

## BEHAVIORISM AND ITS EFFECTS ON FIRST LANGUAGE ACQUISITION

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### Abstract:

J.B. Watson created the psychological school of thought known as behaviorism, which links all facets of human language to the principle of stimulus-response learning, supported or unsupported by the concepts of positive reinforcement and negative reinforcement. It is separated into two categories: operant behaviorism, which is represented by Skinner's operant conditioning, and classical behaviorism, which is represented by Pavlov's classical conditioning. The stimulus triumphs over the response in Pavlov's classical conditioning. The response in Skinner's operant conditioning is preferable to the stimulus. According to behaviorism, a child's contact with their surroundings has a direct impact on how they learn their first language. It takes an objective approach and disregards the child's natural aptitude and early linguistic abilities. Noam mostly falsifies and criticizes it. Chomsky misses the fact that a youngster can come up with countless statements that are not always repeated or reproduced. Additionally, it disregards the meaning of several abstract phrases that cannot be learned through imitation.

**Keywords:** (Behaviorism, First Language, Acquisition, Affects) .

السلوكيات وتأثيراتها على اكتساب اللغة الأولى

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**المخلص :**

وتسن أنشأ المدرسة النفسية للفكر المعروفة باسم السلوكية ، والتي تربط جميع جوانب اللغة البشرية بمبدأ تعلم التحفيز والاستجابة ، مدعومًا أو غير مدعوم بمفاهيم التعزيز الإيجابي والتعزيز السلبي. يتم تقسيمها إلى فئتين: السلوكية الفعالة ، والتي يتم تمثيلها من خلال تكييف سكينر الفعال ، والسلوكية الكلاسيكية ،

والتي يمثلها تكييف بافلوف الكلاسيكي. ينتصر الحافز على الاستجابة في تكييف بافلوف الكلاسيكي. الاستجابة في تكييف سكينر الفعال أفضل من التحفيز. وفقاً للسلوكية ، فإن اتصال الطفل بمحيطه له تأثير مباشر على كيفية تعلم لغته الأولى. يأخذ نهجاً موضوعياً ويتجاهل الكفاءة الطبيعية للطفل وقدراته اللغوية المبكرة. غالباً ما يزيّفها نعوم وينتقدها. يفقد تشومسكي حقيقة أن الشاب يمكنه أن يخرج بعدد لا يحصى من العبارات التي لا يتم تكرارها أو إعادة إنتاجها دائماً. بالإضافة إلى ذلك ، فإنه يتجاهل معنى العديد من العبارات المجردة التي لا يمكن تعلمها من خلال التقليد .

الكلمات المفتاحية: ( السلوك ، اللغة الأولى ، الاستحواذ ، يؤثر).

## 1. Introduction:

Language has been studied scientifically with the emergence of cognitive study. This was evident in the late 1950s in Noam Chomsky's revision of Skinner's verbal behavior (Chomsky, 1959). This was when the matters of language acquisition started to be the interest of Anglo-American linguistics and human science. Those linguists believed that the mind consisted of sensorimotor capacities with some rules that govern learning and that are based on gradual alterations in the behavioral reserve of the organism. However, the theory of verbal behavior was falsified this theory thoroughly by Chomsky when he stated instead that children acquire their first language depending on abstract principles. Thus, first language acquisition is based on an innate, and distinguished model that differs from general intelligence.

There has been a wide variety of questions concerning language and language acquisition during the last part of the twentieth century. The evolution of language and the relationship between language and thought have been the main concern of anthropology, linguistics, and psychology.

Pinker (1994) states that human language was born from certain modifications of the human mind and body in the phases of human evolution. This begins when children start to acquire their mother tongue initially. Despite the different controversial viewpoints on the relationship between language and thought, the first language forms the cognitive basis of communication (Fodor, 1975; Piaget). There are several scopes concerning the relationship between language and thought.

- 1- Language is superior to thought.
- 2- Thoughts dominate language.
- 3- Language and thought are intricately and equally correlated.

Benjamin Whoff (1956) agrees with the first claim. Piaget (1926) agrees with the second.

Behaviorists believe that linguistic development is the outcome of a set of habit formation. Thus, language is the fruit of the child's interactive process with ht environment through a set of habit formation.

Pinker in his *Language Instinct* (1994:18) states that language is a specific and complicated skill that evolves with children innately without deliberate teaching or conscious processes. It develops without any previous perception of its potential logic equally inside every individual, it is different from the methods used by every individual in perceiving and managing information or intelligent behavior.

From one viewpoint, it is possible to agree with Ron Scollon's statement about the complexity and miscellaneousness of language. William Morrow also states the effect of the response, notwithstanding the creativity of language, the superiority of speech over writing as it is known that language is mainly spoken, and the universality of language. He also states that language is systematic, it consists of arbitrary and conventionalized symbols that are vocal but also maybe written. Language is also a means of communication. It also reflects the community and culture. It is also fundamentally human.

From the previous review, behaviorism is a psychological school that views every aspect of human action as a behavior that is generated from human's interaction with the surrounding milieu. Founded by W.B Watson, it is based on the idea of the stimulus and response. The stimulus is the inducing factor. The response is the reaction that results from this stimulus. This theory is based on the idea that the stronger the stimulus is, the more effective the response becomes. This paper aims to examine the definition and principles of behaviorism and its effects on first language acquisition.

Skinner developed American behaviorism and Pavlov developed Russian behaviorism in 1950. This theory is a 's psychology. Behaviorists think that the child learns his first language by imitating his parents' repeated verbal utterances. In brief, the influential factors of reinforcement are reward and punishment. (Hamza 2013:9)

The clearest example is the toddler's behavior. The infant's behavior is based on the external acquisition of the surrounding environment. The infant's behavior is affected by his parents' reinforcement and encouragement or discouragement of his behavior. Thus, his behavior is either stimulated or weakened. This is also prominent in first language acquisition. Cooter and Reutzel (2004) claim that infants acquire language orally from what they call "the role models" by imitation, and with the encouragement of awards and practice. They are the source of stimulus and rewards. When the child pronounces a word the way his parents admire, the student praise and rewards him. Thus, the stimulus of language acquisition is reinforced and increased to encourage the child to pronounce the word this way. And vice versa, if the child pronounces a word the way his parents do not admire, they either punish or warn, this is what discourages the child not to pronounce this word or modifying his manner of pronunciation.

However, there are many criticisms directed at behaviorism. One of which is that behaviorism neglected Chomsky's idea of the creativity of language, internal factors, and the process of decision-making. For example, Freud considers the idea that behaviorism ignores the internal abilities of the child. Children are initially creative. They can form sentences and deduce grammar automatically. Second, Cooter and Reutzel (2004) discuss the important idea of acquiring abstract words. For instance, concrete words like "pen", or "book" can be taught by imitation because they can be realized by the five senses of sight, touch, and hearing. However, abstract words like "friendship" or "honesty" cannot be acquired by imitation because they cannot be realized but by the mind. This is what makes behaviorism somehow a partial approach and

cannot be depended on thoroughly in explicating first language acquisition. This does not mean that the imitational role of behaviorism is not involved in first language acquisition, the surrounding environment has an important role in the initial stages of first language acquisition. However, it is not a sufficient approach that can comprehensively answer the question:” How do children acquire their first language?”. Mehmet Demirezem answers these questions in his definition of behaviorism as a psychological approach by its nature. It came as a reaction against traditional grammar learning. It is a theory that can be called “the native language theory”. Some of its practitioners are Leonard Bloomfield, O.N. Mowrer, and B.F. Skinner, and A.W. Staats. It was the dominant approach during the 1950s. It asserted the idea of the significance of verbal behavior.

Wilga Rivers (1968:73) states that the main basis of the behavioristic analysis is the concept of “stimulus–response” interaction and their interrelation. The concept of first language acquisition based on specific processes of behavior and consequences was put forth by E.L.T Thorndike. He states that the development of the stimulus is based on Skinner’s model of operant conditioning. Skinner considers that first language acquisition is based on the concept of reward and habits.

### **THE DEFINITION OF BEHAVIORISM**

Behaviorism is a theory of animal and human learning that, according to Waltman (2003), solely concentrates on behaviors that can be seen with an objective eye. While behaviorism is described as a developmental theory that evaluates observable behaviors produced by a learner's response to stimuli (as derived from <http://www.learningteaching.info/learning/behaviour.htm>). I conclude that behaviorism is a theory that assesses observable behavior that is produced by the learner to respond to the stimuli based on the definitions of behaviorism provided by the two experts. Positive and negative feedback can condition the desired behaviors by reinforcing the reaction to stimuli. Because the students can accurately respond to the stimuli, they are rewarded with

positive feedback. Stickers, candy, food, and shopping are a few examples of rewards. While the learners receive punishments because they can correctly respond to the stimuli Examples of rewards include stickers, treats, food, and shopping. While reprimanding learners who don't respond to stimuli well is a form of negative feedback. For instance, denying a child playtime, assigning them extra work, or taking away their possessions. The following are some of the main effects of behavior. The learners' behaviour can be strengthened and improved by the incentive. Using praise, for instance, to encourage appropriate behavior Punishment can make the conduct less frequent so the learner won't want to repeat it. For instance, if the child is not given any additional chores.

### **THE CHARACTERISTICS OF BEHAVIORISM**

The goal of behaviorism, in Tomic's opinion, is to define, clarify, and modify behavior. I'll go into detail about behaviorism's characteristics in this part.

1. A behaviorist believes that external factors, rather than internal factors, are the most significant sources of motivation for behaviorism.
2. It is fruitless from a scientific standpoint to portray humans in a dualistic manner that separates their mental functions from their outward behaviors. "Mary loses control because she is aggressive," as an example. The following phrase has significance. Their seeming behavior is brought on by Mary. Nevertheless, observing this conduct is the only way to identify the hidden traits used to justify it. We can see that the origin of both the cause and the effect is the same.
3. Humanity should only be studied scientifically if it is done in such aThe scientific study of mankind should be restricted as much as possible to directly observable quantities.
4. Human behavior can be explained simply in theory because it developed from simple learning processes, but in reality, behavior is highly complex.

Human behavior is intricate, as are the external forces that have an impact on people.

5. Man is typically a superficial and imprecise observer of both his behavior and that of others. He is forced to provide a variety of problematic justifications because of the dualistic view he has of humanity.

6. A thorough behavioral study must come before any attempt to change behavior. If the behavior-changing attempt is unsuccessful, the analysis is flawed or lacking, then it needs to be changed.

## **2. Pavlov's Classical Behaviorism:**

Pavlov's famous experiment is important proof of the – stimulus–response theory. Pavlov stimulated his dog by ringing a bell. The dog comes at the sound of the bell and finds food. In this experiment, the bell is the stimulus. After repeating the experiment many times. The last time Pavlov did not put the food. However, the dog salivated. The result is that salivation is the response because the dog learned by habit that the sound of the bell means there is food. Thus, this experiment showed that stimulus and response work simultaneously.

Pavlov's experiment inspired J.B Watson to put forth the term "behaviorism". And Pavlov's experiment was classified under this term as "classical behaviorism" because it is a pure application of the main behavioral aspect "habit formation" by stimulus–response and condition. Watson encouraged the objective study of behavior in isolation from the potential innateness. Watson applied Pavlov's classical conditioning to all language learning and acquisition. Thus, a more complicated set of behaviors can be formulated from interrelated chains of stimulus–response.

### 3. Skinner's Operant Behaviorism:

Skinner 1938 claimed in his book *Behavior of Organism* that Pavlov's classical conditioning was not a solid base on which it is possible to build a sufficient comprehension of first language acquisition or language learning in general because its main concern is studying animal behavior, although the language is mainly human. It is Skinner who called Pavlov's conditioning classical because its focus was on the existence of a preceding stimulus.

Thus, Skinner's operant conditioning mainly focused on the interpretation of human learning and behavior. Skinner's concept gives bigger importance to the consequences and Responses rather than to the stimulus, unlike Pavlov's. It is called "operant" because it focuses on explaining how the individual "operates" when interacting with the environment. He gives an example of that when the child moves from one position to another without the existence of any stimulus. Thus, Skinner focuses on the set of events that follow the response. Skinner also states that the events or the stimuli that function as reinforcers to the response and its recurrence formulate a solid controller of human behavior. Skinner gave the greatest credit to those reinforcers.

Operant are types of responses like weeping, walking, or playing. They are governed by their consequences. By contrast, respondent responses are responses identified by stimuli. Crying itself can either be operant or respondent because it may be a reaction to damage. Skinner stood against punishment and suggested substituting it with a kind of refrain of reinforcement of a more positive reinforcer which will have a more effective influence on language acquisition.

By applying this simultaneity concept to infants' first language acquisition. Babies acquire their first language by babbling and imitating the oral syllables they hear and this is the stimulus. The reward of this muttering is reinforcement (Douglass 2002). This reinforcement leads to bigger and more utterances which eventually leads to the initial first language acquisition. This even



leads to a further idea, which is the idea of generalization. An example of this is the suffix “ed” which is added to the end of the verbs to form the past. The children tend to generalize this idea to all verbs regardless of the irregularity, such as “goed for went”, “drank for drank”, and “swam for swimming”. This is also applied to the plural rule. The children tend to put an “s” to all the nouns to form the plural regardless of the irregularity, such as “sheeps for sheep”, “mans for men”, “mouses for mice” and so on. However, by the age of five or six, their speech develops considering the idea of irregularity in a way that cannot be differed from adult speech.

Wilga M. Rivers (1968; 73) also states that the recurrent processes of try-error where approved utterances are reinforced and disapproved utterances are discouraged and inhibited by the lack of praise and applause from the cycle of first language acquisition. Thus, the inhibited utterances make the child refine his utterances and modify them until they are close to the community he lives in.

Hence, children initially and innately learn and adapt themselves to acquire the language of their surrounding milieu that can never be ignored. The complex learning process is thus split into small habits that are rewarded or punished. (Hubbard Jones and Thornton Wheeler, 1983; 326). Thus, learning is acquired when habits are acquired.

#### 4. Related work

Behavioristic Approach	
Classical	Operant
<b>Pavlov</b> <b>Respondent</b> <b>Conditioning</b> <b>Felicitated Response</b> >--+R  There is a system of punishment and reward	<b>Skinner</b> <b>Governed by consequences</b> R ■* S (reward)  <b>No Punishment Programmed</b> <b>Instructions</b>

## 5. The Basic Tenets of Behaviorism:

- 1- Language is spoken. The first language is acquired by learning oral utterances because children learn to speak and listen before they learn how to read and write. Thus, language is innately oral and is edlearned by speaking and listening and this is what makes them the main two major language skills over reading and speaking.
- 2- Nelson Brooks claims that language is a conditional process of “habit formation”. Its acquisition is an automatic process of habits recurred by the consequences of behavior.
- 3- The stimulus–response chain, according to David S. Palermo, forms a hierarchical chain from the simplest behaviors to the most complex ones.
- 4- All learning is a foundational process of habits that is the result of reinforcement and punishment. The reward is the outcome of positive reinforcement. Punishment is the outcome of negative reinforcement.
- 5- The learning process can be equal for all persons who learn within the same circumstances and conditions.

### Arguments Against Behaviorism

- 1- the principal language learning methods that follow the behavioristic models of imitation, reinforcement and rewarding are accused of reducing the innovation and Chomsky’s creative aspects that the students enjoy. Furthermore, students do not follow the same modes of imitation (L.M.Bloom, L.Hood, and P.L. Lightpown 1974:380–420). Though imitation is beneficial for vocabulary acquisition, children do not imitate verbal utterances at the same rate. However, Herbert H. Clark and Eve V. Clark claim that reinforcement is not widely a supportive factor because the parents try to rectify what is initially rectified.
- 2- Generalization, reward, and conditioning are the main basis for learning in the behavioristic approach. The three concepts are supportive factors of children’s analogical learning. However, it is believed that encouraging students to formulate words, phrases, and sentences based on a set of

previously instructed traditional grammatical rules and practices impedes the instinctive and initial production of language. Thus, the habit formation exercises may not innately reinforce internally directed language acquisition.

3- This impedes initially-built learning and indubitably damages Chomsky's creative learning because mastering a language even a little requires a lot of basic and initial learning. It is believed that students must first be taught by repetitive practices that promote the basic roots of language inside children before teaching them grammar because there is a need for strong linguistic intuition. Because if the learner is not creatively taught and does not have an innovative thought, he will never be able to function his linguistic ability properly in real situations. Thus, innate learning will be delayed because of the solid rules that restrict creative language acquisition.

4- Behaviorism was not able to give a sufficient and reasonable answer to the question of the social influence on language acquisition.

5- There is a strong assertion to the fact of the inequality of learning ability of each individual even if individuals learn within equal conditions. This is because of the difference in backgrounds and experiences of each individual. Chomsky again asserts the need for a certain initial capacity that can be sprouted from which initial first language acquisition can grow.

Behaviorists have put language acquisition to an equal degree with animalistic behavioral changes. It is correct that animals acquire many things by reinforcement and imitation, however, it is a little bit different from human beings' language acquisition. Acquiring language, especially the first, is superior and special. Because there are a lot of abstract concepts or words that cannot be acquired through imitation because they are perceived by the mind which is lacking in animals. A human child may learn words through reinforcement and imitations. However, the creativity of language stands here to show that behaviorism cannot stand alone as a sufficient interpretation for first language acquisition.

Children start acquiring their first language at the age of two and are complete this process becomes complete at the age of five. At five, children become capable of communicating with the members of the speech community to which they belong. Thus, during these three years, the initial basic mother tongue system is complete. The basic native language system is something innate and potential even before the children start to communicate with their environment.

This is apparent in the comprehension of both colloquial and standard Arabic between illiterate and literate people. Standard Arabic is clearly understood by all the members of the Arab speech community despite the huge differences between colloquial and standard Arabic. This is a piece of evidence that reinforcement and imitation cannot stand alone in interpreting first language acquisition.

### **Universal Grammar**

Skinner was criticized by Noam Chomsky who put forth the term “universal grammar”. Chomsky claims that children are creative in their ability to produce an infinite set of utterances. These utterances can never be learned through imitation. Thus, the theory of universal grammar suggests that grammatical categories are innate and biological. He means that all languages have similar grammatical categories like subjects, verbs, objects, and prepositions even though they are different in their word order. In English the formula is SVO. In Japanese and Latin, it is SOV. In Arabic it is VSO. (Ambridge & Lieven) claim that universal grammar has all the necessary rules to order these categories. The Child’s mission is only the acquisition of the words of the language.

Language is a system of complex and arbitrary symbols. It has the concrete and the abstract. Concrete concepts can be somewhat acquired by habit formation because they are clear and can be easily understood. Reward and punishment reinforcers can be a futile method to enhance language acquisition. However, abstract concepts that can only be absorbed by the mind are the biggest obstacles in the way of behaviorism. Behaviorism is partially correct,

but it cannot stand alone in answering the question “how can children acquire their mother tongue?”. Behaviorism considers language as a skill that can be acquired by dealing with the surrounding milieu and through a sequence of habits that are reinforced and enhanced and fixed skills that a child can acquire.

However, Chomsky attacks it as he considers language something innate that is born with the child because children acquire the language of the speech community. A second view that behaviorism is attacked for by Chomsky is that behaviorism neglects the creativity of language. Children can coin an infinite set of sentences without previous prompting. This is a piece of evidence that children have an innate ability even to give any verbal utterance in any situation because parents are not prompting their children's words all the time. The reason is that children are born “creative”. Thus, behaviorism can be a complementary means that can increase children's lexicon. However, it is not possible to ascribe first language acquisition. Also, Pavlov's experiment is not a valid basis that can be followed in language acquisition because animal behavior is governed by instinct, unlike a human being who is an independent creature that uses his mind. Also, language itself is a mental ability because language according to Chomsky is mainly human.

In modern language teaching associations, associations follow Chomskian approaches by enhancing innate linguistic ability in children. The common tenet nowadays is that language is not a behavior that can be enhanced or weakened but an innate ability that can be developed. Behaviorism can be a helping factor to some extent. Parents should encourage their children to develop this innate ability by communicating with their children. This communication makes a linguistic self-mechanism that leads the child to speak automatically without the need for reward and punishment responses. This leads to a more effective use of language. Chomsky states that children acquire the grammatical system of their language innately and automatically. For example, English children put the subject before the verb even before they

learn grammar. Japanese children put the object before the verb before even learning the grammatical system of their language. This ability even facilitates first language acquisition at school because children develop their language acquisition with the help of their parents' communication. The important thing is that children must be exposed to their language at an early age because this helps them awaken their linguistic abilities. Because concepts such as "friendship", "honesty", "knowledge", "kindness" and "generosity" can only be taught to children by situations not by habit formation. Also, children when they acquire their first language they may insist on their style of speech. For instance, the use of "s" plural for the plural of all nouns regardless of regularity. The child may say "childs", "sheeps", or "womans". The children always tend to generalize the concepts they acquire and insist on what they have inferred no matter it was correct or not. The parents attempts of correction may be of no use because children "trust" what they infer, and such mistakes can be corrected at school education or at later levels. This is the effect of creativity. Creativity is a wide concept in linguistics. Oxford university defines it as "The faculty of being creative, ability or power to create". The word derives from the adjective creative, which means having the quality of creating, able to create, relating to or involving imagination or original ideas. But linguistically it means that children can "create" an infinite set of sentences and can even function their imagination in this creation. They can speak automatically without the need of reinforcement or rote learning.

Chomsky (1965) describes creativity in language as "). "An essential property of language is that it provides the means for expressing indefinitely many thoughts and for reacting appropriately in an indefinite range of new situations" (Chomsky, 1965, p. 6). The creativity of language suggests that children can form an infinite set of sentences using a finite set of rules and grammar. Humboldt supported this idea by saying that language is a limitless domain and it is the core of thought. Thus, it must be used creatively. (Humboldt 91).

## 6. Conclusion:

Behaviorism is a psychological approach founded by J.B. Watson. that ascribes all the aspects of human language to the theory of stimulus–response theory supported or unsupported by the idea of rewarding or positive reinforcer and punishment or negative reinforcer. It is divided into classical behaviorism represented by Pavlov’s classical conditioning, and operant behaviorism represented by Skinner’s operant conditioning. In Pavlov’s classical conditioning, the stimulus is superior to the response. In Skinner’s operant conditioning, the response is superior to the stimulus. Behaviorism ascribes first language acquisition as an outcome of the child’s interaction with the surrounding environment. It is an objective approach that ignores the innate capacity and the initial linguistic capacity that is born with the child. It is mainly falsified and attacked by Noam Chomsky that it ignores the creativity of language that child can produce thousands of sentences that are not necessarily imitated or reinforced. It also ignores the perception of many abstract words that cannot be acquired through imitation.

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