An Arabic Wackernagel Clitic? The Morphosyntax of Negation in Palestinian Arabic*

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1 Introduction

Many dialects of Arabic express negation with some combination of the morphemes $m\bar{a}$ - (or ma-) and - \bar{s} . This paper is a study of how the cognates of these morphemes are used to express negation in Palestinian Arabic. In Palestinian Arabic (and possibly in Egyptian and other dialects as well), the negation morphemes $m\bar{a}$ -- \bar{s} have the characteristics of *special clitics* according to Zwicky & Pullum's (1983) definition: they are affixes which do not select particular lexical classes as hosts, they cannot attach to words already hosting other clitics (such as clitic pronouns), and their distribution is determined largely by prosodic rather than syntactic factors. In particular, I argue that - \bar{s} should be characterized as a 2nd-position or "Wackernagel" clitic (Wackernagel 1892), because it consistently follows the first prosodic word in the prosodic constituent containing the negation marker.

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1.1 Data sources

As I use it, the term "Palestinian Arabic" is a semi-fictional construct describing a network of speech varieties differing from region to region and from one socio-economic stratum to another. None of the native speakers of Palestinian with whom I have consulted speak uniformly in one style or register of speech. For this reason, the data in this paper ascribed to Palestinian Arabic vary in terms of the transcriptions given. The conventions used are based on source texts or on impressionistic transcription of elicited data.

A few particular points may be confusing: the various sub-varieties of Palestinian have different allophones for the phoneme corresponding to Standard Arabic /q/. Urban dialects generally have a glottal stop [?], rural sedentary dialects in the northern West Bank have a [k], Druze dialects have [q], rural dialects in the Galilee region of northern Israel as well as Bedouin dialects have [g]. That means that the following are all the same word: [kām], [ʔām], [gām], and [qām] "he stood." I follow Schmidt & Kahle (1918) in indicating the rural West Bank [k] with <k> to distinguish it from [k] as an allophone of the phoneme /k/. This means that in the data, rural West Bank [kām] "he stood" is transcribed as [kām].

The data used in this study are collected from the following sources.

(1) Palestinian:

- i. a two-volume (100,000± words) collection of folktales collected in 1910 in Bir Zeit, a village some 12 km north of Jerusalem (Schmid & Kahle 1918, 1930)
- ii. published theoretical work (Awwad 1987, Mohammad 1998, Mohammad 2000)
- iii. internet data collected using Google with Palestinian-specific dialect markers (e.g. **šu** "what," **iši** "anything," **ḥada** "(any)one");
- iv. examples elicited from native speakers;

The reader will note that the data from Schmidt & Kahle (1918, 1930) are nearly 100 years old. Given the upheavals that took place in Palestine during the Twentieth Century, one might sensibly question whether generalizations about data collected in 1910 would be valid for data collected from present-day sources. For this reason, more recent data have been included, and data from both the older and contemporary sources have been checked with native speakers. The generalizations therefore hold for both the earlier and contemporary data.

Data from Schmidt & Kahle (1918, 1930) are cited according to the selection number in the text. For example, SK §1.1 indicates the first section of the first narrative in Schmidt & Kahle (1918). URLs and dates of access are provided for internet data.

1.2 Organization

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

2 Negation morphology in Palestinian Arabic

Section 2 presents the distribution of **mā**- and -**š** in Palestinian Arabic negative sentences. In subsection 2.1 the general properties of **mā**- and -**š** are presented. In subsection 2.3 the distribution of Palestinian **mā**- is examined in detail. In subsection 2.4 the distribution of -**š** is examined, and subsection 2.5 summarized the results of Section 2.

2.1 Overview

While both **mā**- and -**š** are used in Palestinian Arabic negative sentences, either can be omitted in certain contexts (Schmidt & Kahle 1918, Blau 1960, Awwad 1987):

- (2) Without $-\check{\mathbf{s}}$:
 - a. wallāhi mā-b-intām fi balad-čim.
 by-God not-sleep.pass.3ms in village-you(mp)
 "By God, your village can't be slept in." (SK18: §24.6)
 - b. hāða Sumr-e **ma**-hu šāyif il-maṣāyib. this.ms ever-him not-he seeing.ms the-catastrophes "He has never seen catastrophe." (SK18: §62.3)
- (3) With **mā**-:
 - a. ķālat ana b-ihūn-l-ī-š fī-k. said.3fs I indic-neglect.3ms-to-me-neg in-you(ms) "She said 'I will not neglect you." (SK18: §88.21)
 - u-b-ikdar-iš i§īš bala χidme.
 and-indic-be.able.3ms-neg live.3ms without service
 "[It] cannot live without being taken care of." (SK18: §72.14)

Which is used seems to have to do with prosody and speaker choice (Schmidt & Kahle 1918, p. 93*; Blau 1960, p.193).

In morphological terms, both **mā**- and -**š** are "special clitics" (Zwicky & Pullum 1983) because they have the following properties:

- (4) a. They are affixes, forming prosodic words with the words that host them;
 - b. They are "unselective," meaning that they attach to words belonging to several different classes;
 - c. They attach to words already hosting other clitics;
 - d. Their distribution is idiosyncratically determined by non-syntactic factors.

2.2 Affixal properties

Point (4a) is based on the observation that **mā**- and -**š** undergo or trigger word-internal phonological changes having to do with interactions between stress placement and vowel length. These are well known in the Levantine dialects and are purely word-internal processes (Brame 1971, Brame 1973, Kenstowizc & Abdul-Karimm 1980, Younes 1995).

First, **mā**- is pronounced with a long vowel when stress falls on it, as it does when it is preceded by one of the adverbial expressions **wallāhi** "by God!" or **Yumr**- "ever, never" (Blau 1960):

The use of these expressions coincides with strong "emphasis" or contrastive focus intonation on the negation particle. The use of -š is unacceptable in such examples.

If stress falls later in the word, the vowel in **mā**- is pronounced as short:

Similarly, -**š** closes word-final syllables. This blocks a well-known constraint which shortens long vowels in word-final open syllables. For example, the object clitic -**ni** "me" has an underlyingly long vowel /-nī/ which is pronounced as short /-ni/ in word final position (7a). Closure of the syllable with -**š** and the emergent length of the vowel creates a super-heavy syllable which attracts stress (7b):

(7)

In this respect, -š patterns with object clitics, which also close word-final syllables.

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. For example, the noun **?abu** "father" has an underlying long final vowel /abū/. In (8) it is in construct with **l-banāt** "the girls." Because the two words are in a close phrasal group, resyllabification applies across the word boundary, causing the article on **l-banāt** to close the final syllable of **?abu**. 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.

In contrast, addition of a possessive clitic to **?abu** either closes the final syllable or adds an additional syllable to the word. In either case, the stem final $[\bar{u}]$ is pronounced as long and attracts stress:

Because stress placement is a word-internal process, this shows that clitics form part of the word that they are attached to. The fact that -s 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 **mā**- and -**š** are affixes. Assuming that the *prosodic word* is the domain to which the phonological rules above apply, then **mā**- and -**š** form prosodic words with the stem to which they attach. The remainder of Section 2 focuses on their distribution. The result that emerges is that the kinds of constituents to

which they can attach to is determined by a combination of syntactic and prosodic factors.

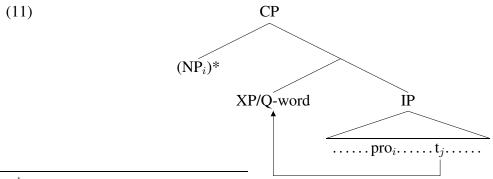
2.3 Distribution of mā-

In this subsection the syntactic distribution of $m\bar{a}$ - is examined in detail. The generalization that emerges is that $m\bar{a}$ - occurs in a position defined relative to the left edge of the IP-string. In this position it generally attaches to word-level constituents.

2.3.1 Position relative to the left-periphery

This subsection examines the position of **mā**- relative to the "left-periphery" of the clause (Rizzi 1997), which is a set of positions occupied by clitic-left-dislocated NPs and fronted constituents and question words.

For expository purposes, 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 (c.f. Mohammad 2000). Clitic left-dislocation involves noun phrases appearing outside of the IP-constituent of a clause from where they bind a resumptive pronoun inside a constituent to their right and/or inside in the IP (indicated in the diagrams with subscripts), while fronting involves a constituent of any category being moved to a preverbal position immediately outside the IP leaving a trace or gap in the position in which it is interpreted (indicated in the diagrams with movement arrows)¹:



¹The left periphery of the clause is a rich subject in Arabic syntax. For descriptions of the form and function of the left periphery in Palestinian and other dialects, see Blau (1960, 204-206), Cowell (1964, 429-435), Brustad (2000, Ch.10), and Holes (2004, 257-264). For theoretical approaches to the left periphery in Arabic dialects, see Demirdache (1991), Lalami (1996), Demirdache (1997), Aoun & Benmamoun (1998), Doron & Heycock (1999), Alexopoulou, Doron & Heycock (2003), and Aoun, Choueiri & Hornstein (2001).

A sentence can contain multiple clitic-left-dislocated elements (indicated by the Kleene-star on NP in 11) and a single fronted constituent containing a question word or pronounced with contrastive focus. A clause which lacks either clitic-left-dislocated or fronted elements is assumed to project just an IP node.

In general, **ma**- appears to the right of left-peripheral elements. For example, in (12), **mā**- follows the clitic-left-dislocated NPs **?ana** "I" and **hal-dīn il-?wāǧ** "this crooked religion":

(12) a. ?ana hal-dīn l-i Śwāǧ **ma**-bidd-i iyyā *I this-religion.ms the-crooked.ms not-want-me* OBJ-him

"[As for] me, this crooked religion, I don't want it." (SK30: §)

 $\begin{array}{c|c} & & & & \\ \hline NP_i & & & & \\ \hline \hline \textbf{7ana} & & NP_j & & & \\ \hline & & \textbf{hal-d}\overline{\textbf{i}} \, \textbf{l-} \boldsymbol{\Sigma} \textbf{w} \overline{\textbf{a}} \overline{\textbf{g}} & & \\ \hline \end{array}$

In (13), the fronted question word **leš** "why" precedes **mā**-:

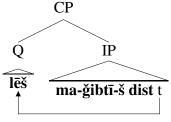
(13) a. lēš ma-ģibtī-š dist?

why not-brought.2fs-neg kettle

"Why didn't you bring a kettle?" (SK18: §63.4)

b.

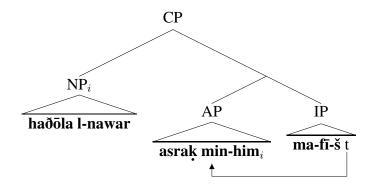
b.



In (14), **mā**- follows the clitic-left-dislocated NP **haðōla l-nawar** "these gypsies" and the fronted adjective phrase **asrak min-him** "more thievish than them":

(14) a. haðōla l-nawar asrak min-him **ma-fī-š**! these the-gypsies more-thievish from-them(m) not-expl-neg
"These gypsies, more thieves than them there is not!" (SK18: §20.2)

b.



Speakers reject examples in which **mā**- precedes left-peripheral elements:

(15)lēš **ma**-Sād hada radd Salai-y? a. why not-return.3ms one.ms answered.prf.3ms upon-me "Why didn't anyone answer me anymore?" http://arab4ever.com/montada/ printthread.php?s=8c4fbf97e192eb2e404a5f5c0df90844&threadid=1134& perpage=15&pagenumber=3 * **ma**-**\rac{1}\bar{a}d** lēš hada b. radd Salai-y? not-return.3ms why one.ms answered.prf.3ms upon-me

These data suggest that **mā**- 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**: mā- must appear no further left than the left edge of the IP-string.

This generalization suggests that $m\bar{a}$ - is attached to a subconstituent of IP. The question then becomes what position $m\bar{a}$ - takes relative to IP-internal elements.

2.3.2 mā- attaching to verbal elements

The most common pattern is for $m\bar{a}$ - to attach to the main verb in mono-verbal clauses:

(17) a. ma-**šafu**-nī-š.

not-saw.3mp-me-neg

"They didn't see me." (Elicited)

mā baftaḥ-l-ak ta-tҳarrif-ni.
 not indc-open.1s-to-you(ms) until-tell.2ms-me
 "I won't let you in until you tell me." (SK18: §)

In clauses with compound tense-aspect-mood marking, $m\bar{a}$ - attaches to the left-most auxiliary stem.

- (18) a. abū-y uSamm-i [IP ma-baķā-š yiǧī-him ūlād]. father-me and-uncle-me not-was.3ms-neg come.3ms-them(m) children "My father and my uncle, they hadn't had any children." (SK18: §51.9)
 - b. [IP mā-ķām-iš yastī min ǧrāb-e abadan].

 not-stood.3ms-neg give.3ms from pocket-him ever

 "He didn't ever give him [anything] from his pocket." (SK18: §85.3)

However, some auxiliaries, including the copula **kān-yikūn** "be" and the "serial auxiliaries" (Blau 1960, Hussein 1990, Mitchell & al Hassan 1994) **Yad** "again" and **kām** "so, thereupon," sometimes precede negation²:

- (19) a. law mā-fī šabāb aw mā fī banāt **kān mā** fī ḥayya.

 if not-exist boys or not exist girls was.3ms not exist life

 "If there were no boys or no girls there wouldn't be life."

 (http://www.panet.co.il/ysc.php?ac=showarticle&article_id=29949&category_id=30)
 - b. ?awwal šeiy, kunt mā-?aḥibb šakl-i wa-kunt akrah-u. first thing was.1s not-like.1s form-my and-was.1s hate.1s-him
 "At first I didn't like my appearance and I hated it."
 (http://www.mahjoob.com/en/forums/showthread.php?p=1984687#post1984687)
 - c. sūri **Yad ma**-?akdar aradd Yalē-kom bi-surYa. sorry anymore not-be-able.1s answer.1s upon-you(m) with-speed
 "Sorry, I can no longer answer you quickly."
 (http://spaces.msn.com/dubaiboy/blog/cns!5082354833DAF05E!140.entry)
 - d. marra wāḥad ḥamṣi rāḥ yiṣīd samak **ķām ma**-laķa once one.ms of-Homs.ms went.3ms hunt.3ms fish stood.3ms not-caught.3ms ṭaʕam. food

"Once someone from Homs went fishing, and he didn't catch any food." (http://www.4uarab.com/vb/showthread.php?t=54054)

If these auxiliaries form part of the IP-constituent, then the examples in (19) indicate a class of exceptions for (16), because $m\bar{a}$ - does not appear at the left edge of the IP-string, but rather after the first word in the IP-string. This suggests that (16) should be modified as follows:

(20) **Generalization 1':** mā- must appear no further left than the left edge of the IP-string, except when preceded by an auxiliary verb;

²According to Mitchell & al Hassan (1994, p.77), in both Egypt and the Levantine region serial auxiliaries are not negated **?ām rāh ma-kal-š** "suddently he refused to eat."

2.3.3 mā- attaching to non-verbal elements

In addition to attaching to verbs, **mā**- also attaches to certain kinds of non-verbal expressions. These include inflected prepositions, the existential particle **fī** (itself etymologically derived from an inflected preposition), indefinite pronouns, indefinite noun phrases, and the adverb **Sumr** "ever, never":

- (21) a. hāða baķī-l-e faras ma-l-hā-š uχt.
 this.ms being.ms-to-him mare.fs not-to-her-neg sister
 "He had a mare that was without compare." (lit. 'had no sister') (S&K18: §39.6)
 - b. ma fiš-š fi-l-dinya miθil-hin.
 not exist-neg in-the-world like-cl3fp
 "There are none in the world like them." (S&K18: §46.4)
 - c. ma ḥadā-š radd Salē-ha. not-one.ms-neg answered.3ms upon-him
 "No one answered her." (S&K18: §30.11)
 - d. Sumr ma-wāḥad kidr inām fi-hal-ʔarð.

 ever not-one.ms was-able.3ms sleep.3ms in-this-land

 "No one was ever able to sleep on this land." (SK18 §41.4)
 - e. lammin istawat aṭlaʕ il-zalame arbʕīn ǧaddād ʕa-ðahir-ha when ripened.3fs made-climb.3ms the-fellow forty picker on-back-it u-ma-ǧaddād yismaʕ la-ǧaddād ṭaṣḥṣ. and-not-picker heard.3ms to-picker sound
 "When it ripened, the fellow had forty pickers climb it, and no picker heard the sound of another." (SK18 §33.9)
 - f. ma-**Yumr**-ī-š šuft-u. not-ever-me-neg saw.1s-him "I never saw him." (*Elicited*).

In general, these constituents are single words, which is to say that they have atomic (non-branching) syntactic objects. However, in some cases $m\bar{a}$ - attaches to at least some constituents which have branching structure:

- (22) a. kāmat hāði ṭakkat **ma**-[PP **fi**-Sēn-ha] balle u-mātat. stood.3fs this.fs fell.3fs not in-eye-her drop and-died.3fs

 "So then she fell there was not a drop in her eye and died." (S&K18: §45.10)
 - b. wallāh **ma**-[PP **fi**-hal-lēle] b-anām Sindak. by-God not in-this-night indic-slept. Is at-you(ms) "I won't sleep with you this night." (S&K30: §90.6)
 - c. wallāh **ma-**[PP **fi-**lēlt-i] b-anam Sind-ič. by-God not in-night-my indic-sleep.1s at-you(fs) "By God, I won't sleep with you this night." (S&K30: §90.8)

d. **ma**-[_{PP} **fi**-l-yadd] walā ḥīle.

not in-the-hand even trick

"I have no excuse at all." (S&K30: §117.5)

The preposition $f\bar{i}$ is frequently pronounced as a part of the following word, and which may have developed or be developing affixal properties, so in these examples the expressions hosting $m\bar{a}$ - may not be branching at all.

Mohammad (1998) reports that prefixing $m\bar{a}$ - to other branching prepositional phrases is unacceptable:

(23) a. Mona, ma-Sand-ha ktāb. b. * ma-Sand mōna ktāb.

Mona not-at-her book not-at Mona book

"Mona doesn't have a book."

In at least some cases, **mā**- 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:

- (24) a. bass li-l-ʔāsif ma-**fī** kān rudūd.

 but to-the-regret not-exist was.3ms answers

 "But, unfortunately there weren't any answers."

 (http://www.palestinianforum.net/forum/printthread.php?t=19897&pp=40)
 - b. ma-**l-iš**-š bāķi walad not-to-him-neg was.ms son "He didn't have a son." (Hoyt 2000)
 - c. ma-**Sind-hā**-š bāķi hitta ķirš. not-at-her-neg was.ms even penny
 "She didn't have even a penny." (Hoyt 2000)

Mohammad (1998) presents examples like these as being unacceptable. Mohammad's data is from a variety of PA spoken in rural areas of the Galilee region in what is now Israel (Mohammad Mohammad, p.c.), while (24b-24c) are collected from or confirmed by speakers of a variety of PA spoken in rural communities of the northern West Bank. It may be that there is variation within regions or varieties of Palestinian Arabic regarding the position of negation relative to auxiliaries verbs. As such, the generalizations concerning the position of mā- should be taken as describing the varieties in which examples like (24b-24c) are acceptable.

Another kind of complications arise for (16) with certain expressions which can appear on either side of $m\bar{a}$ -, raising a question as to whether they are varying position or whether $m\bar{a}$ - is. One of these expressions is the dative clitic preposition l- "to" when it host clitic pronouns:

- (25) a. **?il-i** mā-kān maqbūl ?inn-hum tahaǧǧamu Ṣala ?amani. *to-me not-was.3ms agreement that-they attacked.3mp upon Amani* "I had no acceptance for them attacking Amani." (http://www.panet.co.il/ysc.php?ac=showarticle&article;d=14653&category_id=21)
 - b. **?il-u** ma-kān ulād.to-him not-were.3ms children"He didn't have children." (Hoyt 2000)

Other inflected prepositions cannot precede mā-:

- (26) a. mōna, ma-fiš-š Sind-ha ktāb. *Mona not-exist-neg at-her book*"Mona doesn't have a book." (elicited)
 - b. * mōna, Sind-ha ma-fiš-š ktāb. *Mona at-her not-exist-neg book*

Therefore, **l**- presents another exception to (16), suggesting the following refinement.

- (27) **Generalization 1":** mā- must appear no further left than the left edge of the IP-string, except when preceded by:
 - i. an auxiliary verb;
 - ii. an inflected dative clitic;

The word which precedes **mā**- most frequently is the adverb **Sumr** "ever, never":

(28) a. ma-**Yumr-ī**-š šʊft-u. b. **Yumr**-i **ma**-šʊft-u. not-ever-me-neg saw.1s-him
"I never saw him." (Elicited)

b. **Yumr**-i **ma**-šʊft-u. ever-me not-saw.1s-him
"Same." (Elicited)

It frequently appears in what looks like a construct-state with a following nominal that corresponds to the subject of the clause:

- (29) a. [**Sumr** il-maṣāyib] ma-**ṣābat-ni**.

 **ever the-catastrophes not-hit.3fs-me

 "... never have catastrophes struck me." (SK18: §62.11)
 - b. u-[**Sumur** baχīl] ma-**budχul** malakūt il-sama.
 and- ever greedy not-indic-enter.3ms kingdom heaven
 "... and the greedy never enter the Kingdom of Heaven." (SK18: §61.6)
 - c. ana ḥaqqaqt-l-ik illi [**Sumur** ḥada] **mā**-ḥilim fī. *I realized.1s-to-you(fs) rel ever one.ms not-dreamed.3ms in-him*
 "I have made real for you what no one has ever dreamed of."
 (http://www.fosta.net/ghada/pages/hh43.htm, May 2005)

Sometimes **Sumr** hosts a clitic pronoun that is coreferential with the subject NP:

- (30) a. Sumr-u ma-wāḥıd daҳal wa-rağaS. ever-him not-one.ms enter.3ms and-return.3ms
 "No one has ever gone in and returned."
 (http://www.diwanalarab.com/article.php3?id_article=415)
 - b. Sumr-u ma-ḥada simiS San-hum ġēr kull χēr. ever-him not-one.ms heard.3ms on-them other-than every good
 "No one has ever heard about them other than all the best." (http://www.mahjoob.com/en/forums/showpost.php?p=2453004&postcount=7)

In other cases the pronoun and the subject of the clause are not co-referential:

- (31) a. hal-kuliyya **Yumr-ha** ma-kān fī-**ha** ?anṣāf wala ?adl la-l-ṭālıba. *the-college.fs ever-her not-was.3ms in-her justice or fairness to-the-student.fs* "In this college, there was never any impartiality or fairness for the female student." (http://topuae.net/vb/showthread.php?mode=hybrid&t=2868)
 - b. **Sumr-i** mā kān Sand-i muškīla bi-kawn-i filasṭīniyya. *ever-me not was.3ms at-me problem.fs with-being-me Palestinian.fs* "I have never had a problem with my being Palestinian." (http://www.3roba.net/forum/printthread.php?t=43802)

In other cases, **Sumr** appears without a following clitic or noun phrase:

- (32) a. bakar badawiyāt [RC **Sumur ma-**wāḥad ḥāl Salē-hin]. oxen bedouin.fs ever not-one.ms caught.3ms upon-cl3fp "wild oxen [that] nobody had ever been able to catch." (SK18: §18.2)
 - b. **Yumr ma**-ḥada šāf waǧh-i wa-ʕaql-u ðall maʕ-u. *ever not-one.ms saw.3ms face-my and-mind-his remained.3ms with-him* "No one has ever seen my face and kept his wits about him." (http://www.palintefada.com/vb/showthread.php?t=23757)
- (33) a. **ma-Yumr** šaddat-ni quṣṣa mɪθɪl ɪl-quṣṣa hāði. not-ever affected(?).3fs-nme story.fs like the-story this.fs "Never has a story affected me like this story." (http://www.barqalshamal.com/vb/printthread.php?t=920&pp=40)
 - b. ma-Yumr kaðabt ʕala ḥāl-i.
 not-ever lied.1s upon self-my
 "I have never lied about myself."
 (http://www.mahjoob.com/ar/forums/showthread.php?t=22360)

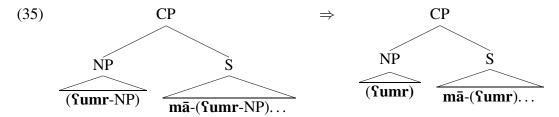
The adverbial use of **Sumr** is etymologically derived from the noun **Sumr** meaning "age" (34a). In its "age" meaning, **Sumr** appears very frequently in construct with a following noun meaning "(in) X's life" (34b).

- (34) a. bāķi Sumr-e yimčin Sišrīn sane. be.part.ms age-his perhaps twenty years

 "It was maybe twenty years old." (SK18 §31.5)
 - b. bidd-i atǧawwaz-ha law ʔaҳir 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."
 (http://guam.globat.com/ sbaba.com//News/view.php?this
 _category_id=4&id=408&categorypara=art&the_sub_id=7)

The adverbial use probably developed with "X's life" in negative sentences where it implies the meaning of "ever": **Sumr-i ma-kalt-\bar{\mathbf{u}}-š** "in my life I have not eaten it" \rightarrow "I have never eaten it."

As a nominal constituent, **Sumr** 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 **Sumr** is likely to be a morphological reduction of adverbial **Sumr** in construct which retains the same syntactic distribution as its etymological source.



This suggests that when **Yumr** precedes negation, it is in a left-peripheral position, while when it follows negation, it is in an IP-internal position. Therefore, the distribution of **Yumr** is not an exception to (16).

Another complication for (16) is the position of subjects in negative sentences in SV word order. There are two possibilites: S-Neg-V and Neg-S-V. Which is used depends on several morphological, prosodic, and semantic/pragmatic factors. When the subject NP follows negation, it is generally an indefinite noun or indefinite pronoun (c.f. Mohammad 1998, Mohammad 2000):

- (36) a. ma-ḥadā-š b-ıΥrıf-ni miθil marat-i. not-one.ms-neg indic-know.3ms-me like wife-me

 "No one knows me like my wife [does]." (SK §30.4)
 - b. u-ma-**ğaddād** yisma\(la-\) jaddād ṭakk. and-no-picker.ms hear.imperf.3ms to-picker sound
 "... and no picker could hear the sound of another." (SK \\$33.9)

c. Sumr-u ma-wāḥad daxal-ha wa-raǧaS. age-him no-one.ms enter.perf.3ms-her and-return.perf.3ms
"No one has ever entered it and come back."
(http://www.diwanalarab.com/article.php3?id_article=415)

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, Hoyt to appear):

- (37) a. iða **wāḥad ma**-yisāʔid ḥada waķt il-šidda mīn raḥ yisāʔid-u? if one.ms not-help.1s one time the-adversity who fut help.3ms-him "If someone doesn't help anyone in time of adversity, who is going to help him?" (http://www.tabeebe.com/vb/archive/index.php/t-27970-p-10.html)
 - b. **?ana** ma-bidd-ī-š akol-l-ak šu ?aχṭā?-ik fi-l-taṣmīm.
 I not-wish-me-neg say.1s-to-you(fs) what errors-you(fs) in-the-design(?)
 "I don't want to tell you what your errors [are] in the design(?)"
 (www.palestinianforum.net/forum/showthread.php?p=238258)
 - c. bass **?umm-i** ma-bi-ta?mil miθil hay l-ašya. but mother-me not-indic-make.3fs like these things
 "But my mother doesn't make things like these."
 (www.panet.co.il/ ysc.php?ac=showarticle&article_id=7931)

Accordingly the two sentences meaning different things although they contain the same words:

- (38) a. ma-wāḥad ağa. not-one.ms came.3ms"No one came."b. wāḥad mā-ğa.
 - b. wāḥad mā-ġa.one.ms not-came.3ms"One [person] didn't come."

(38a) necessarily describes a situation in which no member of some witness set came, whereas (38b) necessarily describes a situation in which a particular individual did not come while allowing that other people might have come.

As noted above subjects that precede negation are subject to the specificity condition which applies to clitic left-dislocated NPs. Accordingly, (16) 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 prominent approach

to analyzing pre-verbal subjects as Clitic-Left-Dislocated NPs which 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 do show the grammatical characteristics of occupying an IP-internal position. According to Mohammad, the subject NPs in (37) 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 (16), but rather the left edge of the what one might call the "Ī-string." This would imply yet another refinement of (16).

- (39) **Generalization 1"**: **mā** must appear no further left than the left edge of the IP-string, except when preceded by:
 - i. an auxiliary verb;
 - ii. an inflected dative clitic;
 - iii. a subject NP.

Mohammad's argument raises questions about the positions of other expressions that precede $m\bar{a}$: if $m\bar{a}$ - can vary its position relative to subject NPs, then it can also vary its position relative to the dative clitic and to **Sumr**. This suggests that (16) is not the correct generalization, as the exceptions are systematic and therefore suggestive of a missed generalization.

In Section (3) I suggest that a version of (16) might be correct if the domain in which $m\bar{a}$ - is located is defined in purely prosodic terms, rather than as a wordstring which is isomorphic with the IP-constituent.

2.3.4 Ommision of mā-

Omission of **mā**- is possible only with stems beginning with labial obstruents [b] or [f], and only in the presence of -**š**. Early twentieth-century grammars of Lebanese (Feghali 1928) and Palestinian (Schmidt & Kahle 1918, Blau 1960) note reduction of **ma**- to **a**- the b-imperfect:

- (40) a. kāl a-b-iχuṣṣ-nī-š.

 said.3ms not-indic-concerns.3ms-me-neg

 "He said 'It doesn't concern me'." (SK18 §25.8)
 - kālat a-bidd-ī-š aχassr-ak!
 said.3fs not-want-me-neg harm.1s-you(ms)
 "She said 'I don't want to harm you." (SK30 §129.4)

Total reduction of **mā**- is attested, although not common, in the 1910 data in Schmidt & Kahle (1918) and Schmidt & Kahle (1930). It is much more pervasive in contemporary speech, and also occurs with existential **fī**. This may be the result of analogical extension from verb stems with indicative prefix **bi**- to [b]-initial stems more generally and then to stems beginning with labial obstruents.

When $m\bar{a}$ - is omitted, - \tilde{s} is still constrained to attach to the word to which $m\bar{a}$ -would attach if it were present. In other words, - \tilde{s} is constrained by the distribution of $m\bar{a}$ - even if $m\bar{a}$ - is not pronounced:

- (41) a. **b**-ikūn-**š** fī maṣāsi. (Elicited).

 indic-be.3ms-neg exist money

 "There won't be any money."

 b. ***b**-ikūn fiš-**š** maṣāsi.

 indic-be.3ms exist-neg money
- (42) a. **ma**-b-ikūn-**š** fī maṣāsi. (Elicited).

 not-indic-be.3ms-neg exist money

 "There won't be any money."

 b. * **ma**-b-ikūn fiš-**š** maṣāsi.

 not-indic-be.3ms exist-neg money

This suggests that when $m\bar{a}$ - is not pronounced that a word-initial labial obstruent can stand proxy for it, or in more formal terms, that a word-initial labial obstruent can act as a negation morpheme. Accordingly, clauses in which $m\bar{a}$ - is omitted still are in keeping with (16) modulo its exceptions.

2.4 Distribution of -š

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

(43) a. Verbs c. Existential fi e. **ḥada** b. Inflected prepositions d. **Sumr**

Each of these must already be hosting **mā**- or begin with a labial obstruent in the left most position in the IP-string (modulo the exceptions noted above). Therefore, -**š** inherits the positional distribution of **mā**- and applies only to a subset of it. Except for **ḥada**, 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):

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

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

- (45) a. ma-ḥadā-š ağa. b. * ma-wāḥad-īš ağa. not-one.ms-neg come.3ms not-one.ms-neg come.3ms "No one came."
- (46) a. ma-ḥada ʔağa. b. ma-wāḥad ağa. not-one.ms come.3ms

 "No one came." b. ma-wāḥad ağa. not-one.ms come.3ms

 "No one came."

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

- (47) a. farru fi čill il-ʕarab ma-lakū-š **wāḥad** yiʕrif b-ism searched.3mp in all the-Bedouin not-found.3mp-neg one know.3ms with-name allāh il-ruḥmān il-raḥīm.

 God the-compassionate the-merciful

 "They searched among the Arabs, [and] didn't find anyone who knew [to say] 'In the Name of God, the Compassionate and the Merciful." (SK30 §109.2)
 - b. ?ana ʕumr-i ma-šuft wāḥad miθlu I ever-my not-saw.1s one like-him
 "I have never seen anyone like him." (http://www.sabborat.com/vb/archive/index.php/t-14681.html)

hada is sometimes used as a positive polarity item or as a referential pronoun:

- (48) a. bass bidd-e **ḥada** yisṭaḥ-l-e l-tināt San-ne. only want.3ms one.ms spread.3ms-to-him the-figs for-him
 "He only wanted sometime to spread out his figs for him." (SK18 §31.1)
 - kāmat wazzat hada min kōm-ha.
 stood.3fs called.3fs one from tribe-her
 ... so then she called one of her tribespeople..." (SK18 §2.4)
- (49) a. bidd-i **ḥada** aḥki ma\(\subseteq\)-u \subseta\(\text{s\text{\sin}}\) ma-fi: ḥada b-iḥki ma\(\subseteq\)-i. want. Is one speak. Is with-him because not-exist one indic-speak. 3ms with-me "I want someone to talk to because there isn't anyone to talk to me." (http://forum.amrkhaled.net/showthread.php?t=5308&page=4)
 - b. il-ḥamdu li-llāh ṣār ma\(\frac{1}{2}\)-i hada yi\(\frac{1}{2}\)-idd ma\(\frac{1}{2}\)-i. the-praise to-God became.3ms with-me one.ms stand-firm.3ms with-me "Thanks to God I have someone with me to stand firm with me." (http://www.maten-alsahel.com/forum/showthread.php?t=514)

This indicates that although **ḥada** is most often used as an NPI and **wāḥad** is used as a PPI or a referential indefinite, these are tendencies rather than rules.

Similarly, if **ḥada** has an association with negation, then **Yumr** must as well, given that the kinds of sentences in which they occur overlap almost completely. However, **Yumr** cannot host -**š**, while **ḥada** can, unless **Yumr** has a clitic pronoun attached to it, in which case it contains a morpheme which expresses person features.

The likely explanation for **hada**'s exceptional ability to host -**š** is that it is a pronoun in the morphological sense and belongs to the determiner (D) category, while **wāḥad** is a noun stem. This difference is apparent in the fact that **wāḥad** can host the definite article while **ḥada** cannot:

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

If **ḥada** is a pronoun, then its ability to host -**š** is not an exception to (51). The generalization can be reformulated in two ways depending on whether verbal agreement marking is analyzed as an incorporated pronoun or not. The first way is to say that -**š** must be right-adjacent to a pronoun. The second is to say that -**š** must be left-adjacent 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.

(51) Generalization 2': -**š** must attach to the right edge of a word which is marked with a negation morpheme, and of a morpheme which expresses person features.

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

However, the unacceptability of examples like (52) is not an exception to (51) if we follow Benmamoun (2000) in assuming that pronouns belong to category +D

and by treating agreement morphology as expressing a +D categorial feature. (51) can then be modified as follows³:

(53) **Generalization 2":** -**š** must attach to the right edge of a +D word which is marked with a negation morpheme, and of a morpheme which expresses person features.

Because the distribution of $-\ddot{\mathbf{s}}$ is a subset of the distribution of $\mathbf{m\ddot{a}}$ -, (53) inherits the exceptions that were noted above for (16).

2.5 Summary

The distribution of the morphemes $m\bar{a}$ - and - \check{s} in Palestinian Arabic is as follows:

- (54) **mā** and -**š** are both special clitics in Zwicky's (1977) and Zwicky & Pullum's (1983) sense, because
 - i. they are affixes, forming prosodic words with the words that host them;
 - ii. they are "unselective," meaning that they attach to words belonging to several different classes;
 - iii. they attach to words already hosting other clitics;
 - iv. their distribution is idiosyncratically determined by non-syntactic factors.
- (55) **mā** attaches to the left-most word in the IP-string except when preceded by:
 - i. a subject NP;
 - ii. **kān-yikūn** "be";
 - iii. **Sād-yiSūd** "again";
 - iv. **kām-yikūm** "so then";
 - v. the adverb **Sumr** "ever";
 - vi. the dative preposition **l** hosting a clitic pronoun.
- (56) -**š** is a phrasal enclitic which attaches to the following provided that they are hosting **mā**-or begin with a labial obstruent:
 - i. **hada** "(any)one";
 - ii. stems marked with person agreement features.

The distribution of $-\tilde{\mathbf{s}}$ is therefore conditioned by the distribution of $\mathbf{m}\tilde{\mathbf{a}}$. Given that $\mathbf{m}\tilde{\mathbf{a}}$ - generally attaches to the left-most word-sized constituent in the IP-string, it follows that $-\tilde{\mathbf{s}}$ attaches to the end of the left-most word-sized constituent in the

³This solution would entail treating construct-state noun phrases as being of category -D. This would be a theoretically controversial assumption to make.

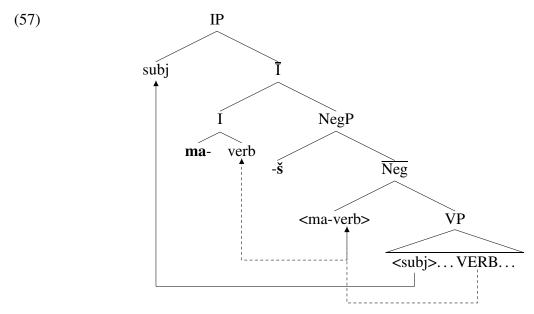
IP-string. Therefore -**š** has a tendency to appear as a 2nd-position clitic in the IP-string, where positions are in terms of prosodic words. This tendency is obviated in sentences in which the word hosting -**š** is not the first word in the IP-string, but rather the 2nd.

This raises a question as to whether the IP-string is the correct characterization of the phrasal domain that $m\bar{a}$ - and $-\bar{s}$ attach to, or whether the phrasal domain should be characterized in purely prosodic terms without reference to syntactic categories such as IP. This is discussed briefly in Section 3.

3 Analytical Implications

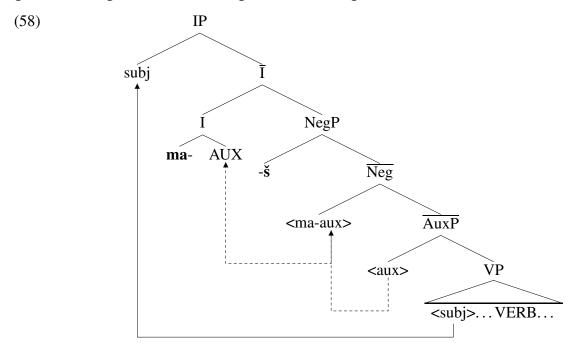
3.1 Previous Approaches

Perhaps the most widely adopted strategy for the analysis of negation in Arabic clauses follows Pollock's (1989) analysis of negation in French (Benmamoun 1992, 1997, 2000; Ouhalla 1993, 2002). According to this analysis, the negation marker $m\bar{a}$ - heads a functional projection NegP which immediately dominates the verbal complex. The - \bar{s} morpheme fills the specifier of NegP. The main verb raises to adjoin to $m\bar{a}$ -, and then further to I^0 , "stranding" - \bar{s} in the specifier of NegP and deriving the desired word order:



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:



A Pollock-type approach successfully models examples in which $m\bar{a}$ - and - \bar{s} attach to the verb in a clause which expresses tense-aspect-mood (see 17, 18, and 19 above), given the assumption that tense-aspect-mood marking occurs on I^0 .

However, this fails to correctly predict position of the negation morphemes when they attach to a pre-verbal constituent such as **ḥada**, inflected prepositions, or **Sumr**. A similar problem arises with the "serial auxiliaries" noted above (p. 9). These are a class of auxiliated verb stems used in PA and other Levantine dialects essentially as aspectual adverbs (Blau 1960, Hussein 1990, Mitchell & al Hassan 1994, Khalaily 1997).

Stem	Lexical	Auxiliated	Negated
	Meaning	Meaning	Meaning
kām-yıkūm	"stand, rise"	"so then"	"ever, at all"
		"and then"	
		"and so"	
Sāwad-yiSāwid	"return"	"again"	"anymore"
Υād-yı Υūd			
rāḥ-yırūḥ	"go"	"x"	-
?aǧa-yīǧi	"come"	"come to do X"	-

In positive polarity sentences, serial auxiliaries precede the tensed verb in the clause 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.

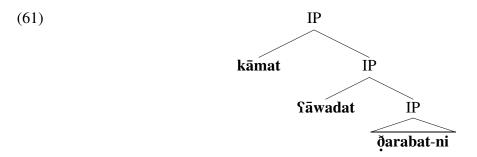
- (59) a. **kāmu** liSbu, **kāmat** ġalbat-e. stood.3mp played.3mp stood.3fs defeated.3fs-him "... so then they played, and she beat him." (SK §36.6)
 - kāmat θāni ğim sa sāwadat ðabḥat-l-e wazze. stood.3fs second Friday returned.3fs slaughter.prf.3fs-to-him goose.
 "... so then the second Friday she slew a goose for him again." (SK §60.4)
- (60) a. **kumt** nimt Sašān il-madrasa.

 stood.1s slept.1s because the-school

 "...so I went to sleep on account of school."

 (http://www.cars-club.com/vb/showthread.php?t=5821&page=2)
 - b. **Yāwadat** ḥiblit ǧābat σχιτα bint returned.3fs conceived.3fs delivered.3fs other.fs girl
 "She got pregnant again and bore another girl."
 (http://www.palestine-info.info/arabic/hertiage/stories/stories2.htm)
 - c. **kāmat Ya:wadat** ðarabat-ni. stood.3fs returned.3fs hit.3fs-me
 "So then she hit me again." (Elicited).

However, even though they are marked as expressing tense or aspect, they are interpreted as adverbial modifiers or as conjunctions. Because serial auxiliaries 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 (60c) would have a structure like the following:



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:

- (62) a. ma-**ķām**-iš **yðūķ** il-laḥm. not-stood.3ms-neg taste.3ms the-meat "He didn't taste the meat at all." (SK §35.8)
 - b. ma-kām-iš yixallī-hin yiṭlaʕin. not-stood.3ms-neg allowed.3ms-them(f) go-out.3fp "He never let them venture out." (SK §46.1)
 - c. ma-**Yāwadat tiṭlaY**.
 not-returned.3fs go-out.3fs

 "It didn't appear again."
 (http://www.alquma.net/vb/archive/index.php/t-116050.html)

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

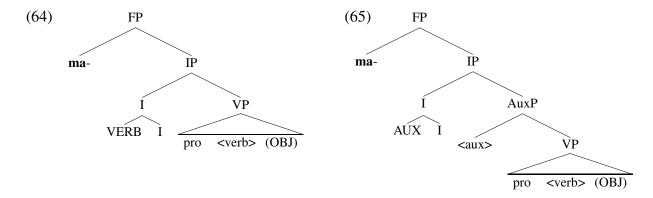
- (63) a. u-ma-**Yāwadat**-iš baiyanat. and-not-returned.3fs-neg was-clear.3fs "... and it was no more to be seen." (SK §64.3)
 - b. ma-**Yad**-š ?al-l-i ?innu štara sayyara. *not-returned.3ms-neg said.3ms-to-me that-him bought.3ms car* "He did not tell me anymore that he bought a car." (Hussein 1990, p. 344)
 - c. hal-Sadas, **ma**-komt-**iš** doķt fī. these-lentils not-stood.1S-neg tasted.1S in-him "These lentils, I never even tasted them." (elicited data)

Given that the main verb expresses the tense-aspect information for the clause, I assume it to be in the I⁰ position. This entails that the serial auxiliary is attached above it, and 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 $m\bar{a}$ - and - \check{s} can only attach to the verb stem occupying the I⁰ 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):

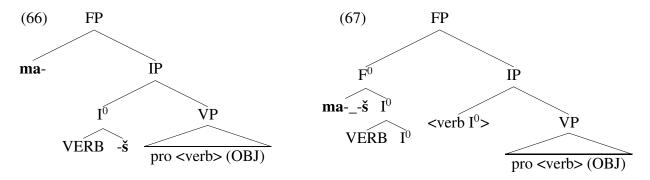


This analysis correctly predicts a wider range of facts than does the Pollock-style analysis, in particular predicting (16). However, it makes no predictions about the distribution of the -**š** morpheme.

The distributions of $m\bar{a}$ - and $-\bar{s}$ can be schematized as follows:

māverb -š a. b. māaux verb P-c1 (verb/aux) c. mā-(verb/aux) d. māma-hada (verb/aux) f. ma-Sumr (verb/aux) ma-Sād (verb/aux)

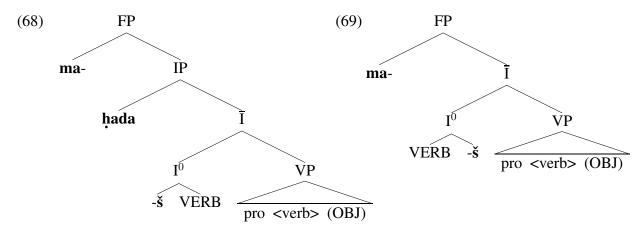
Cases (a) and (b) in which $m\bar{a}$ - and - \check{s} attach to a verb or auxiliary could be covered in several ways, depending on one's assumptions about the position of the verb itself. If one assumes that the verb raises to I^0 , then one could stipulate that - \check{s} is the head of I^0 (66). Alternately, one could claim that the verb raises to F^0 (Diesing & Jelinek 1995), and therefore that $m\bar{a}$ - and - \check{s} are both in F^0 (67).



For cases (c-f) — those in which the negation morphemes are hosted by an expression to the left of the tensed verb — it will not work to place $-\mathbf{\check{s}}$ in F^0 . This

is because the word in these cases are not verbal heads but rather phrasal categories such as PPs or NPs, and do not adjoin to F^0 .

For cases (c-f), that leaves (66) as a possible structure. To capture (c-f), one might claim that the linear order of -**š** and the verbal head can be left unspecified for the PF component to sort out, so that -**š** will branch to the left to attached when to preverbal elements (68), and to the right when attached to verbal elements (69):



However, there are cases in which - \hat{s} attaches to an expression which is separated from I^0 by an intervening XP. In the following examples, - \hat{s} (in bold) is attached to **ma-ḥada**, which is then followed by a prepositional phrase. The prepositional phrase has the semantics and distribution of an NP-internal modifier, and it separates - \hat{s} from the element in I^0 (also in bold):

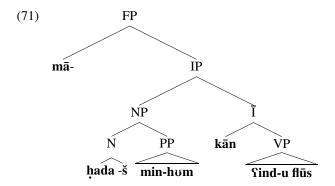
- (70) a. ma-[NP] hadā- $\mathbf{\check{s}}$ [PP min-him]] $\mathbf{\check{k}ayil}$ 'šu hāða. not- one.ms-neg from-them(m) saying.ms what that "Not one of them [was] saying 'what [is] that?"" (SK §34.1)
 - b. haði l-as?ila ma-[NP] hadā- $\check{\mathbf{s}}$ [PP] min [VOMTi]]] $\mathring{\mathbf{yik}}$ $\mathring{\mathbf{dar}}$ $\mathring{\mathbf{these}}$ $\mathring{\mathbf$
 - "... these questions no one of my age [was] able to answer them for me." (http://www.aljazeera.net/NR/exeres/1FA7868A-9513-45B4-AF96-06277E4D1DC3.htm)
 - c. $\text{ma-}[_{NP} \text{ ḥadā-} \mathbf{\check{s}} \quad [_{PP} \text{ min il-luṣūṣ} \quad \text{illi ḥakamū-na} \quad] \] \ \mathbf{\check{tili}} \mathbf{\check{f}}$ \ \text{\tau} \text{ala} \\ not- \quad one.ms-neg \quad from the-thieves rel ruled.3mp-us \quad go-out.3ms upon \\ \text{l-ma}\tau\ta\check{a}\check{s}. \\ \text{.}

the-pension

- "Not one of the thieves who ruled us went into retirement." (http://www.el-3amal.com/modules.php?name=News&file=article&sid=2004)
- d. $ma-[NP \text{ hadā-} \mathbf{\check{s}} \quad [PP \text{ fī-hvm}]] \mathbf{k\bar{a}n}$ Sind-u flūs. not- one.ms-neg in-them(m) was.3ms at-him money

"Not one of them had money." (Elicited)

Assuming that the PP is internal to the NP headed by **hada**, then -**š** must also be internal to the NP:



If this is the correct structure for examples like those in (70), then there is no way to state a constraint on the distribution of -**š** relative to the spine of the clause.

In each of (70a-c), -š is attached to the first word-sized constituent within the IP-string. This shows that a generalization which captures the distribution of -š 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 -š morpheme could be treated simply as the "spell-out" of a negation or polarity feature which is specified on I⁰. Constraints or operations on the phonological form of the sentence would then be used to derive the correct position of -š within the string. However, as was discussed in detail above, there are a number of systematic exceptions to (16) which need to be accounted for. The problems that these for an analysis like (66) is that the phrase structure anchors mā- 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 **mā**- is defined in purely prosodic terms, rather than making reference to the IP. For example, assume the prosodic hierarchy of Selkirk (1980) (and many others) 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"). (16) might then be rephrased as follows:

(72) **Generalization 1 (revised)** -mā appears at the left edge of a phonological phrase.

This is the kind of approach advocated by Truckenbrodt (1999), Chung (2003) (and many others), 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 due to lack of space will have to be left to further research.

3.3 Summary of theoretical implications

The distribution of **mā**- and -**š** in Palestinian Arabic is not easily characterized in phrase-structural terms. In particular, -**š** seems to gravitate toward the second position in the clause, in some cases intruding into another constituent in order to do so. Therefore, the position that -**š** occupies is better represented in terms of the word string than in terms of the syntactic structure of the clause.

4 Conclusion

This paper has provided a detailed examination of negation morphology in Palestinian Arabic. This examination shows that the negation morphemes $m\bar{a}$ - and - \bar{s} behave as special clitics in Zwicky & 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 - \bar{s} 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 $m\bar{a}$ - and - \bar{s} could be characterized robustly.

This raises interesting questions about how negation morphology is represented in other dialects of Arabic. Studies of negative sentences 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, Harrel 1965, Harrel 1966, Marçais 1977, Benmamoun 1992, Benmamoun 1997, Benmamoun 2000, Ouhalla 1997) suggest that **ma:**- and -**š** are affixes rather than clitics in Zwicky & Pullum's (1983) sense, because they selects verbal stems as their hosts (Benmamoun 2000)

and because the distribution of -š 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 the syntactical and morphological properties of their negative sentences.

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