On an inflectional and a derivational diminutive

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1. Introduction
Cross-linguistically, diminutives come in two different flavors. The first type is characterized by compositional meanings, the second one by non-compositional meanings. Take the Italian examples below as an illustration. Example (1) shows a diminutive with a compositional meaning, examples (2)-(4), on the other hand, get non-compositional meanings.

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

2) pan-ino
    bread.DIM
    'sandwich'

3) cas-ino[1]
    house.DIM
    'brothel'

4) telefon-ino
    telephone.DIM
    'cell phone'

Example (1) simply refers to a smaller version of what the noun refers to, but in (2)-(4) the diminutive morpheme derives a new denotation. As a result, (1) cannot combine with an augmentative morpheme, as a concept cannot be small and big at the same time, as can be seen in (5). The diminutives in (2)-(4), in contrast, do combine with an augmentative. This is illustrated in (6).

5) *nas-in-one   [Italian]
    nose-DIM-AUG

6) pan-in-one
    bread- DIM-AUG
    'big sandwich'

The data above show that diminutives come in two types. More specifically, there are both compositional and non-compositional ones.
   This article argues that the distinction between the two diminutives can be captured in terms of syntactic structure. More specifically, we propose two different positions for diminutives. The first one is part of the functional domain of the noun, to which we will refer as SizeP. It is situated between the categorial head n° and the projection

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[1] Cf. Pianigiani (1926) *Dizionario Etimologico*, Firenze: Ariani.

which hosts number marking. As it realizes functional material it is characterized by full productivity and compositionality. The second one directly merges with the root and realizes a lexical position below the category head, henceforth LexP. Therefore, it is oblivious to the nature of the category head above it. As such, it is not restricted to nouns. In addition, because it does not realize functional heads, it may show lexical gaps and non-compositional meaning. Summing up, we propose that diminutives cross-linguistically can realize both functional heads and derivation. Both positions are shown in (0.[2]

7)
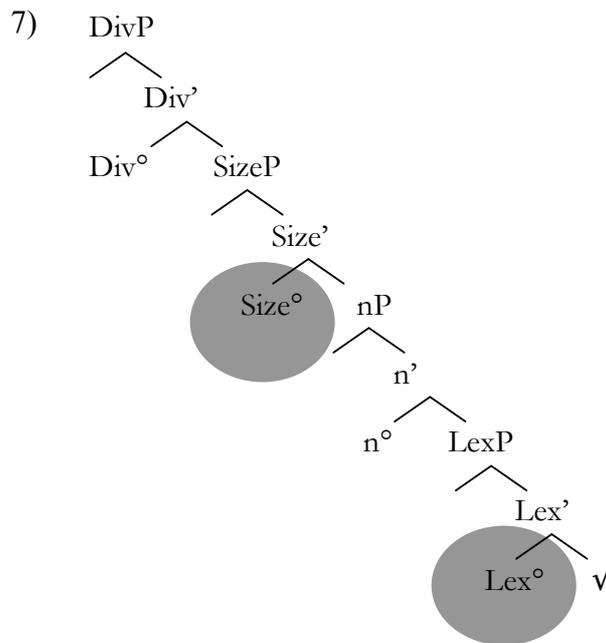
Data from Romance, Semitic, Germanic and Slavic languages will serve to illustrate this point.

Throughout the article, we will adopt the proposal that inflection and derivation are both products of syntax (Marantz 1997, 2001; Harley & Noyer 1999, Marvin 2002). Their different effects result from two different structural domains. These domains are demarcated by the first categorial head. The domain below that head is the derivational domain, the one above hosts inflection. In other words, the first categorial head is the landmark between derivation and inflection.

The article is structured as follows. The first four sections discuss predictions which follow from the proposal. We first show that a language can formally distinguish between the two diminutives. In a next section it emerges that both positions can be filled simultaneously. A following section shows that the lower diminutive combines with uncategorized material and that it does not determine the category of this combination, which can therefore be the base of either a noun or a verb. Finally, we discuss the prediction that some languages may have a derivational diminutive without having an inflectional one or vice versa. After having discussed these predictions, we address some theoretical consequences of the proposal. The final section concludes and sums up.

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[2] De Belder (2008) proposes the projection SizeP to introduce diminutive inflection on nouns, whereas Lampitelli (2008) proposes that Italian diminutives are introduced by a projection between nP and √.

Prediction #1: different diminutive morphology in the two positions

The first logical consequence of our hypothesis concerns the ways morphology finds to realize Lex° and Size° cross-linguistically. Two possibilities seem to be possible: either the same morpheme is used to realize both heads, or two different morphological strategies are employed.

   This is indeed the case in Modern Hebrew (henceforth MH), which shows at least two different paths to diminutivization:

8)   Diminutivization in MH

Noun		Temp.Dim$_{LEX}$		Concat.Dim$_{SIZE}$	
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'

The data above point to the fact that MH uses either a concatenated morpheme *-on* (which we label Concat.Dim$_{SIZE}$) or a reduplicated and discontinuous morpheme, as the central column above shows (Temp.Dim$_{LEX}$).

   As for Concat.Dim$_{SIZE}$, there is no doubt that its interpretation is totally compositional. In addition, it is morphologically fully productive. In our terms, this means that it is spelled-out at the Size° position.

   Conversely, we argue that Temp.Dim$_{LEX}$ must be the product of Lex°, as its interpretation is neither semantically predictable (it has a specific interpretation) nor morphologically productive (as it applies to a closed group of roots).[3]

   Our proposal actually predicts such a situation. Lexical material is introduced by the projection LexP[4] whereas a totally productive morpheme must be a product of inflection, hence of the projection SizeP.

   For sake of clarity, we show an interesting example where both diminutivization strategies are used in MH:

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[3] Note that Italian -in does both jobs, as it is morphologically fully productive, but its interpretation is either compositional, or unpredictable or both. Cf. ex. (3) *casino* 'brothel', and compare with *casina* 'small house' whereas *casa* stands for 'house'. As a consequence, Italian has the same morpheme for both positions.

[4] We indeed assume that templaticity results from direct merger of a template morpheme with the root. Cf. Faust (In prep.) and references therein.

9)

xazarzir-on
'small piglet'
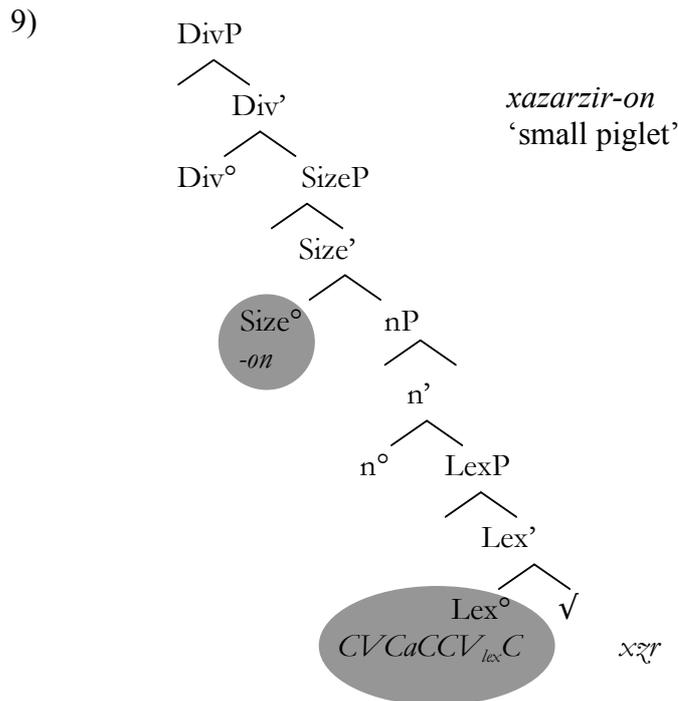
Prediction #1 is borne out: not only MH displays two clearly distinct ways to diminutivize, but also both "diminutives" can appear, as the example *xazarziron* 'small piglet' elucidates.

Note that both Italian and MH case illustrate that two positions must be postulated for the diminutive morpheme, but the latter points to two radically different morphological strategies.

Prediction #2: both positions may be filled simultaneously

If two positions exist for diminutives, one predicts that both positions can be filled simultaneously. In other words, it is expected that data can display a compositional, inflectional diminutive on top of a derivational one. This is indeed borne out in many languages[5]. In the introduction it was already pointed out that the lower diminutive may co-occur with an augmentative in Italian. The example is repeated in (10). In the same vein, the lower diminutive can co-occur with a higher, compositional diminutive in this language, as is illustrated in (11).

10) pan-in-one   [Italian]
     bread- DIM_{LEX}-AUG_{SIZE}
     'big sandwich'

11) pan-in-etto
     bread- DIM_{LEX}-DIM_{SIZE}
     'small sandwich'

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[5] Dutch is an exception. In this language, lexical and functional diminutives cannot co-occur, e.g. *groen-tje* 'unexperienced person' (Lit. green-DIM), *groen-tje-je (Lit. green-DIM-DIM). This restriction may be due to phonology; Dutch disprefers a sequence of schwa's.

Similar data are found in other languages. Examples (12)-(14) are from Polish, (15)-(17) Spanish, (18)-(20) Tunisian Arabic and (21)-(23) are Modern Hebrew.

12) *stół*   [Polish]
   'table'

13) *stoł-ek*
   table- DIM_{LEX}
   'chair'

14) *stół-ecz-ek*
   chair- DIM_{LEX}-DIM_{SIZE}
   'small chair'

15) *bolso*   [Spanish]
   'bag'

16) *bols-illo*
   bag- DIM_{LEX}
   'pocket'

17) *bols-ill-ito*
   bag- DIM_{LEX} -DIM_{SIZE}
   'small pocket'

18) *kalb*   [Tunisian Ar.]
   'dog'

19) *klayb*
   'puppy'

20) *klayb-un*
   puppy- DIM_{SIZE}
   'small/cute puppy'

21) *xazir*   [MH]
   'pig'

22) *xazarzir*
   pig- DIM_{LEX}
   'piglet'

23) *xazarzir-on*
   piglet- DIM_{SIZE}
   'small piglet'

The Polish and Spanish examples display a sequence of diminutive suffixes. In Tunisian Arabic and Modern Hebrew, non-concatenative morphology is used to derive a lexical diminutive, and the inflectional diminutive is realized by means of a suffix. In conclusion, many languages allow for a derivational diminutive to be

followed by an inflectional one, i.e. both may cooccur. If one assumes two different positions for diminutives, this in fact must be the case.

Prediction #3: The derivational diminutive is oblivious as to the category-head that selects it

LexP, as we have been using it here, is an elaboration on the root, in that it both precedes the category-assigning head and has no category of its own. Therefore, in order to prove the existence of such a position, we have to show that the combination of a root and a diminutive morpheme may serve as the base of more than one category. This section suggests that this is the case of reduplicated diminutives of the type Q-TL-L and Q-TQ-T in Modern Hebrew.

Before we can approach these diminutives, we must examine the general case of Q-T-L verbs and nouns. Modern Hebrew has several verb types. The most productive type is called QiTeL (wherein by convention {Q,T,L} represent root consonants and -i-e- is the melody found in the 3sgm.past, the only unaffixed form). The majority of the verbs in this group have related nominal forms (also called action nouns) of the shape QiTuL:

24) QiTeL, QiTuL in MH

	Verb	*Participle*		*Action noun*	
a.	xipes	me-xapes	'search'	xipus	'search'
b.	šitef	me-šatef	'share'	šituf	'sharing'
c.	nipec	me-napec	'shatter'	nipuc	'shattering'
d.	kilef	me-kalef	'peel'	kiluf	'peeling'

We would like to propose that although QiTeL and QiTuL are certainly related, it is wrong to posit a relation of derivation in either direction. We make this claim for three empirical reasons. First, QiTuL nouns may have an idiosyncratic meaning, only vaguely related to that of the verb (25a,b). In fact, a there may even be no existing verbal base (25c,d). Finally, a sub-group of QiTeL verbs has {o,e} vocalization[6] (25e,f). Their corresponding nominal melody is still {i,u}, not *{o,u}. Thus, even the form of the QiTuL noun is not influenced by that of the verb.

25) QiTuL is not derived from QiTeL[7]

	Verb	*Participle*		*Action noun*	
a.	miten	me-maten	'moderate'	mitun	'moderation/**(economic) depression**'
b.	cimek	me-camek	'shrink'	cimuk	'shrinking/**raisin**'
c.	-	-		sikuy	'chance'
d.	-	-		biyuv	'gutter'
e.	**ro**ken	me-**ro**ken	'empty'	**ri**kun	'emptying' (*rokun)
f.	**po**cec	me-**fo**cec	'explode'	**pi**cuc	'explosion' (*pocuc)

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[6] That QoTeL is a subgroup of QiTeL is proven by the vowel after the participial prefix m**e**- (the epethetic MH vowel). Other verb types do not share this vowel.
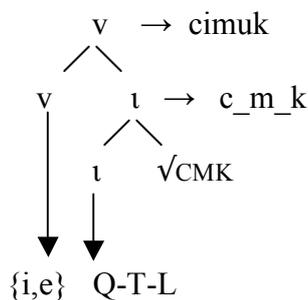[7] THIS IS THE FOOTNOTE ON me-roken, BUT I DON T REMEMBER WHAT WE DECIDED

We take the facts in (25) as sufficient proof for the falseness of a derivation QiTeL>QiTuL (or vice versa). That said, it is clear that both forms are related through a common base. The relation is thus best described as follows: first the template is specified; the category is assigned only subsequently.
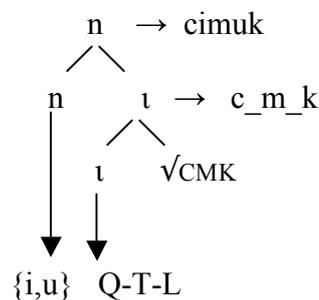
This derivation is modeled in (26). First, the root is combined with a diacritic ι (Doron 2003) that inserts a template Q_T_L, whose essential formal effect is to syllabify the root by creating vocalic positions within it.[8] However, this syllabified root is not yet vocalized; its vocalization will be determined only by the category head subsequently merged with it.

26) QiTeL and QiTuL are both derived from Q_T_L

    a. cimek 'to shrink'   b. cimuk 'shrinking/ raisin'

$$\begin{array}{ll}
v \rightarrow \text{cimuk} & n \rightarrow \text{cimuk}\\
v \quad \iota \rightarrow c\_m\_k & n \quad \iota \rightarrow c\_m\_k\\
\quad \iota \quad \sqrt{\text{CMK}} & \quad \iota \quad \sqrt{\text{CMK}}\\
\{i,e\} \quad \text{Q-T-L} & \{i,u\} \quad \text{Q-T-L}
\end{array}$$

In (26) we have used Doron's diacritic ι as the morpheme[9] that the Q_T_L template realizes. Notice, however, that the position is the same position that we have labeled LexP, namely between the root and the category-assigning head.

Having established that QiTeL and QiTuL are *not* derived from one another, we may return to diminutives. Another sub-group of QiTeL verbs is QiTLeL, i.e. verbs with a third reduplicated radical. Such verbs, which often carry a pluractional diminutive meaning (diminutives and pluractionals often coincide in verbal morphology), are shown in (27).[10] They may be related to a basic QaTaL-type verb (27a-c), or exist alongside an equi-radical QiTeL verb (27d,e). Other QiTLeL verbs may have no equivalent (27f,g). Regardless of origin, all the forms in (27) have both the verbal and the nominal versions.

27) 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'	kifcec	kifcuc	'jump around'

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[8] More specifically, the effect of this syllabification is that all the forms derived with ι will be immune to syncope of the first vocalic position. For more details, see Faust (in prep.).

[9] On the "discontinuous" nature of Semitic morphemes there is a general agreement, whereas on the notion of morpheme there is not. We use the term "morpheme" without any theoretical significance, but see Embick & Noyer (2007) for a possible interpretation of our view on morphemes.

[10] Literature on pluractionals is vast since Cusic (1981). However Tovena (2008, 2009) addresses some related issues, namely on Italian verbal diminutivization from a semantic point of view.

d. kiven	'to aim/to direct'	kivnen[11]	kivnun	'fine-tune'
e. išer	'permit (auth.)'	išrer	išrur	'allow bureaucratically'
f. -		fikšeš	fikšuš	'commit a small error'
g. -		širbev	širbuv	'carelessly insert, stick out'

We have chosen verbs of the type QiTLeL because some of them have non-diminutive equivalents in QaTaL are thus contrastable with those. But, as discussed at length in Greenberg (Forth.), QiTeL contains many other diminutive (/pluractional) verbs of the fully reduplicated sub-group Q-TQ-T:

28) Diminutives in Q-TQ-T

    Q-TQ-T

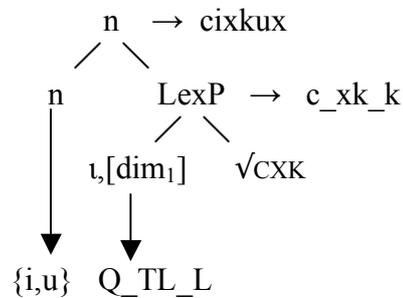|				
a.	milmel	'mutter'	mila	'word'
b.	nimnem	'doze'	nam	'sleep'
c.	rixreax	'sniff'	reax	'odor'
d.	pitpet	'babble'		

Now consider the tree representation for a QiTLeL diminutive. We now have one other morpheme to realize before we apply the category-head: the diminutive morpheme. This morpheme is called [dim$_1$] in (29); together with ι, it assigns the root with the special sub pattern of Q-T-L, namely Q-TL-L (we name it [dim$_1$] in order to distinguish it from the one realized as Q-TQ-T). In this example, we regroup both ι and [dim$_1$] under the same label, LexP.

29) *cixkek* and *cixkuk* 'giggle'

a. cixkek   'to giggle'   b. cixkuk   'a giggle'

```
        v  → cixkek                            n  → cixkux
       ╱ ╲                                    ╱ ╲
    v     LexP → c_xk_k                     n     LexP → c_xk_k
    │    ╱ ╲                                │    ╱ ╲
    │  ι,[dim₁]  √CXK                       │  ι,[dim₁]  √CXK
    ↓        ↓                              ↓        ↓
  {i,e}  Q_TL_L                          {i,u}  Q_TL_L
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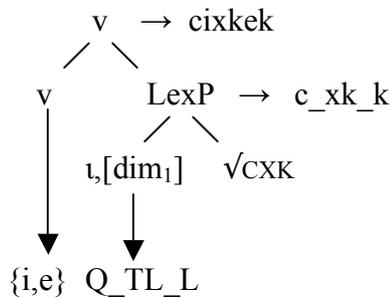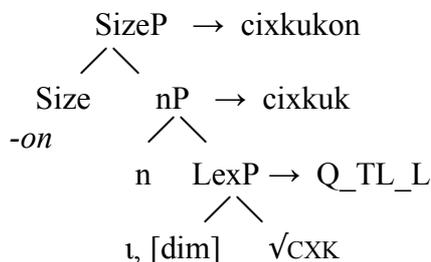
In (29) we have what our proposal predicted: a diminutive devoid of category, which can serve as the basis for items of more than one category. The same structures, with a different diminutive morpheme, will yield the pairs like *milmel* 'to mutter' - *milmul* 'the action of muttering'.

Before we move on, recall that Modern Hebrew also had a concatenative diminutive *on*, which we suggested was exclusively SizeP material. The noun *cixkuk*, but not the verb *cixkek*, should be able to appear *on*. This is indeed the case: *cixkukon* is presented in (30); the suffix *on* is never found on any verbal form.

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[11] Hagit Borer (p.c.) suggests that this verb is derived from *kavénet* 'to aim'. This suggestion is incompatible with the strong tendency of denominal verbs to preserve the prosody of the base (Bat El 1994); if anything is derived from *kavénet*, it's *kiven*.

30) *cixkukon* 'a small giggle'

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        SizeP   →  cixkukon
         ╱╲
   Size      nP  →  cixkuk
   -on          ╱╲
           n    LexP →  Q_TL_L
                 ╱╲
            ι, [dim]   √CXK
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Modern Hebrew, if so, exemplifies the lack of category in LexP. This, of course, should be demonstrable in other languages too.

Consider the examples from Italian in (31). There is clearly a root √*fischi* in Italian with the approximate denotation of 'whistle'. Two nouns may be derived from it: one with a simple class marker *o* (31a) and the other with the same class marker preceded by an exponent *ett*, already familiar for its diminutive meaning (31b). Both nouns have parallel verbs (31c,d). In the case of *fischio-fischiare*, it is hard to tell whether there is a derivational relation or not between the two. Nothing, in truth, indicates that there is one, and the relation might very well be one of a shared base, as we saw above for Modern Hebrew. The case of *fischietto-fischiettare* is clearer: the semantic looseness of the verbs with respect to the noun makes a derivational view less adequate.
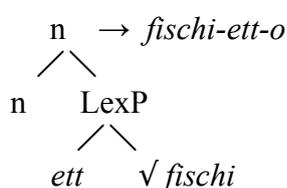
31) LexP in Italian is category-less in Italian

  a. *fischi-o*   c. *fischi-are*
     whistle.sg.m   whistle-infinitive
     'whistle (the action)'   'to whistle'

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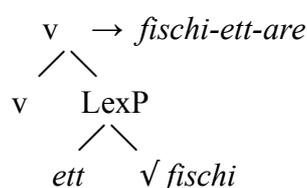   (not necessarily with a *fischietto*)'

The relevant tree diagrams are in (32). In both *fischi-ett-o* and *fischi-ett-are*, the exponent *ett* occupies a low position, next to the root. As we saw for Modern Hebrew, this position has no category and is oblivious to the category head that will be assigned to it. If it is *n* we derive *fischi-ett-o*, but if it is *v* we derive *fischi-ett-are*. Neither is derived from the other.

32) *fischi-ett-o* vs. *fischi-ett-are*

    a. *fischi-ett-o* 'whistle (object)'   b. *fischi-ett-are* 'whistle (pluract.)'

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        n  → fischi-ett-o                    v  → fischi-ett-are
       ╱＼                                  ╱＼
     n    LexP                            v    LexP
          ╱＼                                  ╱＼
       ett   √ fischi                       ett   √ fischi
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To conclude this section, we have seen that templatic diminutives and other low morphemes[12] occupy a position close to the root, which we call LexP. This position is lower than the category-assigning head, and thus not marked for category.[13] Still, some exponents, like Modern Hebrew *on*, are categorically-challenged, and appear only on nouns. This division is expected if diminutives can occupy two positions: a pre-categorial, derivational one and a post-categorial, inflectional one.

Prediction #4: The two types of diminutives are independent

Under the assumption that languages only select a subset of the features of Universal Grammar, SizeP (i.e. productive diminutive inflection) may not exist in some languages. That said, if the positions SizeP and LexP exist independently of one another, such languages may still allow for a derivational diminutive. This situation is found in English, for example. It is well known that English only contains some sporadic diminutives, such as *napkin* and *pumpkin*. Similar examples can be found in French and Egyptian Arabic. Both are languages without a productive diminutive, but some remains of the diminutive can be found in derivations. This is illustrated in (33)-(34) for French and in (35)-(36) for Egyptian Arabic, in which the diminutive is realized by means of non-concatenative mophology.

33) *fill-ette*   [French]
    girl.DIM$_{LEX}$
    'young girl'

34) *livr-et*
    book- DIM$_{LEX}$
    'small notebook'

35) *bint*   [Egyptian Ar.]
    'girl'

36) *bannuuta*
    girl-DIM$_{SIZE}$
    'young girl' (template: QaTTuuL)

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[12] Faust & Hever (2009) argue for a similarly low position for the Modern Hebrew agentive –*an*.
[13] Our proposal avoids diacritics on roots (cf. Embick & Halle 2005) along with Acquaviva's (2008) idea that L-nodes select for types of root.

We can conclude that the derivational diminutive can exist in a given language, independently from the inflectional one. The question immediately arises if the opposite holds as well. Do some languages have an inflectional diminutive without having a derivational one? It is hard to provide this question with an answer from a methodological point of view: it is (nearly) impossible to prove that a given lexicon contains not a single example of a non-compositional diminutive. However, if such a case may exist, an educated guess would be to look for it in a Creole language, in which the inflectional diminutive has only recently developed. In Mauritian Creole, for example, the inflectional diminutive is a new formation from the adjective 'small'. The adjective is illustrated in (37), the newly formed diminutive in (38).

37) *tipti   sez*
    small   chair
    'small chair'

38) *ti-sez*
    chair.DIM
    'small chair'

It may well be the case that such languages with limited, recent morphology show the first reflexes of an inflectional diminutive, while no derivational diminutive exists as of yet.

Summing up, the inflectional and derivational diminutives may exist independently of one another. It is clear that the derivational diminutive occurs in languages in which no productive inflectional diminutive exists. The other side of the coin is harder to prove. We suggested that the first occurrences of the inflectional diminutive in Creole languages may not have derivational counterparts.

Theoretical discussion

Several attempts to classify diminutives and account for their distribution and effects have been made. We would like to contrast our proposal with three of these.
Stump (1993) treats diminutive morphology as a particular case of Evaluative Morphology, which also includes augmentatives and other types of suffixes with a relatively slight semantic contribution that seems to require a base. The main characteristic of Evaluative Morphology is that it does not change the category of the item it attaches to. The author does not discuss the form of the affix, and the relation of form to compositionality of meaning or structure. Moreover, the general theoretical framework of that paper does not admit the existence of roots, so the structural distinction cannot be expressed. In other words, the predictions above cannot be made by Stump.

Bachrach & Wagner (2007) do take a structural stand, using syntactic structures to account for the distribution of the diminutive marker in Brasilian Portugese. In this language, two types of diminutives appear that have slightly different semantic and formal effects. Like Stump, the authors propose that diminutives are in essence adjuncts, and derive the different effects through adjunction at two different levels. Although their framework does allow for it, Bachrach and Wagner do not treat - or recognize - diminutive morphology under the category head, and touch only on what we have called SizeP.

Wiltchko & Steriopolo (2007) is an exception to that trend. In this paper, a four-way distinction is made: diminutives are classified according to whether they are heads or modifiers (i.e. adjuncts) and according to the level they attach to, which is either the root or a category head. Admittedly, this latter distinction is very similar to the one we have been exploring. The indications that certain diminutives (in the Halkomelem and Russian languages) attach to the root and not to a category head are also reminiscent of those we have seen above: the same diminutive exponent is found on nouns, adjectives and verbs alike. The authors also show that this state-of-affairs has an effect on the order of affixed, with some diminutives appearing below derivational morphology.

The similarity between the present paper and Wiltchko & Steriopolo (2007), not to be trifled, stops there. These authors do not make a claim about syntactic structure in general, nor do they treat any effect of their head vs. modifier distinction besides gender switch, which they designate as an indicator of head status. The purpose of the head vs. modifier distinction is unclear to us. If the only indictor for head status is gender change, then it is unclear what this distinction is relevant for in the case of DIM+Root, since the latter obviously has no gender.

Furthermore, we do not see the purpose of distinguishing between heads and modifiers above the category head if it is only to explain gender-change. Our proposal, which does not make this distinction, suggests that *anything* in the functional domain above the category head only modifies it. Nothing states that gender switch may not be an effect of functional heads, or that gender inheritance is a sure sign of adjunct/modifier status.[14] Dutch diminutives, for example, are completely compositional *and* change the gender of the noun they attach to. Italian diminutives completely overwrite its inflectional class (=theme vowel) information (the diminutive of *nave* is *navina*, not **navine*).[15] Pending further evidence, we do not see a justification for the head-modifier distinction: in our account, anything below the root modifies the root, and anything above the category head modifies this head.

Having discussed three recent accounts, we would like to point out a specific aspect of our proposal regarding the relation between syntactic information and exponence. As we have seen for Italian, *-in-* may be the realization of either SizeP (*nasino* 'small nose') or LexP (*panino* 'sandwich (lit. small bread)'). We would like to use this example to clarify the status of LexP and show that in practice, our view completely divorces form and syntactic structure.
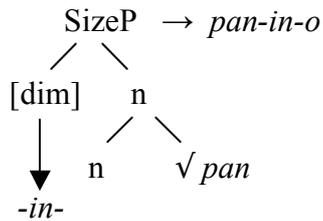
Consider how such a non-compositional noun comes into being. First, we have a compositional diminutive or affective noun (a). This combination become grammaticalized, with *-in-* losing its diminutive/affective meaning, and fusing with the root. A sort of inversion of the hierarchical structure SizeP>nP occurs; still, this inversion concerns of course only the *exponent* of the functional head, which is demoted below nP:
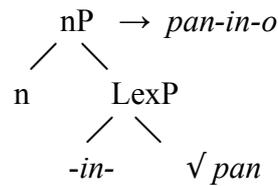39) compositional vs. non-compositional *pan-in-o*

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[14] Moreover, the attested cases are more precisely described as gender neutralization, rather than gender switch. The diminutive morpheme either has a gender of its own or it inherits that of the noun. But on no occasion is the gender of the diminutive really sensitive to the gender of the noun, e.g. by inverting genders or making masculine neuter and feminine masculine.
[15] But Italian diminutives can change the gender of the basic noun, i.e. *donna* 'woman.F' and *donnone* 'ugly woman.M'. Not surprisingly, these are always non compositional and therefore they seem to be exponent of Lex°.

a. Pre-grammaticalized	b. Grammaticalized
pan-in-o 'small bread'	*pan-in-o* 'sandwich'

```
        SizeP  → pan-in-o              nP  → pan-in-o
        ╱  ╲                           ╱  ╲
     [dim]   n                      n      LexP
       │    ╱ ╲                           ╱  ╲
       ↓   n   √ pan                   -in-    √ pan
      -in-
```

The exponent *-in-* is thus by no means only a realization of a feature in SizeP; it is a sign similar to the root, in that it does not have a category or a single fixed position, and is independent of the structure that surrounds it. Lowenstamm (This volume) thus accords such morphemes with the status of a bound *root*. Our analysis conforms with such a view.[16]

We have also said above that LexP is a position for root augmentation, because it elaborates on a root without yet categorizing it. This means that other morphemes may also be represented as hosted by LexP. We have argued for this to be the case in Modern Hebrew, where a diacritic ι was also included under the label LexP. We conclude this section of the paper with such an example from Italian:

40) Derivational LexP

   a. *bors-a*   [Italian]
      handbag-f.sg.
      'handbag'

   b. *bors-eggi-o*
      handbag-Lex°-m.sg.
      'the act of mugging'

   c. *bors-eggi-are*
      handbag-Lex°-infinitive
      'to mug (not just a *borsa*)'

Morphological material (in the example above: *-eggi-*) which clearly is neither the expression of inflection, nor of evaluative morphology (in Stump's terms), is better analyzed as the expression of Lex° therefore it is merged directly to the root below the categorical head. This is demonstrated by the grammaticality of both *borseggio* N (40b) and *borseggiare* V (40c).

   If this is the case, however, examples such as the one in (40) would lead us to the problem of the status of roots in piece-based morphological theories. Further research is needed in such a direction.

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[16] However, we want to clearly point out that our diminutive morphemes can appear either in Size°, in Lex° or in both positions: that is the same morpheme can be used in more than one type. This is not the case in Lowenstamm's theory, where a morpheme is either always bound (lexical root, derivational bound morphemes, etc..) or always free (inflectional morphemes).

Conclusion

Stemming from Italian data, we proposed that two different projections (Lex° and Size°) can be postulated to be the expression of what has always been called "diminutive" (or in a larger extent "evaluative") morphology.

We then showed that the four predictions which followed our proposal have all been borne out, in particular by the comparison between Modern Hebrew and Italian data.

The paper concludes on a theoretical discussion which concentrates on the status of what we have been calling Lex°. Our conclusion is that this is an independent projection which is merged to the root below the categorial node. The last example (40) crucially shows that this is not to be understood only for diminutive morphology.

References

Acquaviva, P. (2008) "Roots and lexicality in Distributed Morphology". Paper presented at Fifth York-Essex Morphology Meeting, York, February, 2008.

Bachrach, A. & M. Wagner. (2007) "Syntactically Driven Cyclicity vs. Output-Output Correspondence: The Case of Adjunction in Diminutive Morphology". U. Penn Working Papers in Linguistics, 10, 1.

Borer, H. (2005) "In Name Only." OUP, Oxford.

Cusic D. (1981) *Verbal plurality and aspect*, Ph.D. thesis, University of Stanford.

De Belder, M. (2008) "Size matters: Towards a syntactic decomposition of countability." Abner, Natasha & Jason Bishop (eds.) *Proceedings of the 27th West Coast Conference on Formal Linguistics.* Cascadilla Proceedings Project, Somerville.

Doron, E. (2003) "Agency and Voice: the Semantics of Semitic template". *Natural Language Semantics* 11. 1-67.

Embick, D. & M. Halle (2005) "On the status of *stems* in Morphological Theory". Geerts T. & H. Jacobs (eds.), *Proceedings of Going Romance 2003.* John Benjamins, Amsterdam, pp. 37-62.

Embick & Noyer (2007)

Faust, N. (In prep.) *Modern Hebrew nominal morphosyntax*. PhD Dissertation, University Paris VII.

Faust, N. & Y. Hever (forth.) "Empirical and Theoritical Arguments for the Discontinuous Root in Semitic Languages". to appear in Brill's Annual for Afroasiatic Linguistics.

Faust, N. & N. Lampitelli (2009) "How vowels point to syntactic structure: roots and skeletons in Hebrew and Italian" Submitted for publication in *ConSOLE XVII Proceedings*.

Goldenberg, G. (1994) "Principles of Semitic word-structure". Goldenberg, G.& Raz, S (eds.), *Semitic and Cushitic studies*. Harrassowitz, Wiesbaden, pp. 29-64.

Greenberg, Y. (forth.) "Event Internal Pluractionality in Modern Hebrew: A Semantic Analysis of One Verbal Reduplication Pattern", to appear in *Brill's Annual of Afroassiatic Languages and Linguistics*, volume 2.

Harley, H. & R. Noyer (1999) "State-of-the-Article." *GLOT* 4.4, pp.3-9.

Lampitelli, N. (2008) "Nounness, gender, class and syntactic structures in Italian nouns". In *Selected Proceedings of Going Romance 2008*, Amsterdam, Benjamins, in press.

Lowenstamm, J. (This volume). "On *n*, nP and √". Hartmann J., V. Hegedus & H. van Riemsdjik (eds.), *The Sounds of Silence: Empty Elements in Syntax and Phonology*. Elsevier, Amsterdam, pp. 105-144.

Marantz, A. (1997) "No Escape from Syntax: Don't Try Morphological Analysis in the Privacy of our Lexicon". In *Proceeding of the 21st Annual Penn Linguistics Colloquium*, ed. by A. Dimitriadis, L. Siegel, C. Surek-Clark, and A. Williams, 221-225.

Marantz, A. (2001) "Words and things" Ms. MIT.

Marvin, Tatjana (2002) *Topics in the stress and syntax of words*. Cambridge (MA): Distributed by MIT Working Papers in Linguistics.

Napoli, D. J. & B. Reynolds (1995) "Evaluative Affixes in Italian". *Yearbook of Morphology 1994*. Kluwer, the Netherlands, pp. 151-178

Stump, G. (1993) "How peculiar is evaluative morphology?". *Journal of Linguistics 29*, 1-36.

Tovena L. M. (2008) "Pluractional verbs that grammaticise number through the part-of relation". In *Proceedings of Going Romance 2008*, Amsterdam, Benjamins, in press.

Tovena L. M. (2009) "Issues in the formation of verbs by evaluative suffixation".

Wiltschko, M. (2006) "Why should diminutives count?" In: Broekhuis, H., N. Corver, R. Huijbregts, U. Kleinhenz & J. Koster (eds.) Organizing Grammar. Linguistic Studies in Honor of Henk van Riemsdijk. Berlin: Walter de Gruyter: 669-679.

Wiltschko, M. & O. Steriopolo (2007) Parameters of variation in the syntax of diminutives. In: Radisic, M. (ed.) Proceedings of the 2007 Canadian Linguistics Association Annual Conference.