

Psycholinguistics

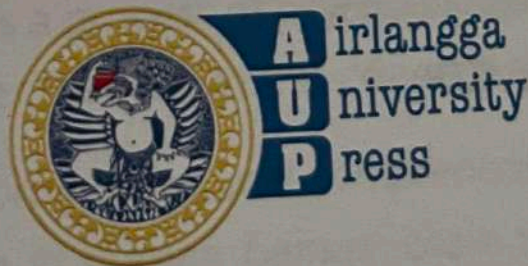
**FOR STUDENTS OF
LANGUAGE EDUCATION**

SUSILO

Psycholinguistics

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LANGUAGE EDUCATION**

Prof. Dr. Susilo, M.Pd.



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PSYCHOLINGUISTICS FOR STUDENTS OF LANGUAGE EDUCATION

Susilo

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Preface

This book tells about the introductory elaborations in the field of Psycholinguistics, specifically more focusing on its relation to language learning or acquisition. Using simple language and giving after-reading activities, this book is supposed to be advantageous for students of language education. In addition, it is expected that the students can easily digest the contents of this book. This book is divided into five chapters, each containing two parts: one part is addressing the concepts given in the chapter and the other one is providing the exercises for reinforcing the chapter.

The first chapter, *Introduction*, brings initial remarks to give a glance look at the definition, scope and a brief history of psycholinguistics.

The second chapter addresses the concept of first language acquisition and second language acquisition as a process of psycholinguistic phenomena within human beings. Earlier and later theories in this concept are elaborated.

The third chapter, *language production and comprehension*, is the one which identifies processes occurring in human beings' brain in regard with how an individual is understanding and producing language for communication.

The fourth chapter is the one in which the brain physically and mentally related to language processing is explained. In this chapter, it is also given an

explanation of how the brain damage is influencing the process of language production and comprehension.

The last chapter contains the concept of the relationship amongst language, thought and culture. It is also discussed how rhetoric of certain language influences the writers/speakers' thought in producing the language.

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Samarinda, Indonesia

Author

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Chapter 1

Introduction

Learning outcomes:

- to identify the definition of psycholinguistic study
- to identify the scope of psycholinguistic study
- to identify a brief historical records of psycholinguistics

Psycholinguistics which will be discussed in this book is centred on topics in relation to the process of English as Foreign Language (EFL) learning. Therefore, the topics of the book will not cover all topics in the field of psycholinguistics as a whole. The topics are discussed to follow the spectrum of the development of how children acquire language, how adults learn second language, how language is processed in the brain, and finally the author will relate all those things into the psychological aspect of learning foreign language.

1.1 DEFINITION OF PSYCOLINGUISTICS

At glance, everyone can predict easily from its name implied in the word *psycholinguistics*, that it is a combination of two big sciences, i.e., linguistics and psychology. This exactly means the psychological aspect of language study. This

understanding scientifically is not really incorrect or not quite correct either, but it is still unclear. To digest the concept of psycholinguistics in such a simple understanding is indeed very hard in terms of science, and it is what the most common understanding was when this word is given. As an introductory remark, this paragraph will bring you to the explanation of what people really learn in linguistics before defining the concept of psycholinguistics.

In linguistics, components of language are studied deeper, which resulted in separated subfields of linguistics; phonetics (a study of speech sound), phonology (a study of sound system of a particular language), morphology (a study of word formation), syntax (a study of sentence construction), semantics (a study of meaning) and pragmatics (a study of meaning and context). These subfields are areas of scientific investigations which are under the field of linguistic study. These are called a core of linguistics. However, language can also be studied in a number of ways which are beyond the linguistic study. Other disciplines like sociology, anthropology, medical study, psychology and so on can be used as angles in looking at the language, which is usually known as the interdisciplinary investigations in linguistic areas. Language which is seen from the viewpoint of society, for instance, would be called sociolinguistics; language that is viewed from the angle of anthropology would be called anthropology linguistics; medical study can also be used for studying language, which is known as neurolinguistics, and the field of psychology is one which underlies the study of language in related to the mental process within an individual. It is clear now that psycholinguistics is a subfield of linguistics which focused on the subtle process of producing and understanding language in human brain, including the possibility of damage disturbing the process (Menn (2017). distinguished what linguistics is about and psycholinguistics is about by describing the purposes of both fields. Linguistics describes language in details (i.e., speech, dialect, formal vs informal, etc.), while psycholinguistics is more about discovering how speaking, understanding, reading, and writing are managed in human brain. In addition, the goal of psycholinguistics includes how language is acquired, how language is produced and understood, and how language is processed in the brain (Fernández & Cairns (2011).

1.2 SCOPE OF PSYCOLINGUISTICS

In this point, understanding psycholinguistics as a sub-field of language study is correct, this is to say that the basic concern is the investigation of psychological phenomena within individuals in relation to language development. In other word, the field of psycholinguistics then attempts to answer questions of how language is produced and comprehended, how language is processed in the brain and what areas of the brain are used for language processes.

Thus, psycholinguistics covers not only all under the discussions of the two fields— linguistics as well as psychology—but also all disciplines under the cognitive sciences, like biology, neuroscience, medical science, artificial intelligence, and others. That is why, this field is quite complex, providing with a fuzzy boundary domains of analysis. There has been some disagreement among linguists to talk about the coverage of psycholinguistics. In any cases, this discipline might embrace five big topics, i.e., 1) language processing, 2) lexical storage and retrieval, 3) language acquisition, 4) special circumstances, and 5) the brain and language. However, whatever complex this field is, this book restricts the explanation on the substance which is centred on four things, i.e., how language is acquired, produced, comprehended and dissolved in relation to English as a Foreign Language (EFL) learning and teaching. The restriction is taken because this book aims at putting psycholinguistics as the basic foundation in EFL courses. Therefore, language acquisition, production, comprehension, and dissolution in this perspective will be viewed from many different angles, and those angles are the other disciplines which make the psycholinguistics become wide and complex.

Language acquisition tells us a story of the beginning of human being's speech of new or subsequent language. This is a process where human being starts to get in touch with the new language until he/she is proficient in the language. For an individual who firstly gets the language, this process is called First Language Acquisition (L1 acquisition), and for the individual who has already mastered the first language—then the new language becomes the subsequent language which is secondly gained—then this phenomenon is called Second Language Acquisition (L2 acquisition). L1 and L2 acquisition have been becoming parts of the main topics in psycholinguistics. L1 acquisition basically

talks about how infants start to get their speech, while L2 acquisition principally discussed the process of how individuals with their first languages start to get their speeches of the subsequent languages. The process of acquisition is not a short-time happening but it is running in a long time during the human's life. There are so many aspects to talk about in connection with this appearance of the human being's speech, which can be viewed from many different angles.

Language production is discussing the internal process of how human being creates speech. Creating speech, in this case, means putting words into mouth, which is identical with articulating speech. Thus, it needs individual's talent to synthesize ingredients of language, and then cook them together into a new bowl of ready ingredients called *speech*. In a nutshell, it really talks about the way human brain is operating until it results in driving nerves to move on speech organs which finally produce sounds, which happens neurologically and psychologically. On the contrary, language comprehension is the internal process of how human being understands speech. Understanding needs individuals' analytical skills which would break down the speech into its components. Indeed, it is a process of human brain to optimize the auditory and visual capacity in order that all messages coming in the brain can be transferred into the thought that finally proceed to do them.

Language dissolution is a story of the end of human being's speech of any language that has been mastered before. Overtime, speech that an individual master can disappear due to some factors, for instance, brain damage, the result of operation, inherited disorder, etc. That is why, the phenomenon of losing the language they previously mastered because of those factors is called *language dissolution*. In terms of the process, language dissolution needs a relatively long time to happen similar to the process of acquiring the language. That is why, these two phenomena, i.e., acquisition and dissolution, happen at a period of time (diachronically). Meanwhile there are similar phenomena that happen at any one point of time (synchronically), namely: language production and comprehension.

In short, basically psycholinguistics which this book incorporates four different issues, i.e., production, comprehension, acquisition and dissolution, which can easily be understood by asking these four questions: 1) how are speech and language acquired? 2) how are speech and language produced? 3) how are speech and language comprehended? and 3) how are speech and

language lost? All those questions will be explained in details in chapters and will be added by the discussion of language, thought and culture as the concluding chapter.

1.3 THE EMERGENCE OF PSYCHOLINGUISTICS AND THE IMPORTANT FIGURES

To trace the history of psycholinguistics, it is important to mention several figures in relation to the embryonic ideas of psycholinguistics. First, it is historically stated that one of the most influential figures who initiated the idea that language could be explained on the basis of psychological principles was Wilhelm Wundt (Brown, 2002). He was born August 16, 1832 and died on August 31, 1920. He opened the *Institute for Experimental Psychology at the University of Leipzig* in Germany in 1879. Until now, this opening is thought of as the beginning of modern psychology. The institute was his first laboratory dedicated to the field of psychology. Wilhelm Wundt got a degree in medicine from the University of Heidelberg. Then, he went on to study briefly with two important physicists, namely Johannes Muller and Hermann von Helmholtz, whose ideas then gave heavy influence to the Wundt's later works in experimental psychology.

Wundt was popular as the father of experimental psychology. He used objective methods and experimental science to study the inner phenomenon (mind) in psychology, which was not used before. He used language as a means of investigating the human mind. As a consequence of this investigation, he wrote many things about language acquisition, production, sign language, and reading.

The second figure was Karl Wernicke (Brown, 2002), an influential neuropsychiatrist who discovered significant findings in brain anatomy and pathology. His name is used as the name of a part in the brain called *Wernicke area*, the region that plays a vital role in speech comprehension of human being. He is the one who firstly initiated an idea that brain is not functioned as a single organ but it has many regions in which different functions are made to contribute their own sensory-motor activities. This idea appeared after he examined a patient who suffered a stroke. From this examination he found that the patient could speak and his hearing was working perfectly fine, but

he could not understand anything of what was being said to him, or written words. Unfortunately, the patient later died. However, once he died, Wernicke examined the patient's brain, and found that there was a lesion in the rear parietal/temporal region of his left hemisphere. Wernicke concluded that this region played a vital role in speech comprehension, and that region of the brain is now called Wernicke's area. Wernicke called the syndrome that the patient had sensory aphasia, however it is now known as *Wernicke's aphasia*.

The third figure was Paul Broca (Brown, 2002) a French physician, anatomist as well as anthropologist. His name is very popular among psycholinguists because his name is used as the name of a part in the brain called '*Broca area*', a region of the brain responsible for language production. The naming happened after his examination to a patient referred by another doctor. This patient cannot say a single word except the word 'tan' when the patient was brought to Paul Broca that is why later he called this patient as Mr. Tan. Mr. Tan who was close to death actually suffered from gangrene (*a decay that occurs in a part of a person's body if the blood stops flowing to it because of certain illnesses*). To examine that patient, Broca invited another doctor (his colleague) to examine this patient, and after the examination that doctor concluded that this patient should have a lesion or *softening of the anterior lobes*. Mr. Tan shortly died after and the following day Broca said that his colleague's conclusion was correct, and since then that part of the brain was known as the '*Broca area*'. Nowadays, a person with Tan's symptoms is deemed to have Broca's aphasia. Essentially, patients suffering from Broca's aphasia know what they want to say but can't say it.

Jean Piaget who was a French developmental psychologist is another figure (Brown, 2002). He was an extremely important figure in children cognitive development. He introduced four famous stages of children development, namely: sensorimotor stage, preoperational stage, concrete operational stage, formal operational stage. The sensorimotor stage happens to children in the ages of 0-2 years old. In this stage, infants make a construction of how to understand the world by coordinating sensory experiences with physical, motoric actions. The preoperational stage happens to children from the age of 2-7 years old. The children, in this stage, learn how to use and represent ideas by words, drawings and images. The third stage is concrete operational stage, which occurs to 7-11 years old children. Within this stage, children learn the concepts of seriation, reversibility, and eliminate the egocentric thinking that

had previously been dominant. The final stage is formal operational stage, which occurs to 11 years old children. Those children learn how to think abstractly and use hypothetical and deductive reasoning.

1.4 SUMMARY

Psycholinguistics is a subfield of linguistics in which the main focus is on the explanation of subtle process occurring in human brain in relation to language. This field is quite complex though, covering a number of topics such as, language processing, lexical storage and retrieval, language acquisition, special circumstances, and the brain and language. Even though, there have been debating straggles in scoping then topics in psycholinguistics, in this regard, psycholinguistics embraced four big topics, i.e. language acquisition, language production, language comprehension and language dissolution.

1.5 AFTER-READING ACTIVITIES

1.5.1 Questions for self-study

1. Match the following terms to their definitions!

Paul Broca	a. phonetics, phonology, morphology, syntax, semantics and pragmatics
Karl Wernicke	b. discovering how speaking, understanding, reading, and writing are managed in human brain
Psycholinguistics	c. a phenomenon of losing the language they previously mastered because of some factors
Language dissolution	d. founder of a brain region that plays a vital role in speech comprehension of human being
Core of linguistics	e. founder of a brain region of the brain responsible for language production

1.5.2 Independent learning

- List figures who wrote initial concepts which was the embryonic ideas of psycholinguistics!
- Mention cases of language phenomena which can be included into psycholinguistic cases!

Chapter 2

Language Acquisition

Learning Outcomes:

- to identify the first language acquisition in relation to psychological phenomena in human beings
- to identify the second language acquisition in relation to psychological phenomena in human beings

The term *language acquisition* refers to a process of getting to the skill of having languages that individuals take to master naturally. In this understanding, it means the individuals' experience to learn the languages unconsciously until they get to the complete mastery of the languages. This process must happen to the individuals who are in the process of getting acquired of both their first languages (L1) and second and the subsequent languages (L2). Therefore, a couple of terms emerged in the context of discussing language acquisition, i.e., first language acquisition (FLA) and second language acquisition (SLA). The FLA and SLA are two areas of subfields in psycholinguistics which will be the main topics in this chapter. The discussion of the first language acquisition brings the readers to understanding the process of language development of infants. It is important to notice this process because all theories of the first language acquisition will be helpful to understand the second language acquisition. This

chapter will present a glance look at the first language acquisition after that the discussion of the second language acquisition will be elaborated in a bit detailed.

2.1 FIRST LANGUAGE ACQUISITION

If language is perceived as simply a matter of knowing stretches of words, then language acquisition would be just a process of figuring out the words and how to memorize them. But for linguists, language is not such simple thing, thus has been perceived by human beings in a very complex way. Therefore, to comprehend the language acquisition is not just as such simple. For instance, children must acquire a grammar with all its components and rules. How do children learn these rules? How do they learn to make the plural of some nouns by adding (-s) as in *cats*, others by adding (-z) as in *dogs*, and still other by adding (-ez) as in *houses*? How do they learn that the morpheme *un-* (meaning not) attaches to adjectives to form other adjectives having the opposite meaning? How do they learn to compose a sentence from a noun phrase and a verb phrase? Rules, unlike words, are never explicitly stated, so the child cannot just memorize them. They must somehow figure them out on their own – a remarkable intellectual feat. That is to say, discussing language acquisition needs more complex analysis.

First language, or native language, or mother tongue (L1) is the language that human beings firstly acquire from child, the language that is learned when an individual is growing up. Krashen (2004) said that the way of second language acquisition is similar, if not identical, to the way of the first language acquisition. Krashen argued that acquisition is gained subconsciously so that the result of what language acquirers do also subconscious. Since the way of FLA is the same with that of SLA, then theories of FLA are similar to SLA theories. Some modern linguists raised the process of getting to master the language as a process of acquisition and learning, while some others viewed that there is no significant difference between language learning and language acquisition, even the recent terms emerged to represent the later idea, i.e., instructed language acquisition.

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2.1.1 First Language Acquisition of Early Age

As it was told earlier that first language acquisition has things similar to second language acquisition, it will be relevant to talk about how children acquired their languages, in other word, the process of first language acquisition. There were various theories which attempted to account for how children acquire language. At least in this chapter, four theories will be elaborated, i.e., *the Imitation Theory* (Brown, 2002), *the Reinforcement Theory* (Brown, 2002), *the Active Construction of a Grammar Theory* (Brown, 2002), and *connectionist theory* (Brown, 2002).

One of the theories of the first language acquisition is the imitation theory. This theory was the consequences of the B.F. Skinner's and Ivan Pavlov's works on conditioning theory in psychology. It is said in this theory that all children learn language by listening to the speeches around them. In this case, acquisition happens by memorizing words or sentences they listened. When the children get more listening activities, they will be able to reproduce more words/sentences because they heard all speeches and imitated them. That is why, parents, caretakers, or other people who are often with them every day will be an influential guidance in the development of the children's first language.

The next is reinforcement theory, in which it is argued that every time children learn the language, like adults, they need praises, rewards or have to be reinforced when they make incorrect use of language. When children interacted with their parents in terms of acquiring their first languages, they often get corrected of making grammatical mistakes. For instance, the sentence *Faris goes to school today* may receive the response *Yes, he did if Faris did go to school that day*. This theory is in fact contradicted by the fact that even on the rare occasions when adults do try to correct a child's grammar, the attempts usually fail entirely. Consider the following conversation, cited by McNeill (1966) cited in Steinberg et al., (2001):

Child	: Nobody don't like me
Mother	: No, say "nobody likes me"
Child	: Nobody don't like me (repeated 8 times)
Mother (in desperation)	: Now listen carefully! Say, "Nobody likes me"
Child	: Oh! Nobody don't like me.

In that example of conversation, although the child does not form negative sentences in the same way the adult does, the child's utterances follow a pattern just as the adult's do. The child's way of forming negative sentences involving *nobody* is completely regular; every such sentence contains *nobody* + a negative auxiliary verb, for example, *nobody can't spell that* or *nobody won't listen*. The child must possess a rule that defines a pattern, but the rule is not the same as that in the grammar of an adult. Therefore, though in the last repetition the child imitates the adult correctly by saying *likes* instead of *like*, the reinforcement theory cannot explain where the child's rule came from or why the child seems impervious to correction. This is one of the weaknesses of this theory.

Thirdly, the active construction of a grammar theory (Brown, 2002) holds that children actually construct by themselves the rules of grammar after they practice more examples of correct sentences. This construction indicates how the children gradually infer the rules from the speech they hear around them. Children listen to the language around them and analyse it to determine the existing patterns. When they think they have discovered a pattern, they hypothesize a rule to account for it. They add this rule to their growing grammars and use them in constructing utterances. For example, in a child's early inference about how to make the past tense verbs, she/he will add */ed/* in all verbs. All past tense verbs will comply with this rule, such as *cutted* and *bringed* alongside *needed* and *walked*. When children find that there are language forms that do not match those produced by this rule, they modify the rule and add another one to produce the additional forms. Eventually the child has created and edited his/her own grammar to the point where it matches that of an adult's. At this point, there are no significant discrepancies between the forms produced by the child and those produced by the adults around him/her. However, the child has a complete working grammar to produce utterances; when those utterances differ from adults' speeches, they reflecting the differences in the grammars underlying them.

The fourth, the connectionist theory (Brown, 2002) assumes that the individual components of human cognition are quite interactive and language knowledge is represented in the cognitive system. In the context of how children learn language, this theory said that children learn through neural connections in the brain by being exposed to language as well as using it. In addition, it is the brain information process which takes place via a large interaction, as a result,

the L2 learning is happening through strengthening and weakening particular network connections in response to examples.

2.1.2 How Adults Talk to Young Children

How adults talk to children is influenced by three things (Steinberg, Nagata and Aline, 2001). First, adults have to make sure children realize an utterance is being addressed to them and not to someone else. To do this, adults can use a name, speak in a special tone of voice, or even get their attention by touching them. Second, once they have a child's attention, they must choose the right words and the right sentence so the child is likely to understand what is said. For example, they are unlikely to discuss philosophy but very likely to talk about what the child is doing, looking at, or playing with at that moment. Third, they can say what they have to say in many different ways. They can talk quickly or slowly, use short sentences or long ones, and so on. How adults talk also has certain incidental consequences: children are presented with a specially tailored model of language use, adjusted to fit, as far as possible, what they appear to understand.

Speakers depend on their listeners who are cooperative and listening when they are spoken to. However, when the listeners are children, adult speakers normally have to work a bit harder. Moreover, the adult speakers should use attention getters to tell children which utterances are addressed to them and which ones ought to be listened to. In addition, attention holders should also be used whenever adult speakers have more than one thing to say, for example, when telling a story. *Attention getters* and *attention holders* (Steinberg, Nagata and Aline, 2001) fall into two broad classes. The first consists of names and exclamations. For example, adults often use the child's name at the beginning of an utterance. Or, instead of the child's name, adults use exclamation such as *wow!* or *huh!* as a preface to each utterance. The second class of attention getters consists of modulation that adults use to distinguish utterances addressed to young children from utterances addressed to other listeners. One of the most noticeable is the high-pitched voice adults' use for talking to small children. Another modulation adult's use is whispering. If the children are sitting on their laps or standing right next to them, adults will speak directly into their ears so it is clear they are intended to listen.

In addition, adults both observe and impose the cooperative principle when they talk to young children. They make what they say relevant, talking about the "here and now" of the child's world. They encourage children to take their turns, make their contributions to the convention, and make sure that children make their contributions truthful by correcting them. Furthermore, adults also make running commentaries on what children do, either anticipating their actions—for example, *build me a tower now*, said just as a child picks up a box of building box—or describing what has just happened: *that's right, pick up the blocks*, said just after a child has done so. Adults talk about the object children show interest in. In conclusion, just as adults select what they say to young children by restricting it to the "here and now", then they alter the way they say, what they say, when talking to children. They do this in four ways: they slow down, they use short, simple sentences; they use a high pitch of voice; and they repeat themselves frequently.

2.1.3 Language Development in the Early Years

Children learn language together with adults and peers because they have to use the language in the interaction of their daily lives. Children learn how to use language to convey messages, express feelings, or to socially interact with peers or their caretakers. This is in line with the Vygotsky's concept of ZPD (zone of proximal development), which argued that in the learning interaction there are expert-members whose capabilities are needed and novice members who will be guided by the expert-members (Brown, 2002). By such composition, meaningful interaction will happen meaningfully. The ZPD is also applicable to the interaction of children when they acquired their first languages. In this case, parents or caretakers might function as expert-members, while children do as novice members; as a result, the child language development occurs as quite effective acquisition in the interaction with parents or caretakers. In the interaction, a culturalization and ideology infiltration of the parents' or caretakers' social values happens to the children. Various intimate experiences between them also generate communicative exchanges which are very beneficial for the children's language development (Muspratt et al., 1997; Fernald & Mazzie, 1991; Bukatko & Daehler, 1995).

The four theories mentioned earlier, i.e., the imitation theory, the reinforcement theory, the active construction of a grammar theory, and connectionist theory all are applicable for children in these phases of language development. Children learn language through listen all speech sounds surrounding, infer and finally imitate them. Children also get corrections and are reinforced when they make mistakes during the process of acquiring language. At the same time, children construct rules after getting more daily language practices by making inferences from their experiences. It is the result of connecting information by information in response to examples of producing languages from real practical experience of speeches. This suggests that during their early age of acquiring language, children are able to have automatic acquisitions of their first language in natural contexts. In addition, natural process is done easily by the children since they have the so called *language acquisition devices* (LAD)—Chomsky' concept (Brown, 2002).

2.1.4 The First Year

Infants experience the very early phase of vocalizing sound of language, i.e., crying. When the infants face with the uncomfortable situation, feel unhappy, or expect something that they cannot reach, they articulate the messages by crying. Usually, adults know this and quickly give responses to cope with this situation. This is the first language of infant. After several weeks, the infant is getting the higher level of vocalization, i.e., '*cooing*'. *Cooing* is repeating vowel-like sound such as *ooh*, *uuh*, *aah*, etc., to address messages to adults. In this level, the infant is communicating with adults (i.e., mother, father, or other caretakers) by saying such vowel-like sounds.

Next after several months (i.e., usually at three or six months), infants start to reach the higher level of vocalization. Infants begin to add consonants to vowels. In other words, they begin to combine consonants and vowels to be syllable-like words, such as *mamama*, *dadada*, *kakaka*. This phase is called '*babbling*'. All messages in this phase will be articulated by using such syllable-like words to address communication with adults (Shaffer, 1999; Berk, 2000; Glover & Bruning, 1987; Steinberg et al., 2001).

2.1.5 The Second and Third Year

A first word vocabulary that children begin to say is a single word to represent any kinds of messages under any conditions which they want to address. For instance, children say *mama* to mean mother's dress, mother's hand phone, or mothers' hair. Even, the word *mama* might refer to mother who is walking to the kitchen. It all depends on the children's intention of their speeches at the time they utter the speeches. They cannot create any detail words yet, therefore they use a single word which is easier for them to say. This phase is called 'holophrastic' (Bukatko and Daehler, 1995; Barrett, 2007; Shaffer, 1999; Steinberg et al., 2001). Entering to their third year, children begin to make sentences but the sentences they make usually are not good-grammar sentences. They are commonly two-word sentences which omit the function words. In other words, they produce only content words, they cannot produce words of articles, auxiliary, preposition etc. This phase is called 'telegraphic'. The examples of sentences created in this phase are such as, *more walk, more doggie, open door*, etc (Bukatko and Daehler, 1995; Barrett, 2007; Shaffer, 1999; Braine and Bowerman, 1976; Steinberg et al., 2001; Glover and Bruning, 1987). The two-word sentences uttered by children in this age are quite child-like speeches since in this phase children are developing their language abilities. However, this two-word sentence is not only functioned to refer to a single object, but is also to express a complex thought. As seen in table 1, some examples are given from research results of the two-word sentences and their meanings.

Table 1.1 Examples of two-word sentences

<i>Children utterances</i>	<i>Mature speaker utterances</i>	<i>Purposes</i>
Want cookie	I want a cookie	Request
Joe see	I (Joe) see you	Informing
Mommy chair	Mommy is sitting in the chair	Answer to questions
That car	That is a car	Naming
Give candy	Give me the candy	Request

Steinberg et al., 2001: 9)

2.1.6 The Preschool Years

After 3–4 years of age, children have already acquired any subtle skills in language. They are not only being able to distinguish content words, but have already known function words. The sentence they create shows more advanced process of language acquisition if not too more complex. In this phase, children start to get morpheme acquisition, questions formation acquisition, negation acquisition, simple syntax, semantics, or pragmatics acquisition. They gradually strengthen their language developments as they are growing up. Feedback, exposure, or reinforcement from the adults continues to happen, resulting in the process of testing hypotheses for more observation and learning (Beals and Tabors, 1995; Bukatko & Daehler, 1995; Glover & Bruning, 1987).

Moreover, children are also getting active in social interactions with adults, resulting in learning to negotiate and contribute to make any meanings. Getting advantages from this process as it is stated by Vygotsky's ZPD theory, children are more creative and innovative with their sentences to respond peers' requests. When they learn in elementary schools, their speeches are getting quite the same with the adults' languages (Glover & Bruning, 1987; Shaffer, 1999; Schickedanz, Forsyth and Forsyth, 1998; Peterson and McCabe, 1992; Schickedanz, Forsyth and Forsyth, 1998). In other words, language learning relies on both social and development process. To acquire language, children are compelled to interact with other language users who can be more competent and explore various aspects of the linguistic system. During the early years of language learning, children also create, test, and revise their hypotheses regarding the use of language. Parents and early childhood educators should provide these young learners with developmentally appropriate language activities, offer opportunities for them to experiment with different aspects of language learning, and honor their creativity.

2.2 SECOND LANGUAGE ACQUISITION

Second language (L2) is a subsequent language that an individual is able master after she/he is competent in her/his first language. The subsequent language refers the third, the fourth, or the fifth language of an individual. This L2 definition is still broad. More specifically, there have been other names for L2,

i.e., second language, or a foreign language, or a library language, or an auxiliary language (Saville-troike, 2010). Whatever its name is, in principle our scope of discussion in this subchapter will be about second and foreign language. The second language means L2 that speakers used for more actual practice in life, e.g., daily conversation, official events in public conversation. In the meantime, foreign language refers to L2 that speakers used in limited events of conversation, e.g., in the classroom, or reading for educational purposes. In this subchapter, the discussion of L2 will be in the context of explaining theories of second language acquisition which has more similarities with theories of foreign language acquisition, therefore it will be relevant if those two terminologies will be interchangeably used. In other words, SLA means all second language acquisition and foreign language acquisition.

2.2.1 The nature of learner language

Early method of investigating SLA told us that L2 learners' errors were quite important because error patterns can be predicted by the samples of L2 learners' errors. The investigation of L2 learners' errors was common and by having such method, developmental patterns of language learners can be analysed, resulting in some theories of error patterns, such as overgeneralization, article omission, transfer errors, etc. Similarly, by having such analysis, order of acquisition was identified and language teaching methods can use it as underlying theories (Saville-troike, 2010; Ellis, 2015). The learners' errors theories which were quite popular in early development of SLA were error analysis and contrastive analysis.

Error analysis is an SLA approach which pays more attention to learners' abilities to construct languages through their creativities from error patterns. This is the first approach in SLA. Error analysis was then replaced by contrastive analysis in 1970s. Contrastive analysis is an SLA approach where L1 and L2 learners' problems are compared in order to have similarities and differences which will then be explained as generic patterns. The proponent of this approach was Robert Lado, the Behaviourist and Structuralist from USA in 1940s and 1950s (Ellis, 2015).

Moreover, interlanguage (IL) is another SLA concept which was introduced by Selinker (1972 as cited in Saville-troike, 2010). This concept explains an

intermediate circumstance possessed by L2 learners as they move from L1 immediate mastery to the target language (L2). IL describes learners' states of competence in their language developments, explaining that position of the L2 learners' competences are at somewhere close to complete masteries of the target languages. Selinker mentioned such condition as some cognitive processes in the L2 acquisition and L1 acquisition, e.g. language transfer, overgeneralization, fossilization, etc.

The other old theories in relation to the language learning nature are five Krashen's hypotheses (Saville-troike, 2010). Krashen proposes five theories in SLA. The first is the so called *monitoring hypothesis*. This hypothesis says that when a learner is learning language, what she/he has already learned will function as a monitoring system in her/his mind. The monitoring system consists of knowledge accumulation about grammar or rules of the language. When that learner is producing language, the monitoring system can edit or change the language that she/he produces. Chomsky considers the monitoring system as *competence* and the learner's overt language as *performance*. In other word, language performance of the learner will be controlled or monitored by her/his competence. The concept was actually the adoption of Chomsky's theory of LAD. The second is natural order hypothesis. It is proposed that a learner acquires language in a predictable order. Certain linguistic parts that the learner gets when learning language are ahead the others. For instance, getting to know tenses precedes knowing about singular and plural rules. The third is input hypothesis, which gave a key word of comprehensible input. When a learner can digest enough input of learning, she/he can provide necessary grammars by her/himself to understand. The fourth is affective filter hypothesis. This hypothesis says that an individual who is learning language cannot be optimum if she/he has psychological burdens in the process of learning. The psychological burdens can be nervousness, bad learning mode, in correct learning strategies etc. On the contrary, the learning can increase quickly when there is a psychological catalyst, such as motivation, correct learning strategy, good learning mode, etc. The fifth is acquisition-learning hypothesis. This last hypothesis is in debatable position. Krashen proposed a notion that learning is different from acquisition in that learning takes place in more conscious way than acquisition. This difference is, however, criticized by other experts. The contra-opinions wonder the definition of the terms *conscious* and *unconscious* which, according to them, are not clear enough to define.

2.2.2 Instructed second language acquisition (ISLA)

The term *Instructed Second Language* (ISLA) has been flourishing as the sub-field within the disciplines of SLA. The highlighted concern of this sub discipline is the practicality of the learning and acquisition in SLA (Loewen and Sato, 2017). This means that accepting the concept of ISLA is denying Krashen's concept of learning-acquisition hypothesis. ISLA does not differentiate acquisition from learning anymore since it acknowledges both learning and acquisition in the process of SLA. There are several notions that are related to ISLA, i.e., 1) ISLA is an academic endeavour, 2) in ISLA perspective, L2 learners need no systematic efforts except exposure to target language to help their development in the process of getting L2 mastery, 3) language classroom in ISLA should be attributed to exposure to L2, 4) mental process in L2 learning is not too accommodative in ISLA since the main concern is how input which L2 learners' gained affects learning process, and 5) L2 instruction has some sort of more positive influence of L2 learning rather than L2 acquisition. It is clear now that ISLA is an approach which views language acquisition with more perspective of learning process. It is an answer to the proponents of ideas that the process of acquisition alone, without learning, is not everything in the context of L2 development. Learning L2 needs L2 acquisition or vice versa. In other words, ISLA is a hybrid area which accommodates the party of learning and the party of acquisition in the context of L2 development. By having such approach, the chasm between learning and acquisition in L2 development can be tolerably revisited.

More scientifically ISLA refers to the SLA subfield that aims at describing modes of gaining L2 (i.e. both from learning and acquisition process) as a consequence of the classroom instructional activities. The old fashion of idea about L2 learners which was stressed in the learning alone or acquisition alone is now revisited to have a new perspective of understanding two mutual doors of maturing L2 learners' development in language instructional learning. This also answers the question of *can L2 acquisition happen in the classroom?*

2.3 SUMMARY

Language acquisition is a process of getting individual's language mastered. When an individual is getting her/his first language, it is called 'first language acquisition

(L1 acquisition)'; when it is for the subsequent language, it is the 'second language acquisition (L2 acquisition)'. Theories of language acquisition were in fact depicted from what was happening in the process of L1 acquisition, i.e. to understand the process of language development of infants until they become adults. The theory is then used to underly what is happening when someone is getting her/his subsequent language because the process is relatively similar. The theories in general are called second language acquisition theories (SLA theories). There has been a development of those theories, going from the very early times to the recent ones. For instance, error analysis, contrastive analysis, interlanguage, Krashen hypothesis, Chomskyan concepts, and instructed SLA.

2.4 AFTER-READING ACTIVITIES

2.4.1 Questions for self-study

1. Match the following terms to their definitions!

Language acquisition	a. a process of getting to the skill of having subsequent languages among individual learners
Second Language Acquisition	b. a process of coming to the skill of having language among the individual learners
First Language Acquisition	c. a process of getting to the skill of having first languages among individual learners
Instructed Second Language Acquisition	d. a phase of repeating vowel-like sound
Cooing	e. sub field of SLA which views that both learning and acquisition can happen in class
Babbling	f. a phase of commonly using two-word sentence which omits function words
Telegraphic	g. a phase of combining consonants and vowels to be syllable-like words
Monitoring hypothesis	h. an SLA approach which pay more attention to learners' ability to construct language through their creativity from error patterns
Error analysis	i. an SLA approach where L1 and L2 learners' problems are compared in order to have similarities and differences
Contrastive analysis	j. when a learner is learning language, what she/he has already learned will function as a monitoring system in her/his mind.

2.4.2 Independent learning

- 1 Mention what is being paid attention in ISLA!
- 2 Mention the language developments in early years of individuals!

References

- Barrett, E. 2007. Experiential learning in practice as research: Context, method, knowledge. *Journal of Visual Art Practice*, 6(2):115–124. doi: 10.1386/jvap.6.2.115_1.
- Beals, D.E. and Tabors, P.O. 1995. Arboretum, Bureaucratic, and Carbohydrates: Preschoolers' Exposure to Rare Vocabulary at Home. *First language*. ERIC, 15, pp. 57–76.
- Berk, L.E. 2000. *Child Development*. Boston: Allyn & Bacon.
- Blount, B.G. 1974. *Language, Culture and Society*. Cambridge, Massachusetts: Winthrop Publishers, Inc.
- Braine, M.D.S. and Bowerman, M. 1976. Children's first word combinations. *Monographs of the society for research in child development*. JSTOR, 41(164):1–104.
- Brown, K. 2002. *Encyclopedia of language & linguistics*. Michigan, USA: Elsevier Pergamon.
- Bukatko, D. and Daehler, M. 1995. *Child Development: A thematic approach*. Boston: Houghton. Boston: Houghton Mifflin Company.
- Casson, R.W. 1981. *Language, Culture and Cognition: Anthropological Perspective*. New York: Macmillan Publishing Co. Inc.

Glossary

Aphasia = a disease concerning with language dysfunction because of brain impairment

Competence = hidden knowledge of language learners

Contrastive analysis = an SLA approach where L1 and L2 learners' problems are compared in order to have similarities and differences

Error analysis = an SLA approach which pay more attention to learners' ability to construct language through their creativity from error patterns

First Language Acquisition = a process of getting to the skill of having first languages among individual learners

Instructed Second Language Acquisition = sub field of SLA which views that both learning and acquisition can happen in class

Language dissolution = a phenomenon of losing the language they previously mastered because of some factors

Monitoring hypothesis = when a learner is learning language, what she/he has already learned will function as a monitoring system in her/his mind

Performance = concrete skills of language learners

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Key Answers

Key answers of questions for self-study in chapter 1

Paul Broca	e
Karl Wernicke	d
Psycholinguistics	b
Language dissolution	c
Core of linguistics	a

Key answers of questions for self-study in chapter 2

Language acquisition	b
Second Language Acquisition	a
First Language Acquisition	c
Instructed Second Language Acquisition	e
Cooing	d
Babbling	g
Telegraphic	f
Monitoring hypothesis	j
Error analysis	h
Contrastive analysis	i

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