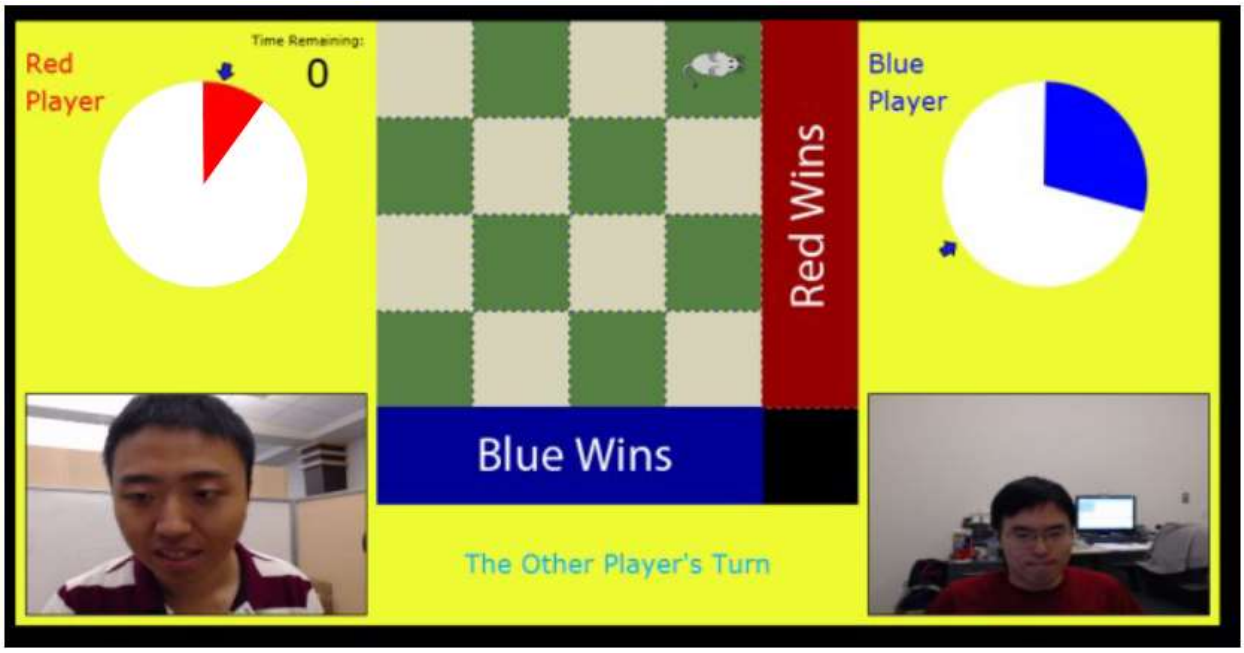
Homework Exercise 3: (Estimated time, 20-30min)

Due 11:59pm, Wednesday, Feb 5.
Submit PDF file to blackboard which should contain this document with completed answers
Please name your file last_first_hw1 (last name first, all lowercases) e.g. trump_don_hw3.pdf
You will benefit from the assigned readings on the EMA model.

Consider the following game illustrated in the following image.



MouseWars is a web-based game. Players take turns trying to get a mouse to move into their goal. The mouse icon appears in the upper-right of the central checkerboard in the figure above. The mouse begins in the upper-left square. On each turn, the player has a chance to move the mouse towards their goal. The likelihood that the mouse moves depends on a spinning roulette wheel landing on their color (each player has their own wheel – the red player's wheel is above him to the left). If the spinning wheel stops with the arrow point at their color, the mouse moves one space toward their goal. If the arrow ends in the white area, the mouse doesn't move. Before the wheel spins, players have a chance to improve their odds. They get 10 seconds to click a key as rapidly as possible and each click slightly increases the size of the colored area of the roulette wheel. With effort, the size can grow from an initial 10% of the circle to 50% of the circle. While one player is taking their turn, the other player must sit passively. Players can see each other through webcams but cannot communicate verbally. Click HERE to see a video of an example interaction (Note, in the video, the colors are reversed).

The image above shows a game in progress. The red player is about to start their turn. For answers below, assume the description above is a truthful description of what really happens in the game.

1. Given the game configuration above, if the red player takes their turn next, what should be their chance of winning immediately?
    a. Zero chance
    b. ~10% chance
    c. ~50% chance
    d. It depends on The amount of times the red player presses the button to increment the red area on the circle. Thus, it is at least the initial 10% of the circle and at most 50% of the circle.

2. Given the game configuration above, which player has the best chance of winning?
   a. Red
   b. Blue

3. If we adopt the OCC model of 22 emotions (shown in lecture 5), what emotion is each player most likely feeling as red starts his turn? What would you label the emotion(s) you would feel if you were in the same situation (just want your opinion – no "right" answer)?

   Red: hope You playing Red: satisfaction, hope, relief, and joy

   Blue: fear You playing Blue: distress, fear, and anger

4. Imagine a new game starts and the following sequence of outcomes occurs: Red player's wheel lands on red, Blue lands on white, Red lands on red, Blue lands on white, Red lands on red, Blue lands on white. Following how EMA reasons about emotions, how should the intensity of the Blue player's emotions change after each round (assume the player has a goal of winning and ignore any possible impacts of coping strategies)
   a. The intensity should increase
   b. The intensity should decrease
   c. The intensity should remain the same

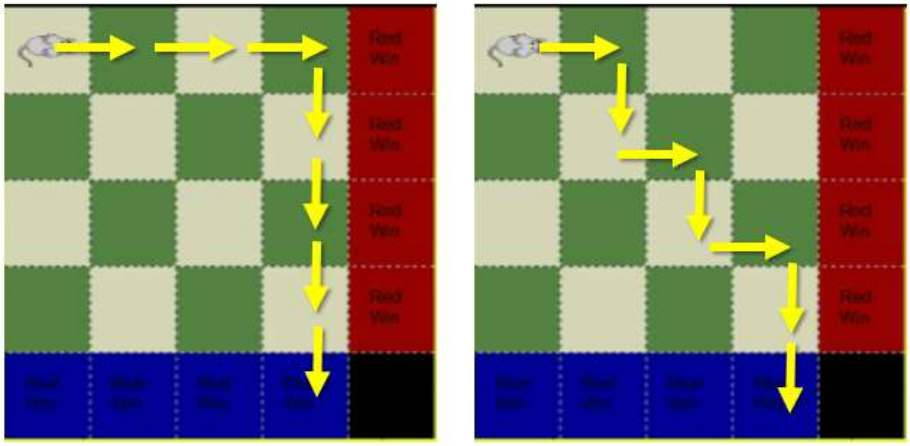
5. Now, assume the blue player in question 4 copes through distancing

   How does this impact emotion intensity: The emotion intensity decreases.

   How does this impact perceived probability of winning It reduces the perceived probability of winning.

   How does this impact perceived utility of winning It reduces the perceived utility of winning.

6. Consider the following 2 games. They yellow arrows represents how the mouse moves:



   In both games, the Blue player wins. In which game do you think the Blue player would feel the most intense emotion? I want your own personal opinion.
   a. Left game
   b. Right game
   c. Unclear

   Justify in 1 sentence The blue player would think it is going to lose the game, but it suddenly makes a comeback and it wins the game.

7. EMA (and most appraisal theories) have an appraisal variable related to control.
    a. As a game begins, what factor in the game is under a player's complete control
    b. List at least one other factors that should impact a players perception of control during the game.

a) Increasing the colored area in the circle. Thus, increasing the probability of having the arrow land on their color and not white.
b) One factor is the other player's ability to increase their colored area in the circle. A second factor is making the arrow land in the player's own colored area.