To Ton Goeman, on the occasion of his retirement

Goeman (1999) shows that t-deletion in Dutch dialects is sometimes dependent on the absence or presence of vowel alternations in the stem, although the effect is not very strong. This may result in alternations such as the following (I give the Standard Dutch form for comparison):

<table>
<thead>
<tr>
<th></th>
<th>Standard Dutch</th>
<th>Dialect</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>geeft [yeft]</td>
<td>geeft [yeft]</td>
<td>I give</td>
</tr>
<tr>
<td>3SG</td>
<td>gif [yif]</td>
<td>gif [yif]</td>
<td>he gives</td>
</tr>
</tbody>
</table>

If we abstract away from the voicing specification for the fricatives, some minor phonetic details of the vowels, the relevant 3SG forms can be found in 71 dialects in the Goeman-Taeldeman-Van Reenen database, distributed in the following way:

1\(^\text{Voor de werkkraft van Ton Goeman en de bewonderenswaardige manier waarop hij allerlei onderzoekstechnieken beheerst en met elkaar hebt weten te combineren, heb ik altijd grote bewondering gehad. Zelfs in een vriendenboek hoort een squib in het Engels.}\)
These facts are relevant for current phonological debate among other things because they display a case of phonological opacity. An obvious phonological motivation for vowel laxing is to make the verbal form fit a syllabic template: after tense vowels Dutch dialects prefer to have one consonant at most at the end of the word, whereas lax vowels can tolerate two consonants. Laxing a vowel before a cluster thus solves a problem (van Oostendorp, 2000; Swets, 2004). However, the same problem is apparently solved by deletion of the /t/. If we just look at the phonological structure, it thus is unclear why the lax vowel is laxed if the final /t/ is deleted anyway. This is a problem in particular in surface-oriented theories such as Optimality Theory.

A reason for this opacity may be that historically the laxing took place before the deletion of /t/, as Goeman (1999) suggests. However, this does not explain the present-day synchronic system: why would modern speakers apply laxing? There are at least four potential answers to this question.

1. A first possibility is to invoke one of many theoretical devices which have been developed within OT in the past twelve years, such as Sympathy Theory (McCarthy, 1999) or Candidate Chains (McCarthy, 2006). Since we are dealing here with a fairly standard case of counterfeeding order, most of these alternatives will provide us with a technical solution. However, from my point of view, they are not very insightful, if only because all of these devices add computational power to our theory, which we would like to do without.

2. A second possibility is that we are dealing here with stem allomorphy: the verbal stem takes a different shape in the third person singular than in some other forms. An even more extreme version of this, quite popular nowadays among psycholinguists (e.g. Ernestus & Baayen, 2003), would hold that all inflected forms are stored lexically. At first sight, it may seem like an argument that some verbs do not have the laxing exemplified here at all. For instance, the first person singular [les] ‘I read’ corresponds to [lis] in only one dialect in the Goeman-Taeldeman-Van Reenen database (the village of Brummen, Kloekke code F178p). On the other hand, we can find 118 dialects which have /t/ deletion as well as shortening, be it that the short vowel in this case is [e].

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2Some of these vowels have (long) [ɛ] in other forms of the paradigm, a fact which we will ignore.
However, although such a position may be valid from a psychological point of view, it does not seem to contribute very much to our understanding of the system underlying the laxing process. Stem allomorphy does away with positing all underlying morphological structure in the synchrony.

3. A third possibility is to assume that the third person singular suffix is still present, be it in an abstract (unpronounced) form. For instance, we could assume that /t/ deletion leaves an abstract consonantal position, which is phonetically unpronounced, but still visible for vowel laxing. Such a position would be in some respects in line with earlier work of mine; e.g. in van Oostendorp (2005), it is argued that the first person singular suffix is an empty vocalic position in many dialects. Yet I believe that such a solution suffers from a problem in this case. In van Oostendorp (2005) and related work, I assume the reason why the suffix has become completely empty is that it occurs in a very weak position — which is adjoined to the phonological word. Such a position is very weak and therefore disfavours any segmental information. The problem is that this adjoined position behaves as invisible for syllable structure in many respects. For instance, the generalisation against tense vowels followed by two consonants also holds for Standard Dutch, but has an exception in inflected forms such as the third person singular geeft ‘gives’ [yeft]. From this perspective, then, dialects which have a lax vowel in [yфt] should be different: the inflectional /t/ suffix should be incorporated into the phonological word, as has been argued by Swets (2004) for Tilburg Dutch. But in that case there is no longer any reason for the /t/ to weaken.

(4) a. Standard Dutch: [[yфt]t]
   b. Tilburg Dutch: [yфt]

In dialects such as the one exemplified by Standard Dutch, there is a reason for /t/ deletion, but not for laxing, in Tilburg Dutch there is a reason for laxing, but not for /t/ deletion (at the same time).
4. I therefore wish to propose here a fourth option, building on elements of the other solutions. In line with Swets (2004), I assume that the laxing of the vowels historically was a result of a situation in which the /t/ morpheme was incorporated into the phonological word. The present deletion of this segment is an indication that the phonological structure of these dialects has changed in the direction of Standard Dutch. But I assume that this historical shift has not necessarily resulted in stem allomorphy, but in a new form for the suffix. We may assume that the difference between a lax vowel and a tense vowel is that the former possesses a feature [lax] or [RTR] which is lacking from the latter (van Oostendorp, 2000). But this means that in the dialects at hand, the exponence of the third person singular suffix has become this feature (possibly in addition to the specification of the /t/ which is then deleted in the phonology).

Similar cases are known in the literature. Some varieties of Spanish, such as the dialect of Granada, have the following pattern (Hooper, 1976):

(5) Granada Spanish (±tense] Harmony)

<table>
<thead>
<tr>
<th>Orthography</th>
<th>Singular</th>
<th>Plural</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>pedazo</td>
<td>[peðaθo]</td>
<td>[prɛθaθo]</td>
<td>‘piece’</td>
</tr>
<tr>
<td>alto</td>
<td>[alθo]</td>
<td>[alθo]</td>
<td>‘tall’</td>
</tr>
<tr>
<td>cabeza</td>
<td>[kaθeθa]</td>
<td>[kaθeθa]</td>
<td>‘head’</td>
</tr>
<tr>
<td>selva</td>
<td>[selva]</td>
<td>[selva]</td>
<td>‘forest’</td>
</tr>
</tbody>
</table>

The difference between singular and plural nouns is thus expressed as a difference between all tense vowels or all lax vowels within the word. The history of this is that there has been a plural suffix -/s/, as there still is in many other dialects of Spanish, closing the final syllable. Closed syllables are often lax in Spanish varieties just like in Dutch. I propose the same has happened here: in some stage, it was the -/s/ which caused the laxing; at a latter stage, [lax] was interpreted as the exponence of plurality.

We could now wonder about the difference between geven ‘to give’ which shows [i] in 3SG and lezen ‘to read’, which shows [ɛ]. There are two options. One would be to assume that 3SG has two allomorphs, one containing only a specification [lax], and the other containing an additional feature [low]. Observe however, that there is only one tense counterpart to (mid) [i] and (low) [ɛ] on the surface in most Dutch dialects, and this is (mid) [ɛ]. Assuming, then, that lees underlyingly has a low tense vowel, this impossible vowel will be repaired to a mid tense vowel in the first person singular and to a low lax vowel in the third person singular.
Bibliography


