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Does learning to categorize visual stimuli based on motion features produce learned categorical perception effects?

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Abstract: Learning to categorize objects is known to have systematic effects on how those objects are judged (e.g., similarity or same-different judgments). These so-called learned categorical perception (CP) effects have been demonstrated with a wide variety of stimuli, particularly visual stimuli. However, it does not appear that they have ever been explored with visual motion features that are arguably characteristic of many real categories, such as animals and vehicles. This project's goal is to develop visual stimuli that vary on dimensions such as speed or direction of movement in order to test for learned CP effects of learning to categorize such stimuli. This effort poses new challenges of isolating, measuring, and independently varying dimensions of visual movement, as well as addressing whether the resulting dimensions are similar to real world category-relevant dimensions of movement. Meeting these challenges will allow for an important test of the generality of learned CP effects.