

My head is spinning

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50 PsychSim 5: My Head is Spinning PsychSim 5: MY HEAD IS SPINNING

Section: PSYC 101 — D22 LUO Date: 11-15-2012 This activity provides some background information about thinking with verbal concepts versus thinking with mental images. Conceptual Thinking - What was your train of thought as you navigated the picture of the candle? Initially seeing the candle I was not aware of what needed to be done until the mouse was moved and I saw the match. I then proceeded to drag the mouse to the candle, placed the match on top of the candle and lit the flame. The two images, the candle and the match, created a likely outcome. Cooper & Shepard's Results - In the Cooper & Shepard experiment (1973), participants were asked to decide whether a stimulus (a letter) was normal (simply rotated in the picture plane) or backwards (flipped to its mirror image before the rotation). Reaction times were graphed and increased as the letters were rotated away from 0 degrees. Interestingly, reaction time decreased after 180 degrees. Can you explain why this might occur? Reaction time increased as the letters were rotated away from zero because there is a greater angle the closer you get to 180 degrees, taking longer to mentally rotate the images. The decreased reaction time occurs because an object rotated beyond 180 can be flipped the other direction, taking less time to mentally rotate it. Rotating the images mentally takes more time per degree of rotation. Mental Rotation Experiment - After completing the Mental Rotation experiment and viewing your data, how would you describe the pattern of your results? Do you think that your results fit the pattern of results from the Shepard experiments? I do believe my results fit Shepard's experiment. It took me longer to contemplate the images when they reached 180 degrees compared to zero

degrees. The backward images had an increased response time due to manipulating the image. My time decreased at 240 degrees to 360 degrees. For example: Normal: Zero = . 57 sec. 180 degrees = 1. 70 sec 360 = . 56 sec Backward: Zero = . 85 sec 180 degrees = 1. 40 sec 360 = . 85sec - After comparing the graphs of your results and the results of the Cooper & Shepard (1973) study, how similar are the two graphs? Did your results show a clear increase in reaction time as the orientation moved away from the vertical? Did your results show a decrease in reaction time as the orientation moved from 180 degrees back to the vertical? My graph was considerably similar. There was an increase in reaction time as the letter moved away from the vertical shape. My graph showed a heightened response time when the rotation reached 180 degrees and decreased as the letter returned back to its vertical shape mimicking my time for zero and sixty degrees.