



# Value-based decision-making in regular cannabis users and non-users

Amelia Taylor and Amber Copeland  
Department of Psychology, University of Sheffield

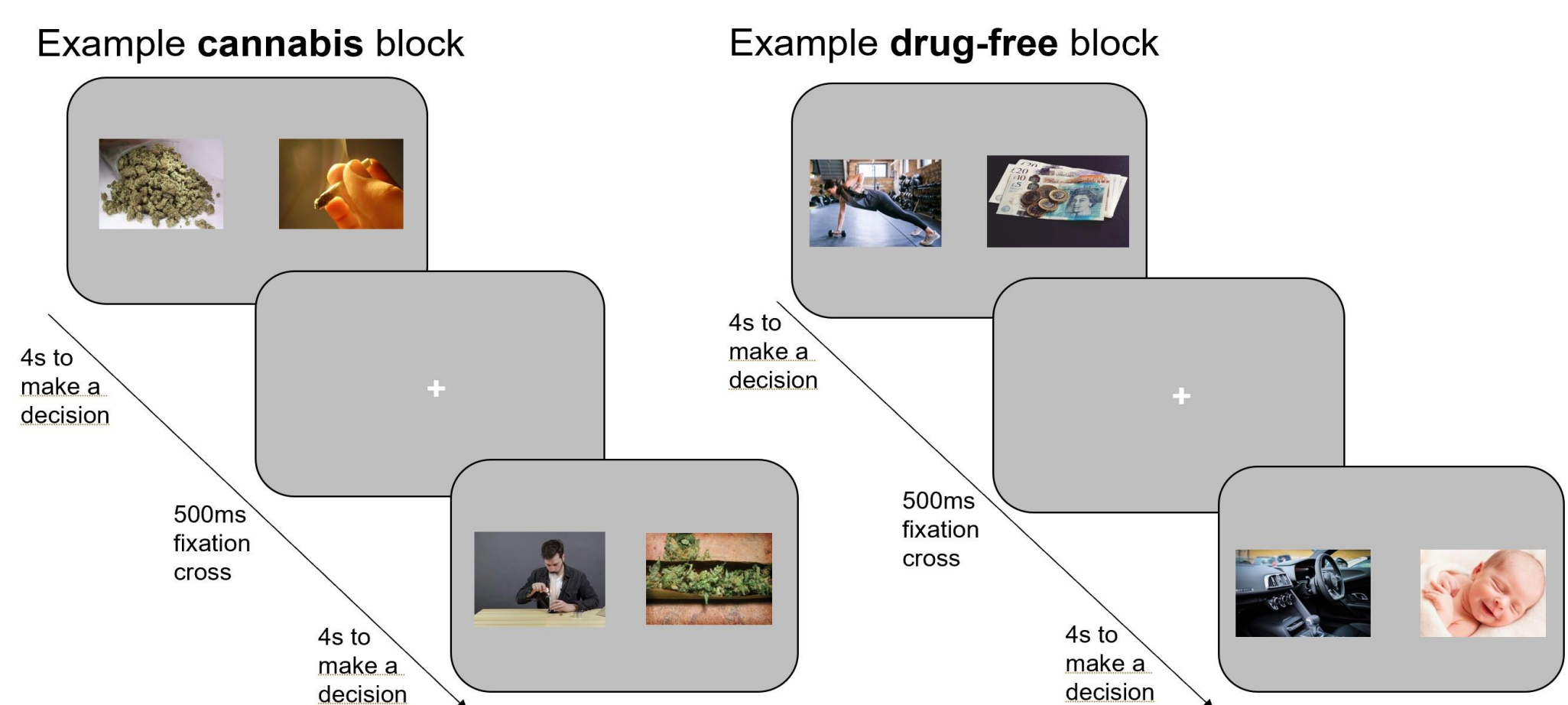
## Background

- After alcohol and nicotine, cannabis is the most widely used drug in the world
- Behavioural economic accounts posit that *distorted* valuation processes underlie decisions to use cannabis
- However, less is known about the internal cognitive processes that determine discrete instances of choice (Field et al., 2020)
- Aim: Explore whether computational parameters of value-based choice discriminate regular and non-regular cannabis users

**Hypotheses:** Compared to non-users, regular cannabis users will have higher drift rates, and lower response thresholds, when making value-based decisions about cannabis. The reverse pattern will be seen for drug-free alternatives

## Method

- Pre-registered, between-subject design
- Regular cannabis users ( $n = 30$ ) and non-users ( $n = 30$ ) were recruited via Prolific ([www.prolific.co/](http://www.prolific.co/))
- Participants firstly made value judgements about cannabis and drug-free alternative images
- They then completed a VBDM task where they selected their preferred image as quickly as possible



## Results

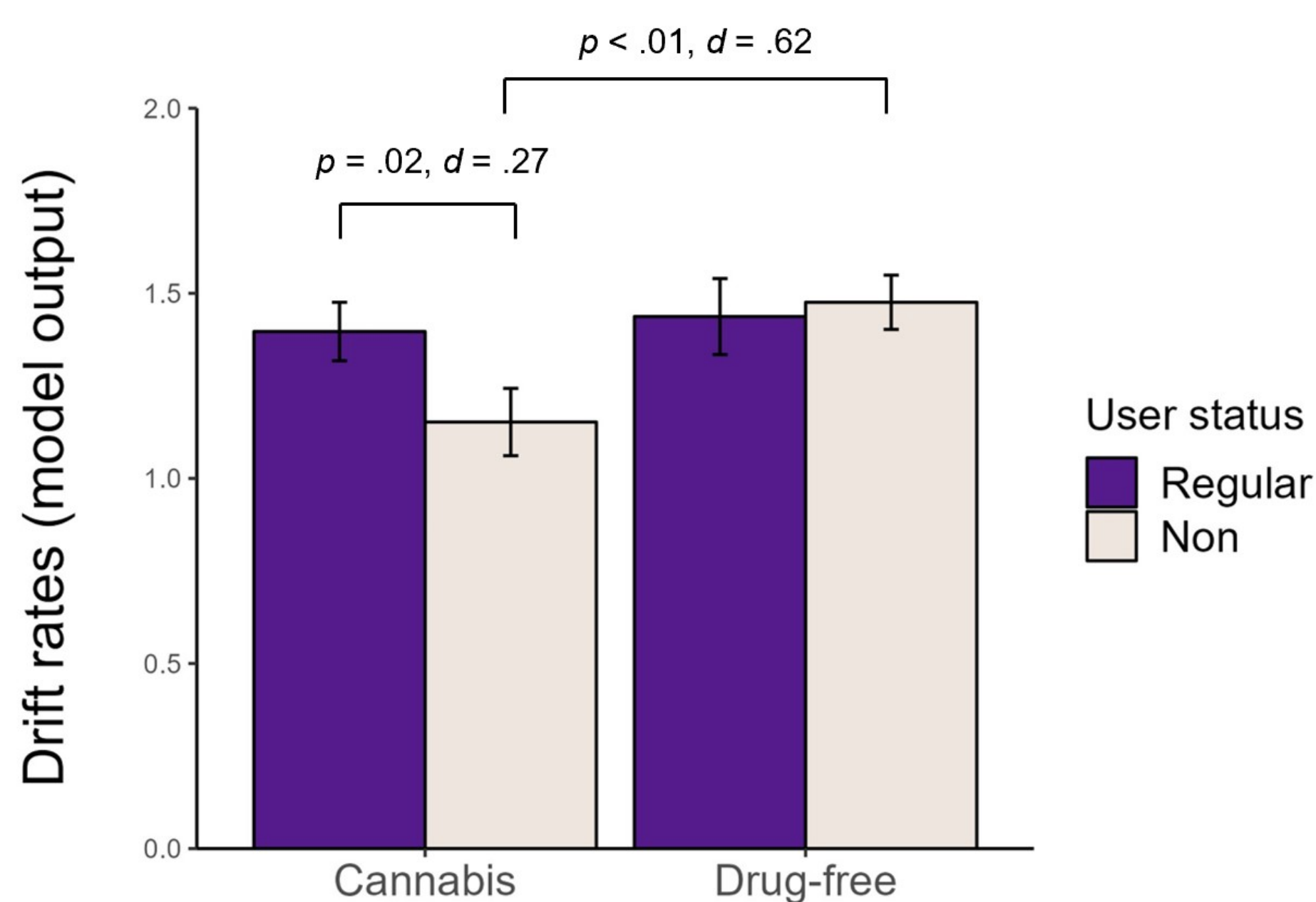


Fig 1. Mean drift rates for cannabis and drug-free choices split by user status

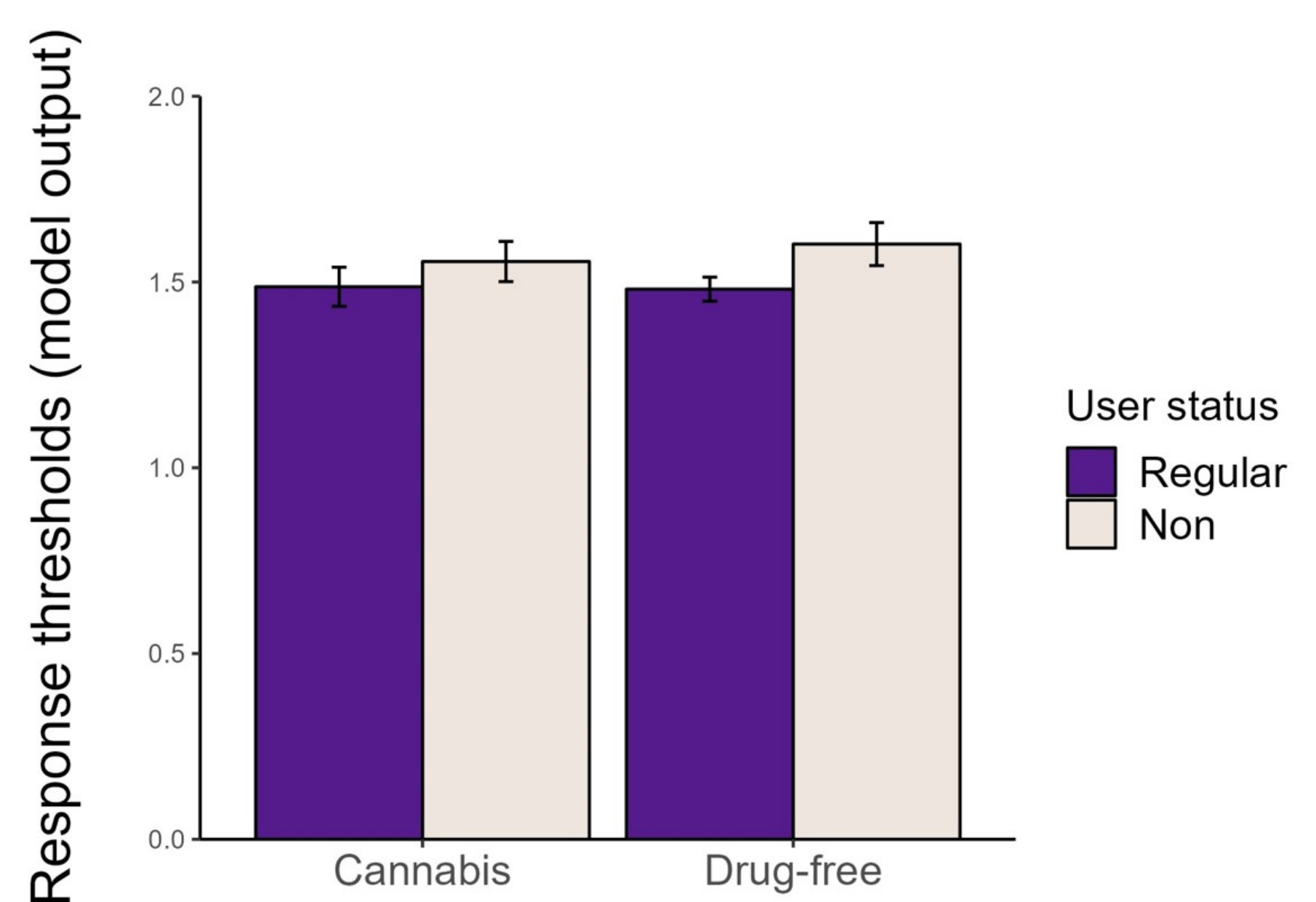


Fig 2. Mean response thresholds for cannabis and drug-free choices split by user status

## Conclusions

- **People who use cannabis regularly value cannabis more than non-regular users, but they do not value drug-free alternatives less**
- In line with behavioural economic accounts, findings suggest that the transition from non-regular to regular cannabis use is characterised by elevated cannabis drift rates
- Future studies could recruit more frequent cannabis users (e.g., near-daily; Lawn et al., 2023) and explore whether decision parameters characterise cannabis-related behaviour change

Contact details   
a.copeland@shef.ac.uk  
 @\_ambercopeland

To view our study pre-registration, visit:  
[http://tiny.cc/SSA\\_reg](http://tiny.cc/SSA_reg)

Scan for references!

