

Parenthesized Modifiers in English and Korean: What They (May) Mean

Existing work on parentheticals has focused on their use as appositives, speaker-oriented adverbials, and expressives (McCawley 1982; Ziv 1985; Potts 2002; Dehé & Kavalova 2007). However, there is little work on parentheticals that are marked with parentheses: in Kaltenböck (2007)'s survey of English parentheticals, none contain parentheses. Moreover, work on parentheticals outside of Indo-European is relatively scarce. Our work contributes new cross-linguistic evidence about the meaning contribution of parentheses in one key construction.

We present results from an experiment comparing the interpretation of parenthesized modifiers in Korean¹ and English, manipulating syntactic position and modifier properties (scalar/non-scalar, categorical/continuous). We focus on a parenthesized construction, shown in (1), which in English gives rise to an implication that its non-parenthesized counterpart does not.

(1) Sam studies linguistics for (intellectual) profit. #And actual profit.

(2) Sam studies linguistics for intellectual profit. And actual profit. (Lewen & Anderson 2022)

Lewen & Anderson (2022) refer to the above construction as a *restricted parenthesized parenthetical* and show that it behaves differently than better-studied parentheticals like appositives: not only is its parenthesized content integrated into the host, but it also gives rise to the implication shown in (1) and (2). They posit that the parentheses function as a focus-sensitive operator, invoking and negating a set of alternatives to the parenthesized content. In this paper, we test their hypothesis experimentally. We explore how the semantic properties of the parenthesized modifier affect how alternatives are negated in English, and compare to a language with different conventions on use of parentheticals: Korean.

A key difference between Korean and English is that in Korean, the parenthesized parenthetical can come on either side of the modified noun, as in (3) and (4). Do these syntactic structures correspond to different meanings? Preliminary native speaker judgements suggest that Korean readers may parse the parenthesized parenthetical in (3) as a non-exhaustive example of the kind of gain, while in (4), the parenthetical adds emphasis: i.e., *Sarah hopes to acquire some gain, especially intellectual gain*.

(3) *Sam-neun (cicek) iik-ul wuyhay enehak-ul kongpu-ha-p-ni-ta*
sam-TOP (intellectual) gain-ACC for linguistics-ACC study-do-AH-IND-DECL

(4) *Sam-neun iik-ul (cicek) wuyhay enehak-ul kongpu-ha-p-ni-ta*
sam-TOP gain-ACC (intellectual) for linguistics-ACC study-do-AH-IND-DECL

English and Korean thus provide an interesting cross-linguistic comparison. We present experimental results from a study exploring 1) whether alternatives are invoked in each position and 2) what alternatives are negated. We include four categories of modifiers: (1) non-scalar and categorical (e.g. *wool* v. *cotton*), (2) scalar and categorical (*weekly* v. *monthly*), (3) non-scalar and continuous (*morning* v. *afternoon*), and (4) scalar and continuous (*warm* v. *hot*). For each condition, we present ten dialogue sets between A and B in which A presents a question, and B's response contains a parenthetical, as in (5), a scalar categorical example.

(5) A: Are you still doing a lot of volunteer work for the pet shelter?

B: I don't do as much as I used to, but I still help write their (weekly) newsletter.

Question: Which kinds of newsletters do you think B doesn't help to write?

() daily

¹ We use the Yale system of romanization for Korean, and the standard abbreviations for grammatical morphemes given by the Leipzig Glossing Rules, with the following addition: AH = addressee honorific.

- () monthly
 () Other: _____

Based on the parenthesized information, participants selected one or more options; they could also fill in an Other option. In Korean, we tested an additional manipulation of position: the parenthetical appeared either to the right or left of the modified noun. Data from 32 native Korean and 32 English speakers was collected.

In English, our results confirm Lewen & Anderson's proposal that some alternative is negated; however, we find a contrast between the Non-Scalar and Scalar conditions. In Non-Scalar conditions, participants tend to exclude both alternatives, while in Scalar conditions, they tend to exclude only one. Although we expect the strongest alternative to be excluded, we find equal selections of the weaker and stronger alternatives for Scalar Categorical items. A by-item analysis reveals that this is an effect of averaging across items: most items show a strong preference for one or the other alternative to be excluded. We posit that scale flip occurs in cases where the weaker alternative is excluded.

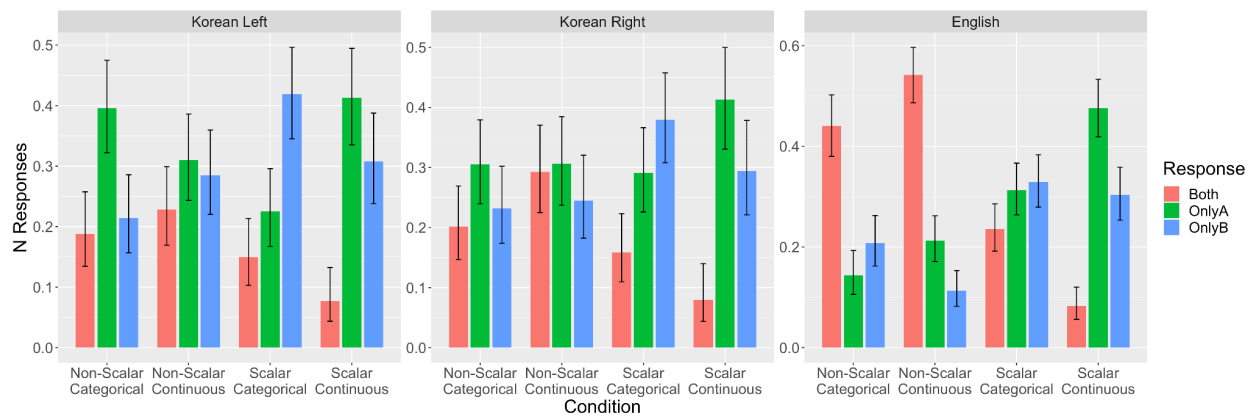


Fig. 1: Responses by Type in Main Conditions. Error bars indicate 95% confidence intervals.

In Korean, we find similar results across both position conditions, suggesting that syntactic position does not correlate with a difference in meaning. In general, Korean participants exclude only one alternative: we find no evidence of the extra implication that arises in English and leads to the exclusion of all alternatives in Non-Scalar conditions.

Our findings corroborate the richness of the (often neglected) semantico-pragmatic space of parenthesized content, and that key differences emerge across languages varying in writing systems and with differential uses in parentheses.

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