**DESCRIPTION**

**Participants**:

36 college students from Tsinghua University community participated the experiment were compensated. All of them are right-handed and have normal or corrected-to-normal vision. 30 of them initial BDI data were under 10, 6 of them initial BDI data were higher than 20. In the low BDI group, which is the control group, three participants were excluded due to invalid trials, program malfunctions, or other reasons that resulted in a lack of valid data. Therefore, a total of 27 participants with low BDI scores and 6 participants with high BDI scores in the depression group were included in the final analysis.

[The following is for the record only]

[excluded in control group: 6008, 6015, 6031]

[depression group: 6005, 6006, 6010, 6022, 6025, 6036]

**Procedure**

The paradigm of this task is modified from Sui et al (2012).

Experimental were finished individually in dimly lighted room. Stimuli were presented and responses were collected using E-Prime 2.0 on PC. The monitor was at 1024 × 768 resolution with 100 Hz refresh rate.

Upon arriving the laboratory, participants were given written informed consent. After reading and signature on the consent, participants finished three parts of tasks: behavioral experiment A, behavioral experimental B, and questionnaires. The whole experiments were approximately 80 minutes.

Experiment A: 2 (match vs. non-match) ×3 (associations: self v. other, high reward v. low reward, happy v. sad) × 6 (sessions: 6) × 2 (participants: control vs. sub-clinical depression). Participants need to learn three associations (self vs. other, happy face vs. neutral face, and low reward vs. high reward)

Experiment B: 2 (match vs. non-match) ×3 (id: self, friend, stranger) × 4 (emotion: control, neutral, happy, sad) × 6 (sessions: 6) × 2 (participants: control vs. sub-clinical depression). Participants associate three different circles to self, best friend and stranger.