

## MUS 775

### Discussion 7 - More Learning Theories

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Discuss your understanding and use of the following:

#### ZPD (Zone of Proximal Development)

<http://www.westga.edu/~distance/ojdla/summer82/marsh82.htm>

Vygotsky's Zone of Proximal Development (ZPD) discusses how language and thought are utilized in society. He theorized that, instead of a solo learning environment, children learn better in a learning environment with a competent teacher to help them through inconsistencies and conceptions using communication and social interaction. He posited that children utilize their experiences and social interactions to develop deeper thought (i.e. converting interpersonal processes into intrapersonal ones).

There seems to be discussion that ZPD cannot be utilized into today's highly technological world, specifically that distance education is inferior because it does not include an on-site, community learning format. The challenge for educators is to ensure that their distance learning still provides long-lasting knowledge gains. The authors argue that there are several technological tools and resources that still provide a community for effective learning, even though that community does not interact in real time.

Learning environments utilizing social constructivism are student-centered even though a mentor teaches directly by modeling, scaffolding, coaching, and fading. There are two elements of evolved social constructivism to consider: situated learning and cognitive apprenticeship. **Situated learning** occurs when students are engaged in cooperative activities with a community while using critical thinking skills and past experiences. **Cognitive apprenticeship** is also learning in a constructivist manner, as when an expert teaches a new trade to a learner new to the field. When situated learning, cognitive apprenticeship, and ZPD are used together, the student is engaged, prior understanding relates to new assimilated data, students are guided to complete a task with an emphasis on the principle of self-created knowledge.

Vygotsky explains the ZPD as the gap between the current proficiency and the potential level of mastery under the tutelage of mentors and more educated peers. A metaphor used to describe

the ZPD is how the “buds” or “flowers” of maturity will later develop into the “fruits” of the learning process. The ZPD is an effective tool to determine a learner’s cognitive development.

Returning to the argument that ZPD may be losing effectiveness in an ever-advancing technological world, Vygotsky was confident the psychological processes evolve with sociocultural history and culture. It can still thrive if teachers learn how to use the new media artifacts including books, videos, wall displays, scientific equipment, and a carefully crafted computer environment created to support intentional learning. Community dialog can provide social stimuli for learning through new technologies such as multimedia programs, videotaped lectures, or discussion boards.

## **Gestalt**

<http://gestalttheory.com/maxwertheimer/gestalttheory/>

*I found this linked article incredibly difficult to decipher so, after reading it, I did additional research to find a source that explained it in a way that made more sense to me:*

<https://www.toptal.com/designers/ui/gestalt-principles-of-design>

Gestalt theory came about in the early twentieth century from the work of Max Wertheimer, Wolfgang Kohler, and Kurt Koffka. The German word “gestalt” is defined as pattern, configuration, placed, or put together. The theory stresses that the whole is greater than the sum of its parts. This means that the pieces come together and form something new in the whole – that the pieces interact with themselves to make the whole something special and unique apart from its individual parts.

The Gestalt theory posits that the human brain attempts to simplify complex images/designs by subconsciously arranging the parts into an organized system that creates a whole, rather than just unrelated components. Simply put, our brains are built to seek out structure and patterns to better understand our environment. There are six principles associated with the Gestalt theory: similarity, continuation, closure, proximity, figure/ground, and symmetry & order.

Similarity involves grouping like items together by certain traits (for ex. color, shape, or size) regardless of their closeness to each other. Continuation implies that the human eye desires to follow the smoothest path when viewing lines despite how the lines are drawn. Closure is the idea that your brain can fill in missing pieces to create a whole. Proximity describes how close traits/elements are to one another. Figure/Ground, which is similar to closure, explains how the brain processes negative space, as in what it considers major and minor components. Symmetry

& Order states that your brain will perceive ambiguous shapes/ideas in the most basic and simple way possible.

### **Behaviorism (Pavlov, Skinner)**

<http://plato.stanford.edu/entries/behaviorism/>

Behaviorism is the scientific study of behavior in a single individual – person or animal – rather than social groups or cultures. A behaviorist is someone who requires behavioral evidence for any psychological hypothesis to further explain and analyze beliefs and desires. Behaviorism follows the following set of claims: 1. Psychology is the science of behavior, 2. Behavior can be explained without making ultimate reference to mental events or to internal psychological processes, and 3. If, while in the course of theory development in psychology, mental terms/concepts are deployed in describing or explaining behavior, then either (a) these terms/concepts should be eliminated and replaced by behavioral terms or (b) they can and should be translated or paraphrased into behavioral concepts.

There are three types of behaviorism. Methodological behaviorism is a standard theory dictating that psychology should study individual organism's behavior rather than mental states and events. Psychological behaviorism, a research program within psychology, explains human and animal behavior in terms of external physical stimuli, responses, learning histories, and reinforcements. The works of both Pavlov and Skinner, among many other psychologists, contain components of psychological behaviorism. The use of behaviorism is more prevalent among psychologists than philosophers. Analytical or logical behaviorism is a theory within philosophy concerned with defining mental terms and concepts to explain disposition and reactions of individuals in varying situations.

Skinner is the only student of behaviorism to propose a socio-political worldview, as outlined in his work *Walden Two* in which he describes what an ideal human society would look like if designed using behaviorist principles. Details to note include his aversion to free will, to homunculi (little man/voice in your brain directing your actions), and dualism (mind and body are vastly different things). Skinner also claims that the past environmental interactions control a person's behavior. He does not believe that people can create their own environments. Critics have objected to what Skinner has described as the best society for humans because his definition is too broad and inadequate. His values, description of health, friendship, relaxation, and rest do not make up all the components of a complex society.

Pavlov contributed to behaviorism through his lab testing pairing a stimulus with a conditioned response. In his famous dog experiments, Pavlov proved that by giving the dogs a treat while

ringing a bell would later cause the dog to salivate upon hearing the bell (i.e. an event triggered an emotional response).

Behaviorism's importance is often downplayed by cognitive scientists, cognitive ethologists, ecological psychologists, and neuroscientists because it places a higher importance on environmental contingencies while not including neuroscience as a possible area of study for the true causes of behavior. However, behaviorism continues to have a strong foothold in the areas of behavior therapy and lab-based animal learning theory. Minds are not discussed usually, but instead focus is given to stimuli, responses, and reinforcement. Therapy shapes behavior not thought.