## Long-Distance Negative Concord and Restructuring in Palestinian Arabic

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# **1** Negative Concord in Palestinian Arabic<sup>1</sup>

In Palestinian Arabic (PA), negative concord occurs with noun phrases headed by the determiner **wela** "(not) even one":

 Negative concord: The failure of a word or phrase that expresses negation in fragment answers to express negation in a sentence in which it co-occurs with another negation-expressing word or phrase (a.o. Watanabe 2004).

wela-DPs are pronounced with strong focal stress, and are the most "emphatic" kind of NPI in PA. Less emphatic NPIs include hada "anyone," iši "anything, or ?aiy wa:had "anyone" or ?aiy ši: "anything." Both wela-DP and ?aiy-NPs are minimizers in the sense of Vallduví (1994): I refer to wela-DPs as emphatic minimizers.

"wela-phrases" are interpreted as negative quantifiers ("NQ-wela)" or as polarity-sensitive indefinites ("NPI-wela"). The NQ-interpretation is available preceding the finite verb or verb complex in a clause (2-4) or in fragment answers (5-6):

- (2) wela hada fi:-hom šæ:f-ni. not.even one.ms in-them saw.3ms-me "Not even one of them saw me!"
- (3) wela yo:m Sağabni l-ɛkıl. not.even day pleased.3ms-me the-food
   "There wasn't even one day the food pleased me!"
- (4) wela nitfit anu:0a Sind-ik. not.even bit femininity at-you(fs)
   "You don't have the least bit of femininity!"
- Q: šu kal-l-ak? A: wela iši.
   what said.3ms-to-you not.even thing
   "What did he say to you? Nothing at all."

 (6) Q: mi:n šofti? A: wela șu:ș ibn yome:n. who saw.2fs not.even chick son two-days
 "Who did you see? Nary a two-day old chick!"

A preverbal **wela**-phrase preceding a sentential negation marker causes the sentence to have a double-negation reading (7: compare with 3):

 (7) wela yo:m ma-Sağabni l-ɛkıl. not.even day not-pleased.3ms-me the-food
 "There wasn't one day the food didn't please me!"

NQ-wela never occurs within the scope of negation but occurs in post-verbal positions which are not "thematically entailed" by the verb  $(8-9)^2$ :

(8)	huwwa <b>wela</b>		iši!	
	he	not.ever	ı thing	
	"He is nothing!"			
(0)			0.1	

 (9) hiyya maġru:ra Sala wɛla iši. she conceited.fs upon not.even thing
 "She is conceited for absolutely no reason!"

The NPI-interpretation is only available within the scope of antimorphic operators (Zwarts 1996) like sentential negation or **bidu:n** "without" (10-13):

- (10) tılı îti bıdu:n-ma tku:li wela iši. left.2fs without-that say.2fs even thing
   "You left without saying even one thing!"
- (11) ma:-yaðt-iš ma
   ma
   <sup>s</sup>-i wela iši.

   *not-took.1s-neg with-me even thing* "I didn't take a single thing with me."
- (12) ma-Sind-hæ wela mtfit xağal. not-at-her even bit shame
   "She doesn't have the least bit of shame!"
- (13) la-s-senna ma-ba<sup>5</sup>ti:-hom wela lokmi ekl. to-the-year not-give. Is-them even bite food
   "For the [first] year I don't give them even a bite of [solid] food."

<sup>2</sup>Following (Herburger 2001), "thematically entailed" means that the meaning of the verb entails the existence of an entity filling the thematic role in question.

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The NPI-interpretation is available with adverbial **wela**-DPs as well as inside PP (14) and smallclause complements (15):

- (14) ma-kaSatt [PP ğænıb wela hada fi:-hom ]. not-sat.ls next-to even one in-them
   "I didn't sit next to even one of them."
- (15) Somri ma-šoft-hæ [læ:bisi wela nıtfit hari:r]. ever-I not-sawIs-her wear.fs even bit silk
  "I have never seen her wearing even a bit of silk."

More than one **wela**-phrase can have the NPI-interpretation at a time:

(16) ma-kult wela iši wela la-hada fi:-hom. not-said.1s even thing even to-one in-them
"I didn't give anything at all to even one of them."

NQ-wela cannot license NPI-wela (17):

(17) **\* wela hada** kal-l-i **wela kılmi**. not.even one said.3ms-to-me even word

It follows from the distributions of NQ- and NPIwela that wela-phrases are blocked from postverbal argument positions which are thematically entailed and which are not within the scope of an antimorphic operator.

#### 1.1 Negative Concord and Locality

PA negative concord is generally strictly local dependency: an NPI **wela**-phrase must be contained within the smallest clause containing its licensor.

It cannot be separated from its licensor by the boundary of either a finite complement (19) or a non-finite/irrealis complement (18):

- (18) \* ma-waSatt ɛhki wɛla maS hada fi:-hom. not-promised.1s talk even with one in-them
- (19) \* batwakkaS-iš innhæ bithibb wela hada. believe.1s-neg that.3fs likes.3fs even one

Similar sentences with weaker NPIs such as **hada** or **?aiy hada** "anyone" are acceptable:

- (20) ma-waSatt ɛhki maS ( ?aiy ) hada fi:-hom. not-promised.1s talk with any one in-them "I didn't promise to talk with any of them."
- (21) batwakkaŶ-ıš ınnhæ bıthıbb (?aiy) hada.
   believe. is-neg that.3fs likes.3fs any one
   "I don't think that she likes ANY one."

Likewise, negative concord fails if a **wela**-DP is embedded inside another DP, while similar examples with **?aiy**-DPs are acceptable:

- (22) \* ma-hake:t ma<sup>°</sup> [ bint wela hada fi:-hom ]. not-talked.1s with girl even one in-them
- (23) ma-hake:t maß [ bint ?aiy wa:had fi:-hom ]. not-talked.1s with girl any one in-them
  "I didn't talk to the daughter of any one of them."

(18-23) suggest that negative concord is a bounded dependency like agreement marking, thematic licensing, or reflexive binding.

However, there are exceptions to this generalization. "Long-distance" negative concord occurs with **wela**-DPs inside the complements of a small class of verbs including subject control verbs like **bidd**- "want" (24), **ha:wal** "try" (29), **kidir** "be able" (26), or **Sirif** "know how to, be able to" (25) and object-control verbs like **galla** "allow" (28):

- (24) ma-biddna [nxalli wela zelami].
   not-want.1p leave.1p even fellow
   "We don't want to leave even one man."
- (25) ma-**Sırıft** [ ɛktıb **wɛla kılmi** ]. not-knew.1s write.1s even word "I couldn't write even one word."
- (26) miš ka:dır [ yı?aț?iț wela mtfit i?t?u:ta ]. not able.ms bow.ls even bit bow
  "I can't bow my head even a little bit."
- (27) ma-rah tikdar [tağmas wela xe:t]. *not-fut able.2ms gather.2ms even thread* "You won't be able to gather even a thread."
- (28) ma-**\cong allu:**-ni:-š [ ištari wɛla iši ] not-let.3mp-me-neg buy.1s even thing
   "They wouldn't let me buy even one thing!"

The embedding can be recursive, provided that only verbs in this class are used (29).

(29) biddi:-š aha:wil ɛhki wɛla ma's ḥada.
 want.ls-neg try.ls speak.ls even with one
 "I don't want try to talk with anyone at all."

These verbs correspond to verbs found in many other languages which trigger a process often referred to as *restructuring* or *clause union*. I follow (Aissen & Perlmutter 1983) in calling them *trigger verbs*. Restructuring involves the "stretching" of the domain of locality for certain kinds of bounded dependencies from the complement of a trigger verb to include the clause that it heads.

At present no other phenomena have been identified in PA which independently indicate restructuring. However, long-distance negative concord is identified as a restructuring phenomenon in several languages such as West Flemish (Haegeman & Zanuttini 1996, a.o.), Polish (Dziwirek 1998, a.o.), and Serbian (Progovac 2000, a.o.). As such, I hypothesize that long-distance negative concord in PA is a form of restructuring as well.

All PA trigger verbs take non-finite complements headed by the "y-imperfect" stem of a verb agreeing with the controlled subject. In addition, some of the verbs in question allow their complements to optionally include complementizers, even in negative concord sentences (30-31):

- (30) ma-bakdar [ ( m-ni ) akul-l-ak wɛla šeiy ].
   *not-able.1s* that-I say.1s-to-you even thing
   "I can't say to you anything at all."
- (31) ma-ḥa:walt-īš [(**m-ni**) aḥki wɛla maʕ ḥada not-tried.1s-neg that talk.1s even with one fi:-hom ]. in-them

"I didn't try to talk with even one of them."

The complementizer **?inn**- "that" also appears in indicative complements (see 21 and 19 above). It hosts a pronoun clitic corresponding to the subject of the clause and precedes the negation marker:

(32) ha:walt **mn-i** ma atkallam San nafs-i . *try.perf.1s that-me not speak.1s about self-me* "I tried not to speak about myself."

Other triggers verbs like **bidd**- "want" and **\chialla** "let" exclude the complementizer:

- (33) ma-biddna (\*in-na) nyalli wela zelami. not-want.1p that-we leave.1p even man
  "We don't want to leave even one person."
- (34) ma- $\chi$ allu-ni:-š (\***m-ni**) aku:l wɛla kılmi. *not-let.3mp-me-neg that-I say.1s even word* "They didn't let me say even one word!."

Assuming that the presence of **?mn**- and of verbal agreement marking indicate different functional categories, (30-34) show that trigger verbs vary as to the kinds of complements they take.

Lastly, embedded **wela**-DPs can (although need not) be interpreted in-situ. For example, in (35) a pronoun within the **wela**-DP is bound by the NPI **hada** "anyone." The NPI is interpreted within the scope of the complement clause, and therefore the **wela**-phrase must be as well.

(35) b-akdar-ıš adfa f hada wela kırš mın ra;tıb-u. can. Is-neg pay. Is one.ms even cent from pay-his
"I can't pay anyone, even a penny of his, salary."

Similarly, (36) can be said by a pauper with grand plans for getting rich and who is speaking about money that exists in his or her desire worlds:

(36) biddi:-š adfas wela ķīrš @ara:yib. want-1s-neg pay.1s even penny taxes
"I don't want to pay even a penny in taxes."

This shows that **wela kırš** "even a penny" takes scope within the embedded clause.

In sum, negative concord in PA has the following properties:

- II Multiple wela-DPs can be licensed at once (16).
- III Negative concord is generally clause-local (18-19)
- IV Exceptions to *III* occur in sentences in which the matrix verb is one of a small set of verbs that allow a "long-distance" negative concord between a matrix negation and an embedded **wela**-DP (24-31).
- V Long-distance negative concord is licensed inside recursive embeddings, provided that the embedding verbs all belong to the verb class described in *IV* (29).
- VI The verbs which allow restructuring vary as to the size or category of the complements they take (30-34).
- VII wela NPs in long-distance negative concord can be interpreted within the embedded clause (35-36).

### 2 Theoretical Implications

The data raise two theoretical questions about negative concord in PA: (i) What mechanisms license it? (ii) Why do restructuring verbs allow long-distance licensing? I address these questions by looking long-distance negative concord, as this reveals the most about the properties of both negative concord and restructuring in PA.

#### 2.1 Implications of the Data

Based on properties *IV-VII* several formal aspects of negative concord in PA can be inferred which narrow down the number of theoretical options available for analyzing the data.

First, the NQ- and NPI-interpretations of **wela**phrases arise from a lexical ambiguity between two homophonous morphemes. A theory which treated **wela**-phrases as being uniformly negative quantifiers or negative polarity items would rely on global licensing mechanisms, such as a semantic construal mechanism (Haegeman & Zanuttini 1996, de Swart & Sag 2002) or insertion of an "abstract negation," and would incorrectly predict a sentence like (17) to be acceptable.

Second, negative concord is a purely syntactic phenomenon in PA. If it were a semantic process, long-distance negative concord would be predicted to be more generally available in embedded clauses. Instead, the availability of longdistance negative concord is a lexical ideosyncracy of an otherwise heterogeneous set of verbs.

Third, negative concord licensing requires neither overt nor covert movement, as the **wɛla**-DP is pronounced and can be interpreted in its base position. This rules out approaches to negative concord according to which **wɛla**-DPs must raise to a local configuration their licensors (Haegeman & Zanuttini 1996, Watanabe 2004, Zeijlstra 2004).

I wela-DPs within the scope of the verb and in thematically-entailed positions have only the NPI-interpretation and must be licensed by negation morphemes or bidu:n "without" (10-13, 14-15).

If no movement is involved, then some other syntactic licensing mechanism must be.

Fourth, the availability of long-distance negative concord is not a matter of complement size. This excludes an analysis based Wurmbrand (2001), according to whom restructuring complements are bare VPs. Rather, PA trigger verbs take complements which include functional structure.

#### 2.2 Negative Concord as Feature Matching

These properties suggest a parallel between longdistance negative concord in PA and long-distance agreement in Hindi as analyzed by Bhatt (2005). Long-distance agreement in Hindi consists of an object of an embedded verb determining the agreement form of both the matrix and embedded verb in clauses headed by one of a small set of control verbs which correspond closely to trigger verbs in languages likes Spanish, Italian, etc:

(37) Vivek-ne [kitāb parḥnī] čāhī. Vivek-erg book.fs read.inf.f wanted.fs "Vivek wanted to read the book."

Bhatt argues that long-distance agreement does not correlate with movement because the object can be interpreted with narrow scope, as in (38):

(38) Usha-ne [potluck keliye dāl banānī] čāhī.
 Usha-erg potluck for daal.f make.f wanted.f
 "Usha wanted to make daal for the potluck."

Likewise, Bhatt argues that the agreement marking on the embedded verb indicates functional structure in a restructuring complement and that long-distance agreement consists of a "parasitic" agreement relation in which the agreement form of the matrix verb is determined by the agreement form of the embedded verb.

PA long-distance negative concord and Hindi long-distance agreement share the following:

- (39) They involve a morphological matching relation;
- (40) The relation is bounded except in restructuring;
- (41) Long-distance licensing involves no movement;

Bhatt's treats restructuring complements as lacking a PRO subject. The lack of a subject NP leaves the embedded  $T^0$  (Inf<sup>0</sup> according to Bhatt) to enter an AGREE relation with the embedded object. The matrix  $T^0$  then enters an AGREE relation with the embedded  $T^{03}$ . As such, Hindi long-distance agreement does not actually involve a long-distance relation. Rather, it involves a chain of purely local AGREE relations.

#### 2.3 Analysis

I assume that long-distance negative concord involves a "polarity" feature [POL $\pm$ ]. To implement the interaction of uninterpretable and interpretable instances of the polarity feature, I assume Bhatt's AGREE relation, but in order to emphasize that verb-argument agreement is not involved, I refer to it as ACCORD. Also, following Hiraiwa (2001), I assume that "multiple ACCORD" is possible, meaning that a Probe can simultaneously enter an ACCORD relation with multiple Goals with respect to a feature F provided that they have non-distinct values for F. This is essential for modeling examples like (16).

Following standard assumptions after Chomsky (2000), ACCORD is constrained by the Phase Impenetrability Condition, which blocks that AC-CORD relations across phase boundaries.

I assume the following principles of grammar:

- (42) Uninterpretable features are unvalued, and must be provided a value (Chomsky 2000);
- (43) Selectional features are sets of feature specifications including category, mood, and polarity;
- (44) Root clauses must be [POL +] (the root clause polarity condition) after Dowty (1994));
- (45) vP, CP, and DP are phases.

(44) is a stipulation, but can be related to proposals by Progovac (2000) and Przepiórkowski & Kupść (1999) according to which the semantic reflex of a negative concord is the specification of a *negative event*, an event which fails to meet a certain description. If (44) reflects a requirement that a root clause must be interpreted as asserting the existence of an eventuality, a negative clause would assert the existence of an eventuality that doesn't meet the description provided by the predicate.

PA has the following lexical properties:

- (46)  $v^0$  has an unvalued polarity feature [POL x];
- (47) **wela** has an interpretable [POL-] feature;
- (48) The negation morpheme ma:- includes a [POL-] feature among its selectional features, but projects a [POL +] feature;
- (49) Trigger verbs (along with auxiliary verbs) do not specify a polarity feature for their complements;
- (50) Non-trigger control verbs include a [POL+] feature among their selectional features.

The analysis for negative concord in a root clause is as follows: first, given the structure in (51),  $v^0$ has an unvalued [POL x] feature. It c-commands the **wela**-DP and so enters into ACCORD with the it, with the result that its unvalued polarity feature is valuated as [POL-]:

<sup>&</sup>lt;sup>3</sup>Bhatt modifies Chomsky's (2001) Agree to disassociate case feature checking from  $\phi$ -feature checking.



Further derivation builds an TP, which is then merged with **ma:**-, satisfying its selectional feature, and projecting an FP with a [POL+] feature:



A clause with an unlicensed **wela** NP is ill-formed because it is rooted in a node with a [POL-] feature, violating the root clause polarity condition.

A clause with multiple wela-DPs (as in 16 above) is derived as before, except that  $v^0$  enters into ACCORD with all of them simultaneously:



A sentence with long-distance negative concord is derived as follows: as in (51) and (53),  $v^0$  enters into ACCORD with the **wela-DP**, so that its unvalued polarity feature is valuated as [POL-]:



In the case of a restructuring complement lacking **?inn**-, the vP is merged with the trigger verb. The matrix  $v^0$  has an unvalued feature, and ccommands the embedded vP. The c-command relation does not cross a phase boundary, and so an ACCORD relation is established between the matrix  $v^0$  and the embedded  $v^0$ :



The derivation then proceeds as in (51).

In examples like (30-31), I assume that **?inn**-occupies  $T^0$  rather than  $C^0$ . Awad (1998) shows that **?inn**- in indicative complements affects the pragmatic interpretation of the clause. This effect is absent in control complements containing **?inn**, suggesting that the **?inn**- in control complements ("nonfinite **?inn**-") is homophonous with indicative **?inn**- but is a distinct morpheme.

Mitchell & al Hassan (1994, p. 38) note that the use of **?inn**- also indicates a shift a slightly more formal register of colloquial speech. Nonfinite **?inn**- may be a calque from the Classical Arabic particle **?an** which introduces subjective complements and is likely a  $T^0$  morpheme. In Palestinian and other dialects, Classical **?ann**- and **?an** have fallen together, so PA **?inn**- is the dialectal morpheme corresponding to Classical **?an**. Therefore, I suggest that **?inn**- spells out the head of  $T^0$ .

This has important consequences for the analysis. Nonfinite **?inn**- projects a TP. TP is not a phase, and therefore does not block an ACCORD relation with the matrix vP. Therefore, the derivation of an example like (31) proceeds just like the derivation in (52), modulo the presence of a TP projection in the complement:



ehki wela maS hada fi:-hum

Capturing the failure of long-distance negative concord with non-trigger vebs like **waSad** "promise" in (18) requires an additional stipulation: T<sup>0</sup> has an unvalued [POL-] feature as well, such that merging T<sup>0</sup> with vP results in T<sup>0</sup> having its [uPOL] feature valuated by  $v^0$ . Accord to (50), non-trigger verbs select complements with a [POL+] feature. As such, long-distance negative concord in examples like (18) is blocked because this feature clashes with the [POL-] value that the embedded T<sup>0</sup>, blocking the derivation<sup>4</sup>.

Failure of negative concord with **wela**-DPs in DP-internal positions (22) follows directly from the Phase Impenetrability Condition, as DPs are phases and block the ACCORD relation.

#### 3 Conclusion

I have presented an array of data describing longdistance negative concord in Palestinian Arabic. These data entail an analysis of negative concord and of restructuring which does not involve movement or reduced complements, and instead involves static feature matching.

A typological implication of this is the term "negative concord" as applied to PA is to be taken literally, where *concord* is understood as a class of feature-matching relationships of which subjectverb agreement is just one instance. This means that formal devices used to express feature matching must be defined in a general way rather than just in terms of subject-verb agreement.

The analysis captures the data, and may have interesting implications for how concord is modeled in the Minimalist Program. However, the analysis is largely a technical solution awaiting further phenomena to motivate it. Further research will consider additional factors, such as the roles that focus and prosody play in the locality restrictions on PA negative concord, and whether parallels can be drawn between negative concord and restructuring in PA on the one hand and comparable phenomena in other languages.

#### References

Aissen, J. & Perlmutter, D. (1983), Clause reduction in spanish, *in* 'Studies in Relational Grammar', University of Chicago Press.

- Awad, M. (1998), The syntax and semantics of complement clauses in arabic, *in* G. Hall, K. Homer, E. Lenell & L. Nicita, eds, 'Colorado Research in Linguistics, v.16', CRIL, University of Colorado (Boulder), pp. 1–29.
- Bhatt, R. (2005), 'Long-distance agreement in hindi-urdu', NLLT 23, 757–807.
- Chomsky, N. (2000), Minimalist inquiries: The framework, in R. Martin, D. Michaels & J. Uriagereka, eds, 'Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik', MIT Press (Cambridge), pp. 89–155.
- Chomsky, N. (2001), Derivation by phase, *in* M. Kenstowicz, ed., 'Ken Hale: A Life in Language', MIT Press (Cambridge), pp. 1–52.
- de Swart, H. & Sag, I. A. (2002), 'Negation and negative concord in romance', *L&P* **25**, 373–417.
- Dowty, D. (1994), The role of negative polarity and concord marking in natural language reasoning, *in* M. Harvey & L. Santelmann, eds, 'Proceedings of SALT IV', Cornell University, Ithaca, New York, pp. 114–144.
- Dziwirek, K. (1998), 'Reduced constructions in universal grammar: Evidence from the polish object control construction', *NLLT* **16**, 53–99.
- Haegeman, L. & Zanuttini, R. (1996), Negative concord in west flemish, *in* A. Belleti & L. Rizzi, eds, 'Parameters and Functional Heads', Oxford, pp. 117–179.
- Herburger, E. (2001), 'Negative concord revisited', *NLS* 9, 289–333.
- Hiraiwa, K. (2001), Multiple agree and the defective intervention constraint in japanese, *in* 'Proceedings of the HUMIT 2000', Vol. 40 of *MITWPL*, pp. 67–80.
- Mitchell, T. & al Hassan, S. (1994), *Modality, Mood, and Aspect in Spoken Arabic*, Keegan Paul International.
- Progovac, L. (2000), Coordination, c-command and 'logophoric' n-words, *in* L. Horn & Y. Kato, eds, 'Negation and Polarity: Syntactic and Semantic Perspectives', Oxford University Press (Oxford), pp. 88–114.
- Przepiórkowski, A. & Kupść, A. (1999), Eventuality negation and negative concord in Polish and Italian, *in* R. D. Borsley & A. Przepiórkowski, eds, 'Slavic in HPSG', CSLI Publications, Stanford, pp. 211–246.
- Vallduví, E. (1994), 'Polarity items, n-words, and minimizers in catalan and spanish', *Probus* 6, 263–294.
- Watanabe, A. (2004), 'The genesis of negative concord: Syntax and morphology of negative doubling', *LI* **4**, 559–612.
- Wurmbrand, S. (2001), *Infinitives, Restructuring and Clause Structure*, Mouton de Gruyter.
- Zeijlstra, H. (2004), Sentential Negation and Negative Concord, PhD thesis, University of Amsterdam.
- Zwarts, F. (1996), Three types of polarity items, *in* F. Hamm & E. Hinrichs, eds, 'Plural Quantification', Kluwer (Dordrecht).

<sup>&</sup>lt;sup>4</sup>This analysis predicts that verbs which select for a [POL-] complement should license negative concord. Whether such verbs exists in PA and therefore whether they do license negative concord has yet to be determined.