Description of Task Files for "PersTaskfmri"

Used in publications:

Bhanji, Kim, & Delgado (2016), also see Bhanji & Delgado (2014)

Important Filenames (in the TaskFiles folder):

PersTask_Instruct_UncCon.es2, PersTask_Instruct_UncCon_reversed.es2 – e-prime files for instructions and practice rounds – *_reversed is the same, but with colors of stimuli switched.

PersTask_UncCon_selfpaced.es2, PersTask_UncCon_reversed_selfpaced.es2– e-prime main task file – *_reversed is the same, but with colors of stimuli switched

images - folder of images needed for the e-prime presentation

File Descriptions

PersTask_Instruct_UncCon.es2: Eprime 2.0 file – Instructions & practice to go with *PersTask_UncCon_selfpaced.es2 main experiment file*.

PersTask_Instruct_UncCon_reversed.es2: Eprime 2.0 file – Instructions & practice to go with *PersTask_UncCon_reversed_selfpaced.es2 main experiment file*.

PersTask_UncCon_selfpaced.es2 & PersTask_UncCon_reversed_selfpaced.es2:

Experimental Design: 2 conditions within subjects (Condition changes from round to round, but not within)

Conditions: Uncontrollable Obstacles, Controllable Obstacles, Progress Events - participant receives same pattern of obstacle setbacks in both conditions.
- Uncontrollable Obstacles (purple triangle (orange in reversed version) - setbacks framed as random)
- Controllable Obstacles (orange triangle (purple in reversed version) - setbacks due to "incorrect" response)
- Progress Cues (green triangle)

Timing Information:

Event Timing - Path Choice (terminates with response), self-paced Obstacle Cue (terminates with response), 4s Fixation, 2s Obstacle Outcome (Setback received/avoided), 4/6s (50/50%) Fixation (*no fixation between cue and outcome for Progress Cues)

Trial Counts and other details:

12 rounds, 40 obstacle cues, 24 setbacks and 16 avoided setbacks (60% of obstacles result in setback), 24 persistence choices (after each setback), 16 progress cues– divided equally across the 2 conditions

How to interpret output files:

EventType: 1=uncontrollable obstacle, 2=controllable obstacle, 3=progress cue, 4=path choice, 6=goal feedback

Lose: 1=setback received, 0=setback avoided, -1=event was path choice or goal feedback

Persist: 1 = choice to try again on the same path where a setback was just experienced, 0 = choice to switch to a different path than the one where the setback was experienced, -2=first path choice of the round, not included in persistence calculation, -1 = no response given for path choice

Other notes (e.g., how to calculate behavioral measures, other versions of the task that might be helpful)

To calculate Behavioral Persistence for each participant, you take the number of Persist choices (coded as "1" in the "Persist" column of output for each condition, and divide by the total number of post-setback choices (choices with a "1" or "0" in the Persist column. Missed choices have a "-2" in the "Persist" column).

The "Switch" column in the output has value "1" when the participant chooses a path that is lower in value than the current path, "0" if they choose the same path or a higher value path.

The files named "PathTask" in the SmokPersist and Opiod study folders are designed to be easier to share (and are shorter versions of the task, without Academic framing).

If a participant does not change their response after a controllable setback (i.e., fails to learn from a mistake), then a setback is received and the study continues on.