Allomorphy at the morphology-phonology interface: evidence from Neapolitan

Roberto Petrosino roberto.petrosino@uconn.edu
University of Connecticut
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0 Flash-forward

(1) a. o waļːoonɔ D.M.SG guy ‘the guy’
   b. e waļːoonɔ D.M.PL guy ‘the guys’

(2) a. l očːjo D.M.SG eye ‘the eye’
   b. l wocːjo D.M.PL eye ‘the eyes’

(3) a. a waļːoonɔ D.F.SG girl ‘the girl’
   b. e ṭaːxɔ st. a,ːɔnɔ D.F.PL girl ‘the girls’

(4) a. l oppɔ D.F.SG nail ‘the nail’
   b. al ompɔ D.F.PL nail ‘the nails’

0 Flash-forward

(5) Distributed Morphology (Halle and Marantz, 1993): morphological features are distributed over syntactic trees and replaced with phonological exponents (Vocabulary Insertion). Allomorphy may arise either due to morpho-syntactic conditioning (i.e., list of suppletive forms) or morpho-phonological conditioning (i.e., readjustment rules; henceforth, RRs).

(6) Haugen and Siddiqi (2013, among others): RRs are too powerful and should be eliminated, in favor of an account that lists all possible allomorphs. Morphosyntax retrieves all lexical entries that match the current morpho-syntactic features, and phonology selects the appropriate morph in compliance with output optimization (among others Mascaró, 1996; Bonet, Lloret, and Mascaró, 2007; Svenonius, 2012).

*I am indebted to Andrea Calabrese and Jonathan Bobaljik for the continued support on this project. Thank you to Heidi Harley, Alec Marantz, Andrew Nevins and Rolf Noyer, and the audience of the UConn Morpho-Phonology Reading Group for their useful comments and suggested, that I tried to implement here. All errors remain mine.
(7) By providing data from Neapolitan, I argue that:
   a. listing accounts miss crucial generalizations at the morphology–phonology interface;
   b. morpho-phonology is much needed, as it is able to capture such generalizations.

1 Allomorphy of the Neapolitan definite determiner

1.1 Data

<table>
<thead>
<tr>
<th>[-feminine]</th>
<th>[+feminine]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[-pl]</td>
<td>[+pl]</td>
</tr>
<tr>
<td>a. otavala</td>
<td>etavala</td>
</tr>
<tr>
<td></td>
<td>a. etavala</td>
</tr>
<tr>
<td>b. owassoma</td>
<td>ewassoma</td>
</tr>
<tr>
<td></td>
<td>e. awassoma</td>
</tr>
<tr>
<td>c. oppera</td>
<td>eperra</td>
</tr>
<tr>
<td></td>
<td>e. assedega</td>
</tr>
<tr>
<td>d. llccjo</td>
<td>llccjo</td>
</tr>
<tr>
<td></td>
<td>d. lloññjo</td>
</tr>
</tbody>
</table>

Table 1: Forms of the Neapolitan definite determiner

(8) Allomorphs of the definite determiner:
   a. for singular:
      i. [l] is always selected in front of vowels;
      ii. either [o] or [a] are selected in front of consonants, depending on gender;
   b. for plural:
      i. [l] is always selected in front of vowels;
      ii. [e] is selected in front of consonants, regardless of gender; moreover:
      iii. masculine plural nouns undergo metaphony when the stressed vowel is mid (not discussed here; see Calabrese, 2011; Calabrese, 2016);
      iv. consonantal gemination always shows up for feminine plural:
         - in consonant-initial nouns, the initial consonant is geminated;
         - in vowel-initial nouns, [l] gets geminated, and preceded by [o].

1.2 Analysis

(9) A listing account lists all allomorphs as independent lexical entries, whereas a morphophonological account assumes that allomorphs result from application of language-consistent (morpho)-phonological rules (see diagram above, pag. 2). Here I argue for a morpho-phonological account for the allomorphic distribution of the determiner.

(10) a. o karu wacontri D.MSG dear.MSG boy ‘the dear boy’
    b. e karu wacontri D.MSG dear.MSG girl ‘the dear girl’
    c. a karu wacontri D.FSG dear.FSG girl ‘the dear girl’
    d. e kari wacontri D.FPL dear.FPL boy ‘the dear boys’

(11) VIs for nominal agreement:

(12) [D] upset] ↔ 1

(13) a. D l D
    b. D l D
    (Ledgeway, 2009)
Morpho-phonological allomorphy in Neapolitan

Roberto Petrosino

(14) After VI occurs, the definite determiner cliticizes onto the noun (signaled by ‘⊕’; Shwayder, 2015; Embick and Noyer, 2001). At this point, morpho-phonological operations may cyclically apply.

(15) Clitic lowering is fairly common in Romance, although it may be selected for specific cliticizing elements — e.g., in Italian it occurs in clitic clusters:

(a) Mi ha mandato una lettera
   CL.1SG.DAT AUX.3SG send.PPT.MSG DFSG letter.FSG
   ‘(S)he sent me a letter.’

(b) Me la (a)’ ha mandata.
   CL.1SG.DAT CL.FSG.ACC AUX.3SG send.PPT.MSG
   ‘(S)he sent it to me’.

Table 2: Clitic lowering in the Neapolitan definite determiner

1Clitic lowering is fairly common in Romance, although it may be selected for specific cliticizing elements — e.g., in Italian it occurs in clitic clusters:

(16) In front of a vowel, the suffix of the determiner drops, to avoid cross-boundary hiatus:

(17) Consequently to hiatus resolution (17), resyllabification applies, and brings about erasure of the brackets involved. Brackets are then erased at the end of each cycle (Bracket Erasure Convention, hereafter BEC; Kiparsky, 1982).

Table 3: Derivation for definite V-initial singular nouns in Neapolitan

3A lateral deletion rule is also present in Romanesco, the dialect spoken in Rome, although it is restricted to a phonologically-conditioned subset of masculine singular nouns (Loporcaro, 1991):

(20) Whenever hiatus resolution (17) can’t apply, the lateral of the definite determiner gets deleted:

2For the sake of clarity, in this talk all phenomena are assumed to result from positive instructions, although some of them should more correctly treated as resulting from repairs triggered by the violation of the relative constraint.

5
Table 4: Derivation for definite C-initial singular nouns in Neapolitan

(22) Notice that application of hiatus resolution (17) bleeds application of lateral deletion (21).

(23) In the feminine plural, the definite determiner triggers gemination of the following consonant (cf. *raddoppiamento fonosintattico*; see Chierchia, 1986, among others). A × is inserted and then filled by a backward feature spreading rule4.

(24) **X-insertion**

\[
\emptyset \rightarrow \times / - \quad \times \quad \ldots \quad \lambda_{[+\text{gon}, +\text{pl}]} \quad [+\text{cons}]
\]

<table>
<thead>
<tr>
<th>Initial N</th>
<th>α-Initial N</th>
<th>V-Initial N</th>
</tr>
</thead>
<tbody>
<tr>
<td>[loσ hipulɔ]</td>
<td>[loσ hipulɔ]</td>
<td>[loσ hipulɔ]</td>
</tr>
<tr>
<td>‘the fool (m.sg.)’</td>
<td>‘the fool (m.sg.)’</td>
<td>‘the fool (f.sg.)’</td>
</tr>
<tr>
<td>[iσ hipulɔ]</td>
<td>[iσ hipulɔ]</td>
<td>[iσ hipulɔ]</td>
</tr>
<tr>
<td>‘the dog (m.sg.)’</td>
<td>‘the dog (m.sg.)’</td>
<td>‘the girl (f.sg.)’</td>
</tr>
<tr>
<td>[iσ hipulɔ]</td>
<td>[iσ hipulɔ]</td>
<td>[iσ hipulɔ]</td>
</tr>
<tr>
<td>‘the dog (f.sg.)’</td>
<td>‘the dog (f.sg.)’</td>
<td>‘the friends (f.pl.)’</td>
</tr>
</tbody>
</table>

4Intriguingly, there is an asymmetry in marking plurality between the two genders: while metaphony always occurs in masculine plurals, gemination in feminine plurals strictly hinges on the presence of the definite determiner. Additionally, word-initial consonantal *raddoppiamento* is also used to mark noun mass nouns when they are preceded by the determiner.

Table 5: Derivation for C-initial plural feminine nouns

(25) **spreading**

\[
\emptyset \rightarrow \alpha / - \quad \times \quad \ldots \quad \lambda_{[+\text{gon}, +\text{pl}]} \quad [+\text{cons}]
\]

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(26) In vowel-initial feminine plural nouns the lateral geminates, since vowel elision (17) first causes re-bracketing, which in turn forces (24) and (25) to apply on the initial consonantal segment within the current morpho-phonological boundaries. An epenthetic [a] is finally inserted in compliance with (27).

(27) **epenthesis**

\[
\emptyset \rightarrow \alpha / - \quad \times \quad \ldots \quad \lambda_{[+\text{gon}, +\text{pl}]} \quad [+\text{cons}]
\]

Table 6: Derivation for V-initial plural feminine nouns

8To save space, (24) and (25) are summarized in one row under the name of gemination in the derivations below.
1.3 Interim summary

**LISTING ACCOUNTS**

<table>
<thead>
<tr>
<th>M.SG</th>
<th>F.SG</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>o</td>
<td>a</td>
<td>e</td>
</tr>
<tr>
<td>l</td>
<td>l-a</td>
<td>l-i</td>
</tr>
</tbody>
</table>

**M-P ACCOUNTS**

<table>
<thead>
<tr>
<th>M.SG</th>
<th>F.SG</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>o</td>
<td>a</td>
<td>e</td>
</tr>
<tr>
<td>l</td>
<td>l-i</td>
<td>j</td>
</tr>
</tbody>
</table>

selection of the appropriate morph dependent on purely phonological grounds

- **derivationally less complex**
- **derivationally complex**
- **(potential) loss of generalizations**
- **theoretically consistent**

(28) A listing account assumes all the allomorphs listed as independent lexical entries, which are selected in reference to morpho-syntactic features. However, such an account would potentially overlook generalizations underlying the complex distribution of the allomorphs of the definite determiner.

(29) Only a morpho-phonological analysis like the one I argue for, is able to do this, by making use of language-consistent morpho-phonological rules applying cyclically. In the next section, I give evidence for this, by showing that the same set of rules is able to account for the forms of prepositions.

2 Allomorphy of prepositions

(30) **Non-definite prepositions**: D-less prepositions show similar changes to the definite determiner. For example, the preposition ‘of’ (de):

<table>
<thead>
<tr>
<th>n/S</th>
<th>C</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>e</td>
<td>i</td>
</tr>
<tr>
<td>b</td>
<td>efjerr</td>
<td>ro</td>
</tr>
<tr>
<td>c</td>
<td>de</td>
<td>g</td>
</tr>
</tbody>
</table>

Table 7: Indefinite forms of the preposition de ‘of’

(31) **Definite prepositions**: forms of prepositions when followed by the definite determiner. They show consistency with forms of the definite determiner.

<table>
<thead>
<tr>
<th>[-feminine]</th>
<th>[+feminine]</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/S</td>
<td>[-pl]</td>
</tr>
<tr>
<td>V</td>
<td>el</td>
</tr>
</tbody>
</table>

Table 8: Definite forms of the preposition de ‘of’

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5See the appendix at the end of the hand-out to see the other forms. Similar changes apply for the non-definite forms of the prepositions da ‘from’ and per ‘to, for’.

7See the appendix at the end of the hand-out to see the other forms. Similar changes apply for the definite forms of the prepositions da ‘from’ and per ‘to, for’.
A listing account needs to list all the forms of prepositions (i.e., definite and
indefinite) as independent lexical entries.

In my morpho-phonological account, the forms above result from the same rules
assumed for the definite determiner.

a. Cross-boundary hiatus is solved as usual by vowel deletion (17).

b. A final tweak is needed so that all non-nasal alveolars, and not only laterals
as in (21), drop in front of a morphological boundary. Such rule is bled by
application of cross-boundary hiatus resolution (17), as this in turn brings
about bracket erasure via resyllabification (19).

Flapping (36) applies post-cyclically, to all voiced alveolars occupying a single
skeleton position $^5$.

Notice that the same interactions can be assumed for the forms of the other
coronal-containing prepositions (namely, da ‘from’ and per ‘for’; see Appendix).
Relevant derivations follow.

$^5$Notice that the flapping rule in (36) stands on pure etymological reasons, but it is not strictly necessary
for the analysis.

3 Conclusions

When exclusively relying on suppletion for accounting for allomorphy, we may
lose crucial generalizations on the interaction between the morphological and
phonological levels.

On the matter at hand, listing accounts are just unable to catch that the same
rules are at work for the definite determiner, definite and non-definite prepositions
(and, possibly, for all cliticization processes; not discussed here).

|hiatus| – | – | – | – |
|resyll| – | – | – | – |
|cor.del.| (e@((fl||er)||ro)||o)||o) || – |
|BEC| (e@((fl||er)||ro)||o)||o) || – |
|flapping| – | – | – | – |
|SR| [ef||er]| | [e||o] |

Table 9: Derivations for the non-definite forms of the preposition de ‘of’ in Neapolitan

|hiatus| (lo||cj)| (lo||j)-| – | – |
|resyll| (lo||j)-| (lo||j)-| – | – |
|cor.del.| (e@((al||o)||o)||o)||o)||o) || – |
|BEC| (e@((al||o)||o)||o)||o)||o) || – |
|flapping| (e@((al||o)||o)||o)||o)||o) || – |
|SR| [e@((al)|]| | [e@((al)|] |

Table 10: Derivations for the definite forms of the preposition de ‘of’ in Neapolitan
Although not committing to an account in which allomorphy is always morpho-phonological at the synchronic level, I argue that morpho-phonology is still necessary, as it captures generalizations that listing accounts simply miss.

References


that proper nouns generally preserve their morphological boundaries; therefore, vowel elision (17) never applies, and (34) applies instead.

<table>
<thead>
<tr>
<th></th>
<th>(de⊕(str:fan@)ₜ)ₜₜ</th>
<th>(de⊕(ann:lo)ₜ)ₜₜ</th>
<th>(de⊕(st:fan@)ₜ)ₜₜ</th>
<th>(de⊕(ann:lo)ₜ)ₜₜ</th>
</tr>
</thead>
<tbody>
<tr>
<td>hiatus</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>BE</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>lat.del.</td>
<td>(e(str:fan@)ₜ)ₜₜ</td>
<td>(e(ann:lo)ₜ)ₜₜ</td>
<td>(e(str:fan@)ₜ)ₜₜ</td>
<td>(e(ann:lo)ₜ)ₜₜ</td>
</tr>
<tr>
<td>gemination</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>epenthesis</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>BEC</td>
<td>(estr:fan@)ₜ</td>
<td>(eann:lo)ₜ</td>
<td>(estr:fan@)ₜ</td>
<td>(eann:lo)ₜ</td>
</tr>
<tr>
<td>SR</td>
<td>[estr:fan@]</td>
<td>[eann:lo]</td>
<td>[estr:fan@]</td>
<td>[eann:lo]</td>
</tr>
</tbody>
</table>

Table 12: Deviations for the preposition ‘of’ with proper nouns in Neapolitan