Diminutive affixes in the Number domain: A syntactic variation*

Olga Steriopolo

ABSTRACT This article investigates diminutive affixes in four unrelated languages: Maale, Walman, Kolyma Yukaghir, and Itelmen, with additional discussion of German, Breton, and Yiddish. The data show variation in the syntax of diminutives. Diminutives differ cross-linguistically in the manner and place of attachment in a syntactic tree. In terms of the manner of attachment, some diminutive affixes are shown to behave as syntactic heads, while others show a behaviour characteristic of syntactic modifiers. In terms of the place of attachment, some affixes attach in the number position, while others attach above it. This article contributes to a discussion of form-function correspondence between syntactic categories (Wiltschko, in press). It shows that although diminutives across languages have the same meaning (or function), they significantly differ in their syntactic structures (or form). Thus, there is no 1:1 correspondence between form and function of diminutives in terms of the attachment and ordering of morphemes.

Keywords: diminutive affixes, syntactic variation, morphosyntax, Distributed Morphology

1 Introduction

It has been argued that diminutives across languages are associated with universal semantics (Jurafsky, 1996). However, their distributional properties differ from language to language. For example, diminutive affixes differ cross-linguistically in their position with respect to a number morpheme. In Kolyma-Yukaghir, a diminutive affix attaches after plural (1), while in Russian, it attaches before plural (2).

(1) Kolyma-Yukaghir
   a. uørpe-pul
      ‘children’
   b. uørpe-p-tie
      ‘little children’

(2) Russian
   a. d’et’-i
      ‘children’
   b. d’et-k’-i
      ‘little children’

(Maslova, 2003, pp. 74, 129)

Diminutives also differ with respect to the number agreement they can trigger. In Walman, a diminutive can only trigger singular agreement (3), while the German diminutives can trigger both singular and plural agreements (4).

(3) Walman
   a. d’et’-i
      ‘children’
   b. d’et-k’-i
      ‘little children’

(4) German
   a. d’et’-i
      ‘children’
   b. d’et-k’-i
      ‘little children’

* Many thanks to the anonymous reviewers for their valuable comments. This research was supported by the Social Sciences and Humanities Research Council of Canada.

Questions and Answers in Linguistics, volume 1, number 2, published online 28 December 2013, pp. 33-56
© 2013 Center for General and Comparative Linguistics at the University of Wroclaw, Poland
 DIMINUTIVE AFFIXES IN THE NUMBER DOMAIN: A SYNTACTIC VARIATION

(3)  
Walman  
   a. Ngolu pa l-o lapo-l.  
      cassowary that 3sg.dim-be large-3sg.dim  
      ‘That baby cassowary is large.’  
   b. Ngolu pa y-o lapo-y.  
      cassowary that 3pl-be large-3pl  
      ‘Those cassowaries are large.’  
   c. *Ngolu pa l-o lapo-y.  
      cassowary that 3sg.dim-be large-3pl  
      ‘Those baby cassowaries are large.’  
   d. *Ngolu pa y-o lapo-l.  
      cassowary that 3pl-be large-3sg.dim  
      ‘Those baby cassowaries are large.’  

(Brown and Dryer, in press, p. 9, and personal communication)

(4)  
German  
   a. Ein Tisch-chen/-lein ist im Zimmer.  
      a table-dim/dim is in.the room  
      ‘A little table is in the room.’  
   b. Zwei Tisch-chen/-lein sind im Zimmer.  
      two table-dim/dim are in.the room  
      ‘Two little tables are in the room.’

(Kilu von Prince, personal communication)

In addition, a diminutive morpheme is obligatorily used in some languages, as in Maale (5), while it is optional in Itelmen (6).

(5)  
Maale  
   a. táání dák-k-ó dárz-ómma zag-éne.  
      1sg.nom little-def.abs elephant-dim.abs see-verb  
      ‘I saw the little elephant.’  
   b. *táání dák-k-ó dársi zag-éne.  
      1sg.nom little-def.abs elephant.indef see-verb  
      ‘I saw the little elephant.’

(Amha, 2001, p. 71)

(6)  
Itelmen  
   a. Kǝmma qa?t massu-čχ t’-insxt-çen,  
      pers.pron.1sg. already bear-dim 1sg.-give.birth-3sg-pt terrible-adj Kutx-vocative  
      ‘Kutx, I gave birth to a little bear, it is terrible.’

   b. Qitkine-čχ k’-ishtte-knen,  
      brother-dim inf.iii-grow-inf.iii big bear inf.iii-become-inf.iii  
      ‘The little brother grew up and became a big bear.’

(Georg and Volodin, 1999, p. 109)

The following questions arise: Why do diminutives across languages differ in their distributional properties? And how do we account for these differences?
2 Previous research

In my previous research on form and function of expressive suffixes in Russian (Steriopolo, 2009), I showed that there are two semantic types of Russian expressive suffixes: attitude and size suffixes. Attitude suffixes express attitudes and emotions, while size suffixes refer to the size of the referent, but can also express attitudes and emotions. For example, in (7), the attitude suffixes -ul’, -us’, and -un’ express affection toward a grandfather; they do not mean that the grandfather is small. All Russian examples are my own, from my previous work (Steriopolo, 2009).

(7) a. d’ed
grandfather.masc.nom.sg
‘grandfather’

b. d’ed-ul’/-us’/-un’-a
grandfather-dim /-dim /-dim-masc.nom.sg
‘grandfather (affection)’

In (8), the size suffix -ec refers to the size of the referent (‘little brother’), but it also shows an affectionate attitude toward the brother.

(8) a. brat
brother.masc.nom.sg
‘brother’

b. brat’-ec
brother-dim.masc.nom.sg
‘little brother (affection)’

The formal properties of the two different semantic types of suffixes (attitude vs. size) vary along two dimensions: (i) how they attach (as a syntactic head or a modifier), and (ii) where they attach in a syntactic tree (to √roots or to categories).

I argued that attitude suffixes are syntactic heads (9a) because they can change the syntactic category or grammatical features of the base (e.g., gender and/or a noun class). In contrast, size suffixes are syntactic modifiers (9b). They do not change the category or grammatical features of the base.

(9) a. HEADS

b. MODIFIERS

For example, in (10b), the attitude suffix -aš changes the syntactic category from a verb to a noun, which a size suffix cannot do (10c).

(10) a. ras-t’er’-á-t’
verbal.pref-lose-thematic-infin
‘to lose’

b. ras-t’er’-áš-a
verbal.pref-lose-attitude-nom.sg
‘a person who loses things (affectionate)’

c. *ras-t’er’-(e)c/-k(a)
verbal.pref-lose-size

A further difference in their syntactic structures is that attitude suffixes can merge either with √roots (11a) or with categories (11b).
In the data below, the attitude suffix -ul’ can attach either to a √ root (kras-), as in (12b), or to an already nominalized √ root (kras-ot), as in (12c). In the following diagrams, I propose that the suffix merges either with a √ root (13a), or with a nominal category (13b).

In contrast, size suffixes are noun modifiers that can only merge with a noun category (14).

The syntactic types of Russian expressive suffixes are presented in Table 1. Out of the 30 expressive suffixes investigated in my previous work (Steriopolo, 2009), 22 are attitude suffixes that are syntactic heads and eight are size suffixes that are syntactic modifiers. The syntactic heads can merge with both √ roots and with categories, while the syntactic modifiers only merge with a noun category. Notice that there is a gap in Russian (an empty cell in Table 1) – there are no syntactic modifiers that merge with √ roots. This gap is filled in Halkomelem Salish, an endangered indigenous language of British Columbia, Canada. Wiltschko (2006) argued that Halkomelem reduplicative prefixes are √ root modifiers.
To summarize, the Russian expressive suffixes show a variety of syntactic structures both below and above the word level (attaching to √roots and to categories adjacent to √roots). The question arises as to whether this is also true cross-linguistically.

The next question concerns the syntactic domain. If this analysis is correct, we would expect to find syntactic heads and syntactic modifiers merging with the number category. The current research shows that such structures are attested both cross-linguistically and within a single language.

(15)

```
#  #  #
?  #  n  n
?  n  n
    Russian
      √root
         Russian
```

3 Theoretical framework

For the purpose of this research, I assume the Principles and Parameters (P&P) framework, which contrasts with descriptivist frameworks focusing on a particular language of investigation. Such frameworks view categorization in terms of inflection vs. derivation, but this has been proven problematic with respect to the behaviour of diminutive affixes (Dressler and Barbaresi, 1994; Manova, 2004; Scalise, 1984, 1988; Vinogradov, 1972). It has been shown that the behaviour of expressives is not wholly inflectional or derivational. In contrast, the P&P framework regards inflection and derivation not as primitives, but as derived notions, and thus, this framework can better account for the behaviour of expressives.

I assume a model of grammar in which syntax and morphology are analyzed as a single engine, as in the framework of Distributed Morphology (DM) (Bonet, 1991; Halle and Marantz, 1993; Halle, 1997; Marantz, 1997; Harley and Noyer, 1999, 2003; Marantz, 2001; Bobaljik, 2002; Marvin, 2002; Arad, 2003; Embick and Noyer, 2005; Müller, 2005; Halle and Matushansky, 2006, among others).

The central claim of DM is that there is no unified Lexicon. The functions of the Lexicon are distributed among other components of the grammar. DM adopts the basic organization of a Principles-and-Parameters grammar, adding the level of Morphological Structure (MS) as the interface between syntax and phonology (16). It separates the terminal elements (or
morphemes) involved in the syntax from the phonological realization of these elements. The morphemes that comprise words are empty of phonological information until after the syntactic component has finished operating them. The morphemes are supplied with phonological features only after Vocabulary insertion at MS.

(16)  
\[ DS (D-Structure) \]
| SS (S-Structure) |
| LF (Logical Form) MS (Morphological Structure) |
| PF (Phonological Form) |

One particular assumption of DM I adopt is that relationships between morphemes are structurally identical to relationships between words. Thus, words are built by the same principles as phrases and sentences – by syntactic principles.

Another DM assumption I adopt concerns the treatment of \( \sqrt{\text{roots}} \) and syntactic categories. \( \sqrt{\text{roots}} \) are language-specific combinations of sound and meaning, such as \( \sqrt{\text{break}} - \) or \( \sqrt{\text{cat}} - \) in English. \( \sqrt{\text{roots}} \) have no category per se, but can never appear “bare”: they have to be categorized by combining with a category-defining functional head, such as the “little” \( n, a, \) or \( v \), to form nouns, adjectives, or verbs, respectively. A single \( \sqrt{\text{root}} \) can be assigned to more than one category, for example: the \( \text{break} \) (noun) \( \text{in the glass} \) and \( \text{John breaks} \) (verb) \( \text{the glass} \). The category-defining functional heads are determined either by phonologically realized or zero affixes, as shown in (17).

(17)  
\[ n \]
| \( n \sqrt{\text{cat}} - \Omega \) |

Under the assumption that category labels are independent of \( \sqrt{\text{roots}} \), we expect two different sites for building words in syntax: (i) words are created from \( \sqrt{\text{roots}} \), and (ii) words are created from already categorized \( \sqrt{\text{roots}} \) (i.e., \( n, a, \) and \( v \) categories). Thus, a category head \( X \) may merge either with a \( \sqrt{\text{root}} \) (18a), or with a pre-existing category (18b).

(18) a.  
\[ X \]
| \( X \sqrt{\text{root}} \) |

b.  
\[ X \]
| \( X n/a/v \)
| \( n/a/v \sqrt{\text{root}} \) |

The distinction between word formation from \( \sqrt{\text{roots}} \) and word formation from other words is a universal distinction, but its manifestations may differ from language to language. For example, in English, there are suffixes that can attach both to a \( \sqrt{\text{root}} \) and to a category. The nominalizing suffix -or is one such example: \( \text{don-or, don-at-or} \) (derived from the verb \( \text{donate} \)), as shown in (19).
(19) a. n ‘don-or’  
\[ \text{n} \sqrt{\text{don-}} \]
\[ -\text{or} \]

b. n ‘don-at-or’
\[ \text{n} \sqrt{\text{don-}} \]
\[ -\text{or} \]
\[ \text{v} \sqrt{\text{ate}} \]

The current research provides additional empirical support for a distinction between word formation from √roots and word formation from categories.

4 Analysis

I provide an analysis of syntactic heads (section 4.1) and syntactic modifiers (section 4.2) that merge in the Number domain. The data from four unrelated languages show that diminutives differ cross-linguistically in their manner (heads vs. modifiers) and place of attachment in a syntactic tree.

For the manner of attachment, the following diagnostics will be used (Table 2).

<table>
<thead>
<tr>
<th>Diagnostics</th>
<th>Syntactic heads</th>
<th>Syntactic modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can they change the syntactic category or grammatical features of the base?</td>
<td>✔️</td>
<td>*</td>
</tr>
<tr>
<td>2. Do they trigger agreement?</td>
<td>✔️</td>
<td>*</td>
</tr>
<tr>
<td>3. Are they obligatorily used?</td>
<td>✔️</td>
<td>*</td>
</tr>
</tbody>
</table>

The distinction between heads and modifiers lies in the projection of category features (Schütze, 1995; Bierwisch, 2003; Bachrach and Wagner, 2007). Heads project; thus, they determine a syntactic category and grammatical features of the output (e.g., grammatical gender, noun class), as shown in (20a). In contrast, modifiers do not project; thus, they do not determine a syntactic category or grammatical features of the output, as shown in (20b).

(20) a. HEADS
\[ X \]
\[ \text{dim} \]
\[ \text{y} \]

b. MODIFIERS
\[ X \]
\[ \text{dim} \]
\[ \text{y} \]

In addition, syntactic heads trigger grammatical agreement and are obligatorily used, while syntactic modifiers do not trigger agreement and are optionally used.

For the place of attachment, the co-occurrence and the surface order of morphemes will be investigated. With respect to the Number category, the following question will be asked: Does a diminutive morpheme attach inside or outside of a plural morpheme?
4.1 Syntactic heads

This section presents an analysis of languages Maale and Walman, with additional discussion of German. I argue that both Maale and Walman use the following structure (21), where a diminutive morpheme is a syntactic head merging with Number.

(21)  
#  
#  
dim  
n  

Maale is a North Omotic language spoken in Southwestern Ethiopia. The language is used for all social, religious, and administrative purposes. Despite all this, it is one of the least studied languages of Ethiopia (Amha, 2001, p. 3). The Maale data are from The Maale Language by Amha (2001).

Walman (or Valman) is a language of the Torricelli family spoken on the north coast of Papua New Guinea. The language status is vigorous (The Ethnologue 2013). The Walman data are from Diminutive as an Inflectional Category in Walman by Brown and Dryer (in press).

4.1.1 The manner of attachment (heads vs. modifiers)

In both Maale and Walman, a diminutive affix is always singular in meaning. In Maale the diminutive suffix is -ómma (22b) and the plural suffix -óntsi (22c). In (22) and (23) they both attach to the base dárz- ‘elephant’. Just as the plural suffix is always plural in meaning, the diminutive suffix is always singular and can only refer to a single referent, like in (23).

(22) Maale  
\[ \begin{align*}  
a. & \text{ dárş} & a. & \text{ dárz-ómma} 
   \text{ elephant} & \text{ elephant-dim.def.abs} 
   \text{ ‘an elephant’} & \text{ ‘the little elephant’} 
\end{align*} \]  
c. dárz-óntsi  
\[ \text{ elephant-pl.def.abs} \]  
\[ \text{ ‘the elephants} \]  
\[ (\text{Amha, 2001, pp. 44, 71, and personal communication}) \]

(23) a. táání dákk-ó dárz-ómma zag-éne.  
\[ \text{ 1sg.nom little-def.abs elephant-dim.def.abs see-verb} \]  
\[ \text{ ‘I saw the little (dim) elephant (a single elephant).’} \]  
b. táání dákk-ó dárz-óntsi zag-éne.  
\[ \text{ 1sg.nom little-def.abs elephant-pl.def.abs see-verb} \]  
\[ \text{ ‘I saw the little elephants (multiple elephants).’} \]  
\[ (\text{Amha, 2001, p. 71, and personal communication}) \]

I propose that the diminutive morpheme in Maale is specified for the grammatical feature [–Plural] and can change Number from [+Plural] to [–Plural].

The data in (23) also show that the diminutive suffix -ómma triggers a definite absolutive agreement with the adjective dákk-ó ‘little’.
In addition, the suffix is obligatory when used with a definite meaning. Thus, the word dársi ‘elephant’ without a diminutive suffix can only mean an indefinite elephant. In the context of (23), when referring to a definite elephant, neither the word dársi ‘elephant’, nor the base dárz- is grammatical without a diminutive suffix (24a). Another option is to use a masculine or feminine gender suffixes that also have definite meanings (24b, c). With this respect, the distribution of the diminutive morpheme is identical to that of the gender morphemes.

(24) a. *táání dák-k-ó dárz-dársi zag-éne.
    1sg.nom little-def.abs elephant see-verb
    ‘I saw the little elephant.’

    b. táání dák-k-ó dárz-átsi zag-éne.
    1sg.nom little-def.abs elephant-masc.def.abs see-verb
    ‘I saw the little male elephant.’

    c. táání dák-k-ó dárz-áll-ó zag-éne.
    1sg.nom little-def.abs elephant-fem-def.abs see-verb
    ‘I saw the little female elephant.’

(Amha, 2001, p. 44 and personal communication)

Unlike the diminutive in Maale, a Walman diminutive does not appear on nouns. It appears on verbs and adjectives that agree with nouns. The following data show a diminutive affix appearing on a verb (25) and an adjective (26). The diminutive morpheme is -l-, whether is it used as a prefix (25a) or a suffix (25b, 26).

(25) Walman

    a. Pelen l-aykiri
dog 3sg.dim-bark
    ‘The puppy is barking.’

    b. Kum m-etere-l
dog 1sg 1sg.subj-see-3sg.dim.obj dog
    ‘I saw a puppy.’

(Brown and Dryer, in press, p. 2)

(26) Pelen (l-o) woyue-l
dog (3sg.dim-be) naughty-3sg.dim
    ‘The puppy is naughty.’

(Brown and Dryer, in press, p. 4)

Similarly to Maale, the diminutive in Walman is always singular in meaning and cannot be used to refer to multiple referents. In (27), the diminutive prefix l- means that just one puppy is barking. I propose that the diminutive prefix l- is specified for the feature [-Plural], while the plural prefix y- is specified for [+Plural].

(27) a. Pelen l-aykiri
dog 3sg.dim-bark
    ‘The puppy is barking (a single puppy).’

    b. Pelen y-aykiri
dog 3pl-bark
    ‘The dogs are barking (multiple dogs).’

(Brown and Dryer, in press, p. 2)

The diminutive can trigger either diminutive or gender agreement. In (28a), the diminutive prefix l- triggers diminutive agreement, while in (28b), it triggers masculine agreement.

(28) a. Ngolu pa l-o lapo-l.
cassowary that 3sg.dim-be large-3sg.dim
    ‘That baby cassowary is large.’
b. Ngolu pa l-o lapo-n.
cassowary that 3sg.dim-be large-3sg.masc
‘That baby cassowary (masc) is large.’

(Brown and Dryer, in press, p. 9, and personal communication)

Similarly to Maale, the diminutive in Walman is obligatorily used. Thus, without a diminutive morpheme, the data from (28) is ungrammatical, see (29a). Another option would be to use a gender marker in place of the diminutive. In that case, the morphological slot is filled and the data are grammatical, as shown in (29b).

cassowary that -be large-3sg.masc
‘That cassowary (masc) is large.’

b. Ngolu pa n-o lapo-n.
cassowary that 3sg.masc-be large-3sg.masc
‘That cassowary (masc) is large.’

(Brown and Dryer, in press, p. 9, and personal communication)

To summarize, in two unrelated languages, Maale and Walman, the distribution of the diminutive morphemes is very similar. They are both specified for [–Plural], trigger grammatical agreement and are obligatorily used. As the diagnostics in Table 3 illustrate, they are syntactic heads with the structure illustrated in (30).

Table 3: Diagnostics for Maale and Walman

<table>
<thead>
<tr>
<th>Diagnostics</th>
<th>Syntactic heads</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can they change the syntactic category or grammatical features of the base?</td>
<td>✔</td>
</tr>
<tr>
<td>2. Do they trigger an agreement?</td>
<td>✔</td>
</tr>
<tr>
<td>3. Are they obligatorily used?</td>
<td>✔</td>
</tr>
</tbody>
</table>

(30) Diminutives in Maale and Walman

\[
\begin{array}{c}
X \\
\text{dim} \\
[-\text{Plural}] \\
Y
\end{array}
\]

4.1.2 The place of attachment

In both Maale and Walman, a diminutive morpheme is in opposition to a plural morpheme. These morphemes cannot be combined or used in the same word, as shown in Maale (31) and Walman (32). Thus, it is impossible to express the meaning ‘the little elephants’ (cf. (31c, d)) or ‘the puppies are barking’ (cf. (32c, d)), using the diminutive and plural morphemes simultaneously.
Based on the data above, I propose that the diminutive and plural morphemes in Maale and Walman are generated in the same syntactic position, as shown in (33). Since a diminutive morpheme is specified for the grammatical feature [–Plural] and a plural morpheme is specified for [+Plural], they have conflicting features and cannot co-occur.

$$\text{(33)}$$

$$\begin{array}{c}
\text{dim, plural} \\
\text{[–Plural] [+Plural]} \\
\end{array}$$

An analysis of the diminutives in Maale and Walman is proposed in (34), where the diminutive and plural morphemes share the same syntactic position but are specified for the opposite number features.

$$\text{(34)}$$

a. Maale

$$\begin{array}{c}
\text{#} \\
\text{#} \\
\text{n} \\
\end{array}$$

$$\text{dim}, \text{ plural}$$

$$\text{[–Plural] [+Plural]}$$

b. Walman

$$\begin{array}{c}
\text{#} \\
\text{#} \\
\text{n} \\
\end{array}$$

$$\text{dim}, \text{ plural}$$

$$\text{[–Plural] [+Plural]}$$

A diminutive does not merge below or above Number, because the sequences, like diminutive (sg) + gender (sg) or gender (sg) + diminutive (sg) with no conflicting number features are also ungrammatical in these languages, as shown in (35) and (36). The data suggest that all three morphemes ( diminutive, gender, and plural) are generated in the same syntactic position.

If, for example, a gender and diminutive morphemes merged in different syntactic positions, the data in (d) and (e) below would be grammatical. On the other hand, a diminutive morpheme cannot be analyzed as a third gender, because it is productively used with almost
any nouns in the languages (Amha, 2001, p. 39; Brown and Dryer, in press, p. 7). Thus, diminutive and gender morphemes do not have conflicting gender features.

(35) **Maale**
   a. dárz-átsi
elephant-masc.def.abs
   ‘the male elephant’
   
b. dárz-éll-ó
elephant-fem-def.abs
   ‘the female elephant’
   
c. dárz-ómma
elephant-dim.def.abs
   ‘the little elephant’
   
d. *dárz-átsi+ómma / *dárz-ómma+átsi
elephant-masc.def.abs+dim.def.abs / elephant-fem+dim.def.abs
   ‘the little male elephant’
   
e. *dárz-éll+ómma/*dárz-ómma+éll-(ó)
elephant-masc.def.abs+dim.def.abs
   ‘the little female elephant’

(Amha, 2001, pp. 44, 71, and personal communication)

(36) **Walman**
   a. Pelen n-aykiri
dog 3sg.masc-bark
   ‘The male dog is barking.’
   
b. Pelen w-aykiri
dog 3sg.fem-bark
   ‘The female dog is barking.’
   
c. Pelen l-aykiri
dog 3sg.dim-bark
   ‘The puppy is barking.’
   
d. Pelen *l+n-aykiri/n+l-aykiri
dog 3sg.dim-3sg.masc-bark
dog 3sg.dim-3sg.fem-bark
   ‘The male puppy is barking.’
   ‘The female puppy is barking.’

(Brown and Dryer, in press, p. 2, and personal communication)

4.1.3 **A comparison with German diminutives**

Comparing the distributional properties of diminutives in Maale and Walman with those in German is interesting. Just like their equivalents in Maale and Walman, the German diminutive morphemes -chen and -lein cannot co-occur with a plural morpheme, as shown in (37c, d).

(37) a. Es gibt zwei Tisch-chench-en/-lein im Zimmer.
   there are two table-diml-dim in.the room
   ‘There are two little tables in the room.’
   
b. Es gibt zwei Tisch-e im Zimmer.
   there are two table-pl in.the room
   ‘There are two tables in the room.’
   
c. *Es gibt zwei Tisch-chench-en/-lein+e/-en/-s im Zimmer.
   there are two table-diml-dim+-pll-pll-pl in.the room
   ‘There are two little tables in the room.’
   
d. *Es gibt zwei Tisch-e/-en/-s+chenchlein im Zimmer.
   there are two table-pll-pll-pll-pll+diml in.the room
   ‘There are two little tables in the room.’

(Kilu von Prince, personal communication)
However, unlike in Maale and Walman, German diminutive nouns obligatorily trigger either singular or plural agreement. In the data in (38), the agreement is with the verb ‘to be’.

(38) a. Ein Tisch-chen/-lein ist im Zimmer. 
   
   a table-/-dim is in.the room
   ‘A little table is in the room.’

   b. Zwei Tisch-chen/-lein sind im Zimmer.
   
   two table-/-dim are in.the room
   ‘Two little tables are in the room.’

(Kilu von Prince, personal communication)

A crucial difference between Maale and Walman, on the one hand, and German, on the other hand, is that the German diminutives can trigger both singular and plural grammatical agreements, while the diminutives in Maale and Walman can only trigger singular agreement. Based on that, it can be concluded that the German diminutive morphemes -chen and -lein do not share the same syntactic position with the plural. It has been shown before that the diminutive morphemes in German occupy a lower syntactic position and attach to a little n (Wiltschko and Steriopolo, 2007), as illustrated in (39).

(39) German

\[ \text{German} \]

\[ \text{—}\text{chen} \text{—lein} \]

‘dim/dim’

\[ \text{Tisch} \]

‘table’

Thus, the diminutive morphemes in German have a different place of attachment from those in Maale and Walman, as shown in (40).

(40)

\[ \# \]

\[ \# \]

\[ \text{Maale, Walman} \]

\[ \text{German} \]

Although the diminutives in German differ in their place of attachment, in all three languages they have the same manner of attachment as syntactic heads.

The German diminutive morphemes are syntactic heads because they can change grammatical features of the base, namely grammatical gender. As the data below show, they change gender from masculine (41) and feminine (42) to neuter.

(41) masc \(\rightarrow\) neuter

a. der Tisch
det.masc table
‘table’

b. das Tisch-chen/-lein
det.neut table-/-dim
‘little table’

(42) fem \(\rightarrow\) neuter

a. die Flasche
det.fem bottle
‘bottle’

b. das Fläsch-chen/-lein
det.neut bottle-/-dim
‘little bottle’
In addition, they can turn a mass noun into a count noun, thus functioning as classifiers (43). Although a classifying function is not used as a diagnostic here, it is interesting to see how a syntactic head can also act as a classifier (see Wiltschko, 2006, on the head properties of classifiers).

(43) \textit{mass noun} \rightarrow \textit{count noun}

\begin{tabular}{ll}
  a. viel & Wein \\
  \textit{much wine} & \textit{many.pl wine-dim} \\
  ‘much wine (mass)’ & ‘many portions of wine (count)’ \\

c. viele & Wein-\textit{chen} \\
\end{tabular}

A comparison of diminutives in Maale and Walman with those in German is presented in Table 4.

\textbf{Table 4: A comparison of diminutives in Maale and in German}

<table>
<thead>
<tr>
<th></th>
<th>\textit{Manner of attachment}</th>
<th>\textit{Place of attachment}</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{Maale, Walman}</td>
<td>Syntactic heads</td>
<td>Attaching to #</td>
</tr>
<tr>
<td>\textit{German}</td>
<td>Syntactic heads</td>
<td>Attaching to (n)</td>
</tr>
</tbody>
</table>

4.1.4 Summary

In two unrelated languages, Maale and Walman, the distribution of the diminutive morphemes is very similar. In both languages, the diminutives are always singular in meaning, and thus are incompatible with a plural morpheme. They trigger grammatical agreement and are obligatorily used. Based on the diagnostics outlined above, it can be concluded that they behave like syntactic heads, as shown in (44).

(44) \textit{Maale, Walman}

\begin{center}
\begin{tikzpicture}
  \node (X) at (0,0) {\#};
  \node (Y) at (-1,-1) {\#};
  \node (X_d) at (-1,0) {\#};
  \node (Y_d) at (-2,-1) {\#};
  \node (dim) at (-2.5,-2) {\# \textit{dim, plural} \ [-Plural] [\textit{+Plural}]};
  \draw (X) -- (Y);
  \draw (X) -- (X_d);
  \draw (Y) -- (Y_d);
\end{tikzpicture}
\end{center}

Because in Maale and Walman a diminutive morpheme is always used in opposition to plural, I proposed that in both languages the diminutives are specified for the grammatical feature \([-\text{Plural}]\) and are generated in the same syntactic position as the plural morpheme, as shown in (45).

(45) \textit{Maale, Walman}

\begin{center}
\begin{tikzpicture}
  \node (X) at (0,0) {\#};
  \node (Y) at (-1,-1) {\#};
  \node (X_d) at (-1,0) {\#};
  \node (Y_d) at (-2,-1) {\#};
  \node (dim) at (-2.5,-2) {\# \textit{dim, plural} \ [-Plural] [\textit{+Plural}]};
  \draw (X) -- (Y);
  \draw (X) -- (X_d);
  \draw (Y) -- (Y_d);
\end{tikzpicture}
\end{center}
4.2 Syntactic modifiers

This section presents an analysis of languages Kolyma Yukaghir and Itelmen, with additional discussion of Breton and Yiddish. I argue that these languages use the structure represented in (46), where a diminutive affix is a syntactic modifier merging with Number.

(46)  

Kolyma Yukaghir and Itelmen are both spoken in the Russian Federation, but they are unrelated to Russian or to each other. They are currently on the verge of extinction and are considered moribund (The Ethnologue 2013).

Kolyma Yukaghir is spoken by about 50 people in the settlements of Nelemnoye and Zaryanka, the Upper Kolyma district, Yakutia Republic, and in the Magadan region, Russia. The youngest generation is practically monolingual in Russian. Kolyma Yukaghir has been taught at school since 1985/86, but it has not changed the language situation. The data used here are from A Grammar of Kolyma Yukaghir by Maslova (2003).

Itelmen, or Western Itelmen, is also known as Kamchadal. It is spoken on the Kamchatka Peninsula on the east edge of Russia. There are 80 native speakers left, mostly elderly (2010 census). The 2002 census counted 3,200 ethnic Itelmen, almost all of whom are monolingual Russian speakers. The data used here are from Die Itelmenische Sprache by Georg and Volodin (1999), and from the squib Itelmen Plural Diminutives: A Belated Reply to Perlmutter by Bobaljik (2005).

4.2.1 The manner of attachment (heads vs. modifiers)

In Kolyma Yukaghir, the diminutive is derived by means of the suffix -die (-tie after obstruents), as shown in (47)–(48).

(47)  

The suffix does not produce any change in the syntactic category or grammatical features of the base. For example, in (49) and (50), it attaches to a noun and forms another noun.

(49)  

(Maslova, 2003, p. 128)

(Maslova, 2003, pp. 449, 444)

(Maslova, 2003, p. 168)
The data in (49) and (50) also show that the suffix triggers no grammatical agreement. Compare (49) and (50) with, for example, (51) and (52), where a plural suffix triggers agreement.

(51) purk-in čül’dī pulut-pe-lek kel-ñi-l.
   seven-attr fairy.tale old.men-pl-predicative come-3pl-Subject.focus
   ‘… seven ogres came’

(52) kin-pe-lek egu-žu-ñi-l
   who-pl-pred walk-iterative-3pl-Subject.focus
   ‘Who (pl) would walk (here)炝?

The data in (53) and (54) demonstrate that the suffix can be optionally used (compare with (49) and (50) above in which diminutive suffixes are present).

(53) tintaj terike čaj-le ōže-š-u-m.
    that old.woman tea-instrumental dring-causative-0-transitive.3sg.
    ‘That old woman gave (him) some tea.’

(54) pulut, mit čolhorö šejre-s’.
    old man our hare run.away-perfective.intransitive.3sg.
    ‘Old man, our hare has run away.’

The Itelmen diminutive suffixes -č(a)χ (singular) and -č (plural) show the same distribution as the diminutive in Kolyma Yukaghir. They do not change the syntactic category or grammatical features of the base, they do not trigger agreement, and they are optionally used.

For example, in the data below, the suffix attaches to a noun and forms a noun, as in qitkine ‘brother’ (cf. (55)) and massu ‘bear’ (cf. (56)). These sentences also show no grammatical agreement with the diminutive. Compare, for example, (55) and (56) with (57) where a plural suffix triggers agreement.

(55) Qitkine-čχ k’-ishtte-knen, ”plah massu k’-le-knen.
    brother-dim inf.iii-grow-inf.iii big bear inf.iii-become-inf.iii
    ‘The little brother grew up and became a big bear.’

1 The data from Georg and Volodin (1999) are translated into English from German.
(56) Kǝmma qa?t massu-čx t’-insxt-çen, 'ijaqi-lah, Kutx-e. pers.pron.1sg. already bear-dim 1sg.-give.birth-3sg.pt terrible-adj Kutx-vocative
‘Kutx, I gave birth to a little bear, it is terrible.’ (Georg and Volodin, 1999, p. 109)

(57) a. Kist om-lah. house warm-adj
b. Kist-eŋ om-lah-aŋ. house-pl warm-adj-pl
‘The house is warm.’ ‘The houses are warm.’ (Georg and Volodin, 1999, p. 107)

The data above also show the optional use of the diminutive. In (55), the underlined word massu ‘bear’ is used without and in (56) it is used with the diminutive suffix: massu-čx ‘bear-dim’.

Georg and Volodin (1999) provide many examples of Itelmen data with diminutive suffixes; see, for example, pp. 94 (ex. 98), 112 (ex. 135), 119 (ex. 167), 256 (ex. 32), 259 (ex. 49, 50).

Using the diagnostics in Table 5, it can be concluded that the diminutives in Kolyma Yukaghir and Itelmen are syntactic modifiers with a structure depicted in (58).

Table 5: Diagnostics for Kolyma Yukaghir and Itelmen

<table>
<thead>
<tr>
<th>Diagnostics</th>
<th>Syntactic modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can they change the syntactic category or grammatical features of the base?</td>
<td>*</td>
</tr>
<tr>
<td>2. Do they trigger an agreement?</td>
<td>*</td>
</tr>
<tr>
<td>3. Are they obligatorily used?</td>
<td>*</td>
</tr>
</tbody>
</table>

(58) Diminutives in Kolyma Yukaghir and Itelmen

\[ X \quad \text{dim} \quad Y \]

4.2.2 The place of attachment

In both Kolyma Yukaghir and Itelmen, a diminutive morpheme can be combined with a plural morpheme, in which case it always follows a plural morpheme with the following order:

(59) Diminutive and plural morphemes in Kolyma-Yukaghir and Itelmen

Base–plural–diminutive

For example, in the data from Kolyma Yukaghir, the diminutive suffix -die(-tie) follows a plural suffix, as shown in (60) and (61).

(60) a. terikie-die

\[ \text{old.woman-dim} \]

‘an old woman (dim)’ (Maslova, 2003, p. 128)
b. terike-pul
old.woman-pl
‘old women’  
c. terike-p-tie
old.woman-pl-dim
‘old women (dim)’

(Maslova, 2003, pp. 51, 129)

(61) a. pulun-die
old.man-dim
‘an old man (dim)’

(Maslova, 2003, pp. 449, 444)

b. pulut-pe
old.man-pl
‘old men’

c. pulut-pe-die
old.man-pl-dim
‘old men (dim)’

(Maslova, 2003, pp. 51, 129)

Based on the data above, I propose that the diminutive suffix -tie merges above the Number category with a syntactic structure provided in (62).

(62) Kolyma Yukaghir

\[
\begin{array}{cccc}
\# & \# & \# & \# \\
& \text{-tie} & \text{‘dim’} & \text{n} & \text{‘pl’} \\
& \text{‘dim’} & \text{pulut} & & \text{‘old man’} \\
\end{array}
\]

Similarly to the diminutive in Kolyma Yukaghir, the Itelmen diminutive -č follows a plural morpheme, as shown in Table 6.

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Sg. Dim.</th>
<th>Pl. Dim.</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ansx</td>
<td>ansx-aną</td>
<td>ansx-cač</td>
<td>ansx-aną-č</td>
<td>‘morsel’</td>
</tr>
<tr>
<td>b. kist</td>
<td>kist-ęń</td>
<td>kist-cać</td>
<td>kist-ęń-č</td>
<td>‘house’</td>
</tr>
<tr>
<td>c. koļf</td>
<td>koļf-ęń</td>
<td>koļf-cać</td>
<td>koļf-ęń-č</td>
<td>‘pond’</td>
</tr>
<tr>
<td>d. mem</td>
<td>mem-ęń</td>
<td>mem-cać</td>
<td>mem-ęń-č</td>
<td>‘hut’</td>
</tr>
<tr>
<td>e. mimsx</td>
<td>mimsx-ęń</td>
<td>mimsx-cać</td>
<td>mimsx-ęń-č</td>
<td>‘woman’</td>
</tr>
<tr>
<td>f. łańe</td>
<td>łańe-ń</td>
<td>łańe-cać</td>
<td>łańe-ęń-č</td>
<td>‘girl’</td>
</tr>
</tbody>
</table>

(Bobaljik, 2005, p. 318)

In the data below, the plural -ń first attaches to the base form łańe ‘girl’ (63b), then the diminutive -č is added to an already pluralized word, like in (63c).

(63) a. łańe
girl
‘girl’

b. łańe-ń
girl-pl
‘girls’
A very interesting example of Itelmen data is illustrated in (64). It involves a Russian borrowing – a fused Russian diminutive suffix -ušk that is used on a root of Koryak origin. As Russian diminutive suffixes always precede a plural marker and the Itelmen suffixes follow a plural marker, there are two different orders from two different languages in this word.

(64) ekolʲ-uške-ń-č
girl-Russian.dim-pl-Itelmen.dim
‘little girls’

(Abbaljik, 2005, p. 318)

A syntactic analysis for (64) is proposed in (65). Here the Russian diminutive attaches below and the Itelmen diminutive above the Number category, with the plural morpheme merging between these two diminutives.

(65) Itelmen

The diagram in (65) above, the two kinds of diminutives (a Russian borrowing and an Itelmen suffix) have different syntactic positions, with one diminutive preceding and the other following the plural morpheme. In an unrelated language, Breton, a diminutive also precedes and follows a plural morpheme, but not because of two different positions for a diminutive. This order is possible because, in Breton, there are two exponents of plural number (Stump, 2001, p. 204). The data in (66) show that the plural morpheme -où attaches both before and after the diminutive -ig (66d).

(66) Breton

a. bag
   boat (fem)
   ‘boat’

b. bag-où
   boat-pl
   ‘boats’

c. bag-ig
   boat-dim (fem)
   ‘little boat’

d. bag-où-ig-où
   boat-pl-dim-pl
   ‘little boats’

(Stump, 2001, p. 204)
I propose that, just as in Itelmen where there are two different syntactic positions for a diminutive morpheme, in Breton, there are two different positions for a plural morpheme, as shown in (67).

(67) Breton

\[ \text{#} \rightarrow \text{bag-où-ig-où 'little boats'} \]

\[ \text{#} \rightarrow \text{bag-où 'boats'} \]

\[ \text{‘pl’} \rightarrow \text{#} \rightarrow \text{#} \rightarrow \text{bag-où-ig-où 'little boats'} \]

\[ \text{‘dim’} \rightarrow \text{#} \rightarrow \text{n} \rightarrow \text{bag-où 'boats'} \]

\[ \text{‘base’} \rightarrow \text{#} \rightarrow \text{#} \rightarrow \text{bag-où-ig-où 'little boats'} \]

\[ \text{‘base’} \rightarrow \text{#} \rightarrow \text{#} \rightarrow \text{bag-où 'boats'} \]

4.2.4 A comparison with Yiddish diminutives

Yiddish has an ordering of diminutive and plural morphemes that is similar to Itelmen. In words with the plural suffixes -er and -im, the diminutive -lex follows a plural morpheme, as shown in Table 7.

Table 7: The relative ordering of the (irregular) plural and diminutive morphemes in Yiddish

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Pl. Diminutive</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. kind</td>
<td>kind-er</td>
<td>kind-er-lex</td>
<td>‘child’</td>
</tr>
<tr>
<td>b. dorn</td>
<td>dern-er</td>
<td>dern-er-lex</td>
<td>‘thorn’</td>
</tr>
<tr>
<td>c. guf</td>
<td>guf-im</td>
<td>guf-im-lex</td>
<td>‘body’</td>
</tr>
<tr>
<td>d. talmid</td>
<td>talmid-im</td>
<td>talmid-im-lex</td>
<td>‘pupil’</td>
</tr>
</tbody>
</table>

(Perlmutter, 1988, p. 80)

Like in Itelmen, the Yiddish plural affix is closer to the base than the diminutive with the following order:

(68) Yiddish morpheme ordering in words with -er and -im plurals

Base—plural—diminutive

However, unlike in Itelmen, this order is only found in a restricted class of nouns – those that take the plural suffixes -er and -im. Regular plural nouns take the suffixes -en(-n) and -s and cannot be combined with a diminutive morpheme, as indicated in Table 8.

Table 8: The relative ordering of the (regular) plural and diminutive morphemes in Yiddish

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Pl. Diminutive</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. oyer</td>
<td>oyer-n</td>
<td>oyer-lex</td>
<td>‘ear’</td>
</tr>
<tr>
<td>b. matone</td>
<td>matone-s</td>
<td>matone-lex</td>
<td>‘gift’</td>
</tr>
</tbody>
</table>

(Perlmutter, 1988, p. 80)
Based on these data, Perlmutter (1988, pp. 84, 91) argues that the restricted classes of nouns are suppletive in form. Examples like the ones in Table 7 are composed of a suppletive plural root, followed by a diminutive suffix.

### 4.2.5 Summary

Two unrelated languages, Kolyma Yukaghir and Itelmen, have a very similar distribution of the diminutive morphemes. They do not change the syntactic category or grammatical features of the base, they do not trigger agreement, and they are optionally used. Based on the diagnostics above, they are syntactic modifiers, with a syntactic structure, as in (69).

(69) *Kolyma Yukaghir, Itelmen*

```
Y
\(\text{dim}\)
\text{x} Y
```

In both languages, diminutive morphemes always follow a plural morpheme. For this reason, I proposed that they merge above the Number category, as shown in (70).

(70) *Kolyma Yukaghir, Itelmen*

```
#
# #
\(\text{dim}\) #
# n
pl
```

### 5 Conclusions

The data from four unrelated languages, Maale, Walman, Kolyma Yukaghir, and Itelmen, show variation in the syntax of diminutive affixes. The diminutive affixes differ in their manner and place of attachment.

In terms of the manner of attachment, it has been shown that some affixes are syntactic heads (in Maale and Walman), while others are syntactic modifiers (in Kolyma Yukaghir and Itelmen).

In terms of the place of attachment, the Number domain was investigated. It has been shown that some affixes merge in the same syntactic position as a plural morpheme (in Maale and Walman), while others merge above it (in Kolyma Yukaghir and Itelmen), as shown in (71).

(71) *Kolyma Yukaghir, Itelmen*

```
#
# #
\(\text{dim}\) #
# n
\(\text{dim/plural}\)
```

*Maale, Walman*
Thus, the syntactic variation of diminutive affixes is two-dimensional: they simultaneously differ in how and where they attach in a syntactic tree, as illustrated in Table 9.

Table 9: A two-dimensional variation of diminutive affixes

<table>
<thead>
<tr>
<th>Where do they attach?</th>
<th>How do they attach?</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the Number position</td>
<td>Syntactic heads: Maale, Walman</td>
</tr>
<tr>
<td>Above the Number position</td>
<td>Syntactic modifiers: Kolyma Yukaghir, Itelmen</td>
</tr>
</tbody>
</table>

Combining the diagram (71) with the diagram (15) from my previous work on Russian (Steriopolo, 2009), we can see the following cross-linguistic variation in the syntax of diminutives (72).

This article contributes to a discussion of the form-function correspondence between syntactic categories (Wiltschko, in press). Jurafsky (1996) showed that, cross-linguistically, diminutives have a similar meaning (or function). In the current research, I have argued that they differ in their syntactic structures (or form). Thus, there is no 1:1 correspondence between form and function of diminutives across languages.

References


Marantz, A. (2001). Words. (Master's thesis), MIT.


Olga Steriopolo
Zentrum für Allgemeine Sprachwissenschaft (ZAS)
Berlin, Germany
email: olgasteriopolo@hotmail.com