CHAPTER II

LITERATURE REVIEW

2.1 Theoretical Framework

2.1.1 Identical Twins and Their Language Development

Although children will begin to vocalize and then verbalize at different ages and at different rates, children — most children; either singletons or twins— will learn their first language, a highly complex and abstract symbol system, without conscious instruction on the part of their parents or caretakers and without obvious signs of even making the effort, let alone experiencing any difficulty in doing so. Identical twins spend more time together, enjoy more similar reputations, are more likely to be in the same classrooms, have more similar health records, and in many other respects share a more common physical and social environment than that ordinarily experienced by fraternal twins (Mussen, Conger, Kagan, 2000).

Twins can show signs of speech and language difficulties in the same way that singletons do where there is delayed development of words and sentences and speech sounds are substituted or simplified. This may affect one or both twins. An important factor is when the twins/multiples speak their first words. Generally speaking, children speak their first words between 12 months and 18 months. A child is considered a "late talker" if he/she is not putting two words together by the age of two; with a vocabulary of about fifty words (Mitler, 1970). Parents may also be concerned if their child does not seem to be learning language at the same rate as their peers.

Just like singletons and other typically developing children, twins and multiples are at risk for speech and language difficulties. These issues include weight at birth, prematurity, and also factors within the family such as the time parents have to spend with the twins/multiples individually (Bowen, 2000).

The majority of twins fail to develop intelligible speech because of delayed or disordered phonology (speech sounds) (Grunwell, 1981). The twins typically use a smaller number of different speech sounds than that used in the adult language. The structure of words may be simplified and there are systematic substitutions of one sound for another. McEvoy and Dodd (1992) found that only 10 per cent of the twins showed normal development in the language profile used to access development.

However, it seems that this vulnerability is marked in the early stages of development but diminishes as twins mature. Mitler (1970) believes these secret languages are used in limited situations and exist alongside competence in the language of the community to which the children belong. Studies often report the incidence of secret language but offer no definition of what is meant by this.

In addition, children do not merely acquire grammar by hearing language, rather they begin to form general rules to which they apply to their increasing vocabularies

(Cole, 1996). This is a process which develops naturally in language-exposed children. At birth, infants are predisposed to language; they prefer to listen to language rather than random sounds (Cole, 1996). Infants are able to distinguish between all the world's phonemes, a phenomenon that lasts until 10-12 months (Kuhl, 1993). This ability is crucial for the children to acquire the language that is spoken in the environment which they live, since the ability to distinguish the phonemes of one's language environment is crucial to language acquisition.

The failure to acquire speech sounds or coin the sentences is probably caused by two major issues: prematurity and low-birth weight. Prematurity affects the delay of twins' life development for the preterm babies still have immature mental and organs. In general, the full-term babies will be born approximately 280 days or 40 weeks after fertilizing. Yet particular babies will be born shorter or longer than 280 days or 40 weeks (Kartono, 1986. p.80). The preterm babies who still alive after birth tend to have immature mental and organs, which cause the delay within their life development; included language development. Even the preterm babies who have an extremely low-birth weight must be incubated for certain period.

The prematurity, later, can affect the twins' language development since there is an inappropriate sensory stimulation in the third semester of gestation, affects preterm children's linguistic and nonlinguistic development (Stromsworld and Sheffield, 2004, p.2). By 23 to 25 weeks of gestation, the cochlea is connected to the brainstem and is sufficiently mature for loud noise to produce physiological responses such as changes in human fetal heart rate, blood pressure, oxygenation and movement. Thus, from 24 to 40 weeks gestation, full-term babies receive auditory stimulation but not the visual stimulation. Because their mother's body selectively absorbs and attenuates frequencies above 250 Hz, while in the womb, fetuses are preferentially exposed to low frequencies

that correspond to prosodic aspects of language, and only after birth are they exposed to high frequencies used to convey phonemic, lexical and syntactic information.

The issues of twins who have a low birth weight and born prematurely directly affect to twins' language development. Stromsworld and Sheffield (2004) argue that children who are born preterm do worse on a wide range of speech and language tasks and are more likely to be diagnosed with written and spoken language impairments than their full-term peers. In other words, the smaller and more premature the child, the poorer his linguistic performance. Though, twin children have the same phase in their language development, just like singletons. But, the language development in twins is vulnerable to delay.

Kartono (1986) claims that preterm infants don't have as much opportunity for this type of phased learning.If enriched input helps (the "more is better" hypothesis), then early exposure to all speech frequencies should give the preterm infants a linguistic edge over full-term infants. At the extreme, all else being equal, preterm children should be at least as many weeks ahead of gestationally-age matched full-term children as they are premature. Preterm children are more likely to be language-impaired than their full-term peers underscores the fact that everything else is not equal (i.e., preterm children have more working against them than can be compensated for by extra linguistic input).

2.1.1.1 Syntactic Development of Children

There seems to be consensus in the literature that child speech goes through a succession of stages (Langley, 1982, p. 150): 0 – 12 months: pre-linguistic stage, for example: hu-hu; 12 – 18 months: single word stage (SWS) or Holophrastic, for example: apple; 18 – 24 months: early multi-word stage (EMWS), for example: (I) want apple; 24

– 30 months: later multi-word stage (LMWS) and children can produce phrase structure, especially head-complement and subject-VP patterns, for example: I want to have an apple.

Langley (1982, p.151) stated that during the pre-linguistic stage, that of babbling, the child produces only vocalizations to which no meaning is assigned and which gradually become more varied, finally turning into syllables such as / ba/, /ma/, etc. The baby focuses on the acoustic information in the language stream, which helps him/her to 'segment complex non-linguistic events into what will be linguistically relevant units at the next phase' (Hirsh-Pasek & Golinkoff, 1996, 165). As early as a few days, babies are able to discriminate between their mother tongue and a foreign language from a different class and at about 4 or 5 months they can distinguish their own language from a foreign language in the same rhythmic class. Also, it seems that as early as two weeks, babies are able to discriminate between voiced and unvoiced consonants a sign that they are on their way towards distinguishing phonemic boundaries (Hirsh-Pasek & Golinkoff, 1996, 167).

The milestones of twins' language development is quite similar to singletons'. Begun at ages 1 and 2, twins are busy developing the rhythms and sounds of language. Their peer-play gives them practice in sound play, which helps tunes their prosodic and phonetic articulation to what they hear. Between the age of 2 and 3, twins are developing rudimentary syntax from conversational exchanges during play. Then, between the age of 3 and 4, twins develop conversational and strategic skills in negotiating object play with each other (Barth, 1982). Ingram (1989) adds that at the age of 3, children tend to produce many types of sentence including active and passive sentence (p.309).

2.1.2 Active and Passive Construction in Javanese Language

Before digging up more about active sentence of Javanese language, it is important to recall that the main syntactic feature for coining either active or passive sentence is the verbs. The verbs here, experience some morphological process, such as the addition of affixes. The affixes itself, can emerge from the morpheme and its allomorphs. Hausser (1999, p.91) defines a morpheme as the smallest meaningful units of language and the number of morpheme is finite. Then, the notion of a morpheme is a linguistic abstraction which is manifested concretely in the form of finitely many allomorphs. In the other word, Hausser (1999) continues, the allomorph is the alternative shape of the morpheme. For example: the morpheme *N-* (as a prefix in Javanese language) can be realized into many allomorphs (or it is called nasalized prefix in Javanese language) such as: *ny-, ng-, m-*, and so on.

Sudaryanto et al (1991) state that the core constituent of the sentence in Javanese language, which fills P function (predicate), can reflect an active or passive role and both sentences (for each sentence) are followed by their participant roles. This syntax rule is applied by van Valin as well. Van Valin (2001, p.8) emphasizes that sentence consist of the core with its arguments, then nucleus, which subsumes the predicate. For example:

(1) Foreman *ngampleng* Holyfield. 'Foreman hits Holyfield.'

(2) Holyfield *dikampleng* Foreman. 'Holyfield is hit by Foreman.'

Firsts, in the relation with core constituent whose category is a verb *ngampleng* 'hit', the prefix *N-* in *ngampleng* 'hit' (*N-* elicited the initial consonant of base form *kampleng*) acts as the marker of active role. On the contrast, the prefix *di-* in *dikampleng* 'is hit' acts as the marker of passive role.

Seconds, in the relation with participant role, either active or passive sentence above has two participant roles, namely agentive and objective roles. So, the structure of syntax role that can be formed as follows:

(1) Foreman *ngampleng* Holyfield.

'Foreman hits Holyfield.'

(Subject) agentive - - (predicate) active - - (object) objective

(2) Holyfield *dikampleng* Foreman.

'Holyfield is hit by Foreman.'

(Subject) objective - - (predicate) passive - - (complementary) agentive

2.1.2.1 The Active Construction of Javanese Language

As it is mentioned before that either active or passive sentence has a certain characteristic, and this characteristic, later, will examine that a sentence belongs to active and passive category or it is solely a simple sentence. Sudaryanto et al (1991, p.139) says the core constituent that plays an active role tends to appear in simple sentence, and this sentence has its imperative form. An imperative sentence is a sentence which involves two people in condition one people (people A) gives a command and another one (people B) will do this command (from people A). The command can be in positive command (ask someone else to do something) or in negative command (forbid someone else to do something). Then the used verb is a colloquial word -*Ngoko* and not the politer word –*Krama or Krama Inggil* in Javanese language.

In Javanese language, the imperative verb is always marked by using suffix *–a, -ana, -na,* and *–en,* and 0 (suffix zero). From the sentence *Foreman ngampleng Holyfield* 'Foreman hits Holyfield', it can be found some imperative forms as follows:

(3) *Man,* ***ngamplenga*** *Holy!* (Use suffix *–a*)

Man, hit Holy!

(4) *Man,* ***kamplengen*** *// Holy!* (Use suffix *–en*)

Man, hit // Holy!

(5) *Man,* ***kampleng-0*** *Holy!* (Use suffix zero -0)

Man hit Holy!

Not only is the role of the verb (as the core constituent) important, but the affixes (either prefix or suffix that follows the verb) also can determine whether it is a transitive or intransitive verb. Subroto et al (1991) describes the affixes of the verbs in Javanese language are divided into three categories: *N*-D Category, *N*-D-*i* Category, and *N*-D-*ake* Category.

The first category is *N*-D Category. *N*-D Category is a category which is resulted from D or *Dasar* (base form) and followed by n (nasalized prefix). In the *N*-D Category, the prefix *N*- has six allomorphs. In general, the *N*-D category states that the agent/doer intentionally does the action and this action is attributed to specific target. For further description, see the table 2.1 The Transitive Active Verb: *N-D* Category, in the appendices.

The second category is *N*-D-*i* category. Formally, the verb in the *N-D-i* category, involves the transitive verb which is preceded by nasalized prefix (N-) and completed by suffix -*i*. There are two processes in producing the *N*-D-*i* category:

The *N*-D-*i* category does look different from *N*-D category, even though they have same meaning. The difference lies in the plurality of the action. See the example below:

(6) Ani *njiwit* pupuku nganthi biru. ‘Ani pinches my thigh till it is blue.’

(7) Ani *njiwiti* pupuku nganthi biru. ‘Ani pinches (several times) my thigh till it is blue.’

In sentence (6) the agent is “Ani”, who does the action *njiwit* ‘pinches’, and the specific target *pupuku* ‘my thigh’. *Njiwit* ‘pinches’ in this sentence shows the action done for one time not more than once. It is different from Sentence (7), the verb *njiwit* ‘’ is added by suffix *–i* which shows the action done for several times. For further description, see the table 2.2 The Transitive Active Verb: *N-D-i* Category, in the appendices.

The last category is, *N*-D-*ake* Category. The verb of *N*-D-*ake* category is coined by adding nasalized prefix (before the D or base form) and suffix *–ake* (after the D or base form). The processes taken in adding the suffix *–ake* are explained in table below.

The suffix *–i* shows the plurality of the action, while the suffix *–ake* shows the causative action. Look at the following sentence:

(8) Amir mau*nibakake* adhine. ‘Amir just now (make) fall his brother.’

It means ‘Just now, Amir makes his brother fall.’

In sentence (8), the suffix *–ake*, makes the sentence that the agent/doer that function as subject did something for someone else. Or it can be said that suffix *–ake* states the benefactive action. For further description, see the table 2.3 The Transitive Active Verb: *N-D-ake* Category, in the appendices.

There are two kinds of verb in Javanese syntax, namely: transitive verb and intransitive verb. Transitive verb is a verb that is followed by an object or other complements. For example: *aku nulis surat* ‘I write the letter’. The noun Aku ‘I’ fulfills the subject function, the transitive active verb *nulis* ‘write’ needs

the object or complement to make the target of the action clear, namely: *surat* 'the letter'. Contrarily, the intransitive verb is a verb that is not followed by an object or other complements. For example, the word *tiba* 'fall' in the sentence (9): *Aku tiba!* 'I fall!', is intransitive active verb. But this word can be changed directly into transitive active verb if it is added by affix *N-D-i* and *N-D-ake*.

(9) *Aku tiba!* 'I fall!' →*Aku nibani adhiku!* 'I fall onto my brother!'

→*Aku nibakake adhiku!* 'I make my brother fall!

2.1.2.2 The Passive Construction of Javanese Language

Not only does the core constituent play an active role, but it does also play a passive role. A sentence whose core constituent plays a passive role has a paraphrase with a sentence whose its core constituent plays an active role. In other words, the active sentence can be converted to passive sentence, and the passives can be converted to active sentence as well, without changing any information within the sentence.

When *ngampleng* 'hit' acts as the core constituent of the sentence *Paija ngampleng Paiman* 'Paija hits Paiman', this core constituent plays an active role. When, *dikampleng* 'is hit' acts as the core constituent of the sentence *Paiman dikampleng Paija* 'Paiman is hit (by) Paija', this core constituent plays a passive role. Either the sentence *Paija ngampleng Paiman* or *Paiman dikampleng Paija* contains the same information; it states an action of 'someone named Paija do the action 'hit' to someone named Paiman.'

It is possible in the sentence *Paiman dikampleng Paija*, the constituent Paija has another form of passive, such as *dening Paija*. So, there are two possible passive forms: *Paiman dikampleng Paija* 'Paiman is hit (by) Paija', and *Paiman dikampleng dening*

Paija ‘Paiman is hit by Paija’. The appearance of the affix *di-* in *dikampleng* and the preposition word *dening* in *dening Paija*, shows that the core constituent which subsumes P (Predicate), plays a passive role.

The affix *di-* is not the only prefix to show passive, but there are some affixes to show passive, such as: *di-, di-/-ake, di-/-i, ke-/-an, ka-/-ake, ka-, ke-, -in-, -in-/-an-, tak-, tak-/-ake, tak-/-i, kok-, kok-/-ake, kok-/-i, -um-, -en, -ana,* and *na-*. For example: *Gelase pecah kesenggol karo Didin*, ‘The glass is broken because Didin touch it’.But the affixes of passive that will be explained later are limited in several affixes, namely: *di-, di-/-ake, di-/-i, tak-, tak-/-ake, tak-/-i, kok-, kok-/-ake, kok-/-i, -en, -ana,* and *na-*. Because the other affixes, such as *ke-/-an, ka-/-ake, ka-, ke-, -in-, -in-/-an-,* and *–um,* have a low passive content and they are categorized as the affixes that show an accidental passive. In Javanese language, there is a preposition word which emphasizes the passive role: *dening* ‘by’, but in this recent times, the word *dening* is used for formal situation, for daily usage, the Javanese speakers often use *karo* than *dening*. For further description, see the table 2.4 The Passive Verb Categories, in the appendices.

According to Subroto *et al* (1991), the verbs used in the passive sentences are categorized into four categories. These categories are based on the prefixes or suffixes that follow the verb. The categories are:

a. *di-D, di-D-i, di-D-ake* categories,

b. *tak-D, tak-D-i, tak-D-ake* categories,

c. *kok-D, kok-D-i, kok-D-ake* categories,

d. *D-en, D-ana, and D-na* categories.

Those categories will be explained in table 2.4. The Passive Verb Categories.

In the active sentence of Javanese language the intransitive active verb can be found, but in the passive sentence the intransitive verb cannot be found. It is due to no

complement followed the intransitive verb, so when the intransitive active sentence is converted to be passive sentence, that sentence will not be accepted for Javanese speakers. For example:

(10) Aku lagi *ngantuk*. → The verb *ngantuk* is intransitive active verb.

(11) ⦸ dingantuk aku.→ It becomes unaccepted sentence because the subject in this passive sentence does not exist.

2.1.2.2.1 The Special Categories: *D-en, D-ana, D-na* Categories

Basically, the way to produce passive sentence by using these categories and to produce passive sentence by using *tak-D, tak-D-i,* and *tak-D-ake* categories is the same. Some processes occurred during the **D-en, D-ana,* and *D-na* categories are:

a. If the D is ended by consonant, the D will be added by suffix *–en* and *–ana*:

thuthuk→thuthuken or thuthukana

b. If the D is ended by vowel, the suffix *–en* will change to be suffix *–nen*:

sunggi→sungginen not *sunggien*

c. If the D is ended by vowel, the suffix *–na*will change to be suffix *–kna*. But this change will not happen, if the D is ended by consonant:

jaga→jagakna not *jagana*

Compared with *di-*, *tak-*, and *kok-* categories, *D-en, D-ana, D-na* categories have some significant differences:

- In terms of its suffixes, *D-en, D-ana, D-na* categories state the imperative verbs. The speaker is the commander and the hearer is commanded. For example: Pelem kuwi *jupuken*! 'That mango (is) taken (by) you.'

- *D-en, D-ana, D-na* categories are similar to *kok-D, kok-D-i* and *kok-D-ake* Categories. The agent of the passive is second-person singular and second-person plural pronouns. For instance:

  Pelem kuwi *jupuken.* → Pelem kuwi *kokjupuk*.

  'That mango (is) taken (by) you' → 'That mango you take'

- The verb of sentence that is followed by suffix *–en, -ana, -na* is classified as passive since the verb will show the action of patient.

2.1.2.2.2 Special Characteristics of Javanese Passive Sentence

There are some characteristics of Javanese Passive sentence based on the personal pronouns of the agent or the object; the further explanation can be seen in the table 2.5. The Relationship of Personal Pronouns and the Passive Verbs (see the appendices).

2.1.2.3 The Participant Constituent that follow the Core Constituent

Basically, the core constituent always has its own participant constituent. It can be one participant constituent or more. The participant constituent for the core constituent of an active role is the agent; and when the core constituent has more than one participant constituent, the second participant constituent should be the patient or theme.

Look at sentence (11) and (12) below:

(11) Bakule *bengok-bengok*. 'The seller yells (several times).'

(12) Bakule *mbengoki aku*. 'The seller yells me (several times).'

In the sentence (11) the core constituent *bengok-bengok* 'is yelling' of an active role has the only one participant constituent: *bakule* 'the seller'. Then, this participant constituent is the agent. This condition is applied in sentence (12) as well. The first

participant constituent in this sentence *bakule* 'the seller' is the agent; and the second participant constituent in this sentence *aku* 'me' is the patient.

Beside the verb as the nucleus that fills predicate function, there are other constituent that describe the subject or object within the sentence, it is called participant constituent. The participant constituents that fulfill the object or 'patient' role is not only patient, but there are also other participant constituent. The commonly used participant constituents in Javanese language as follows (the related participant constituent is in italic mode):

(a) **Agent**: A willful, purposeful instigator of an action or event.

(13) *Wonge* njaga lawang.

'Someone keeps the door.'

(b) **Patient**: Things that are in a state or condition, or undergo a change of state or condition.

(14) Bapak nggodhok *endhog*.

'Father boils the egg.'

(c) **Theme**: Things which are located or are undergoing a change of location (motion).

(15) Adhiku njaga *lawang*.

'My brother keeps the door.'

(d) **Recipient**: Someone who gets something (recipients are always animate or some kind of quasi-animate entity).

(16) Ibu maringi *aku* dhuwit sewu rupiah.

'Mother gives me money one thousand rupiah.'

(e) **Benefactive**: The participant for whose benefit some action is performed.

(17) Bojoku nukokake klambi *bocah-bocah*.

'My husband buys clothes for children.'

(f) **Effector**: The doer of an action, which may or may not be willful or purposeful.

(18) Raine ketutupan *rambut.* 'Her face is covered (with) (her) hair.'

(g) **Goal**: Destination, which is similar to recipient, except that it is often inanimate.

(19) Mbakyune lagi nggolek *pegawean*. 'Her sister is looking for a job.'

(h) **Location**: A place or a spatial locus.

(20) Pak Wiwit manggon *neng hotel*. 'Mr. Wiwit stays at the hotel.'

(i) **Instrument**: Normally inanimate entities manipulated by an agent in the carrying out of an action.

(21) Bapak nggepuk tikus *karo tongkat*. 'Father hits a mouse by using a stick.

2.2 Review of Related Studies

Recalling the significant contribution of active and passive construction studies, bulks of researchers had examined the active and passive construction in utterances produced by singleton children. One of those studies was conducted by Kwee-Ock Lee and Youngjoo Lee (2008). They tested children's comprehension of passive predicates and event structures of predicates in Korean children's passives. By using a picture aided comprehension task with 67 Korean children ranging from 3;10-8;8, they found a contrast due to the event structures of predicates. The result showed that children are sensitive to the event structures of passive predicates, and thus provides additional support for the adjectival passive hypothesis.

Zoura Farayda (2011) conducted a study of verb construction in active and passive sentences in the narrative writing of mentally retarded high school students with mild category. She asked the participants to write their daily activities and made it as the