Segmental variation and syllable structure in the French prenominal adjectives

French singular prenominal adjectives can have up to three allomorphs, though some have just one (like *honnête* ‘honest’), and some have two (as for instance *petite*/petit* [pətit/pətɪ] ‘little’, *mauvaise*/mauvais* [møvɛz/møvɛ] ‘bad’, or *vieux*/viel(le) ‘old’ and *nouveau*/nouvel(le) ‘new’). Whereas *petit* and *mauvais* are regular forms, *vieux* ‘old’ and *nouveau* ‘new’ (as well as *fou* ‘mad’ and *mou* ‘soft’) have suppletive forms. In the adjectives with two allomorphs, suppletive or not, the liaison masculine form is phonetically identical to the feminine, as shown in (1).

(1) a. une petite [pətit] vieille [vjøl] mosquée/église ‘a little/old mosk/church, fem.’
   c. un petit [pəti]/vieux [viø] temple ‘a little/old temple, masc.’

Tranel (1999) and Perlmutter (1998) have proposed OT analyses of this alternation in terms of two conflicting constraints, a markedness constraint, ONSET, militating against hiatus, and a faithfulness constraint requiring faithfulness to gender (GENDERAGREEMENT), which says that adjectives agree with their nominal heads. Tranel’s and Perlmutter’s analyses, which differ along several dimensions, share the following claim: the need to realize morphosyntactic features can be overridden by the requirement to obtain a better phonological structure. In their view, then, the masc. liaison allomorph is the feminine form. However, when one extends the class of cases considered so as to include those with three allomorphs, it becomes clear that this analysis cannot be maintained.

For this group of adjectives, different classes can be established: first, those like (2) in which the feminine and the masculine differ in the voicing of their final coronal obstruent, or in the anteriority of the coronal (the first allomorph is the fem., the second is the liaison masc. and the third, the masc. before consonant). It has been tentatively proposed that these adjectives insert an epenthetic obstruent in the liaison environment, [t] or [z], a claim which requires some adjustments. This point, not being central, will be discussed only if time allows.


Even more interesting are the adjectives in which the liaison masc. form may take over part of the phonology of the feminine allomorph (the final consonant), and part of the masculine one (the vowel quality), some of them are listed in (3). (4) show the two variants found in the masc. liaison variant (Morin 1992, Tranel 1990, Steriade 1999).


(4) a. Un dernier [dɛʁnɛʁ/dɛrniɛr] homme ‘a last man, masc.’
   b. Un vilain [vilɛn/ʃvilɛn, n/ʃvilɛn] enfant ‘a naughty child, masc.’

Steriade provides an analysis of the allomorphy in terms of faithfulness to prespecified morphosyntactic forms. Her analysis, called lexical conservatism, is based on the hypothesis that allomorphs corresponding to the masculine and the feminine variants have a listed status, and that it is possible to be faithful to rhymes or just to segments of these listed forms. What motivates the quality of the final vowel is the similarity of the quality of the allomorph with a morphosyntactic feature. Thus [dɛrniʃ] has a final tense vowel because the preconsonantal masculine has a tense vowel. But the liaison masculine form can also resemble the feminine because the final consonant, whose presence is motivated by the need to resolve the hiatus, triggers identity to the listed allomorph. Steriade formulates a series of identity constraints, whose sole purpose is to express faithfulness to "listed" allomorphs, or to parts of them.

The alternative analysis I am proposing does away with listed allomorphs and makes reference solely to the phonological structure. It is the different syllable structure in the feminine and
masculine allomorphs, which determines the segmental quality of the segments. There is a strong preference for the masculine adjective to end in an open syllable and for the feminine to end in a closed syllable.

(6) Syllable structure

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<td>σ σ</td>
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<tr>
<td>CV C C</td>
<td>CVCV</td>
<td>CV CV</td>
<td>CV CVC</td>
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<tr>
<td>vilaine fille</td>
<td>vilain ami</td>
<td>vilain ami</td>
<td>vilain garçon</td>
</tr>
<tr>
<td>a. vi.l E, n. f ij</td>
<td>b. vi l na mi</td>
<td>c. vi l E, n ami</td>
<td>d. vi l E, g arsō</td>
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Vowel quality in French, at least in the mid region, shows the same kind of dependence to syllable structure as the Germanic vowels. In a closed syllable, the vowel is lax, and in an open syllable, it is tense, though this generalization is often obscured by more idiosyncratic requirements. A vowel may only be nasal in an open syllable. In the feminine allomorphs, the vowel is typically the lax one of a closed syllable. There is no alternation here (6a). Even in those cases in which the last consonant is ambisyllabic because it is also an onset of the following syllable, the last syllable is closed by the consonant, which is thus a coda and on onset at once (6b). In the masculine, the last syllable prefers to be open (6d). Finally, in the masculine liaison context, the final consonant is triggered by the need of the following noun to have an onset. The resulting ambiguity as to the allomorph chosen is the consequence of the ambiguous syllable structure. In one variant (6c), the consonant serves as an onset: the adjective’s preceding vowel is in an open syllable and resembles the other masculine realizations. In the other variant (6b), the lexical appertenance of the latent consonant to the adjective is crucial, and the consonant is again ambisyllabic, in the same way as in the feminine liaison context. Faithfulness observed in the case of variant (6b), is faithfulness to the lexical specification rather than to the morphosyntactic feature: [n] belongs to the adjective and is syllabified with this word in most instances. However, it can also appear as a pure liaison consonant (as in petit ami), in which case it is an onset of the following noun.

In my talk I will propose an OT analysis of these adjectives along these lines.

References