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A note on Logical Integrity

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Anvari (2018a) proposes the principle of Logical Integrity (henceforth LI) to capture the intuition that the speaker should make the strongest utterance that is compatible with the given context.

(1) Logical Integrity:

Let S be a sentence and S' be one of its alternatives. S is infelicitous in context C if the following two conditions hold.

- a. S does not logically entail S'.
- b. *S* contextually entails S' in *C*.

(Anvari 2018a, p. 4)

While LI uniformly accounts for many infelicitous sentences that were previously captured by *Maximize Presupposition!* (Heim 1991; Percus 2006), Presupposed Ignorance (Spector and Sudo 2017), and Blind Implicatures (Magri 2009), separately, it leads to problematic predictions in certain cases.

Consider (2), where a bare numeral phrase accompanies a collective predicate. Since Anvari (2018a) assumes a standard theory of alternatives where sentential alternatives are formed by replacing certain lexical items with their lexical alternatives (Horn 1972), (2a) and (2b) are alternatives to each other. Neither sentence entails the other logically, but each entails the other in the given context. Therefore both are predicted by (1) to be infelicitous. Intuitively, however, (2a) and (2b) are both acceptable in the given context.

- (2) Context: There are eight students in total in the class. Some of them formed a group and the rest formed a group.
 - a. Three students formed a group.
 - b. Five students formed a group.

Anvari (2018b) gives a more sophisticated version of $LI - LI^*$. LI^* imposes a restriction on the alternative that potentially blocks the other, a restriction that was absent in LI. It requires that at the level of competition (global or local), the alternative that blocks the other itself *not* contain any constituent that violates LI. By this additional restriction, (2a) is no longer blocked, because its competitor (2b) has a constituent — namely (2b) itself — that violates LI. The converse is also true for (2b), which is blocked by LI on account of (2a), but not blocked by LI* because the competitor (2a) itself violates LI.

It appears, then, that the challenge posed by (2) to LI is resolved by LI*. But LI* still faces challenges. Consider (3), where the two sentences stand in a similar relation to those in (2). Neither entails the other logically, but contextually the two sentences are equivalent.

- (3) Context: There are six students in total in the class.
 - a. Exactly three students came.

b. Exactly three students didn't come.

Unlike (2), the two sentences in (3) are not of the same formal complexity. According to the independently motivated constraint on alternatives in Katzir 2007, an alternative is formally at most as complex as the original sentence. This constraint makes (3a) a viable alternative to (3b), but not vice versa. As a result, (3a) is not predicted to be infelicitous by LI* because (3b) is not even an alternative to it. (3b), on the other hand, should have (3a) as an alternative, so by LI* it should be unacceptable. This prediction is not borne out. (3b) is felicitous in the given context.

In conclusion, in order for Logical Integrity to accommodate (3), it must be accompanied by a view where (3b) does not have (3a) as a formal alternative, despite the fact that the latter is derivable from the former by structural simplification. I leave open the question of what this view should be, but highlight that it cannot merely assume the sufficiency of structural simplification in alternative generation.

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