Iconicity vs. Systematicity in Artificial Language Learning

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Abstract: A foundational assumption in linguistics has been that words and their meanings are arbitrarily related; however, this position has been challenged recently. Experiments have shown that both systematic (where similar objects have similar labels) and iconic (words 'resemble' the objects they label) associations between words and objects facilitate learning. However, these two literatures remain confounded: the degree to which increased learnability is driven by iconicity rather than systematicity has not been disentangled. Here we present the results of two studies testing the differences in learnability between artificial lexica that are either conventionally systematic, or both systematic and cross-modally iconic. In the first study we find that both conventional and iconic systematic lexicons are equally learnable, but iconic mappings provide an early learnability advantage. In the second study we find that the presence of sound-symbolic associations for one dimension can interfere with the learning of conventional associations on another dimension.