

Behaviourism as a Precursor of Identity Theory of Mind

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Abstract- Behaviourism stands for a group of theories, which define consciousness in terms of bodily behaviour which is observable to others. Behaviour is easily observed and verifiable by others. The intension of this theory is emphasizes on behaviour and to demystify mind. This theory out rightly denies the existence of mind as an independent substance and supposes that behaviour is out and out determined by the physical conditions of the body and its interaction with the environment. Moreover, this theory does not accept any unobservable stimuli rather it focuses solely on observable stimuli, responses and its consequences. Now in this paper I will delineate the main theme of Behaviourism including its different types emphasising my discussion on Analytical Behaviourism. Finally I will highlight the drawbacks of Analytical Behaviourism and hoe does this theory paves the development of Identity Theory of Mind.

I. ORIGIN OF THE THEORY

In 1913, psychologist J. B. Watson systematically approached the issues relating to mind from behavioural perspective and was the founder of behavioural school of psychology. This academic and highly influential school of psychology dominated in the USA between World War I and II. The main purpose of this school was to begin psychology with a new method of study and to discard the traditional method of introspection. Traditionally it was believed that psychology is the science of mind. But what is mind? How can it be studied? etc. are the questions which the advocates of this theory faced and consequently this definition was rejected. Thus facing the problem of definition of mind the subsequent psychologists define it as the study of the consciousness. In his book "Principles of Psychology" published in 1890 William James defined psychology as that it is the description and explanation of state of consciousness as such. Almost the same view is given by William Woundt and his disciple Edward Bradford Titchener in defining psychology. According to them psychology is the science of consciousness. Thus the traditional psychologists believed that the task of psychology is to describe and explain the states of consciousness. Their chief intention was to relate mental phenomena with bodily processes. To serve these purposes they used the introspective method – the process of looking within. They used this method on the assumption that mental processes occur within the mind which cannot be perceived by others. So the best way to know the occurrences of one's mind is the person himself, which is called self-observation. So introspection is called a subjective method.

But the traditional definition of psychology was rejected by the subsequent psychologists on the grounds that this definition is narrow in range as it does not cover subconscious and unconscious activities of the mind. And their method of studying

mind is also unscientific as it is subjective in nature. Moreover, by consciousness they mean human consciousness only and not animal consciousness. Thus the traditional definition and method of study could not satisfy the psychologists for whom science was the ideal.

On the first part of the 19th century a new definition of psychology and a new method of its study are found. The first man who defined psychology otherwise was an English Psychologist William Mc Dougall. According to him, psychology is the science of behaviour. In 1905 he published his book 'Physiological Psychology' where he wrote that psychology is a positive science which studies the conduct of living creatures. In 1908 he added the word 'behaviour' in his book 'Introduction to Social Psychology'. And subsequently in his book 'An Outline of Psychology' he has given a meaning to psychology by saying that the aim of psychology is to give us a better understanding and control of behaviour of the whole organism.

Thus the subject matter of psychology is behaviour was stated by many psychologists before Watson. But Watson's definition is much wider in scope than others. He included in the scope of psychology both human and animal behaviour.

Watson very categorically stated that the idea of consciousness as believed by the traditional psychologists is wholly absurd. Because it neither can be perceived by any sense organs nor can it be tested by any test tube. Those who believe its reality cannot study it satisfactorily because it is wholly a subjective notion and only a matter of private inspection. Thus in order to make psychology a science of behaviour, he concentrated his studies only on observable and measurable behaviour. The ground on which he discarded consciousness is the same ground on which he discarded the reality of all other mentalistic notions like soul, mind, mental life, images and ideas etc. Regarding thought and imagination he holds that these are nothing but implicit muscular behaviour. Similarly, his hypothesis regarding emotion is that it consists in "Profound changes of the bodily mechanism as a whole, but particularly of the visceral and glandular systems."¹

In his later writings Watson totally rejected all kinds of hereditary mental traits including instinct. Regarding the behaviour of an individual he holds that it is wholly determined by the environment. This view of Watson is the logical consequence of his reflex theory. His view of sensation and perception is that these are sensory response of the organism. In his latter period Watson adopted the theory of the conditioned reflex, propounded by the Russian Behaviourist Pavlov, to explain the process of learning.

1. J.B. Watson (1919), *Psychology From the standpoint of a Behaviourist*, p- 195

Thus his theory is truly known as Behaviourism. In his own words Behaviourism “attempted to make a fresh, clean start in psychology, breaking both with current theories and with traditional concepts and terminology.”²

Thus Watson intended to introduce a method in psychology as objective as we find in physics or chemistry and to discard introspective method. He favoured a method that takes observables because the same object or event could be observed independently by different observers. Moreover, it is only by this process psychology can become an experimental branch of natural science which is purely objective in nature.

While discussing the method of psychology we find that there are two aspects of Behaviourism- positive and negative. On the positive side it believes that the method of psychology should be objective like that of natural science. On the negative side, it denies the introspective method as the proper method of psychology. This is because of the fact that introspection gives us ambiguous, unscientific and unreliable information.

Thus, Behaviourism of Watson has brought a new era in the field of psychology. This is done on the ground that this theory makes psychology materialistic, mechanistic, deterministic and objective. But in spite of its great contribution this theory has its critics.

I. Critics point out that behaviourist attempt of exclusion of mind from the domain of psychology is untenable. It is “as grotesque as an attempt to stage Hamlet with the Prince of Denmark left out”. (Psychology: S.C. Dutta, p-387) Moreover, consciousness is an important factor in psychology and it must remain a central topic of psychology forever. Like outward behaviour, psychology is a science of inner experience.

II. It is an indisputable fact that all human beings possess consciousness. In rejecting consciousness and accepting body for mind and physiology for psychology, the behaviourist committed the old materialistic fallacy that nothing is real except visible and tangible.

It is to be mentioned here that Watson’s conception of psychology was much influenced by Ivan Pavlov, a Russian Psychologist who experimented on dog’s digestive system by conditioned reflex. Watson also was interested to find out the role of stimuli in producing responses, and that is why he is often described as an S-R (stimulus-responses) Psychologist.

Watson’s behaviouristic conception of Psychology had many ups and downs but there were many psychologists who contributed further. Three major figures were Edward Guthrie (1886-1959), Clark Hull, and B.F. Skinner. But the basic question remains, what is behaviour? The answer may be given in a simple statement that what organisms do is behaviour. And on this assumption the whole theory of behaviourism is built up. The purpose of this theory is to promote the scientific study of behaviour. Thus there are two different ways to designate behaviourism- loosely and strictly. In loose manner behaviourism is taken as an attitude but in strict manner it is described as a doctrine. Now an obvious question comes up, who is a behaviourist? This answer is given by Wilfred Sellars a distinguished philosopher, in a very simple way. He says that any person can be qualified as a behaviourist if she or he insists on

confirming “hypothesis about psychological events in terms of behavioural criteria.”³

Thus all psychological theorists who demand behavioural evidence are called behaviourists. A behaviourist generally does not believe in the difference between two states of mind until and unless the difference is shown in behaviour.

According to behaviourism, Behaviour is the only plausible worth investigating and interesting thing and it is the best or even only means for investigation of mental processes or psychological processes. The Behaviourism also claims that apart from the reference to behaviour, the mental terms, such as, ‘belief’, ‘goal’ etc. have no other reference.

1.2 Different types of behaviourism

Behaviourism is of three different forms- (1) Psychological Behaviourism (2) Methodological Behaviourism and (3) Analytical Behaviourism. Each of these forms has its own claims.

i) Psychological Behaviourism:

The primary claims of this type are to rectify the method for psychology and to introduce a correct method for scientific psychology. With this end in view this theory appears in the early part of 20th century. The famous traditional psychologists named Wundt, James and Titchener used introspection as a method of psychology. They also believed that consciousness is the subject matter of psychology and consciousness can be studied only with the method of introspection. But rejecting this view Watson put forward a different opinion. According to him, behaviour can be observed objectively and thus scientific psychology should concern itself with what is objectively observable, i.e., behaviour.

(ii) Methodological behaviourism:

This type of behaviourism claims that Psychology is the science of behaviour and as such it is not a science of mind. According to this view, psychology should not concern itself with any mental events or states but should concern itself with the behaviour of organisms- both human and non-human animals. It is for this reason that this theory is called a normative theory for it deals with the scientific conduct of psychology. Methodological behaviourism tries to understand the source of behaviour in physical conditions and thus reference to mental states, such as, desires or beliefs have no additional advantage to this theory. Mental states are beyond the range of empirical study as because these are purely private entities. This type of behaviourism is prominently found in the writings of John Watson.

Methodological Behaviourism is also called Eliminative Behaviourism as it repudiates all or most of our common sense mental concepts, such as, beliefs, conscious mental states, sensations and so on.

This theory believes that all our behaviours originate from external stimulation in the environment. Mind or internal processes have no role to play in the explanation of behavioural manifestation. Thus with the help of external physical stimuli, responses, learning histories and reinforcement it tries to explain the meaning of human or animal behaviour. It is for this reason that this type of behaviourism is a research programme within

2. *Ibid*, p-4.

3. W Seller (1962), *Philosophy and The scientific Image of Man*, p-22

Psychology. This type of behaviourism is found in the work of Ivan Pavlov, Edward Thorndike and to some extent in Watson. In the work of B.F. Skinner the fullest and influential expression of the Psychological behaviourism is revealed. Skinner's theory of behaviourism is best known as radical behaviourism. Skinner did his experimental works mainly in comparative psychology. His development of behaviourist psychology was a distinct kind and that is why his theory is generally known as radical behaviourism.

Skinner virtually rejected the psychological behaviourism and favoured strongest version of Watson's views. He argued that behaviour should not be studied for observing mental processes. It should be studied for its own sake. Moreover, according to Skinner, apart from behaviour, there is no interest to study the mental process, because mental processes are manifested in behaviour. Thus mental processes are to produce behaviour only and as such these have no supposed consequences. It is only behaviour with which science needs to concern. Thus radical behaviourism does not believe any reference to inner states of organism that may be the causes of behaviour. On the other hand, this type of behaviourism firmly believes that the study of behaviour should be a natural science, such as, Chemistry or Physics. This is the basic premise of radical behaviourism.

Moreover, Skinner's view of reflex is a correlation between stimulus and response. His stimulus response psychology is not physiological psychology because he does not believe the physiological link between stimulus and responses. While Watson believes that behaviour depends on preceding stimulus, Skinner believes that behaviours are dependent upon what happens *after* the response. In maintaining the functional relation between stimulus S and response R, he says that it is $R=f(s)$.

It is to be noted here that the above mentioned three types of behaviourism are distinct from logical point of view. But in Skinner's radical behaviourism combines all three forms of behaviourism and therefore all these three forms are often found in one behaviourism.

Skinner's radical behaviourism can be categorised as a form of methodological behaviourism when this theory concerns with the behaviour of organism without considering internal processing.

iii) *Analytical Behaviourism:*

Analytical behaviourism is also known as Philosophical or logical behaviourism. This type of behaviourism deals with the meaning of mental terms or concepts within philosophy. This theory states that what is called mental states or conditions are nothing but behavioural dispositions or tendencies or family of behavioural dispositions or tendencies. This type of behaviourism is found in the work of Gilbert Ryle and later works of L. Wittgenstein. Take for example the mental term 'belief'. Ryle says that 'belief' is a deterministic dispositional word among other words. Dispositional words signify abilities, tendencies or pronenesses to do. These also signify things in a lot of different kinds. In describing the category of verb of the word 'Believe' Ryle says that it is a tendency verb which does not connote that anything is brought off or got right. He puts forward his opinion that there are different adjectives by which the term 'belief' can be qualified. To exemplify adjectives, he mentions "obstinate, wavering, unswerving, unconquerable, stupid,

fanatical, whole-hearted, intermittent, passionate, and childlike"⁴

Ryle also says that some or all of these adjectives are appropriate to different nouns, such as, trust, loyalty, bent, aversion, hope, habit, zeal and addiction. In explaining further the nature of belief Ryle says, "Beliefs, like habits, can be inveterate, slipped into and given up; like partisanship, devotions and hopes they can be blind and obsessing; like fashions and tastes they can be contagious; like loyalties and animosities they can be induced by tricks."⁵

When the term 'belief' is attributed to someone, it characterizes what the person might do in a particular situation and it does not attribute the person concerned with a particular internal state or condition.

Thus far I have given a brief account of the different types of behaviourism. But here I should clearly state that the purpose of my paper is to discuss behaviourism from philosophical point of view, i. e., Analytic Behaviourism., So hereafter I should concentrate my discussion on behaviourism only from the philosophical point of view.

Each and every type of behaviourism has its historical foundation and analytical behaviourism is not an exception from it. The roots of analytical behaviourism can be traced in the 20th century philosophical movement known as Logical Positivism. In the first part of 20th century this school appears in the philosophical world with their distinct purpose and the method they used was *verification*. By 'verification' they meant observation. According to this school, the terms and statements used in science must be verifiable in order to justify their truths. As this school stood on verification principle, their doctrine is known as 'Verificationism'. The views of B. F. Skinner and Hempel are common to many logical positivists and that is why Skinner is called a 'part-time analytic behaviourist'. According to them, all meaningful statements of psychology, the statements which are verifiable in principle, can be translated into the statements of physics and they need not involve any psychological concepts. This strong thesis is derived by Hempel from the following two premises. These are –

1. Verificationist theory of meaning, according to which the meaning of a statement is to be established by the possibility of verification of the state of affairs the statement describes, is to be used as a method for determining the meaningfulness of an expression in a language.
2. To ascribe particular mental state to someone, his physical behaviour plays an essential and large part of the evidence.

Thus, putting together these two premises Hempel concludes that the statements about mental states are equivalent largely to the statement about physical behaviour.

But critics point out that Hempel is not a thoroughgoing behaviourist on the ground that he does not reject mental processes altogether. Hempel believes that to verify mental processes of a person behavioural expression includes certain

4. G: Ryle (1949), *The Concept of Mind*, p-128.

5. *Ibid*: P-128.

other things viz., changes in the central nervous system, blood pressure, digestive system etc. For example, 'Paul has a toothache' includes certain changes in his central nervous system, his blood pressure and his digestive system, over and above the verification conditions. But Hempel firmly believes that although these changes take place in Paul's physic, it is gross bodily movements that play a large role to verify the psychological statements and to determine their meanings. Thus in Hempel's theory bodily movements are not the only factor to determine the meaning of mental processes although it helps largely. And as bodily movements play a great role in his theory, he is called a behaviourist to a significant extent.

Gilbert Ryle is often called an analytical behaviourist who has much influence on behaviourism. But his behaviourism is quite different, both in content and motivation, from the behaviourism of Hempel who is called a positivistic sort of behaviourist.

Ryle develops his behaviourism by criticizing the Substance dualism, particularly Descartes interactionism. A substance dualist believes that human being possesses a body and a mind. Mind is something non-physical and thus non spatial. All mental states reside in such a non-spatial, non-physical mental substance. So mind is private but body is publicly observable. But Ryle says that there is no such thing as private entity. In his own words: "To talk of a person's mind is not to talk of a repository which is permitted to house objects that something called 'the physical world' is forbidden to house; it is talk of a person's abilities, liabilities and inclinations to do and undergo certain sorts of things, and of the doing and undergoing of these things in the ordinary world."⁶

Ryle says that the dualistic theory of mind-body relation is false in principle. It is not fact that this theory suffers from different kinds of particular mistakes combined together but from one big mistake which he called 'category mistake'. This is a special kind of mistake according to him. This mistake arises when the mental life is assumed to belong to one category when it really belongs to another category. The philosopher's myth is therefore called by Ryle as 'dogma'. The concept of 'category mistake' is explained by him by giving a series of examples. One such example is that a foreigner when for the first time visits Oxford or Cambridge to see the university and he is shown all the colleges, libraries, playgrounds, museum, scientific departments and administrative offices. But after seeing all these he assumes that he has not seen the university. He admits that he has seen all those that are shown but asks where about of the university. He forgets that all that he has already seen together constitute the university. University is seen when all these are seen. Denial of seeing university is based on a mistaken assumption. Thus category mistake occurs due to misunderstanding of the use of ordinary language.

In explaining the nature of the mind Ryle says that mind is composed of sensations, feeling and image which are the stuff of mind. To talk about mind or consciousness as some world behind or beyond the activities is a mistake. The meaningful reference of the concept of mind is a description of how people behave.

Again, Ryle says that 'Intelligence' is a mental word. It is not significantly used as an adjective of stones that are fully

material and governed by mechanical laws. Now, recognizing that words like 'Intelligence' which express mental concepts does not name entities that obey mechanical laws. Ryle says that in that case philosophers are tempted to think that they must name entities which obey non-mechanical, spiritual laws. In fact, however, it is a category mistake to suppose that they name some entities. The function of the word 'Intelligence' is to describe a specific kind of human behaviour and the functions of the word 'stupidity' is to describe another specific kind of human behaviour verifiable by sense perception. These words expressing mental concepts do not name occult, private entities that are spiritual.

Ryle explains mind in term of behaviour, skills, tendencies, propensities, dispositions, inclinations. He even says that the higher operations of mind are the higher order abilities which are developed by proper education in society and by the learning method of trial and error. He declines to talk of mind in a Para-mechanical language because he does not believe that there is something occult, mysterious or other worldly where mind exists. L. Wittgenstein also developed his theory by criticizing Cartesian dualism. Unlike dualistic theory Wittgenstein maintains that there is nothing *in the mind* which is called 'mental states' and so it cannot be described in the way a room can be. For him, mind stands not for mental entities but for mental activities.

Wittgenstein admits the possibility of knowing other person's pain as one can know his own. Thus regarding the privacy of sensation he says, "In one way this is false, and in another nonsense. If we are using the word 'to know' as it is normally used (and how else are we to use it), then other people very often know when I am in pain."⁷

He further says, "I can be as *certain* of someone else's sensations as of any fact".⁸

Wittgenstein firmly believes that the way to know other persons being in pain is his behaviour and his words, and the circumstances. As he says, "An 'inner process' stands in need of outward criteria."⁹

II. A CRITIQUE OF ANALYTICAL BEHAVIOURISM

C. A. Mac points out that analytical behaviourism does not deal with the truths about a person's mind or states of consciousness which are expressed in our everyday statements. Their claim is that such statements are about the behaviour of material things and by 'material things' they mean about a person's bodily states, bodily acts, bodily states of readiness, dispositions to act in various ways.

It is argued that Ryle's theory of analytical behaviourism fails to explain higher process of mind like creative thinking, integral vision of things and artistic imagination because he confined the sphere of mind to abilities and behaviour. The integration of human personality is very much essential for evolving higher process of mind. Creativity and integration give meaning and significance in human life. But Ryle fails to include

7. L. Wittgenstein (1953), *Philosophical Investigation*, Sec 146

8. *Ibid*, p-224

9. *Ibid*, sec-580

6. *Ibid*. P – 190.

these in his theory of mind. He explained his theory of mind only from the standpoint of behaviouristic and empirical consideration.

Thus, critics point out that Ryle is not successful in analysing the mind as there are certain prejudices in his theory and it does not give full justice to all realms of mental life. This is due to the fact that he stopped his analysis on disposition and did not go ahead. Against the dualistic philosophy he was so much prejudiced and influenced by behaviourism that he forgets many truths of experiences and make hasty generalizations.

Logical Behaviourism deals with the meanings of our mental state terms and concepts. According to this theory, the meaning of all statements about mental states and processes and statements about behavioural dispositions are same. To say that, for example, "Henry has a toothache" and "Henry is disposed to cry out or moan and to rub his jaw" are equivalent in meaning if and only if other things are found equal. Again, if both the statements about mental states and the meanings of the statements about behavioural disposition are equal in meaning, then there is no problem to apply mental state terms to oneself and to others, and there will be no problem to teach and learn. But philosophers like Chisholm and others argue that this account of mental terms is implausible.

On the light of above discussion of different types of behaviourism, such as psychological, methodological and analytical, it is clear that they are distinct from one another. All these three forms are combined in Skinner's radical behaviourism. In his 'Verbal Behaviour' (1957) and other writings Skinner tries to show that behavioural interpretations can be given to mental terms. He very emphatically stated in his 'About Behaviourism' (1974) that mental terms can be translated into behavioural terms when these cannot be eliminated.

Similarly, radical behaviourism can be shown as a form of methodological behaviourism as it is not concerned with internal processing but with the behaviour of organism. From another point of view radical behaviourism can be shown as a form of psychological behaviourism. It is psychological when this type of behaviourism understands behaviour as a reflection of frequency effects among stimuli.

Now, I will give a sketch of likeness and differences between behaviourism and the identity theory. These two theories are found alike when the term 'disposition' is discussed which is used by the behaviourist. An object is said to have a disposition when in a particular state certain things happen to it, other things will happen to it. An object is said to be brittle if in an appropriate situation, e.g., when a certain amount of sudden force applied, it shatters. In a similar way, a body has disposition means the body has the capacity to behave in a particular way in particular situation. Dispositions of that particular body are the possible *states of that body*. Thus both the Identity theory and the Behaviourism identify mental states and bodily states.

But in spite of their agreement on the above point, both the theories differ on important issues. They differ in defining or characterizing those states of the body. Highlighting the difference between these two theories J. A. Shaffer says:

"Behaviourists wish to define those states in terms of what changes they result in when certain specifiable conditions obtain. Identity theorists wish to define them in terms of identifiable structures of the body, ongoing processes and states of the bodily

organ, and, in the last analysis, the very cells which go to make up those organs."¹⁰

Not only this, identity theory differs from behaviourism on other important respects too. In analysing the meaning of the mentalistic terms, the behaviourists offered the notion of 'dispositions' to behave in certain ways. But unlike behaviourists, the identity theorists do not attempt to analyse the meanings of mentalistic terms. For identity theory to have particular thought in someone's mind means that in the nervous system of that person certain events are going on. But it is not possible for someone to understand what these events are. Even the neurophysiologists of present time are not capable of being to understand these events. Neurophysiologists firmly believe that to understand the cause of behaviour the only way is the direct study of the brain. Hence it is said by the critics that behaviourism has lost much of its strength and influence.

Behaviourism as a theory in psychology or philosophy reigned supreme up to the middle decades of the twentieth century. But this theory fails to solve a lot of problems and the difficulties of this theory had led to its general weakening and subsequently this theory lost all its appeal. Methodological Behaviourism was effectively attacked by the linguistic Noam Chomsky and in psychology this theory has lost its appeal as doctrine. According to Chomsky, the claim of methodological psychologists that when we study psychology we actually study behaviour is as unintelligent as the claim that the study of physics is the study of meter readings. In physics when 'meter readings' is used, it is actually used as evidence. So also in psychology behaviour is used as evidence and nothing more. Thus the subject matter and evidence about a subject matter are not synonymous. It is a mistake to confuse these two different things. Chomsky emphatically stated that human mind is the subject matter of psychology and behaviour is a feature of mind and evidence that mind exists. Thus behaviour itself is not mind. Moreover, it is possible on the part of a person to have mental states without having the relevant behavioural dispositions. Similarly, a person may have behavioural dispositions without any mental state. For example, a person suffering from a severe pain but may not show any pain-behaviour if he is motivated to suppress the pain. Similarly, a skilled actor can show pain behaviour under certain conditions, even though he does not actually feel pain. Thus according to critics of behaviourism, it is implausible to assume that mental states by itself gives rise to particular behaviour without possessing different types of additional mental states.

So far I have given a brief outline of the defects of the methodological behaviourism but the difficulties that have been faced by the logical behaviourists are more vigorous. This theory holds that a statement about a person's mental state can be translated into a set of statements about that person's actual and possible behaviour. But this claim is not practical. It is impossible for anybody else to give a plausible account of remote mental state of a person and its actual and possible behavioural expressions. It is difficult to specify the antecedent of the hypotheticals and this problem leads to circularity. For example, Mr. John believes that it is going to rain. This mental state of Mr. John would be analysed by the behaviourist into an assumption

10 . J. A. Shaffer (1994), *Philosophy of Mind*, P- 42.

of a set of behaviour which would help Mr. John to avoid rain and remain dry. On the basis of John's belief that it is raining, the behaviourists assume that he will carry an umbrella and this assumption will be plausible if it is supposed that the desire of Mr. John is to remain dry. But here is circularity in this reduction and this circularity is the analysis of belief in terms of desire. Here the reduction is not really the reduction of belief to behaviour; rather it is a reduction to behaviour plus desire and this desire is no doubt a mental state and therefore, it is necessary to analyse this mental state.

Again, it can be seen that about the reduction of desire, analogous remarks could be made. If it is said that it is a desire of Mr. John to be remain dry then it depends on the disposition of him to carry an umbrella and all these will be plausible on our assumption of the fact that Mr. John believes that it is going to rain.

Similar objection can be raised against the analysis of mental statements in terms of behavioural statements.

Another difficulty for the behaviourist is that they deny the causal relation between internal mental states and external behaviour which goes against our intuition. It is commonly believed that if someone is in pain then it causes him to cry and this cry causes him to take aspirin in order to get relief from pain. Similarly, it is an apparent truth that someone's belief that it is going to rain and his desire to stay dry cause him to take an umbrella. This denial of causal relation by the behaviourist is due to the fact that they do not admit the existence of any internal mental states.

It is true that all the drawbacks that have been stated against the behaviourist theory make the theory sheer implausible and consequently this theory lost its efficacious by the 1960s. This change of status led the materialist-minded philosophers to think for an alternative and behaviourism was gradually replaced by the doctrine called 'Physicalism', which is sometimes called the 'Identity Theory'. Thus this theory appears in the philosophical domain as a reaction to the failure of behaviourism. In this connection I may refer Edward Feser's view, who says,

"Inspire by the fact that mental states and processes seem clearly to be inner processes of some sort, and states and processes that cause outward behaviour, materialist turned away from behaviourism in the 1950s and 1960s, and tended to favour instead the *identity theory*."¹¹

Thus, the basic insight of behaviourism is that there are no two entities but one- the body and that the so called mind has to be explained in terms of body. According to this theory, a statement about mental state of a person can be translated into a set of statements about person's actual and possible behaviour. This theory denies causal relation between internal mental states and external behaviour. It is because of the fact that over and above external behaviour, this theory does not admit any internal experience. These and some other features of behaviourism that I discussed are the main problems to which the identity theory reacts. The propounders of identity theory attempt to solve these problems and develop a more plausible theory of mind according to which mental states and brain states are identical. It is due to this fact that behaviourism is said to be a precursor of identity theory of mind.

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11 . E. Feser (2009), *Philosophy of Mind*, P-64.

