

Phonologically- Driven Acquisition of Clitics in Yemeni Arabic

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Abstract

This paper investigates the acquisition of clitics by Yemeni Arabic children. It looks at the acquisition of proclitics (affixes attached at the beginning of the word) and enclitics (affixes attached at the end of the word). The study examines the language of four children aged 1;8, 2;3, 2;8 and 2;11. It concludes that children seem to start acquiring enclitics prior to proclitics. The paper also considers the different repair strategies – certain phonological processes – that children resort to in order to compensate for the (adult's) input-output mismatches.

Keywords: Language acquisition, Enclitics, Proclitics, Repair strategies

1. Introduction

A clitic is a morpheme that has the syntactic characteristics of a word but shows evidence of being phonologically bound to another word. That is, a clitic depends phonologically on another word or phrase. It is always attached to a host. Gerlach (2002) defines a clitic as a word that cannot stand on its own in a given structure, but rather tends to cling to a host word.

Clitics fall into two categories, depending on their position in relation to the word to which they are connected. These are proclitics and enclitics. According to Kassie (1985) and Gerlach (2002), proclitics are attached to a leftward host while enclitics lean upon a rightward host.

In Arabic, clitics can be linked to a stem or to each other without orthographic marks like an apostrophe (Alotaiby, Foda and Alkaharashi 2010). They are pronounced and written like affixes but they are grammatically independent.

In language acquisition, there are stages where children tend to use clitics as part of their language to express different language functions.

Yemeni children, like other children, at certain stages of language development, use clitics to convey some language functions but the way they use these clitics is not the same as adults do. That is, some of the clitics appear before other clitics and even those which appear may not manifest adults' form. The acquisition of clitics by Yemeni children gives rise to the appearance of some phonological processes that are adopted by children.

The paper is structured as follows. Section 2 summarizes the previous studies on the acquisition of clitics in general. Section 3 presents the subjects and the data. It also provides analysis of the data, throwing light on the acquisition of proclitics and enclitics and the phonological processes that arise based on the data collected. In section 4 I attempted to present stages I perceived for the acquisition of clitics. Section 5 concludes the study.

2. Literature Review

Cross-linguistic studies on language acquisition show that children in their initial production pass through stages during which they omit clitics. As they grow up, some clitics emerge while others undergo a process of deletion. Not all the clitics that appear are exactly the same as adults' clitics. They undergo some phonological changes before they surface as adults'.

There seems to be a wide consensus on the assumption that functional elements are acquired late. Wexler et al. (2004) propose that omission of clitics is a consequence of a constraint subject to maturation. Based on cross-linguistic research, Grohmann (2014) states that clitics often constitute a vulnerable domain for a typical language acquisition. He proposes that when we talk about clitic acquisition, languages are of two types: languages in which clitic acquisition is problematic and languages in which it is not. Italian, French, Catalan and European Portuguese belong to the first type while the other type includes Spanish, Romanian, and Greek. The languages that come under the first type share frequent omission of clitics in obligatory contexts, late appearance of clitic production in spontaneous language

production data and widespread use of full DPs in place of clitics whereas in the languages of the latter type, children show rare omission of clitics in obligatory contexts, early occurrence of clitics in spontaneous language production data and low use of DPs in place of clitics. Costa and Lobo (2006) state that Portuguese children omit clitics and this omission lasts until later than in other languages. According to them, clitic omission is not necessarily uniform crosslinguistically as each language has specific properties.

Clitic placement is acquired earlier than 5 years of age by children with specific impairment (Theodore and Grohmann 2015). Petinou and Terzi (2002), on the other hand, suggest that clitic placement is acquired by the age of 3 years in Cypriot Greek.

When children omit clitics, it means that they are unable to produce an expected material. It can be called a stage of the non-production of expected material. Clitic omission is considered to be a hallmark of the process of language acquisition. Tsakali (2014) assumes that there seems to be a very brief period where clitics are completely absent in the clitic languages. She claims that clitic omission and clitic emergence are two distinct issues and should be kept apart methodologically. On the basis of my study, it appears that they are not two distinct issues as when it is difficult for a child to produce a certain clitic, he/she compensates for the deleted clitics and this reflects the fact that the two issues are related; deletion and emergence seem to be two aspects of the same phenomenon.

3. The Study

3.1 Subjects

The subjects of the current study are four children (three girls and one boy) ranging in age from 1;8 to 2;11 years old. All the children are Arabic-speaking monolinguals and belong to Taiz city. The study is cross-sectional and all the subjects are considered to have normal language development. They all belong to Taiz city and thus the data collected represent Taizzi dialect.

3.2 Data Discussion

Yemeni children, like other children, go through different stages before they master the use of clitics. In the initial stages, clitics have no place in their language. As they grow up, some clitics appear either in their correct form or in the form of the so called clitic alternatives. The older they become, the more clitics they show in their language.

3.2.1 The Acquisition of Proclitics

Proclitics, as mentioned earlier, refer to those particles that are attached at the beginning of the word. Proclitics do not have an independent accent or phonological accent. A proclitic is pronounced as a prefix of the following word. Both proclitics and enclitics are considered to be morphemes that have syntactic characteristics of a word but phonologically depend on another word or phrase.

Among the proclitics in Yemeni Arabic, especially in Taizzi dialect, is the future verbal particle /ʃa/. As the name suggests, it is used to express future. It is attached at the beginning

of verbs to refer to actions that may take place in future. The following are examples of the use of the proclitic /ʃa/:

(1)

/ʃalʃab/	“I will play”
/ʃaktub/	“I will write”
/ʃagri/	“I will run”

It is noteworthy that in Taizzi, the proclitic /ʃa/ takes the form /ʃi/ when the subject is third person singular, but we are not going to discuss that here as children, when acquiring the future proclitic, start with /ʃa/, associated with the first person form, as most of the sentences they use are those which express their needs or things related to them.

Children of the data show differences when dealing with the future proclitic /ʃa/. Some of them – those who are two years or younger – show no use of this proclitic. The future verbal proclitic is completely absent in their language.

(2)

/ʃaglis →	/ʔallis/	“I will sit”	(Maryam,1;8)
/ʃaru:ħ/→	/ʔalu:ħ/	“I will go”	(Maryam,1;8)

The form of the verb used by children is the present form. Some other children do not delete the proclitic /ʃa/. Rather, they substitute the sound /ʃ/ of the particle /ʃa/ with another sound. The reason behind this lies in the fact that the sound /ʃ/ is still not in the sound inventory of the child. Albothigi (2013) observes that the sound /ʃ/ is one of the coronals that is difficult to produce at the early stages of language acquisition. The substitution of the sound /ʃ/ by another coronal sound is one of the repair strategies that children resort to in order to resolve the difficulty in producing /ʃ/.

As the sound /ʃ/ is still difficult to produce, Farah (2:11), replaces this sound by the sound /t/.

(3)

/ʃaʃrab/→	/tatlab/	“I will drink”
/ʃaktub/ →	/tattub/	“I will write”
/ʃalʃab/ →	/talʃab/	“I will play”

Another repair strategy applied by children is consonant harmony. This strategy can be shown in the words produced along with the clitic /ʃa/ by Abdullah (2; 3).

(4)

/ʃagri/ →	/gaggi/	“I will run”
/ʃaru:ħ/ →	/lalu:ħ/	“I will go”
/ʃa:kul/ →	/ka:kul/	“I will eat”

From a phonological point of view, what happens here is spread of the marked feature. That is, the marked feature spreads to the sounds that are unmarked for those features. Bernhard and Stemberger (1998) and Stemberger and Gammon (1991) defend the assumption that the feature [coronal] is underspecified. Stemberger and Gammon (1991) provide evidence that coronal as a place is the default place of articulation through consonant harmony. This explains why Abdullah, my child informant, substitutes the coronal sound /ʃ/ which is a part of the proclitic /ʃa/ with /g/ and /k/.

Another proclitic is the definite article /ʔal/. In Yemeni Arabic, the definite article /ʔal/, equivalent to the English “the”, is classified into the moon /ʔal/ and the sun /ʔal/, the qamariyah and shamsiyah respectively. They are prefixed to a noun rendering it definite. The moon /ʔal/ is attached to the nouns that begin with labial and dorsal sounds while in the nouns where the initial sound is a coronal, the sun /ʔal/ is used.

In the case of the moon /ʔal/, the sound /l/ is pronounced as in words like /ʔalkita:b/ “the book” and /ʔalba:b/ “the door”. This is not true for the sound /l/ in the sun /ʔal/: The sound /l/ in the sun /ʔal/ tends to assimilate to the sound that begins the noun to which the sun /ʔal/ is prefixed in order to make it definite. That is, the sound /l/ in the sun /ʔal/ when followed by a coronal assimilates to it resulting in a doubled consonant. This can be illustrated in /ʔassala:m/ “the peace” and /ʔaʃʃagara/ “the tree”. Watson (2002) suggests that in Sana’ni, one of the Yemeni dialects, the sound /l/ of the definite article /ʔal/ assimilates when the trigger is a coronal, plosive or fricative.

The type of assimilation that takes place here is a total assimilation as the lateral /l/ takes all the phonetic features of the assimilator. The lateral /l/ and the sound that follows become identical resulting in a sequence of geminate sounds.

In standard Arabic and dialects of Arabic, the lateral /l/ is pronounced when the definite article /ʔal/ is pronounced in isolation, but when it is added to another word, the sound /l/ acts according to the following sound. That is, the sound /l/ may fully assimilate to the sound following it or it may be retained. The following are examples of the use of moon and sun /ʔal/.

(5)

moon /ʔal/	Gloss	sun /ʔal/	Gloss
/ʔalqamar/	“the moon”	/ʔaʃʃams/	“the sun”
/ʔalh̄arb/	“the war”	/ʔaθθawb/	“the garment”
/ʔalʔab/	“the father”	/ʔadda:r/	“the house”
/ʔalfaras/	“the mare”	/ʔannahr/	“the river”
/ʔalkita:b/	“the book”	/ʔazzajt/	“the oil”

In the case of child language, the matter is different. What is said about adult language is not applicable to child language as children have their own way of handling the definite article /ʔal/. For them, the lateral /l/ of the definite article /ʔal/ assimilates to all the sounds that begin the nouns to which the definite article /ʔal/ is attached. In the early stages, the moon /ʔal/ where the sound /l/ is supposed to be produced, /l/ does not exist. To compensate for the lateral /l/, children use assimilation as a technique or a repair strategy. In their language, the sound /l/ tends to assimilate to the following sounds irrespective of the sounds that follow.

(6)

Adult's words	Child's words	Gloss	Child
/ʔalqamar/	/ʔaʔmal/	“the moon”	Farah (2;11)
	/ʔakkamal/		Abdullah (2;3)
/ʔalgamal/	/ʔattamal/	“the camel”	Abdullah (2;3)
/ʔalh̄ima:r/	/ʔah̄hima:l/	“the donkey”	Abdullah (2;3)
/ʔalkubba/	/ʔabbubba/	“the ball”	Maryam (1;8)
/ʔalmax̄xadda/	/ʔammahadda/	“the pillow”	Farah (2;11)
/ʔalbajt/	/ʔabbajt/	“the house”	Farah (2;11)

Alkulaib (2010) reports that in Arabic child language, nouns are left unmarked for definiteness at the early stages of language acquisition. The article /ʔal/ realized as /ʔil/ in the

dialect he has studied, is omitted by children. Only the child whose age is (3; 6) inconsistently produces the definite article /ʔil/. This reflects the fact that as the child grows up, his/her language tends to become adult-like. This means that the age factor plays an important role in language acquisition. As opposed to Alkulaib (2010), my children informants show the use of the definite article before three years. They start with the sun /ʔal/ and where the moon /ʔal/ is supposed to be used, the lateral /l/ assimilates the following sound.

Kupisch and Bernardini (2008) state that there are three stages in article acquisition.

First, the bare noun stage (articles are absent).

Second, the variant stage (articles are used consistently).

Third, the target stage (articles are used whenever required).

Children of my data, use only the sun /ʔal/ as a definite article when they start using definite articles and where the moon /ʔal/ is required, they use the sun /ʔal/ or more precisely they resort to the sun /ʔal/ and apply the process of assimilation though in adult language assimilation of the lateral /l/ to the following sound is only triggered when the following sound is a coronal. They assimilate /l/ to all the sounds that follow.

In this study, it seems that that the following are the stages of definite article acquisition.

First, absence of the definite article.

Second, emergence of sun/ʔal/.

Third, emergence of moon/ʔal/.

The last proclitic I am going to discuss here is the morpheme /ma:/. /ma:/ is a first-position clitic that conveys negation. Hoyt (2007) states that many Arabic dialects use the combination of the morphemes /maa/ and /-ʃ/ to express negation.

What matters here is the proclitic /maa/ as the enclitic, /-ʃ/ will be discussed later on with other enclitics.

When in isolation, the proclitic /ma:/ is produced with long /a:/, but when it is prefixed to a word, the long vowel /a:/ is shortened in order to meet stress requirement. That is, the stress falls latter in the word and that is why the /a:/ in /ma:/ is produced short.

(7)

/ma:ʃti:ʃ/ →	/maʃ'ti:ʃ/	“I don’t want”
/ma:fiʃ/ →	/ ma'fi:ʃ/	“I don’t have”

/ma:kulʃ/ →	/ma'kulʃ/	“I don’t eat”
/ma:maʃi:ʃ/ →	/mama'ʃi:ʃ/	“I don’t have”

Some of the subjects of the data can produce the proclitic /ma/ while others find it difficult to produce it.

(8)

/maha'lajʃ/ →	/mahalajs/	“she is not there”	Farah (2;11)
/ma'kulʃ/ →	/matus/	“I don’t eat”	Remas (2;8)
/maʃ'ti:ʃ/ →	/matti:s/	“I don’t want”	Remas (2;8)

Some substitute the particle /ma/ with /ʔa/ as it seems difficult for them to produce the sound that starts the word being negated and the result is consonant harmony with the sound that replaces the target sound.

(9)

/mahalajʃ/ →	/ʔaʔalajs/	“she is not there”	Abdullah (2;3)
/malʃabʃ/ →	/ʔaʔʔabs/	“I don’t play”	Abdullah (2;3)

Instead of the sound /m/, which is in the onset position of the proclitic /ma/, the child replaces it with the glottal stop /ʔ/. The replacement of /m/ with /ʔ/ leads to the appearance of the processes of consonant harmony and assimilation, as illustrated by the first example (consonant harmony) and the second example (consonant harmony and assimilation). The acquisition of the proclitic /ma:/ leads to the emergence of two phonological processes, consonant harmony and assimilation.

Another example of consonant harmony and assimilation is found in the words produced by

the same child, but with replacement of another sound.

(10)

/maʃti:ʃ/ →	/tatti:s/	“I don’t want”	Abdullah (2;3)
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Instead of the glottal stop /ʔ/ in the place of /m/, the child substitutes /m/ by /t/ creating a word which can be taken as another example of consonant harmony and assimilation; the two processes that accompany the emergence of the first position clitic.

The following words are produced by another child. Like Abdullah, this child exhibits consonant harmony and assimilation while producing /ma/.

(11)

/maʃti:ʃ/ →	/titti:s/ /diddis/	“I don’t want”	Maryam (1;8)
/mahalawʃ/→	/ʔallu:s/	“he is not there’	Maryam (1;8)

Thus the acquisition of the proclitic /ma/, as shown by the examples above, goes hand in hand with the emergence of consonant harmony and assimilation.

3.2.2 The Acquisition of Enclitics

The word enclitic refers to the clitic that is phonologically joined at the end of the preceding word to form a single unit. Based on observation, it has been found that enclitics are produced before proclitics. That is, clitics that are attached at the end of the words tend to emerge first. The evidence comes from words produced by one of the subjects and the following word exemplifies this.

(12)

/makamaltu:ʃ/→	/tammatu:s/	“I haven’t finished”
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The same observation has been reported by Tzakosta (2004) who emphasizes that Greek children showed a preference for right side clitics. She claims that such a preference is due to the fact that enclitics are post-stress elements. As a result, enclitics become part of the prosodic word produced by children. Proclitics, on the other hand, are deleted in the initial

stages of language development.

In initial stages of language acquisition children show faithfulness to the stressed syllable and last syllable as they are always retained after truncation and this explains why enclitics are acquired before proclitics.

As for this data, children demonstrate that they do not have problems with enclitics production. The second position clitic /ʃ/ expressing negation is available in all children's words, but instead of /ʃ/, the sound /s/ appears as /ʃ/ is still not in the sound inventory of the children.

(13)

/maʃti:ʃ/ →	/titti:s/ /diddis/	“I don't want”	Maryam (1;8)
	/tatti:s/		Abdullah (2;3)
/mahalawʃ/ →	/ʔallu:s/	“he is not there”	Maryam (1;8)
/malʔabʃ/ →	/ʔaʔʔbs/	“I don't play”	Abdullah (2;3)

The emergence of the second position clitic /ʃ/ is accompanied with the process of substitution.

In addition to enclitic /ʃ/, there are some other clitics that are added to the end of the word to express different language functions.

To start with, Yemeni Arabic includes enclitics that convey the meaning of possession. These are called possessive clitics. They include the enclitics /i/, /ih/, /uh/, /hum/, /hin/, /kum/, /k/ and /na/. The following words illustrate how they are used.

(14)

/ħaqqi/	“mine”
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/ħaqqih/	“hers’
/ħaqquh/	“his
/ħaqquhum/	“theirs” (masculine)
/ħaqqihin/	“theirs” (feminine)
/ħaqqukum/	“yours”
/ħaqqana/	“ours”

When producing these words, no phonological processes result due to the attachment of the enclitics. Only in words like /ħaqqukum/ and //ħaqqak/, the process of consonant harmony comes to the scene as children produce them as in /ħakkukum/ and /ħakkak/.

In the case of object clitics that are also attached at the end of verbs, children show no use of phonological processes when producing words with these enclitics. The following words are examples of how children produce words with some of the object clitics; /ni/ and /k/.

(15)

/ʔakkilini/ →	/ʔattilini/	“feed me”
/la:ʕibi:ni/ →	/la:ʕibi:ni/	“play with me”
/ð ^ʕ arabak →	/dalabat/	“he beat you”

4. Stages in the Acquisition of Clitics

The following seems to be the scenario of the different stages of clitic acquisition.¹

¹ There doesn't seem to be a corresponding age to acquiring each affix in the developmental continuum. This may be attributed to individual variation among children.

Stage I

Clitics attached to the end of the word appear first. This includes the possessive clitics /i/, /hum/, /hin/, /kum/ and /na/, the object clitic /ni/ and the second position clitic expressing negation /ʃ/.

Stage II

Among the proclitics, the definite article /ʔal/ surfacing as the sun /ʔal/ appears before the other proclitics and it replaces the moon /ʔal/ which is supposed to be attached to the words beginning with labials and dorsals resulting in a process of assimilation.

Stage III

The proclitic /ʃ/ expressing future and /ma/ which is the first position clitic expressing future appear.

Stage IV

The moon /ʔal/ as a definite article that begins the words with labials and dorsals is used by children and the process of assimilation disappears.

5. Conclusion

This paper has discussed the acquisition of the most used clitics and the phonological processes that arise while acquiring them. It has been found that when finding difficulty to produce clitics, children resort to some phonological processes that may help them in the initial stages in demonstrating their ability in using clitics though they may not appear in their adults form. Those phonological processes can be considered as repair strategies and they include substitution, assimilation and consonant harmony. In addition, the paper has presented the stages perceived in the acquisition of those clitics.

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