Property noise and ambiguity resolution: The case of stubborn distributivity

Plural predications (e.g., *the boxes are heavy*) are common sources of ambiguity in everyday language, allowing both distributive and collective interpretations (e.g., *the boxes each are heavy* vs. *the boxes together are heavy*). In this talk, I focus on the role of context in ambiguity resolution and its consequences for our semantic theories. I address the key phenomenon of “stubborn distributivity,” whereby certain predicates (e.g., *big, tall*) are claimed to lack collective interpretations altogether. I first validate a new methodology for measuring the interpretations of plural predications. Using this method, I then analyze naturally-occurring plural predications from corpora, searching for evidence of a distinct class of predicates that resist collective interpretations. Finally, I systematically manipulate the predication context, showing that both the predictability of properties and the knowledgeability of the speaker affect disambiguation. These results suggest a pragmatic account of how ambiguous plural predications are interpreted. In particular, stubbornly distributive predicates are so because the collective properties they name are unpredictable, or unstable, in most contexts; this unpredictability results in a noisy collective interpretation, something speakers and listeners recognize as ineffective for communicating efficiently about their world. To implement this model of utterance disambiguation, I formalize the semantics and pragmatics of plural predication within the Bayesian Rational Speech Act modeling framework. I conclude with a discussion of connections to a broader set of linguistic phenomena, including cross-linguistic adjective ordering preferences.