

## C+yod in French

The Cj puzzle that French has prepared for phonologists is a classical matter of inquiry that has produced a significant body of literature (Dell 1972, Klein 1992, to mention just two items).<sup>1</sup> Some relevant questions have been discussed [1-4.2 below], though others have not been empirically identified as far as I can see [4.3-8 below].

- [1] Why is Tlj well-formed in *vous boucl-i-ez* [klj] "you (pl) surround / bring to an end", but impossible in *boucl-ier* \*[klj] "shield"?
- [2] CəCj: why can schwa be left unpronounced in *cimetière* (cim'tière), but not in *hôtelier* (\*hôt'lier) or *sommelier* (\*somm'lier)?
- [3] Why can schwa be absent in *vous vous atteliez* (att'liez [tlj]) "you (pl) took care of", but not in *atelier* (\*at'lier \*[tlj]) "workshop"?
- [4] rj bugs
  - [4.1] While TR+ -i-ons / -i-ez produces well-formed Tlj (*vous boucliez* [klj [1]]), Trj is never well-formed (*vous livriez* \*[vrj], *vous plâtriez* \*[trj]).
  - [4.2] Synérèse is possible in all #Ci-V items (*lier*, *nier*, *scier* may be [lje, nje, sje]), except for #rj: (*nous*) *riens*, (*vous*) *riez* can only be [rij-ɔ̃], [rij-e], synérèse being impossible \*[rj-ɔ̃], \*[rj-e].
  - [4.3] When root-final -i is not the only vowel of the root, synérèse is obligatory in all Cj clusters [5] except for rj where it is optional: *se mari-er* may be pronounced [marije] or [marje], same for *varier*, *charrier* etc.
- [5] Why is synérèse (pronouncing j instead of ij) optional when the root-final -i is the only vowel of the root (*li-er* may be [lije] or [lje]), but obligatory when it is preceded by another vowel (*copi-er* may only be [cəpije], \*[cəpije] being impossible)?
- [6] Why can schwa be left unpronounced in all cases of VCəCV in French, except when the following vowel is an i coming from diérèse (pronouncing ij instead of j)? That is, why is a schwaless pronunciation of *hôtelier* still ill-formed when yod is expanded into ij in \*[hotlijer]?
- [7] In contrast to [6], why is diérèse able to save a schwaless pronunciation in conditionals? In *vous fileriez* "you (pl) push off", schwa cannot be left out when followed by yod alone \*[filrje], but may be absent when followed by ij [filrije]?
- [8] Why is a coda followed by lj (C.lj) well-formed when no schwa is enclosed in Cl (*perl-ier*, *vous parl-iez*), but impossible when Cl hosts a schwa (\*hôt'lier)?

The talk is empirically oriented: it asks relevant questions that have not been identified thus far and establishes the empirical record as well as relevant generalizations. A particularly intricate and challenging pattern is C.Cj: these clusters may either represent /C.Cj/ as in *portier*, or /CəCj/ as in *charretier* [ʃartje]. It is shown that it is not the type of C<sub>1</sub>C<sub>2</sub> cluster that would be created by schwa deletion in C<sub>1</sub>əC<sub>2</sub> which determines whether or not schwa may be left out (as Charette 1998 thought). Rather, the nature of C<sub>2</sub> decides: schwa may always remain unpronounced, except if C<sub>2</sub> is the lateral: *cimetière* (cim'tière), *charretier* (charr'tier) vs. *hôtelier* (\*hôt'lier), *sommelier* (\*somm'lier) [2]. It is concluded that all Cj clusters make a good branching onset (Cj in C.Cj can only be a branching onset), except lj to which this status is denied. A conundrum is that lj does make a good branching onset, though, when not preceded by schwa [8]: *perl-ier* [r.lj], *li-er* [lje]. This dual behaviour of lj according to the presence or absence of schwa to its left will remain mysterious – but at least it is identified.

On the analytic side, the talk revives Klein's (1992: 40-42) analysis of suffix-initial yod, which is floating in the suffixes -i-ons, -i-ez (1pl, 2pl imperfect / subjunctive / conditional), but lexically associated elsewhere (-ier, -ien). Floating yod hooks on preceding consonants to create a contour segment, which is the reason for the well-formedness of [Tlj] in *boucl-i-ez* [klj] = .kl̩ (as opposed to its ill-formedness in *boucl-ier* \*[klj] = \*.kl̩ [1]). This also accounts for [3]: in *vous vous atteliez* (att'liez [tlj]), lj is a contour l̩ and hence schwa can be governed since it is removed from the following vowel by a single consonant atəle. By contrast in *atelier* (\*at'lier \*[tlj]), l̩.j instantiates two separate onsets

<sup>1</sup> The variety of French examined broadly characterizes speakers North of the Loire. The grammaticality judgements that were collected from speakers of different geographical origin within this broad area did not reveal any significant differences.

that cannot make a branching onset. Therefore the schwa is followed by a governed empty nucleus (atəløje) and cannot be left out.

Klein's analysis paves the way for a cartography of Cj: which Cj in which pattern and context instantiates which syllabic object? Candidate structures are coda-onset interludes, branching onsets and contour segments. Diagnostics are developed showing that the possibility for Cj to instantiate these structures depends on the nature of C: restrictions apply to lj and rj, while Cj where C ≠ l,r may represent any one of the three syllabic structures. This is also the case of lj, except if preceded by schwa, in which case lj cannot be parsed as a branching onset. Finally, rj does not qualify as either a contour segment or a branching onset: it can only instantiate a coda-onset cluster.

(1) possible syllabic identities for different types of Cj

|                     | coda-onset            | contour segment                                  | branching onset                        |                            |
|---------------------|-----------------------|--|--|----------------------------|
|                     |                       |  | /C.C /                                 | /Cə /                      |
| rj                  | ok<br>algér.ien [rj]  | *<br>vous fil'riez *[lrj]<br>vous livriez *[vrj] | *<br>C.rj no cases<br>nous rions *[rj] | no cases                   |
| lj                  | ok<br>brésil.ien [lj] | ok<br>vous boucliez [klj]                        | ok<br>perlier [rlj]                    | *<br>at'lier *[tlj] *[tlj] |
| Cj where C<br>≠ l,r | ok<br>freud.ien [dj]  | ok<br>vous ramiez [mj]                           | ok<br>barbier [rbj]                    | ok<br>cim'tière [mtj]      |

Another analytic contribution of the talk concerns the workings of diérèse (pronouncing ij instead of j) and synérèse (pronouncing j instead of ij). The difference between root-final -i that is (*li-er*) or is not (*copi-er*) the only vowel of the root [5] is lexical in kind: the [I] is lexically associated to a nucleus in the former (2), but to an onset in the latter case (3). In *li-er*, it branches on the empty onset of the following morpheme [lje] (2) and the nuclear association may be severed [lje] (synérèse). In *copi-er* on the other hand, the [I] and the preceding consonant form a branching onset .Cj (3). This is what is pronounced in presence of a suffixal vowel (4). Diérèse is not possible because the empty nucleus preceding the [I] is enclosed in the branching onset domain and therefore inaccessible. Except when the Cj cluster does not qualify for branching onset status, which is the case for rj: *se mari-er* may be either [marije] or [marje] [4.3] since the preceding empty nucleus is accessible. When the root of *copi-er* (3) is pronounced alone as in 1-3sg, the branching onset .Cj is illegal since in French branching onsets require the presence of a vowel to their right (see the impossibility of synérèse in *pri-er* \*[prje], as opposed to its possibility in *li-er* [lje]). Therefore the branching onset relation breaks up and the [I] branches on the preceding empty nucleus (5). There is thus a contrast between *il lie* and *il copie*: the former word ends in a nucleus containing [I], while the latter ends in a nucleus containing [I] followed by in an onset containing [I]. This is indeed reflected in the pronunciation: [li] vs. [cɔpij].

|               |                 |                 |                 |
|---------------|-----------------|-----------------|-----------------|
| (2) C V - C V | (3) C V C V C V | (4) C V C V C V | (5) C V C V C V |
|               |                 |                 |                 |
| l I e         | c o p <= I      | c o p <= I e    | c o p I         |

Of course the question arises why root-final [I] is vocalic in *li-er* but consonantal in *copi-er*. A plausible answer is that the language does not tolerate roots without vowels: [I] is consonantal by default, but lexicalized as a vowel in case it is the only item that qualifies for nuclear association.

#### References

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