ON NEGATIVE CONCORD IN EGYPTIAN AND MOROCCAN ARABIC

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Goals

- **First**, describe the facts of Negative Concord (NC) in both Egyptian and Moroccan Arabic, showing in what ways the two dialects are similar, and in what ways they differ.

- **Second**, discuss previous analyses of NC and how each can account for the NC facts in Egyptian and Moroccan Arabic.

- **Third**, propose a hybrid analysis that treats NC as an instance of syntactic agreement between the negative head and the negative concord item, and where the parametric variation between Egyptian and Moroccan Arabic lies in the lexical properties of the negative concord items in each dialect.
Negative Concord

- NC refers to grammatical contexts in which the occurrence of multiple negative elements in the structure is still associated with a single negation interpretation.

- NC is widely documented in many languages and language families (e.g., Greek, Hungarian, Slavic, Romance, African American English, Japanese).

- Among Arabic dialects, NC is discussed in Levantine Arabic (Hoyt 2005, 2010), and has been also discussed in the context of negative polarity in Moroccan Arabic in Benmamoun (1997, 2006).
NC in Egyptian and Moroccan Arabic: *walaa* and *ħətta*

NC is illustrated in EA and MA by sentences that include the terms *walaa* and *ħətta*, respectively.

1a. maa-šuf-t-i-š walaaw waaḥid 
   NEG-saw-1SG-EV-NEG no one 
   ‘I didn’t see anyone.’

1b. ma-šef-t ħətta waḥəd 
   NEG-saw-1SG not-even one 
   I didn’t see anyone.’
NC in Egyptian and Moroccan Arabic: *walaa* and *ḥətta*

- As we should expect, neither *walaa* and *ḥətta* may occur in affirmative contexts.
  2a. *šuf-t*  *walaa*  *waḥid*  EA
      saw-1SG  no  one
      ‘I didn’t see anyone.’

  2b. *šəf-t*  *ḥətta*  *waḥəd*  MA
      saw-1SG  not-even  one
      I didn’t see anyone.’
That both *walaa*-phrases and *ḥēṭta*-phrases are negative concord items (NCIs, henceforward), and not negative polarity items (NPIs) of the *any*-type, comes from two main pieces of empirical evidence:

(i) They both can occur as a fragment answer.
(ii) They both can occur in preverbal position.
\textit{walaa and ħəṭta in fragment answers}

\textbf{Question:}\\ 3a. ʔinta šuf-t miin?  
\hspace{0.5cm} you saw-2SGM who  
\hspace{0.5cm} ‘Who did you see?’

\textbf{Answer:}\\  
\hspace{0.5cm} walaa waaḥid  
\hspace{0.5cm} no one  
\hspace{0.5cm} ‘Nobody.’

\textbf{Question:}\\ 3b. škun šəf-ti?  
\hspace{0.5cm} who saw-2SG  
\hspace{0.5cm} ‘Who did you see?’

\textbf{Answer:}\\  
\hspace{0.5cm} ħəṭta wəḥəd  
\hspace{0.5cm} not-even one  
\hspace{0.5cm} ‘Nobody.’
**walaa and ḥəṭṭa in preverbal position**

4a. walaa waaḥid gih  
no one came.3SGM  
‘Nobody came.’

4b. ḥəṭṭa waḥəd ma-ʒa  
not-even one NEG-came.3SGM  
‘Nobody came.’
NPIs cannot occur as fragment answers

- NPIs, by contrast, cannot occur in either context. ṭayy-phrases cannot function as fragment answers in EA or MA.

5a. **Question:** ʔinta šuf-t miin?  
    you saw-2SGM who  
    ‘Who did you see?’

   **Answer:** *ʔayy waahid  
    any one
    ‘*Anybody.’

5b. **Question:** škun šəf-ti?  
    who saw-2SG  
    ‘Who did you see?’

   **Answer:** *ʔayy waḥed  
    any one
    ‘*Anybody.’
NPIs cannot occur in preverbal position

- Similarly, an \(\oplus\)ayy-phrase cannot occur in preverbal position in either dialect.

6a. *\(\oplus\)ayy waa\(\ddot{a}\)hid gih
   any one came.3SGM
   ‘*Anybody came.’

6b. *\(\oplus\)ayy wa\(\ddot{a}\)h\(\ddot{a}\)d \(\ddot{a}\)a
   any one came.3SGM
   ‘*Anybody came.’
In addition to their occurrence with clausemate sentential negation, both *walaa* and *hətta* can also occur in other *antiveridical* contexts, in the sense of Giannakidou (1998), such as *without* and nonfactual *before*. 
EA wala'a in without- and before-clauses

7a. ʕalii mišii min-ʕeir maa
Ali left.3SGM without COMP
yi-tkallim maʕa wala'a waaḥid
IPFV-talk.3SGM with no one
‘Ali left without talking to anyone.’

7b. ʔabuu-haa maat ʔabl maa yi-šoof
father-her died.3SGM before COMP see.3SGM
wala'a waaḥid min ʔaḥfaad-u-h
no one from grandchildren-EV-his
‘Her father died without seeing any of his grandchildren.’
MA ḥəṭṭa in without- and before-clauses

8a. mša ʕali bla ma y-tkəlləm
left.3SGM Ali without COMP IPFV-talk.3SGM
maʕa ḥəṭṭa wahəd
with no-even one
‘Ali left without talking to anyone.’

8b. bba-ha maat qəl ma y-šuuf
father-her died.3SGM before COMP IPFV-see.3SGM
ḥəttə wahəd mən wlad wlad-u
not-even one from sons sons -his
‘Her father died before seeing any of his grandchildren.’
For *walaa* and *ḥəṭta* to be licensed, the negation (or antiveridical) operator has to be clausemate. Long-distance licensing of NCIs is not permitted.
NCI-licensing is local in both EA and MA

9a. *Aḥmad maa-ʔaal-š ṭin Mona EA
    Ahmad NEG-said.3SGM-NEG COMP Mona
    fiḥm-it walaa ḥaagah
    understood-3SGF no thing
    ‘Ahmad didn’t say that Mona understood anything.’

9b. *ma-gaal-š ʔali bəlli Mona MA
    NEG-said.3SGM-NEG Ali COMP Mona
    fəhm-at ḥəṭta ḥaazə
    understood-3SGM not-even thing
    ‘Ali didn’t say that Mona understood anything.’
How is NC different in EA and MA?

- Despite being NC languages, EA and MA are not identical in their NC behavior. They differ in two respects:
  
  (i) Whether negation is required to license NCIs in all contexts.
  
  (ii) Whether an NCI can license another NCI in the sentence.

- We illustrate each in turn.
Presence of negation with preverbal NCIs (or lack thereof)

- The first difference between EA and MA NC structures has to do with the presence of negation (or lack thereof) in NC structures.
- A ḥəṭṭa-phrase requires the presence of sentential negation, regardless of its position in the sentence without giving rise to double negation.
- A walaā-phrase, by contrast, requires sentential negation only when it occurs in postverbal position; the occurrence of negation with preverbal walaā gives rise to a double negation reading.
Presence of negation with preverbal NCIs (or lack thereof)

10a. Walaa waa ħid gih
no one came.3SGM
‘Nobody came.’

10b. walaa waa ħid maa-gaa-š
no one NEG-came.3SGM-NEG
#‘Nobody came’
‘Nobody didn’t come.’

11a. ħətta waḥəd ma ʒa
not-even one NEG came.3SGM
‘Nobody came.’ (cannot have a double negation reading)

11b. *ħətta waḥəd ʒa
not-even one came.3SGM
‘Nobody came.’
The second difference between EA and MA has to do with the availability (or lack thereof) of so-called negative spread (NS) structures, where two NCIs co-occur in the absence of negation.
While EA allows NS (12a), MA does not (12b):

12a. walaa Taalib gaawib ʕalaa walaa suʔaal
no student answered.3SGM on no question
‘No student answered any question.’

12b. *ħətta Taalib ʒawəb ʕila ħətta suʔaal
not-even student answered.3SGM on not-even question
‘No student answered any question.’
In the relevant literature on NC, a typological distinction within NC languages is often made between two types of NC languages (Giannakidou 1998).

Languages like MA, which require the presence of negation in all NC contexts, are referred to as strict NC languages (e.g., Greek, Japanese, Slavic languages).

Languages like EA, which require the presence of negation only when the NCI is in postverbal position, are referred to as nonstrict NC languages (e.g., Italian and Spanish).
There are two questions posed by NC to linguistic analysis:

**Question A:**

How is it that multiple occurrences of negative elements in NC structures such as those in (1) lead to a single, rather than a double, negation reading? This is the so-called *compositionality question*.

**Question B:**

Why do NC languages like EA and MA differ when it comes to (i) the presence (or lack thereof) of negation in NC structures, and (ii) the availability (or lack thereof) of NS? Let’s call this the *parametric question*. 
There have been multiple analyses of NC to answer the compositionality and parametric questions. We discuss four here:

(i) The NPI-analysis
(ii) The Negative Quantifier analysis
(iii) The Lexical Ambiguity analysis
(iv) The Syntactic Agreement analysis

We discuss each in turn.
The NPI-analysis of NC
(Laka 1990; Ladusaw 1992)

- Under this analysis, NCIs are like NPIs; they are indefinites, and they are nonnegative (hence no compositionality problem).

- Unlike regular indefinites, however, they come with a roofing requirement (Ladusaw 1992). They have to be bound by a semantically appropriate operator.

- That explains why they require negation for licensing, and why they behave like NPIs with regard to interpretation.
Challenges for the NPI-analysis of NC

- First, NCIs do not require (in fact, they prohibit) negation when in preverbal position in EA.
- Also, if NCIs are nonnegative, then how does the negative reading arise with preverbal NCIs in EA?
- Answer: When an NCI is in preverbal position, there is an invisible Neg operator, heading a ΣP (Laka 1990).

13. \[\text{[CP [ΣP \textit{wala-phrase Neg [TP \ldots]]}]\]}

- Through Spec-head agreement with Σ, the NCI acquires its negative interpretation.
However, this covert Neg analysis leads to another problem: How do we account for the earlier mentioned cases of double negation in EA, repeated below as (14a).

14a. *walaat waaħid maa-gaa-š
    no one NEG-came.3SGM-NEG
    ‘Nobody didn’t come.’ (i.e., Everyone came.)

We have to stipulate that a covert Neg operator does not give rise to a double negation reading, but an overt Neg operator does, quite an undesirable situation.

Similarly, how do we account for ungrammatical cases such as (11b) repeated below as (14b), under the covert Neg analysis?

14b. *ħətta waħəd 3a
    not-even one came.3SGM
    ‘Nobody came.’
A second problem for the NPI-analysis is that it fails to explain why indefinites are not subject to locality, but NCIs are, as mentioned earlier in (9), repeated below, as (15).

15a. *Ahmad maa-ʔaal-š ʔin Mona EA
    ahmad NEG-said.3SGM-NEG COMP Mona
    fihm-it walaa ʔhaagah
    understood-3SGF no thing
    ‘Ahmad didn’t say that Mona understood anything.’

15b. *ma-gaal-š ʔali bəlli Mona MA
    NEG-said.3SGM-NEG ali COMP Mona
    fəhm-at ʔọttə ʔaʒa
    understood-3SGF no not-even thing
    ‘Ali didn’t say that Mona understood anything.’
We conclude, then, that while it has its advantages, the NPI-analysis still faces some problems accounting for certain NC empirical facts.
The NQ-analysis of NC:
(Zanuttini 1991; Haegeman 1995; and Haegeman & Zanuttini 1996)

- Under this analysis, NCIs are negative quantifiers (NQs).
- This would explain why they can express negation by themselves in preverbal position without the need to posit a covert Neg, and why they can function as fragment answers.
Main problem: Now we predict that a *walaa*-phrase or a *hətta*-phrase can also express negation by itself in postverbal position, which is obviously not the case.

16a. *šuf-t* *walaa* *waħid*  
saw-1SG no one  
‘I didn’t see anyone.’

16b. *šəf-t* *ħətta* *waħəd*  
saw-1SG not-even one  
‘I didn’t see anyone.’
As for the compositionality question, the NQ analysis assumes a special grammatical operation, whereby NCIs, as NQs, undergo absorption, thereby deriving a single negation reading from a NC structure with multiple NQs.

17. $[\forall x \neg] [\forall y \neg] [\forall z \neg] \rightarrow [\forall xyz] \neg$

It is not clear, however, what absorption follows from. It, therefore, makes NC an “anomalous” phenomenon (Giannakidou 2009).
We conclude, then, that the NQ-analysis, while it has its advantages, also faces problems accounting for NC empirical facts.
Under this analysis, NCIs in nonstrict NC languages are lexically ambiguous: Preverbal NCIs are NQs; postverbal NCIs are NPIs.

Obviously such an analysis will combine the strengths of the two previous approaches.

That said, it has been criticized as being a restatement of the puzzle, rather than a solution.
The syntactic agreement (SA) analysis (Zeijlstra 2004, 2008; Watanabe 2004; Kuno 2007)

- The SA-analysis assumes that NC involves an “agreement” relation between the Neg head and any NCI in the structure.

- One implementation is through the application of the operation Agree (Chomsky 2000, 2001), or some modified version of it.

- We discuss Zeijlstra’s (2008) analysis here.
Under this analysis, NCIs have a formal negative feature \([uNeg]\) that requires licensing through an Agree relation with a head that hosts an interpretable negative feature \([iNeg]\).

18. \([Neg_{[iNeg]} \ldots [... NCI_{[uNeg]} \ldots]]\)

Under this analysis, NCIs are negative, but only formally, hence the answer to the compositionality question.
What is the answer to the parametric question, then?

Under this analysis, languages differ as to where semantic negation is located.

In strict NC languages, negation is expressed via an abstract operator $\text{Op} \neg$; in nonstrict NC languages, negation is expressed via the overt Neg marker itself:

19a. $[\text{Op} \neg_{\text{iNeg}}[\neg_{\text{NegP}} \neg_{\text{uNeg}}[v_P \ldots \text{NCI}_{\text{uNeg}}]\ldots]]$

19b. $[\neg_{\text{NegP}} \neg_{\text{iNeg}}[v_P \ldots \text{NCI}_{\text{uNeg}}]\ldots]]$
Zeijlstra provides three empirical arguments for the typological distinction between strict and nonstrict NC languages.

The strongest of these arguments makes the wrong prediction for EA and MA, however.

Zeijlstra claims that True Negative Imperatives (TNIs) will occur in strict NC languages, but Surrogate Negative Imperatives (SNIs) will occur in nonstrict NC languages.

While this is true of Czech (strict) and Spanish (nonstrict), both EA and MA prohibit TNIs.
Positive and negative imperatives in EA and MA

<table>
<thead>
<tr>
<th>EA</th>
<th>MA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>20a.</strong> Ɂilʕab</td>
<td><strong>21a.</strong> Ɂəb</td>
</tr>
<tr>
<td>play.IMP.2SGM</td>
<td>play.IMP.2SGM</td>
</tr>
<tr>
<td>‘Play!.’</td>
<td>Play!.’</td>
</tr>
<tr>
<td><strong>20b.</strong> *maa-Ɂilʕab-š</td>
<td><strong>21b.</strong> *ma-Ɂəb-š</td>
</tr>
<tr>
<td>NEG-play.IMP.2SGM-NEG</td>
<td>NEG-play.IMP.2SGM-NEG</td>
</tr>
<tr>
<td><strong>20c.</strong> maa-ti-Ɂilʕab-š</td>
<td><strong>21c.</strong> ma-t-Ɂəb-š</td>
</tr>
<tr>
<td>NEG-IPFV-play.2SGM-NEG</td>
<td>NEG-IPFV-play.2SGM-NEG</td>
</tr>
<tr>
<td>‘Don’t play!’</td>
<td>Don’t play!</td>
</tr>
</tbody>
</table>
Zeijlstra’s analysis of NC typology, however, is also not straightforward.

To account for NS, Zeijlstra has to assume that nonstrict NC languages also allow an abstract Neg operator:

22. \[\text{Op} \sim \neg \text{[iNeg]} \neg \text{P} \text{NCI}[\text{uNeg}] \text{NCI}[\text{uNeg}] \text{NCI}[\text{uNeg}] \text{NCI}[\text{uNeg}] \text{NCI}[\text{uNeg}]]\]

But if this is the case, it is not clear then where the parametric difference is between both language types.
That said, we do believe that the syntactic agreement approach to NC is indeed on the right track and we choose to adopt it to account for the facts in EA and MA.

We propose instead that the locus of parametric variation is in the lexical properties of NCIs themselves, not in the negation marker, along the lines of the ambiguity analysis.

More specifically, we propose that the difference between *hâtta* and *walaa* is that the former is always specified as [uNeg], whereas the latter may carry either a [uNeg] or an [iNeg] feature.
Licensing NCIs in MA

- Under this analysis, we predict that MA NC structures will always require an overt Neg operator to license *həttə*, whether it is in pre- or post-verbal position.

23. \([\text{NegP} \text{ Neg}_{[\text{iNeg}]} [\text{TP} [\text{vP} \ldots \text{həttə}_{[\text{uNeg}]}]]]\)

24. \([\text{NegP} \text{ həttə}_{[\text{uNeg}]} \text{ Neg}_{[\text{iNeg}]} [\text{TP} [\text{vP} \ldots]]]\)

- Similarly, lack of NS in MA follows, since neither NCI’s [uNeg] feature will be licensed.

25. \(*[\text{FP} \text{ həttə}_{[\text{uNeg}]} [\text{vP} \ldots \text{həttə}_{[\text{uNeg}]}]]\)
By contrast, in EA, \textit{walaa} is ambiguous between \texttt{[uNeg]} and \texttt{[iNeg]}.

When in postverbal position, \texttt{[uNeg]} \textit{walaa} can be licensed in the same way postverbal \textit{hətta} is licensed.

\begin{equation}
\texttt{[NegP Neg[iNeg] [TP [vP \ldots \textit{walaa} [uNeg]]]]}
\end{equation}
However, nothing prevents \([\text{iNeg}]\) \text{walaa}\) from being selected in postverbal position, thereby predicting that (27) below is grammatical, contrary to fact.

27. *\text{\textasciitilde}uf-t} \ w\text{alaa waa\text{"{h}}id}  \ EA
   saw-1SG\  no\  one

Intended: ‘I saw nobody.’

But (27) is probably ruled out independently, under the assumption that for negation to be semantically interpreted it needs to take scope over TP, as argued for in Zanuttini (1991) and Ladusaw (1992).
What about preverbal *walaa*?

If *[iNeg] walaa* is selected, then it takes scope over TP, and is, therefore, interpreted semantically without a problem.

28. \[
    [\text{FP} \ walaa_{[iNeg]} \ [\text{TP} \ [\text{vP} \ldots]]]
\]

If an overt Neg is inserted, the result is a double negation reading, as desired.

29. \[
    [\text{FP} \ walaa_{[iNeg]} \ [\text{NegFP Neg}_{[iNeg]} \ [\text{TP} \ [\text{vP} \ldots]]]]
\]
Similarly, availability of NS in EA follows, since the preverbal NCI can license the [uNeg] feature of the postverbal NCI.

30. $[[FP \text{ walaa}_{iNeg}] [TP [vP \ldots \text{ walaa}_{uNeg}]]]]$
This analysis, however, faces an obvious problem: How do we make sure that \[u\text{Neg}\] \text{walaa} does not occur in preverbal position? In other words, why is (31) not a possible structure in EA?

31. *\[[\text{NegP } \text{walaa}[u\text{Neg}] \text{Neg}[i\text{Neg}] [\text{TP } [v\text{P } \ldots]]]\]

We do not have a straightforward answer to that, so we can only speculate.
Speculation 1

- One potential explanation is that a preverbal *walaa*-phrase in EA is base-generated in a left-peripheral position, and as such is never c-commanded by Neg at any point during the derivation.

- A *hatta*-phrase, by contrast, starts in the lexical domain, where it is c-commanded by Neg, and then moves to SpecNegP.
Speculation 2

- Another possibility is that a difference between EA and MA has to do with the mode of licensing the [uNeg] feature: While MA allows both Agree and Spec-head, EA only allows licensing under Agree.

- While a speculation, we hope to tie this to a robust dialectal difference between EA and MA in NC structures: the fact that the –š segment of sentential negation disappears in MA in NC structures, but not in EA.
The puzzle of -š disappearance

32a. maa-šuf-t-i*(-š)            walaa waaḥid    EA
   NEG-saw-1SG-EV*(-NEG)      no    one
   ‘I didn’t see anyone.’

32b. ma  şəf-t(*-š)            ḥəṭta waḥəd    MA
   NEG    saw-1SG(*-NEG)      not-even    one
   I didn’t see anyone.’

□ Obviously, we want to find further empirical evidence from the two dialects to support either speculation, but we leave for future research.
Notice, finally, that the locality constraint on NCI-licensing in both EA and MA follows directly from a SA approach, under the assumption that Agree is subject to the so-called Phase Impenetrability Condition (Chomsky 2001), which allows licensing through one phase down, but no further.

NCIs in an embedded clause cannot be licensed by a matrix Neg, therefore, they are ruled out.

33. \[ [\text{C-Phase} \text{Neg} \ [\text{v-Phase} \ [\text{C-phase} \ [\text{v-Phase} \ldots \text{NCI} \ldots]]]] \]

\text{Agree} \xrightarrow{x}
Conclusions

- An answer to the compositionality question follows from a hybrid analysis of NC: NC structures give rise to a single negation reading because NCIs are only formally, not semantically, negative in such contexts.

- The answer to the parametric variation question follows from the proposal that NCIs are either exclusively marked for formal negativity (as in MA), or are ambiguous between formal and semantic negativity (as in EA).

- Languages with ambiguous NCIs will allow NCIs to be semantically negative only when they scope over TP. Other independent conditions should also disallow formally negative NCIs from appearing in preverbal position, though, admittedly, we leave that for future research.


Hoyt, Fred. 2010. *Negative Concord in Levantine Arabic*. PhD Dissertation, University of Texas, Austin.


The following abbreviations are used in the glosses of the Egyptian and Moroccan Arabic data in the paper: 1, 2, 3 for first, second, and third person, respectively; SG = singular; PL = plural; M = masculine; F = feminine; NEG = negation marker; FUT = future; COMP = complementizer; IPFV = imperfective; PTCP = participial; Q = question-particle; IMP = imperative; VOC = vocative particle; EV = epenthetic vowel.
THANK YOU!