Prosodic Constituency and Locality in Levantine Arabic
Long-Distance Negative Concord

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Introduction

Goals of talk:

- Overview of Long-Distance Negative Concord (LDNC) in Levantine Arabic
- Discussion of Locality Restrictions on LDNC
- Proposing Prosodic Generalization Capturing Locality Restrictions on LDNC
- Directions for Future Work
**Negative Expression**: An expression the interpretation of which entails the meaning of predicate negation.

**N-word**: A negative expression that can be used as a fragment answer (c.f. Giannakidou, 2000; Watanabe, 2004).

**Negative concord**: The failure of an n-word $X$ to express negation *distinctly* when in syntagm with another negative expression $N$. $N$ licenses the non-distinct interpretation of $X$. 

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Prosodic Constituency and Locality in Levantine Arabic Long-Distance Negative Concord
N-Words and Negative Concord

(1) maa-kalt wala iši l-yoːm.

not-ate.1s not.even thing the-day

“I didn’t eat a single thing today.”

(2) * ?akalt wala iši l-yoːm.

ate.1s not.even thing the-day

“I ate not a single thing today.”
Three kinds of n-word according to definition (Hoyt, 2010):

- Negative scalar focus particle *wala* “not even (one)”

- “Never-words” *ʔɛbadan, bilmarra* “never, not once, not at all”

- Negative Minimizers: *hawa* “nothing” (lit. “air”); *qεšal* “nothing” (lit. “failure”?)
N-Words and Negative Concord

Negative scalar focus particle wala “not even (one)’’:

- Selects/associates with singular indefinite NPs: wala iši, *wala ?ašyaa

- Triggers focal alternatives ranging over (non-null) cardinality values; {I ate $n$ things: $n \geq 1$} (Rooth, 1992; Krifka, 1995; Israel, 1996, 2001; Rullmann, 1996; Lahiri, 1998, a.m.o.)

- Negates minimum alternative and implicates or entails negation of all higher alternatives: {I didn’t eat $n$ things: $n \geq 1$}
N-Words and Negative Concord

N-words can be licensed by:

- Negation morphemes: *ma:-, -š, miš/mu, ma:ni*, etc.

- *biddun, mindu:n* “without”;

- *qabl* “before”;

- Anti-veridical verbs:
  - *manaʕ-yimmnaʕ* “forbid, prevent”;
  - *battal-ybatāl* “stop, cease, quit”;
  - *rafad-yurfud* “refuse”;
N-Words and Negative Concord

N-words cannot be licensed by other (weaker) NPI-licensing contexts:

- Pre-verbal wala-phrases
- Comparative adjectives
- Questions
- Antecedent clauses of conditional sentences
- Downward-Entailing Quantifiers (*kull* “each, every, all”; *qali:l* “few”)
The licensing relationship can span some subordinate clause boundaries:

(3) a. **maa-ḥaawalt** [\textit{IP tiḥki} \textit{wala} maṣ ḥada fi:hum ].
\textit{not-tried.2ms 2.speak not.even with one in-them}
“You didn’t try to speak even with one of them.”

b. **maa-bafakkir** [\textit{CP innha} bithibb \textit{wala} ḥada fi:hum. ]
\textit{not-ind.1s.think that-she ind.2fs.like not.even one in-them}
“I don’t think that she likes even one of them.”
N-Words and Negative Concord

In others it cannot:

(4)  
\[ \text{*} \text{maa-wəʕatt ~ [ aḥkī wala maʕ ḥada fi:hum ]} \]  
\[ \text{not-promised.1s ~ 1s.speak not.even with one in-them} \]  
“I didn’t promise to speak even with one of them.”

(5)  
\[ \text{maa-wəʕatt ~ [ aḥkī maʕ ?ayy ḥada fi:hum ]} \]  
\[ \text{not-promised.1s ~ 1s.speak with any one in-them} \]  
“I didn’t promise to speak with ANY one of them.”
Questions:

- Which verbs allow LDNC?

- How do they allow it?
Verb categories:

- Semantic classification?
- Frequency?
## N-Words and Negative Concord

By Waia NP

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<th>Verb Freq</th>
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<td>want</td>
<td>desire</td>
<td>irrealis averidical</td>
<td>n/a</td>
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<td>quative</td>
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<td>-1.85</td>
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</tbody>
</table>

* Out of a corpus of 810,324 words.

Slope w.r.t Freq: 0.93, 0.7, 0.73, 0.81, 0.82
Intercept w.r.t Freq: 0.79, 0.63, 0.79, 0.62, 0.76

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The ten most frequent subordinating verbs in LDC-QT4 Levantine Call-Home corpus Maamouri et al. (2005):

- `bidd-` “want”;
- `qaam-yquum` “stand, so then”;
- `χalla-yχally` “let, allow, have, cause”;
- `qidir-yiqdar` “can, be able”;
- `Qirif-yiQraf` “know, be able”;
- `rajaQ-yirjaQ` “return, again”;
- `kaan-ykuun` “be”;
- `ˇ saaf-ˇ suuf` “see”;
- `laazim` “must”;
- `mumkin` “can, might”;
Other lower-frequency verbs also transparent to LDNC:

- ḥabb-ṭḥibb “love, like (to)”;  
- qaal-yquul “say”;  
- simiʕ-yismaʕ “hear”;  
- nasa-yinsa “forget”;
N-Words and Negative Concord

Linear Regression for Acceptability of Non-local NC
with respect to frequency of subordinating verb

Acceptability of Non-local NC (z-score)

Verb Frequency in Corpus (z-score)
N-Words and Negative Concord

Linear Regression for acceptability of non-local NC w.r.t all subordinating contexts
N-Words and Negative Concord

ByWalaNP

Scores for Wala-NPs by Speaker

- stand
- able
- return
- see
- can
- remember
- neglect
- advise
- hate
- forget
- fear
- admit
- know
- hear
- like
- promise
- say
- make
- avoid
- impossible

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N-Words and Negative Concord

Question:

What (if anything) does frequency have to do with transparency to negative concord licensing?
Restructuring (a.k.a. *clause union*, *complex predicate formation*)?

(6) el español, quiero **hablar-lo** mejor.
the spanish *want* speak-him better
“Spanish, I want to speak it better.”

(7) el español, **lo** quiero **hablar** mejor.
the spanish *he* want *speak* better
“Spanish, I want to speak it better.”
Restructing (a.k.a. *clause union, complex predicate formation*)?

(8)  el español, quiero que hablara-lo mejor.
*the spanish he want speak better*

“Spanish, I want to speak it better.”

(9)  *el español, lo quiero que hablara mejor.
*the spanish want speak-him better*
LDNC as restructuring in Slavic, Japanese, etc.

(10) * Janek nie powiedział [ że kocha nikogo ].

     Janek  not  said       that  love  no-one

     “Janek didn’t say that he loved anyone.”

(11) Janek nie kazał Ewie [ zwrócić się do nikogo o pomoc ].

     Janek  not  ordered  Evy-dat  turn-infin  ref  to  no-one  for  help

     “Janek didn’t tell Eve to turn to anyone for help.”
Hypothesis:

LDNC as a kind of restructuring in Levantine Arabic?
N-Words and Negative Concord

Probably not:

- Variation between speakers, and within (longitudinal) judgements of one speaker;

- Transparent verbs do not form a syntactic or semantic natural class.
Hypothesis:

LDNC involves a relaxation of *prosodic locality*
Blaszczak and Gärtner (2005): *Condition on Extended Scope Taking* (Kayne 1998) is a prosodic effect.

(12) \( (\sigma\text{ non voglio che venga})\text{ nessuno}. \)  
not want.1s that come no-one  
“I don’t want anyone to come.”  

(13) \( (\sigma\text{ non voglio che})\text{ nessuno} (\sigma\text{ venga}) \)  
not want.1s that no-one come  
“I don’t want nobody to come.”  
*“I don’t want anybody to come.”*  

*Double Negation*
Blaszczak and Gärtner (2005): *Condition on Extended Scope Taking* (Kayne 1998) is a prosodic effect: N-words can take scope only over contiguous sister constituents:

\[
\text{daß sie niemanden (σ zu grüßen versprach )} \\
that \text{ she no-one to greet promised} \\
\text{“...that she did not promise [ that she would greet anyone ].”}
\]

\[
\text{daß sie niemanden (σ versprach ) (σ zu grüßen )} \\
that \text{ she no-one promised to greet} \\
\text{“...that she promised [ that she would not greet anyone ].”}
\]
Hirotani (2005); Ishihara (2005a,b); yoshihisa kitagawa (2005); Ishihara (2007); Yamashita (2008)

Scope of WH-words in and *sika*-NPIs in Japanese is restricted in terms of prosodic constituency.
Prosodic Locality

(16) Naoya-wa Mari-ni
     Naoya-top Mari-dat

sono ramu-shika (σ nomiya-de nom-u-yooni ) iwa-nakat-ta.
that rum-only bar-loc drink-tns-C tell-neg-tns

“Naoya told Mari that she should drink [only the rum ] at the bar.”
(17) * Naoya-wa sono ramu-shika (σ nomiya-de nom-u-yooni )
    Naoya-top that rum-only bar-loc drink-tns-C

Mari-ni iwa-nakat-ta.
Mari-dat tell-neg-tns

“Naoya told Mari that she should drink [only the rum ] at the bar.”
Hypothesis:

Levantine Arabic n-words must be local to their licensors in terms of prosodic constituency:
Prosodic Locality

*wala* is a scalar focus particle:

- Interpretation of associate NP involves comparison of alternatives ranged along a (cardinality) scale;

- Frequently pronounced with “emphatic” focal intonation

- Focus intonation correlates with pitch reduction or compression on background constituent.
Prosodic Locality

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Prosodic Locality

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Prosodic Locality

\[(\sigma \text{ NEG} \ldots \text{downstep} \ldots) \text{ wala-NP}\]
Domain of downstep widely argued to be *Major Phrase* (aka *Intermediate Phrase*: Poser 1984, Pierrehumbert and Beckman 1988, Selkirk and Tateishi 1991, a.m.o.)

\[
(\text{MaP NEG } \ldots \text{downstep } \ldots) \text{ wala-NP}
\]
De-Accenting?

- De-Accenting occurs in Levantine (Chahal, 1999, 2001);
- Sufficient but not necessary condition for LDNC;
- Almost entirely unattested in Egyptian Arabic (Hellmuth, 2005; Helmuth, 2006; Hellmuth, 2011), yet Egyptian has LDNC.
Prosodic Locality Condition on LDNC:

\((MaP \ldots) \text{ wala-NP}\)

\(^* (MaP \text{ NEG } ) (MaP \ldots) \text{ wala-NP}\)
Prosodic Locality

- What is the connection (if any) between verb frequency and MaP formation?

- Why are the verbs that are transparent to LDNC easier to pack into a single MaP?
Does downstep correlate with prosodic weakness?

- Is downstep a step in the direction of de-accenting?

- In other words, is pitch compressed more on high-frequency verbs than on others?
Phonological Explanation?

- Conspiracy of constraints on word-level stress expression, pitch excursion and MaP formation?
Conclusion

Further work:

- Is the MaP the domain of downstep in Levantine?
- Do generalizations hold up in experimental data?
- What are the prosodic properties of transparent verbs?
Summary:

- Restrictions on LDNC in Levantine Arabic can’t be characterized in terms of verb class;
- Correlates closely with frequency of subordinating verbs in large corpus;
- Domain of downstep between licensor and wala-phrase;
- Suggests that domain of locality for LDNC is a prosodic domain (MaP).