

Surveying Language Acquisition: A Homogenesis Of Innateness And Behaviorism

Fazal Ghani¹, Abdul Waheed Qureshi², Asma Sharif³

ABSTRACT

First Language Acquisition (L₁A) is a complicated process of mental/para-mental (internal/external) faculties running through different stages. Since its birth, language has been hypothesized about and explored upon by many linguists to know its acquiring mechanism. Some believe it to be an innate process present in the mind of an individual known as Language Acquisition Device (LAD) (Noam Chomsky, 1965); others, contrarily, consider it ¹to be the result of behavior and habit formation which needs time span. This paper explores and argues: how language acquisition involves both innateness and behaviorism? The design of the present research paper is qualitative. It uses secondary sources, i.e., books, research papers, and articles. The available research done so far is critically examined by the present researchers in the form of a review. The close observation of language acquisition in its practical context leads the present researchers to the conclusion that language acquisition is not solely dependent upon either mentalism or behaviorism; rather, it is the homogenesis of both. The findings of this study can have important applications in the fields of cognitive psychology, ELT, linguistics, education and psychoanalysis. By showing the essential relationship between mentalism and behaviorism in language acquisition, the present study provides a theoretical basis for the development of holistic understanding in the fields of linguistics in general and language teaching in particular. Educators can devise curriculum that can solve the problems of language acquisition in a practical way by nuancing the possibilities of combining the Innate and Behaviorist approaches to language learning and acquisition. Those with the problems of speech and language delays can be treated in a more convenient way by providing them with an environment where they can have individualized interventions by focusing on the interplay of Mentalist and Behaviorist approaches to language acquisition and learning. In the same way, the new concept of Homogenesis of Language Acquisition (HLA) provides a strong theoretical foundation for the development in the field of Artificial Intelligence (AI), specifically in Natural Language Processing (NLP) systems that focus on the mimicry of human language learning techniques. The present research also bridges the gap between the two most leading and opposite theories, thereby opening new vistas for practical research in the fields of linguistics and speech therapy in advancing communication skills.

Keywords: Behaviorism; Homogenesis; Innateness; L₁A; Language Acquisition Device.

¹MPhil English, Qurtuba University of Science and Information Technology Dera Ismail Khan, Pakistan. Email: fghanikhan55@gmail.com

²Assistant Professor, Department of English, Abdul Wali Khan University Mardan, Pakistan. Email: waheedqureshi@awkum.edu.pk

³Subject Specialist in English, Govt. Girls Higher Secondary School Gujar Garhi, Mardan, Pakistan. Email: asmas821@gmail.com

Introduction

Since the human birth and consequently the language birth, it has been an earthed-mystery so far that, how language is really acquired? For many years people did not think about language acquisition, but when they started domestication of the Second Language Learning (L₂L), for variety of purposes, communication of course, they referred to the First Language Acquisition (L₁A). They made experiments in the acquisition of language. Resultantly, based on the language acquiring mechanism, there developed several theories/hypothesis about the acquisition and learning (Ramzan et al., 2023, 2025). Consequently, based on those theories, an extensive literature is available on acquisition and learning of language. Several of them, are discussed below.

Behaviorism, being Burrhus F. Skinner's (1957) theory of language acquisition, based on positive and negative reinforcement, believes that language acquisition is a habit formation. Thus, successful efforts by the child are given rewards and hence the child becomes sensitized and is inclined to gain more yells and rewards from parents and adults around him/her.

Several restrictions found in behaviorism include virtuous errors (intelligence mistakes) which means that language has a fixed structure and rules which cannot be obtained through habit; developmental milestone, which argues that language acquisition goes through the specific sequence that cannot be reinforced through habit formation; and the children's inability to repeat the words they listen to. Language acquisition also needs a critical period, up to seven years, which is a fertile span for acquisition of language (Barry Brau et al., 2020).

Innateness is another language acquisition theory by Chomsky (1965) that emerged in opposition to behaviorism, called ungrammatical input, which argues that while a child hears ungrammatical sentences, how can he form grammatical sentences as habit formation? Chomsky believes that the human mind has a special language acquisition device called Language Acquisition Device, which further states that a child's mind has some principles for language acquisition shared by every child of every language. However, Dan I. Slobin (1973) modified it to be the mechanism for learning a language by saying that a child is not born with predefined linguistic categories but with different ways and these ways are the mechanisms and procedures to deduce the specific rules. These procedures work in the manner that when the child applies them to an input, they change them into vital communication through language. Therefore, the linguistic rules are created due to an innate mental competence and not due to the subject of such a competence.

In addition, there is evidence that supports the theory of innateness. It consists of Broca's and Wernicke's areas as identified by neuroscience (Masazumi Fujii et al., 2016; Fiona Cowie, 2008), creole variety (Mithat Ekinici, 2020; Fiona Cowie, 2008), and sign language (Steven Pinker, 1994). However, Chomsky's (1965) account of language acquisition was hypothetic which does not rest on practical facts. The theory was developed out of his deep interest and insight in grammar.

Cognitive theory by Jean Piaget (1971), who was a psychologist, attributes language acquisition to the cognitive development of a child. The objective of his theory is that before the acquisition, a child must develop a concept, which becomes possible with the passage of time. Object permanence idea is the cognitive theory main focus. However, the limitation of the theory is that cognitive development does not result in the formation of syntax, as mentally abnormal children can also speak fluently.

Consequently, Interaction (Jerome S. Bruner, 1983; Lev S. Vygotsky, 1978) or input theories (Stephen D. Krashen, 1982; 1985) which are at odd with the Chomsky's (1965) universalism, believe that language acquisition results in the input people give to their

children. Thus, the focal point of the theories is the interaction, or the Child Directed Speech (CDS) with others.

Significance of the Study: A lot of the available research considers language acquisition in one aspect or the other, particular to a specific school of thought. The present research is individual in the sense that it integrates the two main theories of language acquisition i.e., Innateness and Behaviorism. Hence, it asserts that believing in any of the theories mentioned as solely responsible for language acquisition, is not reasonable. Therefore, language acquisition is not only a mental or behavioral faculty but is the synthesis of both.

Literature Review

The process of acquiring language seems to be complex and multifaceted therefore, it leads to extensive research in various fields, including linguistics (Akram & Abdelrady, 2023; 2025; Ramzan et al., 2020, 2021, 2023), psychology (Akram & Oteir, 2025), technology (Akram et al., 2021, 2022; Ma et al., 2024) neuroscience (Akram et al., 2022), and education (Li & Akram, 2023, 2024). The following literature review provides a comprehensive overview of the theories, concepts and findings related to language acquisition and practical experiments done so far.

Behaviorism by Skinner (1957) is based on the principles of operant conditioning and reinforcement. It believes that a child learns from their surroundings and thus imitates continuously what they hear when positive feedback is given to them. However, a lot of criticism took this theory into the account that it was a limited view of acquisition of language and hence unable to entertain the creativity and complexity of human language.

Chomsky's (1965) Innatist theory, on the contrary, postulates an inborn ability of humans for acquiring a language. There is, he suggests, a special kind of device called LAD (Language Acquisition Device) in human brain that helps in language acquisition. The device facilitates the children with language acquiring. Thus the structure and rules of a language are triggered and starts working when they are born and hear the language. Though the theory is supported by the fact that some children, having language acquisition defect, are unable to grasp the language, yet the fact remains that what rules and structure are there in the acquisition of a language? Hundreds of languages are spoken in the world which differ in structure and rules.

Cognitivism as proposed by Piaget (1952), believes in cognitive development of humans while acquiring a language. The cognitivists proposed that the cognitive ability of a child is being developed with the passage of time and hence a need for language acquisition and usage is developed. Thus they link the language acquisition with cognition only.

The theory of Socioculturalism of Vygotsky (1962) supports the social and cultural factors as responsible for language acquisition. Social interaction, he believes, is a key to language learning and hence development. The theory, in a sense, supports the behaviorism theory but with different diction and coding. Experienced language users provide children with reinforcement and support during their acquisition. Thus exposure to language use and social interaction helps in the acquisition of language as habit formation.

The Neural Network theory commonly known as the Connectionist theory attributes the language acquisition with the connection of neurons present in the human brain. When they slowly and gradually connect with each other they get strength and therefore, language acquisition is developed. Language learning, the connectionists believe, is a complex association among sounds, words and meanings based on the neural activity patterns in the brains (Edward L. Thorndike, 1913). This theory has been supported by evidence from studies of brain imaging and neural modeling.

The above mentioned theories and hypotheses result in the complexity of language and hence language acquisition. Variety of factors can be seen involved in language acquisition (Akram & Yang, 2021). Some (Patsy M. Lightbown & Nina Spada, 2013; Rod Ellis, 1994) call it the habit formation, certain (Pinker, 1994; Chomsky, 2000) call it innate and inborn ability, several (Michael Tomasello, 2003; Annette Karmiloff-Smith, 1992) call it cognitive development and others (Bruner, 1981; Catherine E. Snow, 1999) call it social interaction. They discussed different underlying processes and mechanisms responsible for language acquisition and learning. All the approaches and hypotheses are philosophical and hence personal. All of them define language and language acquisition as their personal approach based on experiences and practices (Ahmad et al., 2022). This laid foundation for several researches and discussion for language acquisition and hence second language learning.

Conceptual Framework

How is language acquired? An extensive literature, hypothesized in language acquisition mechanism, has been a field of varied experiences and personal mental approaches by many researchers, and even linguists of scientific faculties. This results in many philosophical hypotheses like behaviorism and universalism etc., but no theory seems to be mathematical. Hence, it leads to complicated multiplications. Therefore, the close analysis of these theories in a practical context gave us an insight to the end that language acquisition is not only an (innate) mental ability but habit formation (behaviorism) also plays an essential role in its acquisition.

Discussion

Since the inception of language, cognitive psychology and linguistics, the premium topic which cross-triggers both behaviorism and innateness, is language acquisition. The two theories rest on desperate perspectives and mechanisms. At the same time, as the experimentations in the field of language acquisition are concerned, it is inferred that both are essential for language acquisition. Without behaviorism (habit formation), innateness (mentalism) is not sufficient to acquire the language. There must be integrity between the two.

According to Behaviorists, humans acquire/learn the language through reinforcement and conditioning by imitation and repetition, but it is vital to language acquisition when the individual is mentally and cognitively sound. Both refer to each other and are part and parcel of each other in terms of language. Thus, the inherent efficiency of language acquisition needs what can be called 'objective correlative' that leads to perfection in the form of speech. Otherwise, only innateness cannot work well to acquire the language.

In addition, the analysis of several researchers in the perspective of these theories and practical experiments leads us to the conclusion that the encircled and closed cognitive ability, stored in the mind of a newborn is committed by the outside habit formatting designs and reinforcements. Thus innateness is the premier ability while behaviorism is the objective correlative in order to arouse the sense of uttering a language.

Moreover, if the innateness was the only ability responsible for language acquisition, then what language would the child develop while growing up? What might be their first language as hundreds of languages are spoken in the world today. These questions confirm that behaviorism results in the variety of spoken-languages. This idea can be ascribed to the psychoanalytical theory of Sigmund Freud (1923) who believes in the unlimited unconscious and limited conscience. Therefore, the innateness is the unconscious mind (ego, an instinctual desire to acquire a language), while the behaviorism is the conscious mind (the superego, the restrictions, the reinforcements). Moreover, studies have also shown that the brain undergoes changes during language acquisition, with evidence of neural plasticity and brain reorganization (Amjad et al., 2021). Neural networks are

involved in processing and storing language information, and they can be shaped by both innate and environmental factors.

Finally, both the perspectives of innateness and behaviorism are integrated to language acquisition that can be referred to as need-based approach. Therefore, the inside world needs the outside world to occupy the process of describing the inner feelings and thoughts about what the child sees, listens and senses.

Conclusion

The language acquisition hypotheses and experiments, as discussed and analyzed above conclude in the language complexity of variation of different processes. Varied language acquisition phenomena are involved in the promotion and developing speech of the inborn child. Both the theories of innateness and behaviorism explored and seen proved to be working in the acquisition of language. The former is not sufficient without the help of the later. This new perspective can be called the Homogenesis of Language Acquisition (HLA). The LAD (Chomsky, 1965) and other language theories need objective correlative to reach the perfection of speech. Without providing objectives related to the inner ability of language acquisition, the idea of speaking and describing the world thorough words is the idea far from reality. Both theories, having opposing views of acquiring language are in reality one and the same, and one is incomplete and incompetent without the other. Therefore, language acquisition and its mechanisms are simultaneously innate and behavioral or mental and para-mental/extra-mental process.

Limitation and Study Forward: An important limitation of the present study is total reliance on only the two main available theories, and this may not completely cover the vibrant and individual character of language acquisition across multiple people and geographies. Although, the Homogenesis of Language Acquisition (HLA) gives a new kind of synthesis of Mentalism and Behaviorism, yet it lacks in the inclusion of different important points like cultural factors, differences in habits, and societal interaction etc. Also, the present study's conceptual nature leaves space for linear and experimental studies and research so that it can be empirically validated and the applicability of the new model of HLA be tested. Taking HLA approach as a strong base, future researchers could study and explore how the interplay of Mentalism and Behaviorism varies across varying cultures, people, groups, life span, and stages of development. Moreover, in modern scientific and interdisciplinary world, future researchers could investigate the role of Artificial Intelligence (AI) and machine learning in understanding and stimulating language acquisition processes, leading to the development of effective materials, resources, tools, and therapeutic strategies.

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