



Guthrie **One Trial Contiguity Learning**

Psychology 390

Psychology of Learning

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Guthrie

- Rejected that reward strengthened the bond between a stimulus and a response.
- Contended it was the contiguity that established the S-R association.
- Thus, if a response occurs to some stimulus occurs, the stimulus and response will become associated automatically.

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Guthrie

- Believed learning was a simple process governed entirely by the contiguity principle.
- Also believed reward has an effect on the response but did not believe reward strengthened the S-R association.

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Learning Occurs in a Single Trial

- Strength of the S-R association reaches its maximum value following a single pairing of the stimulus and response.
- Did not deny that behavior improves with experience, but rejected the idea that the strength of the S-R response slowly increased with practice.

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**Performance Improves for
Three Reasons**

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**Organisms Only Attend to
Particular Stimuli**

- While there are lots of stimuli present during initial conditioning, the organism only attends to some particular stimuli.
- Stimuli also change from trial to trial.
- For a stimulus attended to at a particular trial to produce a response, the stimuli needs to be present from previous responses.

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**Many Different Stimuli Can
Produce a Response**

- Many different stimuli can produce a response.
- As more stimuli become able to produce the response, the strength of the response will increase.
- Note: Strength is not caused by stronger S-R associations but by the number of different stimuli.

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**Complex Behaviors Consist of
Many Separate Responses**

- For behavior to be efficient
 - Each response must be conditioned to the stimulus.
 - As each element is conditioned to the stimulus, the behavior will improve.
 - So, the more complex the behavior, the greater the number of stimuli and/or responses you need to produce.

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Evaluation of the Guthrie's Model

- Model was not accepted by most psychologists of his time.
- Did few studies to validate the theory.
- Was wrong about how organisms learn.
 - Must have rewards or the response will not be conditioned.
- Was correct about some aspects in the punishment process (e.g., contiguity).

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