

Contiguity Theory and One Trial Learning

General

Contiguity theory or law of contiguity was introduced in 1930s by American philosopher, mathematician and psychologist [Edwin Gurthie](#). It emphasizes that the only necessary condition for the association of a stimulus with a response is a **close temporal relationship** between the two.

What is contiguity theory?

Gurthie attempted to explain learning through **association** of stimuli with responses. All learning, according to Gurthie, was a consequence of associating a particular stimulus with a particular response. This association will only occur if **stimuli and responses occur soon enough** one after another (**contiguity law**). The association is established on the **first experienced instance of the stimulus (one trial learning)**. Repetitions or **reinforcements** in terms of reward or punishment do not influence the strength of this connection. Still, every stimulus is a bit different, which results in many trials in order to form a general response. This was according to Gurthie the only type of learning.

Learned behaviors are composed of a **series of movements**, where each movement is a small stimulus-response combination. These movements are actually what is being learned rather than behaviors. Learning a number of moves forms an act (incremental learning).

Forgetting occurs not due to time passage, but due to interference. As time passes, stimulus can become associated with new responses. Three different methods can help in forgetting an undesirable old habit and help replacing it:

- **Fatigue method** - using numerous repetitions, an animal becomes so fatigued that it is unable to reproduce the old response, and introduces a new response (or simply doesn't react).
- **Threshold method** - first, a very mild version of the stimulus below the threshold level is introduced. Its intensity is then slowly increased until the full stimulus can be tolerated without causing the undesirable response
- **Incompatible stimuli method** - the response is "unlearned" by placing the animal in a situation where it cannot exhibit the undesirable response.

Although it was intended to be a general theory of learning, Gurthie's theory was tested mostly on animals.

What is the practical meaning of contiguity theory?

In Gurthie's own words, "*we learn only what we ourselves do*"¹⁾. Learning must be active, but as such must involve both **teacher's and students' activity** in order to relate stimulus with a response within a time limit. Gurthie also applied his ideas to treatment of **personality disorders**.

Keywords and most important names

- **contiguity theory, one trial learning, movement, forgetting**
- [Edwin Gurthie](#)

Criticisms

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Read more

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