How the syntactic change interferes on Morphology:  
Romance plural isogloss

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1. Some facts on Romance and Latin plurals

1.1 Romance plurals:


[+f] rosas rosas roses roses rôsas rosís¹ rose roze²  ‘roses’

[-f] lobos lobos llops lops lôps lupi lupi lupi  ‘wolves’

Two different plurals exist in Romance: a consonantal one (normally pronounced [s])
and a vocalic one (normally [i] for [-f ] and [e] for [+f]).

1.2 Latin plurals

a. Latin doesn’t have a clear mark for plural.
b. We can say that, in a very general way, each syntactic case has its mark for singular
and plural, respectively.
c. We will focus here on accusative (ACC) and nominative (NOM) plurals only.

1.3 Plural forms: declensions I to V

(2) accusative plurals

decension  noun  gender  gloss

I  rosās  [+f]  ‘roses’
II  lupōs  [-f]  ‘wolves’
III  ducēs  [-f]  ‘leaders’
IV  quercūs  [+f]  ‘oaks’
V  diēs  [-f]  ‘days’

(3) nominative plurals

decension  noun  gender  gloss

I  rosae  [+f]  ‘roses’
II  lupī  [-f]  ‘wolves’
III  ducēs  [-f]  ‘leaders’
IV  quercūs  [+f]  ‘oaks’
V  diēs  [-f]  ‘days’

a. The gender doesn’t depend on declension; it is a lexical property of the noun.

¹ Lat. rosa ‘rose’ semantically gave ‘flower’ in Friulan.
² Modern Romanian prefers the word trandafir for ‘rose’.
b. Plural marker in Latin:
   i. ACC plural seems to be /s/;
   ii. NOM plural seems to be unpredictable: it depends on declension.

1.4 The morphological continuation of Latin plural in Romance
a. All scholars agree in considering Romance /s/ plural as the continuation of Latin
   ACC plurals, as showed in (2) (cf. Meyer-Lübke 1974 among others).
b. But how explain Italian and Romanian vocalic plurals?
   i. The traditional answer says that Latin NOM plurals (from declensions I and II
      respectively) are the base of Romance vocalic plurals.
      (Rohlfs 1968; etc.)
   ii. Some say that ACC plural /s/ became /i/ passing throughout a phase /j/
      (Reichenkron 1939; Maiden 1996; Tekavčić 1972; etc.)

1.5 Some observations
a. Romance /s/ plural is gender underspecified as it is the same for both [-f] and [+f].
b. Romance vocalic plurals are gender specified as /i/ marks [-f] nouns and /e/ marks
   [+f] nouns in both Italian and Romanian.
c. In s-plural languages, plural seems to be built as it follows:
   √ + thematic vowel + /s/
d. In i-plural languages, plural seems to be built as it follows:
   √ + /i/ or /e/

2. Proposal

2.1 A formal analysis of the evolution from Latin to Romance languages
a. Why do some languages display a s-plural while a minority of them has a vocalic
   plural?
b. Traditional grammar has always explained this situation as a fact that happened by
   chance.
c. A formal analysis of the evolution from Latin to Romance plurals can explain what
   exactly happened and why two different groups exist.

2.2 A syntactic change in Latin nouns structure can explain the romance plural isogloss
a. I propose to use some Generative framework tools to explain this isogloss: I will use
   the general theoretical framework of Government Phonology (Goldsmith 1976) and
   I’ll follow more precisely the framework of [KLV] (1985, 1990) and Distributed
   Morphology (Halle & Marantz 1993 among others).
b. I claim that the difference between the two plurals can be explained by means of a
   syntactic change in the structure of Latin nouns: the change can be interpreted as a
   phrase loss.
c. My proposal combines morpho-syntactic and phonological representations.

3 /i/ can actually mark a feminine plural noun, too; while /e/ can never mark a masculine plural noun nor in Italian
   neither in Romanian.
2.3 Latin nouns analysis

(4) Given the following possible analysis for Latin nouns:
   i. $\sqrt{} +$ thematic vowel + case/number
   ii. CV.. decl. I ACC/sg.
   iii. ros $a$ $m \rightarrow$ rosam ‘rose’, ACC

(5) I propose the following structure for Latin nouns:

```
                  case/numP
                     |                   nP
                     |                   [asg]
                     [ACC]               [af]
                     [Th]               [Th]
                   CV       CV       CVCV
                        |       |       |
                        [x]     [x]     ROOT
```

   a. each major functional category has a CV syllable associated to, as proposed by Lowenstamm (2007). Root template is formed by a chain of onsets and nuclei as proposed by Lowenstamm (1996).
   b. each CV represents a morpheme.
   c. $nP$ contains gender feature as in Kihm (2002) and in Lowenstamm (2006, 2008);
   d. case/number is a unique functional category as in Halle (2000) for Latin declensions;
   e. $nP$ doesn’t have any CV associated to its terminal node. I propose that this is caused by two reasons:
      i. gender isn’t an independent morpheme in Latin as it never appears on nouns.
      ii. each noun has its gender proprieties that can be seen by an agreement with adjectives or pronouns:
         e.g. domus $-$ mea [etc..]
         house-decl.IV-NOM/sg    my-[+f]-NOM/sg.
         ‘my house’
   f. ThP and case/numP agree in order to have the right case/num morpheme depending on declension, e.g. decl. I GEN rosa ‘of the rose’ vs. decl. III GEN ducis ‘of the leader’.

2.4 From Latin accusative plurals to Romance plurals

a. I claim that the change affects both case and ThP:
   i. syntactic case markers have generally been lost by Romance languages and their morphology doesn’t have any case system.
   ii. ThP corresponds to the so called thematic vowel. Each declension has its thematic vowel (cf. Meiser 1998): as declensions disappeared, Romance languages shouldn’t display anymore this category in their noun structures.
   b. I then assume that for both groups of Romance plurals, the unique input is Latin accusative plural (cf. Lampitelli 2008):
i. this option enables us to propose a unique generative system both synchronically and diachronically as ALL Romance nouns are based on the structure in (5).

ii. Latin ACC forms are then the base of the evolution for all Romance nouns.

C. The general idea is that change means in the case of Latin the loss of some morphological material that is some morphemes that correspond to terminal nodes and CV syllable (cf. Distributed Morphology)

2.5 Vocalic plurals formation: the case of Italian

a. Italian doesn’t mark morphologically the syntactic case

b. Italian lost declension nevertheless it keeps some traces of that system:

<table>
<thead>
<tr>
<th>sg.</th>
<th>pl.</th>
<th>group</th>
<th>examples</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>[+f]</td>
<td>[-f]</td>
<td>[+f]</td>
<td>[-f]</td>
<td>rosallupo</td>
</tr>
<tr>
<td>i. a o e i</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii e e i</td>
<td>2</td>
<td>canelarte</td>
<td>‘dog/art’</td>
<td></td>
</tr>
</tbody>
</table>

c. all the morphology on nouns is done by vocalic segments as no free C position were left available in the structure.

2.6 What’s happened in Italian?

a. ThP has been lost then there’s no more space for thematic vowel as its CV disappeared.

b. case/numP lost case features as well as its CV (it was a morpheme): numP still has number feature.

c. nP didn’t modify: it keeps hosting the gender feature.

d. as it’s been showed in [2.5b], Italian roots brings an information about a group {1} or {2}, depending on the way they can express the gender. Where can the language stock this information as ThP has been lost and no CVs are available?

I propose then that is the root itself that project as showed in (6).

(6) Italian plurals: lupi and rose

\[
lupi \quad \text{group } \{1\}, [-f], \text{ pl} \quad \text{‘wolves’} \]

\[
\text{numP} \quad \text{pl}
\]

\[
\begin{array}{l}
\text{num} \\
\quad [-\text{sg}] \\
\quad \text{n} \\
\quad \quad [+f] \\
\quad \quad \text{group} \\
\quad \quad \quad \{1\} \\
\quad \quad \quad \quad \text{CVCV} \\
\quad \quad \quad \quad \quad \text{LUP} \\
\quad \quad \quad \quad \quad \text{Ø} \\
\quad \quad \quad \quad \quad \text{i} \\
\quad \quad \quad \quad \quad \text{o} \\
\quad \quad \quad \quad \quad \text{Agr} \\
\end{array}
\]

\[
\begin{array}{l}
\text{num} \\
\quad [-\text{sg}] \\
\quad \text{n} \\
\quad \quad [+f] \\
\quad \quad \text{group} \\
\quad \quad \quad \{1\} \\
\quad \quad \quad \quad \text{CVCV} \\
\quad \quad \quad \quad \quad \text{ROS} \\
\quad \quad \quad \quad \quad \text{Ø} \\
\quad \quad \quad \quad \quad \text{i} \\
\quad \quad \quad \quad \quad \text{a} \\
\quad \quad \quad \quad \quad \text{Agr} \\
\end{array}
\]

\[\text{rose} \quad \text{group } \{1\}, [+f], \text{ pl} \quad \text{‘roses’} \]

\[
\text{numP} \quad \text{pl}
\]
2.7 Some important observations about Italian

a. I propose that Latin plural morpheme /s/ cannot anymore be exploited by Italian because of lack of space. Two possibilities are conceivable: a zero morpheme or a vocalic one. Building on Guerssel & Lowenstamm (1996), I propose that apophony is responsible of the plural morpheme in Italian:

(7) Italian plural marker : Ø → i

b. moreover, the Theory of Elements ([KLV] 1985, 1990) explains vowel combinations applying to Italian. In [+f] nouns, /i/ and /a/ merge and give [e] as expected. The same Theory predicts that in a five-vowel system as the Italian one, no rounded vowel exist, that’s why in [-f] nouns, /i/ and /o/ cannot merge giving an agrammatical [ø] or [œ]. It seems that /i/ always wins the competition and this is due to its morphological specification.

c. The loss of ThP and case/numP entails that:
   i. The thematic vowel has no place to land to;
   ii. The number marker needs a place, too.
   iii. The free V (underlined in (6)) position becomes the site of nominal morphology but it is a property of the root.

2.8 Consonantal plurals: the case of Portuguese

a. Portuguese doesn’t mark morphologically the syntactic case either.

b. It also lost the declensions, but contrarily to Italian, nouns can end by vowel as well as by consonants.

c. Portuguese has a position for the thematic vowel, contrarily to Italian as ThP still is in the structure as well as its CV syllable.

d. NumP bears a CV as in Latin.

(8) Portuguese plurals: lobos and rosas

\[
\begin{align*}
\text{lobos} & \quad [-f], \text{pl} & \text{‘wolves’} \\
\text{numP} & \quad \text{num} & \quad \text{nP} & \quad \text{ThP} \\
\text{[-sg]} & \quad \text{n} & \quad \text{[+f]} & \quad \text{Th} & \quad \sqrt{ } \\
\text{CV} & \quad \text{CV} & \quad \text{CVCV} & \quad \text{CV} & \quad \text{CVCV} \\
\text{s Agr} & \quad \text{o} & \quad \text{LOB} & \quad \text{s Agr} & \quad \text{a} & \quad \text{ROS} \\
\end{align*}
\]

2.9 Some important observations about Portuguese

a. The /s/ plurals can be maintained if and only if the given Romance language keeps the syllable CV associated to numP. I assume that this is a parametric option that has two values: CV or no CV; then this option entails some consequences about the expression of the plural.
b. Why does Portuguese keep ThP? This is the second parametric option available to each Romance language. For the moment, it seems that these choices go together: if a given language loses ThP, then it loses all CV syllables (Italian), otherwise it keeps them (Portuguese).

3. Some consequences and predictions

3.1 What do the structures in (6) and (8) entail for Italian and Portuguese?

a. If (6) is the right representation, Italian words must have a free V position on root stem in order to show their morphology:
   i. If no free V is available, the given word is invariable to morphology,
   ii. If there is a free V then the given word is morphology-sensitive.

b. Moreover, (6) tells us that Italian words end by a vowel in the default case.

c. On the other hand, none of the restrictions concerning Italian applies to Portuguese, as the structures in (8) show that the organization of the word is freer.

d. Portuguese roots will always show their thematic vowel.

3.2 What do the same structures predict about Italian and Portuguese?

a. The most important point is that the situation showed in (6) and (8) allows a prediction:
   i. If the language has the structure as in (6), plurality is restricted to a reduced core group of nouns as the free V is a property of the root stem.
   ii. Otherwise, if the language has the structure as in (8), there’s no restriction on pluralization.

b. Italian can’t actually pluralize:
   i. loan words: gorilla ‘gorilla’; film ‘movie’; etc..
   ii. oxytone words: caffé ‘coffee’; città ‘town’; etc..
   iii. abridged words: moto ‘motorbike’ (long form: motocicletta), etc..

c. None of these restrictions applies to Portuguese.

(9) Film in Italian and Portuguese

<table>
<thead>
<tr>
<th>Italian</th>
<th>Portuguese</th>
</tr>
</thead>
<tbody>
<tr>
<td>film [-f], pl</td>
<td>filmes [-f], pl</td>
</tr>
<tr>
<td>‘movies’</td>
<td>‘movies’</td>
</tr>
<tr>
<td>numP</td>
<td>numP</td>
</tr>
<tr>
<td>[-sg]</td>
<td>[-sg]</td>
</tr>
<tr>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td>[-f]</td>
<td>[-f]</td>
</tr>
<tr>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>CVCVCV</td>
<td>CVCVCV</td>
</tr>
<tr>
<td>i</td>
<td>s</td>
</tr>
<tr>
<td>f i l m</td>
<td>ThP</td>
</tr>
<tr>
<td>epenthetic [e]</td>
<td></td>
</tr>
</tbody>
</table>
4. Conclusions

a. The difference between s-plural languages and i-plural ones is given by a difference in the structure: the former still display ThP while the latter have a simpler structure.

b. The prediction is confirmed by the data: Portuguese has no restriction on plural formation while Italian shows many.

c. This proposal goes towards an explanation of the role of thematic vowel in Romance and more in general in Indo-European languages. Which is its status and why do these languages display it after a root?

d. I’ve showed that linguistic change can be analyzed as a STRUCTURAL LOSS that entails phonological impoverishment and phonological restrictions on words.

5. References


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