Virtually anything can happen: investigating short-term memory in capuchin monkeys using virtual environments

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Abstract

Computerised technology is an increasingly popular tool for cognitive testing with non-human animals and has numerous benefits, such as tighter control over stimuli presentation and recording responses. Recently, virtual environment (VE) software has been successfully implemented in cognitive research with non-human primates. In VEs, novel stimuli can be presented in innovative ways allowing us to study phenomena in novel ways unrestricted by real-world space. We present evidence from capuchin monkeys (Sapajus apella) in a delayed-response task within a VE presented on a touchscreen. We compared capuchins' short-term memory performance between a VE task and an equivalent physical task. Preliminary data shows an effect of delay on accuracy in the VE, as in the physical task. We show that VE are a feasible method for studying cognition with capuchin monkeys, offering an engaging way to study primate cognition in without the physical constraints that are often present when designing apparatuses.

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