Metathesis as a Bootstrapping Strategy among Children in the Philippines: A Qualitative Investigation on Language Development

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Abstract
The purpose of this research is to conduct a qualitative investigation into children's ability to learn a language despite meager stimuli. Children usually employ the bootstrapping method to aid in the discovery of their linguistic abilities. This study used a naturalistic observation strategy to allow individuals to completely demonstrate their ability to use language as they interact with their environment. The study found out that children within the age bracket of 1 to 3 years old employ metathesis approach such as: Pure metathesis in the same syllable; Pure metathesis in different syllable; Lexical items produced through the metathesis approach with phonological addition; and Lexical items produced through metathesis approach with phonological omission. Since children have the capacity to learn language at a very early stage forming part their milestone, there is an impetus for proper scaffolding so that children will be able to acquire language through the examples of adult utterances or adult modelling.

I. INTRODUCTION

Despite the obvious scarcity of stimuli, children's language development has been seen to progress at a steady pace. The achievement recognizes the child's exceptional capacity to acquire a new language. Some children learn languages more quickly than others. The others, on the other hand, go more slowly in learning the language. Individual cognition, according to studies, is one of the factors that influences language acquisition in children (Maftoon and Sarem, 2012). Each child is a unique individual with varying levels of cognitive development, which may impact their capacity to learn a language. According to Aimin (2013), socio-cultural factors also influence language acquisition. Language acquisition requires a conducive setting. There are a number of elements that influence a child's capacity to acquire a new language. This study aims to examine the phonological processes of a Surigaonon child who encounters metathesis during the language learning process.

In the field of language acquisition, bootstrapping is a term used to describe the belief that a child is biologically pre-programmed to begin the development of language skills. To support lexical acquisition, children tend to do self-help despite the poverty of stimulus to acquire semantic and syntactic items relevant to everyday communication. One strategy prevailing among children is metathesis. When one sound is put adjacent to another sound or placed in a given position, the phonological process takes place. When the [b] sound occurs in the final position, it naturally becomes the [p] sound in Indonesian. It is also known as a

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pronunciation process because of this. Unintentional mistakes can occur throughout the phonological process of language acquisition, such as the inability to create some phonemes and some words in the correct order of phonemes. In other cases, they also add or eliminate phonemes that aren't necessary in specific words or terms. Errors in assembly are to be expected. Dardjowidjojo (2008) defines assembling mistakes as mistakes that occur when the words picked are right, but the sequence is improper; these mistakes are also known as transpositions. Spoonerism, anticipation, and repetition are all examples of transposition. Metathesis, a change in phoneme location, is one of the specific types of faults that can be made when creating a language. Syllabic error is another term for it (Dardjowidjojo, 2008).

Metathesis, for example, can be used to change the syllable or phoneme placements of a word. Metathesis is a regular phenomenon in children's language acquisition. It is not uncommon for children to pronounce words incorrectly in terms of phonemes or syllables. When they say "jilbab," they actually say "jiblab," which has the phoneme /l/ replaced by the phoneme /b/. Brown (2007), for example, claims that linguistic errors might take the form of additions, omissions, modifications, and wrong ordering. It is possible to make mistakes in a language due to both internal and external factors. It indicates that if children do not learn the first language, or if they do not learn the first language and then try to acquire the second, they will make mistakes.

Children begin replicating adults' words, phrases, and sentences when they are as young as one (1) year old. Language sounds retain their intricacy, regularity, and restrictions. Phonology is one of many language learning features that can be detected among children. Therefore, it is critical to study phonological development by using words as a medium. There are several difficulties that can be investigated through the interaction of those characteristics of language. One of these is the metathesis phenomena. Despite their greatest attempts, children are unable to communicate verbally due to a shift in the position of some phonemes. The researchers were interested in studying children's language development, particularly the metathesis process, for the reasons stated in the preceding paragraph.

This study investigates the phonological process of metathesis as a bootstrapping strategy among children, particularly in the early stages of language development.

II. METHODOLOGY

This research used a qualitative-descriptive method. When a simple explanation of a phenomenon is required, a qualitative descriptive method must be used. Using this method, researchers can learn who was involved, what was involved, and where things took place in relation to events (Lambert & Lambert, 2021). In this study, the researchers simply made observations and recorded actual contact with toddlers who are exploring their language skills. From these observations, analyses and conclusions are made.

Toddlers aged 1 to 3 years old from Surigao del Sur and Surigao del Norte, Philippines, are the study's participants. These children have a natural ability to converse in their mother tongue. The extent to which children are familiar with and exposed to a language determines how proficient they grow in that language. As they grow up among people who only speak Surigaonon, these children have developed their language acquisition in the language.

Because this is a qualitative study, the researchers act as the primary instrument, with the assistance of specific supporting instruments such as an observation guideline, documentation, and daily or journal notes. The researchers used a naturalistic approach in this study since they were interested in real-life scenarios. The research data were gathered by recording and documenting speech sounds created by the subjects while they go about their daily lives, such as playing alone or with their companions. People who study metathesis will record how words are used in their daily lives for at least ten days so that they can see how words change over time.

This research took one and half- month to complete. The research methodologies employed in this study was adapted from Anggaira's (2016) case study model, which includes case selection, data collecting, data analysis, refining, and reporting. Pure metathesis, metathesis followed by addition, and metathesis followed by omission will be the components of this investigation.

Triangulation was used to ensure validity in this investigation. The data were evaluated using Miles and Huberman's interactive cycle model (Miles and Huberman, 1984), which includes data collection, data reduction, data display, and conclusion.

The researchers sought both consent and assent for the study's ethical consideration. The consent of parents to allow their children participate in the research is a critical component of the study. They were informed through an informed consent about the study as well as the extent to which their children would be involved. Since children are vulnerable subjects, they were also made to understand that the children will not be coerced, and that if they feel uncomfortable for their children, they can decline at any moment. On the other hand, assent was also sought. They were told that if they do not like the researchers around, they can say so in order to immediately terminate the observation. 'Informed consent' is the cornerstone of ethical research (Denzin & Lincoln, 2011). The word is made up of two key elements: 'informed' and 'consent,' both of which requires

careful study. Participants must be thoroughly informed about what will be required of them, how the data will be used, and the potential consequences. If the information sheet and consent form are confusing, it will result in a poor consent agreement, which may damage the quality of data obtained owing to mistrust (Miles & Huberman, 1994) and provide insufficient protection for the participant and researcher.

III.   Results and Discussion

This study investigates the phonological process of metathesis as a bootstrapping strategy among children, particularly in the early stages of language development.

1.1 Pure metathesis in the same syllable;

No.	Metathesis	Utterance	Description
1	/tre-mos/	/ter-mos/	/e/ was changed into /r/ and vice versa.
2	/si-gob/	/si-bog/	/g/ was changed into /b/ and vice versa.
3	/lu-na-an/	/lun-a-nan/	/a/ was changed to n and vice versa
4	/i-nom/	/i-mon/	/m/ was changed into /n/ and vice versa.

1.2 Pure metathesis in different syllable

No.	Metathesis	Utterance	Description
1	/ter-ni-mal/	/ter-mi-nal/	/m/ in the beginning of the second syllable was changed into /n/ in the beginning of the third syllable and vice versa
2	/la-wa-kan/	/la-ka-wan/	/k/ was changed into /w/ and vice versa
3	/Sa-ma-lat/	/sa-la-mat/	/m/ was changed into /l/ and vice versa
4	/kus-ta-ra/	/kut-sa-ra/	/t/ was changed into /s/ and vice versa
5	/kwat-ro/	/kwar-to/	/r/ was changed into /t/ and vice versa
6	/tu-way-la/	/tu-wal-ya/	/y/ was changed into /l/ and vice versa
7	/tag-ku-po/	/tag-pu-ko/	/p/ was changed into /k/ and vice versa

1.   Lexical items produced through the metathesis approach with phonological addition

No.	Metathesis	Utterance	Description
1	/gor-li-la/	/go-ri-la/	/r/ appeared in the end of first syllable
2	/nag-im-nom/	/nag-inom/	/im/ appeared in the end of the first syllable
3	/ta-ga-ka-kos/	/tag-ga-kos/	/Ka/ appeared in the end of the first syllable
4	/tag-lang-anan/	/tag-lang-an/	/an/ is appeared at the end of the last syllable.
5	/hin-da-na-nan/	/hig-da-a-nan/	/g/ was changed to /n/ and vice versa
6	/hu-ya-na-nan/	/huy-a-na-nan/	/y/ was moved to second sylabble

2.   Lexical items produced through metathesis approach with phonological omission

No.	Metathesis	Utterance	Description
1	/tsi-las/	/tsi-ne-las/	/ne/ was omitted
2	/bis-wet/	/bis-kwet/	/k/ was omitted
3	/ti-dor/	/ti-ni-dor/	/ni/ was omitted
4	/tan-lanan/	/tag-un-lanan/	/g/ was changed to /n/ and /un/ was omitted
5	/si-ngod/	/si-ni-ngod/	/ni/ was omitted

IV.   DISCUSSION:

Metathesis phenomena or the change of the phonemes or syllables in constructing a word usually happens in the children's language acquisition process. The main subject of this research also made some mistakes related to the metathesis phenomena. For almost a month of observation, the researcher found 22words containing metathesis. It consists of four (4)words with pure metathesis in the same syllable, seven (7) words with pure metathesis in different syllable positions, six (6) words with metathesis followed by addition, four (4) words with metathesis followed by omission.

Results revealed that in the metathesis in pure syllables were e, g, and n, on the other hand in different syllable were m, k, t, r y and p. In addition metathesis revealed that r, im, ka , an, g and y while in identified metathesis words which are followed by omission were ne, k, ni, g, and ni.

In their attempt to bootstrap, children simply come up with specific patterns that are easier for them to produce, as evidenced by the results above. According to Hume (2002), phonetic and phonological characteristics, as well as lexical frequency, can explain why some patterns are more common than others. The syllable with weak stress has been omitted in the metathesis with omission samples, resulting in the formation of a new pattern as part of their bootstrapping strategy to access their language skills.

V.   CONCLUSIONS AND RECOMMENDATIONS

To sum up, the 22metathesis produced by the main subject of this research can be divided into five categories. Firstly, there are 4 words with pure metathesis in the same syllable produced by the main subject of this research. The metathesis is related to /a/ /g/ /a./ and /m / Secondly, there are seven (7)words with pure metathesis in the different syllables produced by the main subject of this research. The metathesis is related to /m/, /k/,/t/,/r/, /y/ /p/Then, there are six words with metathesis followed by addition produced by the main subject of this research. The metathesis is related /r/,/im/,/ka/,an/,g/and /y/.There are five(5)words with metathesis followed by omission produced by the main subject of this research. The metathesis is related to /ne// k/,/ni/,/g/, and /ni/. Further, the study revealed that there are common syllables used by children three years up in metathesis whether in the same syllable, different, addition and omission are significantly the same like g, k, m, n. The findings are significant to lead the care takers to give the appropriate support for the child's language acquisition. It is also imperative as the preliminary study for it provides the basic data on metathesis phenomena. Since children have the capacity to learn language at a very early stage forming part their milestone, there is an impetus for proper scaffolding so that children will be able to acquire language through the examples of adult utterances or adult modelling.

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