

Classical conditioning

[Psychology](#), [Behaviorism](#)



‘ Classical conditioning provides us with a way to learn cause and effect relations between environmental events’ (Martin, Carlson and Buskist, 2010, pg 259). Classical conditioning is learning by association and is the main way in which we develop phobias. The main type being specific phobias which are generally influenced by genetics or a traumatic childhood event. There are three basic principles of classical conditioning which are important to be aware of when researching the development of phobias: Acquisition, extinction and spontaneous recovery. Indirect conditioning is also a major factor in how phobias can develop. Examples of indirect conditioning are generalisation, higher order conditioning, sensory preconditioning and vicarious conditioning. Ivan Pavlov’s discovery is by far one of the best for describing the process of classical conditioning. In this essay it will explain how he used dogs and the production of saliva to show how we learn by association. Phobias are sometimes treated by systematic desensitisation. ‘ The verb to sensitize means “ to make someone highly responsive or susceptible to certain stimuli, ” and the prefix de- indicates removing, or doing the opposite.’ (Sarafino E. P., 1996, pg 232). This essay will also show some examples of how systematic desensitization is performed. Although Ivan Pavlov was a trained physiologist he still became one of the most famous researchers in psychology. He started out studying various substances secreted by animals which helped aid digestion and won a noble prize for his study in 1904. One substance which was of particular interest to him was saliva. He became intrigued as to what stimuli influenced the production of saliva. Pavlov based his study on dogs and was able to measure the amount of saliva produced by connecting a tube to their

salivary ducts (Mazur, 2006). He did a number of testing sessions where food powder would be placed in the dog's mouth each time. After a few times the dogs became experienced and began to salivate even before the food powder was placed in their mouths. He decided to control this phenomenon. He came up with an experiment using an inexperienced dog and sounding a bell each time just before the dog was given the food powder. After 12 or so of these sessions the food powder was no longer needed for the production of saliva as the sound itself was enough. Pavlov showed that salvation can be elicited by a new learned stimulus (CS) so salvation n becomes a conditional response (CR). He studied this type of learning for the rest of his life, which is now called classical conditioning (Martin et al. 2010). According to Martin et al, classical conditioning accomplishes 2 functions. First, is the ability to learn to recognize stimuli that may predict when an important event is about to occur so it enables the learner to respond faster and more effectively. This ability would be extremely important for people with phobias as this allows them to avoid their feared stimuli or event. For example, with a person who is afraid of spiders (arachnophobia) and has seen a web, their main reaction would be to get away from the area as quick as possible as the web would initiate that there is a spider nearby. Second, stimuli that were previously unimportant can become associated with important stimuli and therefore change people's behaviour towards the stimuli. For example, we would respond more positively to a stack of gold bricks than to a stack of concrete bricks. Phobias are generally caused by something that may have happened earlier in life, where the person was 'exposed to the now-feared object in conjunction with a stimulus that elicited pain or fear.' (Martin et al.

2010, pg 262) Classical conditioning principles are the main processes which show the development of phobias. Acquisition is the main reason why phobias develop. According to Martin et al, a single pairing of the CS with UCS is not generally enough for a learned response to take place. Therefore this shows that a small event which does not affect the person does not create a phobia. Acquisition is the learning phase of classical conditioning, during which the CS gradually increases in frequency or strength. The main two factors that are associated with the development of a phobia learned by classical conditioning are intensity and timing. If there is a great amount of pain associated with the stimuli the person will learn quickly to fear the stimuli and in severe cases even develop a phobia. The second factor is timing of the CS and the UCS; if they both occur in close timing of one another the person is more likely to develop a fear of the stimuli. Extinction of the feared event can occur when the CS occurs many times with the UCS to get rid of the CR, thus the CS will no longer elicit the CR. Indirect conditioning also influences the onset of phobias. Generalisation is one such way in which a CR can be elicited indirectly. When certain stimuli are alike the CS and are able to elicit the CR this is called generalisation. For example if a person had a bad experience with a dog and now fears that dog, it is likely they will be afraid of all types of dogs. Vicarious conditioning is also another main process in which people develop phobias indirectly. For instance, if someone hears or reads about a story which is of an unpleasant event described in detail that imaginary event that we would picture as we hear or read the event (UCS) can provide imaginary stimuli (CSs) that can lead to real life conditional responses (CRs). (Martin et al, 2010) Another

example that would most commonly occur today is if a parent has a fear of cats their child may witness their fearful response and therefore the child can develop a phobia with being exposed to a traumatic event involving a cat. One of the most famous examples of an experiment and how classical conditioning principles can develop phobias is that of Little Albert. This experiment was carried out by John B. Watson who was influenced by Pavlov's work. Watson carried out his experiment on a 9 month old boy called Albert who had no fear of rats. Watson found when he struck a steel bar the sound that came from it startled little Albert. He then repeated this but the second time placed a rat with Albert. Watson repeated this about seven times and then presented the rat by itself and Little Albert became distressed. He was then shown similar object and the initial conditioned response was generalised to some of the similar objects such as a rabbit and dog. (Martin et al, 2010, pg 262) Systematic desensitization is generally used to get rid of phobias. According to Sarafino, Joseph Wolpe used the concept of counter conditioning as a basis in developing a technique to get rid of people's fears which he had described in the following way: ' a physiological state inhibitory of anxiety is induced in the patient by means of muscle relaxation, and the is then exposed to a weak anxiety — arousing stimulus for a few seconds. If the exposure is repeated several times, the stimulus progressively loses its ability to evoke anxiety. Then successively " stronger" stimuli are introduced and similarity treated.' (1973, pg 95, as cited in sarafino, 1996) This thought to be a very successful way of getting rid of phobias and is one of many ways in which Systematic desensitization is used. From this essay it is clear that classical conditioning principles strongly

influence the development of phobias using many key factors. From the extract of Joseph Wolpe it gives a clear understanding how his understanding concept of counter conditioning is used to desensitize phobias. References: * Martin, G. N., Carlson, N. R., & Buskist, W. (2010) Introduction to Psychology. Essex; England. Pearson Education Limited * Mazur, J. E. (2006) Learning and Behavior. Upper Saddle River, New Jersey, Pearson Education. * Sarafino, E. P. (1996) Principles of Behavior Change. Toronto, Canada, John Wiley and sons, Inc.