

# Operant conditioning

## General

Operant conditioning, sometimes also known as Skinnerian conditioning is an [behaviorist](#) learning approach similar to [classical conditioning](#), mostly influenced by early theoretical and experimental works of American psychologist [Burrhus Frederic Skinner](#) from the second half of the 20th century. Main difference between those two theories is that **classical conditioning does only modify reflex reactions** and **operant conditioning shapes new behavior**.

## What is operant conditioning?

The most famous experiment considering operant learning is [Skinner box](#), also known as *operant conditioning chamber*. In this experiment Skinner demonstrated the ideas of operant conditioning and shaping behavior of a rat using reinforcement in terms of food. Unlike Pavlov's classical conditioning, where an existing behavior (salivating for food) is shaped by associating it with a new stimulus (sound of a bell), operant conditioning is the **rewarding of an act that approaches a new desired behavior**, but can also be the opposite: **punishing undesirable behavior**.

Skinner also observed effects of different **schedules of reinforcement** (**continuous** - every day at the same time, **fixed ratio** - every X times the reinforcement occurs, or **fixed interval** schedules - reinforcement occurs if desired behavior is showed within the time interval). One interesting observation he also made is **resistance to extinction when variable schedules is used**. Gambling represents a model of the same: reinforcement doesn't come that often but one can never be sure it won't come next time so he gives it another try.

Operant conditioning can also be used to **shape more complex behaviors** by starting from an idea similar to the intended behavior and after it is learned **slowly shaping it until it becomes exactly what was desired**. An example of this is how Skinner and his students managed to teach pigeons to bowl.

## What is the practical meaning of operant conditioning?

There are many examples of operant conditioning in everyday use. The act of **completing homework in order to earn a reward from a parent or teacher**, or **finishing projects to receive praise or promotions** is a form of operant conditioning. In these examples, the **promise or possibility of rewards causes an increase in probability of certain behavior**.

Operant conditioning can also be used to **decrease probability of certain behavior by use of punishment** (*averse stimulus*). For example, a child may be told they will lose recess privileges if they talk out of turn in class. This potential for punishment may lead to a decrease in disruptive behaviors.

## Keywords and most important names

- **Operant conditioning, Skinnerian conditioning, Skinner box, operant conditioning chamber**
- [Burrhus Frederic Skinner](#)

## Bibliography

Blackman, Derek E. Operant conditioning: an experimental analysis of behaviour. Routledge, 1974.

["Classical Conditioning - Introduction to Classical Conditioning."](#)

## Read more

Skinner, Burrhus F. About behaviorism. Vintage Books, 1974.

["Skinner, B. F. 'Superstition' in the Pigeon". Journal of Experimental Psychology #38, p168-172. 1947.](#)

[Peterson, G. B. A day of great illumination: BF Skinner's discovery of shaping. Journal of the Experimental Analysis of Behavior 82, no. 3, p317-328. 2004.](#)

[Wolf, M., Risley, T., Johnston, M., Harris, F. and Allen, E. Application of operant conditioning procedures to the behavior problems of an autistic child: a follow-up and extension. Behaviour Research and Therapy 5, no. 2, p103-111. May 1967.](#)

[Levene, Howard I., Engel, Bernard T. and Pearson, John A. "Differential Operant Conditioning of Heart Rate." Psychosom Med 30, no. 6, p837-845. November 1, 1968.](#)

From:  
<https://learning-theories.org/> - **Learning Theories**

Permanent link:  
[https://learning-theories.org/doku.php?id=operant\\_conditioning&rev=1295356871](https://learning-theories.org/doku.php?id=operant_conditioning&rev=1295356871)

Last update: **2023/06/19 15:49**

