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December 20, 2013

Dear Editorial Board,

Please accept our submission of a manuscript titled "Semantic coherence facilitates distributional learning of word meaning" to Journal of Experimental Psychology: General. This manuscript has not been previously published and is not under consideration elsewhere. All research reported in this manuscript was approved by the Stanford University Institutional Review Board.

In our manuscript, we describe a series of empirical studies on distributional learning of word meaning, a phenomenon in which learners might learn aspects of a word's meaning from purely linguistic information—its patterns of co-occurrence with other words. Computational work suggests that distributional learning can in principle drive learning for some aspects of meaning, but empirical work using artificial language learning shows that people are often unable to learn from co-occurrence regularities. However, these experiments generally present learners with entirely novel linguistic input. Our experiments show that distributional learning is facilitated by semantic coherence, the presence of known words that adhere to some semantic organization.

As well as being interesting to readers who study language acquisition we believe this work is broadly engaging as an important case study on the character of purely statistical learning.

If you have any questions or concerns, please do not hesitate to contact us. Thank you very much for your consideration.

Sincerely,

Long Ouyang, Lera Boroditsky,
and Michael C. Frank