

| Paradigm   | Decade <sup>1)</sup> | Theory   | Key concepts   |
|--|----------------------|--|--|
| (Connectionism) <sup>2)</sup>  | 1880 - 1900          | <b>Connectionism</b><br>(Thorndike)  | - learning is incremental strengthening of the S-R <sup>3)</sup> association                         |
|  |                      |  | - <b>S-R associations</b> are strengthened through <b>repetition</b>                                 |
|  |                      |  | - outcome of a S-R event can strengthen or weaken the connection                                     |
|  |                      |  | - potential to learn leads to frustration if not satisfied   |
| Behaviorism  | 1900 - 1910          | <b>Classical conditioning</b><br>(Pavlov)  | - learning is a <b>visible change</b> in one's behavior  |
|  |                      |  | - learning is manifested in a <b>natural reflex</b> reaction on an associated environmental stimulus |
|  |                      |  | - emotional response can also be learned or conditioned  |
|  | 1910 - 1920          |  |  |
|  | 1920 - 1930          | <b>Contiguity theory</b><br>(Guthrie)  | - behavior is formed by a <b>series of movements</b> which are learned through S-R associations      |
|  |                      |  | - a close <b>temporal relationship</b> between S and R is necessary for learning to occur            |
| - learning occurs on <b>first experienced instance</b> of the stimulus |                      |  |  |
|  |                      | - reinforcements (reward or punishment) do not influence the strength of this connection |  |

| Paradigm   | Decade <sup>1)</sup>                       | Theory  | Key concepts   |
|--|--|---|--|
| Neo-behaviorism  | 1930 - 1940                                | <b>Sign learning</b><br>(Tolman)  | - suggests studying behavior on the molar level (whole, purposeful, goal-directed behaviors)               |
|  |  |   | - learning is acquisition of knowledge through <b>meaningful behavior</b> , not mechanical moves           |
|  |  |   | - rewards or punishments can only be used as motivators for performance, not learning                      |
|  |  |   | - animals are not simple mechanisms, but intelligent organisms capable of <b>cognitive processes</b>       |
|  | 1940 - 1950                                | <b>Drive reduction theory</b> (Hull)                                      | - <b>mathematical formulas</b> attempting to explain behavior and the likelihood of its appearance         |
|  |  |   | - <b>drive</b> (a stimulus in form of a biological need) results in behavior in order to <b>satisfy</b> it |
|  |  |   | - reinforced S-R learning through the reduction of a biological drive                                      |
|  |  |   | - <b>cognitive factors</b> need to be taken into account when explaining human learning                    |
| 1950 - 1960  | <b>Operant conditioning</b><br>(Skinner)   | - <b>reinforced learning of new behaviors</b> , not just shaping reflexes |  |
|  |  | - different reinforcement intervals have different effect                 |  |
|  |  | - complex behaviors are learned through more simple ones                  |  |
|  | <b>Stimulus sampling theory</b><br>(Estes) | - a <b>statistical learning theory</b> ; set of formulas and axioms       |  |
| - S-R association is learned in a <b>single trial</b> ; learning results in accumulated S-R associations |  |   |  |
| - reinforcement has to do with the performance, not with learning  |  |   |  |
|  |  |   | - later included <b>memory</b> as a factor in his theory   |

1)

Decade in which the theory was introduced

2)

Connectionism is not considered a learning paradigm, but is mentioned due to its influence on behaviorist ideas

3)

Stimulus-Response

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

Permanent link: [https://learning-theories.org/doku.php?id=learning\\_paradigms:behaviorism\\_timeline&rev=1326364961](https://learning-theories.org/doku.php?id=learning_paradigms:behaviorism_timeline&rev=1326364961)

Last update: 2023/06/19 15:49

