Metrical prodosy: A template-and-constraint approach to phonological phrasing in Italian. Based on the poetry of Giuseppe Ungaretti and Eugenio Montale
Helsloot, C.J.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
5.0 Introduction

This chapter deals with the relation between textual/templatic inputs on the one hand, and actual surface outputs on the other. In line with Optimality Theory (Prince & Smolensky 1993, McCarthy & Prince 1993ab), I assume GEN to provide sets of possible output candidates. As shown in chapter 4, I consider well-formedness conditions on prosodic constituents not to be captured in terms of rankable constraints, as in standard OT, but to be part of the input ( > templatic input features). That is, like segmental specifications and prosodic head features of words ( > textual input features), prosodic templates are considered to be distinctive. I hypothesize furthermore that all generated output candidates are characterized by templatic features as well as textual features. This is captured in the Bifatural Generation Hypothesis:

(1) **Bifatural Generation Hypothesis**
Output candidates generated by GEN are characterized by templatic as well as textual input features

Whereas in standard OT the number of output candidates is infinite, the *Bifatural Generation Hypothesis* leads to a more restricted number of output candidates.¹

The relative ranking of constraints provides the grammatical means of accounting for the fact that candidate α rather than candidate β or γ is observed at the surface. PARSE and FILL are the only two families of constraints which I claim to be relevant. Alignment constraints (cf. McCarthy & Prince 1993b), posited to account for the relation between the edges of two different (prosodic or non-prosodic) constituents, are reformulated in terms of PARSE and/or FILL.

The first part of this chapter introduces the PARSE and FILL constraints which are relevant in accounting for phonological phrasing. The second part, provides arguments for the relative rankings of PARSE/FILL constraints. The rankings to be discussed mainly involve default phonological phrase outputs. In line with standard

---

¹ In Helsloot (1994), I argued in favor of a function *Feature Checking* (cf. Chomsky 1993), by virtue of which textual features were checked against templatic features. This approach too leads to a considerable decrease of the number of evaluable candidates.
OT, I consider a violation of a PARSE constraint to give rise to deletion, and violation of a FILL constraint to give rise to epenthesis or addition (cf. Prince & Smolensky 1993). More specific rankings involving (sub)minimal and (supra)maximal phrase outputs are presented in the chapters 6 and 7. The final part of this chapter considers the generalizability of the text/template approach that I am proposing here.

5.1 PARSE and FILL Constraints

The broad idea is that PARSE constraints refer to textual inputs, and FILL constraints to templatic inputs. That is, textual input features must be properly parsed in the output, and templatic input features must be properly filled in the output.

The string in (2) represents a default φ output: the φ contains four syllables, of which the penultimate one bears phrasal stress and the initial one foot stress:

(2) \( \text{dil himi} \) M81:26

As illustrated in (3), the input of this phrase consists of a textual input, TexIn, and a templatic input, TemIn. The TemIn corresponds to the Defφ template (cf. section 4.1). It should be noted, however, that in principle all input templates are available to GEN.

(3) TexIn: \[
\begin{array}{ccc}
\sigma & \sigma & \omega & \sigma \\
/\text{di/} & /\text{lamjera/} & \\
\end{array}
\]

TemIn: \[
\begin{array}{ccc}
\phi \\
/\text{\( \phi \)oes} & /\text{\( \phi \)oes} & /\text{\( \phi \)oes} \\
\end{array}
\]

The preposition \( /\text{di/} \) 'of' is a monosyllabic grammatical word, and as such it is prosodically prespecified by a \( \alpha \)-head feature alone (cf. section 4.2.2). The noun \( /\text{lamjera/} \) 'metal' is a lexical word, and as such it is prosodically prespecified by a \( \omega \)-head feature plus \( \alpha \)-head features (cf. section 4.2.1). The templatic input consists of a hierarchical structure of abstract constituents. The output candidates, supplied by GEN, are all possible matchings of textual inputs and templatic inputs. In the tableau in (4), the optimal output candidate is indicated by an arrow. The other two candidates show up with either PARSE violations, marked by angled brackets, or FILL violations, marked by empty square brackets. The TexIn is associated with the Defφ template in (4a), with the Minφ template in (4b), and with the Maxφ template in (4c).
In (4i), there are two FILL violations: the dependent $\Sigma$ position is not filled with a textual $\Sigma$ feature, and the $\varphi$ position is not filled with a textual $\varphi$ feature. In (4ii), the TexIn, being associated with the Min$\varphi$ template, gives rise to three PARSE violations, in addition to the FILL violation of the $\varphi$ position. There is no FILL violation of the dependent foot position, however, as in (4i). In (4iii), the association of the TexIn with the Max$\varphi$ template gives rise to four additional FILL violations. Although the PARSE and FILL constraints are not yet ranked with respect to one another (which is indicated by the dotted line separating the constraints), on the basis of the number of violation marks (*) candidate output (4i) is selected as the optimal one.

The first step now concerns the determination of the specific PARSE and FILL constraints. The second step, their relative ranking.

5.1.1 PARSE Constraints

From the bottom up, the first PARSE constraint involves the proper parsing of the input segments: the vowels and consonants making up a word must be parsed in the output in order to be recognizable as such. For instance, if the inflected preposition /della/ 'of-the FEM.SG' is parsed in the output as [(d)ella], the word will be interpreted as the feminine singular personal pronoun /ella/ 'she'. Consequently, I suggest that PARSE-segment in Italian is an undominated
constraint. More concretely, all input segments must be realized in the output. How the segments are realized in the output depends on their featural specification: full vowels, prespecified by a σ-head feature, are parsed into the nucleus position of a syllable, and consonants are parsed into onsets.

(5) \( \text{PARSE-segment: all segments are parsed} \)
\( \text{PARSE-σ-Head: syllable-head features are parsed into nuclei} \)
\( \text{PARSE-consonant: consonants are parsed into onsets} \)

That is, a vowel cannot be parsed into an onset position, and a consonant cannot be parsed into a nucleus position, in Italian.

In order to be part of a phrasal output, it is generally accepted that onsets and nuclei must be properly parsed into syllables, and syllables into feet. PARSE-syllable is the cover constraint:

(6) \( \text{PARSE-syllable: syllables are parsed into feet} \)

Climbing up in the prosodic hierarchy, it is generally accepted that feet are parsed into prosodic words, prosodic words into phonological phrases, and phonological phrases into intonation phrases:

(7) \( \text{PARSE-foot: feet are parsed into prosodic words} \)
\( \text{PARSE-prosodic word: prosodic words are parsed into phonological phrases} \)
\( \text{PARSE-phonological phrase: phonological phrases are parsed into intonation phrases} \)

As for the default \( \varphi \) output [di læmjeɾa], the representation in (8a) satisfies the above PARSE constraints. A number of violations are illustrated in (8b).

(8) a. Satisfaction of PARSE: 
\[ \varphi \]
\[ \sigma \]
\[ \Sigma \]
\[ o-n \]
\[ d i l a mjeɾa \]
b. Violation of PARSE: 
\[ \omega \]
\[ \sigma \]
\[ \Sigma \]
\[ o-n \]
\[ n o-n o-n o-n o-n \]
\[ d i l a mjeɾa \]

In (8a), vowels are parsed into nuclei (PARSE-σ-Head), consonants are parsed into onsets (PARSE-σ-onset), syllables are parsed into feet (PARSE-syllable), feet are parsed into prosodic words (PARSE-foot), and a prosodic word is parsed into a phonological phrase (PARSE-prosodic word). In (8b), instead, vowels are parsed into onsets (PARSE-σ-Head*), consonants are parsed into nuclei (PARSE-
consonant:

), onsets surface as heads of syllables or feet, and nuclei as dependents of syllables, a syllable is parsed into a word (PARSE-syllable:*), feet are parsed into phrases (PARSE-foot:*), and a phrase is parsed into a word (PARSE-phonological phrase:*).

The optimal output in (8a) also shows that input elements are either parsed as heads or as dependents of dominant constituents. That is, two of the four syllables are parsed as the head of a foot, and two as dependents of a foot. One of the two feet is parsed as the head of a prosodic word, and one as the dependent. Recall from chapter 4, that all prosodic constituents are characterized by such head-dependent alternations. Whether a textual feature will be parsed as a head or as a dependent is not a property of the feature itself, however.

It is the FILL constraints which account for the proper filling of head-dependent relations of prosodic constituents.

5.1.2 FILL Constraints

In order to obtain proper φ outputs, the positions of a φ template must be properly filled with textual material. Consider the fully specified Default φ template.

\[
(9) \quad \begin{array}{c}
\{l_{\phi} \\
\{l_{\phi} \\
\{l_{\phi} \\
\{l_{\phi} \\
\{l_{\phi} \\
\{l_{\phi} \\
\end{array}
\]

From the bottom up, the following constraints are involved. The syllable-head position as well as the onset position must be properly filled. FILL-φ is the cover constraint.

\[
(10) \quad \begin{array}{c}
\text{FILL-onset: onset positions are filled with Cs displaying rising sonority} \\
\text{FILL-φ-Head: φ-head positions are filled with Vs} \\
\text{FILL-φ: syllable positions are filled with segmental features}
\end{array}
\]

A templatic foot position dominates minimally two syllable positions. These positions must be properly filled:

\[
(11) \quad \begin{array}{c}
\text{FILL-φ: a foot template must be properly filled}
\end{array}
\]

---

3 From now on, abbreviations and greek symbols are used again: vowel=V, consonant=C, onset=O, nucleus=N, syllable=φ, foot=φ, prosodic word=ω, phonological phrase=φ, and intonation phrase=I.

4 Only onset-nucleus sequences are exceptions in this regard.
The Default \( \varphi \) template requires the maximal prosodic word positions to be properly filled. That is, the \( \text{Max}_2 \) template dominates two feet of which one functions as the head, and one as the dependent. Each \( \varphi \) template, in turn, requires its \( \varphi \) position to be properly filled.

\begin{equation}
\text{FILL-Max}_2: \text{the Max}_2 \text{ template must be properly filled}
\end{equation}

\begin{equation}
\text{FILL-}\varphi: \text{ a } \varphi \text{ template must be properly filled}
\end{equation}

Consider again the default phrase [di lamjera].

All the onset positions are filled with C features (FILL-onset), all the nucleus positions with V features (FILL-\( \sigma \)-Head), all the syllable positions with CV features (FILL-\( \Sigma \)), and the foot positions with syllables (FILL-\( \Sigma \)). The maximal word positions, by contrast, are not all properly filled: the dependent foot is not filled with a textual \( \Sigma \)-head feature. FILL-Max\( \varphi \) is thus violated. The \( \varphi \) position of the template is neither properly filled: the TexIn does not provide a textual \( \varphi \)-head feature. FILL-\( \varphi \) is thus violated. \textit{Addition} is the generic term which is associated with violation of FILL. In the actual case, FILL violation implies addition of prosodic features. That is, the first syllable in the string is phonetically realized with secondary stress properties, and the \( \alpha \)-head syllable is phonetically realized with phrasal stress properties.

The next section considers a number of FILL and/or PARSE violations in more detail.

5.2 Constraint Ranking

As seen in chapter 3, there are many textual inputs that do not give rise to such a straightforward parsing as the phrase [di lamjera]. Synaloepe, syllable upbeats, stress deletion and stress addition, are just a few phenomena which require a more profound analysis. The ranking of constraints is the grammatical means that is adopted here in order to account for these phenomena. The optimality theoretical idea is that the satisfaction of a higher ranked constraint at the expense of a lower ranked constraint gives rise to a more grammatical output than the satisfaction of a lower ranked constraint at the expense of a higher ranked constraint (cf. Prince & Smolensky 1993, McCarthy & Prince 1993ab).
The discussion proceeds from conflicting constraints involving the lowest levels of the prosodic hierarchy, to constraints involving the higher word and phrase levels. Conflicting constraints involving the segmental level are most thoroughly described in the literature: a PARSE violation causes deletion of an underlyingly specified vowel or consonant, and a FILL violation causes epenthesis of an underlyingly non-specified vowel or consonant. The phrasal phonology of Standard Italian lacks such deletions or epentheses. That is, underlyingly specified segmental features cannot be deleted; and underlyingly non-specified segmental features cannot be inserted. Nonetheless, deletions and additions of various kind are found in Italian. That is, PARSE and FILL violations do occur. The effects of these violations are prosodic in nature, however. With respect to segments, a more fine-grained account is thus required, such as that elaborated below.

5.2.1 PARSE/FILL: segmental features and syllable positions

In the following subsections, I will focus on the syllabification of segments which occur at the edges of words, beginning with consonant syllabification and then turning to syllabification of adjacent vowels.

5.2.1.1 Syllabification of Consonants

As already mentioned, the domain of syllabification in Italian minimally corresponds to the phonological phrase. With respect to consonants, two phenomena are often discussed in the literature: forward and backward syllabification (cf. Vogel 1982, Chierchia 1986). Forward syllabification refers to the fact that word-final consonants may surface in the onset of the following syllable; backward syllabification refers to the fact that word-initial consonants may surface in the coda of the preceding syllable. In chapter 4, section 4.1.1., I presented the following examples:

(14) a. **Forward Syllabification**
   i. /non/ /a/ /te/ > [no]_{0} [na]_{0} [te]_{0} ‘not to you’
   ii. /pet/ /amore/ > [pe]_{0} [ri]_{0} [mo]_{0} [re]_{0} ‘out of love’

b. **Backward Syllabification**
   i. /da/ /stamani/ > [da]_{0} [st]_{0} [ma]_{0} [ni]_{0} ‘since this morning’
   ii. /se/ /là/ /diča/ > [se]_{0} [là]_{0} [diča]_{0} ‘if you tell’m’

---

5 For the sake of explanation, consider the vowel-initial indefinite article /una/ ‘a (fern.)’ in light of the syllable template Onset-Nucleus. The initial onset position of /una/ is not filled, but no epenthetic consonant comes to surface: /una/ > */una/ or */una/. Neither is it allowed to delete the initial vowel /u/ in order to satisfy Onset-Nucleus: /una/ > */<u>una/.

FILL-onset is the constraint which verifies whether the onset position of the syllable template is properly filled with Cs displaying rising sonority. That is, in order to satisfy FILL-onset, a consonant textually specified as being part of morphological item $a$, fills the onset position of the syllable whose nucleus is realized by the initial vowel of a morphological item $\beta$: /...C/ $a$ /V.../ $\beta$ ->...[CV]o... This happens to be the case in (ai) and (a(ii).

However, as observed in section 4.1.1, language-universally as well as Italian-specifically, there are restrictions on what can be put into an onset position. Consonant clusters violating the Sonority Sequencing Principle (= expanding consonant clusters) are not allowed to fill the onset. This is exemplified in (14b). The first member of the cluster will fill the coda position provided by the Maxo template. FILL-onset is not violated.

The ranking order of constraints becomes crucial in more complex environments. For instance, if no coda position is available, FILL-onset will be violated by virtue of the undominated constraint PARSE-segment. That is, the input segments must be parsed in the output, irrespective of whether the word is preceded by another word or not. The tableau in (15) illustrates the relevant constraint ranking with respect to the TexIn /stamani/ ‘this morning’.

(15) PARSE-segment >> FILL-onset, from /stamani/ ‘this morning’

<table>
<thead>
<tr>
<th>Candidates</th>
<th>PARSE-segment</th>
<th>FILL-onset</th>
</tr>
</thead>
<tbody>
<tr>
<td>/l</td>
<td>$o$</td>
<td>$[$</td>
</tr>
<tr>
<td>/$o$</td>
<td>$[$</td>
<td>$[$</td>
</tr>
<tr>
<td>/$e$</td>
<td>$[$</td>
<td>$[$</td>
</tr>
<tr>
<td>/$r$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>$[$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>$[$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>$[$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>$[$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>$[$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>/s$t$a$m$a$n$a</td>
<td>$[$</td>
<td>$</td>
</tr>
<tr>
<td>/t$a$m$a$n</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The coda position too is conditioned by phonotactic restrictions. Consider the example in (16). The first member of the expanding consonant cluster [sk] cannot be parsed into the coda position of the preceding syllable: the coda position is already filled.

(16) /par/ /skatti/ > [par]$o$[skat]$o$[i] $\sigma$ M81.8

---

7 Word-internally, evidence in favor of this sonority restriction of FILL-onset is provided by duration differences of stress-bearing vowels (cf. Fava & Magno Caldognetto 1976): stressed vowels in open non-final syllables are longer than stressed vowels followed by expanding consonant clusters.
Thus, FILL-onset is not only dominated by PARSE-segment but also by a constraint involving the proper realization of the coda position.8

### 5.2.1.2 Syllabification of Adjacent Vowels

The assumed undominated ranking position in Italian of PARSE-segment accounts for the fact that segments cannot be deleted in order to satisfy conditions on syllable positions. Nonetheless, underlyingly full vowels can be reduced at the surface. The constraint PARSE-σ-head, appears to be involved here. That is, the σ-head feature associated with full vowels in the textual input may not be properly parsed in the output. Violation of PARSE-σ-head implies the deletion of the prosodic property of the relevant vowel.

Let us consider now the phenomenon of synaloephe as presented in section 3.4.5. Within the domain of the phonological phrase, two adjacent unstressed vowels are often realized as one syllable. The righthand vowel is fully realized, but the lefthand vowel is reduced. The grammatical account I want to propose here crucially refers to FILL-onset and PARSE-σ-Head. That is, FILL-onset outranks PARSE-σ-Head. Consider the tableau in (17), with /dove affonda/ (M5:3) as TexIn.

![Tableau](image)

The phonetic effect of the violation of PARSE-σ-Head is a schwa-like element.9

Recall from the same section 3.4.5, that unstressed adjacent vowels within σ are sometimes fully realized. The underlying generalization involved (a) strict binary alternation, and (b) the Default σ template. Strict binary alternation at the syllable level is reflected by the MinΣ template. Proper realization of this foot template is

---

8 See Bologna (1995) for a constraint-based account of coda realization in Italian.

9 Other vowel combinations may give rise to glide formation. See Rosenthal (1994) for a cross-linguistic analysis of Vowel/Glide alternations.
ensured by the constraint \( \text{FILL-} \Sigma \). A constraint ranking in which \( \text{FILL-} \Sigma \) dominates \( \text{FILL-} \text{onset} \) accounts for the observed output, i.e. full realization of both vowels. Consider the tableau in (18).

(18) \( \text{FILL-} \Sigma >> \text{FILL-} \text{onset} >> \text{PARSE-} \sigma \text{-Head}, \text{from } [\text{dà un'onda}] \text{ (U172:19)} \)

<table>
<thead>
<tr>
<th>Candidates</th>
<th>( \text{FILL-} \Sigma )</th>
<th>( \text{FILL-} \text{onset} )</th>
<th>( \text{PARSE-} \sigma \text{-Head} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>([\text{\textipa{i}}][\text{\textipa{a}}]) ([\text{\textipa{a}}] ) ([\text{\textipa{a}}] ) ([\text{\textipa{o}}]) ([\text{\textipa{n}}} ) ([\text{\textipa{a}}]) ([\text{\textipa{n}\text{\textipa{d}}} ) ([\text{\textipa{a}}])</td>
<td>(*)</td>
<td>(</td>
<td>)</td>
</tr>
<tr>
<td>([\text{\textipa{i}}][\text{\textipa{a}}]) ([\text{\textipa{a}}] ) ([\text{\textipa{a}}] ) ([\text{\textipa{o}}]) ([\text{\textipa{n}}} ) ([\text{\textipa{a}}]) ([\text{\textipa{n}\text{\textipa{d}}} ) ([\text{\textipa{a}}])</td>
<td>(*)</td>
<td>(</td>
<td>)</td>
</tr>
</tbody>
</table>

Although much more can be said about the input-output relations of segments and syllables in Italian, the above outlines will suffice to account for \( \text{PARSE/FILL} \) interactions involving the higher levels of the prosodic hierarchy. For the ease of exposition, the subsyllabic constituents will not be taken in consideration from now on.

5.2.2 \( \text{PARSE/FILL}: \text{syllables and feet} \)

As observed in chapter 3, a stressed syllable can be followed by either one or two unstressed syllables. Italian foot templates indeed allow ternary alternation in addition to binary alternation. Surfacing of trisyllabic feet can be accounted for by \( \text{PARSE-} \sigma \), i.e. by the constraint which ensures that syllables are parsed into feet. At the left edge of a phrase domain \( \text{PARSE-} \sigma \) can be violated, however. This phenomenon is better known under the name weak parsing or weak layering (cf. Isô & Mester 1992, Hung 1994, Hayes 1995). I suggest that the constraint \( \text{PARSE-} \Sigma \) is crucially involved here.

Consider first the parsings in (19). The dependent foot of the default \( \phi \) phrase is trisyllabic.¹⁰

¹⁰ Although these secondary stresses were not assigned by the informants of the perception test, the observation of two native speakers about the secondary stress location in the examples in (19) resulted in the following tendencies: the leftmost syllables in the strings in (19) receive secondary stress in a footing, the second syllables from the left receive secondary stress (if not main stress) in a footing.
Notice however that the textual input element that bears the foot stress is not specified for foot headship. That is, the elements are either monosyllabic grammatical words (cf. 19ab), or the relevant syllable belongs to a lexical word which is specified for main stress alone (cf. 19cd). PARSE-σ is at play. But PARSE-σ is dominated by FILL-Σ, which requires minimally two syllables in order to be properly filled. As shown in (20), (i) is the optimal candidate. The output φ corresponds to the Defφ template, i.e., a maxφ is realized. The unproperly filled foot position is phonetically interpreted as addition of secondary stress features.11 In (ii), the TexIn is associated with the Maxφ template: a SMinφ precedes a Maxφ. As indicated by the empty square brackets, a number of FILL violations occur. At this place, the FILL-Σ violation is crucial. In (iii), there is no FILL-Σ violation, but the initial syllable is not properly parsed. That is, PARSE-σ is violated.12

In sum, whether the foot is disyllabic or trisyllabic plays no role. What is important is that textual inputs are properly parsed in the output, in accordance with the structural requirements expressed by the templates.

(20) FILL-Σ >> PARSE-σ, from [cön un terrore] (M40:4)

<table>
<thead>
<tr>
<th>Candidates</th>
<th>FILL-Σ</th>
<th>PARSE-σ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[lφ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[o]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[2]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[o]</td>
<td>[o]</td>
</tr>
<tr>
<td>i. con un tereore</td>
<td>-&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[lφ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[o]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[2]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[o]</td>
<td>[lφ(o)]</td>
</tr>
<tr>
<td></td>
<td>[o]</td>
<td>[o]</td>
</tr>
<tr>
<td>ii. con un tereore</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>[lφ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[o]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[2]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[o]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[lφ(o)]</td>
<td></td>
</tr>
<tr>
<td>iii. con un tereore</td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

---

11 The relevant FILL violation is discussed in the next section.
12 In order to distinguish violation of PARSE-σ-Head (cf. section 5.2.1.2) from violation of PARSE-σ, the latter is represented by a bold node enclosed by angled brackets. It should be stressed that the interpretations of the two violations are totally different: violation of PARSE-σ-Head implies deletion of the prosodic features of the vowel, violation of PARSE-σ implies weak syllable layering.
Consider now the examples in (21). The phrase-initial syllable is not parsed into a foot, and the second syllable from the left edge bears the foot stress:

(21) a. e senza strade M173:16
    b. in questo nembo M96:29
    c. appiè del boto U117:5

The inputs in (21) differ from those in (19) insofar that the foot-stress bearing element is textually prespecified by a Σ-head feature. That is, the involved words constitute polysyllabic grammatical words. Obviously, the realization of this Σ-head prevails over the proper parsing of syllables into feet. In constraint-based terms, PARSE-Σ outranks PARSE-σ.

(22) PARSE-Σ >> PARSE-σ, from [e senza strade] (M173:16)

<table>
<thead>
<tr>
<th>Candidates</th>
<th>PARSE-Σ</th>
<th>PARSE-σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>[l̩ p] [a]</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>[l̩ p] [a]</td>
<td>[a]</td>
<td>[a] [a]</td>
</tr>
<tr>
<td>i.e senza strade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[l̩ p] [o]</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>[l̩ p] [o]</td>
<td>[o] [o]</td>
<td>[o] [o]</td>
</tr>
<tr>
<td>[e senza strade]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It should be noted now that we also find PARSE-σ violations in contexts in which the foot-stress bearing element is not textually prespecified by a Σ-head feature. That is, the dominance of PARSE-Σ over PARSE-σ does not provide an explanation for the observed relevant outputs. In (23), the foot stress falls on the second syllable of the rightmost phrase domain, and not on the initial syllable.13

(23) a. [ove i cavalli] [incappucciati] (* incappucciati) M81:3
    b. [ti salva] [un amuleto] (* un amuleto) M125:25
    c. [di quiete] [inalterabile] (* inalterabile) U226:28

Recall from section 3.4.5.1 that adjacent unstressed vowels across a φ-boundary may be realized as one syllable. This happens to be the case in the examples in (23). The final vowel of the leftmost phrase domain is reduced (PARSE-σ-Head is violated) by virtue of the higher ranking of FILL-onset. Curiously enough, the syllable that emerges from the fusion of the vowels is part of the second phonological phrase rather than of the first phonological phrase:

13 Compare (23ac) with (19cd) in order to get convinced that foot stress location is not morphologically determined: in one and the same metrical context a prefix (in/ri) can be stressed or not.
By listening to the recordings of Montale and Ungaretti, it can be observed that the phrasally stressed syllable on the left is considerably lengthened. How to account for these outputs in terms of constraint ranking is a complex matter, which I do not pretend to resolve here.14

5.2.3 PARSE/FILL: feet and prosodic words

The above sections presented a number of examples in which the dependent foot position of the φ template was not filled by a textually specified Σ-head feature. As stated, the phonetic interpretation of this FILL violation is addition of secondary stress features. The constraint that is responsible for this addition is FILL-Maxφ: a dependent foot precedes a head foot.

In what follows, I will focus on the interaction between FILL-Maxφ on the one hand, and PARSE-ω on the other. Recall from section 3.4.3.1 that the recordings provided realizations in which the main stress of a lexical word was not perceived by the informants. On the basis of the claim that lexical words are prespecified by a ω-head feature, the output thus gives rise to a destressed syllable. Consider some relevant TexIn/TemIn pairs:

(25)

<table>
<thead>
<tr>
<th>TexIn:</th>
<th>TemIn:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ω</td>
<td>[θφφ]</td>
</tr>
<tr>
<td></td>
<td>[Iφφ]</td>
</tr>
<tr>
<td></td>
<td>[Iσσσ]</td>
</tr>
<tr>
<td>a. /muro/ /dā/ /orto/</td>
<td>M28:2</td>
</tr>
<tr>
<td>ω</td>
<td>[θφφ]</td>
</tr>
<tr>
<td></td>
<td>[Iφφ]</td>
</tr>
<tr>
<td></td>
<td>[Iσσσ]</td>
</tr>
<tr>
<td>b. /vivo/ /dā/ /pietre/</td>
<td>M96:11</td>
</tr>
<tr>
<td>ω</td>
<td>[θφφ]</td>
</tr>
<tr>
<td></td>
<td>[Iφφ]</td>
</tr>
<tr>
<td></td>
<td>[Iσσσ]</td>
</tr>
<tr>
<td>c. /acque/ /sontuoso/</td>
<td>U117:6</td>
</tr>
</tbody>
</table>

14 The complexity of the phenomenon is even further increased by the following example:

esplode [furibonda] [una canea] > furibonda<?a>una canea M72:26

The Σ-head feature of the polysyllabic determinate /una/ is not properly parsed (PARSE-Σ is violated): the foot stress falls on the following syllable, /una/. If both the ω-head feature of /furibonda/ and the Σ-head feature of /una/ are realized, then the reduction of the word-final vowel /a/ of /furibonda/ will cause a clash between these two stresses. What seems to happen is that the dependent part of the foot dominating the stressed syllable /bon/ is filled with the first syllable of /una/. In constraint-based terms, FILL-Σ outranks PARSE-Σ.
The outputs of these strings contain a foot stress plus a phrase stress, and not a word stress plus a phrase stress:

\[(26)\]
\[\begin{align*}
a. \text{muro d'orto} & \quad (* \text{muro d'orto}) \\
b. \text{vivo di pietre} & \quad (* \text{vivo di pietre}) \\
c. \text{acque sontuoso} & \quad (* \text{acque sontuoso})
\end{align*}\]

In constraint-based terms, \textsc{parse-ω} is violated. The claim is that this violation is triggered by the higher ranking of \textsc{fill-maxω}. For the sake of the exposition, let me repeat the relevant Φ templates, i.e. the \textsc{defρ} template and the \textsc{maxρ} template:

\[(27)\]
\[
\begin{array}{cc}
\text{Defρ template} & \text{Maxρ template} \\
\{l_\phi \} & \{l_\phi \} \\
\{l_\omega \} & \{l_\omega \} \\
\{l_\chi \} & \{l_\chi \} \\
\{l_\sigma \} \{l_\sigma \} \{l_\sigma \} & \{l_\sigma \} \{l_\sigma \} \{l_\sigma \}
\end{array}
\]

In order to properly parse both ω-head features, the \textsc{maxρ} template must be assumed to be associated with the TexIn. The tableau in (28) illustrates the effect of the matchings.

\[(28)\]
\[
\begin{array}{c|c|c}
\text{Candidates} & \text{FILL-Maxω} & \text{PARSE-ω} \\
\hline
[ l_\phi ] & [ l_\phi ] & * \\
[ l_\sigma ] [ l_\sigma ] [ l_\sigma ] & [ l_\sigma ] [ l_\sigma ] [ l_\sigma ] & [ l_\sigma ] [ l_\sigma ] [ l_\sigma ] \\
i. \text{acque sontuoso} & [ l_\phi ] & * \\
\hline
\rightarrow [ l_\phi ] [ l_\phi ] [ l_\phi ] & [ l_\phi ] [ l_\phi ] [ l_\phi ] \\
[ l_\chi ] & [ l_\chi ] \\
ii. \text{acque sontuoso} & [ l_\chi ] & [ l_\chi ] [ l_\chi ] [ l_\chi ] [ l_\chi ]
\end{array}
\]

That is, while the matching of the relevant TexIn with the \textsc{maxρ} template gives rise to a violation of \textsc{fill-maxω}, the matching of the TexIn with the \textsc{defρ} template gives rise to a violation of \textsc{parse-ω}. In the actual case, the latter situation is found. That is, the ω-head feature of /acque/ is not parsed in the output. Evidence in favor of the outranking of \textsc{parse-ω} by \textsc{fill-maxω} is not only provided by the perceived parsings assigned to the verse data. A series of phonological phenomena typically associated with main word stress do not occur in the lefthand words. Vowel Lengthening, Stress Retraction and Pitch Accent are the relevant phenomena. Deletion of ω prosodicity is thus spelled out by means of duration, frequency and/or intensity. The following subsections are dedicated to these phenomena.
5.2.3.1 Violation of PARSE-eo: Vowel Lengthening

As stated in chapter 4, vowel length is not lexically contrastive in Italian. At the surface, a vowel can be lengthened, however. This lengthening can be considered to be the phonetic spell-out of a prosodic feature ø-head or ø-head. The former is generally referred to as Vowel Lengthening (VL), and the latter as Final Lengthening (FL). VL only applies to open, non-final ø-head syllables (cf. Camilli 1965, Fava & Magno Caldognetto 1976, Bertinetto 1976, 1981, Vogel 1982, Nespor & Vogel 1986), and FL applies to closed as well as open ø-head syllables (cf. Magno Caldognetto et al. 1983, Bertinetto 1981, Nespor & Vogel 1986, Ghini 1993).

Neither in absolute nor in relative terms, have duration criteria been reported which would allow us to determine whether a syllable is subject to just VL or to VL plus FL. Moreover, it is observed that in a phrasal context [word₁ word₂] only the head syllable of word₂ undergoes lengthening (cf. Bertinetto 1985). Consider in this regard the examples in (29), from Camilli (1965:§33). The verbal forms fate and stare surface with a lengthened vowel when pronounced in isolation (cf. 29ab), but with a short vowel when surfacing in phrase-dependent position (cf. 29a'b'):¹⁶

(29) a. fate > [fate] a'. fate stare > [fate stare]
   make-2PL to be 'you make ...'
b. stare > [stare] b'. stare zitto > [stare zitto]
   to be silent

Marotta’s (1985) experimental study on lengthening phenomena in Italian phrases, fully confirms this pattern: in normal speech, sequences like pesa pere ‘(he/ she) weighs pears’ and pesa le pere ‘(he/ she) weighs the pears’ are produced with only one stress (1985:136). That is, these phrases surface as Default ø's:

(30) [ø] [ø] [ø] [ø]
    [ø] [ø] [ø] [ø]
    [ø] [ø] [ø] [ø]

a. p e s a p e r e
   'he weighs pears'
b. p e s a l e p e r e
   'he weighs the pears'

The observance of lengthening at the right edge of the ø only, is entirely compatible with the quantity patterns characterizing foot types: iambic systems tend to enhance quantitative contrasts while trochaic systems do not (cf. Allen 1975, Hayes 1985,)

¹⁵ Bertinetto (1985:622): "le differenze di durata tra vocali toniche in sillaba aperta e chiusa (evidentissime nella pronomnia isolata) tendono a scomparire nel contesto di enunciato prodotto a velocità normale;" (the duration differences between stressed vowels in open syllables vs. closed syllables (very evident in isolated pronunciation) tend to disappear in phrasal contexts produced with a normal speech rate).

¹⁶ Similar observations regarding the absence of lengthening in phrase-dependent ø's are made in Casari & D’Aldo (1967) and Magno Caldognetto et al. (1983). See also Helsloot (1993).
1995, Prince 1990). Since Italian gives rise to an iambic organization from the level of the foot upwards, we expect to find similar Light-Heavy patterns in \( \Sigma \) or \( \varphi \) sequences. That is, the first \( \Sigma \) (or \( \varphi \)) will be Light, and the second will be Heavy. Prince's (1990) Grouping Generalization, accounting for the gradual wellformedness of the iambic/trochaic foot divide, can be invoked here in order to account for the structural requirements at the \( \varphi \) and \( \varphi \) level. Hence, \( \varphi \)'s and \( \varphi \)'s preferably group subordinate constituents in a Light-Heavy mode.

From this point of view, the absence of phrase-internal lengthening can be considered to be the effect of Trochaic Shortening or Deweighting (cf. Kager 1989, Prince 1990): in principle, all underlyingly specified \( \omega \)-heads may undergo lengthening at the surface, but actual realization of lengthening is determined by the phrasal context. Notice now that within a template-and-constraint framework there is no need to refer to processes of Shortening or Deweighting: constraints ensuring proper filling of templates straightforwardly account for the empirical facts. In the actual case, FILL-Max\( \omega \) outranks PARSE-\( \omega \). Consider the tableau in (31), illustrating the input-output relation of an example from the verse data. In (i), not only FILL-Max\( \omega \) is violated, but also FILL-\( \Sigma \), and in (ii) PARSE-\( \omega \)-Head as well as PARSE-\( \omega \) are violated.

(31) \( \text{FILL-Max}\omega \gg \text{PARSE-}\omega \), from \([\text{fuma}\ j\ \text{suolo}] \) (M81:40)

<table>
<thead>
<tr>
<th>Candidates</th>
<th>FILL-Max( \omega )</th>
<th>PARSE-( \omega )</th>
</tr>
</thead>
<tbody>
<tr>
<td>([\text{a}])</td>
<td></td>
<td>( \ast )</td>
</tr>
<tr>
<td>([\text{e}])</td>
<td>( \ast )</td>
<td></td>
</tr>
<tr>
<td>([\text{a}] [\text{l}] [\text{o}] [\text{a}])</td>
<td>( \ast )</td>
<td></td>
</tr>
<tr>
<td>(\text{fum a...a j suolo})</td>
<td>( \ast )</td>
<td></td>
</tr>
<tr>
<td>([\text{a}])</td>
<td>( \ast )</td>
<td></td>
</tr>
<tr>
<td>([\text{e}])</td>
<td></td>
<td></td>
</tr>
<tr>
<td>([\text{a}] [\text{e}] [\text{a}])</td>
<td>( \ast )</td>
<td></td>
</tr>
<tr>
<td>(\text{fum a j suolo})</td>
<td>( \ast )</td>
<td></td>
</tr>
</tbody>
</table>

This constraint ranking is confirmed by the phenomenon of Stress Retraction, discussed in the next subsection.

5.2.3.2 Violation of PARSE-\( \omega \): Stress Retraction

Stress Retraction in Italian is a widely observed and frequently discussed phenomenon (cf. Camilli 1965, Savoia 1974/5, Nespor & Vogel 1979, 1986, 1989, Farnetani & Kori 1983, Marotta 1985, Nespor 1990b, among others). The phenomenon as it occurs in the northern variety of Italian is argued to apply within the phonological phrase domain, and it is argued to be triggered by a sequence \( \text{word}_1\text{word}_2 \), in which \( \text{word}_1 \) has final stress and \( \text{word}_2 \) initial stress (cf. Nespor &
Vogel 1986:174-5). Contrary to its name, phonetic measurements show that the 'retracted' stress is subject to destressing rather than to retraction (cf. Farnetani & Kori 1983, Marotta 1985). Nespor & Vogel observe that the retracted stress of word₁ does not necessarily maintain its original stress prominence: “it must only be stronger than the stress of the final (destressed) syllable of word₁,” (1986:175). Nespor & Vogel (1989) argue in favor of an analysis in terms of Beat Deletion and Beat Addition, where beats stand for positions in the metrical grid. The clash between word₁ word₂ triggers Beat Deletion. Beat Addition is not intrinsically related to the phenomenon of SR, but is triggered in case a lapse is created.¹⁷

The relative dominance of FILL-Maxeo over PARSE-ω accounts for the observation that the stress of word₁ is not realized at the surface. A complete account of SR involves also FILL-Σ, PARSE-Σ and PARSE-α. This complete account is deferred until chapter 8. Consider the TexIn/TemIn pairs below:

(32)

<table>
<thead>
<tr>
<th>TexIn:</th>
<th>TemIn:</th>
</tr>
</thead>
</table>

The tableau in (33) illustrates the input-output relation for (32b). Notice now that FILL-Maxeo is violated in both output candidates. Output (a), however, gives also rise to three FILL-Σ violations. I suggest therefore that FILL-Σ outranks FILL-Maxeo.

(33) FILL-Σ >> FILL-Maxeo >> PARSE-ω, from [così durə]

<table>
<thead>
<tr>
<th>Candidates</th>
<th>FILL-Σ</th>
<th>FILL-Maxeo</th>
<th>PARSE-ω</th>
</tr>
</thead>
</table>

¹⁷ See section 2.2.2 for definitions of stress clash and stress lapse.
A final argument in favor of \( \text{FILL-Max} \gg \text{PARSE-о} \) derives from the distribution of pitch accents.

### 5.2.3.3 Violation of \( \text{PARSE-о} \): Pitch Accent Assignment

In section 2.2.3.2, I referred to Avesani's (1990) account of pitch accent assignment in Italian. Lexical words, although typically associated with a pitch accent, sometimes surface without such an accent. Avesani's Accent Unit is the smallest phrasal domain which is characterized by the presence of one pitch accent associated with the head of the phrase (cf. chapter 2, section 2.2.3.2). Inputs of Accent Units may enclose either one or two lexical words. In other words, properties of the Accent Unit do not differ from the properties characterizing the Default phonological phrase domain: a single strong stress (= phrasal stress), irrespective of whether the input encloses one or two lexical words.

In constraint-based terms, \( \text{FILL-Max} \gg \text{PARSE-о} \). That is, violation of \( \text{PARSE-о} \) is phonetically spelled out as the non-realization of a pitch accent. The examples from the verse data in (34) are realized with just one clearly audible pitch.

\[
\begin{array}{cccc}
\text{TexIn:} & \text{Output:} \\
\hline
\omega & \omega & L^* & \\
\hline
a. /la/ /in/ /fondo/ & \text{là in fondo} & M51:6 \\
\hline
\omega & \omega & H^* & \\
\hline
b. /esser/ /vasto/ & \text{èsser vasto} & M52:16 \\
\hline
\omega & \omega & H^* & \\
\hline
c. /pocche/ /cose/ & \text{pocche cose} & U226:1 \\
\end{array}
\]

In sum, the prosodic \( \omega \)-head feature of the lexical word on the left is not realized at the surface. The reason is the Default phonological phrase template. The proper filling of this templatic input outranks the proper parsing of the textual input. In chapter 8, instances of marked default phrases will be discussed: both input \( \omega \)-heads are parsed then. It will be argued that a constraint is involved that is higher ranked than \( \text{FILL-Max} \).

### 5.3 Generalizability and Predictability

Having introduced the PARSE and FILL constraints crucially involved in default \( \phi \) outputs, let us now consider the generalizability and predictability of the text/template-and-constraint approach outlined so far. More concretely, in the
recorded subcorpus of the poetry of Ungaretti and Montale, 30% and 37% of all
the phonological phrases, respectively, are default \( \varphi \)'s. All these default \( \varphi \) outputs are
captured by a simple framework in which a templatic and a textual input source are
distinguished, as well as a number of ranked PARSE and FILL constraints.

To understand the high degree of generalizability of this framework, I list the
various textual inputs which all lead to one and the same default \( \varphi \), i.e. to the two-
foot maximal \( \omega \) whose feet are either disyllabic or trisyllabic:\( ^{18} \)

\[
\begin{array}{ll}
(35) & \chi \varphi \\
\xi \varphi_
\end{array}
\]

Textual inputs are expressed in terms of CV sequences, prosodic features (o-
head/\( \Sigma \)-head) and word boundaries (/ /) (the full specification also includes the
association of a \( \alpha \)-head feature to each full vowel, however). As for the CV
sequences, I shall not differentiate among the possible internal variations of these
sequences. Each input is exemplified by data from the recorded subcorpus of
Ungaretti and/or Montale (see Appendix E).

In (36), one lexical word inputs are given. Seven different one-word inputs giving
rise to default \( \varphi \) outputs are found in the data. (36g) exemplifies a strict compound
input (cf. section 4.2.4.1).

\[
\begin{array}{ll}
(36) & \omega \\
& /CVCVCVCV/ \\
& /CVCVCVCV/ \\
& /CVCVCVCV/ \\
& /CVCVCVCV/ \\
& /CVCVCVCV/ \\
& /CVCVCVCV/ \\
& /CVCVCVCV/ \\
& /CVCVCVCV/ \\
& /CVCVCVCV/ \\
\end{array}
\]

\( ^{18} \) Although violating FILL-\( \Sigma \), stress-final words can also be inputs of Default \( \varphi \). In chapter 8, I come
back to these forms.
In (37), two-word inputs are listed giving rise to default \( \phi \) outputs. The list contains 21 different forms, all occurring in the recorded subcorpus of Montale and Ungaretti.

(37)
\[
\begin{align*}
\Sigma & \quad \circ \\
\circ & \quad [\text{à grigia} \phi] \quad \text{M72:14} \\
\circ & \quad [\text{dietto} \phi] \quad \text{M142:1} \\
\circ & \quad [\text{d\'inviolabili} \phi] \quad \text{U185:8} \\
\circ & \quad [\text{una tromba} \phi] \quad \text{M81:14} \\
\circ & \quad [\text{delle nuvole} \phi] \quad \text{U43:8} \\
\circ & \quad [\text{come te} \phi] \quad \text{M146:7} \\
\circ & \quad [\text{una braccia} \phi] \quad \text{M72:24} \\
\circ & \quad [\text{mentre riprende} \phi] \quad \text{U253:7} \\
\circ & \quad [\text{senza vilt} \phi] \quad \text{M96:54} \\
\circ & \quad [\text{débbio ripor ser} \phi] \quad \text{M133:1} \\
\end{align*}
\]
Three-word inputs giving rise to default \( \varphi \) outputs are presented in (38). A total of 23 different forms are found in the recorded data.

\[
\begin{align*}
\Sigma & \quad \varnothing \\
\text{m. } & /CVVCv//CVCV/ \quad [\text{pêrche tardi}]_\varphi \quad M142:1 \\
\text{n. } & /CVVCv//CVCV/ \quad [\text{avra fatto}]_\varphi \quad U158:2 \\
\text{o. } & /CVVCv//CVCV/ \quad [\text{già profuma}]_\varphi \quad M139:6 \\
\text{p. } & /CVVCv//CVCV/ \quad [\text{avra fatto}]_\varphi \quad U158:2 \\
\text{q. } & /CVVCv//CVCV/ \quad [\text{màni scame}]_\varphi \quad M96:16 \\
\text{r. } & /CVVCv//CVCV/ \quad [\text{vecchie querci}]_\varphi \quad U172:8 \\
\text{s. } & /CVVCv//CVCV/ \quad [\text{è il cuore}]_\varphi \quad U158:2 \\
\text{t. } & /CVVCv//CVCV/ \quad [\text{è nel silenzio}]_\varphi \quad U253:10
\end{align*}
\]

(38) \[
\begin{align*}
\varnothing & \\
\text{a. } & /CVv//CVv//CVv/ \quad [\text{è il cuore}]_\varphi \quad M158:1 \\
\text{b. } & /CVv//CVv//CVv/ \quad [\text{è il cuore}]_\varphi \quad M158:1 \\
\text{c. } & /CVv//CVv//CVv/ \quad [\text{è il cuore}]_\varphi \quad M158:1 \\
\text{d. } & /CVv//CVv//CVv/ \quad [\text{è nel silenzio}]_\varphi \quad U253:10
\end{align*}
\]
f. /CV//CV//CVCV/ [è vi sostò]φ M161:5
   o
   [è l'inferno]φ M133:12

  g. /CV//C//CVCV(CV)/ [è l'equivoco]φ U185:10
   o
   [è l'inferno]φ M133:12

  h. /C//VC//CVCV/
   Σ o
   [d'àn iddio]φ U177:22

  i. /VC//CV//CVCV/
   Σ o
   [èra la sera]φ M173:29

  j. /VC//VC//CVCV/
   Σ o
   [enterò il giorno]φ U177:3
   [quàndo il bulino]φ M147:8-9

  l. /VC//VC//CVCV/
   Σ o
   [èm ne un acrobati]φ U43:19

  m. /VC//VC//CVCV/
   Σ o
   [èome m'aggrade]φ U226:34

  n. /C//VC//CVCV/
   Σ o
   [d'una forma]φ M96:43

  o. /CV//CVCV//CV/
   Σ Σ o
   [nòn sapor mà]φ U172:20
   [sènza uno scarto]φ M81:14

  p. /VC//VC//CVCV/
   Σ o
   [hànnò una tale]φ U195:5

  q. /CV//CV//CVCV/
   o o
   [più non torna]φ M161:9

  r. /CV//CV//CVCV/
   o o
   [dà se scrollà]φ M150:6

  s. /CV//CV//CVCV/
   o o
   [è qui meglio]φ U43:28

  t. /VC//CV//CVCV/
   o o
   [è tu folgore]φ M142:7

  u. /VC//CV//CVCV/
   o o
   [è tuo pietre]φ M96:11
Finally, three different four-word inputs giving rise to default \( \varphi \) outputs are found.

\[ \begin{align*}
u. & \quad /CV\text{/ CV} / CV/ / CV/ \quad [\text{mi sara lieve}] \varphi \quad M5:18 \\
v. & \quad /CV\text{/ CV} / CV/ \quad [\text{più piu nulla}] \varphi \quad M96:46 \\
w. & \quad /CV\text{CV} / CV/ / CV/ \quad [\text{sempre piu tardi}] \varphi \quad M125:61 \\
\end{align*} \]

In sum, at least 54 textual prosodic inputs can be distinguished which (may) give rise to default \( \varphi \) outputs.

5.4 Conclusions

The many-to-one correspondence between textual input on the one hand, and Default \( \varphi \) on the other, illustrated in the previous section, strongly argues in favor of a prosodic account of phonological phrasing based on abstract templates. That is, prosodic constituency should no longer be seen as being constructed in a bottom-up fashion with a textual input as the sole information source. By contrast, the textual input and the templatific input are two sources which try to match each other in an optimal way. Regarding the Default \( \varphi \) template, the lists presented in the previous section show that the structural prosodic requirements expressed by this template are extremely powerful. If the textual input conflicts with the templatific requirements, prosodic features are either deleted from the textual input or added to the textual input. Only the non-prosodic information of the textual input, i.e. the segmental features, is protected against deletion or addition.

A number of phonological phenomena have been presented in this chapter in favor of the dominance of the Default \( \varphi \) template over the textual input. At the three subphrasal constituent levels, the relevant phenomena are: (a) cross-word syllabification, involving either consonants or vowels, (b) cross-word foot
formation, and (c) deletion of main stress, i.e., cross-word prosodic word formation. Most insightful in this regard are the following constraint rankings:

(40) FILL-onset  FILL-Σ  FILL-Σ  
     >>  >>  >>  
PARSE-σ-Head  PARSE-Σ  FILL-Maxω  
     >>  >>  
PARSE-σ  PARSE-ω  

The phenomena discussed in this chapter illustrate that FILL constraints (templatric requirements) generally dominate PARSE constraints (textual requirements). In the next chapter, we will see that the textual input is nonetheless not a weak kneed, i.e., PARSE constraints may dominate FILL constraints.