienty, (ani) sebemenší příznak chřipky.
 patients.ACC (not.even) slightest symptom.ACC flu.GEN
 (Illusory, Exp2 – *málokdy*, ‘rarely’)
 ‘At the last meeting, Petra, who [sometimes/rarely] went among infected patients,
 showed/didn’t show (even) the slightest symptom of flu.’

The Morphology of *sebemenší* (‘slightest’):

Sebemenší is a composite adjective, consisting of *sebe-* = a reflexive anaphor in the genitive, *-men-* = the root which denotes ‘small’, and *-ší* = comparative suffix. The Czech language productively uses this derivational template with other adjectival roots ([9]). The resulting adjective *sebe-P-ší* stands for ‘even the most P’ and exhibits the distributional constraints that polarity items typically do. *Sebemenší* is the most frequent one of these adjectives in Czech corpora ([9], [2]). This could be due to the root ‘small’ being the most suitable candidate for a *minimiser* NPI.