

## MENTAL ACTIVITY ON THE PROCESS OF LANGUAGE ACQUISITION

**Kokok Djoko Purwanto**

Department of English Education, Faculty of Language and Art, University of Indraprasta PGRI  
Jalan Nangka No. 58C Tanjung Barat, Jagakarsa, Jakarta Selatan 12530  
kokok\_purwanto@yahoo.co.id

### ABSTRACT

In the process of speaking or writing, in fact we do mental activity that will be reflected on the language we perform, known as 'Language Acquisition'. Most people do not realize that practicing language is a kind of extra-ordinary complicated skill. Using language seems natural for as a baby without being taught by anyone, he will grow along with his own language. From the age of one year until one and a half, the baby can produce the language that is identified as a word. Then the word-utterance becomes two words and so on, until they will finally enlarge as a complex sentence when he is four or five years old. After we have grown up, we speak as if we do not think, by the time we would like to say something, at the same time we produce sounds called language.

Key words: mental activity, language acquisition, words

### ABSTRAK

*Di dalam proses berbahasa, sesungguhnya kita melakukan aktifitas mental yang kemudian tertuang dalam wujud bahasa yang kita gunakan, atau disebut 'Pemerolehan Bahasa'. Orang pada umumnya tidak merasakan bahwa menggunakan bahasa merupakan suatu keterampilan yang luar biasa rumit. Pemakaian bahasa terasa wajar, lumrah karena memang tanpa diajari oleh siapapun, seorang bayi akan tumbuh bersamaan dengan pertumbuhan bahasanya. Dari usia satu sampai satu setengah tahun, seorang bayi akan mulai mengeluarkan bentuk- bentuk bahasa yang telah dapat kita identifikasi sebagai kata, ujaran satu kata ini tumbuh menjadi ujaran dua kata dan akhirnya menjadi kalimat yang kompleks menjelang umur empat atau lima tahun. Setelah kita dewasa, kita memakai bahasa kita seolah- olah tanpa berpikir. Begitu kita ingin mengungkapkan sesuatu, pada saat itu pulalah kita mengeluarkan bunyi- bunyi yang disebut bahasa.*

**Kata kunci:** *aktifitas mental, pemerolehan bahasa, kata-kata*

## INTRODUCTION

People not only deliver messages through spoken and written forms, but also through some symbols as means of communication, otherwise they acquire messages, information, and knowledge by listening and reading as receptive skills. Whether they send and receive messages in a first or second language, or both, it is an option. Is becoming bilingual a way of life? Your whole person is affected as you struggle to reach beyond the confines of your first language into a new language, a new culture, a new way of thinking, feeling, and acting.

Total commitment, total involvement, a total physical, intellectual, and emotional response is necessary to successfully send and receive messages, information, and knowledge. The usage of language is an integral part of being human. Most people spend an immense amount of their life speaking, writing in advanced societies, and they use 4.000 or 5.000 words an hour in normal conversation, while a person reading at a normal speed covers 14.000–15.000 words per hour. Thus, we produce at least 1500-1800 sounds while speaking. As additional activities, someone who chats, listens to a radio talk, and reads each for an hour possibly comes into contact with 25.000 words in that time. Therefore, the total amount words using could be as high as 100.000 words, per day.

Children all over the world start putting words together at approximately the same age, and follow remarkably similar paths in their speech development. All languages are surprisingly similar in their basic structure, whether they are found in Australia, near the North Pole, or other parts of world. Language and Abstract thought are closely connected and many people think that these two

characteristics above all distinguish human beings from animals.

The German philosopher, Dietrich Tiedemann recorded his observations of the psychological and linguistic development of his young son, and he found any significant advances were made in the study of child language; for the most part research was limited to diary-like recordings of observed speech with some attempts to classify word types.

Then later on, in the second half of the twentieth century, most researchers began to analyze child language systematically and try to discover the nature of the psycholinguistic process that enables every human being to gain fluent control of an exceedingly complex system of communication. Communication determines the quality of life. The most important agency through which the child learns to be human is communication, verbal and non-verbal. In a matter of a few decades, some giant strides were taken, especially in the generative and cognitive models of language which describing the acquisition of particular languages, and in probing universal aspects of acquisition. Those are all about comparing and contrasting first and second language acquisition.

Schachter (2000) explained that the comparison of first and second language acquisition has been quite carelessly treated, as one needs to approach the comparison procedure by first considering the differences between children and adults. Second language learning is not a set of easy steps that can be programmed in a quick do-it-yourself kit. No one can tell how to learn a foreign language without really trying. The learning of a second language is a complex process, involving a seemingly infinite number of variables. So much is at stake that academic courses in foreign

languages are often inadequate training grounds, in and of themselves, for the successful learning of a second language. Few if any people achieve fluency in a foreign language solely within the confines of the classroom. In language teaching, we must practice and practice, again and again as to watch a small child learning his mother tongue, he repeats things over and over again during the language- learning process all the time. This is what we must also do when we learn a foreign language.

Learning a second language usually means learning to speak it and to comprehend it. Most discussions on first and second language acquisition differences centre on the question of whether there is a 'critical period' for language acquisition – a biologically determined period of life when language can acquire more easily and beyond which time language is increasingly difficult to acquire. The critical period hypothesis claims that there is such a biological timetable. Initially the notion of a critical period was connected only to first language acquisition. Pathological studies of children who failed to acquire their first language, or aspects thereof, became fuel for arguments of biologically determined predispositions, time for release, which would wane if the correct environmental stimuli were not present at the crucial stage.

Second language researchers have outlined the possibilities of extrapolating the critical period hypothesis to second language contexts. The 'classic' argument is that a critical point for second language acquisition occurs around puberty, beyond which people seem to be relatively incapable of acquiring a nativelike accent of the second language. This has led some to assume, incorrectly, that by the age of 12 or 13 you are 'over the hill', when it comes to the possibility of successful

second language learning. Such an assumption must be viewed in the light of what it really means to be 'successful' in learning a second language, and particularly the role of 'accent' as a component of success. In order to examine these issues, we will look at neurological and psychomotor considerations first; these will then be followed by an examination of cognitive, affective, and linguistic considerations.

There is evidence in neurological research that as the human brain matures certain functions are assigned – or 'lateralized' – to the left hemisphere of the brain and certain other functions to the right hemisphere. Intellectual, logical, and analytic functions appear to be largely located in the left hemisphere while the right hemisphere controls functions related to emotional and social needs. Language functions appear to be controlled mainly in the left hemisphere, though there is a good deal of conflicting evidence.

Lenneberg (1964) and others suggested that lateralization is a slow process that begins around the age of 2 and is completed around puberty. During this time the child is neurologically assigning functions little by little to one side of the brain or the other; included in these functions, of course, is language. And it has been found that children up to the age of puberty who suffer injury to the left hemisphere are able to relocalize linguistic functions to the right hemisphere, to 'relearn' their first language with relatively little impairment.

Neurological considerations is the role of the psychomotor coordination of the 'speech muscles' in second language acquisition, or, more commonly familiar with, accent. We all know that great athletes, great musicians, and others who have become accomplished in a set of skills requiring muscular dexterity have

almost always begun to develop that skill in childhood, probably before the age of puberty. We can also appreciate the fact that given the existence of several hundred muscles that used in the articulation of human speech (throat, larynx, mouth, lips, tongue, and other muscles), a tremendous degree of muscular control is required to achieve the fluency of a native speaker of a language.

Research on the acquisition of authentic of authentic control of the phonology of a foreign language supports the notion of a critical period. The evidence thus far indicates that persons beyond the age of puberty do not generally acquire authentic pronunciation of the second language. Such a critical period may have little to do with the lateralization of the brain, though, and much to do with the child's neuromuscular plasticity. Of course, you can cite immediate exceptions to this rule- adults who, well after puberty, learned a second language and now speak it flawlessly. You can also cite cases of athletes or musicians who started developing their skill relatively late in life and became very proficient.

The final consideration in the cognitive domain is the distinction that makes between rote and meaningful learning. Ausubel notes that people of all ages have little need for rote , mechanistic learning that is not related to existing knowledge and experience. All three types of adult- child comparisons cited earlier relate to the cognitive domain of human behaviour. Human cognition develop rapidly through out the first 16 years of life and less rapidly after adulthood. Some of these changes are critical, others are more gradual and difficult to detect.

Piaget (1994) outlines the the course of intellect development in a child through various stages: the sensorimotor

stage from ages 0 to 2, the preoperational stage from ages 2 to 7, and the operational stage from ages 7 to 16, with a crucial change from the concrete operational stage to the formal operational stage around the age of 11. The most critical stage for a consideration of first and second language acquisition appears to occur, in Piaget's outline, at puberty. It is here that a person becomes capable of abstraction, of formal thinking which transcends concrete experience and direct perception.

The lateralization hypothesis may provide another key to cognitive differences between child and adult language acquisition. As the child matures into adulthood, the left hemisphere (which controls the analytical and intellectual functions) becomes more dominant than the right hemisphere (which controls the emotional functions). It is possible that the dominance of the left hemisphere contributes to a tendency to overanalyze and to be too intellectually centred on the task of second language learning.

Another construct that should be considered in examining the cognitive domain is the Piagetian notion of equilibration. Equilibration is defined as 'progressive interior organization of knowledge in a stepwise fashion', and is related to the concept of equilibrium. That is, cognition develops as a process of moving from states of doubt and uncertainty (disequilibrium) to stages of resolution and certainty (equilibrium) and then back to further doubt that is, in time, also resolved. And so the cycle continues. Piaget claimed that conceptual development is a process of progressively moving from states of disequilibrium to equilibrium and that periods of disequilibrium mark virtually all cognitive development up to age 14 or 15, when formal operations finally are

firmly organized and equilibrium is reached.

Human beings are emotional creatures. At the heart of all thought and meaning and action is emotion. As 'intellectual' as we would like to think we are, we are influenced by our emotions. It is only logical, then, to look at the affective domain for some of the most significant answers to the problems of contrasting the differences between first and second language acquisition. The affective domain includes many factors: empathy, self-esteem, extroversion, inhibition, imitation, anxiety, attitudes – the list could go on for sometime. Some of these may seem at first rather far removed from language learning, but when you consider the pervasive nature of language, any affective factors can conceivably be relevant to second language learning.

Another affectively related variable deserves mention here even though it will be given fuller consideration in the role of attitudes in language learning. From the growing body of literature on attitudes, it seems clear that negative attitudes can affect success in learning a language. Very young children, however, who are not developed enough cognitively to possess 'attitudes' toward races, cultures, ethnic groups, classes of people, and languages, are unaffected.

Finally, peer pressure children encounter in language learning is quite unlike what the adult experiences. Children usually have strong constraints upon them to conform. They are told in words, thoughts, and actions that they had better 'be like the rest of the kids'. Such peer pressure extends to language. Adults experience some peer pressure but of a different kind. Adults tend to tolerate linguistic differences more than children, and, therefore errors in speech are more easily excused. If adults can

understand a second language speaker, for example, they will usually provide positive cognitive and affective feedback, a level of tolerance that might encourage some adult learners to get by. Children are harsher critics of one another's actions and words and may thus provide a necessary and sufficient degree of pressure to learn the second language.

It is clear that children learning two languages simultaneously acquire them by the use of similar strategies. They are, in essence, learning two first languages, and the key to success is in distinguishing separate contexts for the two languages. People who learn a second language in such separate contexts are referred to as coordinate bilinguals; they have two meaning systems, as opposed to compound bilinguals who have one meaning system from which both languages operate.

Children generally do not have problems with 'mixing up languages', regardless of the separateness of contexts for use of the languages. In some cases the acquisition of both languages in bilingual children slightly slower than the normal schedule for first language acquisition. However, a respectable stockpile of research shows a considerable cognitive benefit of early childhood bilingualism, contention that bilingual children are more facile at concept formation and have a greater mental flexibility.

## **METHOD**

In this case, the writer has applied 'Observation and Diary' to collect data and information about the process of language acquisition. All the research-activities were mostly performed at campus and home to compare the language acquisition of first and second language for children and adults by using audio-visual recording notes. Thus, the

datas transcribed, observed to know about conclusions.

The comparison of first and second language acquisition are common, important categorises of acquisition. Note that the vertical shaded line

between the child and adult is fuzzy to allow for varying definitions of adulthood. It is commonly understood, however, that an adult is one who has realized the age of puberty.

L1	C1	A1
L2	C2	A2

Figure 1  
First and Second Language Acquisition in Children and Adults

L1 = First Language  
L2 = Second Language  
C = Child  
A = Adult

Cell A1 is clearly representative of an abnormal situation. There have been new recorded instances of an adult acquiring a first language. Curtis (1977) wrote about Genie, a 13- year- old girl who had been socially isolated all her life until she was discovered, and who was faced with the task of acquiring a first language. Account of ‘wolf- children’ and other instances of severe retardation fall into this category. Since it is not imperative at this time to deal with abnormal or pathological cases of language acquisition, then we can ignore this category A1.

That leaves three possible comparisons: C1- C2, C2- A2, and C1- A2. For the sake of considering issues in this chapter the three comparisons will be referred to by type:

1. First and second language acquisition in children (C1- C2), holding age constant.
2. Second language acquisition in children and adults (C2- A2), holding second language constant.

3. First language acquisition in children, and second language acquisition in adults (C1- A2).

In the first type of comparison, holding age constant, one is manipulating the language variable. It is important to remember, however, that a 3- year- old, and a 9- year- old, both children by definition- exhibit vast cognitive, affective, and physical differences, and that comparisons of all three types must be treated with caution when varying ages of children are being considered.

The second type of comparison one is manipulating the differences between children and adults. Most of the traditional comparisons have been of type 3, and such comparisons are difficult to make because of the enormous cognitive, affective, and physical differences between children and adults. And that is not to say that type 3 comparisons ought to be avoided entirely; some valuable insights are to be gained from such comparisons.

## RESULTS AND DISCUSSION

Supported by the datas and information that the writer gets from the notes and observation, thus he makes a transcription and conclusion based on his own experiences. This the way as Brown (1994) was observing his kids, Adam, Eve, and Sarah to know how their grammatical systems developed. In Bahasa Indonesia, Dardjowidjojo (2008) had come along with his grandchild growing until the age of five. Lenneberg (1964) and others suggested that lateralization is a slow process that begins around the age of 2 and is completed around puberty. During this time the child is neurologically assigning functions little by little to one side of the brain or the other; included in these functions, of course, is language. And it has been found that children up to the age of puberty who suffer injury to the left hemisphere are able to relocalize linguistic functions to the right hemisphere, to 'relearn' their first language with relatively little impairment.

Language is a system of arbitrary, vocal symbols which permit all people in a given culture, or other people who have learned the system of that culture, to communicate or to interact. Language can be studied both internally and externally as a systematic means of communicating ideas or feelings (as means of verbal interactions). The internal- study systematically reflected as features of language patterns such as; sound patterns (phonology), arrangement and make up of words (syntax), structured- words (morphology), and meaning (semantics). Whereas the externally studies related the language to other subfields within the disipliner of sociology (sociolinguistics), psychology (psycholinguistics), biology (biolinguistics), neurology (neurolinguistics), and so on.

Some animals send kinds of messages, certain- sounds, and unique symbols among others by using their own languages, such as hens with her chickens, bees with the swarms, and monkeys with their groups. As human beings, we can easily communicate with others by using our own languages. Then, the question comes to mind, do we communicate as those animals do? Although we have some equational- sides in delivering messages, with those animals, there are much different sides, and ways to communicate, or express the messages, as conveying thoughts, ideas, and feelings. What makes it different with the issues, based on the explanation in sub-discussion.

### 1. Structure Dependence

Languages have 'structure-dependence' as words- chain in a sentence not to form disorder patterns, otherwise one will depend on another. The words- order seem linear but a single word with another builds a hierarchy-structure. For instances as the following sentences:

- a. The young writer must make a big decision

Art Adj N Aux V Art Adj  
N

Art = Article  
Adj = Adjective  
N = Noun  
Aux = Auxiliary  
V = Verb

- b. Penulis muda itu harus membuat keputusan bulat

N Adj Pen KB V  
N Adj

K = Kalimat  
F = Frasa  
N = Nomina  
V = Verba

Adj = Adjektiva  
 PEN = Penentu  
 KB = Kata Bantu

By separating a sentence into phrases and a word constitutently, the sentence will be easy understood, and otherwise.

- a. (i) The young//writer must//make a big//decision.
- b. (i) Penulis muda//itu harus//membuat keputusan//bulat.

Structure Dependence can also be seen as follows:

- a. (ii) Must the young writer make a big decision?
- b. (ii) Haruskah penulis muda itu membuat keputusan bulat?

Indonesian speakers or Non-Indonesian speakers are able to conclude that to make Interrogative Sentence in English must add or put the aux- word in the front sentence, or –kah, as the following samples:

- a. (ii) Must mother go to the tradition market?
- b. (ii) Must the old man work hard?
- c. (ii) Haruskah teman kamu datang sekarang?
- d. (ii) Haruskah dia melakukan hal itu?

All the interrogative forms of sentences come from positive sentences, unless;

- a. (i) He is the young writer who must make a big decision
- b. (ii) Must he is the young writer who make a big decision?
- c. (i) Para reporter yang harus meliput berita itu ternyata tidak hadir
- d. (ii) Haruskah para reporter yang meliput berita ternyata tidak hadir?

The reason why the sentences g (i) and h (i) can not be accepted to g (ii) and h (ii) or interrogative forms because the word must/harus does not include in the core- sentence/independent clause.

## 2. Creative Speakers' Language

Human beings creatively produce new words, or utterances to make various sentences because they can comprehend any new words, and any utterances they find out. This creative nature of language enable speakers or writers to manipulate them as long as concerned with the certain rule of a language, as the following examples:

- a. Diana, Princess of Wales lived for only a short time, but she touched people all over the world because of her beauty, her compassion for others, and her syle.
- b. The poor man! He is looking sick, but he must still work hard for his family living.
- c. Kasihan orang itu, kakinya sakit tetapi dia harus memikul sekeranjang cobek untuk sekedar mencari makan di hari yang panas itu.

From the language side itself, the language has its creative nature and structure that is not being controlled and manipulated from the outside/external-effects. If you step on someone's foot, he will react verbally; oouch!, watch your feet!, or he will keep in silent.

## 3. Language Story

Language can be used to express about situation or events which will happen in the future and happened long time ago, or just talk about rain, The Prince Diponegoro, ancient history and many more. Even, we can share our dreams, thoughts, and ideas. Animals are not facilitated with the kind of means of communication.

- a. Yesterday I went to the beach.
- b. It is raining now.
- c. Diponegoro was a javanese prince who opposed the Dutch colonial rule, etc.



#### 4. Deep Structure and Surface Structure

Languages everywhere have double structures named 'deep structure and surface structure'. The two structures look the same in structured sentences, and does not seem any differences in many ways. However, there is another meaning inside in a sentence or otherwise. Deep structure is the basic structure of sentences, specified by the phrase structure rules. Examples:

- a. The shooting of the hunter was terrible.

We only see one surface structure, but the sentence has two different deep structure as the follows at a (i), (ii).

(i) The hunter shot someone and The way he did it was very bad.

(ii) Someone shot the hunter and this action was very bad.

- b. John is easy to please.

- c. John is eager to please.

We can see both sentences b and c possessing surface structure nearly identical/ the same; Subject + Verb is, + Adjective easy/eager + Infinitive to, and Verb please. However, from b we can make b (i), but impossible for c (i).

- b. (i) It is easy to please John.

- c. (i) # It is eager to please John.

- a. Saya meminjam buku cerita itu kemarin

- d. (i) Buku cerita itu dipinjam oleh saya kemarin.

#### 5. Hereditary Heritage

Any language acquired hereditarily, from generation to generation. Javanese child who was born and raised in Surakarta, will acquire Javanese language. The language that used by the child will depend on the input of the society where the child lives. While a child from the Javanese parents who was born and gathered in Bandung,

will speak Sundanese rather than Javanese.

#### CONCLUSION

In brief, the writer can summarize that linguistics be defined as 'the systematic study of language'—a discipline which describes language in all its aspects and formulates theories as to how it works. People often use the word in a very wide sense: 'the language of flowers', 'the language of music', 'body language', and so on. Humans can communicate in numerous other ways: they can wink, wave, smile, tap someone on the shoulder, written symbols, braille, other sign language, etc. This wider study is usually known as 'the psychology of communication'.

Human have been acquiring languages for hundreds of thousands of years without any help from textbooks or grammar teachers. This is because the ability to acquire languages is hardwired into our genome. The language acquisition process happens automatically if, and this a big if- you get sufficient exposure to a language and enough practice using it. This is precisely what happened when you were a baby, and can happen even faster as an adult.

Thus, 'learning is like knowing all parts of a car, but not necessarily knowing how to drive'. It is a conscious process anyway, while 'acquisition is like being able to drive but not necessarily knowing how the car works', and it is a sub-conscious process.

#### REFERENCES

- Brown, H. D. (1994). *Principles of Language Learning and Teaching*. San Francisco: Prentice Hall.
- Dardjowidjojo, S. (2008). *Psikolinguistik: Pengantar Pemahaman Bahasa Manusia*.

- Jakarta: Yayasan Obor Indonesia.
- Lenneberg, E. H., ed. (1964). *New Directions in the Study of Language*. Cambridge: The MIT Press.
- Piaget, J. (1994). *The Language and Thought of the Child*. New York: The World Publishing Company.
- Schachter, D. L. & Elaine, S. (2000). *Memory, Brain, and Belief*. Cambridge: Harvard University Press