# The Fine Structure of the Neg-Domain: Evidence from Cairene Egyptian Arabic Sentential Negation<sup>\*</sup>

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**Abstract**: The goal of this paper is to revisit sentential negation patterns in Cairene Egyptian Arabic at the syntax-morphology interface and to propose a novel analysis for the structure of bipartite negation in this Arabic dialect. In particular, it is argued that the distribution of negation patterns is morphologically, rather than syntactically, conditioned; that the head hosting negation is higher than T on the clausal hierarchy; and that the Neg-domain in this dialect is split into two separate heads, one encoding semantic negation, and the other being marked for formal negativity only. Evidence that the proposed analysis is on the right track is discussed with reference to morphosyntactic effects of the interaction between negation and Negative Polarity Items, as argued in Soltan (2012).

## 0. Introduction: Patterns of Sentential Negation in Cairene Egyptian Arabic

Cairene Egyptian Arabic (CEA, henceforward) utilizes two patterns for sentential negation: (i) the *discontinuous maa...š-pattern*, which is used, among other contexts, with perfective verb forms, where the predicate appears sandwiched between two negative elements, forming one morphological unit, as illustrated in (1a); and (ii) the *independent miš-pattern*, which is used, among other contexts, in verbless copular structures, where the predicate follows the negation marker *miš*, without them forming a unit, as in (1b).<sup>1</sup>

(1)	a.	maa-ru	ħ-t-i-š	
		NEG-go.l	PERF-1S	G-EV-NEG
		'I did no	t go. '	
	b.	?anaa	miš	taʕbaan
		Ι	NEG	tired
		'I am no	t tired.'	

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<sup>&</sup>lt;sup>1</sup> The following abbreviations are used in the glosses of data: 1, 2, 3 for first, second, and third person, respectively; SG = singular; PL = plural; M = masculine; F = feminine; NEG = negation; FUT = future; ASP = aspect; PERF = perfective; IPFV = imperfective; PTCP = participial; Q = question-particle; EV = epenthetic vowel.

One can identify the following three main questions in the discussion of sentential negation in Arabic dialects in the generative literature (cf. Eid 1993, Shlonsky 1997, Benmamoun 2000, Ouhalla 2002, among others):

- (i) What conditions regulate the distribution of the two negation patterns?
- (ii) Where is Neg in clause structure; i.e., is it higher or lower than T?
- (iii) What is the grammatical status of the  $-\dot{s}$  segment of the negation morpheme?

In this paper, I revisit previous analyses of Arabic sentential negation, pointing out some empirical and conceptual problems with them. I then provide an analysis of the distribution of the two negation patterns in CEA, whereby the negative domain is split into two heads, both of which are placed higher than T in the clausal hierarchy, and where the distribution of the two negation patterns follows from head movement (or lack thereof) in the mapping from the syntax to the morphology. The proposed analysis is then argued to explain away a morphosyntactic puzzle in CEA that has often been noted, though never received a principled explanation.

The paper is organized as follows: In Section 1, I discuss the issue of the distribution of the two negation patterns in CEA, showing that an analysis in terms of morphological head movement is preferred over one where such movement is assumed to take place in the syntax. Section 2 discusses two possible structures for the position of Neg on the clausal hierarchy: the low-Neg analysis, where Neg is projected lower than T, and the high-Neg analysis, where Neg is located above T. Based on empirical evidence from dialectal variation and child language, I conclude that the high-Neg analysis is more adequate. In Section 3, two previous analyses of the grammatical status of the -*š* segment of the negation morpheme are discussed, showing that they both fail to capture certain empirical facts from Negative Polarity Item (NPI) contexts in CEA. Section 4 presents an analysis of sentential negation in CEA where the Neg-domain is argued to be split between two heads, both of which occupy a position higher than T. The distribution of the two negation patterns is then argued to follow from a morphological algorithm of head movement applying in the mapping from the syntax to the morphology. In Section 5, I revisit the NPI facts that have been argued in Section 3 to be problematic under previous analyses, showing that they can receive a principled account under the Split-Neg analysis proposed here. Section 6 sums up the conclusions of the paper.

## 1. Distribution of Negation Patterns in Arabic Dialects: Syntactic or Morphological?

The general consensus in the literature cited above regarding the distribution of sentential negation patterns in Arabic dialects is that it follows from the application of head movement or lack thereof. For instance, Benmamoun (2000) and Aoun et al. (2010) argue for a skeletal structure of a negative sentence in Arabic dialects along the lines of (2), ignoring irrelevant details.



To account for the contrast between (1a) and (1b), such an analysis argues that the discontinuous negation pattern emerges in past tense contexts since the verb has to raise to T, picking up Neg on the way, as per the Head Movement Constraint (HMC) (Travis 1984). By contrast, when T expresses present tense, as in the copular structure in (1b), there is no verb, hence no verb movement, and Neg is spelled out as the independent form *miš*. Surface negation patterns thus reflect operations of head movement (or lack thereof) taking place in the syntax.

The main challenge to a syntactic account of negation along the above lines has always been whether it is able to capture the wide range of variation attested at both the intra- and crossdialectal levels in Arabic dialects. Intra-dialectally, the proposed analysis predicts complementary distribution between both negation patterns, which is actually not the case, since the two patterns overlap in several grammatical contexts. For example, in CEA, while discontinuous negation occurs with perfective verb forms, as in (1a), it can also be hosted by the present tense aspectual imperfective (3a), pronominals (3b), the existential expletive fii(h) (3c), and PPs whose complement is a pronominal (3d).

(3)	a.	maa-ba-saafi	r-š	kə	tiir
		NEG-ASP-IPFV.tr	avel.1SG-NE	EG mu	ıch
	b.	'I don't travel n maa-huu-š / 1	<i>uch.'</i> naa-huwv	va-a-š	ta\$baan
		<i>'He is not tired</i> .	, ,	-NEG	ured
	c.	maa-fii-š	ħad	hinaa	l
		NEG-in.it-NEG	someone	here	
		'There is nobod	'y here. '		
	d.	maa-ʕand-uu	-š Sarat	oiyyah	
		NEG-at-him-NEG	3 car		
		'He doesn't hav	e a car.'		

Similarly, in addition to copular structures like (1b), the independent negation marker *miš* may occur optionally with the present tense aspectual imperfective (4a), obligatorily with future verb forms (4b), and less preferably with copular structures with predicate PPs (4c).

(4)	a.	miš	bi-yi-ruuħ	?il-gamʕa				
		NEG	ASP-IPFV-go.3SGM	the-university				
		'He doesn't go to the university.'						
	b.	miš	ħa-saafir					
		NEG	FUT-IPFV.travel.1SG					
		'I will	l not travel.'					
	c. ??	miš	Sand-uh Sarabiyy	/ah				
		NEG	at-him car					
		'He d	oesn't have a car.'					

On the other hand, cross-dialectal variation shows that certain categories can serve to host negation in some dialects, but not in others. For example, nouns and adjectives in CEA cannot host negation, but they can do so in Moroccan Arabic (MA) (Benmamoun 2000) and Southern Egyptian Arabic (Khalafallah 1969). Compare the ungrammatical negation patterns from CEA in (5) to the grammatical negation patterns from MA in (6).

(5)	a.	*	Aħmad	maa-doktoor-š
			Ahmad	NEG-doctor-NEG
	b.	*	Aħmad	maa-tafbaan-š
			Ahmad	NEG-tired-NEG
(6)	a.		huwa	maa-fəllaħ-š
			he	NEG-farmer-NEG
			'He is not	a farmer.'
	b.		huwa	maa-Twil-š
			he	NEG-tall-NEG
			'He is not	tall.'

Given the lack of complementary distribution between the two negation patterns as well as the variation with regard to which categories may host negation across Arabic dialects, it is reasonable to assume that the distribution of the two negation patterns is morphologically, rather than syntactically, conditioned. Under this assumption, the negation morpheme is an affix in need of a host, which, in turn, needs to be adjacent to the affix. Certain categories can serve as hosts for the negation affix, whereas others cannot. A morphological analysis of sentential negation in Arabic dialects thus saves us the trouble of having to invoke *ad hoc* features to justify the movements involved. Instead, such head movements can take place in the mapping from the syntax to the morphology driven by the affixal properties of the negation heads involved. Relegating the distribution of negation patterns to the morphological component is also compatible with a theory that takes head movement to be an operation of the morphological component, as has been suggested in Chomsky (2001) and Boeckx and Stjepanović (2001). Such an approach has the advantage of getting rid of the theoretical problems that have been typically raised with regard to head movement (e.g., the difficulty to motivate it in terms of feature checking, as well as its failure to satisfy the extension condition, among other issues).<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> For a more recent discussion of the status of head movement in minimalist syntax, see Roberts (2010).

I conclude then that an analysis of negation in CEA (and perhaps in all other Arabic dialects as well) in terms of morphological head movement is to be empirically and theoretically preferred over one that forces us to invoke a set of *ad hoc* features in the syntax to generate the attested patterns, and filter out the unacceptable ones. In Section 4 of this paper, I provide an implementation of such a morphological analysis. Before we do that, we need to discuss two further issues in the morphosyntax of negation in CEA.

#### 2. The Clausal Hierarchy of Negative Sentences in Arabic Dialects

There have been two main approaches to the issue of the position of Neg in clausal structure. The first approach, adopted in Benmamoun (2000), Ouhalla (2002), and Aoun et al. (2010), assumes a clausal hierarchy where Neg is lower than T in Arabic dialects. I will refer to that as the *low-Neg* analysis. A second approach, assumed in Diesing and Jelinek (1995) and Soltan (2007), argues for a clausal structure where Neg is located higher than T. I will refer to this as the *high-Neg* analysis. Both analyses are represented in (7a,b) below, respectively.



While a good range of empirical facts can be accounted for under either analysis, there are two main empirical facts from attested negation patterns in Egyptian Arabic that pose a problem to the low-Neg analysis. I discuss these in turn.

The first empirical argument against the low-Neg analysis is that it fails to account for dialects where the independent negation marker is actually used with perfective verb forms, a pattern that is predicted to be unattested under a low-Neg analysis, due to the HMC. One such dialect is spoken in some areas of the Sharqiyyah province in northern Egypt, where sentences like (8) readily occur (Soltan 2007).

(8)	?anaa	miš	lisib-t
	Ι	NEG	play.PERF.1SG
	'I did no	t play.'	

If Neg were lower than T, then there is no way to derive the sentence in (8) without V skipping over Neg on its way to T, followed by Neg moving over the T complex, to generate the right word order. Both movements violate the HMC. In addition, it is not clear how to motivate Negmovement in that context. In brief, negation in such dialects is simply underivable under standard assumptions, if Neg were indeed below T. By contrast, under the high-Neg analysis, this ne-

gation pattern follows if in this particular dialect past tense T is not required to raise to Neg, hence giving rise to the *miš*-pattern instead.<sup>3</sup>

The second empirical argument in favor of the high-Neg analysis and against the low-Neg analysis comes from Egyptian children's speech, showing that the type of negation in (8) is rather common among children early on in their acquisition of negation in Egyptian Arabic (cf. Omar 1967). This means that there is a stage in negation acquisition where children overgeneralize the use of the *miš*-pattern to all verb forms. If Neg were lower than T by default, as it is assumed under the low-Neg analysis, these utterances by children would be very hard to explain, given the standard assumption that the HMC is a universal principle of grammar. Under the high-Neg analysis, a possible explanation is available, if children first assume that T, no matter what its tense specification is, does not need to raise to Neg, hence the use of the independent negation marker in such early utterances. Later on, based on positive evidence in the primary linguistic data, they realize that Neg has to conflate with past tense T (among other heads), and the discontinuous negation pattern will replace these early non-adult-like *miš*-pattern utterances.

To sum up the discussion in this section, there is strong empirical evidence from negation patterns in Sharqiyyah Egyptian Arabic as well as negative utterances produced by Egyptian children in the early stages of language acquisition that Neg has to be higher than T in CEA clause structure, and presumably in all other Arabic dialects.<sup>4</sup>

#### 3. The Grammatical Status of the -*š* Segment of the Negation Morpheme in CEA

A final issue in the discussion of the syntax of negation in Arabic dialects has to do with the grammatical status of the -*š* segment of the negation morpheme, which appears in both patterns (as a suffix in the discontinuous negation marker, and as a subpart of the independent negation marker). One potential analysis is to treat -š as a Spec of the Neg head maa, similar to what has been suggested for bipartite negation in languages like French (cf. Pollock 1989, Ouhalla 1990, and Moritz and Valois 1994). An alternative analysis, argued for in Benmamoun (2000) and Aoun et al. (2010), treats the negation morpheme as a discontinuous Neg head, under which the two negative segments are generated. The two analyses are represented diagrammatically in (9a,b), respectively.



Aoun et al. argue that the discontinuous head analysis allows us to account for the variation attested in negation patterns in Arabic dialects (e.g., the fact that some dialects mark negation with maa only, while others use -š only). It is possible, however, for the analysis in (9a) to do the same. For example, dialects that mark negation with maa only can be argued to not project an

<sup>&</sup>lt;sup>3</sup> For most Egyptians, however, (8) is not a grammatical sentence, since Neg is always required to merge with an adjacent T that is specified for past tense. <sup>4</sup> An implicit assumption here, familiar from work by Zanuttini (1997), is that the position of Neg in clause structure

is parametric: Some languages place Neg higher than T (Arabic); others project T lower than Neg (Germanic).

inherent SpecNegP, while those that mark negation with -*š* only can be argued to have lost *maa* as a negative head and have instead come to treat -*š* as head of NegP.

On the other hand, there is one grammatical context that seems to favor treating  $-\dot{s}$  as SpecNegP rather than as part of a composite Neg head, namely, structures with NPIs. More specifically, it has been frequently noted that in some Arabic dialects the  $-\dot{s}$  segment is in complementary distribution with NPIs (Benmamoun 1997, 2006; Bahloul 1996). Consider, for example, these MA examples from Benmamoun (2006).

a.	ma-qrit(	*-š)	ħətta	kitab
	NEG-came	e.3sgm	even	book
	'I didn't r	ead any	v book. '	
b.	ma-ža(*	-š)	ħətta	waħəd
	NEG-came	e.3sgm	even	one
	'No one c	ame.'		
с.	ħətta	waħə	d ma-ža	a(*-š)
	even	one	NEG-ca	ame.3SGM
	'No one c	ame.'		
d.	Nadya	ናəmn	nər-ha	ma-žat(*-š)
	Nadya	ever-h	er	NEG-came.3SGF
	'Nadya ne	ever car	ne.'	
e.	Omar	baqi	ma-ža(*	-š)
	Omar	yet	NEG-came	e.3SGM
	'Omar ha	sn't coi	ne yet.'	
	a. b. c. d. e.	<ul> <li>a. ma-qrit( NEG-came 'I didn't r</li> <li>b. ma-ža(* NEG-came 'No one c</li> <li>c. hətta even 'No one c</li> <li>d. Nadya Nadya</li> <li>e. Omar Omar</li> <li>Omar ha</li> </ul>	<ul> <li>a. ma-qrit(*-š) NEG-came.3SGM 'I didn't read any</li> <li>b. ma-ža(*-š) NEG-came.3SGM 'No one came.'</li> <li>c. hətta wahə even one 'No one came.'</li> <li>d. Nadya Yəmm Nadya ever-h 'Nadya never can</li> <li>e. Omar baqi Omar yet 'Omar hasn't con</li> </ul>	<ul> <li>a. ma-qrit(*-š) hətta NEG-came.3SGM even 'I didn't read any book.'</li> <li>b. ma-ža(*-š) hətta NEG-came.3SGM even 'No one came.'</li> <li>c. hətta wahəd ma-ža even one NEG-ca 'No one came.'</li> <li>d. Nadya Səmmər-ha Nadya ever-her 'Nadya never came.'</li> <li>e. Omar baqi ma-ža(* Omar yet NEG-came 'Omar hasn't come yet.'</li> </ul>

This fact can be accounted for under the Spec-analysis of  $-\check{s}$ , if we assume that both the NPI and  $-\check{s}$  compete for SpecNegP. The discontinuous Neg analysis, however, does not have a natural way of explaining this fact. Rather, it has to assume a rule at the sub-morphemic level, and stipulate that such a rule can only target the  $-\check{s}$  segment but not the *maa* part of the composite head.

Even though NPI facts seem to suggest that treating  $-\check{s}$  as Spec of NegP has direct empirical consequences for MA, the same NPI facts in CEA suggest that this analysis cannot be maintained, since NPI licensing in CEA is not always in complementary distribution with  $-\check{s}$ . Rather, the only NPI that induces  $-\check{s}$  deletion is *Sumr* 'ever,' and it does so only when it occurs in prenegative (but not when in post-negative) position, as shown in (11). The occurrence of other NPIs does not induce any such effect, and the surfacing of  $-\check{s}$  is obligatory in such contexts, as the data in (12–13) show.

(11)	a.	Sumr-ii	maa-saafir-t(*	'-š)	Masr
		ever-my	NEG-travel.PERF-	-1sg-(*neg	) Egypt
		'I have never	travelled to Egyp	et. '	
	b.	maa-saafir-t*(-š) NEG-travel.PERF-1SG-*(NEG)		Masr	Sumr-ii
				Egypt	ever-my
		'I have never	travelled to Egyp	et. '	

(12) a.		Mona	lissah	maa-saafir-it-'	*(š)		
		Mona	yet	NEG-travel.PERF-	3SGF-*(NE	G)	
		'Mona h	as not trave	elled yet.'			
	b.	Mona	maa-saa	afir-it-*(š)	lissal	1	
		Mona	NEG-travel.PERF-3SGF-*(NEG) yet				
		'Mona h	as not trave	elled yet.'			
(13) a	a.	?anaa	maa-šu	f-t-i-*(š)	?ayy ħa	agah	
		Ι	NEG-see.	perf-1sg-ev-neg	any thi	ing	
		'I didn 't	see anythir	ıg. '			
b.		?anaa	maa-šuf-t-i-*(š)		ħaagah	xaaliS	
		Ι	NEG-see.	perf-1sg-ev-neg	thing	at all	
		'I didn 't	see anythir	ng at all.'			

In Soltan (2012), I take the asymmetry in behavior between the two NPIs *Sumr* and *lissah* as evidence against the SpecNegP analysis of the -*š* segment. Another argument, though a theory-internal one, has to do with whether or not multiple specifiers of a single head are allowed. In a framework that allows multiple specifiers (e.g., Chomsky 1995), the complementary distribution between two elements in terms of their 'competing' for a single Spec position is not readily accounted for.

I conclude then that neither the Spec-head analysis nor the discontinuous head analysis of negation is empirically adequate to account for the CEA facts, hence the need for an alternative analysis. I propose this next.

## 4. The Fine Structure of the Neg-Domain in CEA

To account for the NPI facts as well as the morphosyntax of negation in CEA, I propose in Soltan (2012) a *Split-Neg analysis*, along the lines of what has been suggested by Zeijlstra (2008) in his work on negative concord. Under such an analysis, I propose that both *maa* and -š are separate heads (called Pol and Neg, respectively), located higher than T, but that only *maa* is specified for semantic negation, while -š is merely formally negative (a property it probably acquired diachronically; cf. Lucas 2010). The presence of a formally negative head does not induce a double negation reading in the same way that the presence of a negative concord item does not lead to a double negation interpretation, either (as in the single negation reading of *I didn't see nobody*, in some substandard dialects of English, for example). An abstract structural representation of a negative sentence in CEA is given below, ignoring irrelevant details up and down the tree.



Given the structure in (14), we are now in a position to formulate a morphological algorithm to derive the distribution of negation patterns in CEA, one along the lines of (15) below, where 'hosting head' is the key notion for dialectal variation.

- (15) a. In contexts where Neg is adjacent to a hosting head H, H moves to Neg and then to Pol, and the discontinuous *maa*-H- $\check{s}$  pattern arises.
  - b. Otherwise, Neg incorporates into Pol, giving rise to the *miš*-pattern.

To illustrate from the contrast between perfective verb forms and prospective imperfective forms (cf. the examples in 1a and 4b, respectively), the two negation patterns are derived as in (16a,b), irrelevant details aside.

(16) a. 
$$\begin{bmatrix} PolP Pol \ [NegP Neg \ [TP T_{[+PAST]} \ [\nu P \nu \ [VP V \dots]]]] \end{bmatrix} \rightarrow \begin{bmatrix} maa-saafirit-i-š \end{bmatrix}$$
  
b. 
$$\begin{bmatrix} PolP Pol \ [NegP Neg \ [TP T_{[-PAST]} \ [AspP Asp \ [\nu P \nu \ [VP V \dots]]]] \end{bmatrix} \rightarrow \begin{bmatrix} mis \ \hbar a-saafir \end{bmatrix}$$

Similar derivations can be given for each structure associated with one of the two negation patterns, where the presence of a hosting head gives rise to discontinuous negation (cf. the examples in 3), otherwise, the independent pattern surfaces (cf. the data in 4). Dialectal variation with regard to which syntactic categories may host negation is a purely morphological fact about each dialect, under this analysis. For example, at Spell-out, nouns and adjectives behave under step (15a) in MA, but under step (15b) in CEA. By the same token, the proposed analysis allows us to account for the range of dialectal variation noted earlier with regard to the occurrence of discontinuous negation with perfective verb forms, as in Sharqiyyah Egyptian Arabic and child language (cf. 8). Under this analysis, V, in such dialects, raises all the way to  $T_{[+PAST]}$ , but no further, forcing step (15b) to apply.

Finally, one main empirical advantage of the proposed Split-Neg structure is that it allows us to formulate a rule to target -*š* for deletion in NPI contexts, an option that is not readily

available under previous analyses, as discussed earlier in Section 3.<sup>5</sup> In Soltan (2012), I provide an account for the behavior of  $-\check{s}$  in NPI contexts in CEA. In the next section, I give a brief summary of this account, showing how a Split-Neg analysis can help us account for empirical facts outside the core facts of negation.

## 5. Revisiting the Behavior of the -š Segment in NPI Contexts in CEA

In Section 3, I pointed out the morphosyntactic discrepancy in the behavior of different NPIs in CEA with regard to their interaction with the  $-\dot{s}$  segment. When the NPI *fumr* 'ever' occurs in pre-negative position, the  $-\dot{s}$  is obligatorily deleted from the verbal complex. In the context of the NPI *lissah* 'yet,' however, no such deletion occurs, and the  $-\dot{s}$  has to obligatorily surface on the verb. One advantage of the Split-Neg analysis proposed in the previous section is that it allows us to provide a principled account for this morphosyntactic fact, as I argue in detail in Soltan (2012). In this section, I present a brief version of that proposal as an example of the kind of empirical consequences that the analysis presented here can have, referring the reader to the details of the analysis in Soltan (2012).

As it turns out, the key to the solution of the puzzle of -*š* disappearance in CEA has to do with the 'formal negativity' (or lack thereof) associated with different NPIs. In particular, I argue, based on diagnostic tests, that some NPIs are formally marked as negative, while others are not so marked, and that the overt realization of -*š* is only compatible with NPIs that have such formal negativity.<sup>6</sup> Formal negativity can be determined by an item's synchronic behavior in the language (and possibly by considering its diachrony as well, but I will not discuss this here). Below, I discuss this with regard to the two NPIs *Sumr* and *lissah*, as well as the -*š* segment of the negation morpheme.

One test to determine the formal negativity of a lexical item is to see whether or not it is compatible with nonnegative environments such as interrogatives or the protasis of a conditional. As it turns out, the NPI *Sumr* may indeed occur in such contexts, as (17) shows, which suggests that it is nonnegative. By contrast, the NPI *lissah* cannot appear in questions, except in the presence of the overt negative morpheme *wallaa* (18a), nor in conditionals (18b), which suggests that it is lexically negative.

(17)	a.	?inta	Sumr-ak	saafir-t	Masr	?		
		you	ever-you	travel.PERF.2SGM	Egypt			
		'Have	you ever trave	eled to Egypt?'				
	b.	law	Sumr-ak sa	afir-t	Masr	laazim	tə-zuur	?aswaan
		if	ever-you tra	vel.perf.2sgm	Egypt	must.PTCP	IPFV.visit.2SGM	Aswan
		ʻIf you	ever travel to	Egypt, you must v	isit Aswan.	,		

<sup>&</sup>lt;sup>5</sup> Such a rule can be formulated such that it is either sensitive to the NPI involved (CEA) or nonsensitive at all (MA), thereby accounting for the contrast between the two dialects referred to in Section 3. I refer the reader to Soltan (2012) for a suggestion for why such a variation in behavior between the two dialects exists.

<sup>&</sup>lt;sup>6</sup> The proposal is familiar from work on *negative concord items*, which have been argued to be 'negative,' as opposed to NPIs of the *any*-type, which are typically assumed to be nonnegative.

(18)	a.		Aħm	ad gih		*(wallaa	) lissah?
			Ahma	ad come.	perf.3sgm	or.not	yet
			'Has .	Ahmad con	ie or not yet	?'	
	b.	*	law	Aħmad	gih		lissah
			if	Ahmad	come.PERF	F.3SGM	yet
			'*If A	hmad arriv	ved yet,'		

A second diagnostic for the formal negativity of an NPI is whether it may occur as a fragment answer. As it turns out, while *Sumr* does not occur in that function (19b), *lissah* does (20b).

(19)	a.		?inta	saafir-t		Masr	?abl	kidah?
			you	travel.PERF-1	SGM	Egypt	before	this
			'Have yoı	ı traveled to E	Egypt bef	fore?'		
	b.	*	Sumr-ii					
			ever-my					
			'Never.'					
(20)	a.		huwwa	Monaw	asal-it	?		
			Q	Mona	arrive.	perf.3sgf		
			'Has Mon	a arrived?'				
	b.		lissah					
			yet					
			'Not yet.'					

Now, consider the - $\check{s}$  segment. Like *lissah*, but unlike *Sumr*, the - $\check{s}$  segment is ungrammatical in questions and conditionals, as the ungrammaticality of the examples in (21) shows, thereby suggesting that it is also an element marked for formal negativity.<sup>7</sup>

(21)	a.	*	šuft-	i-š	Aħmad	?il-na	haar-dah?	
			see.PE	ERF.2SGM-EV-NEG	Ahmad	the-da	y-this	
			Intend	ded reading: 'Did j	vou see Ah	mad toa	lay?'	
	b.	*	law	šuft-i-š	А	ħmad	?il-nahaar-dah .	
			if	see.PERF.2SGM-E	V-NEG A	hmad	the-day-this	
			Intend	ded reading: 'If yo	u saw Ahm	nad toda	<i>y</i> , '	

There is, thus, empirical evidence showing that while the NPI *fumr* is nonnegative, the NPI *lissah* and the -*š* segment of the negation morpheme both appear to be formally negative. Given this, we can now restate the empirical fact regarding the deletion of -*š* (or lack thereof) in CEA NPI contexts, as follows: The -*š* segment, a formally negative element, disappears in the presence of a nonnegative NPI such as *fumr*, but is retained in the presence of a negative NPI such as *lissah*. The phenomenon, however, is sensitive to locality: -*š* only disappears when *fumr* is 'close by' (i.e., in pre-negative position) but not when it is relatively distant (i.e., in postverbal posi-

<sup>&</sup>lt;sup>7</sup> As we should expect, the fragment answer diagnostic cannot be applied to the  $-\dot{s}$  segment given its affixality.

tion), as shown earlier by the contrast between (11a) and (11b). We may thus restate this morphosyntactic fact in the form of the following descriptive generalization.

(22) Within a local domain,  $-\dot{s}$  is not spelled out in the presence of an NPI that is formally nonnegative; otherwise it is phonologically realized.<sup>8</sup>

Whatever principle (22) can be reduced to, it is clear that only by splitting the Neg-domain into two heads, we are able to formulate such a principle to target  $-\breve{s}$  for deletion.<sup>9</sup> Such a possibility is lacking under non-Split-Neg analyses of CEA negation.

#### 6. Conclusions

In this paper, I have argued that the distribution of negation patterns in CEA is better accounted for in the mapping from the syntax to the morphology, where the relevant notions are affixality, hosting heads, and adjacency. I have also provided empirical evidence showing that placing Neg above T in the clausal hierarchy allows us to account for attested patterns of negation that are problematic under a low-Neg analysis. Finally, by splitting the negative domain into Pol and Neg, we are able not only to derive the distribution of negation patterns and the dialectal variation associated with it, but also to formulate a (potentially general) principle to target -š for deletion in certain NPI contexts, but not in others, hence allowing us to explain away a morphosyntactic puzzle from CEA, thereby showing that the proposed analysis is on the right track in the investigation of negation patterns in CEA and perhaps other Arabic dialects as well, a topic whose ramifications will hopefully continue to be explored in future work.

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<sup>&</sup>lt;sup>8</sup> In Soltan (2012), I propose to define 'local domain' in terms of a 'phase,' in the sense of Chomsky (2001).

<sup>&</sup>lt;sup>9</sup> (22) is a descriptive generalization. In Soltan (2012), I propose to derive it from an interface condition regulating Spell-out of formal features in multiple licensing configurations. I refer the reader to this article for the details.

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