

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 principles of operant conditioning and behavior shaping on a rat using reinforcement in terms of food. Unlike Pavlovian 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 decrease probability of unwanted behaviors.

Keywords and most important names

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

Bibliography

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

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

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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.

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