

Travis Moore

PSY201: Section B — Fall 2016

Professor: Vanessa Hemovich

Homework Assignment #1

Introduction to Cognition

Consider a video game that you have either had personal experience playing, or are otherwise very familiar with. You may choose to draw from other experiences beyond games (e.g., film/TV, books, social media, etc.)

1. What is “metacognition”? Describe at least 2 circumstances in which you found yourself engaged in this process. How aware of it were you?

“Metacognition” is simply described as “thinking about thinking”, but it is in actuality much more complex than this. Metacognition can be broken down into both metacognitive knowledge, the acquired knowledge about cognitive knowledge used to control cognitive processes, and regulation, which involve the use of metacognitive strategies.

An example of metacognition is reading the psychology reading handouts. I understood that understanding psychology is not where my strengths lie, so I had to make sure I paid a lot of attention to reading this material. Due to this, I chose not to casually read at school, where it is noisy and hard to focus, and instead I made sure to read the material at home where it is quiet and less distracting. While reading my goal was to understand the material so I had to evaluate how well I understood what I was currently reading. This prompted me to either read sections again or use the internet to look up further information on things I did not understand.

A different example of metacognition related to games involves learning how to play DoTA2 for the first time. I had not played in games of this genre before playing DoTA2, so instead of jumping straight into the game I played practice matches against bots instead of jumping straight into competitive matches, which I prefer. While playing through practice matches my goal was to master the mechanics of the game, which is why I would often replay different matches and even look up strategy guides for how to play the game.

For both of these examples I was not aware of the psychological term for what I was doing, but I believe I was aware that I was trying to employ techniques that would maximize my ability to learn both things in ways that my prior experiences proved would work for me.

2. Describe a context that you believe is somewhat difficult to navigate and/or play. In your opinion, what mechanics or other factors contribute to this? (Hint: barriers to attention, memory, pace issues, information overload, choice, etc.)

Continuing with DoTA2 as an example, there are many aspects of the game that make it difficult to navigate and play. Barriers to attention exist in learning how to use the game’s UI, which is rather large and can distract the player’s attention to the game if not properly

understood. The game asks a lot from its players as far as memorization goes, with its current roster of 112 playable heroes, each with unique abilities. On top of this, memory is further strained with items in the game, which grant new abilities, each with their own stats or quirks to how they are used. DoTA2 also has different pacing to the way the game is played depending if it is in the early, mid, or late stages of the game. All this can lead to information overload and confuse a player who is trying to learn how to play the game.

3. What two components define a **mental representation**?

The two components that define a mental representation are the form and content. The form of a mental representation is the format for the mental representation, like the difference between a picture depicting a car and the word “car”. Both represent the word car, but do it differently, with the drawing representing the car graphically and the word car using language symbols. The content of a mental representation is the actual representation. Using the previous example, the car is the content of the representation.

3b. How is this different from **mental processing**? Be specific.

Mental processing is the ability to take information and act upon them using predefined instructions or rules. Mental processing is what allows mental representation to happen in the first place. Using the car example, if we had no idea what a car was, or the concept of a car, we would be unable to form a mental representation because we would not be able to mentally process what is a “car”.

4. Explain what is meant by **perception being constructive**. Provide at least one example to illustrate your point. (Hint: consider the basic “laws” of Gestalt Principles).

Perception being constructive explains the ability of a perceiver using sensory information in conjunction with other sources of information to construct an understanding of a stimulus. An example of perception being constructive is evident in how we perceive patterns using the Gestalt Principles. This works really well with logos and logo recognition. For example, if you view a McDonald’s logo that is partially obscured so that you only see the letters “McDona_d’s” and one of the golden arches is covered, you can probably still understand and read that logo even though it is not fully in view. You would be able to draw upon experiences seeing that logo and fill in the blanks, or even establish the pattern of the golden arches “M” and be able to complete the missing area.