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# **The ON/IN scale of semantic extensions of adpositions: testing through artificial language learning**

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**Abstract:** Cross-linguistically, the semantic extensions of certain adpositions obey an implicational scale, ranging from the situation class of prototypical ON (support from below) to prototypical IN (full containment) (Bowerman & Pederson 1992, Levinson & Meira 2003, Feist 2008). However, the nature of this phenomenon remains unresolved. Two general accounts are possible: 1) the patterned output is simply the result of diachronic factors and speakers learn which extensions go with each adposition without any particular analysis, or 2) there may be some online psychological reality to the scale.

Language learning may be a fruitful domain to test this second account. Using an artificial language learning paradigm, subjects are trained on alternative forms paired with scenes representing some situation classes on the scale. In testing, they generalize the use of these forms to novel classes. Preliminary findings suggest a generalization of forms to uses in ways consistent with a psychological representation.