

# Phases in L1 Acquisition of Negation: A Comparative Study of Cairene Arabic and English

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*This paper examines and compares the acquisition of negation by children acquiring Cairene Arabic and English as first languages. It was found that the development of this syntactic marker goes through three comparable stages in both languages. My analysis shows that the acquisition of negation matches the complexity of the negative syntactic formations at each stage. Moreover, I argue that the frequency of the input hypothesis does not provide an accurate explanation for the progression patterns. Overall, the observed parallelisms indicate that there is a cross-linguistically uniform line of acquiring syntactic structures.*

**Keywords:** *first language acquisition, negation, complexity hypothesis, Cairene Arabic, English*

## 1. Introduction

Children acquiring a particular grammatical structure in a variety of native languages pass through a uniform course of development, even when this structure is expressed through quite different morphosyntactic means in their respective languages. The acquisition of negation is a relatively well-known case, on which a number of cross-linguistic comparative studies have been conducted in favor of this unified path of L1 acquisition (see e.g., Wode 1977; Déprez & Pierce 1993; Meisel 1997, among others). This short paper will focus on the steps in which children acquire negation in Cairene Arabic (henceforth CA) and in English, and will argue that the development of this syntactic marker is roughly parallel in the two languages, taking negation patterns in adult language as a reference point.

Child data from CA are drawn from two different sources, which turned out to display significant overlap and complementarity. The first is data collected in Cairo, Egypt in November 2004 from five children between 2;0 and 4;2. Two one-hour sessions were held with each child. Negated utterances/responses were elicited in the course of spontaneous conversations with the children in the presence of close family members, and notes were taken whenever needed. This will be labeled as ‘personal data’, and the child’s name and age will be displayed next to each example. The other source is Margaret Omar’s (1973) study of the acquisition of Egyptian Arabic in a south Egyptian village (transcriptions slightly adjusted to account for CA). Omar’s data were elicited through what she calls *negation tests* in which the children were given some affirmative sentences and then asked to repeat them in negated form. Since many of her examples lack contextual information regarding the child’s age, they will be presented here as is. The English data are mostly taken from Klima & Bellugi (1966).

The analysis and discussion of these data aim to answer the following questions: How does negation function in adult CA? How does negation develop in child CA and English? Is there a systematic pattern of this development? How do the developmental stages correspond in the two languages? What implications does this have for language acquisition in general?

The remainder of the paper is organized as follows. Section 2 offers some background information about the nature of negation in CA adult language – but assuming the reader is familiar with negation in English, I will not discuss negation in adult English. Sections 3 and

4 outline the basic stages through which children acquire negation in CA and English, respectively. Section 5 discusses parallelisms in these developmental stages in the two languages and argues that this progression is based on the complexity of the syntactic system. Finally, section 6 summarizes my conclusions.

## 2. Negation in adult Cairene Arabic

The negation system of CA is not significantly different from other dialects of Arabic in that it comprises three particles. One is the free interjection *laʔ*, which is similar to the English *no*. The other two particles are the non-discontinuous *miš* (sometimes *muš*) and the discontinuous *ma—š* (Brustad 2000; Woidich 2006; Soltan 2007). For these it is possible to assume a single morpheme /m...š/ with two allomorphic realizations: the free allomorph *miš* and the bound allomorph *ma—š*, which are associated with *predicate negation* and *verbal negation*, respectively (see Brustad 2000). In this section, we look in some detail at all three types of negation and the environments in which they primarily occur and are relevant to children's acquisition of negation.

### 2.1 Interjectional negation

The free interjection particle *laʔ* is used to give a negative response to a question or express disagreement to a statement, but it does not seem to negate a proposition made by the speaker herself. Just like English *no*, it reinforces the following negation, but unlike *no* it can also be followed by an affirmative sentence. Thus in response to the yes-no question *inta ma-ruḥti-š?* 'You didn't go?' one could say *laʔ ruḥt* 'Lit. No, I went', which is equivalent to the English *Yes, I went*. Both *aywa ma-ruḥti-š* 'Yes, I didn't go' and *laʔ ma-ruḥti-š* 'No, I didn't go' are possible for a negative response, the second being somewhat emphatic.

Quite relevant is the role *laʔ* plays in adult speech, and certainly when addressing children, as a prohibition. An example would be *inzil xud-hum* 'Go down and take them' – *laʔ ma-tinzil-š* 'No, don't go down'. Uttered separately, *laʔ* warns children against doing something forbidden, much like *no no* in English (Omar 1973: 124).

Another use of *laʔ* in adult CA is to emphatically negate a proposition that stands in juxtaposition to another (see Woidich 2006: 346). The other, positive, proposition is often explicit as in (1a–b), but it may be imagined as in (1c), where the implication is 'anywhere else is okay'. The neutral way to negate these utterances would be to use verbal or predicate negation, e.g. *mafīš mayya* 'there's no water' (1b) or *miš hina* 'not here' (1c).

- (1) Utterance  $\Leftrightarrow \neg$  ( Utterance + *laʔ* )
- |    |  |   |
|----|--|---|
| a. | <i>ana axaṭṭat bass, lākin anaffiz laʔ.</i><br>'I only make plans, but realize, no!' |   |
| b. | A: <i>fī mayya?</i><br>'Is there water?'   | B: <i>mayya laʔ. fī šāy.</i><br>'Water, no. There's tea.' |
| c. | A: <i>aḥuṭṭa-ha hina?</i><br>'Should I put it here?'                                 | B: <i>hina laʔ.</i><br>'Here, no.'                        |







- b. *mam-tik hina?* Child: *hina la?*  
 mother-your.F.SG here here NEG  
 ‘Is your mother here?’ ‘Here no.’ (ibid.)
- c. Hanīn (2;2): *inta ʔimši la?*  
 you go-M.SG NEG  
 ‘You must not go.’ (Personal data)

### 3.2 Stage II: *miš*

The other type of negation observed in the youngest children’s speech is found in use of *miš*, as shown in (11). This one-word negation pattern is not, in principle, any more complex than Stage I. Nevertheless, its usage entails that the child has the pattern for predicate negation in place (see §2.2). The overgeneralization of *miš* to verbal negation here is often accompanied by the use of incorrect verb forms (in connection with tense, aspect, and person agreement). Interestingly, Benmamoun & Albirini (2013) report that Egyptian heritage speakers in the US prefer to use the continuous negation particle *miš* for verbal negation due to their “incomplete acquisition of the syntax of verb movement and its interaction with negation”.

- (11) Utterance  $\Leftrightarrow \neg$  (*miš* + Utterance)
- a. Mother: *ʔanʔ xarag-it?* Rīm (2;8): *miš tu-xrug.*  
 auntie left-she NEG she-leave.PRES  
 ‘Did auntie leave?’ ‘She didn’t leave.’  
 (Personal data)
- b. Child: *humma miš kal-u.* Adult: *humma ma-kal-ū-š*  
 they NEG eat-PL they NEG-eat-PL-NEG  
 ‘They didn’t eat.’ ‘They didn’t eat.’  
 (Omar 1973: 125)

This pattern is used as predicate negation in adult speech and is highly frequent, as mentioned earlier. Omar notes that it is unclear whether this negation pattern actually develops after the pattern postulated as Stage I; it is just as simple and strongly recurrent in younger children’s speech. However, there is evidence to treat it as Stage II. Based on observation of the subjects and of my own children, this pattern develops later, and rarely before 2;8. Moreover, children who use this pattern at a later stage do not continue to use the *la?* pattern presumed as Stage I (Omar 1973: 126). It goes without saying that there is no clear-cut border between the various developmental stages, and that there is considerable overlap.

### 3.3 Stage III: *ma—š*

Omar (1973) postulates the acquisition of *ma—š* form of negation as Stage III because the younger children in her study were not heard using this form of negation. The *ma—š* type of negation involves the complexity of attaching both a prefix and a suffix to the negated word, and the word may undergo further morphophonemic changes, such as a change in final vowel length or in primary stress. At Stage II, most errors involved the use of the *miš* form where

*ma—š* was required, or placed *miš* in the wrong position in the sentence (ibid.; 126). It seems that around the age of 4;0 and sometimes earlier children reach a semi-mastery of negation in CA. The examples in (12) indicate that using the discontinuous negation particle *ma—š* accurately coincides with using the correct verb form.

- (12) a. Mahmoud (2;9): *Dūdi ma-ʔakal-š*.  
           Dūdi NEG-eat-NEG  
           ‘Dūdi [referring to himself] didn’t eat.’ (Personal data)
- b. Seif (4;2): *ma-šraf-ū-š*.  
           NEG-know-him-NEG  
           ‘I don’t know him.’ (Personal data)

An exception to the earlier division is the acquisition of the negation of the stative verb *ma.fī.š* ‘there isn’t / aren’t’. Despite this exhibiting a seemingly advanced stage of negation, *ma.fī.š* is used by even the youngest children in the two-word stage. Since it is used as an early pivot word before it is contrasted with the affirmative existential *fī* ‘there is/are’, Omar (1973: 127) argues that this item is first learned as a chunk.

#### 4. Stages of negation in child English

Children acquiring English as their native language pass through three major stages in the acquisition of negation. According to Klima & Bellugi (1966), Bloom (1970), Wode (1977), and Capdevila & Llinás (1995), these can be summarized as follows:

##### 4.1 Stage I: one-word negation

In this early stage, children tend to use a negative marker (NEG), usually *no* and sometimes *not*, at the front or at the end of an affirmative utterance (U). Thus, we see utterances of the form: NEG + U or U + NEG. Klima & Bellugi (1966) noted that first productions of negation varied considerably from child to child. One of the three children in their study began as early as 1;6 and the others did not begin until around 2;6. Some examples are given in (13).

- (13) a. *No Mommy go.*  
       b. *Not a teddy bear.*  
       c. *Wear mitten no.*

##### 4.2 Stage II: multi-word negation with NEG in external position

The child now uses the negative markers – both *no* and *not* – utterance internally with verb stems and modals, and less in utterance-initial position (Wode 1977). Auxiliary verbs can be seen in combination with the negative marker, as in *don’t* and *can’t*, but not in questions or declarative utterances at this stage (Klima & Bellugi 1966: 194). According to Steinberg (1993: 15), utterances at this stage are still of a rather crude nature and negative imperatives are as poorly formed as in the previous period. This is exemplified in (14).

- (14) a. *I don't want it.* b. *We can't talk.*  
 c. *Don't leave me.* d. *He no bite you.*

#### 4.3 Stage III: clause-internal negation

At this stage, the child has a good idea of when *do* must be inserted and when *do* is not inserted. She makes placement errors but seems to grasp the basic notion that *do* is not added when there is a modal like *can't* or *will*, or when *be* is the verb. See the examples in (15). After this period, it is only a matter of months before most of the problems in negative making are successfully dealt with (Steinberg 1993: 16). Klima & Bellugi (1966) found that all three children in their study took six months to pass through the three periods, with some individual differences.

- (15) a. *Paul can't have one.*  
 b. *No, I don't have a book.*  
 c. *Don't put the two wings on it!*  
 d. *You didn't caught me.*

### 5. Analysis and Comparison

The development of the negation system in Cairene Arabic first language acquisition bears a close similarity with that in other Arabic dialects reported in the literature (see Smadi 1979 and Abu El-Haija 1981 on Jordanian Arabic; Aftat 1982 on Moroccan Arabic; Mohamed & Ouhalla 1995 on Palestinian Arabic; Al-Buainain 2003 on Qatari Arabic; Al-Jenaie 2008 on Kuwaiti Arabic). All of the above studies – together with Omar (1973) on Egyptian Arabic – report a rather uniform line of acquisition for the negation system with *la?* appearing first, then *miš* (Jordanian/ Palestinian/ Kuwaiti *mū*, Moroccan *māši*, and Qatari *mob*) followed by *ma—(š)* (Al-Kulaib 2010: 202). This line of development seems to conform to that observed for English, as discussed in some detail below.

Stage I in English acquisition of negation (one-word negation) closely corresponds to Stage I in CA acquisition of negation, with the exception of the position of the free negative markers: *no* in English and *la?* in CA. While in English children place *no* at the front or end of an affirmative utterance, in CA children always place the negation marker *la?* at the end of the utterance. This discrepancy aside, simple rules like those in (16) are expected to mark the beginning of the acquisition of negation. It is unclear at this stage whether the child uses one or two negation particles interchangeably, namely *no* / *not* in English and *la?* / *miš* in CA.

- (16) a. English: Utterance  $\Leftrightarrow \neg$  ( *no* + Utterance ) OR  $\neg$  ( Utterance + *no* )  
 b. Cairene Arabic: Utterance  $\Leftrightarrow \neg$  ( Utterance + *la?* )

During Stage II, children use *don't* extensively in English (as well as *can't*) and stop using *no* to negate utterances, and this corresponds to children's use of the predicate negation marker *miš* across the board in CA and simultaneously dropping *la?*. The lack of auxiliary verbs in adult CA may lead to the assumption that negation is more complicated for children acquiring

English. However, the fact that children only manage to use *don't* in English without tense or person agreement at this stage maps into overgeneralizing the use of *miš* to verbal negation in CA, also without tense or person agreement. This supports characterizing the *miš* – *don't* stage as an intermediate period in the acquisition of negation in both languages.

In Stage III, children acquiring English are able to make correct judgments about the insertion of *do* and also about when *do* is not added (after the copula and modal verbs) – the final and most complicated stage in the acquisition of English negation. On the other hand, children acquiring CA manage to use the complex negative particle *ma—š* correctly within certain tenses and pseudo-verbal clauses without using *miš* in its place, which also concludes the acquisition of CA negation.

These strikingly similar acquisition patterns require that we entertain two possible analyses that are well known in first language acquisition research: *the frequency of the input* and *the complexity of the syntactic system*. Below I briefly examine the (in)plausibility of both hypotheses.

Two pieces of evidence seem to support the frequency of the input hypothesis. The fact that *miš* is extremely common in adult input to children raises the question of whether or not children acquire this negative particle first because they hear it very frequently from adults. This is possible, of course. However, if we look at Stage I in which children place *la?* at the end of an utterance, a construction limited to emphatic negation in adult CA and hence infrequent in the input, it becomes clear that input plays little role at this stage. Another evidence in favor of the frequency of the input approach is an utterance like (5a) above (repeated here as (17a)), a grammatical subjunctive clause that serves as possible adult input. (17b), which is very similar on the surface, is ungrammatical in adult language, though very probable in child language. In fact, it looks exactly like the kind of negation errors that children make in indicative clauses. To claim that such errors are the result of some input is questionable since subjunctive clauses are generally infrequent as adult input to children.

- (17) a. *miš ti-sallim-i?*  
 NEG you-greet-F.SG  
 ‘Shouldn’t you say hello?’
- b. \**il-bint miš ti-sallim.*  
 the-girl NEG F.SG-greet  
 ‘The girl doesn’t say hello.’

The complexity of the syntactic system hypothesis predicts that a developmental sequence follows patterns of increasing complexity. This can be justified straightforwardly for the case in hand. First, placing the negative marker *no* – *la?* before or after an utterance is the simplest form of negation one could hear. McNeill (1970) claims that children everywhere seem to do much the same thing as they begin to learn negation. During the later stages, the child will cut down on overgeneralization by gradually developing specific distinctions for using a newly acquired negation particle. One can also make a complexity distinction between the negation patterns in stages II and III. In CA, *ma—š* is a complex particle consisting of a prefix and a suffix and has more elaborate uses than *miš*. In English, although *don't* seems to be frequent in the input, correct use of the auxiliary with negation is complicated and requires the prior acquisition of other syntactic categories, and therefore it is acquired later. I, therefore, argue

that the increasing complexity hypothesis provides a solid explanation for the analogous acquisition paths of this syntactic marker in the two languages.

## 6. Conclusion

This paper investigated the stages in which children acquire negation in Cairene Arabic and in English. It was shown that children pass through three comparable stages for acquiring this syntactic marker in both languages. The developmental pattern justifies an analysis based on the complexity of the syntactic system rather than on the frequency of the input. I argued that the latter approach does not account for the structures that children produce, but that are infrequent in the adult input. On the other hand, if the correspondences are viewed in the context of the adult syntactic negation systems, the progression pattern then matches the complexity of the different negative syntactic formations at each stage. These obvious cross-linguistic parallelisms signify not only a systematic, but also a uniform path for the acquisition of syntactic structures regardless of which particular language children acquire.

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