

Edwin Ray Guthrie (1886—1959)

- **Major Theoretical Concepts**

- ***The One Law of Learning***

- Felt that the rules generated by theorists like Thorndike and Pavlov were unnecessarily complicated.

- One Law of Learning: ***The Law of Contiguity***.

- “A combination of stimuli which has accompanied a movement will on its recurrence tend to be followed by that movement” (1952, p. 23).

- ***One-Trial Learning***

- “A stimulus pattern gains its full associative strength on the occasion of its first pairing with a response” (1942, p. 30).

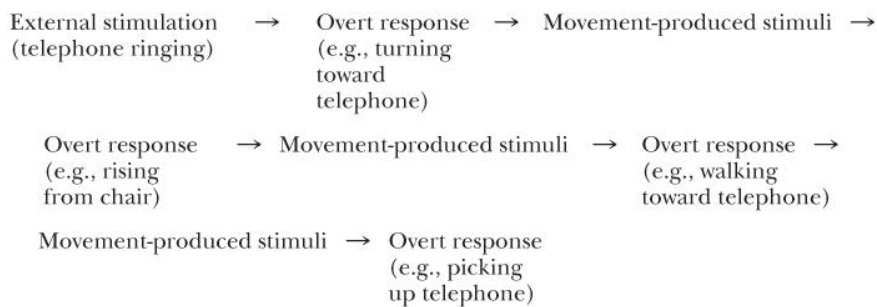
- **Major Theoretical Concepts**

- ***The Recency Principle***

- Whatever we did *last* under a given set of circumstances will be what we will tend to do again if those circumstances are reencountered.

- ***Movement-Produced Stimuli***

- Caused by the movements of the body.
 - Responses can be conditioned to movement-produced stimuli.
 - Movement-Produced Stimuli



- ***Acts and Movements***

- Movements are simple muscle contractions.
 - Acts are composed of a variety of movements.

- ***Unlike movements, acts require practice.***

- ***Skills***

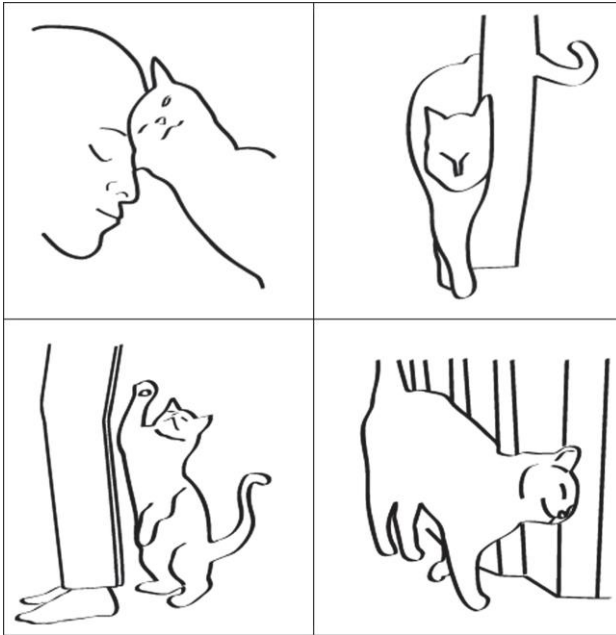
- A skill is made up of many acts.
 - It takes time and practice for all the necessary associations to be made.

- **Reinforcement**

- For Guthrie, ***reinforcement*** was merely a mechanical arrangement.
 - Reinforcement changes the stimulating conditions and thereby prevents unlearning.
 - Remember the Recency Principle

- **The Guthrie-Horton Experiment**

- Approximately eight hundred escapes by cats from a puzzle box.
 - ***Stereotyped Behavior:***
 - Exact response tended to be repeated the next time the animal was placed into the puzzle box.
 - Critics argue that the cats were expressing stereotyped greeting/marketing behaviors and did not actually learn escape responses.



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- **How to Break Habits**
 - **Threshold Method**
 - “introducing the stimulus at such weak strengths that it will not cause the response and then gradually increasing the intensity of the stimulus, always taking care that it is below the “threshold” of the response.”
 - 1943, pp. 60--61
 - **Fatigue Method**
 - Get yourself a dog and a chicken...
 - To break a dog of the habit of chasing chickens, all you have to do is to tie a chicken around the dog’s neck and let it run around and try to get rid of it.
 - **Incompatible Response Method**
 - The stimuli for the undesired response are presented along with other stimuli that produce a response that is incompatible with the undesired response.
 - Similar to **counterconditioning**.
 - “All three of these methods are, of course, only one method. All of them consist in presenting the cues of an undesirable action and seeing to it that the action is not performed.” (1938, p. 62)
- **Sidetracking a Habit**
 - Avoiding the cues that elicit the undesirable behavior.
 - Guthrie advised going to an environment that gives you a fresh start.
 - This would be only a partial escape.
- **Punishment**
 - Guthrie argued for the **effectiveness of punishment**.
 - Punishment is effective only when it results in a new response to the same stimuli.
 - One form of punishment causes incompatible behavior and is effective, and the other does not and is ineffective.
- **Drives**
 - Referred to drives as **maintaining stimuli**.
 - Keep the organism active until a goal is reached.
 - **Intentions** are responses conditioned to maintaining stimuli.
- **Transfer of Training**
 - Like Thorndike, *Guthrie expected very little transfer of training*.
 - The best place to study, according to Guthrie, is in the room where you are going to be tested because all the stimuli in that room will be associated with the information you are studying.