

Category Learning in Second Life: Effects of Learning Context on Mechanisms of Categorization

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Abstract: A major challenge in category learning research is designing novel stimuli that are functionally meaningful, then presenting them in an environment that is sufficiently controlled while remaining true to the dynamic nature of the real world. The interactive online environment Second Life represents an interesting methodological setting for such work, offering sophisticated stimulus design software, a powerful scripting language, and a fully editable physics engine. Two well-documented phenomena of category learning are "compression" (where objects classified together appear more similar) and "expansion" (where objects classified differently appear more different). Our studies using Second Life have thus far demonstrated its utility as a research tool by 1) successfully creating a compression effect "in world," 2) showing that this effect did not require verbal labels, and 3) revealing that a more interactive version of the task with much more complex and naturalistic stimuli produced learning without compression or expansion effects.