PRINCIPLES OF SECOND LANGUAGE ACQUISITION IN CHILDREN

Haerazi (1)
(alhaerazi83@gmail.com(1))
Faculty of Education for Language and Art (FPBS)
Mataram Institute of Teacher Training and Education (IKIP)

ABSTRACT
To understand the principles of second language acquisition, we could adopt a variety of perspective. Research on second language acquisition (SLA) by children and adults is characterized by many different subfields and perspectives, both cognitive and social in orientation. Although children feature as participants in this research, it is relatively rare to find reviews or overviews of SLA that deal specifically with child SLA although there are a few important exceptions. This general lack of focus on children’s SLA is somewhat surprising, considering that data from children as first language learners have often provided a basis and impetus for SLA theorizing. Among the best-known first language studies to prove influential was Brown’s seminal work showing a predictable order of morpheme acquisition by children under the age of three. Many early years settings now welcome children and families from different cultures who use languages other than English. Young children who are starting to learn English as an additional language may also be attending a nursery school, pre-school, day nursery or child-minder perhaps for the first time. They will bring with them many skills and experiences from their home culture and will be both anxious and excited about their new situation. A good foundation for learning English as an additional language is embedded in quality early years practice. To know more about the principle of second language acquisition in children, this paper will present some issues related with it such as the nature and the role of language learning and the logical problem in language learning.

Keywords: The Principles of Language Learning and Second Language Acquisition

INTRODUCTION
One hypothesis holds that children learn language by imitating what adults say, by trying to repeat what they hear. However, several facts, showing that there is no necessary similarity between linguistic input and linguistic output, militate against this hypothesis. First, studies of parents’ speech suggest that children are usually not influenced by caregivers’ speech style. Second, children continually produce novel utterances in two senses. For one thing, they hear a finite number of sentences, but they come to be able to produce and understand indefinitely many sentences, including vast numbers they have never heard and therefore cannot be imitating. For
another thing, children produce utterances that they cannot have heard before, because the adult speakers in their environment do not produce them. For these reasons, we have to know the principles of second language acquisition. The principles of second language acquisition were made as foundations to teach second language in language teaching and learning. To understand the principles of second language acquisition, we could adopt a variety of perspective. Research on second language acquisition (SLA) by children and adults is characterized by many different subfields and perspectives, both cognitive and social in orientation. Although children feature as participants in this research, it is relatively rare to find reviews or overviews of SLA that deal specifically with child SLA although there are a few important exceptions. This general lack of focus on children’s SLA is somewhat surprising, considering that data from children as first language learners have often provided a basis and impetus for SLA theorizing. Among the best-known first language studies to prove influential was Brown’s seminal work showing a predictable order of morpheme acquisition by children under the age of three (Jenefer Philp, Alison Mackey, and Rhonda Oliver, 2008: 03).

Many early years settings now welcome children and families from different cultures who use languages other than English. Young children who are starting to learn English as an additional language may also be attending a nursery school, preschool, day nursery or child-minder perhaps for the first time. They will bring with them many skills and experiences from their home culture and will be both anxious and excited about their new situation. A good foundation for learning English as an additional language is embedded in quality early years practice.

**DISCUSSION**

**The Nature of Language Learning**

Fundamental to understanding of the nature of SLA is an understanding of what it is that needs to be learned. A facile answer is that a second language learner needs to learn the ‘grammar’ of the language target, but what is meant by this? What is language, how can we characterize the knowledge that humans have of language? All humans acquire a language in the first few years of life. The knowledge acquired is largely of an unconscious sort. That is, very young children learn how to form particular grammatical structures, such as relative clauses. They also learn that relative clauses often have modifying function, but in a conscious sense they do not know that it is a relative clause and could presumably not state relative clauses are used for.

Muriel Seville Troike (2006: 12) gave us illustration that much of your own first language acquisition was completed before you ever came to
school, and this development normally takes place without any conscious effort. By the age of six months an infant has produced all of the vowel sounds and most of the consonant sounds of any language in the world, including some that do not occur in the language(s) their parents speak. If children hear English spoken around them, they will learn to discriminate among those sounds that make a difference in the meaning of English words (the phonemes), and they will learn to disregard those that do not. If the children hear Spanish spoken around them, they will learn to discriminate among some sounds the English speaker learns to ignore, as between the flapped r in pero ‘but’ and the trilled rr in perro ‘dog,’ and to disregard some differences that are not distinctive in Spanish, but vital to English word-meaning, as the sh and ch of share and chair.

On average children have mastered most of the distinctive sounds of their first language before they are three years old, and an awareness of basic discourse patterns such as conversational turn-taking appear at an even earlier age. Children control most of the basic first language grammatical patterns before they are five or six, although complex grammatical patterns continue to develop through the school years.

The same natural and generally effortless learning processes take place when there is significant exposure to more than one language in early childhood. If young children hear and respond to two (or more) languages in their environment, the result will be simultaneous multilingualism (multiple L1s acquired by about three years of age). As noted in the first chapter, simultaneous multilingualism is not within the usual scope of study in SLA, which focuses on sequential multilingualism(L2s acquired after L1).

Our understanding of (and speculation about) how children accomplish the early mastery of L1(s) has changed radically in the past fifty years or so, primarily owing to developments in linguistics and psychology. It was once suggested that first language acquisition is in large part the result of children’s natural desire to please their doting parents, who wait impatiently for them to utter a recognizable word. Yet the offspring of even relatively indifferent parents successfully acquire language at about the same rate. Others argued that children’s language acquisition is purposive, that they develop language because of their urge to communicate their wants and needs to the people who take care of them. This has not proven to be an adequate explanation, however, since within children’s limited sphere of activity, communicative needs seem to be largely satisfied by gesture and such non-speech sounds as squeals, whines, grunts, and cries.

Perhaps the most widely held view by the middle of the twentieth century was that children learn language by imitation (the
stimulusresponse theory). While it is true that much of children’s initial language learning can be attributed to their imitation of sounds and words around them, many of their utterances are quite original and cannot be explained as imitations at all, since they can never have heard them before. The two following terms mostly influenced in language learning.

The role of natural ability

Humans are born with a natural ability or innate capacity to learn language. Such a predisposition must be assumed in order to explain several facts: (1) Children begin to learn their L1 at the same age, and in much the same way, whether it is English, Bengali, Korean, Swahili, or any other language in the world. (b) Children master the basic phonological and grammatical operations in their L1 by the age of about five or six, as noted above, regardless of what the language is. (c) Children can understand and create novel utterances; they are not limited to repeating what they have heard, and indeed the utterances that children produce are often systematically different from those of the adults around them. (d) There is a cut-off age for L1 acquisition, beyond which it can never be complete. (e) Acquisition of L1 is not simply a facet of general intelligence.

In viewing the natural ability to acquire language in terms of innate capacity, we are saying that part of language structure is genetically “given” to every human child. All languages are incredibly complex systems which no children could possibly master in their early years to the degree they succeed in doing so if they had to “learn” them in the usual sense of that word. Children’s ability to create new utterances is remarkable, and their ability to recognize when a string of common words does not constitute a grammatical sentence in the language is even more so. For example, children acquiring English L1 can recognize early on that Cookiesme give is ungrammatical. They have never been told, surely, that the particular group of words is not an English sentence, but they somehow know, nevertheless. If a child had to consciously learn the set of abstract principles that indicate which sequences of words are possible sentences in their language as opposed to those that are not, only the smartest would learn to talk, and it would take them many more years than it actually does. This is part of “the logical problem of language acquisition,” which is discussed further below.

The role of social experience

Not all of L1 acquisition can be attributed to innate ability, for language specific learning also plays a crucial role. Even if the universal properties of language are preprogrammed in children, they must learn all of those features which distinguish their L1 from all other possible human languages.
will never acquire such language-specific knowledge unless that language is used with them and around them, and they will learn to use only the language(s) used around them, no matter what their linguistic heritage. American-born children of Korean or Greek ancestry will never learn the language of their grandparents if only English surrounds them, for instance, and they will find their ancestral language just as hard to learn as any other English speakers do if they attempt to learn it as an adult. Appropriate social experience, including L1 input and interaction, is thus a necessary condition for acquisition.

Intentional L1 teaching to young children is not necessary and indeed may have little effect. Some parents “correct” their children’s immature pronunciation and grammar but most do not, and there is no noticeable change in rate of acquisition among children who receive such instruction. Some adults simplify both grammar and word choice, adding more complex structures as the child does, but adults’ notion of “simplicity” does not correspond to the actual sequence in language acquisition. Some adults imitate children’s language production, and in this imitation, they sometimes provide expansions of children’s structures (such as saying Yes, that's a big brown dog in response to the child saying That dog). The expansion may play a role in developing children’s ability to understand new forms, but it cannot be considered necessary since many children do not receive this type of input and still develop language at essentially the same rate.

Sources of L1 input and interaction vary depending on cultural and social factors. Mothers’ talk is often assumed to be the most important source of early language input to children, but fathers or older siblings have major childrearing responsibilities in many societies and may be the dominant source of input, and wealthier social classes in many cultures delegate most of the childrearing responsibilities to nannies or servants. The relative importance of input from other young children also varies in different cultures, as does the importance of social institutions such as nursery schools.

### L1 Versus L2 Learning

This brief comparison of L1 and L2 learning is divided into three phases. The first is the initial state, which many linguists and psychologists believe includes the underlying knowledge about language structures and principles that is in learners’ heads at the very start of L1 or L2 acquisition. The second phase, the intermediate states, covers all stages of basic language development. This includes the maturational changes which take place in what I have called “child grammar,” and the L2 developmental sequence which is known as learner language (also interlanguage or IL). For this phase, we will compare processes of L1 and L2 development, and then compare the conditions
which are necessary or which facilitate language learning. The third phase is the **final state**, which is the outcome of L1 and L2 learning.

**Initial state**

While the initial state in children’s minds for L1 almost surely is an **innate capacity** to learn language, it is not at all certain whether or not such natural ability is part of the initial state in older learners for L2 acquisition (hence the “?” in 2.2). Some linguists and psychologists believe that the genetic predisposition which children have from birth to learn language remains with them throughout life, and then differences in the final outcomes of L1 and L2 learning are attributable to other factors. Others believe that some aspects of the innate capacity which children have for L1 remain in force for acquisition of subsequent languages, but that some aspects of this natural ability are lost with advancing age. Still others believe that no innate capacity for language acquisition remains beyond childhood, and then subsequent languages are learned by means which are more akin to how older learners acquire other domains of knowledge, such as mathematics or history.

Because it is impossible for us to observe mental capacity for language learning directly, the different beliefs are based largely on theoretical assumptions and are tested by indirect methods which individuals who come from different disciplinary perspectives may not agree on. For example, many linguists rely on learners’ ability to judge which L2 utterances are not possible (such as the *Cookies me give* example mentioned above), an aspect of children’s L1 competence which is attributed to innate capacity. Many who take a social perspective tend to reject such judgments of (un)grammaticality as convincing evidence because they result from artificial tasks which do not include actual circumstances of L2 interpretation and use. Many who take a psychological perspective in turn reject socially constituted evidence (such as natural language production) because the many variables which go along with actual social usage cannot be controlled for experimental investigation. So, although the question of the extent to which innate capacity for language acquisition remains available in SLA is a very interesting and important one, it is likely to remain unresolved for some years to come.

There is complete agreement, however, that since L2 acquisition follows L1 acquisition, a major component of the initial state for L2 learning must be prior knowledge of L1. This entails knowledge of how language (in general) works, as well as a myriad of language-specific features which are only partially relevant for production of the new L2. This prior knowledge of L1 is responsible for the **transfer** from L1 to L2 during second language development, which we will consider as part of the second phase of L1 versus L2 learning.
L2 learners also already possess real-world knowledge in their initial state for language acquisition which young children lack at the point they begin learning their L1. This has come with cognitive development and with experience by virtue of being older. The initial state for L2 learning also includes knowledge of means for accomplishing such interactional functions as requesting, commanding, promising, and apologizing, which have developed in conjunction with L1 acquisition but are not present in the L1 initial state.

The initial state of L1 learning thus is composed solely of an innate capacity for language acquisition which may or may not continue to be available for L2, or may be available only in some limited ways. The initial state for L2 learning, on the other hand, has resources of L1 competence, world knowledge, and established skills for interaction, which can be both an asset and an impediment.

**Intermediate state**

Both L1 and L2 learners go through intermediate states as they progress from their initial to their final state linguistic systems. There is similarity in that the development of both L1 and L2 is largely systematic, including predictable sequencing of many phenomena within each and some similarity of sequencing across languages, and in the fact that L1 and L2 learners both play a creative role in their own language development and do not merely mimic what they have heard or been taught.

**Processes**

Development, as we have seen, is a spontaneous and largely unconscious process in L1 child grammar, where it is closely correlated with cognitive maturation. As noted above, as children mature, so do their language abilities. In contrast, the development of learner language (or inter-language) for L2 learners occurs at an age when cognitive maturity cannot be considered a significant factor; L2 learners have already reached a level of maturity where they can understand and produce complex utterances in their L1, and level of maturity is not language-specific. Processes other than maturation must be involved to explain development in SLA. Just as we cannot directly observe mental capacity, we cannot directly observe developmental processes, but we can infer from the utterances which learners understand and produce at different stages what processes are possibly taking place. This addresses the fundamental how question of SLA, which we will explore from different perspectives in the chapters which follow. While answers to this question vary, there is general agreement that cross-linguistic influence, or transfer of prior knowledge from L1 to L2, is one of the processes that is involved in inter-language development. Two major types of transfer which occur are: Positive transfer, when an L1 structure or rule is used in an L2 utterance and that use is appropriate or “correct” in the L2; and Negative
transfer (or interference), when an L1 structure or rule is used in an L2 utterance and that use is inappropriate and considered an “error.”

Cross-linguistic influence occurs in all levels of IL: vocabulary, pronunciation, grammar, and all other aspects of language structure and use. Positive transfer facilitates L2 learning because an L1 structure or rule that also works for L2 means that a new one doesn’t have to be learned. For example, a word that has essentially the same form and meaning in both languages can transfer appropriately from L1 to L2: e.g. exterior ‘outside’ is a word in both Spanish and English (pronounced differently, but with the same spelling and meaning). Negative transfer of L1 features can often be inferred from forms in the second language which are unlike any that are likely to be produced by a native speaker of the L2, or are an integration of elements which would not occur in monolingual speech.

Necessary condition

Language input to the learner is absolutely necessary for either L1 or L2 learning to take place. Children additionally require interaction with other people for L1 learning to occur. In contrast, while reciprocal social interaction generally facilitates SLA, it is not a necessary condition. It is possible for some individuals to reach a fairly high level of proficiency in L2 even if they have input only from such generally non-reciprocal sources as radio, television, or written text. The role of input and interaction in SLA is also discussed in next chapter.

Facilitating condition

While L1 learning by children occurs without instruction, and while the rate of L1 development is not significantly influenced by correction of immature forms or by degree of motivation to speak, both rate and ultimate level of development in L2 can be facilitated or inhibited by many social and individual factors. Identifying and explaining facilitating conditions essentially addresses the fundamental why question of SLA: why are some L2 learners more successful than others? Some of the conditions which will be explored in chapters that follow are: (1) feedback, including correction of L2 learners’ errors; (2) aptitude, including memory capacity and analytic ability; (3) motivation, or need and desire to learn; and (4) instruction, or explicit teaching in school settings.

The final state is the outcome of L1 or L2 learning. The final state of L1 development by definition is native linguistic competence. While vocabulary learning and cultivation of specialized registers (such as formal academic written style) may continue into adulthood, the basic phonological and grammatical systems of whatever language(s) children hear around them are essentially established by the age of about five or six years (as we have already noted), along with vocabulary knowledge and interaction skills that are adequate for fulfilling
communicative functions. This is a universal human achievement.

The processes of Language Learning in Children

Language Learning through Imitation

One hypothesis holds that children learn language by imitating what adults say, by trying to repeat what they hear. However, several facts, showing that there is no necessary similarity between linguistic input and linguistic output, militate against this hypothesis. First, studies of parents' speech suggest that children are usually not influenced by caregivers' speech style. Newport, Gleitman, and Gleitman (via Maria Guasti, 2008: 11) have shown that a high proportion of parents' utterances are questions (What do you want?) and commands (Get the toy car!) and only 25% are simple declaratives. By contrast, simple declaratives are the first kind of sentence that children mostly produce. Second, children continually produce novel utterances, in two senses. For one thing, they hear a finite number of sentences, but they come to be able to produce and understand indefinitely many sentences, including vast numbers they have never heard and therefore cannot be imitating. For another thing (and this is the most compelling evidence against the acquisition-through-imitation hypothesis), children produce utterances that they cannot have heard before, because the adult speakers in their environment do not produce them.

Language Learning through Reinforcement

Behaviorist psychologists have claimed that language is learned through the mechanism of reinforcing the contingent association between stimulus and response, the same general-purpose mechanism that is invoked to explain other learning processes in animals and in humans. According to this view, children learn language because they are positively reinforced when they produce correct verbal expressions, negatively reinforced when they make errors. Although the learning-through-reinforcement hypothesis is simple, it cannot explain how humans acquire language and cannot characterize human linguistic competence, as Chomsky (1959) details in his review of Skinner 1957. First, like the acquisition-through-imitation hypothesis, it cannot explain the fact that children acquire competence over requiring no extraordinary aptitude or effort.

This is well known that English learners over regularize irregular past tense verbs and say for example goed instead of went and singed instead of sang, although they have never heard these forms, because adults do not use them. In the same vein Guasti, Thornton, and Wexler (1995) have found that English-speaking children aged 4-5 years produce negative questions with the form in (15). No adult utters such sentences; thus, children cannot have learned them by imitation.
an indefinite number of sentences: they understand and produce sentences they have never heard and produced before, that is, for which no reinforcement was provided. Second, parents generally pay attention to what children say and not how they say it. If a child asks a question, the adult will hardly check for its grammatical correctness, but will simply answer.

**Language Learning through Association**

Another hypothesis about how language acquisition occurs is expressed by an approach called connectionism, neural networks, or parallel distributed processing. At the outset it is worth noting, as does Marcus (2001), that the term connectionism is ambiguous. Generally it is associated with the idea that brain circuits do not support the representation of symbols and rules; connectionist models are thus usually opposed to models in which symbols are manipulated. However, in addition to symbol- and rule-free models, there exist connectionist models whose goal is to explain how symbolic manipulations can be implemented in a neural substrate. The remarks that follow apply to models that aim at eliminating symbols and rules. Connectionist models or artificial neural networks are inspired by a coarse metaphor of the brain, in that they consist of several interconnected neuronlike processing units modified by learning associations between input (stimulus) and output (response) patterns.

Interactions among these units give rise to behavior that simulates, sometimes very accurately and precisely, actual human behavior. A network consists at least of input and output units connected by modifiable weighted links. During the learning phase the network is presented with examples of both input and output. Given an input, the network is modifiable the weights of its connections so as to produce the correct output. After learning, the network can generalize to new stimuli provided they belong to the same class of stimuli used in the training phase. Notice that in these models neither nodes nor links correspond to linguistic categories or rules. These are represented in the network by various patterns of activation among links. Here we will briefly look at some linguistic phenomena connectionists have sought to account for, noting simply that many intricate aspects of language acquisition and of human linguistic competence still await explanation within a connectionist approach.

**Universal Grammar**

Universal Grammar (UG) continues the tradition which Chomsky introduced in his earlier work. Two concepts in particular are still of central importance: (1) what needs to be accounted for in language acquisition is linguistic competence, or speaker-hearers’ underlying knowledge of language. This is
distinguished from linguistic performance, or speaker-hearers’ actual use of language in specific instances. (2) Such knowledge of language goes beyond what could be learned from the input people receive. This is the logical problem of language learning, or the poverty-of-the-stimulus argument.

Chomsky and his followers have claimed since the 1950s that the nature of speaker-hearers’ competence in their native language can be accounted for only by innate knowledge that the human species is genetically endowed with. They argue that children (at least) come to the task of acquiring a specific language already possessing general knowledge of what all languages have in common, including constraints on how any natural language can be structured. This innate knowledge is in what Chomsky calls the language faculty, which is “a component of the human mind, physically represented in the brain and part of the biological endowment of the species” (Chomsky 2002:1). What all languages have in common is Universal Grammar.

If a language faculty indeed exists, it is a potential solution to the “logical problem” because its existence would mean that children already have a rich system of linguistic knowledge which they bring to the task of L1 learning. They wouldn’t need to learn this underlying system, but only build upon it “on the basis of other inner resources activated by a limited and fragmentary linguistic experience” (Chomsky 2002:8). In other words, while children’s acquisition of the specific language that is spoken by their parents and others in their social setting requires input in that language, the acquisition task is possible (and almost invariably successful) because of children’s built-in capacity. One of the most important issues in a UG approach to the study of SLA has been whether this innate resource is still available to individuals who are acquiring additional languages beyond the age of early childhood.

The Logical Problem of Language Learning

How is it possible for children to achieve the final state of L1 development with general ease and complete success, given the complexity of the linguistic system which they acquire and their immature cognitive capacity at the age they do so? This question forms the logical problem of language learning. The “problem” as it has been formulated by linguists relates most importantly to syntactic phenomena. As noted in the preceding section, most linguists and psychologists assume this achievement must be attributed to innate and spontaneous language-learning constructs and/or processes. The notion that innate linguistic knowledge must underlie language acquisition was prominently espoused by Noam Chomsky (1957, 1965), who subsequently formulated a
theory of **Universal Grammar** which has been very influential in SLA theory and research (to be discussed in Chapter 3). This view has been supported by arguments such as the following:

**Children’s knowledge of language goes beyond what could be learned from the input they receive**

This is essentially the **poverty-of-the-stimulus** argument. According to this argument, children often hear incomplete or ungrammatical utterances along with grammatical input, and yet they are somehow able to filter the language they hear so that the ungrammatical input is not incorporated into their L1 system. Further, children are commonly recipients of simplified input from adults, which does not include data for all of the complexities which are within their linguistic competence. In addition, children hear only a finite subset of possible grammatical sentences, and yet they are able to abstract general principles and constraints which allow them to interpret and produce an infinite number of sentences which they have never heard before. Even more remarkable, children’s linguistic competence includes knowledge of which sentences are not possible, although input does not provide them with this information: i.e. input “underdetermines” the grammar that develops. Almost all L1 linguistic input to children is **positive evidence**, or actual utterances by other speakers which the children are able to at least partially comprehend. Unlike many L2 learners, children almost never receive any explicit instruction in L1 during the early years when acquisition takes place, and they seldom receive any **negative evidence**, or correction (and often fail to recognize it when they do).

**Constraints and principles cannot be learned**

Children’s access to general constraints and principles which govern language could account for the relatively short time it takes for the L1 grammar to emerge, and for the fact that it does so systematically and without any “wild” divergences. This could be so because innate principles lead children to organize the input they receive only in certain ways and not others. In addition to the lack of negative evidence mentioned above, constraints and principles cannot be learned in part because children acquire a first language at an age when such abstractions are beyond their comprehension; constraints and principles are thus outside the realm of learning processes which are related to general intelligence.

According to Jackendoff (1997: 5) approaches this capacity in children as a “paradox of language acquisition”: If general-purpose intelligence were sufficient to extract the principles of mental grammar, linguists (or psychologists or computer scientists), at least some of whom have more than adequate
general intelligence, would have discovered the principles long ago. The fact that we are all still searching and arguing, while every normal child manages to extract the principles unaided, suggests that the normal child is using something other than general-purpose intelligence.

*Universal patterns of development cannot be explained by language-specific input*

Linguistic input always consists of the sounds, words, phrases, sentences, and other surface-level units of a specific human language. However, in spite of the surface differences in input (to the point that people who are speaking different languages can’t understand one another), there are similar patterns in child acquisition of any language in the world. The extent of this similarity suggests that language universals are not only constructs derived from sophisticated theories and analyses by linguists, but also innate representations in every young child’s mind.

For a long time, people thought that children learned language by imitating those around them. More recent points of view claim that children have an innate language ability. There are three major arguments supporting this notion. First of all, children often say things that adults do not. This is especially true of children’s tendency to use regular patterns to form plurals or past tenses on words that would have irregular formation. Children frequently say things like *goed, mans, mouses*, and *sheeps*, even though it is highly unlikely that any adult around them ever produced such forms in front of them. We also know that children do not learn language simply by imitation because they do not imitate adult language well when asked to do so.
REFERENCES


