1. Introduction

Many dialects of Arabic express negation with a combination of the morphemes *maa-* and *-f*. This paper studies how cognates of these morphemes are used in Palestinian Arabic (PA). I argue that in PA, *maa-* and *-f* are SPECIAL CLITICS (Zwicky & Pullum 1983) and that *-f* is a 2\textsuperscript{nd}-position clitic (Wackernagel 1893).

1.1 Data sources

The data used in this study are from the following sources:

(1) a. a two-volume collection of folktales collected in 1910 (Schmidt & Kahle 1918, 1930: hereafter SK18 and SK30, respectively);
   b. theoretical work (Awwad 1987; Mohammad 1998, 2000);
   c. internet data containing Palestinian-specific isoglosses such as *ifî ‘anything’ (identified with ‘WWW’);
   d. the Levantine Arabic QT Training Data Set 4 from the Linguistic Data Consortium (LDC2005S14);
   e. examples elicited from native speakers (identified as ‘elicited’)

The data from SK18 and SK30 were collected in 1910 and so are nearly 100 years old\textsuperscript{1}. For this reason, data from both the older and contemporary sources have been verified with native speakers. As such, any data included from the 1910 sources are in accord with contemporary intuitions and usage.

---

\* Thanks to Ghassan Hussein-Ali for his help with Palestinian data, and to Peter Abboud, Abbas Bennamoun, Kristen Brustad, Mona Diab, Mushira Eid, Nizar Habash, Ernest McCarus, Mustafa Mughazy, Jerry Sadock, Usama Sultan, and other participants of ALS 20 for their comments.

\*\* Data from SK18 and SK30 are cited according to text and paragraph. For example, SK18:§1.1 is the first paragraph of the first text in (Schmidt & Kahle 1918).
A note on transcription is in order: the conventions used here are based on source texts and on impressionistic transcription of elicited data. Transcription of internet data approximates the orthography used in the source document. However, PA is a network of speech varieties differing between regions and socio-economic strata. For this reason, the transcriptions given vary in terms of certain phonemes. In particular the phoneme /q/ is given as [k] for the SK data to reflect the pronunciation in this dialect, in which /q/ is pronounced as [k]. Likewise, elicited data from speakers of urban dialects have [ʔ] for /q/. Data from electronic sources are shown with the standard [q]. Likewise, the dialect depicted in the SK data substitutes the voiceless palatal affricate [tʃ] for the phoneme /k/. This is shown in the transcriptions.

The paper is organized as follows: Section 2 describes how maa- and -f are used to form negative sentences in PA; in Section 3 the implications of the comparison for theoretical approaches to Arabic negative sentences are discussed. Section 4 concludes.

2. Negation in Palestinian Arabic

Like many dialects of Arabic, PA uses the morphemes maa- and -f in various permutations to express sentential negation, as in (2a)-(2c).

(2a) miʃ raah aktib kull  lahḍa
not fut. write every moment
“I’m not going to write every moment.” (WWW)

(2b) wallaahi ma-niʃ  ʔaarif
by-God not-1s-neg know.actpart.sm
“By God, I didn’t know that that happens.” (WWW)

(2c) ma-habbeyt-if  azʔaj-ak
not-liked.1s-neg annoy.1s-you
“I didn’t like to annoy you.” (WWW)

However, in PA, either maa- and -f can be omitted in certain contexts (SK18, Blau 1960; Awwad 1987):

(3a) bass al-ʃuyla  zeiy heyk, maa-bidd-i  ʔiyyaa-ha
but the-work like this not-want.1s obj-it
“...but work like this, I don’t want it.” (WWW)
NEGATION IN PALESTINIAN ARABIC

(3b) ?aa, bidd-haa-ʃ tihki maʃ-ak
      yeah, want.3sf-neg speak.3sf with-you
   “Yes, she doesn’t want to speak with you.”
   (LDC2005S14: fsa_25620:246.88)

Which is used seems to have to do with prosody and speaker choice (SK18: 93; Blau 1960:193).

In morphological terms, maa- and -ʃ are special clitics (Zwicky & Pullum 1983) because they have the following properties:

(4) a. they are affixes;
   b. they unselective: they attach to words of different lexical classes;
   c. they attach to words already hosting other clitics;
   d. their distribution is influenced by idiosyncratic non-syntactic factors.

These properties are examined in the remainder of Section 2.

2.1 Affixal properties

   Both maa- and -ʃ are affixes because they trigger word-internal phonological interactions between stress placement and vowel length (Brame 1971; Kenstowicz & Adbul-Karim 1980; Younes 1995).

   First, maa- is pronounced with a long vowel when stress falls on it, as the case when it is preceded by one of the adverbial expressions wallaahi ‘by God!’ or ūm- ‘ever, never’ (Blau 1960), as in (5a) and (5b).

(5a) [wal.ʃa.ʃi 'ma.:ʃof.tu]
   by-God not-see.perf.1s-him
   “By God I didn’t see him!”

(5b) [ʔum.ri 'ma.:ʃof.tu]
   ever-me not-saw.1s-him
   “I didn’t ever see him.”

The use of these expressions coincides with focus intonation on the negation particle. The use of -ʃ is rare or unacceptable in such cases. If stress falls later in the word, the [a] in maa- is pronounced short:

(6a) [ma.ʃof.1u.ʃ]
   not-see.perf.1s-him-neg
   “I didn’t see him.”

(6b) [ma.ʃho.ʃke:τl.hum]
   not-tell.perf.1s-to-them
   “I didn’t tell them.”

   Similarly, -ʃ closes word-final syllables, blocking a constraint in the Levantine dialects that shortens long vowels in word-final open syllables (Younes 1995). For example, the object clitic -ni ‘me’ has an underlyingly long vowel /-ni:/ that is pronounced as short [-ni] word finally, as in (7a).
Closure of the syllable with -f and the emergent length of the vowel create a super-heavy syllable that attracts stress, as in (7b) (Brame 1971; Kenstowicz & Abdul-Kareem 1980). This shows that -f is like object clitics in closing word-final syllables.

(7a) [bɪt.ɜɪbb.ni]  
love.3sf-me  
“She loves me.”

(7b) [bɪt.ɜɪbb.ɪː-f]  
love.3sf-me-neg  
“She doesn’t love me.”

In contrast, stem-final long vowels are pronounced as short vowels in word-final open syllables, even in close phrase groups such as the construct state possessive construction. For example, ʔabu ‘father’ has an underlying long final vowel /abuː/. In (8a) and (8b) it occurs in construct with l-banaat ‘the girls’. Since the two words are in a close phrasal group, resyllabification applies across word boundary, causing the article on l-banaat to close the final syllable of ʔabu. Nonetheless, the /uː/ is pronounced short and stress remains on the initial syllable: This is because syllabification is a phrasal phenomenon while stress placement is purely word-internal.

(8a) [ʔa.bu.l.ɜæ.t]  
(8b) *[ʔa.ˈbuː.l.ɜæ.t]

In contrast, addition of a possessive clitic to ʔabu either closes the final syllable or adds an additional syllable to the word. In either case, the stem final [uː] is pronounced long and attracts stress:

(9a) *[ʔa.ˈbu.k]  
(9b) [ʔa.ˈbuː.k]

(10a) *[ʔa.ˈbu.hʊn]  
(10b) [ʔa.ˈbuː.hʊn]

Because stress placement is a word-internal process, these data show that clitics form part of the word that they are attached to. The fact that -f causes final vowel lengthening and stress shift indicates that it is also a clitic and therefore is part of the word to which it attaches.

In sum, both maa- and -f are affixes. Assuming that the PROSODIC WORD (Selkirk 1980) is the domain to which vowel-shortening and stress placement apply, then maa- and -f form prosodic words with their host. However, despite being affixes their distribution within a clause is largely determined in terms of syntactic position.
2.2 *Distribution of maa-*

This section begins with a look at the position of *maa-* relative to the **left-periphery** of the clause (Rizzi 1997). The left-periphery is a set of positions occupied by clitic-left-dislocated NPs, fronted constituents, and question words. For descriptions of the form and function of the left periphery in PA and other dialects, see (Blau 1960:204-206), (Cowell 1964:429-435), (Brustad 2000: Ch.10), and (Holes 2004:257-264). For theoretical approaches see (Demirdache 1991; 1997), (Lalami 1996), (Aoun & Benmamoun 1998); (Doron & Heycock 1999), (Aoun, et al. 2001), and (Alexopoulou, et al. 2004).

For expository convenience, I assume that a clause containing left-peripheral elements is labeled CP, and that the left-periphery is outside an IP constituent containing the clausal predicate and tense-aspect-mood marking (Mohammad 2000). Clitic-left-dislocation involves NPs appearing in a position outside of the IP-constituent from where they bind a resumptive pronoun inside the IP (indicated in the schemata with subscripts). Fronting involves a constituent of any category being moved to a position immediately to the left of the IP and leaving a trace or gap in the position in which it is interpreted:

\[
(11) \quad [CP (NP_i)^* [C^* XP/Q-word [IP ... \text{pro}_{ij} \ldots \text{t}_j \ldots ] ]] 
\]

A sentence can contain multiple clitic-left-dislocated NPs (indicated by the Kleene-star on NP in (11) and a single fronted constituent (including question words). A clause that lacks either clitic-left-dislocated or fronted elements is assumed to project just an IP node (Aoun & Benmamoun 1998; Aoun et al. 2001; Alexopoulou et al. 2004).

In general, *maa-* appears to the right of left-peripheral elements. For example, in (12), *maa-* follows the clitic-left-dislocated NPs *?ana* ‘I’ and *hal-diin il-?waaj* ‘this crooked religion’:

\[
(12a) \quad ?ana \ hal-diin \ l-?waaj \ ma-bidd-i \ yyaa \\
\quad \text{I \ this-religion \ the-crooked \ not-want-me \ obj-it} \\
\quad \text{“As for me, this crooked religion, I don’t want it.” (SK30:$\S$)} \\
\]

\[
(12b) \quad [CP [NP_i ?ana] [, [NP_2 hal-diin l-?waaj] [IP ma-bidd-ii iyyaa_j] ] ] 
\]

In (13), the fronted question word *lēf* ‘why’ precedes *maa*:

\[
(13a) \quad lēf \ \text{ma-?aawabt} \ ?ala \ l-?as?ila \\
\quad \text{why \ not-answered.3sm \ upon \ the-questions} \\
\quad \text{“Why didn’t you answer the questions?” (WWW)} 
\]
In (14) maa- follows clitic-left-dislocated NP l-muyaariba wa-l-tuwaanisa ‘the Moroccans and the Tunisians’ and a fronted adjective phrase ?ahsan min-hum ‘better than them’:

(14a) wa-l-muyaariba wa-l-tuwaanisa ?ahsan min-hum maa-fiī and-the-Moroccans and-the-Tunisians better from-them not-exist “and the Moroccans and the Tunisians, there’s none better than them!” (WWW)

Native speakers reject examples in which maa- precedes left-peripheral elements:

(15a) lēf ma-ṭaad ḥada radd ṣalai-y why not-return.3sm one.sm answered.3sm upon-me “Why didn’t anyone answer me anymore?” (WWW)

(15b) * ma-ṭaad ḥada radd ṣalai-y? not-return.3sm one.sm answered.3sm upon-me “Did anyone answer me anymore?” (Elicited)

These data suggest that maa- cannot attach to a word which is any further to the left of the clause than the left-edge of the IP-string:

(16) Generalization 1: maa- must appear no further left than the left edge of the IP-string.

Generalization 1 suggests that maa- is attached to a sub-constituent of IP. The question then becomes what position maa- takes relative to IP-internal elements. This is considered in 2.3.

2.3 maa- attaching to verbal elements

With respect to IP-internal elements, maa- often attaches to the main verb in clauses with simplex tense-aspect structure:

(17a) lamma faaq ma-hakaa-l-ii-fū subaah il-xeer when awoke not-said.3sm-to-me-neg morning the-good “When he woke up he didn’t tell me ‘Good Morning.’” (WWW)
With compound tense-aspect, *maa-* attaches to the left-most auxiliary:

(17b) ġufsaana, maa-kalt-iʃ iʃi l-yoom
hungry.sf not-ate.1s-neg thing the-day
“It’s hungry! I haven’t eaten anything today.” (WWW)

(18a) abū-y u-ʃamm-i [IP ma-baʃkaa-ʃ yijji-him ulaad]
father-me and-uncle-me not-was.3sm-neg come.3sm-them children
“My father and my uncle, they hadn’t had any children.” (SK18:§51.9)

(18b) wallaahi haaði l-lyya l-gadiida ma-kunt-iʃ aʃrif-ha
by-God this the-language the-new not-was-neg know.1s-it
“By God, this new language, I didn’t know it.” (WWW)

(18c) [IP maa-kaam-iʃ yaʃtii min ʃraab-e abadan]
not-stood.3sm-neg give.3sm from pocket-his ever
“He didn’t ever give him [anything] from his pocket.” (SK18:§85.3)

(18d) [IP ma-raah yiʃall wala filistiini fi-l-balad]
not-fut remain.3sm even.one Palestinian in-the-country
“There won’t be a single Palestinian left in the country.” (WWW)

However, some auxiliaries, including *kaan-yikūn* ‘be’ and the SERIAL AUXILIARIES *ʕad* ‘again’ and *kaam* ‘so, thereupon’ sometimes precede negation² (Blau 1960; Husseini 1990; Mitchell & Al-Hassan 1994):

(19a) law maa-fii ʃabaab aw maa-fii banaat *kaan* maa fii ʃayya
if not-exist boys or not-exist girls was.3sm not exist life
“If there were no boys or no girls there wouldn’t be life.” (WWW)

(19b) ʃuri ʃad maʔakdar aradd ʕalē-kum bi-surfəa
sorry anymore not-be-able.1s answer.1s upon-you with-speed
“Sorry, I can no longer answer you quickly.” (WWW)

If these auxiliaries form part of the IP-constituent, then the examples in (19) indicate a class of exceptions to Generalization 1 in which *maa-* appears

---

² Mitchell and Al-Hassan (1994:77) claim that, in both Egypt and the Levant, serial auxiliaries are not negated: *ʔaam raah ma-ʃaʃ-f* ‘suddenly he refused to eat’. 
after the first word in the IP-string rather than at its left edge. This suggests the following modification of Generalization 1:

(20) Generalization 1’:

\[
maa- \text{ must appear no further left than the left edge of the IP-string, except when preceded by an auxiliary verb;}
\]

2.4 maa- attaching to non-verbal elements

In addition to verbs, maa- also attaches to certain kinds of non-verbal expressions. These include inflected prepositions, the existential particle fii (itself derived from an inflected preposition), indefinite pronouns, indefinite noun phrases, and the adverb *umr* ‘ever, never’:

(21a) haaða bakiːi-l-e faras ma-l-haa-f uxt this.sm be.actpart.sm-to-him mare.sf not-to-her-neg sister

“He had a mare that was without compare.” (SK18:§39.6)

(21b) ma-fii-f samak fii l-bahr wa-ʔana şayyaad not-exist-neg fish in the-sea and-I fishiyad

“There aren’t [any] fish in the sea and I am a fisherman.” (WWW)

(21c) lammin istawat aṭlaʃ il-zalame ʔarbʃʃiin ʃaddaad when ripened.3sf had-climb.3sm the-fellow forty picker ʃa-ʔahir-ha u-ʃshaʃlaʃ yismaʃ la-ʃdaddaad ſaʃk on-back-it and-not-picker heard.3sm to-picker sound

“When it ripened, the fellow had forty pickers climb it, and no picker heard the sound of another.” (SK18§33.9)

(21d) ma-ʃumr-ii-f ſuʃt-ʃu

not-ever-me-neg saw.1s-him

“I never saw him.” (elicited)

These are generally single words, meaning that they have atomic (non-branching) syntactic objects. However, in some cases maa- attaches to some constituents which appear to have branching structure:

(22a) ʃaamat haaði ſaʃk la-[pp fi-ʃen-ha ] balle u-ʃmaʃaat stood.3sf this fell.3sf not in-eye-her drop and-died.3sf

“Then she fell without a drop in her eye and died.” (SK18:§45.10)
(22b)  *wallaah ma-[pp fi-hal-lēle ] b-anaam ʕind-ak  
by-God not in-this-night sleep.1s at-you  
“I won’t sleep with you this night.” (SK30:§90.6)

(22) ma-[pp fi-l-yadd ] hiile  
not in-the-hand trick  
“Have no trick in the hand [idiom].” (WWW)

The preposition *fii-* is frequently pronounced as a prefix on the following  
word, so in these examples the expressions hosting *maa-* may not be branching  
at all. Mohammad (1998) reports that prefixing *maa-* to other branching  
prepositional phrases is unacceptable:

(23a) mona, ma-ʕand-ha ktaab  
Mona not-at-her book  
“Mona doesn’t have a book.”

(23b) *ma-ʕand  mōna ktaab  
not-at Mona book  
“Mona doesn’t have a book.”

In other cases, *maa-* prefixes to an expression preceding the initial verb in  
the clause (although there is some variation among native speakers as to the  
acceptability of such examples):

(24a) ma-fi-R  kān ʕind-na ʔaiy maqamaat  
not-exist was.3sm at-cl1P any possessions  
“We didn’t have any possessions.”  
(LDC2005S14: fsa18404: 554.27-558.66)

(24b) ma-l-iʃ-j baakī walad  
not-to-him-neg was.sm son  
“He didn’t have a son.”

Mohammad (1998) presents examples like these as being unacceptable.  
Mohammad’s examples are from a variety of PA spoken in rural areas of the  
Galilee region (Mohammad Mohammad, p.c.). It may be that there is variation  
within regions or varieties of Palestinian Arabic regarding the position of  
negation relative to auxiliary verbs. As such, the generalizations concerning  
the position of *maa-* should be taken as describing the varieties in which  
examples like (24a-b) are acceptable.
Generalization 1 is further complicated by certain expressions that can appear on either side of \textit{maa-}, raising the question of whether they are varying position or whether \textit{maa-} is. One such expression is the dative clitic preposition $l$- ‘to’ when it host clitic pronouns:

(25a) $\text{?il-i maa-kaan maq\text{\textbar}b\text{\textbar}l ?inn-hum tahaJJamu ?ala ?amani to-me not-was.3sm agreement that-they attacked.3mp upon Amani}$

“I had no acceptance for them attacking Amani.” (WWW)

(25b) $\text{?il-u ma-kaan ulaad}$

“$l$- present another exception to Generalization 1, suggesting the following refinement.

(26a) $\text{m\text{\textbar}na ma-fi\text{\textbar}R \text{-R ind-ha ktaab}$}$

“Mona doesn’t have a book.”

(26b) $\text{* m\text{\textbar}na, \text{-R ind-ha ma-fi\text{\textbar}R ktaab}$}$

“Mona doesn’t have a book.”

Therefore, $l$- presents another exception to Generalization 1, suggesting the following refinement.

(27) Generalization 1":

\textit{maa-} must appear no further left than the left edge of the IP-string, except when preceded by an auxiliary verb or an inflected dative clitic.

The word that seems to precede \textit{maa-} most frequently is the adverb $\textit{\text{\textbar}umr}$ ‘ever, never’:

(28a) $\text{ma-\textit{\textbar}umr-\text{\textbar}ji fuft-u}$

“$\text{\textit{\textbar}umr}$- ever-me-neg saw.1s-him” (Elicited)

(28b) $\text{\textit{\textbar}umr\text{\textbar}i ma-fuft-u}$

“$\text{\textit{\textbar}umr}$- ever-me not-saw.1s-him” (Elicited)
It frequently appears in what looks like a construct-state possessive with a following nominal that corresponds to the subject of the clause:

(29a) [����رم ا有一定的 ] مَا-ṣaabat-ni
ever the-catastrophes not-struck.3sf-me
“… never have catastrophes struck me.” (SK18:§62.11)

(29b) ana حاقة-ت-ي ك اليلي [����رم هادا ] مَا-حيليم fii
I realized.1s-to-you rel. ever one not-dreamed.3sm in-it
“I have made real for you what no one has ever dreamed of.” (WWW)

Sometimes����رم hosts a clitic pronoun coreferential with a subject NP:

(30a) حاذا����رم-ع مَا-عام بالة sirka
this.sm ever-him not-slept.3sm without theft
“He never went to sleep without stealing [something].” (SK18:§22.2)

(30b)����رم-ع مَا-هادا سيمى فيان-حوم يأر kull xēr
ever-him not-one.sm heard.3sm on-them other-than every good
“No one has ever heard about them other than all the best.” (WWW)

Other times the pronoun and the subject are not co-referential:

(31a) حال-كليّة����رم-ها مَا-كن مَا-هي
the-college ever-her not-was.3sm in-her
؟انشاف والادل ل-الي ل-تاليبا sf
impartiality or fairness to-the-student
“In this college, there was never justice or fairness for the female student.” (WWW)

(31b)����رم-ي مَا كاان ئند-ي مشفىّا ل-كوان-ي فلسطينيّا
ever-me not was.3sm at-me problem.sf with-being-me Palestinian.sf
“I have never had a problem with my being Palestinian.” (WWW)

Additionally,����رم can appear without a clitic or possesor NP:

(32a)����رم ما-حاد ئاف وائي وا-ياقل-ي ئال مضيف
ever not-one.sm saw.3sm face-my and-mind-his stayed.3sm with-him
“No one has ever seen my face and kept his wits about him.” (WWW)
(32b) ma-ʕumr ʕaddat-ni quṣṣa miḥil il-quṣṣa haaḍi
not-ever affected.3sf-me story.sf like the-story this.sf
“Never has a story affected me like this story.” (WWW)

Adverbial ʕumr is derived from the noun ʕumr ‘age’, as in (33a). In its
‘age’ meaning, ʕumr appears very frequently in construct with a following
noun, with the whole expression meaning ‘(in) X’s life’, as in (33b).

(33a) baakī ʕumr-e yimtjin ʕifrijin sane
be.part.sm age-his perhaps twenty years
“It was maybe twenty years old.” (SK18§31.5)

(33b) bidd-i aṭjawwaz-ha law ?axir yōm ʕumr-i
want.1s marry.1s-her if final day life-my
“I want to marry her even if it’s the last day of my life.” (WWW)

The adverbial use probably developed with ‘X’s life’ in negative sentences
where it implies the meaning of ‘ever’: ʕumr-i ma-kalt-ū-ʕ ‘in my life I have
not eaten it’ → ‘I have never eaten it.’

Nominal ʕumr can precede negation in a left-peripheral position or follow
it in an IP-internal position, explaining how it can appear on either side of
negation. The “bare” use of adverbial ʕumr is likely to be a morphological
reduction of adverbial ʕumr in construct that retains the same syntactic
distribution as its etymological source.

(34) [CP [NP (ʕumr-NP)] [S maa-(ʕumr-NP)...] ] →
[CP [NP (ʕumr)] [S maa-(ʕumr)...] ]

This suggests that ʕumr preceding negation is in a left-peripheral position,
while ʕumr following negation is in an IP-internal position. The distribution of
ʕumr is therefore not an exception to Generalization 1.

Another complication for Generalization 1 is the position of subjects in the
SV word order. There are two ordering possibilities S-Neg-V and Neg-S-V.
Which is used depends on several morphological, prosodic, semantic and
pragmatic factors. When the subject NP follows negation, it is generally an
indefinite noun or a pronoun (Mohammad 1998, 2000). This can be seen in
(21c) and (30a) above. Subject NPs in SV order are either definite NPs, or
indefinite NPs that are interpreted as “specific” in a widely noted if poorly
understood sense (Khan 1988; Mohammad1998; Mohammad 2000):
The two sentences mean different things although they contain the same words, as in (36a) and (36b). (36a) describes a situation in which no one came, whereas (36b) describes a situation in which a particular individual did not come while still allowing that other people might have done so.

As noted above, subjects that precede negation are subject to the same specificity condition that applies to clitic-left-dislocated NPs. Accordingly, Generalization 1 might be taken to imply that the S in a negative sentence with SV word order is not a subject at all (in the sense of occupying a dedicated IP-internal subject position), but rather a left-peripheral element. This is in keeping with a traditional analysis that treats pre-verbal subjects as clitic-left-dislocated NPs that are resumed by the agreement marking on the verb.

However, Mohammad (2000) argues in detail that preverbal subjects really are grammatically subjects, meaning that they show the grammatical characteristics of occupying an IP-internal position. According to Mohammad, the subject NPs in (35a) and (35b) would all be in the IP-internal subject position, and therefore the negation marker is not marking the left edge of the IP, contrary to Generalization 1, but rather the left edge of the what one might call the “I'-string”. This would imply yet another refinement of Generalization 1:

(37) Generalization 1’’:

\textit{maa-} must appear no further left than the left edge of the IP-string, except when preceded by an auxiliary verb, an inflected dative clitic, or a subject NP.
Mohammad’s argument raises questions about the positions of other expressions that precede maa-: if maa- can vary its position relative to subject NPs, then it can also vary its position relative to the dative clitic and to $\imath$umr. This suggests that Generalization 1 is not correct, as the exceptions to it are systematic and therefore indicative of some other missing generalization. In Section 3, I suggest that a version of Generalization 1 might be correct if the domain in which maa- is located is defined in purely prosodic terms, rather than as a word-string which is isomorphic with the IP-constituent.

It was noted above that maa- can be omitted in certain contexts. This is only possible with stems beginning with labial obstruents [b] or [f], and only in the presence of -f. Early 20th-century grammars of Lebanese (Feghali 1928) and PA (SK18, Blau 1960) note reduction of ma- to a- before the b-imperfect:

(38a) ɟal a-b-ixuṣ-nii-f
   said.3sm not-concerns.3sm-me-neg
   “He said ‘It doesn’t concern me’.” (SK18§25.8)

(38b) ɟalat a-bidd-ii-f axassr-ak
   said.3sf not-want-me-neg harm.1s-you(sm)
   “She said ‘I don’t want to harm you.’” (SK30§129.4)

Total reduction of maa- is rare in the 1910 data in (SK18) and (SK30), but is more pervasive in contemporary PA. It also occurs with existential $\mbox{fii}$. This may be the result of analogical extension from verb stems with indicative prefix bi- to [b]-initial stems (such as bidd- ‘want’) more generally and then to stems beginning with labial obstruents, of which PA has only two.

When maa- is omitted, -f is still constrained to attach to the word to which maa- would attach if it were present. In other words, -f is constrained by the distribution of maa- even if maa- is not pronounced:

(39a) b-ikûn-f $\mbox{fii} \ ɟitaa \ mi\theta l \ il-iyam \ illi \ ra\bar{a}h \ ti\bar{i}j$
   be.3sm-neg exist rain like the-days rel. fut come.3sf
   “There won’t be any rain like the days that are coming.” (WWW)

(39b) *b-ikûn $\mbox{fii} \ ɟitaa \ mi\theta l \ il-iyam \ illi \ ra\bar{a}h \ ti\bar{i}j$
   be.3smexist-neg rain like the-days rel. fut come.3sf
   “There won’t be any rain like the days that are coming.” (Elicited)

(40a) ma-b-ikûn-f $\mbox{fii} \ makaan$
   not-be.3sm-neg exist space
   “There won’t be any space.” (WWW)
This suggests that when *maa-* is not pronounced, a word-initial labial obstructuent can stand proxy for it. Accordingly, clauses in which *maa-* is omitted are still in keeping with Generalization 1.

2.5 Distribution of *-f*

The *-f* morpheme is subject to a well-known constraint that requires it to attach to one of a very restricted set of stem types:

(41) i. Verbs
    ii. Inflected prepositions
    iii. Existential *fi*
    iv. *lumr* ‘ever’
    v. *hadā* ‘one’

Each of these must already be hosting *maa-* or begin with a labial obstructuent in the left most position in the IP-string (modulo the exceptions noted above). Therefore, *-f* inherits the positional distribution of *maa-* and applies only to a subset of it. Except for *hadā*, each of these kinds of expressions contains a morpheme which expresses person features or which has an etymological source which expressed person features (c.f. Eid 1993; Jelinek 2002):

(42) Generalization 2:
    *-f* attaches to a word which is marked with a negation morpheme and which is inflected for person features.

While *hadā* is not inflected for person features, it is idiosyncratic in being able to host negation. The synonymous *waahad* ‘one’ cannot, although it has an otherwise identical distribution:

(43a) *ma-hadā*-f haka iṣi
     not-one.sm-neg said.3sm thing
     “No one said anything.” (WWW)

(43b) *ma-waahad*-iṣ haka iṣi
     not-one.sm-neg said.3sm thing
     “No one said anything.” (Elicited)
(44a) ma-hada raah yangah
     not-one.sm fut succeed.3sm
     “No one is going to succeed.” (WWW)

(44b) ma-waahad raah yinjah
     not-one.sm fut succeed.3sm
     “No one came.” (WWW)

Mohammad (1998) suggests that hada is a negative polarity item and that it has an “intrinsic” association with negation that lets it host -f. However, while hada has a negative polarity use, waahad does as well:

(45a) ma waahad b-ifakkir ixaṭib ?aw yitjawwaz
     not one think.3sm engage.3sm or marry.3sm
     ?aw feiy min hal-nuwﬁ or thing from this-kind
     “No one thinks [about] getting engaged or getting married or anything of that kind.” (LDC2005S14: fsa25780: 576.11)

(45b) ?ana ʾumr-i ma-ṣuṭt waahad miθlu
     I ever-my not-saw.1s one like-him
     “I have never seen anyone like him.” (WWW)

hada can be used as a positive polarity item or as a referential pronoun:

(46a) bidd-i hada aḥki maﬁ-u ʿaṣaan
     want.1s one speak.1s with-him because
     ma-fii hada b-iḥki maﬁ-i
     not-exist one speak3sm with-me
     “I want someone to talk to because there isn’t anyone who talks to me.”
     (WWW)

(46b) il-hamdu li-illaah ṣaar maﬁ-i hada yifadd maﬁ-i
     the-praise to-God began.3sm with-me one.sm stand-firm.3sm with-me
     “Thanks to God I have someone with me to stand firm with me.”
     (WWW)

This indicates that although hada is usually used as an NPI and waahad as a PPI or a referential pronoun, these are tendencies rather than rules.

Similarly, if hada has an association with negation, then ʾumr should as well, given that the kinds of sentences in which they occur overlap almost
completely. However, *umr cannot host -f while hada can, except in those cases in which *umr hosts a clitic pronoun and is therefore marked with person features.

A possible explanation for the exceptional ability of hada to host -f is that it is a pronoun and belongs to the determiner (D) category, while waahad is a noun stem. This difference would be supported by the fact that waahad can host the definite article while hada cannot:

(47a) il-waaahad  
    the-one 
    “the one”

(47b) *il-hada  
    the-one 
    “the one”

This follows if hada and the definite article are both members of category D and therefore in complementary distribution.

Another possibility is that ma-hada is actually a compound comparable to English no-one or nobody. Arabic has a number of negative compounds, including the so-called pronouns of negation (Awwad 1987; Mohammad 1998) found in most dialects of Arabic (Eid 1993; Brustad 2000; Jelinek 2002) and ma-‘ad ‘no longer’.

The question of which of these possibilities is more correct is beyond the scope of this paper. However, either would imply that the ability of hada to host -f is not an exception to Generalization 2. If hada is treated as a pronoun, then Generalization 2 can be refined to say that -f must be right-adjacent to a pronoun or to a morpheme marked with person features (Eid 1993; Jelinek 2002). Pronouns are necessarily marked for person, so the second possibility implies the first and is therefore more general.

(48) Generalization 2:
    -f must attach to the right edge of a word which is marked with a negation morpheme as well as a morpheme expressing person features.

On the other hand, if ma-hada is treated as a compound, then Generalization 2 can be retained in its original form.

Generalization 1 as given does not exclude -f attaching to nouns hosting possessive clitics, since these are word-sized constituents and the possessive clitics express person features:

(49a) ‘ibn-u miʃ mniḥ  
    son-his not good 
    “His son isn’t good.” (WWW)
However, the unacceptability of examples like (49b) is not an exception to Generalization 2 if we follow Benmamoun (2000) in assuming that pronouns belong to a +D category and by treating agreement morphology as expressing a +D categorial feature. Generalization 2 can then be further refined as follows:

\[(50) \text{Generalization 2}^{'''}:\]  
- must attach to the right edge of a +D word that is marked with a negation morpheme and that expresses person features.

Because the distribution of - must be a subset of the distribution of maa-,
Generalization 2'' inherits the various exceptions to Generalization 1.

2.6 Summary

The distribution of maa- and - in PA is as follows:

\[(51) \text{maa- and - are special clitics (Zwicky 1977; Zwicky & Pullum 1983):}\]  
a. They are affixes, forming prosodic words with their hosts;  
b. They unselectively attach to words from several different classes;  
c. They attach to words already hosting other clitics;  
d. Their distribution is influenced by non-syntactic factors.

\[(52) \text{maa- attaches to the left-most word in the IP-string except when preceded by:}\]  
a. a subject NP;  
b. kaan-yikuun ‘be’, ̣aad-ỵuud ‘again’, qaam-yiqum ‘so then’;  
c. The adverb ̣umr ‘ever’;  
d. The dative preposition l- hosting a clitic pronoun.

\[(53) \text{- is a phrasal enclitic which attaches to the following provided that they are hosting maa- or begin with a labial obstruent:}\]  
a. ̣ada ‘(any)one’;  
b. stems marked with person agreement features.

---

3 This solution would entail treating construct-state noun phrases as being of category -D. This would be a theoretically controversial assumption to make.
The distribution of \(-R\) is therefore conditioned by the distribution of \(maa-\). Given that \(maa-\) generally attaches to the left-most word-sized constituent in the IP-string, it follows that \(-R\) attaches to the end of the left-most word-sized constituent in the IP-string. Therefore \(-R\) has a tendency to appear as a 2\(^{\text{nd}}\)-position clitic in the IP-string, where positions are understood in terms of prosodic words. This tendency is obviated in sentences in which the word hosting \(-R\) is not the first word in the IP-string, but rather the 2\(^{\text{nd}}\).

This raises the question of whether the IP-string is the correct characterization of the phrasal domain to which \(maa-\) and \(-R\) attach, or whether the phrasal domain should be characterized in prosodic terms without reference to syntactic categories such as IP. This is discussed briefly in Section 3\(^4\).

### 3. Analytical approaches

#### 3.1 Previous approaches

Perhaps the most widely adopted strategy for analyzing negation in Arabic clauses follows Pollock’s (1989) analysis of French negation (Benmamoun 1992, 1997, 2000; Ouhalla 1993, 2002). According to this approach, \(maa-\) heads a functional projection NegP that immediately dominates the verbal complex, with \(-R\) filling the specifier of NegP. The main verb raises to adjoin to \(maa-\), and then further to I\(^0\), “stranding” \(-R\) in the specifier of NegP, deriving the desired word order:

\[
\begin{align*}
(54) \quad [ & \text{IP} \ [ \text{NP} \ [ \text{I} \ [ \text{ma- verb} ] \ [ \text{NegP} \ -R \ [ \text{Neg'} \ t_{\text{verb}} \ [ \text{VP} \ t_{\text{NP}} \ t_{\text{verb}} ] ] ] ] ] ] ] \\
\end{align*}
\]

In a clause with a compound tense-aspect structure, the auxiliary verb originates in a functional projection below NegP and then raises to Neg\(^0\) and on to I\(^0\), once again deriving the desired morpheme ordering:

\[
\begin{align*}
(55) \quad [ & \text{IP} \ [ \text{NP} \ [ \text{I} \ [ \text{ma- AUX} ] \ [ \text{NegP} \ -R \ [ \text{Neg'} \ t_{\text{ma-aux}} \ [ \text{AuxP} \ t_{\text{aux}} \ [ \text{VP} \ t_{\text{NP}} \ t_{\text{verb}} ] ] ] ] ] ] ] ] \\
\end{align*}
\]

The Pollock-type approach successfully models examples in which \(maa-\) and \(-R\) attach to the tensed verb (see 17, 18, and 19 above) given the assumption that tense-aspect-mood marking occurs on I\(^0\).

However, this fails to predict the positions of the negation morphemes when they attach to a pre-verbal word such as \(hada\), inflected prepositions, or \(\text{\textcircled{f}}\text{umr}.\)\(^0\) A similar problem arises with the “serial auxiliaries” noted above. These are a class of auxiliated verb stems used in PA and other Levantine dialects

---

\(^4\) For reasons of space, the negative auxiliary \(mi\)\(f\) ‘not’ and the negative pronouns \(ma-nii-f\) ‘I’m not’, \(ma-huu-f\) ‘he’s not’ are not discussed here.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Lexical meaning</th>
<th>Auxiliary meaning</th>
<th>Negated meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ḳaäm-ỵkuum</td>
<td>‘rise, stand’</td>
<td>‘so then, and then, so’</td>
<td>‘ever, at all’</td>
</tr>
<tr>
<td>ʾỵaad-ỵūd,</td>
<td>‘return’</td>
<td>‘again’</td>
<td>‘anymore’</td>
</tr>
<tr>
<td>ʾỵaawad-ỵaawid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>raāḥ-yṛūḥ</td>
<td>‘go’</td>
<td>‘go to do X’</td>
<td>-</td>
</tr>
<tr>
<td>ṭaājā-ỵiiği</td>
<td>‘come’</td>
<td>‘come to do X’</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 1: Serial auxiliaries in Palestinian Arabic

In non-negative sentences, serial auxiliaries precede the tensed verb and agree with it in tense-aspect-mood form as well as in person, number, and gender. This gives them the appearance of being tensed verbs:

(56a) ḳaamat ʾaani ʾīj̣ṃa ʾaawadat ʾāḅaḥat-1-e  wazẓe
stood.3sf second Friday returned.3sf slaughter.prf.3sf-to-him goose
"Then the second Friday she slew a goose for him again.” (SK§60.4)

(56b) qaām ʾaaji
stood.3sm returned.3sm slept.3sm
"Then he went to sleep again.” (WWW)

Serial auxiliaries are marked as expressing tense or aspect, but are interpreted as adverbal modifiers or as conjunctions. Because they neither contribute tense information nor have the distribution of a tense head, I treat them as adjuncts which adjoin to the projection of I₀ and which agree with I₀ in terms of its inflectional features. For example, the derivation of (56b) would have a structure like the following (ignoring the time adverbial ʾaani ʾīj̣ṃa ‘the second Friday’).

(57)  [IP qaām [IP ʾaaji [IP naam ] ] ]

Additional grammatical mechanisms would have to be invoked to ensure that the serial auxiliaries concord with the main verb in tense-aspect form and in subject agreement marking. In negative sentences with serial auxiliaries, the main verb is more frequently in the imperfect:

(58a) ma-ʾkaạm-iʃ  yixllii-hin yiṭláiʃin
not-stood.3sm-neg allowed.3sm-them go-out.3fp
“He never let them venture out.” (SK§46.1)
(58b) ma-ʔadt-ʃ tiriʃ iʃi
not-returned.2sm know.2sm thing
“You don’t know anything anymore.” (WWW)

However, there are rare instances in which the main verb is in the same
tense-aspect form as the serial auxiliary:

(59a) u-ma-ʔaawadat-ʃbaiyanat
and-not-returned.3sf-neg was-clear.3sf
“...and it was no more to be seen.” (SK§64.3)

(59b) ma-ʔad-ʃʔal-l-iʔinnuʃtara sayyara
not-returned.3sm-neg said.3sm-to-me that-he bought.3sm car
“He no longer told me that he bought a car.” (Husseini 1990:344)

Given that the main verb expresses the tense-aspect information for the clause,
I assume it to be in the 1\textsuperscript{st} position. This entails that the serial auxiliary is
attached above it, and hence that the negation marker is as well. If serial
auxiliaries are adjuncts, then a Pollock-style analysis would incorrectly predict
that these examples would be unacceptable because the main verb would be
predicted to host negation by virtue of raising through the Neg projection.

In sum, an approach to modeling PA negative sentences that follows
Pollock (1989) incorrectly predicts that maa- and -ʃ can only attach to the verb
stem occupying the 1\textsuperscript{st} position in the clause.

3.2 Strategy two

Another analysis proposed for negative sentences in dialectal Arabic
places the negation marker in a functional projection which dominates the IP
constituent in the clause (Diesing & Jelinek 1995; Shlonsky 1997; Jelinek
2002):

(60a) [FP ma- [IP [i VERB I] [VP pro t\text{\_verb} (OBJ) ] ] ]
(60b) [FP ma- [IP [i AUX I] [AuxP t\text{\_aux} [VP pro t\text{\_verb} (OBJ) ] ] ] ]

This analysis correctly predicts a wider range of facts than does the
Pollock-style analysis, in particular predicting Generalization 1, but makes no
predictions about the distribution of the -ʃ morpheme. The distributions of
maa- and -ʃ can be schematized in Table 2.
Table 2: Distributions of maa- and -f

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>maa-</td>
<td>verb</td>
</tr>
<tr>
<td>b.</td>
<td>maa-</td>
<td>aux</td>
</tr>
<tr>
<td>c.</td>
<td>maa-</td>
<td>P-cl</td>
</tr>
<tr>
<td>d.</td>
<td>maa-</td>
<td>fii</td>
</tr>
<tr>
<td>e.</td>
<td>ma-hada</td>
<td>-f</td>
</tr>
<tr>
<td>f.</td>
<td>ma-¥umr</td>
<td>-f</td>
</tr>
<tr>
<td>g.</td>
<td>ma-¥ad</td>
<td>-f</td>
</tr>
</tbody>
</table>

Items (a) and (b) in Table 2, in which maa- and -f attach to a verb or auxiliary, could be captured in several ways, depending on one’s assumptions about the position of the verb itself. If one assumes that the verb raises to I0, then one could stipulate that -f is the head of I0, as in (61a). Alternately, one could claim that the verb raises to F0 (Diesing & Jelinek 1995), and therefore that maa- and -f are both in F0, as in (61b):

(61a) \[
\begin{array}{c}
[FP ma- [IP [I0 VERB -f] [VP pro <verb> (OBJ) ]]] \\
(61b) \begin{array}{c}
[FP [F ma- -f] [I0 VERB I0] [IP <verb I0> [VP pro verb> (OBJ) ]]] \\
\end{array}
\end{array}
\]

For (c)-(f) in Table 2, in which the negation morphemes are hosted by an expression to the left of the tensed verb, it will not do to place -f in either I0 or F0. This is because the word in these cases are not verbal heads but rather phrasal categories such as PPs or NPs that do not adjoin to F0.

To capture (c)-(f) in Table 2, one might claim that the linear order of -f and the verbal head is left unspecified in the syntax, so that the morphophonological grammar will make -f branch to the left when attached to preverbal elements, as in (62a), and to the right when attached to verbal elements, as in (62b).

(62a) \[
\begin{array}{c}
[FP ma- [IP hada [Γ [I0 -f] VERB ] [VP pro <verb> (OBJ) ]]] \\
(62b) \begin{array}{c}
[FP ma- [Γ [I0 VERB -f] [VP pro <verb> (OBJ) ]]] \\
\end{array}
\end{array}
\]

However, -f can attach to an expression that is separated from I0 by an intervening XP. In (63), -f is attached to ma-hada which is then followed by a prepositional phrase. The PP has the semantics and distribution of an NP-internal modifier and separates -f from I0:

(63a) haði l-asñila ma-hadaa-f min ¥umr-i these the-questions not-one-neg from age-my yiqdar yihill-l-i yyaa-ha can.3sm solve.3sm-to-me obj- them

“These questions, no one of my age can answer them for me.” (WWW)
(63b) ma-hadaa-ʃ  min il-luʃûs  illi  hâkaulfilled
not-one-neg  from the-thieves  rel. ruled.3mp-us
tiɿiʃ  ʕala  1-mâʕaʃ
went-out.3mp  upon  the-pension

“Not one of the thieves who ruled us went into retirement.” (WWW)

Assuming that the PP is internal to the NP headed by Ŧadaa, then -ʃ must also be internal to the NP:

(64)  [FP ma- [IP [NP [N Ŧadaa -ʃ ] [PP min-hum ] ] [τ kaan [VP ʕind-u flûs ] ] ] ]

If this is the correct structure for examples like (63a), then a constraint on the distribution of -ʃ cannot refer to the spine of the clause.

3.3 A prosodic analysis?

In (63a) and (36b), -ʃ is attached to the first word-sized constituent within the IP-string. This shows that a generalization which captures the distribution of -ʃ in terms of linear order in the word string is more robust than one which states its distribution in phrase-structural terms. Instead, a grammar which relies on phrase-structural constraints would have to rely on a filtering mechanism based on prosodic constraints.

For example, the -ʃ morpheme could be treated simply as the “spell-out” of a negation or polarity feature which is specified on ʃ0. Constraints or operations on the phonological form of the sentence would then be used to derive the correct position of -ʃ within the string. However, as was discussed in detail above, there are a number of systematic exceptions to Generalization 1 which need to be accounted for. The problem for an analysis like (61a) is that the phrase structure anchors maah- at the left edge of the IP-string.

A promising approach to resolving the exceptions might be to argue that the domain in which the distribution of maah- is defined in purely prosodic terms, rather than making reference to the IP. For example, assume the prosodic hierarchy of Selkirk (1980) in which syllables are grouped together in feet, feet are grouped as prosodic words (“p-words”), prosodic words as phonological phrases (“p-phrases”), and phonological phrases as intonation phrases (“i-phrases”). Generalizations 1 and 2 might then be revised a last time as follows:

(65)  Generalization 1 (final):

maah- appears at the left edge of a phonological phrase.
Generalization 2 (final):
-\textit{f} appears at the right edge of a prosodic word that is:
  (i) aligned with the left edge of a phonological phrase;
  (ii) marked for negation;
  (iii) marked a morpheme expressing person features.

This is the kind of approach advocated by Truckenbrodt (1999) and Chung (2003), according to whom principles of prosodic construction (whether rules or constraints) make no direct reference to syntactic structure. Formulating an analysis along these lines would be a non-trivial undertaking and will have to be left to further research.

3.4 Summary of theoretical implications

The distribution of \textit{maa-} and -\textit{f} in PA is not easily characterized in phrase-structural terms. In particular, -\textit{f} gravitates toward the second position in the clause, in some cases intruding into another constituent in order to do so. Therefore, the distribution of -\textit{f} is more accurately described in terms of prosodic constituents rather than syntactic constituents.

4. Conclusion

This paper has been a detailed examination of negation morphology in Palestinian Arabic. This examination shows that the negation morphemes \textit{maa-} and -\textit{f} behave as special clitics in Zwicky and Pullum’s (1983) sense, and in particular that their distribution is conditioned largely by prosodic factors. There is a strong tendency for them to be hosted by the left-most word in the IP-string in a phrase-structural representation of a clause. This suggests that -\textit{f} is a second-position clitic.

However, exceptions to this generalization call into question whether the IP-string is the correct characterization of the domain according to which they are positioned. It is suggested that the domain would be more accurately characterized in prosodic terms, for example as a “phonological phrase”. This needs to be the basis of further research, but should it turn out to be an accurate characterization, the distribution of \textit{maa-} and -\textit{f} could be characterized robustly.

This raises interesting questions about how negation morphology is represented in other Arabic dialects. Studies of negation in Egyptian Arabic by Woidich (1968), Eid (1991, 1993), and Jelinek (2002) suggest that Egyptian and Palestinian are very similar in terms of how negation is realized, although a conclusion to that effect awaits a detailed comparison. In contrast, detailed descriptions of negation in Moroccan Arabic (Harrel 1962, 1965, 1966; Marçais 1977; Benmamoun 1992, 1997, 2000; Ouhalla 2002) suggest that
Moroccan *maa-* and *-f* are affixes rather than clitics in Zwicky and Pullum’s (1983) sense, because they selects verbal stems as their hosts (Benmamoun 2000) and because the distribution of *-f* is affected by the syntactic grammar. It seems likely that there is significantly more variation between the dialects than has been previously acknowledged in terms of how negation is expressed.

REFERENCES


