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Simultaneous Noun and Category Learning via Cross-Situational Statistics

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Abstract: Previous research shows that people can acquire an impressive number of word-referent pairs after viewing a series of ambiguous trials by accumulating co-occurrence statistics. The present study extends the cross-situational word learning paradigm, which has previously dealt only with noun acquisition, and shows that humans can concurrently acquire nouns and adjectives (i.e., a natural category with a distinctive feature). Furthermore, participants were able to learn ad hoc categories of referents consistently co-occurring with a label, while simultaneously learning instance labels. Thus, humans demonstrate an impressive ability to simultaneously apprehend regularities at multiple levels in their environment.