

Behavioural & Learning theory Approaches p248

MMV

Introduction -reading only

Forerunners:

1. British empiricism 17th & 18th C
2. Darwinian theory of Evolution
3. Pavlov & Bechterev

British Empiricism-

John Locke- (LOST?)

- At birth, tabula rasa
- All ideas, knowledge, mental contents were the outcome of environmental influences.

(Environmental determinists)

Watson and Skinner (extreme behaviourists) believed environmental influences account for all of an individual's attributes and behaviour, **not** just a person's knowledge, and that genetic factors play a *minimal* role in this regard.

Elementalism and associationism - mental contents composed of elements that are linked together.

Behaviourists adopt the same elementalist and associationist forms of thinking, and hold that behaviour consists of small parts, namely **stimuli** and **responses** (elements) which become *associated* with one another on the basis of certain laws of learning.

Evolutionism-

- Theory of evolution. Charles Darwin.
- Human behaviour can be explained along the same principles as the behaviour of the lower animals. ~> using animals as experimental subjects. Therefore, the terms *person*, *individual* and *personality* are rarely encountered. **Organism** refers to humans or animals.

Pavlov- coinciding with Freud 1849-1936

- Discoverer of Classical Conditioning

Development of Behaviourism

Emphasis is placed on **objective, controllable methods** in

- Psychological research
- In psychotherapy: behaviour modification
- In teaching: attainable goals
- Importance of learning as a research topic in contemporary psychology

☑ **John Watson** 1878-1958

Father of behaviourism (extreme)

☑ **Edward Lee Thorndike** 1874-1949

Trial-and-error learning (instrumental conditioning) - using puzzle box.

[Skinner later called it **operant conditioning**]

Theory of Connectionism: ~Subjective behaviourism

- Learning principles valid for all organisms.
- Learning takes place through the establishment of a neural connection between stimulus and response.

• Drive reduction - when different responses follow a stimulus or a situation, the response that is followed by satisfaction of a need will be more strongly connected with that stimulus than the other responses. The effective response is, accordingly, more likely to be repeated.

(Many psychologists believed that all motivation depended upon the pleasure experienced when basic needs are met. A person who is hungry, for instance, eats in order to reduce the tension that hunger produces. All human behaviour could be attributed to the pleasure gained when these drive-induced tensions were reduced.

Drive reduction theory lost favour over the years because it failed to explain human actions that produced, rather than reduced, tension. Many people enjoy riding roller coasters or skydiving, for instance, despite the fact that such activity may cause fear and anxiety. Similarly, drive theory could not adequately explain sexual behaviour in humans or animals. For example, experiments showed that rats persisted in seeking sexual gratification even when their biological urges to mate were interrupted and thus

tension was not reduced. More modern motivational theory includes the **principal of optimal arousal**, that is, individuals act to maintain an appropriate-rather than a minimal-level of stimulation and arousal. Optimal levels vary from person to person, which explains why some people drive race cars and others prefer an evening at the symphony.)

- Practice and repetition or contiguity do *not* adequately explain the establishment of connection.
- Insight plays no role in this process.
- Learning is purely a question of trial and error.

✓ **Clark I. Hull** 1884-1952

Father of Drive Reduction Theory.
Developed the *first systematic theory of learning*.

“Organisms suffer deprivation. Deprivation creates needs. Needs activate drives. Drives activate behaviour. Behaviour is goal directed. Achieving the goal has survival value.”

✓ **Edward Chase Tolman** 1886-1959

Subjective behaviourism

Although he appreciated the behaviourist agenda for making psychology into a true objective science, he felt Watson and others had gone too far.

1. Watson’s behaviourism was the study of “twitches” -- stimulus-response is too **molecular** a level. We should study whole, meaningful behaviours: the **molar level**.
2. Watson saw only simple cause and effect in his animals. Tolman saw **purposeful**, goal-directed behaviour.
3. Watson saw his animals as “dumb” mechanisms. Tolman saw them as forming and testing **hypotheses** based on prior experience.

4. Watson had no use for internal, “mentalistic” processes. Tolman demonstrated that his rats were capable of a variety of **cognitive processes**.

An animal, in the process of exploring its environment, develops a **cognitive map** of the environment. The process is called **latent learning**, which is learning in the absence of rewards or punishments. The animals develops **expectancies** (hypotheses) which are **confirmed** or not by further experience. Rewards (and punishments) come into play only a motivators for **performance** of a learned behaviour, not as the causes of learning itself. He himself acknowledged that his behaviourism was more like Gestalt psychology than like Watson’s brand of behaviourism. From our perspective today, he can be considered one of the precursors of the cognitive movement.

Behaviourism’s Philosophy of Science

1.Object of study: Observable behaviour

Study of animals rather than that of people. Scientists rely on pure observation which eliminates the temptation of subjectivity.

2.The method: objective observation

Devices used to eliminate the possibility of subjective observation. Emotions measured by means of a galvanometer.

3.Methods of theoretical explanation: Elementalism and reductionism

Analysis of elements namely stimuli and responses which are combined with one another through the organism’s learning experiences.

4.The goal: Prediction and control

To find out what factors determine human behaviour and are not concerned with understanding human beings.