**Quality analysis for VNI behavior**

**Updated 11/11/20 (HRB)**

N = 51 (sub-013 removed from beginning because they did not complete the study and we have no behavioral data from them)

Missed trials

* 133 missed trials across 25/51 participants
* Mean =2.61 trials, range = 0-49, median = 0
* 10 participants missed 1 trial (subs 4,19,21,22,29,36,37,38, 45, 48)
* 3 participants missed 2 trials (subs 5,6,28 - none were consecutive)
* 3 participants missed 3 trials (subs 12, 33,52 – none were consecutive)
* 2 participants missed 4 trials (subs 32,41 – none were consecutive)
* 2 participants missed 5 trials (subs 10,25 – none were consecutive)
* 1 participant missed 8 trials (sub 47 – none were consecutive)
* 3 participants missed 11 trials (subs 2, 46, 51 – sub 2 had 1 instance of 2 consecutive missed trials, the rest were single misses; subs 46 & 51 did not miss any consecutive trials)
* 1 participant missed 49 trials (sub 42 – 4 instances of 2 consecutive missed trials, the rest were single misses)

P(gamble) = .43

Range p(gamble) = .01-.85

Who has p(gamble) near the bounds?

1. Sub-016 = .018
2. Sub-042 = .85 (not really at the bound but is somewhat of an outlier)
3. Sub-043 = .009

Who gambled when they should have played it safe (safe > risky gain)?

1. Sub-006: 4/16 trials
2. Sub-021: 1/13 trials
3. Sub-026: 1/15 trials
4. Sub-031: 1/13 trials
5. Sub-044: 1/13 trials
6. Sub-047: 2/12 trials

Who played it safe when alternative was 0 (should have gambled)?

1. Sub-043: 1/3 trials

Individual level glm (choice~ gain + safe):

1. Sub-016 does not show effect of either gain or safe (p ~1 for both gains and safe)
2. Sub-043 does not show effect of either gain or safe (p ~1 for both gains and safe)

Exclusions

1. Sub-013: participant did not complete the study because of anxiety during the structural scan and so we have no behavioral or functional data. We’ve kept them as sub-013 instead of tossing any sign of their existence because they are marked as sub-013 in multiple places, including COINS.
2. Sub-016: participant had a lot of motion in each run of their scan, reported feeling anxious during the scan, and we had to re-do the structural scan due to fidgeting. This participant behavioral data is also poor quality: p(gamble) = .02, individual-level glm showed choices were not influenced by gain and safe.
3. Sub-042: participant completed the study but missed 49/219 trials. This participant reported frustration that the button presses were not working and there were four instances when the participant missed two consecutive trials. P(gamble) = .85 and choices were influenced by gains and safe (per a glm). Given that this person missed a trial, on average, every 4.5 seconds could be problematic for our power in detecting contextual effects in the functional data. This person also reported feeling fatigued in the 3rd run.
4. Sub-043: participant had a p(gamble) = .009 and showed no effect of gains and losses on choices in individual-level glm.