

Behaviourism: A Conceptual Bridge to Philosophy, Methodology and Psychology

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1. INTRODUCTION

Behaviourism is a passive learning theory that deals with objectively visible behaviours avoiding mental activities. According to the behaviourists, a behavioural pattern is automatic if it is repeated. They believe that knowledge in learners as well as in human beings is inborn and unchangeable. As the learning process is a direct outcome of experience and practice, it leads to a change in behaviour. In this learning theory attitudes can be modified through feedback, such as positive or negative consequences, rewards and punishments. Learners start off as a clean slate (Skinner, 1948) and behaviour is shaped through positive reinforcement and negative reinforcement (Skinner, 1971). Both the positive reinforcement and negative reinforcement work as the sources of the increase of probability of the previous behaviour's re-appearance. On the contrary, punishment works here as the source of the decrease of the probability of the previous behaviour's re-appearance. Positive is the symbol of the implementation of the stimulus and negative is the symbol of the withdrawing of the stimulus (Bandura & Walters, 1963). As a result, learning is identified as a source of changes in behaviour.

According to the behaviourists, learning can be measured through observing behaviour. Learners are provided with knowledge and information through teaching, and they are asked to reproduce what they learnt from the tutors. Thus learning can be measured by selecting the right answers. In this sense behaviourism is nothing but a learning theory that does the acquisition of new behaviour leaving the mind as a black box. What happens in mind and can be happened in mind are totally valueless in this learning theory.

2. HISTORY OF BEHAVIOURISM

A: 1863 – “Reflexes of the Brain” by Ivan Sechenov (Hull, 1943) was published. This psychologist originated the theme of inhibitory responses in the central nervous system.

B: 1900 - Ivan Pavlov (1897) started researching on the salivary responses and other reflexes.

C: 1905 - Thorndike (1905) introduced the ‘Law of Effect’.

D: 1913 – “Psychology as a Behaviourist views it” by John Watson (1913) was published. This book introduced many of the main points of behaviourism.

E: 1920 - The famous "Little Albert" experiment” by Watson and assistant Rosalie Rayner (Watson, 1930) was introduced.

F: 1943 – Clark Hulls published his renowned book ”Principles of Behaviourism” (Hull, 1943) which is a milestone in the history of Behaviourism.

G: 1948 – “Walden II” by B.F.Skinner (1948) was published, and in this book he described the impact of behaviourism

H: 1959 – Noam Chomsky (Watson & Rayner, 1920) published his “Review of Verbal Behaviour” which has an important value in the history of criticism of behaviourism.

I: 1963 – Bandura (1963) published a book called the “Social Learning Theory” which combines the cognitive and behavioural frameworks.

J: 1971 – With the publication of “Beyond Freedom and Dignity” B.F. Skinner (1971) established the argument that free will is an illusion.

3. CONDITIONING

The way a behaviour follows to learn something is normally called conditioning (Thorndike, 1905). There are two types of conditioning which are normally found in a behaviourist. These are classical conditioning and operant conditioning. In classical conditioning, a natural stimulus is mixed with the response and later on, a neutral stimulus is mixed with the naturally occurring stimulus. As a result, the naturally occurring stimulus is removed, and the neutrally occurring stimulus is continued and disclosed. On the other hand, operant conditioning makes an association between behaviour and consequences of that behaviour. Pavlov, Watson, Thorndike and Skinner were the main psychologists who developed the theories of behaviourism.

Pavlov (1897) introduced ‘Classical Conditioning’, Thorndike (1905) introduced ‘Law of Effect’ and Skinner (1948) introduced ‘Operant Conditioning’, and with the analysis and experiment of these theories, later on Thorndike introduced his ‘Laws Of Learning’. With this ‘Laws of Learning’ it was established that reward makes previous behaviour re-occur, and punishment makes previous behaviour likely to extinguish.

4. BASIC ASSUMPTIONS

A: Environment is the most powerful learning sector for all behaviours.

B: Psychology mirrors the scientific theories supported by empirical data obtained through thoughtful and disciplined supervision and measurement of behaviour.

C: Behaviourism principally focuses on the noticeable behaviour, as opposed to inward factors like contemplation and emotion.

D: The learning process in humans and that in other animals differs a little. Consequently, research can be conducted both on humans and animals focusing on the comparative psychology.

E: Stimulus – response (Hull, 1943) is the basis of behaviourism. All kinds of behaviour, no matter simple or complex, could be easily presented by stimulus-response association.

5. TYPES OF BEHAVIOURISM

1: Methodological Behaviourism:

A: It was dominantly flourished in the article, 'Psychology as the behaviourist views it' by John Watson (1913).

B: It is normative theory focusing on the scientific regulations of psychology.

C: It deals with the behaviour of organisms (human and non-human animals).

D: It is not concerned with mental state or internal information processing state of behaviour.

E: It is believed that psychological states are independent and individual organisms and do not construct authentic states of observational or experimental research.

2: Psychological Behaviourism:

A: The pioneers to introduce this kind of behaviourism are Ivan Pavlov (1897), Edward Thorndike (1905) and John Watson (1913). Its fullest and most dominant clarification is B. F. Skinner's research on schedules of reinforcement.

B: External physical stimuli, responses, learning histories, and (for certain types of behaviour) reinforcements play the main role while describing human and animal behaviours.

3: Radical Behaviourism:

A: It was founded by B.F Skinner (1948).

B: Hypotheses of methodological behaviourism and radical behaviourism are identical and it states that objectives of psychology should be to foresee and govern behaviour.

C: Internal mental events cannot be used to demonstrate behaviour, rather they should be demonstrated in the evaluation and interpretation of behaviour.

4: Analytical or Logical Behaviourism:

A: It could be found in the work of Gilbert Ryle (Erwin, 1978)), Ludwig Wittgenstein (Leiteberg, 1976)), U. T. Place (Dennett, 1978) and arguably in the work of Daniel Dennett (1991) on the ascription of states of consciousness via a method called 'heterophenomenology' (Dennett 2005, pp. 25–56).

B: It is an approach within philosophy about the significance or denotation of psychological and subjective conceptualisation.

C: It says that the very idea of a mental state is the conception of a behavioural individualism or family of behavioural disposition focusing on how a person behaves in one environment rather than in another.

Strength of Behaviourism:

A: This learning theory deals with the visible behaviourists, so it is easier to quantify and gather data and information when conducting research.

B: In this learning theory the aim or objective is specific and the learners respond to that objective automatically.

C: The behaviour or the attitude of the learner is always same whenever the same circumstance is repeatedly presented.

D: As it deals with the intensive behaviour, intervention, behaviour experiment, token economics and discrete trial training, it is very productive in adapting harmful behaviours both in children and adults (Bandura & Walters, 1963).

Weakness of Behaviourism:

A: This learning theory does not allow mediational process (Bandura, 1969).

B: The use of biology on behaviourism can not be found very easily.

C: This learning theory is more deterministic rather than expectation.

D: Through this theory animals can not be compared to humans easily.

E: Learners are unreflective responders here.

F: As mental process is valueless here, sometimes learners have to face critical moments when mind needs to be responsive.

G: It is reductionist.

H: It is valueless in the field of other types of learning where reinforcement and punishment are not used.

Strength of Behaviourism in School:

It has a strong value in school, especially at the preparatory and foundation levels. In these levels learners normally respond to the outward stimuli and are not adroit enough to use their mental power to learn any structural education. They learn what they are taught by their teachers. So it can easily be said that behaviourism constructs a strong foundation in the learners at the primitive stage in school. As the teacher is an expert in this level for the learners, and as the learners are observers only, the real and productive teaching of the teacher is transmitted to the learners. The use of reinforcement and punishment also make positive and effective changes in learners. This is the actual stage to give rewards and punishments to make the foundation of learners genuinely.

Weakness of Behaviourism in School:

As mental process is valueless in behaviourism, this learning theory is not very much productive and usable in schools at higher levels and classes. It is not also effective and productive at the preparatory and foundation levels of creative subjects like arts and design; fashion and innovation.

Sometimes rewards and punishment create negative and detrimental attitudes to learning in the learners' minds. As learners are observers only in this theory, they can not explore themselves properly. It is an individual process, so the learners can not share and exchange their views, knowledge and experience with other learners.

6. CRITICAL ASSESSMENT

The most meaningful side of behaviourism is its adroitness to conspicuously characterise behaviour and designate alterations in behaviour. According to the constitution of parsimony, the fewer hypotheses and beliefs a theory makes, the better and the more plausible it is. Therefore, behaviourism tries to focus on transparent clarifications of human behaviour from a very experimental and methodical stance.

However, Humanism (Morain & Morain, 2007) contradicts the scientific mechanism of conducting research to assess and manage variables because of its risk to formulate fabricated circumstances under low ecological validity. Based on the laws of humanistic psychology, it can easily be said that human beings like to work as free agents to make their own decisions focusing on the tendency to avoid the deterministic laws of science.

The nomothetic approach (Thomas, 1999) of behaviourism is also rejected by humanism as in this theory humans are being treated as unique and believed that humans cannot be compared with animals (who are not exposed to demand characteristics).

The psychodynamic approach (Weiss, 1950) contradicts behaviourism as the influence of unconscious mind on behaviour has no room in behaviourism, rather it focuses on outwardly visible behaviour. The psychodynamic approach believes that people are born with instincts, and consequently rejects the idea of behaviourism that people are born a blank slate (tabula rasa).

According to the biological psychology (Shepherd, 1991), all behaviours focus on physical / organic causes, and emphasise the importance of nature over nurture. For example, chromosomes and hormones dominate human behaviour along with the environment.

Cognitive psychology (Anderson, 2010) focuses on the mediational processes occurred between stimulus and responses, such as thinking, memory and problem solving.

Despite these criticisms, behaviourism has significant contributions to psychology including language development, learning and moral and gender development. Behaviour therapy and behaviour modification to the treatment of abnormal behaviour in clinical psychology are the symbols of effective practices of behaviourism.

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