

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

Andreea Miscov

University of St Andrews, St Andrews, Fife, United Kingdom

Emma McEwen

University of St Andrews, St Andrews, United Kingdom

Amanda Seed

University of St Andrews, St Andrews, United Kingdom

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.