Approach reactions to social media cues (#3397)

1) Have any data been collected for this study already?
No, no data have been collected for this study yet.

2) What’s the main question being asked or hypothesis being tested in this study?
Social media users who often give in to a temptation to use social media (+1 SD on the social media self-control failure scale) show a stronger approach reaction to social media cues (i.e., will be faster to approach, rather than avoid social media cues) than social media users who less often give in to a temptation to use social media (-1 SD on the social media self-control failure scale).

Put differently, we expect a positive association between social media self-control failure and approach reactions to social media cues.

3) Describe the key dependent variable(s) specifying how they will be measured.
Approach and avoidance reactions to social media and control cues will be measured using the Stimulus-Response Compatibility (SRC) task (manikin-task).
We investigate this in the context of Facebook, using Facebook-related pictures as social media cues and stationery-related pictures as control cues. After 8 practice trials (4 Facebook-related, 4 stationery-related pictures; before each experimental block), participants will respond to 56 experimental trials (2 x 14 Facebook-related pictures; 2 x 14 stationery-related pictures). Participants will complete an “approach Facebook-block” in which they are instructed to make the manikin move toward the pictures if they are Facebook-related but away from the pictures if they are stationery-related. They will also complete an “avoid Facebook-block” in which they are instructed to move the manikin toward the pictures if they are related to stationery but away from the pictures if they are Facebook-related. In all blocks, stimuli will be presented in random order. Reaction times and errors will be recorded in each trial.
Participants will complete the blocks (approach/avoid Facebook) in counterbalanced order. The dependent variables derived from this task that will be used in the analyses are: average reaction time on approach Facebook block (i.e., speed to approach Facebook pictures and avoid control pictures) and average reaction time on avoid-Facebook block (i.e., speed to avoid Facebook pictures and approach control pictures).

4) How many and which conditions will participants be assigned to?
Counterbalance is a between-subject condition (uneven/even participant numbers are assigned to different counterbalance condition). There is one within-subject condition: response type (approach Facebook, avoid Facebook).

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
A GLM analysis on reaction times with response type as within factor (approach Facebook, avoid Facebook), and social media self-control failure as a continuous predictor (standardized; with means for social media users who often and those who less often give in to a temptation to use social media estimated at +1 SD and -1 SD, respectively).

Correlation between social media self-control failure scale and “approach bias” score (calculated by subtracting reaction times to “approach Facebook” from reaction times to “avoid Facebook”, such that positive scores indicate faster reaction times when required to approach, rather than avoid, Facebook-related pictures).

6) Any secondary analyses?
We will also check if counterbalancing influences the results (include counterbalance as between factor in analyses described at previous question).

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.
We will recruit 250 participants via Prolific.ac. This number is based on:
- Our expectation that there will be a small to medium relation (r = 0.2) between social media self-control failure and approach reactions to Facebook cues (e.g., Field, Caren, Fernie & De Houwer (2011) found a relation between alcohol consumption and approach bias score of Spearman’s rho = 0.28; Van Koningsbruggen, Hartmann, Eden, & Veling (in press) found correlations of .31 and .18 between Facebook use and spontaneous hedonic reaction to Facebook cues).
- Input G*Power 3.1: exact; correlation; a-priori; two-tailed; correlation H1 0.2; alpha 0.05; power 0.8; correlation H0: 0 gives a total sample size of 193 participants.
- Based on the findings of Schonbrodt and Perugini (2013) regarding the stability of correlations, we decided to recruit 250 participants.

8) Anything else you would like to pre-register? (e.g., data exclusions, variables collected for exploratory purposes, unusual analyses planned?)
We also measure self-report Facebook (FB) cravings, guilt, enjoyment, vitality, wellbeing, FB use (in general), time spent on FB that qualifies as ‘social media
We will test relationships between above outcome measures, approach reactions to social media (vs. control) cues, and the social media self-control failure scale. We will also test whether the approach reactions to social media (vs. control) cues predict these outcome measures particularly for social media users who often (vs. less often) give in to a temptation to use social media.

We also measured fear of missing out (FoMo) to test the relationship between FoMo and the social media self-control failure scale.

Participants will be excluded from analyses when:
- Their age is not between 16 and 60 years old
- They do not use Facebook 1 or more times on a typical day.

Data reduction SRC-task:
- Trials with errors will be discarded
- Outlying reaction times will be removed if they are faster than 200 ms / slower than 3000 ms
- And if they are more than three SDs above the individual mean
- All data from participants with a high rate of missing data due to errors and outliers (>20%) will be removed
- Once error and outlier trials are removed, condition means will be calculated