CHRISTOPHER POTS, PH.D.
Associate Professor, Linguistics, Stanford University

Embedded implicatures as pragmatic inferences under compositional lexical uncertainty
Joint work with Daniel Lassiter, Roger Levy, and Michael C. Frank

How do comprehends reason about pragmatically ambiguous scalar terms like ‘some’ in complex syntactic contexts? In Gricean theories of conversational implicature, local exhaustification of such terms (‘only some’) is predicted to be impossible if it does not strengthen the literal meaning, whereas grammatical accounts of implicature predict such construals to be available. Recent experimental evidence supports the availability of these local enrichments, but the grammatical theories that this evidence supports do not provide viable mechanisms for weighting such construals against others. We propose a probabilistic model that combines previous work on pragmatic inference under ‘lexical uncertainty’ with a more detailed model of compositional semantics. We show that this model makes accurate predictions about new experimental data on embedded implicatures in both non-monotonic and downward-entailing semantic contexts. In addition, the model’s predictions can be improved by the incorporation of neo-Gricean hypotheses about lexical alternatives. This work thus contributes to a synthesis of grammatical and probabilistic views on pragmatic inference.

Paper, code, slides, and data: https://github.com/cgpotts/pypragmods/tree/master/embeddedscalars