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Ambiguity – Production and Perception

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Dear editors,

We would like to submit a manuscript entitled:

Learning about others: Pragmatic social inference through ambiguity resolution.

In this paper, we address a fundamental property of human language and communication –ambiguity. Ambiguity seems to be a negative side-effect of an efficient communication system, and the fact that it is so pervasive in language has puzzled researchers for decades. We propose that ambiguity serves an important purpose: it allows the speaker and the listener to reason about hidden beliefs of each other, which lead to individual interpretations of ambiguous phrases. Here we develop a computational account of how humans infer the beliefs of others upon observing their ambiguity resolution behavior. We also model ambiguity creation as a strategy that allows the speakers to actively seek better understanding of the listener’s state of mind.

Our work brings together several lines of research in linguistics, communication sciences, and mathematical modeling. We develop a formal account of social Bayesian reasoning inspired by Rational Speech Act models. Our analysis offers a foundation for developing precise models of inference in communication.

We hope the computational approach we develop will be of interest to the wide readership of the Cognition journal.

Sincerely yours,

Asya Achimova,