On an inflectional and a derivational diminutive

Marijke De Belder  
CRISSP / Utrecht University / HUBrussel  
marijkedebelder@hubrussel.be

Noam Faust  
Université Diderot Paris 7 / LLF  
faustista@yahoo.com

Nicola Lampitelli  
Université Diderot Paris 7 / LLF  
nicolalampitelli@gmail.com

Outline:
1. Introduction
2. Main data
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1. Introduction

Background
Derivation and inflection are both products of syntax. Their different effects are the result of two different structural domains (cf. Marantz 1997, 2001; Harley & Noyer 1999):
- inner morphology: below the first categorial node
- outer morphology: beyond the first categorial node

Main proposal
Diminutives can appear both in the derivational and in the inflectional domain.

Main data
Derivational and inflectional diminutives in: Italian, Modern Hebrew, English, Dutch, French, Tunisian and Egyptian Arabic, Polish and Spanish.

2. Main data

Compositional meaning:

1) nas-ino
   nose-DIM
   'small nose' [Italian]

2) *? nas-in-one
   nose-DIM-AUG [Italian]
Non-compositional meaning:

3) pan-ino  
   bread-DIM  
   ‘sandwich’  [Italian]

4) cas-ino  
   house-DIM  
   ‘brothel’  [Italian]

5) telefon-ino  
   telephone-DIM  
   ‘cell phone’  [Italian]

A combination of a non-compositional and compositional meaning:

6) pan-in-one  
   bread-DIM-AUG  
   ‘big sandwich’

7) pan-in-etto  
   bread-DIM_{LEX-DIM_{SIZE}}  
   ‘small sandwich’  [Italian]

3. Proposal

2 positions for the diminutive:
- an inflectional position\(^1\) between nP (cf. Marantz 2001) and DivP (cf. Borer 2005)
- a derivational position\(^2\) merged with the root

\[
\begin{align*}
\text{DivP} & \quad \text{Div-etto} \\
\text{SizeP} & \quad \text{bread-DIM}_{\text{LEX-DIM}_{\text{SIZE}}} \\
\text{nP} & \quad \text{‘small sandwich’}
\end{align*}
\]

\(^1\) De Belder (2008) proposes the projection SizeP to introduce diminutive inflection on nouns.
\(^2\) Lampitelli (2009) proposes that Italian diminutives are introduced by a projection between nP and √.
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<table>
<thead>
<tr>
<th>SIZEP</th>
<th>LEXP</th>
</tr>
</thead>
<tbody>
<tr>
<td>inflectional</td>
<td>derivational</td>
</tr>
<tr>
<td>part of the noun’s functional domain</td>
<td>merges directly with a root</td>
</tr>
<tr>
<td>fully productive</td>
<td>lexical gaps</td>
</tr>
<tr>
<td>always a compositional meaning</td>
<td>possibly non-compositional meaning</td>
</tr>
<tr>
<td>phonologically regular</td>
<td>possibly phonologically irregular</td>
</tr>
</tbody>
</table>

Phonology

The underlying form of the Dutch diminutive morpheme is –tje, but it surfaces as –tje, -etje or –pje, depending on the rhyme of the root.

**SIZEP: phonologically regular**

9) bloem-pje  
   flower-DIM  
   ‘small flower’

10) boom-pje  
    tree-DIM  
    ‘small tree’

**LEXP: possibly phonologically irregular**

11) bloem-etje  
    flower-DIM  
    ‘bouquet’

12) *boom-etje  
    tree-DIM

In this talk we will
- show the necessity of having two positions for diminutives
- explore the predictions that makes
- show that Lex° should be distinguished from n° (pace Wiltschko 2006)
- show that Lex° should be distinguished from √

4. Predictions

The structure in (8) makes the following cross-linguistic predictions:

[a] a language can formally distinguish between these two kinds of diminutives.
[b] both positions can be filled simultaneously.
[c] LexP combines with any xP (not necessarily for an nP).
[d] the existence in a given language of one of these diminutive positions is independent of the existence of the other.

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3 Stump (1993) and Jo Napoly & Reynolds (1995) are two studies that deal with a similar topic, but do not distinguish different types of what they term “evaluative suffixes”.
4.1 Prediction [a]: different diminutive morphology in LexP and SizeP

Modern Hebrew has at least two strategies of diminutivization:
- Concatenation of -on (Concat.Dim\textsubscript{SIZE} in (13)).
- Templatic reduplication (Temp.Dim\textsubscript{LEX} in (13)).

(13) Diminutivization strategies in Hebrew

\begin{tabular}{llll}
\textbf{Noun} & \textbf{Temp.Dim\textsubscript{LEX}} & \textbf{Concat.Dim\textsubscript{SIZE}} \\
\hline
a. xazir & ‘pig’ & xazarzir & ‘piglet’ & xazir-on & ‘small pig’ \\
b. bacal & ‘onion’ & bcalcal & ‘shallot’ & bcal-on & ‘small onion’ \\
c. xatul & ‘cat’ & xataltul & ‘kitten’ & xatul-on & ‘small cat’ \\
d. kélev & ‘dog’ & klavlav & ‘puppy’ & kalb-on & ‘small dog’ \\
e. géver & ‘man’ & gvarvar & ‘macho’ & gavr-on & ‘small man’ \\
f. xamor & ‘donkey’ & *xamarmor & & xamor-on & ‘small donkey’ \\
\end{tabular}

The reduplicated diminutive
- is not productive (it applies to a closed group of roots);
- has a meaning that is not predictable (it has a specific interpretation).

In contrast, -on diminutive has the following properties:
- It is always compositionally diminutive (unlike Italian -in-);
- It is fully productive.

We propose that:
- Lexical material is introduced by the projection LexP;\footnote{We indeed assume that templaticity results from direct merger of a template morpheme with the root. Cf. Faust (In prep.) and references therein.}
- -on realizes Size\textdegree; it is in the noun’s inflectional domain.

14) The two positions for diminutive -LexP and SizeP- are realized using two radically different morphological strategies.
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4.2 Prediction [b]: both positions may be filled simultaneously

Italian *pan-in-on-e* ‘large sandwich’/ *pan-in-ett-o* ‘small sandwich’ have equivalents in other languages:

15) Both LexP and SizeP occupied simultaneously

<table>
<thead>
<tr>
<th>Base</th>
<th>Lex diminutive</th>
<th>Both Lex &amp; Size diminutives</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. strót ‘table’</td>
<td>stołek ‘chair’</td>
<td>stołeczek ‘small chair’ (Polish)</td>
</tr>
<tr>
<td>b. bolso ‘bag’</td>
<td>bolsillo ‘pocket’</td>
<td>bolsillito ‘small pocket’ (Spanish)</td>
</tr>
<tr>
<td>c. kalb ‘dog’</td>
<td>klayb ‘puppy’</td>
<td>klaybun ‘cute puppy’ (Tunisian Ar.)</td>
</tr>
<tr>
<td>d. xazir ‘pig’</td>
<td>xazarzir ‘piglet’</td>
<td>xazarziron ‘small piglet’ (M. Hebrew)</td>
</tr>
</tbody>
</table>

- Semitic languages can use both non-concatenative and concatenative diminutive strategies simultaneously (seemingly always in that order).

4.3 Prediction [c]: LexP combines with any xP and not necessarily for an nP

LexP, but not SizeP, is positioned below the category-assigning head

- LexP can be the base for any xP.
- SizeP is only part of the inflection of nP.

We thus predict, for a language like Modern Hebrew:

- LexP Templatic diminutives may be category-free.
- SizeP concatenative diminutives are exclusively nominal.

4.3.1 QiTeL verbs, QiTuL nouns

Verbs with the melody {i,e} regularly “have” related action nouns with the melody {i,u}:

16) QiTeL, QiTuL

<table>
<thead>
<tr>
<th>Verb</th>
<th>Participle</th>
<th>Action noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. xipes</td>
<td>me-xapes</td>
<td>xipus ‘search’</td>
</tr>
<tr>
<td>b. šitef</td>
<td>me-šatef</td>
<td>šituf ‘sharing’</td>
</tr>
<tr>
<td>c. nipec</td>
<td>me-napec</td>
<td>nipuc ‘shattering’</td>
</tr>
<tr>
<td>d. kilef</td>
<td>me-kalef</td>
<td>kiluf ‘peeling’</td>
</tr>
</tbody>
</table>
But QiTuL nouns are not derived from any surface verbal form, because
- They may have idiosyncratic meanings (17a,b).
- There may be no existing verbal base (17c,d).
- A sub-group of QiTeL verbs has \{o,e\} vocalization. Their corresponding nominal melody is still \{i,u\}, not \{*o,u\}.

17) QiTuL is not derived from QiTeL.

<table>
<thead>
<tr>
<th>Verb</th>
<th>Participle</th>
<th>Action noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. miten</td>
<td>me-maten</td>
<td>‘moderate’ mitun ‘moderation/(economic) depression’</td>
</tr>
<tr>
<td>b. cimek</td>
<td>me-camek</td>
<td>‘shrink’ cimuk ‘shrinking/raisin’</td>
</tr>
<tr>
<td>c. -</td>
<td>-</td>
<td>sikuy ‘chance’</td>
</tr>
<tr>
<td>d. -</td>
<td>-</td>
<td>biyuv ‘gutter’</td>
</tr>
<tr>
<td>e. roken</td>
<td>me-roken</td>
<td>‘empty’ rikun ‘emptying’ (*roken)</td>
</tr>
<tr>
<td>f. poccE</td>
<td>me-foccE</td>
<td>‘explode’ picuc ‘explosion’ (*poccE)</td>
</tr>
</tbody>
</table>

In consequence,
- A QiTeL→QiTuL view is wrong.
- The relation is best expressed as templatic specification (as in Goldenberg 1994) followed by category-assignment. Noun and Verb share only a templatic Q_T(T)_L base (here a diacritic ι, following Doron 2003).

18) QiTeL and QiTuL both derived from Q_T(T)_L

a. cimek ‘to shrink’ b. cimuk ‘shrinking/ raisin’

\[ \begin{align*}
  v & \rightarrow \text{cimuk} \\
  v & \rightarrow \text{c}_m_k \\
  t & \rightarrow \sqrt{CMK} \\
  \{i,e\} & \rightarrow \text{Q}_T(T)_L
\end{align*} \]

Doron’s diacritic ι occupies the same position as LexP.

4.3.2 Back to diminutives
Another sub-group of the QiTeL group is QiTLeL, where the last radical is reduplicated.

Verbs of the type QiTLeL
- often have pluractional diminutivization meaning.
- may correspond to a QaTaL type verb (19a-c), to a QiTeL-type verb (19e), or have no corresponding item (19f).

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5 That QoteL is a subgroup of QiTeL is shown by the vowel after the participial prefix me- (the epethetic MH vowel). Other verbal paradigms do not share this vowel.

6 For more consequences of this approach, see Faust & Lampitelli (2009).
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19) QiTLeL verbs
related item  QiTLeL “diminutive”
verb  action noun
a. caxak  ‘to laugh’  cixkek  cixkuk  ‘giggle’
b. laxaš  ‘to whisper’  lixšeš  lixšuš  ‘whisper quietly’
c. kafac  ‘to jump’  kifcćeś  kifcujęš  ‘jump around’
d. kiven  ‘to aim/to direct’  kivnen  kivnuš  ‘fine-tune’
e. išer  ‘permit (auth.)’  išreś  išruš  ‘allow bureaucratically’
f. -  fıkseš  fıkšuš  ‘commit a small error’

Both QiTLeL (v) and QiTLuL (n)
- include the diacritic ι (By analogy to QiTeL-QiTuL in (18))
- include a specific diminutivization morpheme [dim] whose exponent is reduplication (i.e. C3=C4).

In (20), we collapse the two diacritics [dim] and ι under LexP:

20)  cixkek and cixkuk ‘giggle’

\[
\begin{align*}
\text{a. cixkek} & \quad \text{b. cixkuk} \quad \text{‘a giggle’} \\
\text{v} \rightarrow & \text{cixkek} \\
\text{v} \quad \text{LexP} \rightarrow & \text{c_xk_k} \\
\iota, [\text{dim}] \quad \sqrt{\text{CXK}} & \quad \{i,e\} \text{ Q_TL_L} \\
\text{n} \rightarrow & \text{cixkuk} \\
\text{n} \quad \text{LexP} \rightarrow & \text{c_xk_k} \\
\iota, [\text{dim}] \quad \sqrt{\text{CXK}} & \quad \{i,u\} \text{ Q_TL_L}
\end{align*}
\]

The prediction made above is borne out, namely that
- LexP templatic diminutives may be category-free

The concatenative diminutive -on was claimed to be restricted to realizing SizeP. Since sizeP is in principle a nominal functional projection, we do not expect it to appear on verbs. This is indeed the case:

- -on is not a part of MH verbal morphology
- unsurprisingly, it appears on reduplicated action nouns, e.g. cixkukon ‘a small giggle’

21) A small giggle

\[
\begin{align*}
\text{SizeP} \rightarrow & \text{cixkukon} \\
\text{Size} \quad \text{nP} \rightarrow & \text{cixkuk} \\
\text{-on} \quad \text{n} \quad \text{LexP} \rightarrow & \text{Q_TL_L} \\
\iota, [\text{dim}] \quad \sqrt{\text{CXK}}
\end{align*}
\]
We now predict that LexP is category-free in other languages, too.

22) LexP in Italian is category-less in Italian

a. fischi-o
   whistle.sg.m
   ‘whistle (the action)’
   b. fischi-are
   whistle-infinitive
   ‘to whistle’

b. fischi-ett-o
   whistle-DIM-sg.m
   ‘whistle (the object)’
   d. fischi-ett-are
   whistle-DIM-infinitive
   ‘to emit short whistles repeatedly’
   (not necessarily with a fischietto)’

23) fischi-ett-o vs. fischi-ett-are

a. fischi-ett-o ‘whistle (object)’
   n   → fischi-ett-o
   n   LexP
   ett √ fischi

b. fischi-ett-are ‘whistle (pluract.)’
   v   → fischi-ett-are
   v   LexP
   ett √ fischi

To conclude:
- Templatic diminutives and other low morphemes occupy a position close to the root, which we call LexP.7
- This position is lower than the category-assigning head, and thus LexP is not marked for category.8
- SizeP only modifies nP, and is thus higher than it.

4.4 Prediction [d]: the two types of diminutives are independent.

LexP without SizeP
In a given language, SizeP might not exist; this is independent of the (in)existence of diminutives in LexP. Languages without SizeP include English & French, but also Egyptian Arabic:

24) Lexicalized diminutives in languages without SizeP

<table>
<thead>
<tr>
<th>base</th>
<th>diminutives</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>a. cat kitten</td>
</tr>
<tr>
<td></td>
<td>b. nap napkin</td>
</tr>
<tr>
<td>French</td>
<td>c. fille ‘girl’ fillette ‘young girl’</td>
</tr>
<tr>
<td></td>
<td>d. livre ‘book’ livret ‘small notebook’</td>
</tr>
<tr>
<td>Eg. Arab.</td>
<td>e. bint ‘girl’ bannu:ta ‘young girl’ (template: QaTTu:L)</td>
</tr>
<tr>
<td></td>
<td>f. dabbıs ‘to staple’ dabbu:s ‘pin’</td>
</tr>
<tr>
<td></td>
<td>g. ʔamar ‘moon’ ʔammu:r ‘cute (adj.)’</td>
</tr>
<tr>
<td></td>
<td>h. šams ‘sun’ šammu:sa ‘cute sun’</td>
</tr>
</tbody>
</table>

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SizeP without LexP

In contrast, languages with poor morphology (i.e. no LexP), may develop a realization of SizeP that is distinct from just the word “small”.

25) Mauritian Creole

<table>
<thead>
<tr>
<th>‘cute little N’</th>
<th>‘small (=adjective) N’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ti-zanfan</td>
<td>tipti zanfan</td>
</tr>
<tr>
<td>b. ti-linz</td>
<td>tipti linz</td>
</tr>
<tr>
<td>c. ti-sez</td>
<td>tipti sez</td>
</tr>
</tbody>
</table>

5. Theoretical consequences

Three hypothetical natures can be proposed for what we’ve been calling LexP:

- nP
- root
- LexP

26) Different configurations

a. \[ \sqrt{nP} \]

\[ \sqrt{nP} \]

b. \[ \sqrt{nP} \]

\[ \sqrt{nP} \]

c. \[ \sqrt{nP} \]

\[ \sqrt{nP} \]

(26.a) predicts that -ett- would appear only on nouns: this is not the case, as fischiettare shows. Cf. supra 4.3 prediction [c].

(26.b) represents -ett- as a root\(^10\). Under this proposal we lose the distinction between open and closed classes. If there were no distinction one would predict that open class morphemes could occur as inflectional morphemes, which does not seem to be the case.

(26.c) shows our proposal. LexP can be the base for both nominal and verbal categories (cf. fischietto and fischiettare) and the interpretation of the suffix is unpredictable when its position is the lex-head.

LexP may introduce morphemes other than diminutive/augmentative ones.

27) Derivational LexP

a. bors-a

[Italian]

handbag-f.sg.

‘handbag’

\(^9\) A fourth one may also exist: Bachrach & Wagner (2007) argue that lex\(^0\) is an adjunct to n\(^0\).

\(^{10}\) See Lowenstamm (2008) for ‘complex root’ configurations.
b. bors-eggi-o
  handbag-Lex⁰-m.sg.
  ‘the act of mugging’

c. bors-eggi-are
  handbag-Lex⁰-infinitive
  ‘to mug (not just a borsa)’

As a general consequence:

- irregular form points to low position (cf. lexicalized diminutives in Dutch, English, French and Egyptian Arabic).
- meaning is predictable beyond nP.

6. Conclusion

We showed that the same cross-linguistic structure accounts for the properties of two different types of diminutives. More specifically,

- The difference between the diminutives is structural (LexP vs. SizeP).
- Languages can have the same morpheme(s) used in both positions (Italian -ett-, -inv., etc.) or two different morphemes (Modern Hebrew: reduplication and -on).
- The diminutives can cooccur: Italian pan-in-ett-o ‘small sandwich’ and Modern Hebrew xazarzir-on ‘small piglet’.
- LexP can be the base for either nouns or verbs: Modern Hebrew [Q_TK_L_Lex] cixkek ‘to giggle’ vs. cixkuk ‘a giggle’ and Italian fischiett-are/-ett-o ‘to whistle repeatedly / whistle (the object)’.
- The computation of meaning is unpredictable below LexP and predictable above nP.
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