

**AN ARABIC WACKERNAGEL CLITIC?
THE MORPHOSYNTAX OF NEGATION IN PALESTINIAN ARABIC***

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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 2nd-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 *ifi* ‘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 old¹. 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.

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¹ 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 [ḳ] 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 lahḏa
not fut. write every moment
“I’m not going to write every moment.” (WWW)

(2b) wallaahi ma-nii-ʃ ʔaarif innu heyk b-yṣiir
by-God not-1s-neg know.actpart.sm that that happen.3sm
“By God, I didn’t know that that happens.” (WWW)

(2c) ma-ḥabbeyt-iʃ azʔaʃ-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-ʃuʔla 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)

- (3b) ʔaa, bidd-haa-ʃ tiħki maʕ-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 & Abdul-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 *ʕumr-* ‘ever, never’ (Blau 1960), as in (5a) and (5b).

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|--|--|
| (5a) [wa.la:hi 'ma:ʃuf.tu]
by-God not-see.perf.1s-him
“By God I didn’t see him!” | (5b) [ʕum.ri 'ma:ʃuf.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.ʃuf.'tu:ʃ]
not-see.perf.1s-him-neg
“I didn’t see him.” | (6b) [ma.ħa.'ke:tɪl.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-Karem 1980). This shows that *-f* is like object clitics in closing word-final syllables.

- | | |
|---|---|
| (7a) [bɪt.ˈhɪbb.ni]
love.3sf-me
“She loves me.” | (7b) [bɪt.ˈhɪbb.ˈni:-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 /abu:/. 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 /u:/ 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.bul.bæ.ˈnæ:t] | (8b) *[ʔa.ˈbu:l.bæ.ˈnæ: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 [u:] is pronounced long and attracts stress:

- | | |
|---------------------|----------------------|
| (9a) *[ˈʔa.bu.k] | (9b) [ʔa.ˈbu:k] |
| (10a) *[ˈʔa.bu.hun] | (10b) [ʔa.ˈbu:.hun] |

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) [CP (NP_i)* [C' XP/Q-word [IP ...pro_i...t_j...]]]

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-?waaʃ* 'this crooked religion':

(12a) *?ana hal-diin l-i?waaʃ ma-bidd-i yyaa*
 I this-religion the-crooked not-want-me obj-it
 "[As for] me, this crooked religion, I don't want it." (SK30:§)

(12b) [CP [NP_i ?ana] [. [NP_j hal-diin l-?waaʃ] [IP ma-bidd-ii iyyaa]]]

In (13), the fronted question word *lēf* 'why' precedes *maa-*:

(13a) *lēf ma-ʒaawabt ʒala l-?as?ila*
 why not-answered.3sm upon the-questions
 "Why didn't you answer the questions?" (WWW)

(13b) [CP lēʃ_i [IP ma-ʒaawabt ʕala l-ʔasʔila t_i]]

In (14) *maa-* follows clitic-left-dislocated NP *l-muʔaariba wa-l-tuwaanisa* ‘the Moroccans and the Tunisians’ and a fronted adjective phrase *ʔaḥsan min-hum* ‘better than them’:

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

(14b) [CP_[NP_il-muʔaariba wa-l-tuwaanisa][[AP_j ʔaḥsan min-hum] [IP ma-fii t_j]]]

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

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

(15b) *ma-ʕaad ḥada radd ʕalai-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-ḥakaa-l-ii-ʃ ʕubaah 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)

- (17b) *ǰuʕaana, maa-kalt-iʕ iʕi l-yoom*
 hungry.sf not-ate.1s-neg thing the-day
 “[I’m] hungry! I haven’t eaten anything today.” (WWW)

With compound tense-aspect, *maa-* attaches to the left-most auxiliary:

- (18a) *abū-y u-ʕamm-i [IP ma-baʕaa-ʕ yijii-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-luʕa l-gadiida ma-kunt-iʕ aʕrif-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-iʕ yaʕtii min ǰraab-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-raaḥ yiðall 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 ǰabaab aw maa-fii banaat kaan maa fii ḥayya*
 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) *sūri ʕad ma-ʔaḳdar aradd ʕalē-kum bi-surʕa*
 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-kal-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- 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 *ʕumr* ‘ever, never’:

- (21a) haaḏa baḳii-l-e faras ma-l-haa-ʃ 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-ʃ samak fii l-baħr wa-ʔana ʃayyaad
 not-exist-neg fish in the-sea and-I fisherman
 “There aren’t [any] fish in the sea and I am a fisherman.” (WWW)
- (21c) lammin istawat aṭlaʃ il-zalame ʔarbʕiin ʃaddaad
 when ripened.3sf had-climb.3sm the-fellow forty picker
 ʕa-ḏahir-ha u-ma-ʃaddaad yismaʃ la-ʃaddaad taḳḳ
 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-ʕumr-ii-ʃ ʃuft-u
 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) ʕaamat haaḏi taḳḳat ma-[_{PP} fi-ʕēn-ha] balle u-maatat
 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-fiʃ-ʃ kaan 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-ʃ baaki 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 *maa-*, raising the question of whether they are varying position or whether *maa-* is. One such expression is the dative clitic preposition *l-* ‘to’ when it hosts clitic pronouns:

(25a) ʔil-i maa-kaan maqbūl ʔinn-hum tahaǰǰamu ʔala ʔamani
to-me not-was.3sm agreement that-they attacked.3mp upon Amani
“I had no acceptance for them attacking Amani.” (WWW)

(25b) ʔil-u ma-kaan ulaad
to-him not-were.3sm children
“He didn’t have children.”

Other inflected prepositions cannot precede *maa-*:

(26a) mōna ma-fiǰ-ǰ ʔind-ha ktaab
Mona not-exist-neg at-her book
“Mona doesn’t have a book.”

(26b) *mōna, ʔind-ha ma-fiǰ-ǰ ktaab
Mona at-her not-exist-neg book
“Mona doesn’t have a book.”

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

(27) Generalization 1":
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 *maa-* most frequently is the adverb *ʔumr* ‘ever, never’:

(28a) ma-ʔumr-ii-ǰ ʔuft-u
not-ever-me-neg saw.1s-him
“I never saw him.” (Elicited)

(28b) ʔumr-i ma-ʔuft-u
ever-me not-saw.1s-him
“I never saw 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) [ʕumr il-maṣaayib] ma-ṣaabat-ni
 ever the-catastrophes not-struck.3sf-me
 “... never have catastrophes struck me.” (SK18:§62.11)
- (29b) ana ḥaqqaqṭ-l-ik illi [ʕumur ḥada] maa-ḥilim 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 *ʕumr* hosts a clitic pronoun coreferential with a subject NP:

- (30a) haaḏa ʕumr-u ma-naam bala sirḩa
 this.sm ever-him not-slept.3sm without theft
 “He never went to sleep without stealing [something].” (SK18:§22.2)
- (30b) ʕumr-u ma-ḥada simiʕ ʕan-hum ḡēr 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) hal-kuliyya ʕumr-ha ma-kaan fii-ha
 the-college ever-her not-was.3sm in-her
 ʕanṣaaf wala ʕadl la-l-ṭaaliba.sf
 impartiality or fairness to-the-student
 “In this college, there was never justice or fairness for the female student.” (WWW)
- (31b) ʕumr-i maa kaan ʕand-i muṣkiila bi-kawn-i filastīniyya
 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, *ʕumr* can appear without a clitic or possessor NP:

- (32a) ʕumr ma-ḥad ʕaaf wajh-i wa-ʕaql-u ʕall maʕ-u
 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 miθil il-quṣṣa haaḏi
 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) baaki ʕumr-e yimtʕin ʕiʕriin sane
 be.part.sm age-his perhaps twenty years
 “It was maybe twenty years old.” (SK18§31.5)
- (33b) bidd-i atʕawwaz-ha law ʔaxir 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-f* ‘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; Mohammad 1998; Mohammad 2000):

- (35a) ʔana ma-bidd-ii-ʃ aquul-ak ʃu ʔaxʔaaʔ-ik fi-l-taʃmiim
 I not-want-me-neg say.1s-to-you what errors-you in-the-design
 “I don’t want to tell you what your errors [are] in the design.” (WWW)
- (35b) bass ʔumm-i ma-bi-taʃmil miθil hay il-ʔaʃyaaʔ
 but mother-me not-make.3sf like these things
 “But my mother doesn’t make things like these.” (WWW)

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.

- (36a) ma-waaħad aʃa
 not-one.sm came.3sm
 “No one came.”
- (36b) waaħad maa-ʔaʃa
 one.sm not-came.3sm
 “One [person] didn’t come.”

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''':
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 *ʕumr*. 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 *-ʕ*. Early 20th-century grammars of Lebanese (Feghali 1928) and PA (SK18, Blau 1960) note reduction of *ma-* to *a-* before the *b*-imperfect:

(38a) *kaal a-b-ixuʕʕ-nii-ʕ*
 said.3sm not-concerns.3sm-me-neg
 "He said 'It doesn't concern me'." (SK18§25.8)

(38b) *kaalat a-bidd-ii-ʕ 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 *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, *-ʕ* is still constrained to attach to the word to which *maa-* would attach if it were present. In other words, *-ʕ* is constrained by the distribution of *maa-* even if *maa-* is not pronounced:

(39a) *b-ikūn-ʕ fii ʕitaa miθl il-iyaa illi raaħ tiġi*
 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-ikūn fiʕ-ʕ ʕitaa miθl il-iyaa illi raaħ tiġi*
 be.3sm exist-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-ikūn-ʕ fii makaan*
 not-be.3sm-neg exist space
 "There won't be any space." (WWW)

- (40b) *ma-b-ikūn fiʃ-ʃ makaan
 not-be.3sm exist-neg space
 “There won’t be any space.” (Elicited)

This suggests that when *maa-* is not pronounced, a word-initial labial obstruent can stand proxy for it. Accordingly, clauses in which *maa-* is omitted are still in keeping with Generalization 1.

2.5 Distribution of -ʃ

The -ʃ 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 *fii*
 iv. *ʕumr* ‘ever’
 v. *ħada* ‘one’

Each of these must already be hosting *maa-* or begin with a labial obstruent in the left most position in the IP-string (modulo the exceptions noted above). Therefore, -ʃ inherits the positional distribution of *maa-* and applies only to a subset of it. Except for *ħada*, 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:
 -ʃ attaches to a word which is marked with a negation morpheme and which is inflected for person features.

While *ħada* 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-ħadaa-ʃ ħaka iʃi
 not-one.sm-neg said.3sm thing
 “No one said anything.” (WWW)
- (43b) *ma-waahad-iʃ ħaka iʃi
 not-one.sm-neg said.3sm thing
 “No one said anything.” (Elicited)

(44a) ma-ḥada raah yangaḥ
 not-one.sm fut succeed.3sm
 “No one is going to succeed.” (WWW)

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

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

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

(45b) ʔana ʕumr-i ma-ʕuft waaḥad miθlu
 I ever-my not-saw.1s one like-him
 “I have never seen anyone like him.” (WWW)

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

(46a) bidd-i ḥada aḥki maʕ-u ʕaʕaan
 want.1s one speak.1s with-him because
 ma-fii ḥada b-iḥki maʕ-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-ḥamdu li-llaah ʕaar maʕ-i ḥada yiʕidd maʕ-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 *ḥada* is usually used as an NPI and *waaḥad* as a PPI or a referential pronoun, these are tendencies rather than rules.

Similarly, if *ḥada* has an association with negation, then *ʕumr* should as well, given that the kinds of sentences in which they occur overlap almost

completely. However, *ʕumr* cannot host *-ʃ* while *ħada* can, except in those cases in which *ʕumr* hosts a clitic pronoun and is therefore marked with person features.

A possible explanation for the exceptional ability of *ħada* to host *-ʃ* 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 *ħada* cannot :

(47a) *il-waahad*
the-one
“the one”

(47b) **il-ħada*
the-one
“the one”

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

Another possibility is that *ma-ħada* 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-ʕad* ‘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 *ħada* to host *-ʃ* is not an exception to Generalization 2. If *ħada* is treated as a pronoun, then Generalization 2 can be refined to say that *-ʃ* 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':

-ʃ 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-ħada* is treated as a compound, then Generalization 2 can be retained in its original form.

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

(49a) *?ibn-u miʃ mniiħ*
son-his not good
“His son isn’t good.” (WWW)

- (49b) *ma-bn-ū-ʃ imniiħ
 not-son-his good.ms
 “His son isn’t good.” (Elicited)

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 follows³:

- (50) Generalization 2''':
 -ʃ 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 -ʃ is a subset of the distribution of *maa-*, Generalization 2''' inherits the various exceptions to Generalization 1.

2.6 Summary

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

- (51) *maa-* and -ʃ are special clitics (Zwicky 1977; Zwicky & Pullum 1983):
- They are affixes, forming prosodic words with their hosts;
 - They unselectively attach to words from several different classes;
 - They attach to words already hosting other clitics;
 - Their distribution is influenced by non-syntactic factors.
- (52) *maa-* attaches to the left-most word in the IP-string except when preceded by:
- a subject NP;
 - kaan-yikuun* ‘be’, *ʃaad-yʃuud* ‘again’, *qaam-yiquum* ‘so then’;
 - The adverb *ʃumr* ‘ever’;
 - The dative preposition *l-* hosting a clitic pronoun.
- (53) -ʃ is a phrasal enclitic which attaches to the following provided that they are hosting *maa-* or begin with a labial obstruent:
- ħada* ‘(any)one’;
 - 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 *-f* 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 *-f* attaches to the end of the left-most word-sized constituent in the IP-string. Therefore *-f* has a tendency to appear as a 2nd-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 *-f* is not the first word in the IP-string, but rather the 2nd.

This raises the question of whether the IP-string is the correct characterization of the phrasal domain to which *maa-* and *-f* 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 3⁴.

3. *Analytical approaches*

3.1 *Previous approaches*

Perhaps the most widely adopted strategy for analyzing negation in Arabic clauses follows Pollocks'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 *-f* filling the specifier of NegP. The main verb raises to adjoin to *maa-*, and then further to I⁰, "stranding" *-f* in the specifier of NegP, deriving the desired word order:

$$(54) \quad [_{IP} NP [_{I'} [I \text{ ma- verb }] [_{NegP} \text{-}f [_{Neg'} t_{verb} [_{VP} t_{NP} t_{verb}]]]]]$$

In a clause with a compound tense-aspect structure, the auxiliary verb originates in a functional projection below NegP and then raises to Neg⁰ and on to I⁰, once again deriving the desired morpheme ordering:

$$(55) \quad [_{IP} NP [_{I'} [I \text{ ma- AUX }] [_{NegP} \text{-}f [_{Neg'} t_{ma-aux} [_{AuxP} t_{aux} [_{VP} t_{np} t_{verb}]]]]]]$$

The Pollock-type approach successfully models examples in which *maa-* and *-f* attach to the tensed verb (see 17, 18, and 19 above) given the assumption that tense-aspect-mood marking occurs on I⁰.

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 *ʕumr*. 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 *mif* 'not' and the negative pronouns *ma-nii-f* 'I'm not', *ma-huu-f* 'he's not' are not discussed here.

essentially as aspectual adverbs (Blau 1960; Hussein 1990; Mitchell & al-Hassan 1994; Khalaily 1997).

Stem	Lexical meaning	Auxiliary meaning	Negated meaning
kaam-ykuum	'rise, stand'	'so then, and then, so'	'ever, at all'
ʕaad-yʕūd, ʕaawad-yʕaawid	'return'	'again'	'anymore'
raah-yrūh	'go'	'go to do X'	-
ʔaja-yiiʕi	'come'	'come to do X'	-

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) kaamat θaani jīmʕa ʕaawadat ḏabhat-l-e wazze
 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) qaam raʕaʕ naam
 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 adverbial 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 I^0 and which agree with I^0 in terms of its inflectional features. For example, the derivation of (56b) would have a structure like the following (ignoring the time adverbial *θaani jīmʕa* ‘the second Friday’).

(57) [_{IP} qaam [_{IP} raʕaʕ [_{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-kaam-iʕ yixllii-hin yiṭlaʕin
 not-stood.3sm-neg allowed.3sm-them go-out.3fp
 “He never let them venture out.” (SK§46.1)

- (58b) ma-ʕadt-ʃ tiʕrif 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-ʕaawadat-iʃ baiyanat
 and-not-returned.3sf-neg was-clear.3sf
 “...and it was no more to be seen.” (SK§64.3)
- (59b) ma-ʕad-ʃ ʔal-l-i ʔinnu ʃtara 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 I^0 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 I^0 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_{verb} (OBJ)]]]]
 (60b) [_{FP} ma- [_{IP} [_I AUX I] [_{AuxP} t_{aux} [_{VP} pro t_{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.

a.	maa-	verb	-f	
b.	maa-	aux	-f	verb/aux
c.	maa-	P-cl	-f	verb/aux
d.	maa-	fii	-f	verb/aux
e.	ma-ħada		-f	verb/aux
f.	ma-ƣumr		-f	verb/aux
g.	ma-ƣad		-f	verb/aux

Table 2: *Distributions of maa- and -f*

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 I^0 , then one could stipulate that *-f* is the head of I^0 , as in (61a). Alternately, one could claim that the verb raises to F^0 (Diesing & Jelinek 1995), and therefore that *maa-* and *-f* are both in F^0 , as in (61b):

(61a) $[_{FP} \text{ ma- } [_{IP} [_{IO} \text{ VERB } -f]] [_{VP} \text{ pro } \langle \text{verb} \rangle \text{ (OBJ) }]]]$

(61b) $[_{FP} [_F \text{ ma- } -f] [_{IO} \text{ VERB } I^0]] [_{IP} \langle \text{verb } I^0 \rangle] [_{VP} \text{ pro } \text{verb} \rangle \text{ (OBJ) }]]]$

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 I^0 or F^0 . 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 F^0 .

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) $[_{FP} \text{ ma- } [_{IP} \text{ ħada } [_{I} [_{IO} -f \text{ VERB }]]] [_{VP} \text{ pro } \langle \text{verb} \rangle \text{ (OBJ) }]]]]$

(62b) $[_{FP} \text{ ma- } [_{I} [_{IO} \text{ VERB } -f]]] [_{VP} \text{ pro } \langle \text{verb} \rangle \text{ (OBJ) }]]]$

However, *-f* can attach to an expression that is separated from I^0 by an intervening XP. In (63), *-f* is attached to *ma-ħada* which is then followed by a prepositional phrase. The PP has the semantics and distribution of an NP-internal modifier and separates *-f* from I^0 :

(63a) haði l-as?ila ma-ħadaa-ƣ min ƣumr-i
 these the-questions not-one-neg from age-my
 yiqdar yiħill-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-ḥadaa-ʃ min il-luṣūṣ illi ḥakamū-na
 not-one-neg from the-thieves rel. ruled.3mp-us
 ṭiliʃ ʕala l-maʕaaʃ
 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 *ḥada*, then *-ʃ* must also be internal to the NP:

- (64) [FP ma- [IP [NP [N ḥadaa -ʃ] [PP min-hum]] [I kaan [VP ʕind-u flūs]]]]

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 I^0 . 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 *maa-* 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 *maa-* 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):
maa- appears at the left edge of a phonological phrase.

(66) Generalization 2 (final):

-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 *maa-* and *-f* in PA is not easily characterized in phrase-structural terms. In particular, *-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 *-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 *maa-* and *-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 *-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 *maa-* and *-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 select 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.

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