

Delay choice vs. delay maintenance: evidence from capuchin monkeys (*Cebus apella*)

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Being willing to wait for a better outcome (delay choice) and being able to sustain the delay prior to that outcome (delay maintenance) are both prerequisites for successful self-control in intertemporal choices, which involve decisions between outcomes that are available at different times in the future. In primates, two tasks most commonly have explored these components, the Delay choice task and the Accumulation task. However, it is unclear whether these tasks provide equivalent measures of self-control. We will present data showing that, when the same 18 capuchin monkeys were tested in both the Delay choice task and the Accumulation task, their performance did not significantly correlate. In a subsequent study, we introduced a new experimental test, the hybrid delay task, which combines an initial delay choice with a successive accumulation stage, allowing us to verify whether and how often willingness to wait is paired by the actual ability to do so. Here we found that subjects frequently chose the delayed reward but then failed to wait for it, due to poor delay maintenance. Thus, delay choice tasks may over-inflate estimates of self-control, or at least measure something different than delay maintenance tasks.

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