MORPHEME ACQUISITION ORDER OF OBOLO NATIVE SPEAKERS

Emmanuel Owaji-Ikekeiyem Alfred
Department of English Studies
University of Port Harcourt
nuelsonline@yahool.com
&
Michael Alozie Nwala Ph.D
Department of English Studies
University of Port Harcourt
mikeson100@yahoo.com

Abstract

The paper investigates the morpheme acquisition order of Obolo native speakers. Morpheme acquisition order cross linguistically is a controversial phenomenon as there exists different opinions motivated by different empirical studies. Using the Processability theoretical framework, a well-established linguistic approach to acquisition based on the premise that the stages of acquisition are hierarchical, the paper examines speech samples collected from 160 Obolo children within the ages of 3-6 years. Following the data analysis, the results indicate that the morpheme acquisition order of Obolo speakers do not follow a similar morpheme acquisition order with those of the English speakers. The paper therefore concludes that there are parametric variations in morpheme acquisition order cross linguistically.

Keywords: Morpheme, acquisition, linguistically, processability, parametric and longitudinal

Introduction

In the 1970s, a line of research began in linguistics known as morpheme order acquisition studies. It began sequel to the findings reported by Roger Brown in 1973 of his longitudinal study of three American children acquiring English as their first language. According to Brown (1973) the three children investigated acquired fourteen morphemes in a remarkably similar order regardless of their ages and backgrounds. The novelty of the findings, sparked off several studies

like de Villiers and de Villiers (1973), Goldschmeider and DeKeyser (2005) Kwon (2005) ; Luk and Shirai (2009), Barrot and de Leon (2014) among others.

Kwon (2005) observes that early researchers primarily worked on English language (1983, Iwasaki, 2004, Luk & Shai, 2009) were concerned primarily with uncovering evidence to support innatist's perspective of language acquisition based on the claim that human beings are 'designed' to acquire language; hence, they intensely propagated this notion that morpheme order acquisition exist universally across languages in a fixed natural order. This position was challenged due to the fact that many of the studies conducted focused on one language, English. Accordingly, Naerssen (1978) cited in McFerren (2015) "advised that caution should be taken in generalizing principles of language acquisition based on English, especially for languages with much more complex inflectional system'' (p. 146). Thus, for the claim to be substantiated, it was suggested that there was need for more empirical evidence from other languages apart from English.

Given the controversy that the proposition of an existence of natural morpheme order cross linguistically has generated and in furtherance of the need for more empirical evidence from non Indo-European languages, as well as the consensus that the inference which can be made about the attributes of universal grammar depends on the attested characteristics of individual language, especially 'small' languages under-described (Ngulube 2013), this present study is set to ascertain whether Obolo language native speakers specifically, follow a similar morpheme acquisition order as reported among English L_1 speakers.

The overarching aim of this study which is to observe, analyse and describe the morpheme acquisition order of Obolo speakers, has the following specific objectives: (a) to identify the morpheme acquisition order followed by Obolo speaking children in their language acquisition process; and (b) discover the factors responsible for the identified morpheme acquisition order of Obolo speaking children.

Overview of Obolo Language

Obolo is a non Indo-European language. It is the only native language spoken by the Andoni people residing in Andoni Local Government Area (ANOLGA) of Rivers State and perhaps by those in Eastern Obolo and Ibeno Local Government Areas of Akwa Ibom State. Obolo by linguistic classification is a Lower Cross Rivers language under the Niger- Congo phylum (Lewis, 2009) spoken in the

Niger Delta region of Nigeria. The name Obolo is both a linguistic and ethnic term (Ejituwu, 1991). It stands for the name of the people and the name of their language.

Review of Literature

Since the work of Brown (1973) longitudinal study of the three American children between the ages of 18-27 months old acquiring English as their first language (Johnson & Johnson 1998), several other studies have been carried out.

For instance de Villiers and de Villiers (1973) carried out a cross-sectional study of twenty-one English speaking children between the ages of 16 and 40 months, using the fourteen morphemes identified by Brown (1973) as well as his coding rules to identify obligatory contexts. Following the data analysis, their results turned out to be very similar to Brown's (1973) longitudinal study.

Since then, several studies have been carried out on acquisition order of English morphemes even in L_2, with many providing evidence in support of universal morpheme acquisition order (Kwon, 2005, Schenck & Choi, 2013). Available literature shows there are many studies in morpheme acquisition order; however, none has examined the morpheme acquisition order of Obolo speaking children. Hence, the interest of the present study as mentioned earlier was to examine and describe the morpheme acquisition order of Obolo speaking children. The methodology in carrying out the study is explained in the next section.

Methodology

The study employed the descriptive survey method which sought to identify the morpheme acquisition order of Obolo native speakers using the fourteen morpheme standard identified by Brown (1973). Data were collected from 160 children between the ages of 3-6 years through electronic recordings and were later transcribed and described.

Data Presentation

Here, we present in tables for analysis the standard fourteen morphemes identified by Brown and those of the Obolo language identified in this study. Table 1.1 shows those of Brown, while table 1.2 contains both the standard

fourteen morphemes identified by Brown, 1973 and their corresponding equivalents in the Obolo language. Table 1.1 also contains sentential examples of the standard morphemes, while table 1.2 also contains sentential examples the Obolo language

Table 1.1: Brown's (1973) fourteen morphemes and their acquisition order

Order of Acquisition	Morpheme	Example
1	Present Progressive (-ing)	Daddy *eating*
2	In	Water *in* bowl
3	On	Cup *on* table
4	Plural-s	Cat*s* drink milk
5	Irregular past	He *ate* rice
6	Possessive's	Sham's plates
7	Uncontractible copula	She *is* beautiful
8	Articles: a, the	*A* bird *The* book
9	Regular past-ed	Shan open*ed* the car
10	Third person singular-s	Shalom write*s*
11	Third person irregular	He *does* cry
12	Uncontractible auxiliary	Were they eating?
13	Contractible copula	Girl *is* tall Girl'*s* tall
14	Contractible auxiliary	Mommy *is* cooking Mommy'*s* cooking

Table 1.2: Brown's (1973) identified fourteen morphemes and corresponding equivalent Obolo morphemes

Order of Acquisition	English Morpheme	Equivalent Obolo morpheme	Examples
1	Present Progressive – ing	Kí/gâ	I- *kí* kúp 3Sg PROG drive S/he driving Ń *gâ* gúm- 1Sg PROG swim I (am) swimming
2	In	Mé	Átísí *mé* mún 1Sg(PN) PP water Atisi (is) in water
3	On	Mé	Kíreék *mé* ńkasí V PP chair sit on chair
4	Plural-s	-	-
5	Irregular past	-	-
6	Possessive's	Èyí/kè	Íkpá iré *èyí* àŋ Book POSS PRO (The) book is mine Úĵí *kè* Ímám Car POSS PN Ímám's car
7	Uncontractible	Ré	Áya i-*ré* ogwú íbót -

	copula		PN 3SgV(be DET N Aya is the head (leader)
	Articles: a, the	-	-
9	Regular past-ed	-	-
10	Third person singular-s	Î	*Î-ki* súlú òkwá- 3SgPNT drum he drums
11	Third person irregular	-	-
12	Uncontractible auxiliary	-	-
13	Contractible copula	-	-
14	Contractible auxiliary	-	-

Data Analysis

Several steps were followed in the data analyses: first, language samples collected from the subjects were transcribed, the types and frequency of the morphemes were then identified and codes were developed to account for the morphemes produced. For each morpheme, the sequences of acquisition were calculated by counting the number of its suppliance in obligatory context (SOC). Suppliance of obligatory context is recognized as providing one universal 'yardstick' for measuring grammatical accuracy (kwon, 2004).

For explicitness, a morpheme is assigned point values following whether it was supplied correctly, incorrectly and not supplied or unavailable in the suppliance of obligatory context. Thus, for a correct morpheme supplied, 2 (two) points was scored; for an incorrect morpheme supplied, 1 (one) point was scored and a zero (0) was scored where no morpheme was supplied. Table 1.3 illustrates clearly the scores.

Table 1.3: Morpheme supplied Point Values

Morpheme supplied	**Score**	Example: present future reference
Correct	2.0	*émí má sí* (I will go)

Incorrect	1.0	*émí mé sí* (I will go)
Not available	0.0	*émí ? sí* (I go)

From the above table, the sentence *émí má sí* (I will go), which shows the correct use of the future tense marker *má* (subject-verb singular agreement) received a score of 2, where *mé* (future tense plural marker) was supplied after *émí (*first person singular) received a score of 1, because it was not used correctly, (no subject-verb agreement) in obligatory context, howbeit indicated the speaker's intention; where none was supplied or unavailable, zero was scored.

The data collected from the children were grouped or coded into seven categories as follows: A (third person singular) B (future reference), C (uncontractible copula), D (present progressive), E (negation), F (possessive) and G (preposition). Thereafter, the mean for each morpheme acquired was determined for each subject in Table 1.4. This was followed by obtaining the percentage acquisition of accuracy for each morpheme under consideration by counting the number of respondents that correctly supplied in each case in obligatory context. The number of those that correctly supplied in obligatory context was then divided by the total number of respondents, multiplied by 100%, as in table 1.5. To ascertain the similarity or difference in comparison with the acquisition order of English L_1 studies and those of this study, the resulting data was statistically ranked and ordered first by percentage acquisition in Table 1.6, then by the Spearman rank order correlation coefficient based on the number of respondents that supplied correctly in obligatory context shown in table 1.7. The morpheme acquisition order of Obolo native speakers is presented in table 4.8

Table 1.4 A-G: Mean of Morpheme calculated for each subject

(A) THIRD PERSON SINGULAR

	Score (x)	Frequency (f)	fx
NA	0	4	0
ICT	1	7	7
CT	2	149	298
Total		**160**	**305**

$$Mean\ (\bar{x}) = \frac{\sum fx}{\sum f} = \frac{305}{160} = 1.91$$

TABLE 1.4A

(E) NEGATION

	Score (x)	Frequency (f)	fx
NA	0	15	0
ICT	1	32	32
CT	2	113	226
Total		**160**	**258**

$$Mean\ (x) = \frac{\sum fx}{\sum f} = \frac{258}{160} = 1.61$$

TABLE 1.4E

(B) FUTURE REFERENCE

	Score (*x*)	Frequency (*f*)	*fx*
NA	0	2	0
ICT	1	5	5
CT	2	153	306
Total		**160**	**311**

$$Mean\ (\bar{x}) = \frac{\sum fx}{\sum f} = \frac{311}{160} = 1.94$$

TABLE 1.4B

(F) POSSESSIVE

	Score (*x*)	Frequency (*f*)	*fx*
NA	0	13	0
ICT	1	29	29
CT	2	118	236
Total		**160**	**265**

$$Mean\ (x) = \frac{\sum fx}{\sum f} = \frac{265}{160}$$

TABLE 1.4F

(C) UNCONTRACTIBLE COPULA

	Score (*x*)	Frequency (*f*)	*Fx*
NA	0	7	0
ICT	1	21	21
CT	2	132	264
Total		**160**	**285**

$$Mean\ (\bar{x}) = \frac{\sum fx}{\sum f} = \frac{285}{160} = 1.78$$

TABLE 1.4C

(G) PREPOSITION

	Score (*x*)	Frequency (*f*)	*fx*
NA	0	5	0
ICT	1	10	10
CT	2	145	290
Total		**160**	**300**

$$Mean\ (x) = \frac{\sum fx}{\sum f} = \frac{300}{160} = 1.88$$

TABLE 1.4G

(D) PRESENT PROGRESSIVE

	Score (*x*)	Frequency (*f*)	*fx*
NA	0	8	0
ICT	1	22	22
CT	2	130	260
Total		**160**	**282**

$$Mean\ (\bar{x}) = \frac{\sum fx}{\sum f} = \frac{282}{160} = 1.76$$

Table 1.5: Percentages of Obolo Morpheme Acquisition

MORPHEME ACQUISITION ORDER	PERCENTAGE (%)

THIRD PERSON SINGULAR (149)	$^{149}/_{160} \times 100\%$ (93.12%)
FUTURE TENSE (153)	$^{153}/_{160} \times 100\%$ (95.62%)
UNCONTRACTIBLE COPULA (132)	$^{132}/_{160} \times 100\%$ (82.50%)
PRESENT PROGRESSIVE (130)	$^{130}/_{160} \times 100\%$ (81.25%)
NEGATION (113)	$^{113}/_{160} \times 100\%$ (70.62%)
POSSESSIVE (118)	$^{118}/_{160} \times 100\%$ (73.75%)
PREPOSITION (145)	$^{145}/_{160} \times 100\%$ (90.62%)

TABLE 1.6: Morpheme Acquisition percentages of Obolo native Speakers

S/N	MORPHEME ACQUISITION ORDER	PERCENTAGE (%)
1	FUTURE TENSE	95.62
2	THIRD PERSON SINGULAR	93.12
3	PREPOSITION	90.62
4	UNCONTRACTIBLE COPULA	82.50
5	PRESENT PROGRESSIVE	81.25
6	POSSESSIVE	73.75
7	NEGATION	70.62

Table 1.7: Spearman's Rank Order Correlation coefficients

S/N	MORPHEME	MORPHEME ACQUISITION	RANKS ORDER
1.	FUTURE TENSE	153	1
2.	THIRD PERSON	149	2
3.	REPOSITION	145	3
4.	UNCONTRACTIBLE COPULA	132	4
5.	PRESENT PROGRESSIVE	130	5
6.	POSSESIVE	118	6
7.	NEGATION	113	7

To ascertain the acquisition order of Obolo native speakers, as table 4.4 shows, the sequences of morpheme acquisition for each of the 160 subjects according to their responses was ascertained. Recall that a score of two (2) was given for correct (CT) morpheme supplied, a score of one (1) was given for incorrect (ICT) morpheme supplied and zero (0) given for no morpheme supplied or available (NA) as calculated and presented in table 1.4 A-G.

As Table 1.4 A. shows, out of the 160 Obolo children, 149 of them supplied the third person singular morpheme correctly, while 7 of the supplied incorrectly and 4 of them did not give any response. Following this development, a mean score of 1.91 was obtained for the third person singular morpheme acquisition. In table 1.4 B. a total of 153 out of the 160 Obolo children correctly supplied the future tense morpheme. 5 children supplied it incorrectly and two children turned up without a response. Based on that, a mean score of 1.94 was obtained for the future tense morpheme acquisition as shown.

In another development, of the 160 Obolo children, 7 children did not produced any response for the uncontractible copula, while 21 children supplied the morpheme incorrectly and 132 children supplied it correctly; which in sum produced a mean score of 1.7 for the uncontractible copula morpheme as shown in Table 1.4 C. For the present progressive morpheme acquisition (Table 1.4 D), a total of 130 children supplied the morpheme correctly, 22 children supplied it incorrectly and 8 persons did not give any response. This gave us the mean score of 1.76 for the present progressive.

For the negation morpheme, a mean score of 1.61 was obtained because 113 children supplied the negation morpheme correctly; 32 children supplied it incorrectly and 15 children did not supply as shown in Table 1.4 E. The analysis in Table 1.4 F. shows that out of 160 children, 118 correctly supplied the possessive morpheme, 29 children supplied the morpheme incorrectly and 13 children gave no response; thus this produced a mean score of 1.66. As Table 1.4 G. revealed, 145 children correctly supplied the preposition morpheme, while 10 children supplied it incorrectly and the 5 children supplied no morpheme. After the summation, a mean score of 1.88 was obtained for the preposition morpheme acquisition.

Comparison of the respective mean score for the different morpheme acquired by the 160 Obolo children revealed that the future reference has the highest mean score, in this case, 1.94. The morpheme with the lowest mean score was the negation marker, in this case, 1.61. Similarly, Table 1.5 revealed the accuracy rate or acquisition percentages for each morpheme particularly for future reference, third person singular and preposition to be above 90%. It can also be inferred from the table that the future reference ranks the highest amongst the seven morphemes under consideration. The negation morpheme, on the other hand, ranks the lowest.

Further comparison of the values obtained from Table 1.6 (percentage of morpheme acquisition) and the rank order obtained from Table 1.7, show clearly that Obolo native speakers' morpheme acquisition order differ from those obtained in English L_1 studies. The future reference was acquired first, followed by third person singular, preposition, uncontractible copula, present progressive, possessive and negation respectively.

Table 1.8: Morpheme acquisition order of Obolo native speakers

S/N	MORPHEME	MORPHEME ACQUISITION	RANKED ORDER
1.	Future reference	153	1
2.	Third person singular	149	2
3.	Preposition	145	3
4.	Uncontractible Copula	132	4
5.	Present progressive	130	5
6.	Possessive	118	6
7.	Negation	113	7

Morpheme	**Future reference**	**3rd person singular**	**Preposition**	**Uncontractible Copula**	**Present Progressive**	**Possessive**	**Negation**
Factors							
Language structure	2	2	-	2	-	2	2
Morphe	2	2	1	2	1	-	2

Table 1.9: Factors affecting Morpheme Acquisition in Obolo

me salience							
Semantic complexity	1	1	2	2	2	1	-
Input frequency	2	2	1	1	1	-	-

Conclusion

Deriving from the above, it is evident that Obolo children do not follow a similar morpheme acquisition order as the English L_1 speakers reported. It implies therefore, that universal morpheme acquisition order does not exist cross linguistically. In many dimensions this study is significant, as it has shown the morpheme acquisition order of Obolo native speakers which hitherto was unknown, despite decades of several studies in this area of research. It also contributes to the existing knowledge on morpheme acquisition research as it provides additional information or new data on morpheme order from non Indo-European language speakers. The study offers a sort of basis to test the generalized claim within the attested characteristics of individual language. Through this means, it would give clearer understanding into the universal nature of language acquisition process, 'balancing out' what may only be true of a particular language.

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