

The Effects of Chronic and Acute Cannabis Use on Cognitive-Motor Tasks

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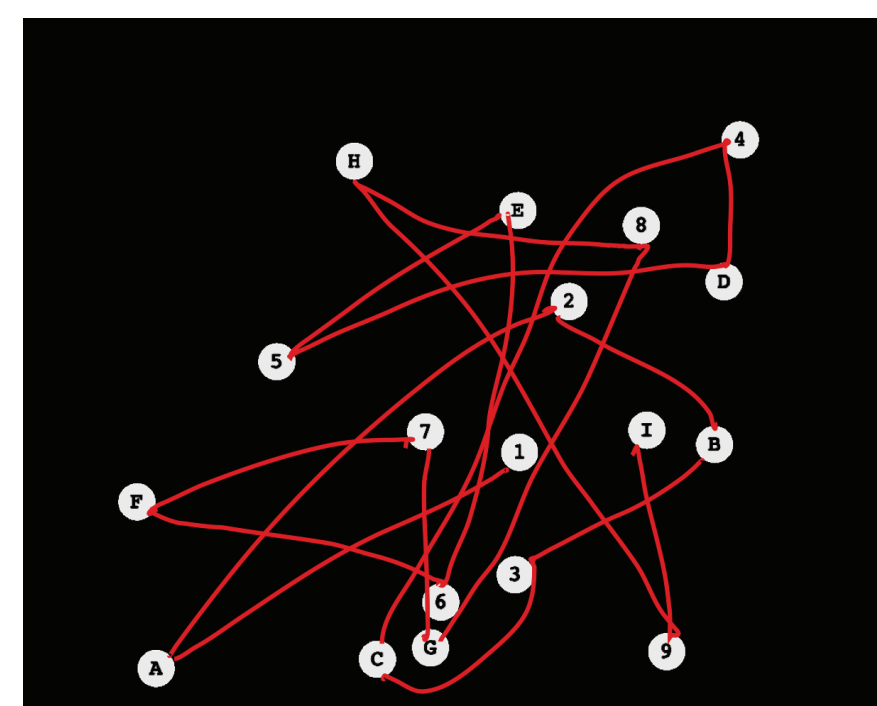


Does being high affect cognitive-motor performance?

Using online browser study, we collected performance data for non-users, infrequent, frequent, and high users on a battery of tasks assessing cognitive-motor performance. The study aims to investigate chronic and acute cannabis use on impulsivity, attention, working memory, cognitive flexibility, and motor acuity.

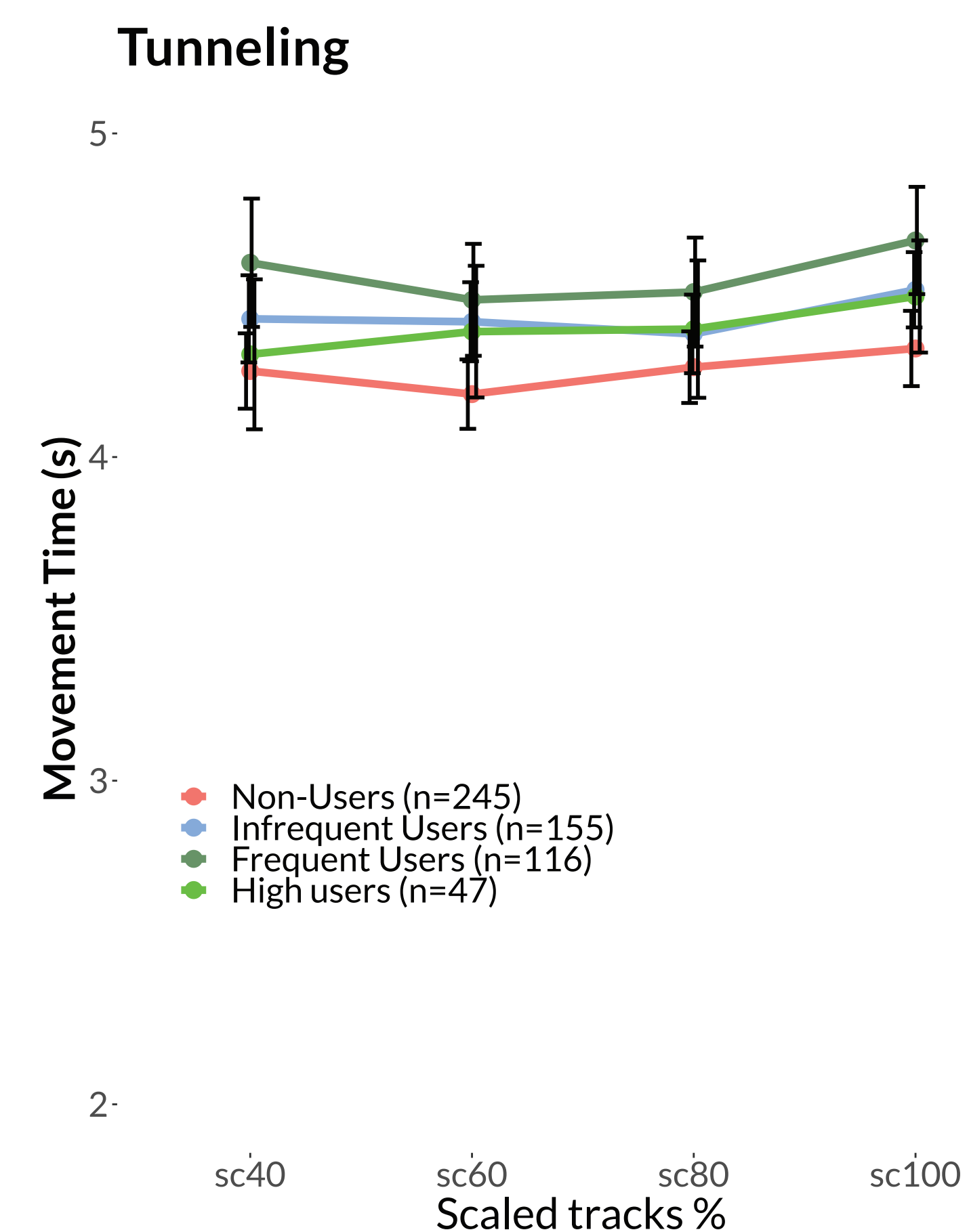
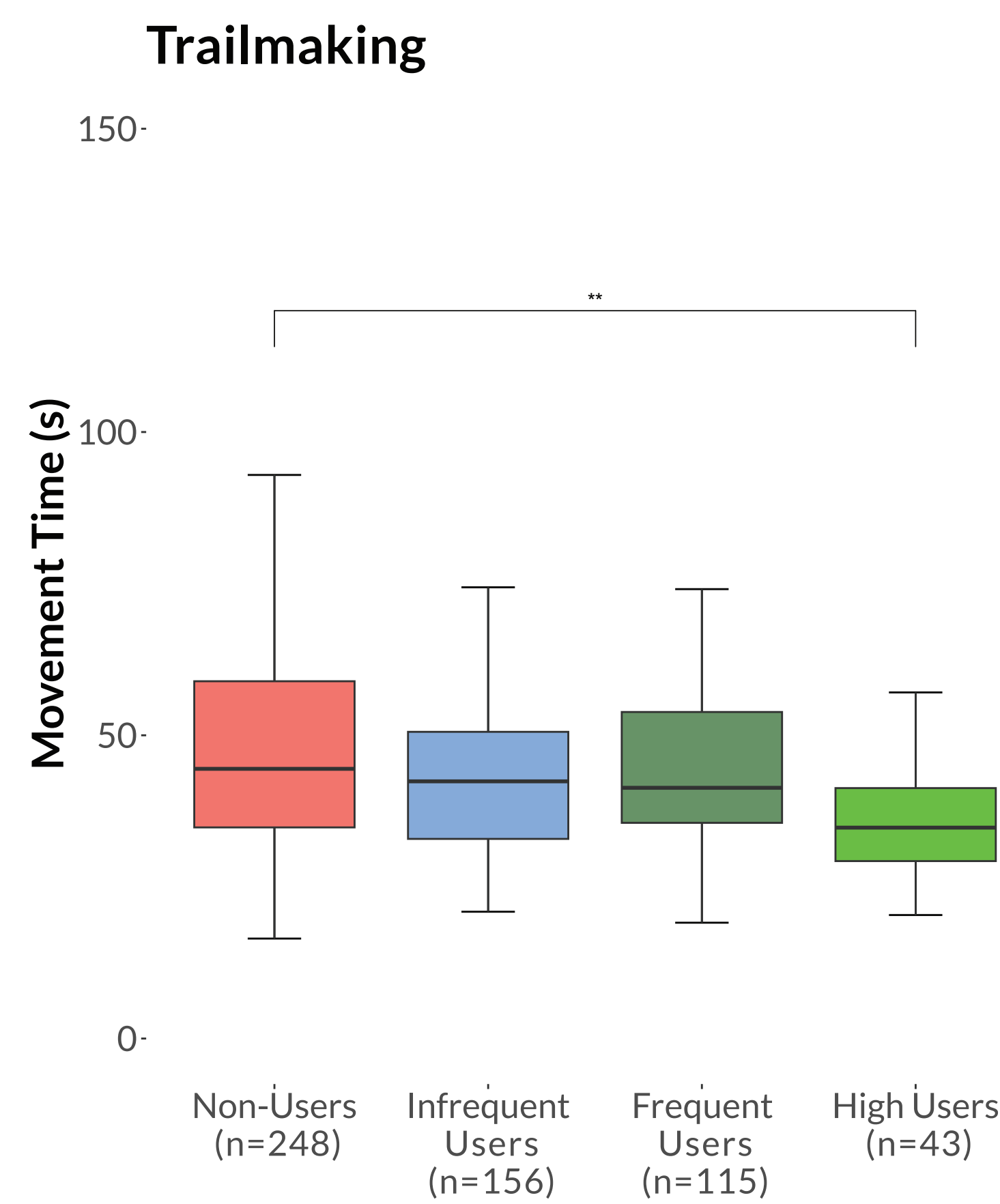
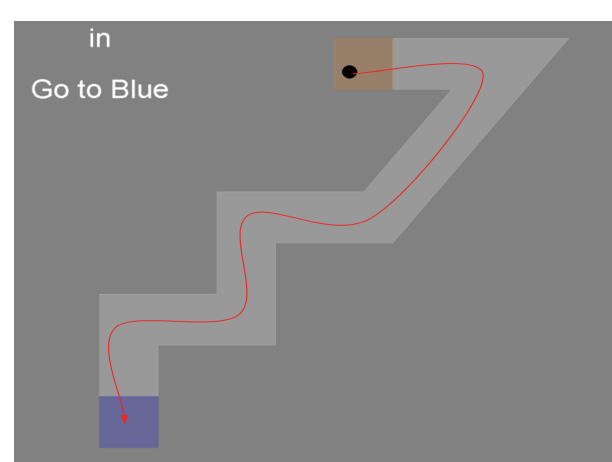
Executive Function

Participants used their mouse to connect the circles, alternating between letters and numbers (e.g., 1A, 2B) as fast as possible.



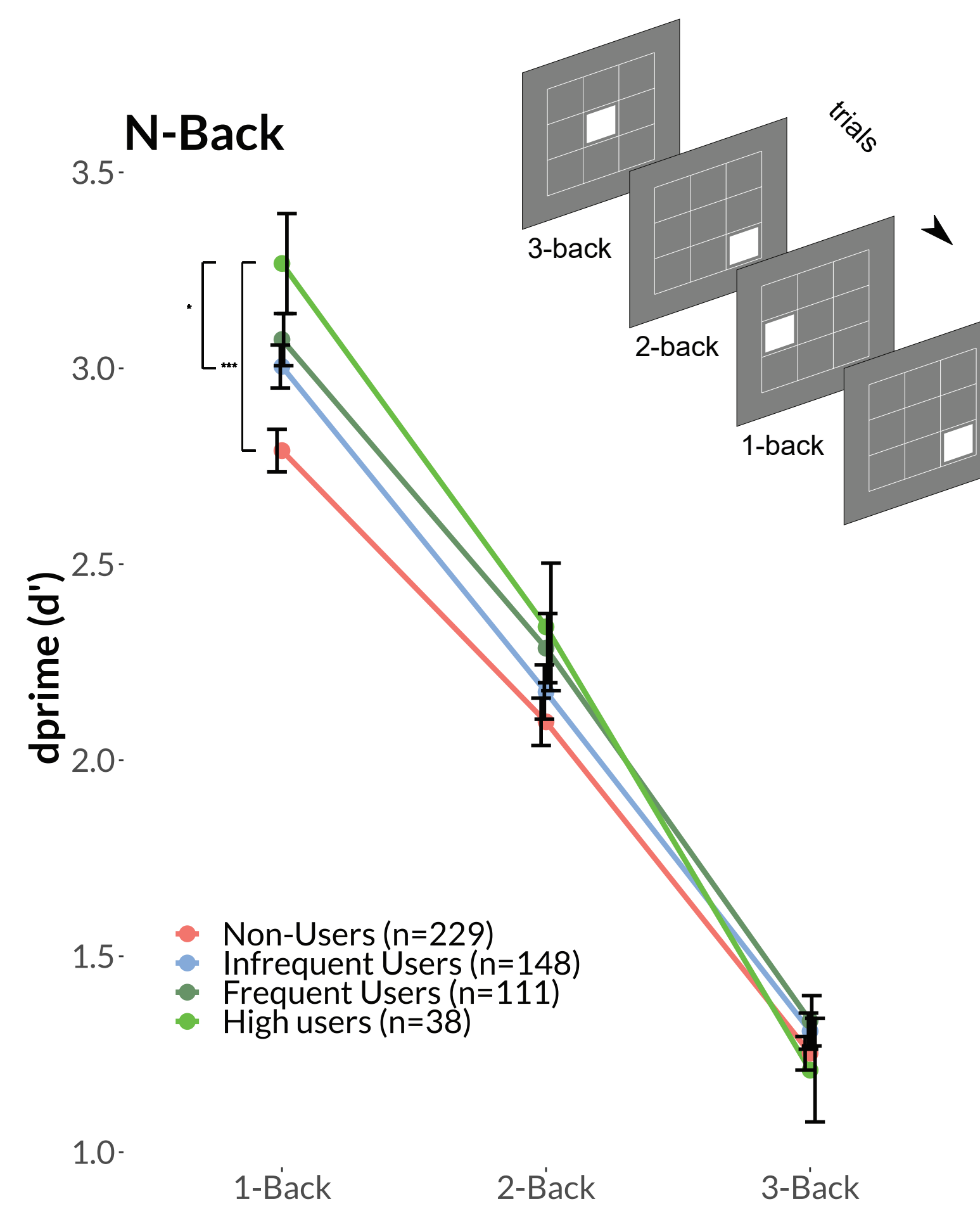
Motor Acuity

Participants were required to navigate their cursors through a standardized tunnel consisting of turns of fixed lengths and angles. Tunnel could appear in 40%, 60%, 80% or 100% of the original size.



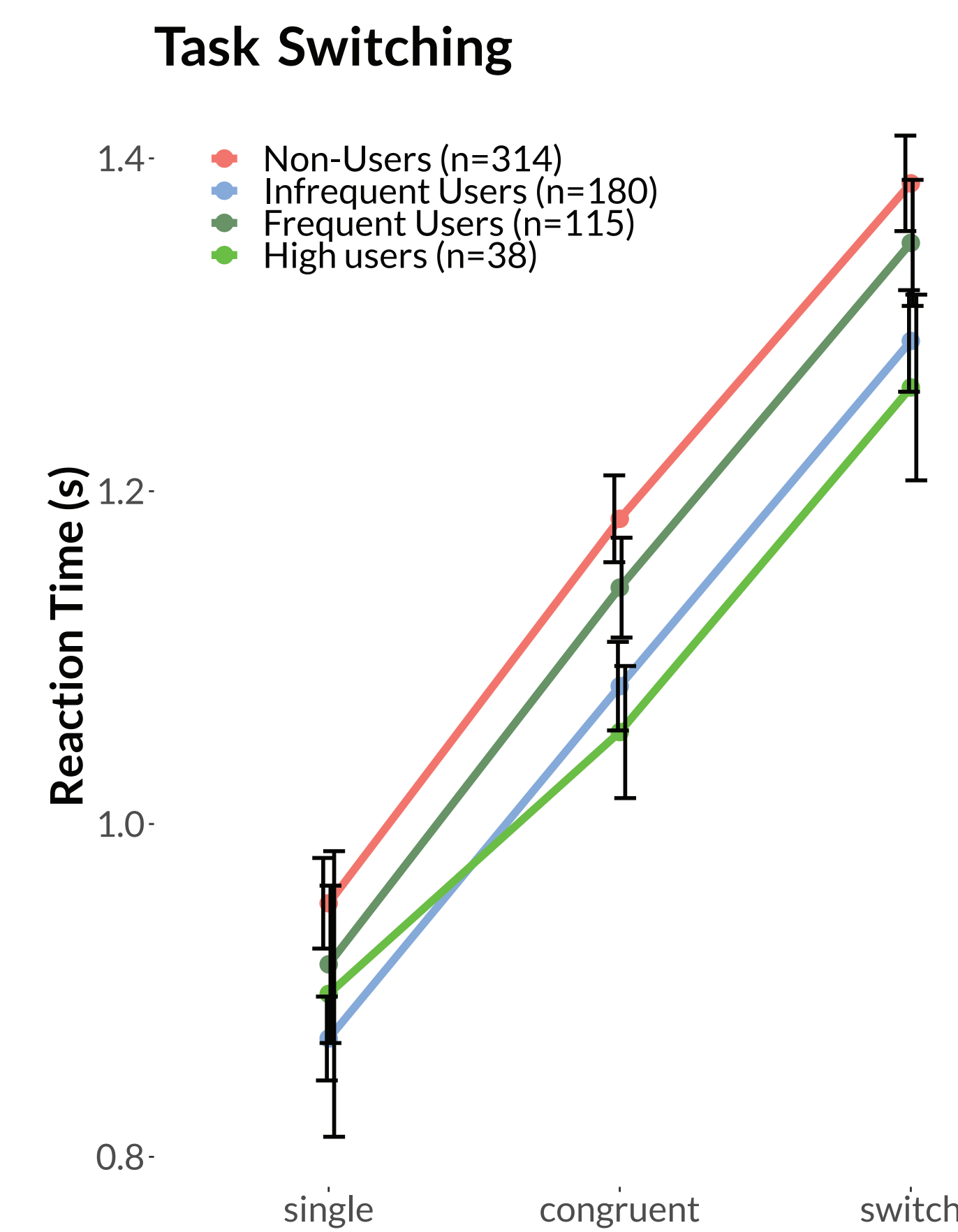
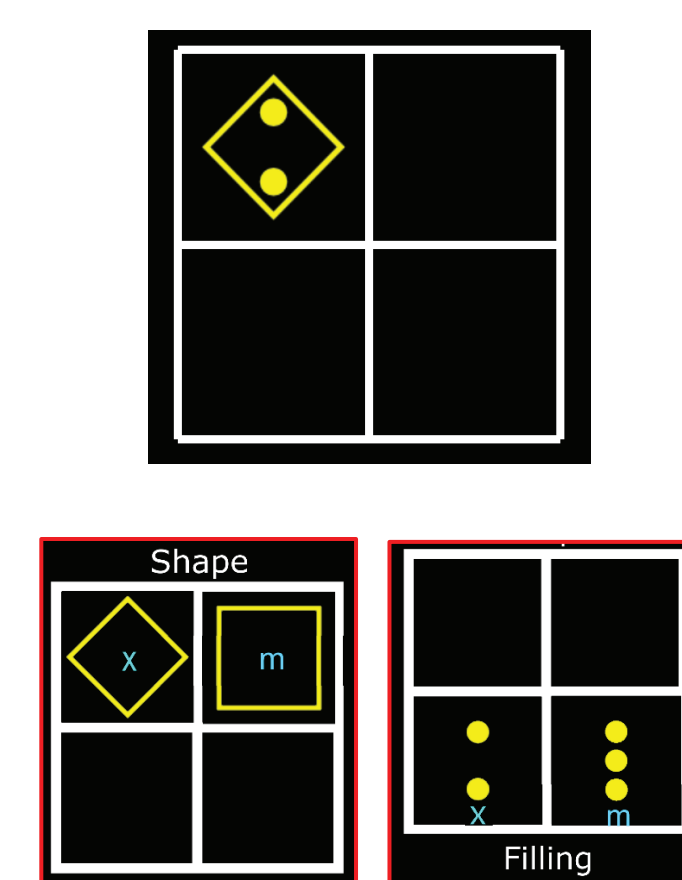
Working Memory

Participants observed a grid with a square appearing in one location per trial. They completed three conditions: 1, 2, and 3-Back (where "n" represents the number of trials to be remembered).



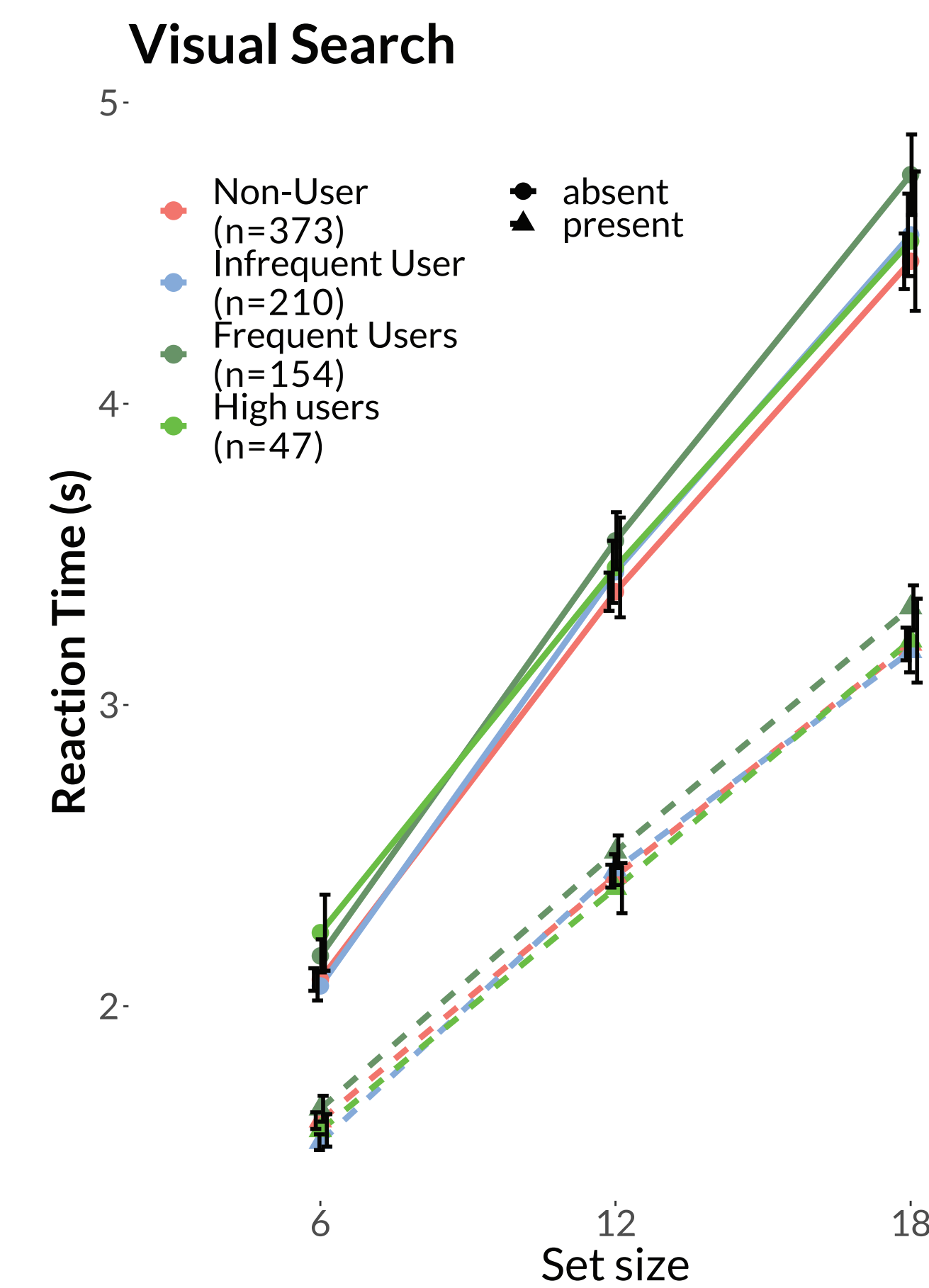
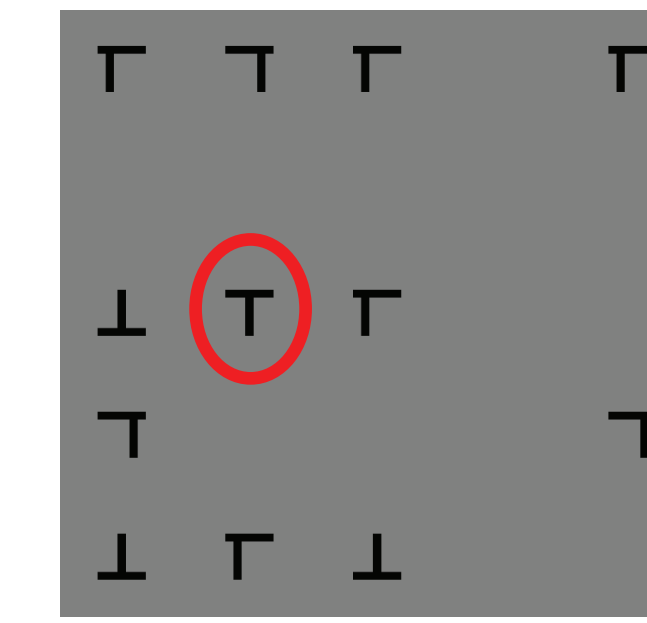
Task Switching Ability

Participants respond to a set of stimuli based on two different response rules in an alternating sequence.



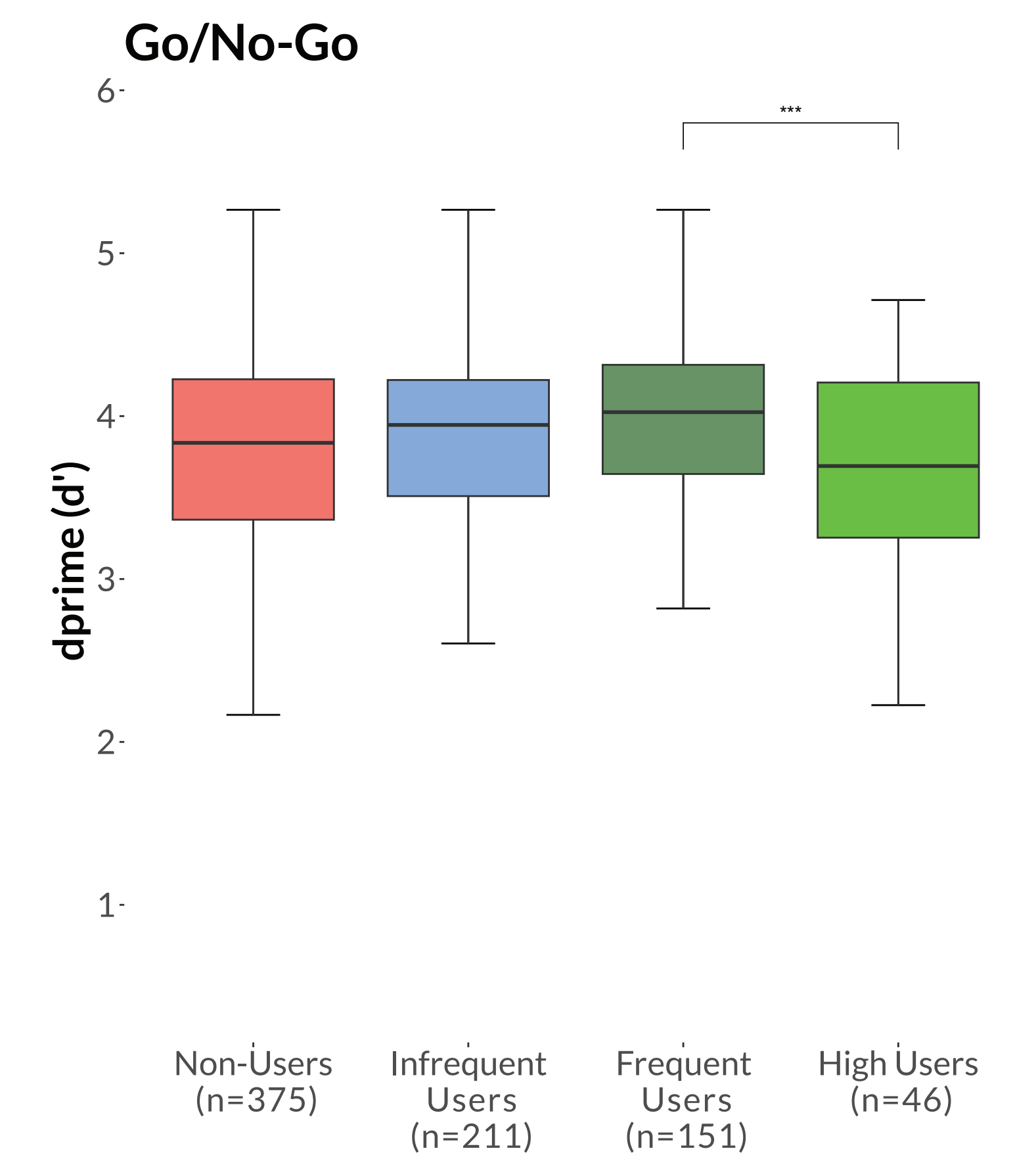
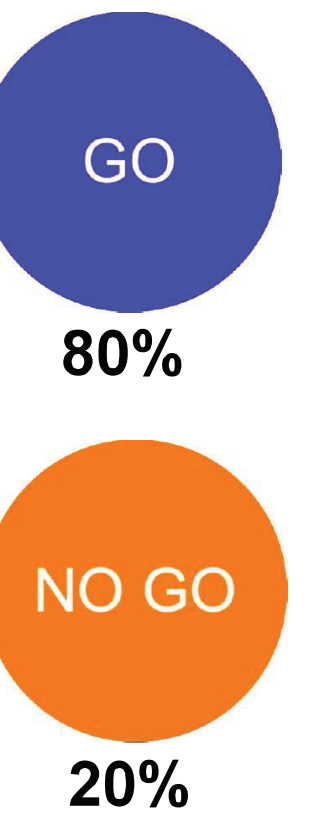
Visual Attention



Participants searched for a target (upright T) through sets (6, 12, 18) of irregularly shaped T's. Respondent pressed X when target was present and M -- when absent.



Impulse Inhibition

Participants made a response when presented with a GO stimulus, and inhibited a response when presented with a No-Go stimulus. Eighty percent of the stimuli were GO stimuli.



 **Chronic and acute cannabis use does not impair cognitive-motor function.**
 **Implications: government and workplace safety policies could be revised.**



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