

*Probabilistic modeling of rational communication with conditionals*

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While much of the existing work on conditionals addresses their semantics, the work presented here focuses on the pragmatics of conditionals. It is an open question how the diverse inferences that we draw upon hearing conditionals, come about. We use a well-known model from probabilistic pragmatics - the Rational Speech Act model - to investigate listeners' interpretation of conditionals within a general or a particular utterance context. In the latter case, natural contextual assumptions are formalized which usually remain informal in other accounts.

The listener's beliefs over richly structured world states, consisting of a causal component and a joint probability distribution over the antecedent and the consequent, are formed by taking into account the speaker's production protocol. With this approach, we are able to predict a number of, within the literature broadly accepted, inferences such as epistemic uncertainty, the interpretations of Biscuit conditionals and the interpretation of conditionals evoking Conditional Perfection. Further, we argue that this approach also helps explain three puzzles introduced by Douven (2012) about updating with conditional information: depending on the utterance context, the listener's belief in the antecedent may increase, decrease or remain unchanged after uptake of a conditional.