



## **The acquisition of noun inflection by Oromo speaking children**

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### **Abstract**

The primary objective of this study was to describe how typically developing Oromo-speaking children acquire noun inflection. Specifically, it seeks to examine how nominal inflections for number and case are acquired. The Oromo language has been extensively described linguistically, but there is no study on how children learn the language in general or how they acquire noun inflection in particular. A descriptive, cross-sectional research design was employed for the study. A total of thirty Oromo-speaking children between the ages of 3;0 and 7;11 participated in the study. The study predominantly used the picture naming and description method to elicit children's production. The voice samples were first written down orthographically (in Oromo script) and then phonetically (using IPA symbols). The findings revealed that various morphological processes were present in children's productions. These are incorrect naming of the pictures. In this process, the children employed a substitution, overgeneralization, or overextension strategy in naming the pictures. The majority of the children omitted noun inflectional morphemes, even at the age 6 through 7. Furthermore, the omission of some inflectional morphemes on the locative case marker was observed. But, the lexical morphemes are retained for this item. The study found no significant difference between sexes when comparing children's performance at the same age. To conclude, in the process of the acquisition of noun inflection by Oromo speaking children, the error patterns identified were errors of overextension, errors omission and errors of substitution. In general, the study findings are merely an attempt to describe and document the acquisition of noun inflection by the children in issue.

**Keywords:** Oromo, language acquisition, child language, inflectional morphology, noun inflection

### **1. Introduction**

Language acquisition refers to the process by which children learn to speak and understand their native language (Timothy, 2003). It is a subconscious process that implies language acquirers are not usually aware of the fact that they are acquiring language, but they are using the language for communication (Soltanieh, 2014).

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Language acquisition has long been an important topic of study (Johnson, et al., 2005). It is investigated in psycholinguistics as well as in other related scientific disciplines such as developmental psychology (Tatsumi, 2017). It has been studied primarily by linguists, developmental psychologists, and psycholinguists, suggesting that it is a multidisciplinary field (Hoff, 2009). In addition, (Sibanda, 2006; Friedline, 2004) also note that language acquisition is an area which attracts attention from disciplines, such as education and communication disorders, which results in different approaches to this subject matter. Scholars such as (Al Ghazali, 2006; Guasti, 2002; and Sinha, 2009) noted that language acquisition is one of the most impressive, fascinating, amazing feat and remarkable achievements of early childhood.

For over a century, people have been studying child language acquisition for various reasons, in various ways and at varying length. But it is a topic without a discipline (Ingram, 1989), which may suggest that child language acquisition has not received as much attention as it should be.

The fact that children acquire language without adults formally teaching them has been a mysterious matter for many educators. Hence, this special endowment of nature poses a lot of questions that researchers have to address. In line with this idea, Lust (2006:3), for example, posed several questions, such as the following: what is it about the human mind that makes it possible to acquire language? Which aspects of the language program are biologically programmed? What specifically linguistic knowledge is evident at early periods? What underlies apparent differences between language acquisition in children and adults? How do children 'project' from the finite data to which they are exposed out to the knowledge of the grammar? Are there universal specific stages in the acquisition of sounds and structures of language? What determines the change in children's linguistic knowledge as they develop?

These questions have been investigated by different researchers on children from various linguistic and cultural backgrounds. These topics are investigated in psycholinguistics as well as in other related scientific disciplines such as developmental psychology (Tatsumi, 2017). One of the most investigated topics in this area is the acquisition of inflectional morphology, i.e., focusing on how children learn various inflectional categories and individual inflected words (Tatsumi, 2017). In this regard, Penke (2012, p.2) notes, "the acquisition of inflectional morphology has been a central topic in language acquisition research since the seminal works of Berko (1958), Cazden (1968), and Brown (1973) on the acquisition of English". Penke (2012), in support of this, stated that a lot of researches have been studying the acquisition of inflectional morphology in languages all over the world in the last 30 years. However, as most of these studies have been conducted on European languages, little is known about children acquiring non-European languages (Lust, 2006).

As Deen (2005:4) points out, "every study of the acquisition of language contributes to the discussion of the nature of human language in some way or another". Therefore, the present research aims to contribute to the effort of filling the huge gap that exists in language acquisition studies in Ethiopia



by investigating the acquisition of noun inflection in children learning the Oromo language as their first language.

Scholars have looked into language acquisition from various perspectives. Demirezen (1988) discusses the major theories about how language is acquired and taught. These theories of language acquisition include Behaviorism theory, Innateness theory, Cognitive theory, and Social Interactionism theory. Behaviorism was dominant in the 1950s and 1960s, most closely associated with Skinner, originally known with Pavlov's well-known classical conditioning experiments with dogs (Tavakoli, 2012). Skinner argued that children are conditioned by their environment to respond to certain stimuli with language. According to Skinner, language is also shaped through operant conditioning or reinforcement. For example, when we respond to a baby's babbling with a smile or some vocalization of our own, babies babble even more. The theory disregards the existence of any internal processes that might be responsible for these changes and the child is viewed only as a passive object receiving input (Zahradníková, 2011). The Nativist theory /approach/ is originated as a direct antipode to behaviorism in the late 50s of the 20th century and dominated the field until the last decade (Mashhadi, 2012). It is associated with Noam Chomsky who developed the theory that all humans are born with an innate capacity and a knowledge system specifically designed for language and language acquisition (Tavakoli, 2012; Cruz, 2015). According to this theory, children rely on certain innate structures and mechanisms to acquire language (Clark, 2009). The theory proposes that speakers have a universal grammar (UG) of their language (Cruz, 2015), which is an innate linguistic knowledge that constrains the shape of the particular language system being acquired. On the other hand, there is another theory known as cognitive theory. The advocate of this theory is Jean Piaget who is famous for his four stages of cognitive development for children, which included the development of language. According to Piaget language is both a social and a cognitive phenomenon which implies that language acquisition is thus dependent upon cognitive development. For Piaget the child's level of language was determined by whether it had acquired certain fundamental concepts and by the complexity of the processing operations of which it was capable (Tavakoli, 2012). Studies (e.g., Van Patten and Benati, 2010) shown that cognitive theory is one in which psychologists attempt to understand how humans create and use knowledge. For cognitivists, there are no special places in the mind for language, math, or any other knowledge system. Cognitive researchers are thus interested in learning processes, and a good deal of cognitive research centers on learning styles, understanding (i.e., how people make sense of something), aptitude, information processing, and other areas. Cognitivists claimed in opposition to behaviorists that learning does not come from outside or environment; it comes from mental activities. They propose knowing rather than responding is important, which implies the child is passive in the language acquisition process. This view ignores the interaction of the child and environment, which are crucial in the process of language acquisition. Still there is another theory termed as social-interactionist theory. The theory is an explanation of language

development emphasizing the role of social interaction between the developing child and adults. It is based on Vygotsky's theory of cognitive development, and made prominent in the Western world by Bruner, who is the other influential researcher who elaborated and revised the details of the theory over a number of years and also introduced the term 'Language Acquisition Support System'(LASS), (Buckley, 2003). The theory proposes that the child's biological readiness to learn language interacts with the child's experiences with language in the environment to bring about the child's language development. Sibanda (2014, P.73) also explicates, "Despite the child being biologically designed to acquire language, constraints determine the linguistic aspects that develop at any given period that are at play in child language acquisition come from the mental capacity, physical maturity and input from the environment".

In general, the major theories on child language acquisition which are relevant to the current research have been reviewed. Depending on its concern, the theory deemed suitable for this study is the social-interactionist theory, because Social interactionist theory reaches a compromise between nature and nurture by suggesting that children acquire first language by established cognitive structures.

### *1.1. Statement of the Problem*

There is a consensus among scholars that there are a range of differences in terms of approach and focus among the studies already conducted on child language acquisition. Despite this fact, language acquisition research is important because both second language research and second language teaching have been influenced by changes in our understanding of how children acquire their first language. To show the importance of this issue, in Ethiopia, only a few studies are available in the field of language acquisition. These are a study on Amharic-speaking children by Ababayehu (2013); a PhD dissertation on the Acquisition of Oromo Phonology by Tariku (2019) and an MA thesis on Sidamu Afoo by Demeke (2015). Apart from these attempts, to the best of the author's knowledge, no other work on the acquisition of Ethiopian languages, including Oromo, could be found. This calls for studies on acquisition of various aspects of Ethiopian languages. Along the same line, this study therefore aimed to describe patterns of the acquisition of noun inflection by children learning Oromo.

The study will in effect fill the knowledge gap that exists on the topic, particularly in Ethiopia context.

The main objective of this research is therefore to identify noun inflection by typically developing Oromo-speaking children. The study is devoted to the following research questions:

1. What strategies do the children use to learn morphemes that are difficult to them master at their age?
2. What are the percentages of correct morphemes produced by the children at different ages?
3. What language patterns in the acquisition of noun inflection by these children at different age and sex?



## **2. Methodology**

### *2.1. Research design*

This study used a descriptive cross-sectional research design to document and describe the status of the acquisition of noun inflection of the thirty Oromo-speaking children, aged between 3; 0 and 7; 11. By taking a cross-sectional design, the study aimed at comparing findings across the group at a single point in time and examining how much the children differ in acquiring various morphemes. The data used in this study have been collected in two phases (phase I and II)<sup>2</sup>.

### *2.2. Setting and participants*

The children were all from East Wollega Zone, Guto Gida Woreda (Nekemte and its surrounding). These children were attending Gadisa Mati and Ask Kindergartens and were reached their homes. All of them live with both parents. This study used a purposive sampling method to select the participants. This technique was used with the assumption that it would allow the researcher to obtain the necessary data for this study. Accordingly, the speech samples were obtained from an equal number of male and females subjects; 30 children (15 males and 15 females) aged between 3; 0 and 7; 11 years.

### *2.3. Methods of Data Collection and Analysis*

The study relied chiefly on elicitation, which was accomplished through the use of picture naming tasks and various elicitation questions. In this method, the child is shown a picture and asked to name and describe it, which is useful for eliciting individual words to determine a child's grammatical knowledge (Ingram, 1989).

This implies that the researcher has to devise a suitable method to collect the required data. Following this some tasks have been designed to elicit children's productive language performance. These include structured interviews with an intended purpose (for example, ma:l arga: dʒirta?/ 'What do you see in the picture?').

Picture naming tasks using familiar objects (such as mule and mules, student and students, etc.) were used for elicitation to see if the required inflections (such as singular and plural) were used.

Data was collected using audio and video recordings. After recording the utterances, the researcher transcribed them orthographically (using Oromo script) and then using the International Phonetic Alphabet (IPA). Following data collection and transcription, the descriptive method was used to analyze the collected data. Based on this, the study compared the responses of children of different ages and both genders at the same age under investigation. Since morphemes are the focus of this study, the data was analyzed by dissipating their utterances into separate morphemes. The

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<sup>2</sup> The second phase data collection was done based on examiners comment, the number of participants should be increased, before the oral defense.

language technology software packages Audacity and ELAN were used to filter data for this purpose.

### 3. Findings and discussion

In this research, an attempt was made to identify the acquisition of noun inflection in typically developing children. To do this, nominal inflection for number and case were the target of this research. The data were collected in two phases. The results obtained from these data were explained using tables (1&2) below.

#### 3.1. Inflection of nominals for number (pluralization)

The acquisition of plural nouns was first investigated using data collected from the children. As a result, certain well-known pictures have been utilized, including /nama/ 'man', /barata:/ 'student', /ga:ŋge:/ 'mule', /sare:/ 'dog', /sa'a/ 'cow', /ɖabbi:/ 'calf', and /harre:/ 'donkey' and their plural counterparts. The results of the children's productions in this case are summarized in Table 1.

Table 1

*Results of the children's productions in picture naming and pluralization tasks*

s/no.	Number	Target		Correctly produced	%	Incorrectly produced	%
		Item asked	Gloss				
Result of Phase I data							
1.	SG	/ga:ŋge:/	'mule'	0	0	20	100
2.	PL	/ga:ngoli:/-ota/	'mules'	0	0	20	100
3.	SG	/nama/	'man'	16/20 <sup>3</sup>	80	4/20	20
4.	PL	/namo:ta/	'men'	4/20	20	16/20	80
Result of Phase II data							
7.	SG	/sa'a/	cow	3	30	7	70
8.	PL	/sa:wwan/	cows	6	60	4	40
9.	SG	/ɖabbi:/	calf	7	70	3	30
10.	PL	/ɖabbi:le:/-o:ta/	calves	2	20	8	80
11	SG	/sare: /	dog	10	100	0	0
12	PL	/saro:ta /	dogs	6	60	4	40
13	SG	/harre: /	donkey	10	100	0	0
14.	PL	/harro:ta /	donkeys	5	50	5	50
15	SG	/barata:/	student	10	100	0	0
16	PL	/baratto:ta /	students	8	80	2	20

The results obtained from phase I data revealed that, all of the children (20) responded incorrectly /farda/ 'horse' instead of /ga:ŋge:/, 'mule'). When

<sup>3</sup> The details are indicated in Appendix 2.



naming the picture, the children used an overs implication or overextension method. This, according to (Ambridge, *et al.*, 2013), is one of the earliest errors that occur when a child extends a particular word to other referents (e.g., doggie to all animals) that share some visual or conceptual similarity. In other option, had it been the substitution of ‘horse’ instead of ‘mules’ acceptable, the plural form.

### 3.2. Acquisition of locative case

The Oromo preposition /gara/, along with the suffixes /-tti/ and /irra/, designate the locative case. Based on this, the results of the children's productions in the two phases are summarized in the following table.

Table 2  
 Summary of children’s acquisition of locative case (phase I and II data)

s/no	Target		Correctly produced	%	incorrectly produced	%
	Item asked	Gloss				
Result of Phase I data						
1	<b>gara mana:tti</b>	Towards home	6	30	14	70
Result of Phase II data						
2	<b>waraqatarra</b>	On the paper	8	80	2	20

The result of the first phase data revealed that, out of the total of 20 children, only 6 (30%) of them supplied the correct morpheme (**-tti**), while 14 (70%) of them did not supply this morpheme. Though further investigation is needed, the morpheme is late-acquired in increasing in age after 7;0. In contrast, different realizations are observed in the second phase data. That is, of the total of 10, majority of them (8, 80%) supplied the morpheme /-rra/<sup>4</sup> correctly, while only 2 (20%) did not supply the morpheme correctly. This indicates that the morpheme /-rra/, is easier and could be acquired around 3; 0 years of the age.

## 4. Conclusions and Recommendation

Based on the findings of this study, the following conclusions have been drawn. The findings of phase I demonstrated that the acquisition of plural formation revealed that very few children correctly supplied the required morphemes. Here, the children employed one of the morphological processes known as omission strategy. In addition, the result of this study revealed that most of the children employed an overextension strategy (an error where, in early acquisition a child denotes different things with a single label not used by adults). On the other hand, from the data gathered in phase II, the majority of the children correctly supplied the targeted plural morphemes. Furthermore, in the acquisition of locative case, in phase I data collections, majority of the children did not correctly supply the required locative marker. In this process the children employed another omission

<sup>4</sup> /-i-/ was deleted from /irra/ by vowel deletion rule of Oromo in word boundary.

strategy. To the contrary, the result of phase II data revealed that, all children (except one) have correctly supplied the required morphemes.

Generally, the findings of this study revealed that there are individual differences between the children and among different types of inflections. The error patterns identified in this study were errors of overextension, errors of omission and errors of substitution.

In light of the current study's findings, future research should attempt to address the following issues: The research discovered a gap in the children's understanding of inflectional morphemes. The current study, as a pioneering study in Oromo, was unable to cover all of the important linguistic aspects of the language. This is to say that the study may be incomplete because it was conducted with a small number of data collected over a short period of time, only a few aspects of language were discussed, and only a small number of children were used. This means that, while the findings shed light on some aspects of morphological acquisition in Oromo, the researcher is hesitant to use the findings to formulate acquisition rules for the language.

Furthermore, comparative research on Oromo children's languages is important because it has the potential to fill empirical and theoretical gaps. While this study focused on noun inflection acquisition, more research is needed to investigate the development of other linguistic aspects such as derivational morphology, morphosyntax, morphophonology, syntax, and so on. Besides that, extensive natural and experimental data collection and analysis is recommended in to add knowledge in the area.

Moreover, it is suggested that a large sample of children be used in this type of study to allow for greater representation and accuracy of results.

It is also suggested that future researchers consider broadening the upper and lower age limits as some morphemes were found to be acquired before the age of 3;3 and others were not acquired until the age of 7;5. It would also be advantageous to increase the size of the speech sample of words to be investigated.

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## Appendices

### Appendix 1 Names of the children & Code

<b>(Phase I)</b>				
s.no.	Name Participant (child)	Code	Gender	Age
1.	Kenawak Tesfaye	KETP	F	3;3
2.	Bebi Oljira	BEOP	F	3;5
3.	Moti Werkachew	MOWP	M	3;8
4.	Latera Gemechu	LAGP	M	3;9
5.	Latu Gemechu	LUGP	F	4;0
6.	Motuma Gemechu	MOGP	M	4;0
7.	Bekan Teshome	BETP	M	4;4
8.	Lidiya Tola	LITP	F	4;6
9.	Kena Getu	KEGP	F	5;0
10.	Keku/ Meseret Etana	MEEP	F	5;4
11.	Yoseph Feyera	YOFP	M	5;2
12.	Mizanu Abraham	MIAP	M	5;0
13.	Hawi Wagari	HAWP	F	6;2
14.	Ruhama Solomon	RUSP	F	6;2
15.	Segni Temesgen	SETP	M	6;4
16.	Ashenafi Abebe	ASAP	M	6;1
17.	Nimona Desalegn	NIDP	F	7;4
18.	Oguma Abebe	OGAP	F	7;5
19.	Eba Abebe	EBAP	M	7;3
20.	Debisa Dinkisa	DEDP	M	7;0
<b>(Phase II)</b>				
21.	Ephrem Tadese	EPHTP	M	3,5
22.	Oromiya Tesfaye	ORTP	F	3;4
23.	Dibora Gudina	DIGP	F	4;3
24.	Bilisuma Getahun	BIGP	M	4;0
25.	Nahime Girum	NAGP	F	5;1
26.	Hundaol Gizachew	HUGP	M	5;0
27.	Kayo Mamo	KAMP	F	6;0
28.	Solomon Dawit	SODP	M	6;2
29.	Sinan Feyera	SIFP	F	7;2
30.	Ketoran Tolesa	KTOP	M	7;0

Appendix 2  
Summary of the productions of pluralization by each child

child	ATS	ATP	Gloss	Production in SG/PL	Gloss	Comment
ASAP (M, age, 6; 1)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	-	-	<b>NR</b>
BEOP(F, age,3;5)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	-	-	<b>NR</b>
BETP(M, age , 4;4)	g/a:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	-	-	<b>NR</b>
DEDP (M, age, 7; 0)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama/nama]	'man'	<b>OM</b>
EBAP (M, age ,7;3)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama/nama]	'man'	<b>OM</b>
HAWP (F, age, 6;2 )	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[harre:*/ harre:/]	'donkey'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama/nama]	'man'	<b>OM</b>
MEEP (F, age, 5;4 )	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama/nama]	'man'	<b>OM</b>
KETP F, 3;3)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama lama]	'two man'	<b>SP</b>
KEGP (F, age, 5;0)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[har:e:*/ har:e:/]	'donkey'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama/nama]	'man'	<b>OM</b>
LAGP (M, age, 3;9)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama/nama]	'man'	<b>OM</b>
LUGP (F, age, 4;0)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[ho:la:*/ ho:la:]	'sheep'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama/nama]	'man'	<b>OE&amp; OM</b>
LITP ( F, age, 4;6 )	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama/nama]	'man'	<b>OM</b>
MIAP (M, age, 5;0)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama/nama]	'man'	<b>OM</b>
MOWP (M, age 3;8)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[re:tti:*/ re:tti:]	'goat'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	-	-	<b>NR</b>
MOGP (M,age 4;0)	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/barata:/	baratto:ta	'student'/'students'	[barata:/ baratto:ta]	student'/'students'	<b>SP</b>
NIDP (F, age, 7;4 )	/ga:nge:/	ga:ngoli:	'mule'/'mules'	[farda/ farda]	'horse'	<b>OE&amp; OM</b>
	/nama/	namo:ta	'man'/'men'	[nama/nama]	'man'	<b>OM</b>



OGAP (F, age,7;5)	/ga:nge:/	ga:ngoli:	‘mule’/‘mules’	[farda/ farda]	‘horse’	<b>OE&amp; OM</b>
	/barata:/	barat:o:ta	‘student’/‘students’	[barata:/ barat:o:ta]	‘student’/ ‘students’	<b>SP</b>
RUSP (F, age,6;2)	/ga:nge:/	ga:ngoli:	‘mule’/‘mules’	[farda/ farda]	‘horse’	<b>OE&amp; OM</b>
	/nama/	namo:ta	‘man’/‘men’	[nama/nama]	‘man’	<b>OM</b>
SETP ( M, age , 6;4)	/ga:nge:/	ga:ngoli:	‘mule’/‘mules’	[farda/ farda]	‘horse’	<b>OE&amp; OM</b>
	/nama/	namo:ta	‘man’/‘men’	[nama/nama]	‘man’	<b>OM</b>
YOFP (M, age, 5;2)	/ga:nge:/	ga:ngoli:	‘mule’/‘mules’	[farda/ farda]	‘horse’	<b>OE&amp; OM</b>
	/barata:/	baratto:ta	‘student’/‘students’	[barata:/ baratto:ta]	‘student’/ ‘students’	<b>SP</b>

Where, **ATS** indicates: Adult Target Singular, **ATP** represents Target plural; **OE** represents Overextension; **SP** represents supplied properly; **OM** represents plural marker morpheme omitted (picture naming is correct), **SG/PL** represents singular & plural, **NR** represents, no response (the child does not respond)

Appendix 3  
Productions of locative case by the children (phase I data)

	Child	gender	group	age	Target → <b>Gara</b> manaa <b>t</b> ti/ manat <b>t</b> i ‘to’or ‘toward s’	realization	Gloss	Comment	Strategy employed by the child
1.	KETP	M	1	3;3	“ ”	[balbalak’abaʃ: u:f]	‘It is to touch the door’	IAP	OM
2.	BEOP	F		3;5	“ ”	-	-	None	-
3.	MOWP	M		3;8	“ ”	[kanarukute: ɖjira]	‘ he is hitting this’	IAP	OM
4.	LAGP	M		3;9	“ ”	[manat:i]	‘towards home’	SP	no
5.	LUGP	F	2	4;0	“ ”	[De:ma: ɖjira]	‘he is going’	IAP	OM
6.	MOGP	M		4;0	“ ”	[øMana]	‘house hut’	IAP	OM

					<b>o</b> go:ɖʒ:e:]					
7.	BETP	M	3	4;4	" "	[Manaila:la]	'he is looking at home'	IAP	OM	
8.	LITP	F		4;6	" "	[De:ma: ɖʒira]	'he is going'	IAP	OM	
9.	KEGP	F		5;0	" "	[manak'abu:fi]	'to touch home'	IAP	OM	
10.	MIAP	M		5;0	" "	[Gala: ɖʒira]	'he is going'	IAP	OM	
11.	YOFP	F		5;2	" "	[manat: <b>I</b> ]	'towards home'	SP	no	
12.	MEEP	F		5;4	" "	[Fi:ga: jira]	'he is running'	IAP	OM	
13.	ASAP	M		4	6;1	" "	[o <b>mana</b> o]	'home'	IAP	OM
14.	HAWP	F			6;2	" "	[Garamana:t:i]	'towards home'	SP	no
15.	RUSP	F			6;2	" "	[o <b>mana</b> o <b>de:ma:</b> ]	'going home'	IAP	OM
16.	SETP	M			6;4	" "	[manat: <b>I</b> ]	'towards home'	SP	no
17.	DEDP	M	5	7;0	" "	[Nama:fimana]	'somebody and home'	IAP	OM	
18.	EBAP	M		7;3	" "	[mana kanat: <b>i</b> ]	'towards home'	SP	no	
19.	NIDP	F		7;4	" "	[Manat: <b>i</b> ]	'towards home'	SP	no	
20.	OGAP	F		7;5	" "	[o <b>mana</b> o <b>de:ma:</b> ]	'going home'	IAP	OM	

Where **'SP'** indicates the locative morpheme is supplied properly; **IAP** represents locative morpheme is not supplied properly, **'None'** none is supplied (the child does not respond to picture description task)

## Appendix 4

## Productions of locative case by the children (phase II data)

s/no	Child	gender	age	target	Gloss	Realization	Gloss	Comment
1.	EPHTP	M	3;5	/warak'a:rra/	'On the paper'	[warak'a:rra]	'on the paper'	✓
2.	ORTP	F	3;4	/warak'a:rra/	'On the paper'	[warak'a:rra]	'on the paper'	✓
3.	DIGP	F	4;3	/warak'a:rra/	'On the paper'	[warak'a:rra]	'on the paper'	✓
4.	BIGP	M	4;0	/warak'a:rra/	'on the paper'	[waraqata[	paper	X
5.	NAGP	F	5;1	/warak'a:rra/	'on the paper'	-	-	Error
6.	HUGP	M	5;0	/warak'a:rra/	'on the paper'	[lu:ki:rra]	'on the paper'	✓
7.	KAMP	F	6;0	/warak'a:rra/	'on the paper'	[lu:ki:rra]	'on the paper'	✓
8.	SODP	M	6;2	/warak'a:rra/	'on the paper'	[warak'a:rra]	'on the paper'	✓



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9.	SIFP	F	7;2	/warak'a:rra/	'on the paper'	[warak'a:rra]	'on the paper'	✓
10	KTOP	M	7;0	/warak'a:rra/	'on the paper'	[warak'a:rra]	'on the paper'	✓

Where, ✓ represents correct production; **X** represents incorrect production; **Error**, represents erroneously jumped when asking.