Explaining empirical data of speaker's use of conditionals with a probabilistic model

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The semantics and pragmatics of conditionals have been investigated thoroughly for a long time. Nonetheless, many aspects thereof have not been explained so far, and a predictive account of when (and why) speakers utter conditionals is still missing.

A probabilistic model based on recent advances in computational pragmatics spelled out by Grusdt et al. (under review), accounts for several interesting phenomena observed in the communication with conditionals (e.g. the inferred dependency between antecedent and consequent or conditional perfection readings). The model makes predictions about the situations in which a speaker prefers conditionals over utterances without 'if' and vice versa. The predictions explicitly depend on the speaker's epistemic beliefs in the antecedent and the consequent (and potential mitigating variables) but they only implicitly depend on how the variables are causally related. Therefore the model challenges the argument advanced by "Inferentialists" that the dependency relation between antecedent and consequent is part of the semantics of conditionals.

In a novel experimental approach we collected empirical data that we compare to the predictions of the model to test how well it captures actual production data.

Preliminary results obtained with the best parameters from a grid of parameter values, show that the model is generally able to capture some of the utterance choice preferences, while others diverge from empirical observations.

In particular, the model for instance overestimates the use of conditionals and underestimates the use of utterances with 'might' in independent situations. Current work explores the influence of each of the model's components on its ability to capture the observed empirical data in order to obtain a more complete picture.

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