



# Assessing social media use using a cognitive-behavioural marker of addiction

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## Introduction

- Social media use is commonly assumed to have addiction-like qualities which may underpin its popularity and risk for excessive use.
- But unlike gambling or substance use disorders, self-report measures of social media 'addiction' lack thorough validation.
- We must move beyond symptom similarity and assess neurocognitive processes implicated in addictions.
- Incentive sensitisation theory predicts that addiction is driven by motivational 'wanting', a dopaminergic process, vs. hedonic 'liking'.
- This could underpin putative differences in addictiveness between social media and other forms of media.

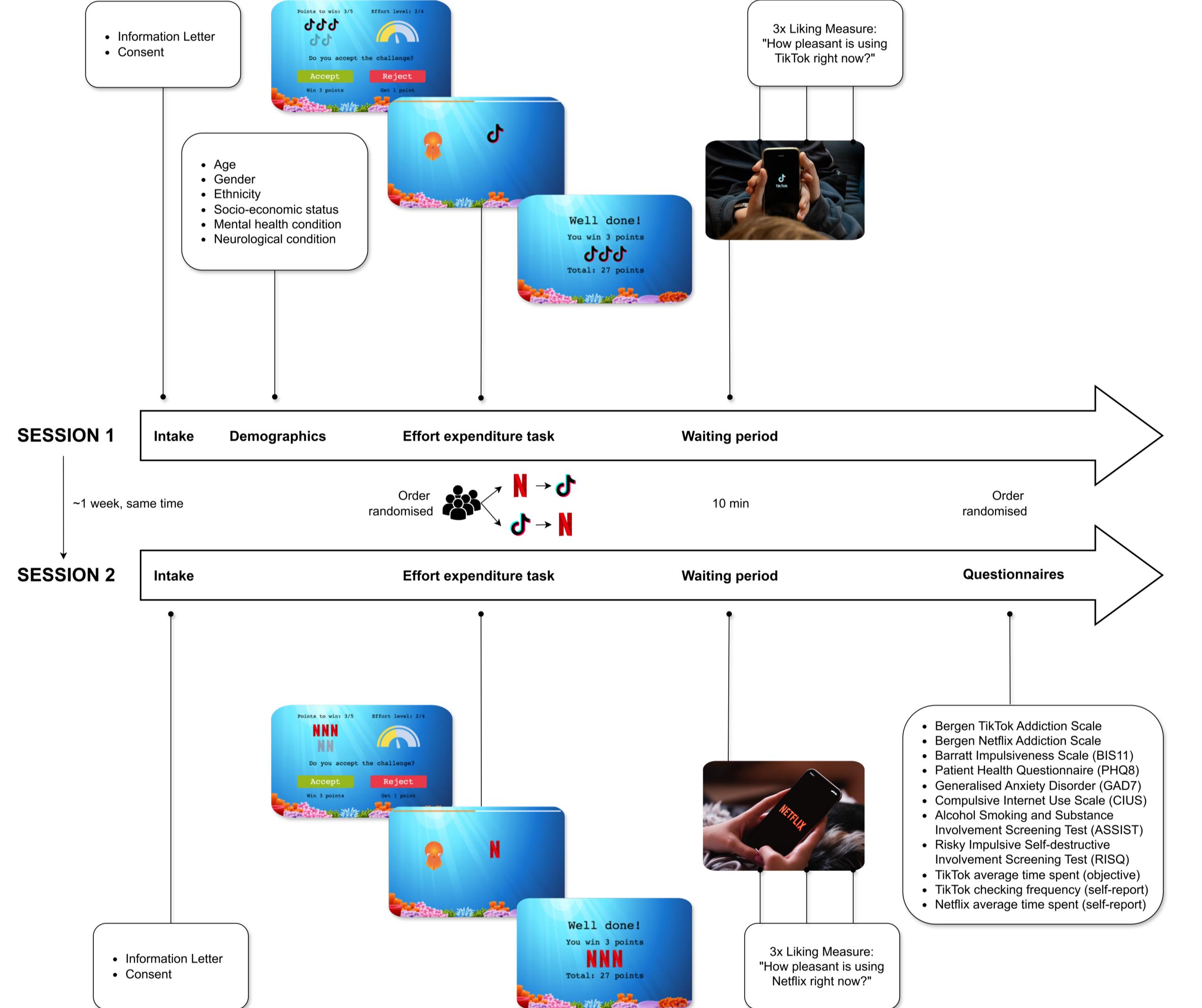
**Hypothesis 1:** TikTok is a more potent motivating stimulus than Netflix ( $\alpha$ ).

**Hypothesis 2:** The dissociation between *wanting* and *liking* is more pronounced for TikTok ( $\alpha$  –  $\beta$ ).

**Hypothesis 3:** The dissociation between *wanting* and *liking* relates to self-reported addiction scores.

## Methods

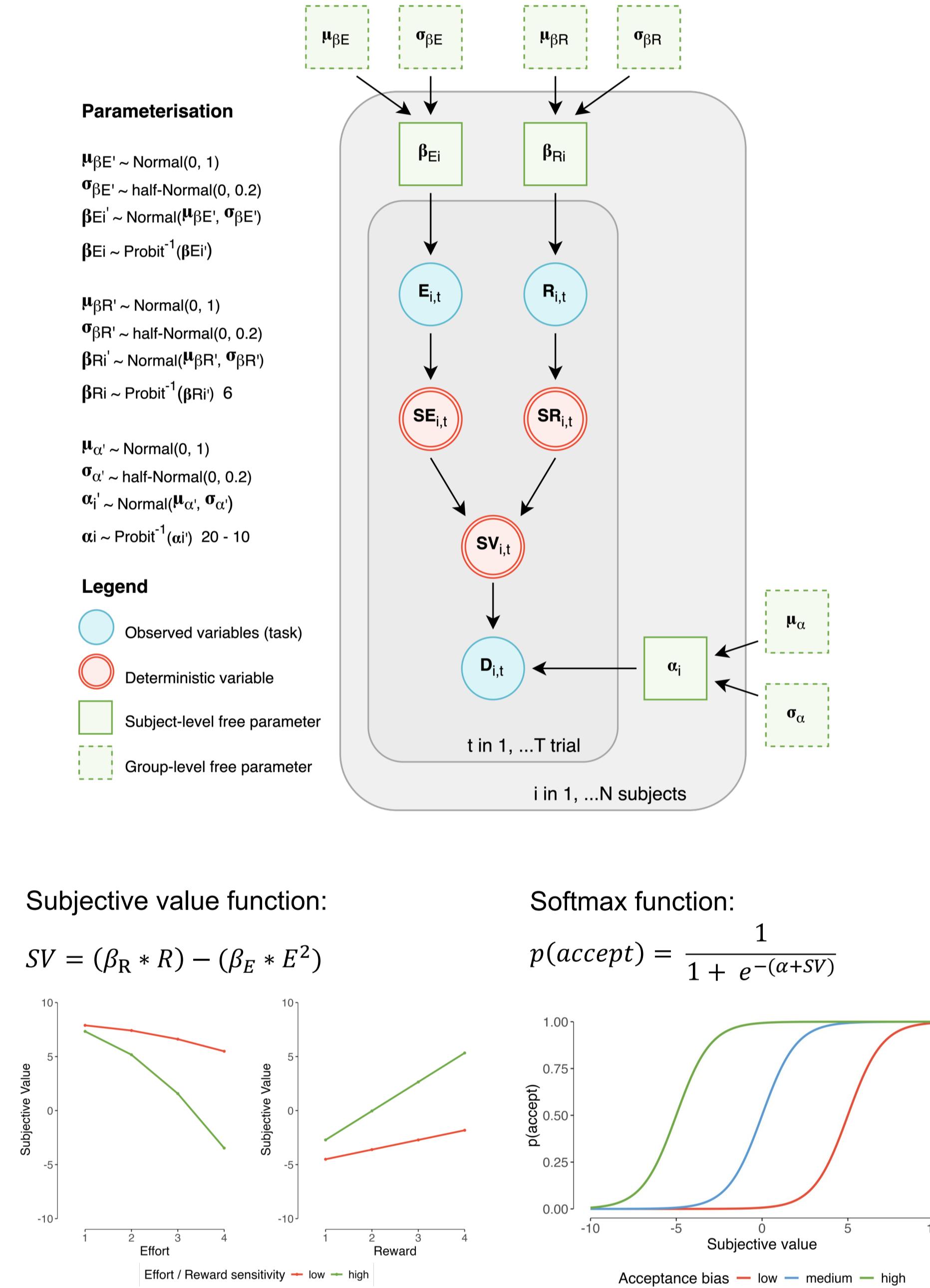
### Experiment



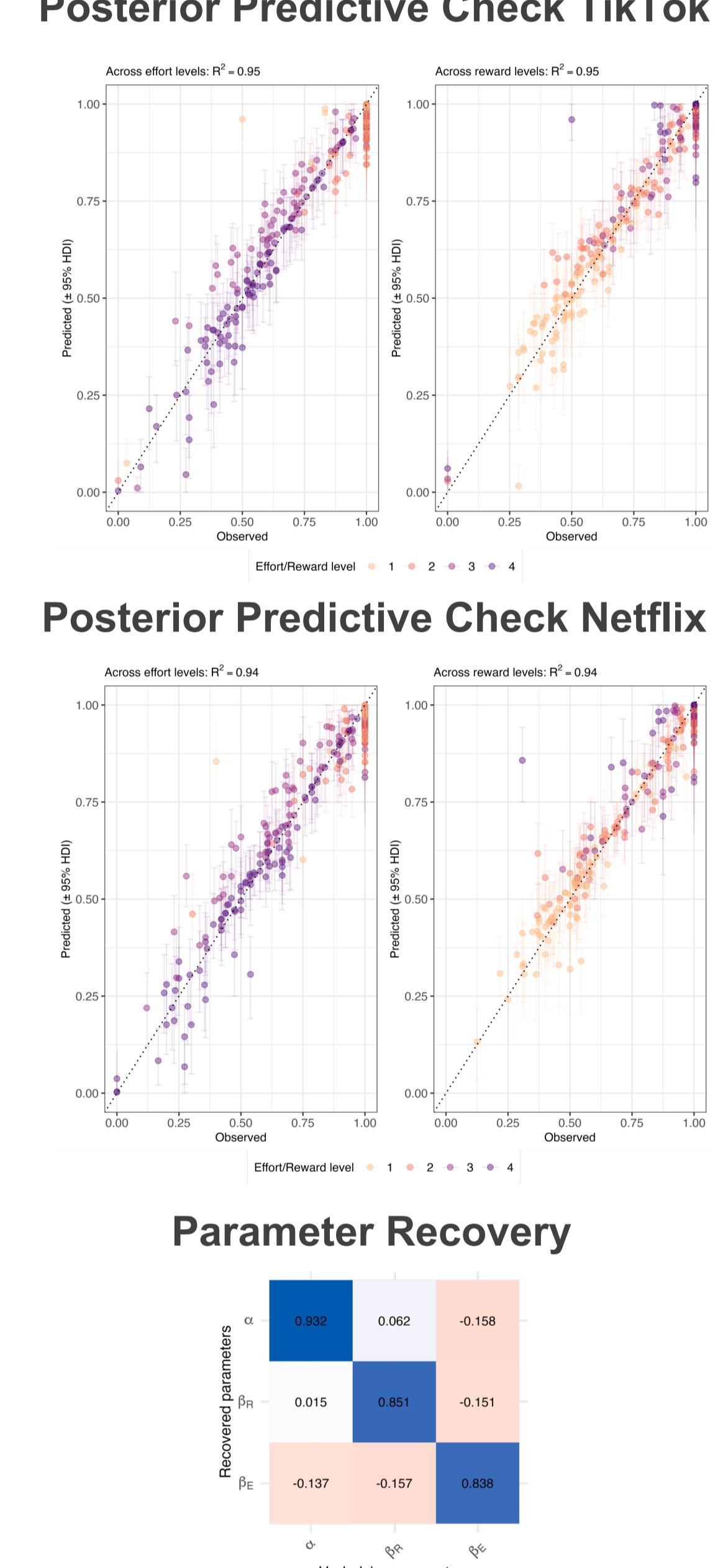
### Sample

N = 98 (F = 70), Age = 22.2 (18 – 27)

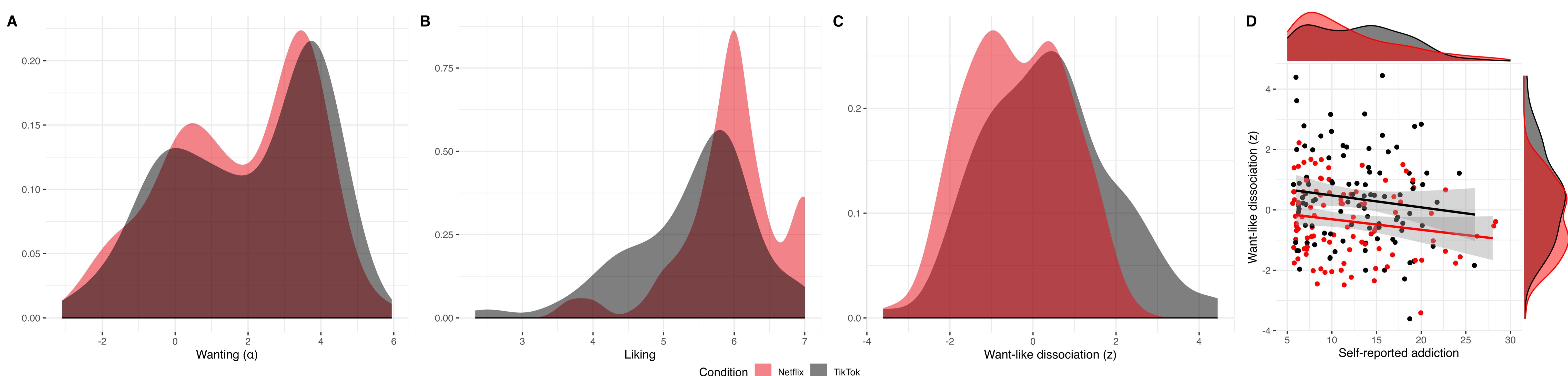
### Effort-based Decision-making Model



### Model Validation



## Results



**Hypothesis 1:**  $BF_{01} = 0.178$ ; 95% CI [-0.161, 0.448]

**Hypothesis 2:**  $BF_{01} = 121.107$ ; 95% CI [0.350, 1.092]

**Hypothesis 3:**  $BF_{01} = 0.288$ ; 95% CI [-0.259, 0.132]

## Discussion

- Contrasting Hypothesis 1, TikTok and Netflix are equally potent motivating stimuli ( $BF_{01} = 0.178$ ).
- In line with Hypothesis 2, the dissociation of *wanting* and *liking* is more pronounced for TikTok, which may be an indication of an addiction-like process ( $BF_{01} = 121.107$ ), the effect is driven by *liking*.
- Contrasting Hypothesis 3, The self-report measure of social media addiction and our cognitive-behavioural proxy do not correlate ( $BF_{01} = 0.288$ ) which suggests that the two capture different things.
- To ensure we are not capturing general motivational tendencies we need to establish the sensitivity of the present paradigm to outcome differences, and longitudinal data would be valuable.
- More research is needed to validate predominant self-report measures of social media 'addiction' against the neurocognitive mechanisms established across decades of addiction research.

## Pre-reg



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