

Selective Nature of NPI Illusions in Korean

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Introduction: Multiple lines of evidence suggest that the negative polarity item (NPI) illusion is highly selective, i.e., an erroneous acceptance of an unlicensed NPI may vary depending on word items. One major finding is that the NPI illusion occurs to the adverb *ever* in (1a), while the determiner *any* in (1b) is immune to the same effect [1].

(1) a. *The actor that no spectator liked has **ever** received the award for a movie.

b. *The actor that no spectator liked has received **any** award for a movie.

Interestingly, the illusion also occurs to a positive polarity item (PPI), even though the PPI does not coerce parsers into retrieving a negative licenser in the preceding context [2].

(2) The cashier that no employer hired will **still** search for a job.

Unlike the NPI illusion, the acceptability of the grammatical PPI *still* in (2) is slightly degraded. These empirical findings suggest that the NPI illusion may arise from different sources, e.g., scope interpretation of the negative quantifier, scalar implicature of NPIs. In this study, we aim to seek potential factors of variable illusions by testing four polarity items in Korean. Notably, Korean speakers may make prospects of negative licensors because NPIs linearly precede their licensors as in Turkish [3]. Hence, it is noted that the NPI illusion in Korean is particularly strong by virtue of parser's expectation of the forthcoming licenser even in the untimed task [4].

Methods: We test the nominal NPI *amwuto* ('anyone') and adverbial NPI *yekan* ('commonly'). In our sentence stimuli, both NPIs linearly precede the sentential negation *an* ('not'). Furthermore, we select two adverbial PPIs *cacwu* ('often') and *kansinhi* ('barely') as grammatical parallels to NPIs. Our sentence stimuli may or may not contain the sentential negation, and the negation is either placed in the matrix or embedded clause as in Table 1. The embedded clause is headed by the complementizer *-tako* that follows the negation as in (3). We constructed six items for two NPIs and four items for two PPIs (total 36 for NPIs and 24 for PPIs) in addition to 96 filler items. We performed the acceptability judgment tasks on a 7-point scale by recruiting 58 native Korean speakers. Eight participants were removed due to unreliable responses, e.g., failure to dismiss at least the half of the ungrammatical filler items.

Results: We fitted mixed-effect models with random effects of subject and item. For both NPIs (Figure 1), there is a significant degree of grammaticality effects ($p < .001$). Yet the illusion by the inaccessible negation is specific to *amwuto* ($p < .01$), whereas the same effect is not found to *yekan* ($p = .92$). For PPIs (Figure 2), grammaticality effects are found only to *kansinhi* ($p < .01$). The same effects are marginal to *cacwu* ($p = .06$). However, the illusion by the lower negation is statistically significant to both PPIs ($p < .01$).

Discussion: Our results show that the NPI illusion in Korean is selective as it only occurs to the NPI *amwuto*, but not to the NPI *yekan*. This may imply that parser's expectation of the negation is not equal to each NPI: the strong NPI *amwuto* strictly requires the negation, whereas the weak NPI *yekan* is either licensed under the negation or question. We expect the same pattern for Japanese NPIs, namely, the strong NPI *daremo* ('anyone') and weak NPI *sonnani* ('so much'), which also precede the negation in their dependency structure. On the other hand, two PPIs may form a subtle pragmatic contrast, i.e., *kansinhi* implies one's maximal efforts are invested, whereas *cacwu* assumes the relevant event is more or less frequent in one's knowledge. Yet both PPIs are subject to the illusion, even though their grammatical status as PPIs is disputable. Instead, the sentence alignment seems to be relevant. Parsers may mistakenly assume that the polarity item and negation are in the same clause until the upcoming complementizer *-tako* is met later. Overall, our experiment suggests that the human illusion in Korean may arise from different reasons other than the parser's expectation of the negative licenser.

	Negative Polarity	Positive Polarity
No Negation	*[_{matrix} NPI [_{embedded} ... V] ... V]	[_{matrix} PPI [_{embedded} ... V] ... V]
Inaccessible/Lower Negation	*[_{matrix} NPI [_{embedded} ... NEG-V] ... V]	[_{matrix} PPI [_{embedded} ... NEG-V] ... V]
Accessible/Higher Negation	[_{matrix} NPI [_{embedded} ... V] ... NEG-V]	*[_{matrix} PPI [_{embedded} ... V] ... NEG-V]

Table 1. Schematic representations of sentence stimuli

(3) Sample Sentence Stimuli

a. Illusion of grammaticality to NPIs

*[_{matrix} **Amwuto/Yekan** [_{embedded} Minswu-ka pyengwen-ey **an** ka-ss]-**tako**
 anyone/commonly Minswu-NOM hospital-LOC NEG go-PST-COMP
 cental-ul ha-nikka Yenghuy-ka taytap-hay-ss-ta.
 convey-ACC do-CONJ Yenghuy-NOM answer-do-PST-DECL.
 'Because anyone told that Minswu didn't go to the hospital, Yenghuy answered.'

b. Illusion of ungrammaticality to PPIs

[_{matrix} **Kansinhi/Cacwu** [_{embedded} Yengmi-ka yaksok-ul **an** cap-ass]-**tako**
 barely/often Yengmi-NOM meeting-ACC NEG make-PST-COMP
 yenlak-ul ha-nikka Sengthay-ka cenhwa-hay-ss-ta.
 contact-ACC do-CONJ Sengthay-NOM call-do-PST-DECL.
 'Because (she) barely contacted that Yengmi didn't make an appointment, Yenghuy called.'

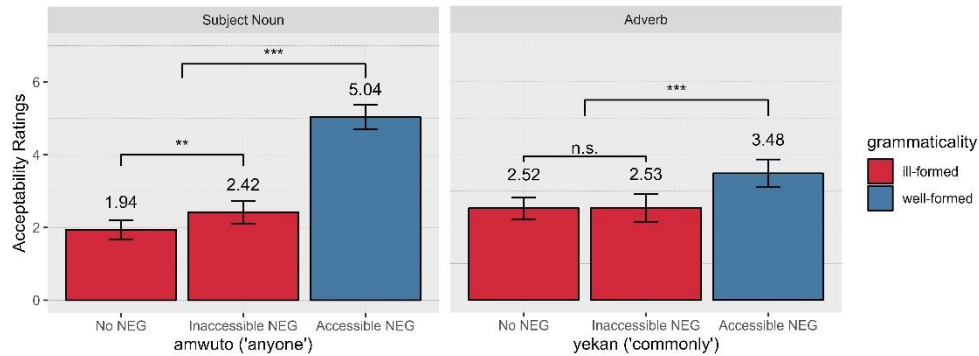


Figure 1. Mean acceptability ratings of two NPIs *amwuto* ('anyone') and *yekan* ('commonly')

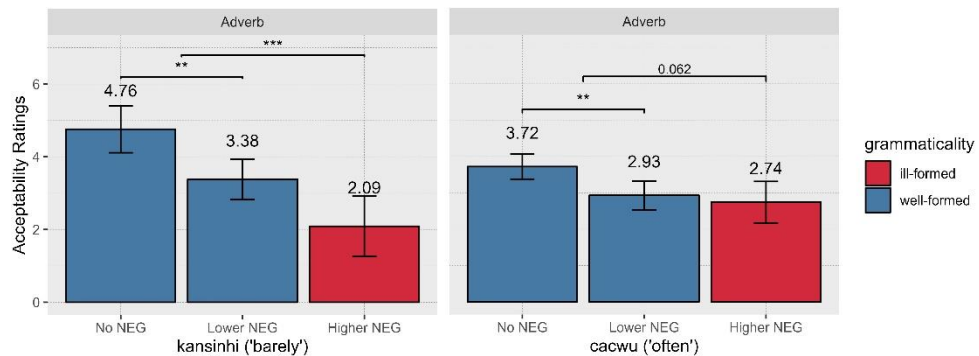


Figure 2. Mean acceptability ratings of two PPIs *kansinhi* ('barely') and *cacwu* ('often').

References: [1] De Dios Flores, Muller, & Phillips (2017). Negative polarity illusions: Licensors that don't cause illusions, and blockers that do. CUNY 30. [2] Orth, Yoshida, & Sloggett. (2020). Illusions of ungrammaticality: Evidence from PPI. CUNY 33. [3] Yanilmaz & Drury (2018). Prospective NPI licensing and intrusion in Turkish. *Language, Cognition and Neuroscience* 33. [4] Yun, Lee, & Drury (2018). Negative polarity illusion in Korean. *WAFL* 13.