Classical Conditioning And Specific Phobias

Phobias are ranked as one of the most prevalent reported psychological disorders (Bloom, 2013). Phobias are separated into three main groups. Specific phobias are the most frequently diagnosed. These phobias are characterized by extreme anxiety to a certain object or situation when in reality the object or situation is relatively harmless. The second group of phobias are social phobias which are characterized by an intensive fear of being in public or in a social situation such as going to school (Phobias, 2019) The last group of phobias is Agoraphobia or as stated in an article from Mental Health America “is the fear of being alone in public places from which there is no easy escape”.

It is normal to experience a small amount of anxiety during certain situations such as during a presentation or for an upcoming interview. However, symptoms of specific phobias endure longer and are out of proportion compared to risks associated with the object or situation that is feared. Common specific phobias include a fear of situations such as flying, weather such as tornados, animals, clowns or blood just to name a few. There are three main causes of specific phobias. First, negative experiences such as having an anxiety attack during a certain situation. Second, genetics; links between phobias of parents and child could exist. Finally, changes in brain function could cause one to acquire a phobia (Specific Phobias, 2016). ”. For the content of this paper, we will focus on specific phobias and how they relate to the psychological concept of classical conditioning.

As stated by Praveen Shrestha, “Classical conditioning is a form of associative learning”, discovered by Ivan Pavlov in his dog salivation studies. Upon discovery of associative learning in animals psychologists began to question if these findings could be generalized to humans. In the 1920s Watson and Rayner conducted an experiment on 9-month-old Albert and concluded that humans were capable of classical conditioning but also it was possible that phobias could be conditioned (Shrestha, 2019).

To begin the Little Albert experiment Watson and Rayner showed the 9-month-old various stimuli including a white rat, a rabbit, a monkey, and masks and recorded his responses. At 11-months old, they began to condition Albert. They would present the unconditioned stimulus, the white rat, followed by the conditioned stimulus of a hammer striking a steel bar. Albert's reaction of fear was to cry. At the end of the conditioning trials, Albert had generalized this fear to other stimuli. He could be shown a white rabbit, as well as other stimuli and the conditioned response of crying, would occur (Shrestha,2019). This led to the conclusion that fear could be conditioned.

In a second example of how fear can be conditioned occurred when a little boy heard and saw a horse fall and kick forcibly. The horse bucking and falling being the conditioned stimulus, the sounds accompanying this bucking being the unconditioned stimulus. The anxiety that occurred as a result of the unconditioned stimulus with the sight of the conditioned stimulus, the horse is the response. This learned fear association is how classical conditioning contributes to specific phobias (Shrestha, 2019).

Now, if classical conditioning can contribute to the acquisition of phobias, can classical

conditioning contribute to the extinction of phobias as well? The answer is yes! Systematic desensitization is a behavior-based therapy developed in the 1950s by Wolpe. This type of therapy is based on the principles of classical conditioning. The idea behind this therapy is to extinguish the fear response by eliciting a relaxation response in its place progressively through counter conditioning (Mcleod, 1970).

Systematic desensitization is a three-step process. First, relaxation techniques are taught, such as deep breathing and muscle relaxation. Second, the one suffering from the phobia creates a list of scenarios that include the fear-inducing stimuli in order from an event causing the least amount of anxiety to the most amount of anxiety. For example, if a person possesses a phobia of needles, they might order scenarios such as visualizing themselves touching a needle or receiving an injection, followed by holding or touching a needle, then leading into actually receiving an injection. This is known as a fear hierarchy. Lastly, the fearful person works his or her way through the fear hierarchy, starting with the stimulus that induces the least amount of anxiety, once that stage is completed and there is no longer fear associated, they move on to the next level. Exposure to fear-inducing stimuli in systematic desensitization can occur in 2 different processes, in vitro where the participant imagines exposure to the stimulus or in vivo where the participant is exposed directly to the stimulus (Mcleod, 1970).

Other therapies for phobias include exposure therapy founded by Foa and Kozak in 1986 which includes flooding. Flooding is essentially the opposite of systematic desensitization. Flooding involves being completely engaged in the fearful stimuli until the fear is abolished. Biofeedback machinery can be paired with systematic desensitization to ensure that relaxation is achieved before moving on to the next level in the fear hierarchy. Lastly, modeling can be paired with systematic desensitization. The participant's observer someone interact with the fear-inducing stimulus while remaining relaxed then aims to mimic the behaviour of the model (Rainey, 1997).

I have a friend that suffers from claustrophobia and Taphophobia. He was previously a firefighter and first responder. His team and he responded to a fire call where his orders were to sweep the building and make sure it was clear of people and animals. Upon running into the burning building rafters and beams began falling from the ceiling, trapping in beneath them while engulfed in flames. He was trapped until the additional members of his team realized he had not returned from the burning building and had to go in to find him. Being inside a burning building instills fear itself, even more so when trapped. Being trapped in a burning building would be the unconditioned stimulus while fear and taphophobia would be the unconditioned response. He has since generalized this stimulus into claustrophobia. For instance, being inside an MRI machine elicits a fear response. The MRI being a conditioned stimulus and the anxiety and panic attack experienced is the condition response.

To aid in the counter conditioning of the claustrophobia I feel systematic desensitization would be appropriate. The first step would be to work on breathing and meditation techniques. To learn how to relax the anxiety and fear response. The second step would be to list the fear hierarchy. He should think about which situations would induce a slight amount of anxiety and which would induce a large amount of anxiety. The last step would be to work through the fear hierarchy with meditation techniques with the aid of a biofeedback machine to ensure that relaxation has been met before continuing on to the next level. In vitro and in vivo techniques should both be used. To begin he should visualize the least fear evoking stimulus, once this has achieved, he could move on to the next level. Finally, he should move from visualizing the stimuli to experiencing small amounts to ensure relaxation if he should ever encounter a small

space such as the MRI machine.

Often many phobias respond well to systematic desensitization however certain ones such as agoraphobia do not. Also, mental disorders such as schizophrenia and depression are treatable by systematic desensitization. As this process is based on the concept of associative learning, meaning that abnormal behaviour must be learned in order to be treated in this way (Mcleod, 1970). I believe that the taphophobia would not show lower levels of anxiety after systematic desensitization. First, because being burned or catching on fire is not a stimulus one encounters often. This could prove difficult for the steps of systematic desensitization. Second, the more a stimulus and a response are paired together the stronger the connection. After being a firefighter and running time after time into a burning building it is possible that this effects brain plasticity. The brain can change or “rewire” neurons for this fear response. So, this phobia could be linked to the changes in the brain concept as opposed to classical conditioning.

As a therapist or as a client, I would feel more comfortable using systematic desensitization over a technique such as flooding. I feel that learning techniques to reduce anxiety in stages would lead to better long-term success than an overtly amount of fear experienced in one instance. Learning techniques that can be generalized to everyday life in multiple situations that could potentially cause different amounts of anxiety or fear would be more beneficial in being able to control the unwanted fear response.

References:

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