

October 19, 2015

Dear Editor,

Please find attached a copy of our manuscript, "Resolving uncertainty in plural predication." This manuscript is our original work, has not been previously published, and is not currently under consideration elsewhere. We would appreciate your considering it for publication as an article in *Cognition*.

This work investigates the disambiguation of plural predication: "the boxes are heavy" can mean either that each of the boxes is heavy (distributive), or that the boxes are heavy together (collective). To inform plural predication, we focus on the phenomenon of stubborn distributivity. For decades, certain predicates (e.g., *big, tall*) have been assumed to lack collective interpretations. These intuitions are remarkably stable both within and across speakers, suggesting that they emerge from deep principles of the cognitive architecture that shapes language. However, to date, they remain poorly understood. Over the course of three experiments, we establish a method for studying plural predication experimentally, and demonstrate that interpretation choice is mediated by properties of the predication and discourse contexts. We then formalize the contributions of context within a Bayesian Rational Speech-Acts model, showing how stubborn distributivity emerges from the interaction of utterance semantics with rational reasoning processes. We believe this work will have broad appeal, as it uses a clear case study to formalize ways that context resolves ambiguity in language.

Roger Schwarzschild (Massachusetts Institute of Technology) and Kristen Syrett (Rutgers University) have worked on stubborn distributivity; Yoad Winter (Utrecht University) and Amy Perfors (The University of Adelaide) have used similar methods to ours and have expertise in investigations of plurality. They are all qualified to review this work.

Please let us know if you require additional information.

Sincerely,

Gregory Scontras

Postdoctoral Scholar

Stanford University

Department of Psychology

Jordan Hall, Building 420

450 Serra Mall

Stanford, CA 94305

scontras@stanford.edu

Noah D. Goodman

Assistant Professor

Stanford University

Department of Psychology

Jordan Hall, Building 420

450 Serra Mall

Stanford, CA 94305

ngoodman@stanford.edu