Licensing of the NPI ʕumr and its implications for sentential negation in Cairene Egyptian Arabic

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Like several other Arabic dialects, Cairene Egyptian Arabic (CEA) exhibits a two-pattern negation system in the verbal domain: (i) *the circumfixal maa…š-pattern*, which is used with perfective verb forms, where the predicate appears sandwiched between both negative elements, forming one morphological unit, as in (1a); and (ii) *the independent miš-pattern*, which is used with imperfective verb forms, where the predicate follows the negation marker, without them forming a unit, as with the future verb form in (1b).

1a. maa-saafir-t-i-š
NEG-travel.PERF-1SG-EV-NEG
'I did not travel.'

b. miš ħa-saafir
NEG FUT-travel.IPFV.1SG
'I will not travel.'

In both patterns, the occurrence of the *-š* segment of the negation morpheme is obligatory, as the ungrammaticality of both examples (2) shows.

2a. *maa-saafir-t
NEG-travel.PERF-1SG
'I did not travel.'

b. *maa ħa-saafir
NEG FUT-travel.IPFV.1SG
'I will not travel.'

Interestingly, when the Negative Polarity Item (NPI) *ʕumr* (="ever;" literally="life/age") occurs in pre-negative position in the sentence, negation is expressed by *maa* (3a,c), and the *-š* segment is not allowed to surface (3b,d). (For convenience, I will translate *ʕumr*+negation as *never* throughout.)

3a. ʕumr-ii maa-saafir-t Masr
ever-my NEG-travel.PERF-1SG Egypt
'I have never traveled to Egypt.'

b. *ʕumr-ii maa-saafir-t-i-š Masr
ever-my NEG-travel.PERF-1SG-EV-NEG Egypt

c. ʕumr-ii maa ħa-saafir Masr
ever-my NEG FUT-travel.IPFV.1SG Egypt
'I will never travel to Egypt.'

d. *ʕumr-ii miš ħa-saafir Masr
ever-my NEG FUT-travel.IPFV.1SG Egypt

As a marked option in the language, the NPI *ʕumr* may also occur in postverbal position, in which case the *-š* segment is obligatorily realized.

4a. maa-saafir-t-i-*(š) Masr ʕumr-ii
NEG-travel.PERF-1SG-EV-*(NEG) Egypt ever-my
'I have never traveled to Egypt.'

b. miš/*maa ħa-saafir Masr ʕumr-ii
NEG/NEG FUT-travel.IPFV.1SG Egypt ever-my
'I will never travel to Egypt.'

In addition, the NPI *ʕumr* may host negation, in which case the suffix *-š* is also required.

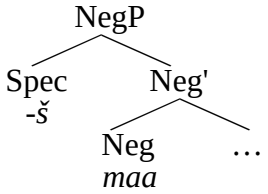
5a. maa-ʕumr-ii-*(š) saafir-t Masr
NEG-ever-my-NEG travel.PERF-1SG Egypt
'I have never traveled to Egypt.'

b. maa-ʕumr-ii-*(š) ħa-saafir Masr
NEG-ever-my-NEG FUT-travel.IPFV.1SG Egypt
'I will never travel to Egypt.'

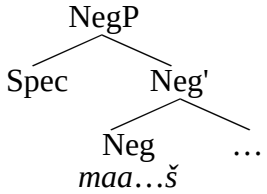
Two main questions arise here: First, how can we provide a principled account for the puzzle of *-š* disappearance with *ʕumr*? Second, what are the implications of this morphosyntactic fact for the analysis of sentential negation in CEA in general? I discuss both questions in this article.

Clearly, any solution to the puzzle of *-š* disappearance will be tied to how *-š* is treated in the grammar. There have been two main approaches regarding the syntactic status of *-š* in Arabic dialects: *-š* as a Spec of NegP (along the lines suggested for French negation in Pollock 1989, Ouhalla 1990, and Moritz and Valois 1994), and *-š* as part of a discontinuous Neg morpheme (as in Benmamoun 1997, 2000, Bahloul 1996). The structure of NegP under both approaches is as in (6a,b), respectively.

6a.



b.



The complementary distribution between *-š* and *ʕumr* noted above may seem to favor an analysis of sentential negation in CEA as in (6a), under the assumption that both elements are competing for the same position, that is, SpecNegP. Such an analysis, however, fails to explain why no such effect takes place with other NPIs in the language such as *lissah* (=yet), which requires the realization of *-š*, regardless of whether it occurs in pre-negative (7a) or postverbal position (7b).

7a. Mona lissah maa-saafir-it-*(š)
Mona yet NEG-travel.PERF-3SGF-NEG
'Mona has not traveled yet.'

b. Mona maa-saafir-it-*(š) lissah
Mona NEG-travel.PERF-3SGF-NEG yet
'Mona has not traveled yet.'

The same holds of other NPIs in the language such as *ʔayy* (=any) and the adverbial *xaaliS* (=at all), both of which may only occur in postverbal position.

8a. ʔanaa maa-šuf-t-i-*(š) ʔayy ħaagah
I NEG-see.PERF-1SG-EV-NEG any thing
'I didn't see anything.'

b. ʔanaa maa-šuf-t-i-*(š) ħaagah xaaliS
I NEG-see.PERF-1SG-EV-NEG thing at all
'I didn't see anything at all.'

I conclude then that the structure in (6a) cannot help us resolve the puzzle under consideration.

The same is also true of the discontinuous Neg head analysis in (6b). In particular, it is not clear how to tie the presence of NPIs to *-š* disappearance under this analysis, let alone why this would happen with some NPIs, but not others. The discontinuous Neg head analysis also forces us to assume a rule at the sub-morphemic level. Neither Benmamoun (2000) nor Bahloul (1996) provides a possible rule, but even if we were able to formulate such a rule, it is not clear why it is always the *-š* segment, and not the preverbal *maa*, that disappears in such contexts. In other words, why are sentences like (9) below not attested in CEA?

9. *ʕumr-ii saafir-t-i-š Masr
ever-my travel.PERF-1SG-EV-NEG Egypt
Intended reading: 'I have never traveled to Egypt.'

I, therefore, conclude that neither analysis of negation in (6) can account for the puzzle of *-š* disappearance in CEA.

Instead, I would like to argue that a solution is possible if we consider the "formal negativity" of the elements involved. On the basis of synchronic and diachronic evidence, it can be shown that while both *-š* and *lissah* are formally marked as negative, *ʕumr* is nonnegative. First, *-š* and *lissah* cannot appear in nonnegative contexts such as questions without overt negation (5a,b), but *ʕumr* can (5c).

10a. *(maa)-šuft-š Aħmad ʔil-nahaar-dah?
NEG-see.PERF.2sgm-NEG Ahmad the-day-this
'Did you see Ahmad today?'

b. Aħmad gih *(wallaa) lissah?
Ahmad come.PERF.3SGM or.not yet
'Has Ahmad come or not yet?'

c. ʔinta ʕumr-ak saafir-it Masr?
you ever-you travel.PERF.2SGM Egypt
'Have you ever traveled to Egypt?'

Similarly, neither *-š* nor *lissah* may occur in conditionals (11a,b), while *ʕumr* can (11c).

11a. law ʕumr-ak saafir-it Masr laazim tə-zuur ʔil-ʔahraamaat
if ever-you travel.PERF.2SGM Egypt must.PTCP IPFV.visit.2SGM the-Pyramids
'If you ever visit Egypt, you must visit the Pyramids.'

b. *law Aħmad gih lissah …
if Ahmad come.PERF.3SGM yet
'*If Ahmad arrived yet, …'

c. *law šuft-i-š Aħmad ʔil-nahaar-dah …
if see.PERF.2sgm-EV-NEG Ahmad the-day-this
Intended reading: 'If you saw Ahmad today, …'

Diachronically, *ʕumr* is derived from the noun *ʕumr* (=life/age), which is still productive in the language. *Lissah*, by contrast, is arguably derived from *laysa*, a negative morpheme from Classical Arabic. Similar to *lissah*, *-š* is generally assumed to be a phonological reduction of the noun *šayʔ* (=a thing) in Classical Arabic, which came to function as an accusative adverbial NPI in certain grammatical contexts (Lucas, 2010).

Finally, recall that while *maa* can express negation by itself in certain contexts in CEA (as in 3a), *-š* cannot (cf. 9), thereby suggesting that *-š* is only formally negative, and that *maa* is the locus of semantic negation. We can thus summarize the "negativity" of these four elements as in Table (12).

12.	*-š*	*lissah*	*ʔumr*	*maa*
Diachronic origin	Noun used as an NPI: *šayʔ-an*	Negative morpheme: *laysa*	Noun: *ʔumr*	Negative morpheme: *maa*
Compatible with nonnegative contexts	No	No	Yes	
Negativity	Formal	Formal	Nonnegative	Semantic

Returning now to the puzzle under discussion while taking formal negativity into account, it becomes clear that *-š*, a formally negative element, disappears in the presence of a nonnegative NPI such as *ʕumr*, but is retained in the presence of a negative NPI such as *lissah*. The phenomenon, however, is sensitive to locality: *-š* only disappears when *ʕumr* is "close by" (i.e., in pre-negative position) but not when it is relatively distant (i.e., in postverbal position), as shown earlier by the contrast between (3) and (4). We may thus restate the puzzle of *-š* disappearance as in (13).

13. Within a local domain, *-š* is not spelled-out in the presence of an NPI that is formally nonnegative; otherwise it is phonologically realized.

To derive the generalization in (13) in a principled manner, and adapting an approach to negation and negative concord in Zeijlstra (2004, 2008), I propose a *Split Neg* analysis for CEA sentential negation, whereby *maa* is a (Pol)arity head, the locus of interpretable negation (marked as an [iNeg] feature), and *-š* is a Neg head specified for an uninterpretable negative feature (marked as [uNeg]). Licensing of Neg takes place under *Agree* with Pol, in the sense of Chomsky (2000, 2001), as illustrated in (14), ignoring irrelevant details.

14. $[_{PolP}\ maa_{[iNeg]}\ [_{NegP}\ \text{-}š_{[uNeg]}\ [_{TP}\ \ldots]]]$
Agree

In addition, based on Table 1, I assume that some NPIs (e.g., *lissah*) are formally negative, while others (e.g., *ʕumr*) are not. In technical terms, the former are endowed with a [uNeg] feature, whereas the latter are not. Those that have a [uNeg] feature are licensed by Pol, either via Agree, or in a Spec-head configuration (the latter argued for in Benmamoun 1997 for Moroccan Arabic NPIs). In addition, Pol also licenses NPIs semantically (under downward entailment (Ladusaw 1979), or nonveridicality (Giannkidou 1998)). I will further assume that "local domain" in (13) corresponds to a *phase* (i.e., CP and *v*P; Chomsky 2001). Finally, I restate the generalization in (13) as an interface condition on Spell-out of formal features licensed in the syntax, as in (15).

15. *Minimize formal feature mismatch* (MFFM): At Spell-out, minimize formal feature mismatch on licensees of the same licenser within a local domain.

Given these background assumptions, we can now see why *-š* disappears with *ʕumr*, but not with *lissah*, given the representations in (16) and (17).

16. $[_{CP}\ [_{PolP}\ ʕumr\ Pol_{[iNEG]}\ [_{NegP}\ Neg_{[\text{uNEG}]}\ [_{TP}\ T\ [_{vP}\ \ldots]]]]]$
Spec-head Agree

17. $[_{CP}\ [_{PolP}\ lissah_{[\text{uNEG}]}\ Pol_{[iNEG]}\ [_{NegP}\ Neg_{[\text{uNEG}]}\ [_{TP}\ T\ [_{vP}\ \ldots]]]]]$
Spec-head Agree

While semantic licensing in both cases is unproblematic, syntactic licensing of the [uNeg] feature on Neg leads to mismatch in (16), but not in (17), hence forcing *-š* to delete in the former, but not the latter, as required by (15).

Similarly, the fact that postverbal *ʕumr* does not induce *-š* suppression follows from MFFM being sensitive to locality: Since NPIs in postverbal position are within the *v*P phase, whereas *-š* is always in the CP phase, feature mismatch is rendered irrelevant at Spell-out and *-š* is retained (probably due to an input-output faithfulness constraint).

A problem arises, however, with the fact noted earlier that *-š* has to surface when *ʕumr* itself is the host of circumfixal negation (cf. 5), contrary to what we expect under the present analysis, since both elements are in the same phase in that case. Two questions arise here: First, why is *ʕumr* able to host negation in the first place? Second, why does *-š* surface in that case? For the first question, I suggest that, given its monosyllabicity, *ʕumr* has been reanalyzed as a preposition in the language. PPs in CEA can host negation, provided that their complement is a pronominal (18b); cf. Eid (1993).

18a.	ʕand-ii	ʕarabiyyah	b.	maa-ʕand-ii-š	ʕarabiyyah
	at-me	car		NEG-at-me-NEG	car
	'I have a car.'			'I don't have a car.'	

As to why *-š* does not disappear when *ʕumr* hosts negation, there are multiple possibilities to pursue. One is that the MFFM morphological principle in (15) does not apply at the single prosodic word level; rather, it applies only when the mismatched features occur on different prosodic words. A second possibility is to assume that in such contexts it is Neg, after being licensed by Pol, that licenses *ʕumr* as an NPI. Under that scenario, Neg and *ʕumr* are not multiple licensees of the same licenser, and MFFM is inoperative. A third possibility is to assume that TP is a phase, or to re-define locality in non-phasal terms. Whatever the correct analysis turns out to be, the fact that *-š* is phonologically realized when *ʕumr* hosts negation is still reconcilable with the analysis presented here.

To sum up, a Split-Neg analysis of sentential negation in CEA allows us to formulate a principle to target the *-š* segment for deletion at Spell-out. This principle is crucially tied to the formal features of *-š*, the formal features (or lack thereof) of different NPIs, the mechanisms involved in licensing such features, as well as how local the *-š* and the NPI are with respect to one another. If correct, the analysis not only explains away a morphosyntactic puzzle from negation contexts in CEA, but it also provides evidence that NPI phenomena, in addition to being a semantic dependency, may also involve formal feature licensing in a minimalist sense, with effects at the syntax-morphology interface.

Abbreviations used in the glosses of CEA data: 1, 2, 3 for first, second, and third person, respectively; SG = singular; PL = plural; M = masculine; F = feminine; NEG = negation marker; FUT = future; PERF = perfective; IPFV = imperfective; PTCP = participial; EV = epenthetic vowel.

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