

Operant Conditioning

SCENE 1

Operant conditioning is based on the idea that we can increase or decrease a certain behavior by adding a consequence.

SCENE 2

For example, if a dog poops on a carpet, we can either provide reinforcement so the dog does it again or punishment so the dog stops.

Both reinforcement and punishment, can either be positive or negative, which means we have four possible ways to teach this dog a lesson.

SCENE 3

We can draw the four options in a table:

If reinforcement is positive, we add something pleasant, like a cookie, to increase the likelihood of a behavior.

If reinforcement is negative, we still want to increase the desired behavior, this time by removing something unpleasant, like the leash.

If punishment is positive, we add an unpleasant response to decrease behavior.

When punishment is negative, we also want to decrease behavior, now by removing something pleasant, like the comfy carpet.

If we stop any sort of manipulation, the conditioned behavior will eventually disappear again. This is called extinction.

SCENE 4

Operant conditioning was first studied by Edward L. Thorndike and later made famous by the work of B.F. Skinner.

Skinner believed that organisms are doing what they do naturally until they accidentally encounter a stimulus that creates conditioning, which results in a change in behavior.

To test this, he placed a rat inside an operant conditioning chamber, which later became known as the Skinner box. Among other things, inside the box was a lever that would release food when pressed.

SCENE 5

Conditioning happens in a three-term contingency, today known as The ABCs of Behavior:

A stands for Antecedent: The rat accidentally hits the lever that triggers the release of food.

B stands for Behavior and refers to the response. The rat keeps pressing the lever.

C stands for Consequence: Food keeps coming out.

The strength of the response to the conditioning depends on the schedule of reinforcement. If there is always food after pressing, the rat behaves predictably. If food is released randomly, the rat behaves erratically like an addict.

SCENE 6

Skinner, born in 1904, was a professor of Psychology and subscribed to Behaviorism. He argued that you can only study behavior that is visible and that anything happening only within the mind is either a misconception or irrelevant to science.

He thought free will was an illusion because behavior is either random or a reaction to the environment.

His work became the foundation for behavioral therapy, military drills, and animal training.

SCENE 7

You can try this classroom exercise on positive reinforcement:

One individual must exit the room. Now decide on a task which that individual will complete, such as finding a particular book. Then choose a non-verbal way of reinforcing that task, such as clapping your hands.

Invite the person to come back into the room and let them try and complete the task.

But don't give any instructions!

Every time they are on the right track in regards to completing the task, clap your hands louder.

If they move away from performing the task, reduce your applause, or stop it entirely.

Once the person understands what they are supposed to do, let them explain the task.

Did they get it right?

SOURCES:

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Operant Conditioning

by B.F. Skinner

	Punishment (decreasing behavior)	Reinforcement (increasing behavior)
Positive (adding)	adding something to decrease behavior	adding something to decrease behavior
Negative (subtracting)	subtracting something to decrease behavior	subtracting something to decrease behavior

THE ABCs OF BEHAVIOR:



The relation between (A) the setting and (B) behavior exists because of (C) consequences that occurred for previous AB (setting-behavior) relations. The idea is that reinforcement strengthens the setting-behavior relation rather than simply strengthening behavior (Maxley, 2004).

Source: Lennox & Mittenberger, 1989; Based on B.F. Skinner's "Three-Term Contingency"