Review Article

A review of theoretical perspectives on language learning and acquisition

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ABSTRACT

This paper reviews three main theoretical perspectives on language learning and acquisition in an attempt to elucidate how people acquire their first language (L1) and learn their second language (L2). Behaviorist, Innatist and Interactionist offer different perspectives on language learning and acquisition which influence the acceptance of how an L2 should be taught and learned. This paper also explicates the relationship between L1 and L2, and elaborates on the similarities and differences between the two. This paper concludes that there is no one solid linguistic theory which can provide the ultimate explanation of L1 acquisition and L2 learning as there are many interrelated factors that influence the success of language acquisition or language learning. The implication is that teachers should base their classroom management practices and pedagogical techniques on several theories rather than a single theory as learners learn and acquire language differently. It is hoped that this paper provides useful insights into the complex process involved in language acquisition and learning, and contributes to the increased awareness of the process among the stakeholders in the field of language education.

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Introduction

It has become a continuous interest of psycholinguists to explain the similarities and differences in the way people acquire their first language (L1) naturally and learn their second language (L2). Saville-Toike (2012) made a distinction between L1 and L2 to clarify what these two terms mean. L1 is also referred to as native language, primary language, and mother tongue. The important feature of L1 is that it is a language which is acquired during early childhood, commonly before the age of three. L1 is usually acquired in the process of growing up with the people who speak the same language. L2 refers to two things; first, the study of individuals or groups who are learning a language

ensuing their L1 which they have learned as children and second, the process of learning that particular language. This additional language is called L2 albeit it might be the third, fourth, or the eighth language to be acquired. Researchers have debated this issue for years by using theoretical models such as Behaviorist, Innatist and Interactionist to further comprehend the phenomena of L1 acquisition and L2 learning.

In this paper, we review all the theoretical models mentioned above to get a better understanding of how people acquire L1 and learn L2. There is scattered research on the theoretical foundations of acquiring L1 and learning L2 (for example, Bhaskaran, 2012; Mendoza, 2011) that needs to be brought together for a comprehensive understanding of these phenomena. We also explicate the relationship between L1 and L2, and then elaborate on the similarities and differences between L1 and L2. Towards the end of this paper, implications for teachers are discussed.

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How Do We Acquire Our First Language (L1)?

L1 is one of the unexplainable mysteries surrounding us in our daily lives (Gallaso, 2003). A child learns language naturally, almost miraculously, as their language acquisition is rapidly developed with an apparent speed and accuracy that baffles parents. Maria Montessori, an Italian physician and educator who was responsible for the Montessori education which fundamentally believes in human development using an educational approach even said that *"The only language [people] ever speak perfectly is the one they learn in babyhood, when no one can teach them anything!"* (as cited in O'Grady & Cho, 2011, p. 326). Many parents believe that nothing is more pivotal in their children's lives than the ability to acquire language. Most children acquire language effortlessly, giving the impression that the process of L1 acquisition is simple and direct. However, this is not the case as children go through several stages in acquiring L1.

The ability to produce speech sounds emerges around six months of age, with the onset of babbling. Babbling gives children the chance to experiment and to practice their vocal apparatus, which is important for later speech development. Babbling will continue until the age of about twelve months, when during this age, children will produce intelligible words. When they have acquired fifty words or so, usually around the age of eighteen months, they will begin to adopt fairly regular patterns of pronunciation. According to O'Grady, Archibald, Aronoff, and Rees-Miller (2004), children adopt three strategies in learning the meanings of new words; firstly, the whole object assumption: where a new word refers to a whole object, secondly, the type assumption: where a new word refers to a type of thing, not just a particular thing, and thirdly, basic level assumption: where a new word refers to types of objects that are alike in basic ways. In relation to these strategies, children acquiring L1 generally make errors in meaning, for instance, over-extensions and under-extensions. Children also normally display some general patterns in L1 development, such as the frequent occurrence in utterance in the final position, syllabicity, for example —*ing* and *'s*, absence of homophony, few or no exceptions in the way grammar rules are applied, allomorphic invariance, and clearly discernible semantic function.

Children's L1 acquisition continues to flourish with the holophrastic stage where they utter single words. When they are around 18 months—24 months, they are able to combine words in two-word stages. By the age of around 24 months—30 months, they develop to the telegraphic stage where they are capable of uttering a clear phrase structure with head-complement and subject-VP patterns.

Children use babbling and cooing as well as crying to send and receive an astonishing number of messages from the people around them, especially their parents and family members who in return sometimes use 'Baby Talk' to regulate their speech to suit the children's still-developing-L1 competence. As the children grow up physically, so does their linguistic ability as they internalize more complex structures through an expansion of their vocabulary bank and also from their immediate social surroundings.

L1 Acquisition: Behaviorist, Innatist and Interactionist Theory

Lightbown and Spada (2006) explain L1 acquisition rather humorously by stating that based on Behaviorist Theory, L1 acquisition is *"Say what I say"* (p. 10), for Innatist Theory, *"It's all in your mind* (p. 15)" and for Interactionist Theory, *"A little help from my friends"* (p. 19) help L1 acquisition. From these phrases, we can conclude that each theory has different explanation as to how we acquire our L1.

According to the Behaviorist Theory, Skinner (1985) equated learning a language to verbal behavior. Therefore, he believes that language acquisition like any other behavior can be observed, rather than trying to explain the mental systems underlying these types of behaviors. To him, children are born with a blank state of mind or tabula rasa. Children acquire L1 through stimuli given to them and the responses of children are conditioned through reinforcement. A positive response will be conditioned through positive reinforcement like reward or praise and vice versa for a negative response which is conditioned with punishment. However, this simplistic view of L1 acquisition received criticisms, mainly from the advocates of Innatist Theory, among whom Chomsky (1959) believed that children are equipped with an innate template or blueprint for language, which is called the Language Acquisition Device (LAD) which accounts for the swift mastery of language among children despite the extremely abstract nature of language. It is believed that children do not start from scratch when it comes to language learning as they can acquire complex grammar quickly and without any particular help beyond the exposure to L1.

The concept of Universal Grammar (UG) explains the commonality of how children acquire language by learning rules in L1 which are presumed to be universal. Again, this theory also receives criticism, specifically from Interactionists like Piaget (as cited in Pascual-Leone, 1996) who insist that language is not a separate module of the mind as language represents the knowledge acquired through physical interaction between the children and the environment. Vygotsky (1978) also supports this view by stating that the conversations that children have with adults and other children are important as these conversations constitute the origins of both language and thought, where thought is essentially internalized speech and speech emerges in social interaction. Bloom (as cited in Ekehammer, 1974) also criticizes the Innatists' pivot grammar, as the relationship between a pivot word and an open word are not of the same nature. Bloom further concludes that children learn underlying structures and not superficial word order.

How Do We Learn a Second Language (L2)?

An L2 learner is different from a child acquiring the L1 in terms of the learners' characteristics and the environments in which L1 and L2 typically occur (Lightbown & Spada, 2006). First, learners' characteristics, especially learners' age, for L2 is usually older than children acquiring the L1. Moreover, L2 learners have already acquired at least one language and the prior knowledge in the L1 may prove to

be an advantage to them as they already have the idea of how language works. On the other hand, this knowledge might interfere with the learning of L2 where learners may make incorrect guesses on how L2 and its system differ from L1, a phenomena called interlanguage. L2 learners also possess cognitive maturity and metalinguistics awareness that would be useful for them in solving problems while engaging in discussions using L2.

The second difference is the environment, specifically the conditions in which L2 learning happens can also affect the rate of success in L2 learning (Ismail & Yusof, 2016). If the L2 learners are exposed to a nurturing and non-threatening environment, they are most likely succeed in learning L2. Rashid (2011), for instance, found that less proficient, young adults in Malaysian secondary schools learned English better when the teacher used children's stories as they did not feel threatened by the high-level vocabulary and complexities of the sentences. It is because of the concern to expose learners to a non-threatening environment that some native speakers adjust their speech to accommodate L2 learners by using 'Foreigner Talk' or 'Teacher Talk' (similar to 'Baby Talk' used by parents when talking to children acquiring the L1) if the L2 learning occurs in the classroom. These external factors can contribute to the development of L2 learning for older children and adults.

The brains of monolingual and bilingual people work in different ways (Wenner, 2009). According to Wenner, children who are bilinguals can solve problems much more easily compared to their monolingual counterparts. In addition, possessing knowledge of L2, despite it having been learned in adolescence, will affect reading in L1 because after learning L2, people never look at the words the same way as they did before learning L2. To substantiate this claim, Van Assche, Duyck, and Brysbaert (2013) carried out a study involving 45 Dutch speaking natives from the university who had mastered English at the age of 14 or 15. The study comprised two sections; first, the participants were asked to read a collection of sentences in Dutch, some of which included cognates, which are words that look similar and have equivalent meanings in both languages (for instance, the word 'sport', which has the same meaning in both Dutch and English) and secondly, the participants also read other sentences which contained non-cognate words in Dutch. The researchers recorded the eye movements of the participants as they read. It was found that on average, the participants spent eight fewer milliseconds gazing at cognate words, which consequently suggested that their brains processed the dual-language words quickly compared to the words found only in their native language. This study concluded that even when one is reading in one's native language; there is an influence from the knowledge of the non-dominant L2. It also proves that being bilingual helps to change one's automatic reading skills.

L2 Learning: Behaviorist, Innatist and Interactionist Theory

Behaviorism gave birth to stimulus–response (S–R) theory which strives to explain L2 learning as the acquisition of a set of structures through the process of habit formation (Powell, Honey, & Symbaluk, 2016). It only takes into account the linguistic environment and the stimuli produced by the L2 learners without regarding any internal mechanisms involved in learning the L2. Since behaviorists believe that learning is an observable behavior, automatically acquired from stimulus and response through mechanical repetition, L2 learning is nothing more than acquiring automatic linguistics habits.

Chomsky (1976) counterattacks the theory of Behaviorism by bringing into light his concept of Universal Grammar (UG) in which every human is biologically equipped to learn language using the language faculty or the Language Acquisition Device (LAD), which is responsible for the initial stage of language development. Based on the UG theory, the input from the environment alone is not sufficient to determine the success of L2 learning. The learners are viewed as processors of a mind that contains language and not just by repetition of mechanical aspects of language (Mitchel & Myles, 2004).

The Interactionists claim that language maturation results from the complex interplay between the unique human faculties and the environment of the L2 learners. Long (1985) and Rashid (2016a) stress the importance of interactional modification to L2 learners which makes the input comprehensible, therefore facilitating and promoting L2 learning. He argues that there are no cases where L2 learning occurs without some sort of modification on behalf of the native speakers to assist L2 learners in learning the target language. Nonetheless, there has been no conclusive evidence to suggest that comprehensible input affects L2 learning (Davies & Elder, 2004).

Rooted in Interactionist theory is social constructionism which is associated with Vygotsky's (1978) sociocultural perspective on learning. As highlighted by Rashid, Rahman, and Rahman (2016), constructionism is the most widely employed epistemological position in recent research on language learning. It is useful to discuss sociocultural theory based on the two themes proposed by Wertsch (1991, p. 18) as the themes reflect the 'assumption' of a sociocultural approach that "action is mediated and that it cannot be separated from the milieu in which it is carried out". The two themes are: 1) individual development, including higher mental functioning, originates in social sources; and 2) human action, on both the social and individual planes, is mediated by tools and signs.

The first theme is based on the concept of the Zone of Proximal Development (ZPD) (Vygotsky, 1978, p. 86), which is defined as: "the distance between the actual developmental levels as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers". Based on the definition of ZPD, it is clear that Vygotsky (1978) views language acquisition and learning occur from the interactions with other people, especially the more capable others, such as teachers or friends who are more fluent in the language. The second theme is based on Vygotsky's (1981, p. 137) concept of semiotic mediation where "language; various systems of counting; mnemonic techniques;

algebraic symbol systems; works of art; writing; schemes, diagrams, maps and mechanical drawings; all sorts of conventional signs and so on are all important in mediating social and individual functioning, and connecting the social and the individual". Vygotsky's semiotic mediation thus suggests that knowledge is not something directly internalized but rather, is developed through the use of socially-created 'psychological tools', that is, the shared interactions between individuals (John-Steiner & Mahn, 1996, p. 193).

Similarities and Differences Between L1 Acquisition and L2 Learning

McLauhglin (1981) argues that comparing and contrasting L1 acquisition and L2 learning means comparing and contrasting different learning situations, various input received and diverse cognitive and linguistic skills of the acquirers and learners. To provide relevant explanation, he further recommends four contexts of learning to explain the process of being bilinguals. Firstly, children who received balanced exposure to two languages develop both languages in the same way as monolinguals. In the beginning, children work from a single set of rules and in the process of learning, generally mix up both languages but gradually, both sets of rules for separate languages will become differentiated. Secondly, if, however, the exposure to both languages is less balanced, continual linguistic transfer may exist and there may be a high frequency of the introduction of the vocabulary from L1 into the grammatical system of L2 and vice versa. Thirdly, it is believed that there is a single language system that underlies both languages of the bilinguals. Fourthly, bilinguals develop two subsystems for L1 and L2 to make inferences about the structural complexity of both languages.

Saville-Toike (2012) and Zaid, Zakaria, Rashid, and Ismail (2016) support McLaughlin's (1981) claim by stating that linguists attempt to explain the similarities and differences of L1 acquisition and L2 learning by taking into account the linguistic competence, which is the underlying knowledge of that particular language and the linguistic performance, referring to the actual production by the learners at various stages of L1 acquisition or L2 learning. He states that behaviorists explain the success on acquiring L1 and learning L2 through a process of imitation and habit formation. On the other hand, Innatists claim that when a language is successfully acquired or learned, it is because humans have built-in mental or cognitive processes to represent the L1 and L2 in the brain. The Interactionists believe that group-related tasks account for the successful acquirers of L1 or learners of L2. Their theory also extends to communicative competence or pragmatic competence, aside from linguistic competence and linguistic performance. Communicative competence is an individual's ability to use language appropriately and in a socially acceptable manner. However, it should be kept in mind that no one, solid, linguistic theory can provide the ultimate explanation for the similarities and differences of L1 acquisition and L2 learning as there are many factors that influence the success in language acquisition or language learning.

Relationship Between L1 and L2: Behaviorist Theory

Behaviorists define learning as a permanent change in behavior, where the learners have no free will and are shaped entirely by their external environment (Ludescher, 2010). In order to be successful in L1 and L2, parents or teachers need to provide positive reinforcement whenever children or students perform a desired behavior. In time, they will learn to perform the behavior on their own.

In Behaviorism, there are two types of conditioning—classical conditioning and operant conditioning. Classical conditioning happens when learning occurs involuntarily when there is a conditioned response to a neutral stimulus after having been paired repeatedly with an unconditioned stimulus. In other words, classical conditioning can be likened to a reflex reaction. This theory can be used to explain L1 in children. When parents are trying to teach children manners, for instance, saying "thank you", the parents may (without them being aware of this particular behaviorist theory) train their children to politely say "thank you" or "please" by giving their children a toy or food and explaining to them that every time someone gives them something, they are supposed to say "thank you". Also, when they want to have something or ask for permission, the parents would teach the children to say "please" before proceeding with their request. Over time, the children learn how to say "thank you" and "please" even without their parents reminding them or without associating the utterance with giving the children something or letting them do something or go somewhere. The act and the language are learned naturally and become a habit for children.

Operant conditioning, where a favorable response that is given from a stimulus will be rewarded (reinforcement), can aptly justify L2 learning. In a formal classroom, when the teacher asks a question (stimulus) and if a student answers correctly (response), the student may receive a candy (reinforcement) from the teacher. Soon, this student will be motivated to answer questions that are posed by the teacher because the student knows every time a question is answered correctly, the respondent will get a reward (the reward may not necessarily be something physical, sometimes praise or approval will do). Other students in the classroom would also compete with each other to get the right answer for they will also be given a reward for every correct answer. However, if the students provide the wrong answer, the teacher would execute negative reinforcement or punishment. With a balanced and alternate use of positive and negative reinforcement, the teacher can control and train the students to learn L2 successfully.

Relationship Between L1 and L2: Innatist Theory

One of the best known Innatists, Krashen (1982), attempts to distinguish between L1 acquisition and L2 learning as he believes that there are two ways to develop competence in language. Firstly, language acquisition, which is a process similar to the way children develop their ability in L1; it is done subconsciously in the same way language acquisition happens. The language acquirers are

usually unaware of the fact that they are acquiring language, resulting in acquired competence where they generally have a "feel" for correctness and when sentences "sound right" or "feel right" without being aware of the specific grammatical rules. He posits that the language acquirers are only aware of the language that they are using during the communication process.

The second way is through language learning, where the process of learning L2 is done consciously. The L2 learners learn and know about the language rules, are aware of these rules, and are able to talk about them. Some people call L2 learning formal learning or explicit learning. In contrast, language acquisition is also known as informal learning or implicit learning or simply, picking-up a language. Krashen (1982) makes a distinction between acquisition and learning, stating that acquisition is implicit and subconsciously acquired in informal situations while learning is explicitly and consciously done in formal situations. Moreover, acquisition occurs when the language acquirers make use of grammatical "feel" while language learners use grammatical rules. The acquisition of language depends on the language acquirers' attitude while language learners' success depends on aptitude. In addition, language acquisition happens in a stable order while language learning is usually organized from simple to complex in order to ease learning.

Krashen (1985) introduces five hypotheses to explain language acquisition and language learning. First, in The Natural Order Hypothesis, learners acquire rules of language in a predictable order. Second, in The Acquisition/ Learning Theory, learners have two distinctive ways of developing competence in L2—acquisition is where the learners use language for real communication, while learning is where the learners know about the language. Third, in The Monitor Hypothesis, L2 learners are conscious of their learning process and this monitor can be used as an editor of their L2 progress. Fourth, is The Input Hypothesis, where language learners acquire language by understanding messages or by receiving comprehensible input. Fifth, in The Affective Filter Hypothesis, there is some sort of mental block that prevents input from entering the LAD. When the affective filter is low, knowledge of language can be acquired more easily or in simpler terms, when the learners' anxiety is lessened and their defensiveness to learning a language decreases, they will be more receptive to learning a language, thus creating an optimal learning environment where successful language learning can occur.

L2 learning bears a resemblance to L1 acquisition according to the Innatist Theory. Children acquire language through interacting with the people around them, for instance parents who accommodate children with 'Baby Talk', where the speech is typically slowed down, enunciation is more precise, and the tone is nurturing. Similarly, 'Foreigner Talk' or 'Teacher Talk' is used in an L2 classroom where native speakers speak in different ways to L2 learners to ensure a safe and non-threatening atmosphere, at the same time, allowing the input to be absorbed better by giving time for the L2 learners to be fully prepared and ready to produce the target language. Furthermore, when comprehensible input is ample, both children and adults are more successful in acquisition and learning of languages as more comprehensible input means greater language proficiency. Likewise, a lack of comprehensible input equates with poorer language proficiency.

Relationship Between L1 and L2: Interactionist Theory

The Interactionist Theory has been contributed to largely by Vygotsky and his Zone of Proximal Development (ZPD) Theory. In explaining his notion of ZPD, Vygotsky (1978) argues that: "By means of copying, the child is able to perform much better when together with and guided by adults than when left alone, and can do so with understanding and independently. The difference between the level of solved tasks that can be performed with adult guidance and help and the level of independently solved tasks is the zone of proximal development" (as cited in Erben, Ban, & Castaneda, 2009, p. 53).

When children come across a problem that they cannot solve by themselves, they seek help from the people around them like their parents, siblings, or immediate family members (Rashid, Mohamed, Rahman, & Wan Shamsuddin, 2017). Therefore, this effort of collaborating with others is an important step in acquiring L1 for the children. Without this collaboration, language development is not possible. Vygotsky believes that children take part intellectually in their community by using language. The collaboration between the children with members of the community will spark development in language through the process of negotiating meaning.

Those learning L2, for example, in a language classroom, benefit for the teacher's assistance and classmates' help to learn the language productively. Since the classroom can be considered as a community of its own, with its own rules and authorities (class monitors or teachers), the classroom can be a simulation of real-life tasks, in terms of communicating with each other and getting to know how interaction takes place in different contexts and situations. Moreover, the teacher can exemplify real social interactions by means of varying classroom activities like role-play, drama, choral speaking, or simply by grouping students to work co-operatively with their fellow classmates, whom they know personally and are comfortable to be with so that they have little or no problem communicating using the L2 to negotiate the task given by the teacher. They would also feel safe to speak up and not feel threatened or embarrassed if they make any mistakes while interacting using L2 among their peers.

The Interactionist Theory relates the language development of acquirers or learners to social interaction (Rashid, 2016b). Ziglari (2008) divides social interaction into interpersonal and intrapersonal. Interpersonal interaction occurs when the acquirers or learners are communicating face-to-face via an oral medium or written medium. In contrast, intrapersonal interaction happens inside the acquirers or learners as they try to construct meaning as a response to a phenomenon. Doughty and Long (2003) further clarify the term interaction by stating that interaction happens when participants of equal status who share the same needs, try to make an effort to understand each other. Gass and Torres (2005) add to the

Interactionist Theory that interaction refers to exchanges of information in which there are some utterances that are not understood and it is through the process of error corrections that the attention of the acquirers or learners is drawn to the particular language structures. Gass and Torres believe that input plus interaction will enhance language acquisition or language learning.

Implications for Teachers

For teachers, classroom management and the pedagogical techniques in the classroom will pretty much be influenced by how the teachers view L1 acquisition and L2 learning. If the teachers adopt the Behaviorist Theory, they would most probably rely heavily on rote learning using repetition to fossilize the behavior of students. To substantiate, if the students answer correctly, the teacher would praise the students to positively reinforce the desired behavior. On the contrary, if the students make some mistakes, the teacher would put negative reinforcement into effect such as reprimanding the students or repeating the students' answer but with applied correction. Teachers who adopt the Behaviorist Theory in their language teaching would view language learning as a learned behavior which can be altered, modified, and reinforced by means of positive and negative reinforcement.

Teachers who believe in the Innatist Theory would most probably adhere to a more student-centered classroom where the students feel at ease and are not threatened by the teacher and their peers. The teacher would ensure that the students' anxiety about embarking on a new voyage of language learning would be safe with 'life-jackets' and 'buoys' which students can grasp in moments of 'near drowning' from the unknown and confusion of unfamiliar terms and grammar rules of the L2. The teacher would also most probably delay the inevitable language testing to avoid students clamping shut when it comes to communicating. The teacher would foster a 'silent period' where the students are not required to provide output, instead they would just receive the input for an inordinate amount of time. Eventually, students would muster enough courage and confidence to gather all the input received and provide reasonable output.

Teachers who adopt the Interactionist Theory as their guiding principle in language teaching would try to get the students to participate in collaborative group work, where the students are able to put their social skills to good use as a stepping stone towards successful language learning, as these teachers believe the more the students use the language interactively, the better their chances of learning the language effectively. The teacher would also most probably administer a diagnostic test before the language class begins to group students of more or less the same linguistic ability in order to make their communication attempts viable and meaningful. Students might be required to write a short journal or blog post as a form of intrapersonal communication to detail their progress in the language learning. After all, Interactionists believe language learning works best when the language is practiced and is being put to use, ideally in both interpersonal and intrapersonal communication.

Conclusion

To explain the similarities and differences between L1 acquisition and L2 learning with regard to Behaviorism, Innatism and Interactionism is an exhaustive task because there are many factors to be considered when making the distinction between L1 acquisition and L2 learning according to the proposed theoretical models. Acquirers or learners have a wide variety of characteristics and the process of acquisition and learning occurs in a broad range of contexts. It can be asked whether the acquirers or learners possess the cognitive maturity to process the linguistic input? How about their metalinguistic awareness and schemata? Are they anxious or defensive in speaking using the language? And as for the contexts; are they given ample time and enough comprehensible input to produce the language? Were the inputs modified to suit the level of proficiency of acquirers or learners as well as their readiness to accept the input? Are corrective feedbacks employed to ensure success in language acquisition or learning? These questions have hopefully been answered through the discussion provided in this paper. Nonetheless, it is reiterated that there is no single theory that can perfectly explain the relationship between L1 acquisition and L2 learning, as each theory has its own plausible explanations and beliefs as well as limitations.

Behaviorism believes in stimuli, responses, and reinforcement but fails to mention the cognitive processes involved in language acquisition or learning. The main domain of Innatism is LAD and UG which posit that humans are mentally equipped to learn language but it also omits the role of environment in language acquisition or learning. Interactionism only explains the paramount importance of interaction to ensure thriving language acquisition or learning but does not mention the other prerequisites of language development. Thus, suffice it to say that only by combining all three theoretical models can one satisfactorily elaborate on L1 acquisition and L2 learning.

Conflict of interest

There is no conflict of interest.

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