

# CLASSICAL CONDITIONING

What do you do when you hear a bell ring?

A teacher told this story on himself. When most teachers hear a bell one of the first things they do is walk out into the hallway to be a monitor. Right? Just keep a watchful on the students. Well this guy had acquired such a habit that when he was at home and the doorbell rang he'd walk into a nearby hallway and "monitor" his family. For him it was simply such a strong habit that he'd produce the right behavior (going into the hall to monitor) at the wrong place (his own home).

In this chapter we will look at Classical Conditioning, perhaps the oldest model of change there is. It has several interesting applications to the classroom, ones you may not have thought about it. Let's look at the components of this model.

## COMPONENTS OF CLASSICAL CONDITIONING

The easiest place to start is with a little example. Consider a hungry dog who sees a bowl of food. Something like this might happen:

Food ---> Salivation

The dog is hungry, the dog sees the food, the dog salivates. This is a natural sequence of events, an unconscious, uncontrolled, and unlearned relationship. See the food, then salivate.

Now, because we are humans who have an insatiable curiosity, we experiment. When we present the food to the hungry dog (and before the dog salivates), we ring a bell. Thus,

- Bell
- with
- Food ---> Salivation

We repeat this action (food and bell given simultaneously) at several meals. Every time the dog sees the food, the dog also hears the bell. Ding-dong, Alpo.

Now, because we are humans who like to play tricks on our pets, we do another experiment. We ring the bell (Ding-dong), but we don't show any food. What does the dog do? Right,

Bell ---> Salivate

The bell elicits the same response the sight of the food gets. Over repeated trials, the dog has learned to associate the bell with the food and now the bell has the power to produce the same response as the food. (And, of course, after you've tricked your dog into drooling and acting even more stupidly than usual, you must give it a special treat.)

This is the essence of Classical Conditioning. It really is that simple. You start with two things that are already connected with each other (food and salivation). Then you add a third thing (bell) for several trials. Eventually, this third thing may become so strongly associated that it has the power to produce the old behavior.

Now, where do we get the term, "Conditioning" from all this? Let me draw up the diagrams with the official terminology.

- Food -----> Salivation
- Unconditioned Stimulus ---> Unconditioned Response

"Unconditioned" simply means that the stimulus and the response are naturally connected. They just came that way, hard wired together like a horse and carriage and love and marriage as the song goes. "Unconditioned" means that this connection was already present before we got there and started messing around with the dog or the child or the spouse.

"Stimulus" simply means the thing that starts it while "response" means the thing that ends it. A stimulus elicits and a response is elicited. (This is circular reasoning, true, but hang in there.)  
Another diagram,

- Conditioning Stimulus
- Bell
- with
- Food -----> Salivation
- Unconditioned Stimulus-----> Unconditioned Response

We already know that "Unconditioned" means unlearned, untaught, preexisting, already-present-before-we-got-there. "Conditioning" just means the opposite. It means that we are trying to associate, connect, bond, link something new with the old relationship. And we want this new thing to elicit (rather than be elicited) so it will be a stimulus and not a response. Finally, after many trials we hope for,

- Bell -----> Salivation
- Conditioned Stimulus ---> Conditioned Response

Let's review these concepts.

1. Unconditioned Stimulus: a thing that can already elicit a response.
2. Unconditioned Response: a thing that is already elicited by a stimulus.
3. Unconditioned Relationship: an existing stimulus-response connection.
4. Conditioning Stimulus: a new stimulus we deliver the same time we give the old stimulus.
5. Conditioned Relationship: the new stimulus-response relationship we created by associating a new stimulus with an old response.

There are two key parts. First, we start with an existing relationship, Unconditioned Stimulus ---> Unconditioned Response. Second, we pair a new thing (Conditioning Stimulus) with the existing relationship, until the new thing has the power to elicit the old response.

## A LITTLE HISTORY AND A COMPARISON

The example we used here is from the first studies on classical conditioning as described by Ivan Pavlov, the famous Russian physiologist. Pavlov discovered these important relationships around the turn of the century in his work with dogs (really). He created the first learning theory which precedes the learning theory most teachers know quite well, reinforcement theory. We will look at reinforcement theory in a separate chapter, but for now I do want to make a point.

The point is this: Classical conditioning says nothing about rewards and punishments which are key terms in reinforcement theory. Consider our basic example,

- Conditioning Stimulus

- BELL
- with
- Food -----> Salivation
- Unconditioned Stimulus ---> Unconditioned Response

There is nothing in here about rewards or punishments, no terminology like that, not even an implication like that. Classical conditioning is built on creating relationships by association over trials. Some people confuse Classical Conditioning with Reinforcement Theory. To keep them separated just look for the presence of rewards and punishments.

## EVERYDAY CLASSICAL CONDITIONING

This type of influence is extremely common. If you have pets and you feed them with canned food, what happens when you hit the can opener? Sure, the animals come running even if you are opening a can of green beans. They have associated the sound of the opener with their food.

Classical conditioning works with people, too. Go to K-Mart and watch what happens when the blue light turns on. Cost conscious shoppers will make a beeline to that table because they associate a good sale with the blue light. (And, the research proves that people are more likely to buy the sale item under the blue light even if the item isn't a good value.)

And classical conditioning works with advertising. For example, many beer ads prominently feature attractive young women wearing bikinis. The young women (Unconditioned Stimulus) naturally elicit a favorable, mildly aroused feeling (Unconditioned Response) in most men. The beer is simply associated with this effect. The same thing applies with the jingles and music that accompany many advertisements.

Perhaps the strongest application of classical conditioning involves emotion. Common experience and careful research both confirm that human emotion conditions very rapidly and easily. Particularly when the emotion is intensely felt or negative in direction, it will condition quickly.

For example, when I was in college I was robbed at gun point by a young man who gave me The Choice ("Your money or your life.") It was an unexpected and frightening experience. This event occurred just about dusk and for a long time thereafter, I often experienced moments of dread in the late afternoons particularly when I was just walking around the city. Even though I was quite safe, the lengthening shadows of the day were so strongly associated with the fear I experienced in the robbery, that I could not but help feel the emotion all over.

Clearly, classical conditioning is a pervasive form of influence in our world. This is true because it is a natural feature of all humans and it is relatively simple and easy to accomplish.

## REFERENCES AND RECOMMENDED READINGS

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