**Notes on**

Technion competetition

**Task**

In each session each participant faced 30 decision problems for 25 trials.

The order of the 30 problems was random. There were 60 problems in total (see algorithm).

The instructions also stated that at the end of the study one of the trials (probably means problems) would be randomly selected, and that the participants obtained outcome in that trial would be realized as their payoff.

In the first five trials of each problem, the participants did not receive feedback after each choice; thus they had to rely on the description of the payoff distributions.

The choice problems were run in two order conditions: In the "By Problem" (ByProb) condition they faced each problem for one sequence of 25 trials. The bBy Feedbackb (ByFB) condition was almost identical to the ByProb condition with one exception: The participants first performed the five no-feedback trials in each of the 30 problems (in one sequence of 150 trials), and then faced the remaining 20 trials with feedback of each problem (in one sequence of 600 trials, and in the same order of problems they have played in the no-feedback trials).

**Problems**

The 60 problems of the estimation study were generated according to the following algorithm (the algorithm will be used also to determine the problems in Experiment 3)

1. Draw randomly EVA’ ~ Uni(-10, 30) (a continuous uniform distribution)

2. Draw number of outcomes for Option A, NA: 1 with probability .5; 2 otherwise.

2.1. If NA = 1 then set LA = HA = Round(EVA’); pHA = 1

2.2. If NA = 2 then draw pHA uniformly from the set {.01, .05, .1, .2, .25, .4, .5, .6, .75, .8, .9, .95, .99, 1}

2.2.1. If pHA = 1 then set LA = HA = Round(EVA’)

2.2.2. If pHA < 1 then draw an outcome temp ~ Triangular[-50, EVA’, 120]

2.2.2.1. If Round(temp) < EVA’ then set LA = Round(temp); HA = Round{[EVA’ – LA(1 – pHA)]/pHA}

2.2.2.2. If Round(temp) > EVA’ then set HA = Round(temp); LA = Round[EVA’ – HA ∙ pHA/(1 – pHA)]

2.2.2.3. If HA > 150 or LA < -50 then stop and start the process over

3. Draw difference in expected values between options, DEV: DEV = (1/5)∙∑Ui, where Ui ~ Uni[-20, 20]

4. Set EVB’ = EVA + DEV , where EVA is the real expected value of Option A.

5. Draw pHB uniformly from the set {.01, .05, .1, .2, .25, .4, .5, .6, .75, .8, .9, .95, .99, 1}

5.1. If pHB = 1 then set LB = HB = Round(EVB’)

5.2. If pHB < 1 then draw an outcome temp ~ Triangular[-50, EVB’, 120]

5.2.1. If Round(temp) < EVB’ then set LB = Round(temp); HB = Round{[EVB’ – LB(1 – pHB)]/pHB}

5.2.2. If Round(temp) > EVB’ then set HB = Round(temp); LB = Round[(EVB’ – HB ∙ pHB)/(1 – pHB)]

5.2.3. If HB > 150 or LB < -50 then stop and start the process over

6. Set lottery (see Appendix A):

6.1. With probability .5, the lottery is degenerate. Set LotNum = 1 and LotShpae = "-"

6.2. With probability .25, the lottery is skewed. Draw temp uniformly from the set {-7, -6, … , 3, 2, 2, 3, … , 7, 8}

6.2.1. If temp > 0 then set LotNum = temp and LotShape = "R-skew"

6.2.2. If temp < 0 then set LotNum = -temp and LotShape = "L-skew"

6.3. With probability .25, the lottery is symmetric. Set LotShape = "Symm" and draw LotNum uniformly from the set {3, 5, 7, 9}

7. Draw Corr: 0 with probability .8; 1 with probability .1; -1 with probability .1

8. Draw Amb: 0 with probability .8; 1 otherwise.

**Competition rules**

*Requirements*

To facilitate the accumulation of knowledge we will impose three requirements on the submitted models. First, the model should replicate the 14 qualitative phenomena described in Table 1 (the exact replication criteria are detailed at the bottom of this page and are also specified in the baseline model examples codes). competition’s website). Second, the verbal description should be short: The maximal allowed length of this verbal description is 1500 words (the number of words in the current description of BEAST is 1458). Third, the verbal description must be clear.

*Criterion*

The current competition focuses on the prediction of the mean B-rates in each of the five blocks of trials for each choice problem. As in Erev et al.’s (2010) competitions, the accuracy of the prediction will be evaluated using a mean squared deviation (MSD) score. We will first compute the squared difference between the observed and predicted rates in each block of five trials, in each of the 60 problems, and then compute the mean over the 300 scores. The MSD criterion, which has been also used by previous studies (e.g., Erev, Ert, Roth, 2010; Erev, Ert, Roth, Haruvy et al., 2010; Ert et al., 2011), has several advantages over other model estimation techniques (e.g., likelihood criteria). In particular, the MSD score underlies traditional statistical methods (like regression and the t-test) and is a proper scoring rule (Brier, 1950; Selten, 1998) which is less sensitive to large errors than other measures.

Question

Are they really paid by 1 single trial from all problems?

Was there descriptive information provided?

Need both conditions be explained?