

Influence of Behaviourist and Cognitivist Theories in Adult Language Acquisition

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ARTICLE HISTORY

Received : 2 December 2020
Revised : 14 December 2020
Accepted : 18 February 2021

KEYWORDS

Behaviourist
Cognitivist
Adult Language Acquisition
Second Language Learning
Critical Period Hypothesis



ABSTRACT

Linguistics and psychological schools of thought had a great influence on language acquisition theories. It is still under discussion whether second language acquisition is easy or effortless for adults to learn or not. In non-teaching environments, children can learn their native language quickly, whereas adults cannot. Many researchers believe that adults can quickly acquire a second language due to their high level of cognition clear, logical thinking and strong self-observation skills, while some linguistics researchers consider that it is difficult for adults to develop a second-language acquisition. Therefore, this paper explores to what extent the theories of behavioral and cognitive influence adult acquisition in the second language process. This study considered that these theories have highlighted the difference between the way that children and adults learn to the point that adults appear to “lift the bar” unrealistically when they try to learn an additional language. The novelty of this study is in how the analysis gave a new direction for adult language acquisition theorists to guide adults to mimic children’s way of acquisition of their first language.

1. Introduction

The language acquired at age 3 is the first language or the native language. Second language attainment is limited by the age of learning. The critical period hypothesis implies that, after a certain age, adult language skills may have been lacking, so that the second language cannot be acquired. This paper explores how much the theories of behavioral and cognitive influence in the process of second language acquisition of adult with the same fluidity as children first language acquisition. Researches on second-language acquisition as an autonomous discipline gained attention in the late sixties and the early seventies. This explains the second language characteristics of learners and analyzes internal and external factors that influence acquisitions of the second language. As stated by (Ali Derakhshan & Karimi, 2015), for education, employment or work and other purposes, generally an official language, second language acquisition is necessary or important. Adults find it much harder to learn new languages than children the relationship between their primary language and their conceptual elements is already neutral. When it comes to studying of adult’s second language acquisition, the question is always debated as to whether it is easy to acquire or not. Many researchers believe that adults can quickly acquire a second language due to their high level of cognition clear, logical thinking and strong self-observation skills while others consider that it is very difficult for adults to develop a second-language acquisition.

Adult acquisition theories mainly include behavior theory, cognitive theory and interlanguage theory. These theories try to explain how people learn and the circumstances under which they learn.

2. Discussion

2.1 Behaviourist Theory—Change in Behaviour

The theory of behaviorism was split into Watson's (1970) early behaviorism and B.F. Skinner's (1938) new behavioral theory (Watson, 2017; Skinner, 2019). The period from 1913 to 1930 is mostly related to the early era of behavioral science. American psychologist, John Watson proposed the stimulus-response theory (S-R theory) based on the classical conditioning theory. He opposed the subjective artifacts, such as knowledge, information, imagery, etc., but preferred study outcomes objectively. As the representative of the new behavioral theory, Skinner divided behavior into two types, the responsive behavior, the responsive behavior and the operational behavior. The conditioned reflection was also split into receptive actions and operations. The core of the new behavioural theory is operational behaviour. The greatest contribution of Skinner to language research is possibly his ideas of "stimulation-response-increasing" theory for the learning of second language adults and foreign language teaching. This led to the new method of teaching: the audio-lingual method. The new theory of behaviourism has a great influence on the acquisition of adult’s second language and foreign language.

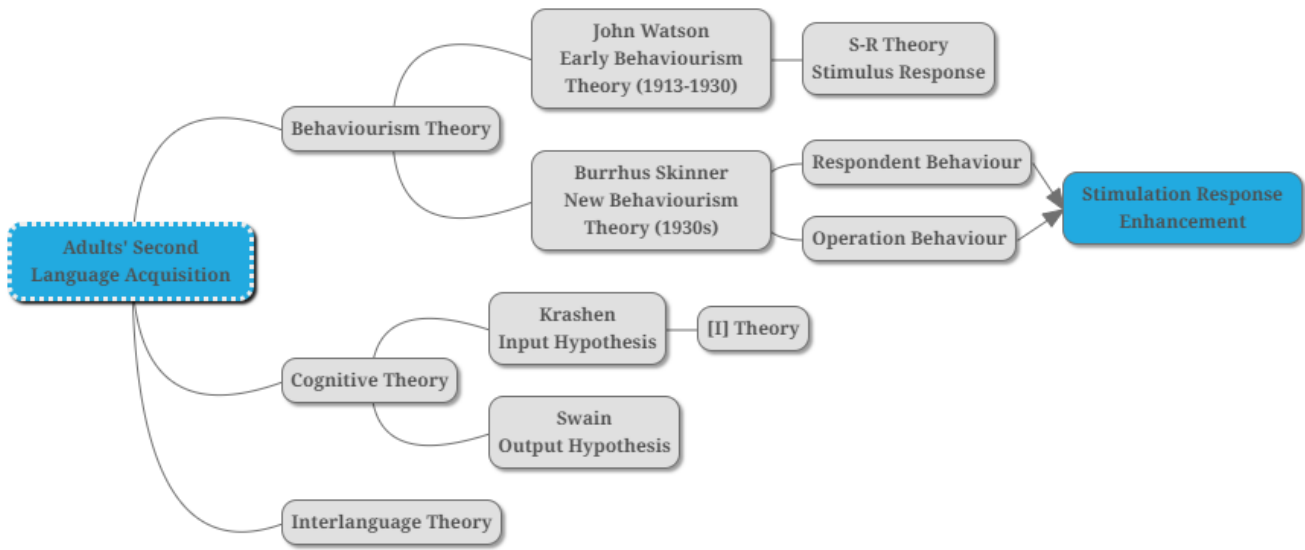


Figure 1. Theories of Adult of Language Acquisition

Language Acquisition means the process of learning a language, however behavioural theories see it as how people learn and their first/native language while applying them more broadly to language learning. Behaviourist view language as behaviour and argue that the language acquisition process for a child is similar to other behavioural learning processes. According to the behaviorist theory, children learn oral language through imitation, rewards and practice from other human role models. Human role models in children's environment provide stimulation and rewards (Cosoter & Reutzel 2004). The behavioural theory of language acquisition notes that language is acquired by adopting the meanings of certain words when spoken. For instance, when a child says the word 'ball,' and someone gives them a ball, they will come to the object given to them is a ball. This language development theory is an integral part of behavioural science. Hence, learning is a change in behaviour. There is an assumption that behaviourism is the most practical way for adults to understand. B.F. Skinner defined learning as behavior, which can be reinforced by both positive and negative feedback to environmental stimuli. Skinner added that the study of previous circumstances and outcomes could observe, clarify and forecast the learning. The ability for a background behavior to recur or continue, both positive and negative, reinforcement. Behaviourists see learning as a change in behaviour. Behaviourists see language learning as a reinforcement process and a sequence of stimuli and responses contributes to their desired objective of learning. The interaction between the stimulus and the responses of the learners contributes to a learning process. The learners' response to stimuli was automatic and not conscious thought.

The need to solve their problems motivates adult education, in particular. The problem is stimuli which encourage individuals to learn. This theory considers the purpose of education to be behaviour-changing. The main challenges faced by people are due to their behaviour. It is their behaviour that therefore brings difficulties. In this theory, the teacher's task or responsibility is to enhance environmental conditions so that the desired answer can be obtained. If people want to learn, the teacher/instructor makes the opportunity for the students accessible. In the process of adult learning, this theory is obvious in its aim of changing behaviour to increase knowledge, skills and attitudes to improve job performance. The theory of behaviour points out how the environment is supposed to maximize the students' learning. The learning environment must be comfortable and facilitated for effective learning to take place. The external environment is considered by this theory as crucial for effective learning. Each learning theory has features that are useful for adults. Such theories take account of the learning environment, the learning material and the effect of learning on people and society. Therefore, when introducing any adult learning model, they should be treated as fundamental theories. It does not make sense to say that alternative learning strategies cannot exist outside or alongside behavioural approaches; the behavioural approach provides the basis for an education of a student as it tests measurable outcomes and offers required input.

2.2 Cognitivist Theory—Mental Process

On the other hand, the cognitivist theory focuses on the learning process rather than the observed behaviour. On contrasting to behaviourists, cognitivist do not need an external demonstration of learning, but rather rely more on internal processes and interconnection during learning. It

emphasizes the mental process which occurs inside the learners' mind. Mergel (1998) says that cognitivism is a process based on the process of thought behind the behaviour. There are behavioural changes and what occurs in the mind of the learner is observed. Cognitivism is a reaction against behaviourism, as behaviourists' tries to avoid or neglect the use of the mental process in the learners' mind which is not observable. Cognitive psychologists see second language acquisition, as the "building up of knowledge systems that can eventually be called automatically for speaking and understanding" (Lightbown & Spada, 1993). In this sense, language learning has certain features of Gestalt, since language learning is a holistic process and cannot be interpreted as stimulus-response associations. Languages learners are cautious to understand and develop/produce all aspects of the language. So step by step, through experience and practice, they can use other parts of their knowledge. Briefly, the cognitivist assert that language acquisition can be achieved automatically.

Stephen Krashen (1982), the representative of modern cognitive theory, claims that acquiring adults in second language involves conscious learning by means of a competent system for detecting and correcting errors. The Krashen input hypothesis suggests that the acquisition of adults in the second language should take the "I+1" theory model (I reflect the existing level; 1 is new); this is the most significant principle for adult learning as it not only applies to how language should be learned, but it also has a profound influence on the acquisition of adults ' second language. Besides, Krashen argues that adult second language acquisition requires emotional factors. Swain's comprehensible output hypothesis is addition and improvement to Krashen's theory. In the acquisition of the second language, Swain found it very important to have

language input, but this acquisition is not enough (Swain, 1995). In order to be able to accurately and fluently use the target language, learners not only need a lot of comprehensible output, their own comprehensible output must also be generated. First of all, Swain considers that the ability to perceive the difference between the expected expressive and the actual expressive language will activate the inner cognitive process of the learned. Second, he claims that the language output method is that the linguistic function of language success can be internalized. He also takes the second view last but not least. The behavioral theory considers adult learning as the way it should change behaviour. The cognitivist theory considers adult education as the way to develop cognitive, while the social theory considers adult learning to be the way to enhance social relationships

2.3 Second Language Acquisition and Adult Learners Theories

Adult learn language differently than children. Adults have a tendency to be more self-motivated and directed as they know the importance of learning and education unlike children they have a goal to achieve. Adult can utilize their existing knowledge to comprehend the new concepts or ideas. Adult learning theories emphasize the fact that in order to be successful, training programs must be designed with adults in mind. There is no specific unified theory of adult learning, but there are different theories that will address the requirements of various organizations. There are a variety of different theories of adult learning, and all of it begin with the same notion: adults are learning differently from children. Adult acquisition theories mainly include behavior theory, cognitive theory and interlanguage theory. These theories try to explain how people learn and the circumstances under which they learn.

Table 1. Adult Learning Theories and Their Major Principles

Adult Learning Theories	Major Principles
1. Andragogy	Difference between adults and Children, designs learning experience
2. Self-directed Learning	Formal training, individual plan
3. Transformational Learning	Learning experience, specific audience
4. Experiential Learning	Making sense of experiences
5. Project-based Learning	Actively explore a real-world issue.
6. Action Learning	Solving problems with simplifying solution

7. Behaviourism	a. Knowledge Construction b. Knowledge Acquisition and Utilisation c. Context of Learning d. Individual Difference and Personalisation e. Culture and Technology Practices Concerned with Learning in General f. Important Linguistic Input from the Environment g. Modeling h. Practice Reinforcement
8. Cognitivism	i. Habit Formation
9. Constructivism	Personal and cultural experience to contextualize new information
10. Social Learning Theory	Combined behaviorism and cognitivism

The theory of critical periods shows that after a certain age adults might have lost their natural language skills, so that they cannot acquire a second language with the same degree of ease as the child's mother-tongue learning. Some linguists claim they still can't fully learn second language (Yuan, 2010), while adults expend a lot of time and energy in second-languages.

There has been less work on SLA in adult learning contexts for English language learners. Work in this field is difficult due to the nuances of second-language English for adults (ESL). Researching and following learner advances over time are difficult when diverse and mobile learner populations and varying contexts of learning (e.g., working classes, general ESL classes, and family literacy classes) complicate them. Knowledge of the SLAs conducted can, however, be helpful for adult ESL teachers, as the findings may be relevant to their populations and contexts. The benefits of adult second-language learning are statistically greater than those of children. Adults have a greater degree of cognitive comprehension, interpretation and self-monitoring. Krashen said that adults can also easily acquire second language faster than children if the acquisition times are identical (Krashen, 1982). In addition to this researchers also claim that there is no difference between first and second language acquisition mechanism or the structural pattern that's throughout the life, the process of language learning is basically the same, adapting to other age-dependent faculties. If adults are interested in meaningful input, contexts they need and want, then they will learn languages like children. They also have the time and the confidence to make errors and produce successful results. In support to this view, researchers such as Birdsong (2005), Flege (2009), Montrul (2010), Muñoz & Singleton (2011), Rothman (2008b), Singleton (2005), also demonstrate that, relative to other aspects of adult learning, linguistic input and language skills play a greater role.

There are three aspects that aids adult in second-language acquisition according to Ellis (2013).

- a. Cognitive Level. Adult cognitive abilities have developed and their thought system has evolved in the course of learning second-language abilities in adults (Xia, 2002; Wang, 2009). In Piaget, a famous psychologist, cognitive evolution has been divided into three phases: pre-operative phase (2 to 7 years old), concrete stage (7-11) and formal stage (11 years to adulthood). Preoperative stage based on intuition and the understanding of the static, the value of child language and the absence of rational conversion have not yet been achieved. The child's language level has been improved at a specific operational stage and the fetters of static perception can be removed. The final stage of the Piaget cognitive development theory is the formal operational stage. Thinking gets even more complicated and advanced at this point in growth. Ausubel pointed out that some grammar explains may benefit adults, but children can't (Ausubel, 2000).
- b. Logical Thinking Skill. The fact that adults have a potential for logical thinking is one of the main strengths (Yao, 2011). The thinking style of adults has changed and the language consciousness is excellent. Adult maturity increases the potential of the brain and gives them good logical and reasoning skills, thus providing advantages in the grammar rules and the composition of sentences.
- c. Self-Monitoring Ability. The self-monitoring ability of adults is high during the second-language learning (Hong, 2014). In the learning process, adults analyze and correct the errors they commit. However, they may use various learning techniques to carry out autonomous learning, according to their own characteristics in different times. Adults, particularly for classroom teaching, have a strong initiative

Learning is more than a method of mentally recuperating the actions of the learner. It is an act of reflection of a subject. If there is a difference between personal convictions or experience and new views or ideas, people prefer to minimize this conflict either through altering their behavior, beliefs and actions or by legitimizing and internalizing their own beliefs and previous information. Learning is achieved by reinterpreting and rebuilding the self-representation and organizing the new experience. Enthusiasm and exposure to opportunities are essential factors that help people better act and increase their liberty. In this regard, the cognitivist approach shows important limits. The value of reflection and self-awareness gained by learners appears to be overlooked. For the learners it is indeed a crucial factor that can predict their self-development and self-sufficiency throughout their lives (see Fagan (1988), for example, on the importance of metacognition in adult literature). Their learning processes in their particular context.

In the cognitive sciences, many theoretical approaches to language learning have been aimed in the direction endorsed in these broad predictions of behavior analysis. The research team Tomasello (2003) and several colleagues (e.g., Fine & Lieven, 1993) contributed extensively to a usage language account. Language is considered to be crucially social, dependent on fundamental learning processes and fundamentally governed by social contingencies like joint participation and "meaningful" signals. The multiple variables affecting language acquisition are the basis of the multi-factor approach to social-pragmatic problems in Snow (1999) and Clark (2003) stresses the importance of pragmatics and wider social roles in language learning. Elman, in terms of brain-behavioral experiences (Elman, 1995; Elman, Bates, Johnson, Karmiloff-Smith, Parisi & Plunkett, 1996), considers language to be driven by multiple interactions, in which learning is a key explanatory factor in explaining the structure of a growth-language language. The same inference came from Bates and MacWhinney (1991; Bates & Carnevale, 1993; MacWhinney, 1996), who considered language acquisition to be motivated by multiple learning and proceeding constraints, which were organized around lexicons. Smith (2000) would also follow the two broad observations, as described above. These hypotheses on the basic theoretical level are explored here in recent behavioral theories concerning the untrained reaction of people. In fact, the overall study of behavior involves social contingencies as essential to linguistic education. Skinner used these contingencies as a description of language comprehension itself, as a start of verbal behavior (Schlinger, 1995). In particular, relational framework theory (Barnes-Holmes & Roche, 2001) considers the relationship between responses to emerge from a multiple-exemplary training (e.g. words in a sentence).

The perspective of this theory of generalized relation response gradually developing as exactly applicable with recent usage-based synthesis perspectives (Tomasello, 2003). Furthermore, applied behavior analysis context has worked to manage these different contingencies and ingredient variables such that verbal behavior is implemented or changed. Even though psycholinguists are quite commonly driven by applied contexts, the above-mentioned information could provide links to basic and applied contexts in behavior studies. The specifics can, however, lead to a dispute - to what extent mental constructs are referred to as the innate complex basic processes of language evolution and how comprehensive, syntax and word learning can be explained in functional analyses? The difference of opinion, nevertheless, often occurs in the cognitive sciences among various schools.

Some psycholinguists often claim quite strongly that "...the language, to a surprising extent, comes from a young human brain so that virtually any conditions of exposure short of complete isolation and maltreatment are enough for every child to experience it," (Gleitman & Newport, 2002, p. 685). The child is prepared for the speech and does not need to use it to learn it thoroughly. Input is more important from a behavioral point of view. Children and adults inevitably have substantial differences in cognition and development, but this should not mean that adults should be viewed as a static collection of principles, rules and patterns necessary to learn, preferably to a very fluent level before they even try to communicate. When learning additional languages, adults appear to lift the bar unrealistically.

3. Conclusion

For adult learners, behavioral learning methods, especially, but not restricted to vocational studies, set the groundwork for achievement (reward) and a desire to become life-long learners (reinforcement). However, there are some other aspects that needs be considered in adult second language acquisition like age, mode, motivation, device. Adults are complicated and extremely difficult in second language because of their age, their environment, their equipment, their style and motivation. Adult behaviour and weaknesses are much greater than infants, in their acquisition of second language, adults cannot avoid using the first or primary language.

Simultaneously, the influence of second language learning is significantly reduced by the negative transition of the native language. The learning features of children's language are distinctive and the processes are also very different from those of acquiring adults in their second language. It has been established that learning the mother tongue is both normal and simple, but it is difficult and complicated to acquire a second language for adults. The method of learning of mother tongues can be used to help improve adult acquisitions of second language. For instance, children try to imitate to learn about their environment's language. Adults also can follow the same

pattern in their learning, through repetition and practice, it can be achieved effectively. Besides, Adult learning activity is largely based on the language environment, and a number of communicative behaviors structure the language environment.

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