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► **To cite this version:**

Tobias Scheer. CəCj in French. UCL Press. Elements, Government and Licensing, pp.209-218, 2023.
hal-04380795

HAL Id: hal-04380795

<https://hal.science/hal-04380795>

Submitted on 8 Jan 2024

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19 CəCj in French

Tobias Scheer

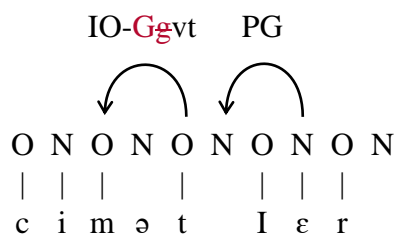
Université Côte d'Azur, CNRS

19.1 Charette's analysis of CəCj

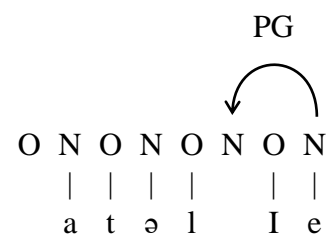
Charette (1998:171-173, 2003:471-475) wonders why schwa may be left unpronounced in [CəCj] *cimetière* (*cim'tjère*) 'cemetery', but not in [CəCj] *atelier* (**at'ljer*) 'workshop' (this pattern is also analysed by Cavirani in Chapter 15).¹ On pp. 173/473f of these articles, she ascribes the contrast to the type of CC cluster created if schwa were left out: schwa may only drop if this cluster is a good coda-onset sequence in Standard Government Phonology (Kaye et al. 1990; Charette 1991). This amounts to any cluster which exists in intervocalic position and is different from a branching onset (obstruent-liquid TR) and a bogus cluster (tl, dl). In the [CəCj] pattern, though, the cluster created by the non-pronunciation of schwa ([mt] in *cim'tière*) cannot be a coda-onset sequence since it encloses a schwa in the lexicon and resyllabification is prohibited in Government Phonology (Kaye et al. 1990:221). Therefore, Charette argues, the CCs at hand are in fact onset-onset clusters that afford a right-headed onset-to-onset government whose definition is the same as the one that holds within coda-onset sequences: any intervocalic cluster that exists in the language qualifies except TR and bogus [tl, dl].

(1) **CəCj** (Charette 1998, 2003)

a. *cimetière*



b. *atelier*



Thus in *cim'tière* under (1a), the [m] and the [t] are onsets and [t] governs [m], thereby circumscribing the empty nucleus enclosed which for that reason is rightfully empty: [møtøjV] is well-formed since both empty nuclei are taken care of, the first by onset-onset government, the second by government from the following V. In **at'lier* under (1b) on the other hand, being bogus, [t] and [l] are unable to establish interonset government and therefore schwa cannot drop when followed by another empty nucleus: *[tøljV] is ill-formed because the first empty nucleus is neither governed nor enclosed in a governing domain (while the second empty nucleus is governed by the following V as before).

Charette's analysis of [CəCj] is thus based on the management of the CC cluster that is left when schwa remains unpronounced, knowing that it encloses an empty nucleus and is followed by another empty nucleus in all cases: in Charette's analysis, [Cj] identifies as /Cøj/ whose empty nucleus is governed.²

19.2 Charette's earlier analysis of CəCj

Both data and analysis presented in the previous section have changed since Charette (1991:115f) has first studied [CəCj]. In 1991, she compares Quebec and Parisian French, reporting that while schwa is always realised in the former (*cim[ə]tière, at[ə]lier*), it may remain (or actually is) unpronounced in the latter (*cim'tière, at'lier*). That is, Charette does not make any difference between the *cimetière* type and the *atelier* type.

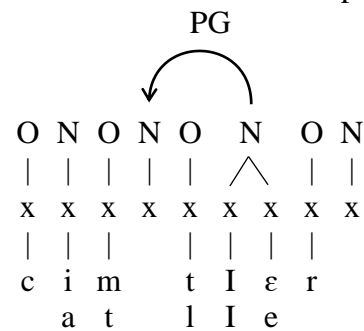
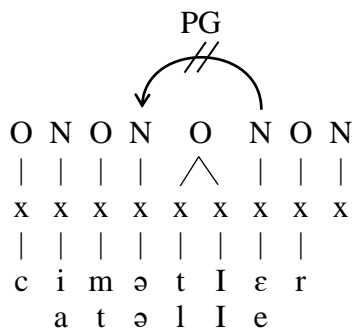
The contrasting behaviour of the two types had been observed by 1991, though, but as far as I can see only by Dell (1973:262f) for Parisian French: schwa may be left out in the *cimetière* type, but not in the *atelier* type. In her 1998 and 2003 articles, Charette acknowledges this difference also for Quebec French: she now reports that schwa may or may not be realised in the *cimetière* type, while (as in Parisian French) it is mandatory in the *atelier* type.

Regarding the analysis, in 1991 Charette argues that schwa cannot drop in Quebec French because the following Cj is a branching onset 2a, but that it may be left out in Paris French since the yod belongs to a complex (light) nucleus 2b (see Pöchtrager's Chapter 12 on light diphthongs in general and in French).

(2) **CəCj** (Charette 1991:115f)

a. *Quebec French* (schwa mandatory)

b. *Parisian French* (schwa may be left unpronounced)



Under (2a), the nucleus containing schwa cannot be reached by government from the following nucleus since in Standard GP government cannot jump over a branching onset (Charette 1991:113ff). Therefore, the ungoverned nucleus must be realised and schwa is pronounced. By contrast under (2b), only a single consonant separates the schwa-containing and the following nucleus: the yod is part of the latter. Thus nothing prevents government to fall on the nucleus containing schwa, which therefore may be left unpronounced.

As was mentioned, this analysis is based on incorrect data: in both varieties, there is a crucial difference between the *cimetière* type and the *atelier* type of words. But the analytic options are interesting: in [CəCj], schwa is mandatory when the yod belongs to a branching onset, while it may be left out in case the yod belongs to a complex nucleus. This contrasts with the analysis discussed in the previous section where [Cj] identifies as two independent onsets. Also note that in Charette's 1991 analysis, the syllabic status of the [Cj] cluster is responsible for the behaviour of schwa, while in her 1998/2003 analysis the syllabic identity of the CC cluster drives schwa deletion. It will be shown in Section 19.4 that the former is correct.

19.3 Syllabic identity of Cj

19.3.1 Complex nucleus

The complex nucleus analysis is a consequence of the incorrect data that Charette's 1991 analysis was based on: it accounts for the pattern where schwa in [CəCj] can be dropped no matter what (which is what Charette thought occurs in Paris). It may therefore be discarded.

This is particularly clear when considering cases such as *cafet-ière* (schwa may be dropped) and *hôtel-ière* (schwa must be realised) where the yod and the following vowel belong to a suffix (the morphological structure of *cimetière* and *atelier* is less clear): the syllabic identity of the suffix-initial [jV] sequence must be the same in both types of words since the [jV] belongs to the same morpheme. If it identified as a complex nucleus, it should be able to govern the preceding schwa in both types of words – but this is not the case.

19.3.2 Branching onset

The branching onset analysis of [Cj] is impossible in Standard GP where resyllabification is prohibited (Kaye et al. 1990:221; Charette 1991:222, note 1): whatever the lexical identity of the yod in the suffix *-ière*, it would need to become the second element of a branching onset, whose first element is the root-final consonant, a simple onset in the lexicon. In other words, a branching onset made of items from two different morphemes is impossible in Standard GP.

In this context, let us consider the parallel between [əTRV] and [əCjV] that Charette (1991:116f) makes explicit. In her 1991 analysis, the reason why in Quebec French schwa cannot drop in *la s[ə]crétaire* 'the secretary' (əTRV) and *at[ə]lier* (əCjV) is the same: its nucleus cannot be reached by government, which is blocked by the following branching onset (TR in the former, Cj in the latter case) (see 2a).

In French, word-internal clusters of three consonants always involve a coda followed by a branching onset [C.TR] (*perdre* ‘to lose’, *arbre* ‘tree’, *filtre* ‘filter’, *mercredi* ‘Wednesday’, etc., Dell 1995:10-17). Therefore, knowing that the yod is indeed a consonant (rather than part of a complex nucleus, see the previous section), the [Cj] in [C’Cj] (*cim’etière*) can only be a branching onset. That is, [C’Cj] from /CəCj/ and [C’TR] from /CəTR/ should instantiate the same syllabic pattern: a coda followed by a branching onset.³

Given this situation, not pronouncing schwa in [CəCj] sequences should be just as fine as leaving it out in [CəTR] clusters: speakers who can pronounce [C’TR] should also be able to pronounce [C’Cj].

19.4 Empirical situation

In her 1998/2003 articles, Charette mentions ten words that illustrate the [CəCj] pattern: four where schwa can be dropped ([mtj] *cimetière*, [ftj] *cafetière*, [nbj] *canebière*, [ntj] *canetière*) and six where it cannot. Among the latter, four have a bogus cluster [dl+j], [tl+j] (*hôtelière*, *atelier*, *chandelier*, *dentellière*), one shows [ʃl+j] (*bachelier*) and one appears with [ml+j] (*sommelier*). Given her analysis, Charette must say that [ʃl] and [ml] are not possible coda-onset (and thus interonset) sequences. She does not discuss the issue, but supporting evidence is the fact that these clusters do not occur in intervocalic position in French.⁴

Looking at a broader record of words instantiating [CəCj], it appears that the CC cluster created by the putative loss of schwa does not bear any responsibility for the (non-)pronunciation of schwa. Rather, the pattern is governed by the consonant *following* schwa: if this consonant is the lateral [l], schwa cannot be left out. If this consonant is different from the lateral, schwa may be dropped.

This is shown under (3), where [CəCj] clusters produced by the suffix *-ier/-ière* appear.⁵ The lexical record for [CəC]-*ier/-ière* should be near exhaustive and may contain a number of

words that natives are unfamiliar with. In case speakers encounter a word that they do not know, they will treat it as a new lexical item, i.e. as a nonce word, and that does not appear to alter the grammaticality judgements reported below.

(3) **CəC-ier/-ière**

a. $C_1\alpha C_2j$ where $C_2 \neq l$

b s	<i>gibecière</i>	'gamebag'	n t	<i>lunetier</i>	'glasses maker'
f t	<i>buffetier</i>	'shopkeeper'	t	<i>panetier</i>	'bread keeper'
t	<i>cafetier</i>	'café tenant'	t	<i>panetière</i>	'bread cupboard'
t	<i>cafetière</i>	'coffee maker'	t	<i>robinetier</i>	'tap maker'
l t	<i>giletier</i>	'waistcoat maker'	v	<i>chènevière</i>	'hemp field'
t	<i>giletère</i>	'watch chain'	p t	<i>papetier</i>	'paper maker'
t	<i>molletière</i>	'puttee'	r t	<i>charretier</i>	'carter'
t	<i>muletier</i>	'donkey keeper'	t	<i>ferretier</i>	'farrier hammer'
t	<i>pelletier</i>	'furrier'	t	<i>jarretière</i>	'garter'
t	<i>pelletière</i>	'type of dewormer'	ʃ t	<i>guichetier</i>	'counter clerk'
t	<i>toletière</i>	'oar reenforcer'	t n	<i>centenier</i>	'centurion'
m t	<i>cimetière</i>	'cemetery'	v t	<i>buvetier</i>	'barkeeper'
n b	<i>canebière</i>	'hemp field'	t	<i>louveter</i>	'wolf hunter'
t	<i>bonnetier</i>	'bonnet maker (masc.)'	t	<i>savetier</i>	'cobbler'
t	<i>bonnetière</i>	'bonnet maker (fem.)'	z n	<i>dizenier</i>	'commander of 10 men'
t	<i>canetière</i>	'silk worker'	t	<i>gazetier</i>	'gazette owner'
t	<i>chaînetier</i>	'chain maker'	t	<i>noisetier</i>	'hazel tree'
t	<i>grainetier</i>	'seed merchant'	s v	<i>sansevière</i>	'sansevieria (bot.)'

b. $C_1\alpha C_2j$ where $C_2 = l$

d l	<i>chandelier</i>	'candle stick'	t l	<i>coutelier</i>	'cutler'
m l	<i>chamelier</i>	'camel caravan driver'	l	<i>hôtelier</i>	'hotel keeper'
l	<i>sommelier</i>	'wine waiter'	l	<i>râtelier</i>	'rack'
n l	<i>cannelier</i>	'cinnamon tree'	l	<i>dentellière</i>	'lacemaker'
l	<i>tonnelier</i>	'cooper'	s l	<i>chancelier</i>	'chancellor'
l	<i>tunnelier</i>	'tunnel borer'	l	<i>pincelier</i>	'brush box'
p l	<i>chapelier</i>	'hat-maker'	l	<i>vaisselier</i>	'dresser'
r l	<i>bourellier</i>	'harness-maker'	l	<i>ficelier</i>	'trickery-using person'
ʃ l	<i>bachelier</i>	'bachelor'	l	<i>boisselier</i>	'wooden objects merchant'
l	<i>échelier</i>	'ladder'	l	<i>muselière</i>	'muzzle'
l	<i>richelieu</i>	'type of shoe'	l	<i>oiselier</i>	'bird-seller'
t l	<i>atelier</i>	'workshop'	l	<i>roselière</i>	'reed bed'
l	<i>batelier</i>	'ferryman'			

Grammaticality judgements by seven native speakers from mainland France that were born and brought up North of the Loire were collected. Only speakers were selected who can leave out schwa in CəTR *la secrétaire* 'the secretary': this made sure that negative judgements of a particular item were not due to the impossibility for schwa to be left out before branching

onsets (see Section 19.3.2: a number of speakers of Northern varieties cannot leave out schwa before TR). Selected speakers were asked to say for each word whether a pronunciation without schwa is possible, bizarre but possible, or impossible.

Results are unambiguous: items under (3b) where yod is preceded by the lateral were overwhelmingly judged impossible by all speakers, while items under (3a) where a consonant different from the lateral precedes yod were overwhelmingly said to be ~~either~~ possible. Details are as follows. 32 [CC+j] words (3a) and 15 [Cl+j] words (3b) were tested ([CCC+j] and [Cs+j] were not included, the latter because of possible [s+C] effects). Participants had one vote for each word where schwa was left out, to be chosen among “possible”, “bizarre but possible” and “impossible”. With seven participants, for any given word each of the three possible votes scores between zero and seven. The average score of “possible” for [CC+j] was 4.88, against 0.4 for [Cl+j]. Conversely, “impossible” scored 0.94 with [CC+j], against 5.27 with [Cl+j] (scores for “bizarre” were comparable: [CC+j] at 1.19, [Cl+j] at 1.33). The contrast between [CC+j] and [Cl+j] is thus very strong, in the direction predicted.

The same contrast appears when looking at percentages: 69.6% of responses for [CC+j] items were “possible” (156 of 224), against only 5.7% for [Cl+j] items (6 of 105). This difference is of course highly significant (χ^2 (2, $N=224$)=116,89, $p<.00001$). Conversely, 13.4% of votes were on “impossible” for [CC+j], against 75.2% for [Cl+j]. The difference is also highly significant (χ^2 (2, $N=224$)=123,42, $p<.00001$).

19.5 The blame is on the lateral

The testimony of words suffixed by *-ier/-ière* under (3) shows that it is not the cluster type preceding yod that governs schwa loss in [CəCj] (as held by Charette 1998/2003), but rather the [Cj] cluster following schwa (as argued by Charette 1991): schwa may be dropped when followed by any consonant plus yod, except if this consonant is the lateral.

Note that Charette's (1998:173, 2003:473f) generalisation according to which schwa can be dropped if the CC in [CəCj] makes a good coda-onset sequence is also contradicted by [rl] (*bourellier*) and [sl] (*vaiisselier*) where schwa is mandatory, although the clusters at hand are good coda-onset sequences in French, as shown by *merle* 'blackbird', *arlequin* 'harlequin', (*avoir la berlue* 'being blind', *dirlo* 'director', *horloge* 'clock', *hurler* 'to yell' etc. for [rl] and *islam* 'Islam', *Islande* 'Iceland', *législatif* 'legislative' etc. for [sl].

Given the parallel with [CəTR] where TR is a good branching onset (see Section 19.3.2), the generalisation suggests that yod can engage with any preceding consonant to form a branching onset, except with the lateral: speakers who can drop schwa in [CəTR] (*la s'crétaire* 'the secretary') can also leave it out in [C₁əC₂j], provided that C₂ is not the lateral (*cim'tière*). In other words, any [Cj] sequence is a good branching onset, except [lj] which is not.

Charette (1991) was thus right in identifying the syllabic status of [Cj] in [CəCj] as the driving force of schwa deletion. She did not identify the distributional pattern that decides whether schwa may be left out or not, though: schwa may be dropped when followed by any consonant plus yod, except if this consonant is the lateral. Has this generalisation gone unnoticed in the literature on [Cj] in French, then?⁶ No: Dell (1973:262) incidentally notes that he will not address the question why schwa cannot be deleted when followed by a liquid and yod ("La seconde question que nous laisserons de côté est le maintien de schwa lorsqu'il est suivi d'une liquide et d'un yod"). As far as I can see, he is the only author who has understood that schwa deletion in [C₁əC₂j] is blocked when C₂ is the lateral. But since he says that he will not pursue this question, the pattern remains largely unillustrated in his book. It may thus be the case that the data in Section 19.4 are the first empirical demonstration of the generalisation at hand.

Finally, note that Dell's statement also includes [rj] clusters: he says that schwa cannot drop in [C₁əC₂j] if C₂ is a liquid, i.e. [r] or the lateral (note that [C₁əC₂]-*ier*/*-ière* under (3a)

does not appear to produce any cases with $C_2 = [r]$). It takes some argument to see that Dell is right (a piece of evidence are conditionals like *donn-er-i-ez* ‘you (pl) would give’ or *huil-er-i-ez* ‘you (pl) would oil’ where schwa cannot be dropped: **donn’rjez*, **huil’rjez*), but [rj] clusters represent an intricate pattern in French that cannot be examined here for lack of space.

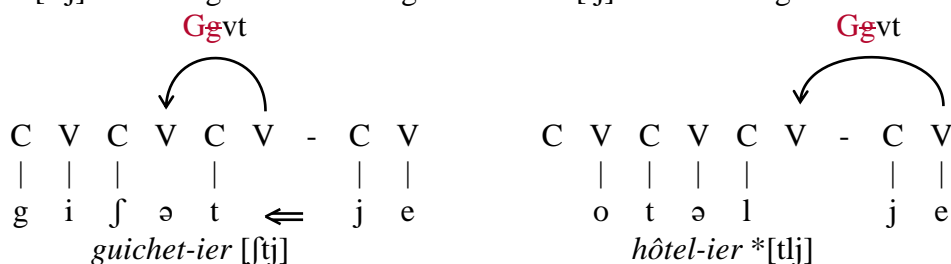
19.6 Analysis based on branching onsets

It was mentioned in Section 19.3.2 that Charette’s 1991 analysis where [Cj] in [CəCj] is a branching onset in Quebec French is impossible in Standard GP since this would require resyllabification, which is prohibited in this theory: in *cafet-ière* for example, the lexically simplex onset containing the root-final consonant would have to become a complex onset in order to accommodate the yod coming from the suffix.

As we have seen, though, the pronunciation of schwa in [CəCj] depends on whether the following [Cj] cluster does (all [Cj] except [lj]) or does not ([lj]) qualify as a branching onset. In Strict CV (Lowenstamm 1996; Scheer 2004), a branching onset identifies as a TR cluster belonging to two onsets whose solidarity is due to an infrasegmental relation (\Leftarrow in 4a) (Scheer 2004:§64; Brun-Trigaud & Scheer 2010). The empty nucleus enclosed does not require government because it is silenced by this infrasegmental relation. Being therefore ungoverned, it is itself a good governor and governs the preceding schwa. This is shown under (4a) for [tj] in *guichet-ier* where schwa may be left unpronounced.

(4) CəCj in Strict CV

a. [Cj] branching onset: schwa governed b. [lj] no branching onset: schwa ungoverned



By contrast under (4b), government cannot reach schwa because [lj] is not a good branching onset: the nucleus enclosed needs to be governed and therefore cannot be a governor itself. Thus schwa is pronounced.

Note that the issue of resyllabification does not arise in Strict CV since there are no branching constituents and there is no coda constituent (or **post-rhymal complement**): under (4a), the suffix-initial yod makes a branching onset with the root-final [t] by establishing an infrasegmental relation (\Leftarrow).

19.7 Conclusion

The [CəCj] pattern is but a piece of the [Cj] puzzle in French, and the preceding pages have studied only a facet of that piece. Some other aspects and pieces are the following. Why is it that *diérèse*, i.e. expanding [j] into [ij], allows schwa to remain unpronounced in conditionals (*vous donn-er-i-ez* [dɔn'rije] 'you (pl) would give'), but not in [Cəl]-*ier* (*hôtel-ier* *[ot'lije])? How come [Rlj] from /Rlj/ is possible (*perl-ier* [rlj] 'pearl, adj.', *vous parl-iez* 'you (pl) talked'), but not when [Rl] encloses a schwa /Rəlj/ (**bourr'lier* 'saddler')? Why can schwa be absent in *vous vous atteliez* (*att'liez* [tlj]) 'you took care of', but not in *atelier* (**at'lier* *[tlj]) 'workshop' (Klein 1992:39)? Why is [Tlj] well-formed when created by *-i-ons/-i-ez* (*vous boucl-i-ez* [klj] 'you (pl) surround / bring to an end'), but impossible when originating in other suffixes (*boucl-ier* *[klj] 'shield') (Dell 1972:73)? How come that *-i-ons/-i-ez* can occur without [i] after [Tl] (*vous boucl-i-ez* [klj] 'you (pl) surround / bring to an end'), but not after [Tr] (*vous plâtr-i-ez* [trij] *[trj] 'you (pl) plaster') (Dell 1972:73; Tranel 1987:121; Klein 1992:23ff)? **I pursue these issues elsewhere.**

And there is also something to be understood about the whole [Cj] pattern in Quebec French. Recall the parallel between [CəTR] and [CəCj] (Section 19.3.2): it holds indeed for the variety described in the article (unmarked Northern mainland or Parisian speakers), but Quebec

French is different. Here the branching onset [Cj] (*cim'tière*) allows for the preceding schwa to be dropped, but regular branching onsets TR (obstruent-liquid) do not: *la s'crétaire* 'the secretary' and *le s'cret* 'the secret' are possible in Paris, but not in Quebec French (Charette 1991:102-104). So what does that mean? The existence of two different types of branching onsets in Quebec French, or in any other language for that matter, would be unsettling.

19.8 References

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¹ Most French words that appear in this chapter are listed in Section 19.4, where glosses are provided. Elsewhere, glosses only appear for words that are not mentioned in this section.

² In fact, following Haworth (1994), [Cj] in Charette's analysis is a C followed by an I element that branches on both the following nucleus and the following onset: [Cj] is realised when the /i/ of /CijV/ is governed by the following V. This is to account for the fact that based on an invariant underlying /ij/, the i is unpronounced (governed) when preceded by a single consonant as in *abricot-ier* [abʁikotje] 'abricot tree', but realised when preceded by a TR cluster that requires the presence of a vowel to its right, as in *sucr-ier* [sykrije] 'sugar bowl'.

³ This description also holds for Charette's 1998/2003 analysis where, recall from Section 19.1, the CC cluster of [CCj] (*cim'tière*) identifies as two onsets, which however have the exact same distribution as coda-onset clusters. On this take, if the C'C from /CəCj/ in *cimetière*-type words can form an onset-onset governing domain, the same should be true for C'C from /CəTR/ in *la secrétaire* 'the secretary'.

⁴ Except when resulting from schwa deletion as in *éch'ler* 'to climb on a ladder' for [ʃl] and *gromm'ler* 'to mutter', *jum'ler* 'to twin' for [ml]. But that does not count since the members of the cluster are lexically separated by a schwa.

⁵ In French, [Cj] clusters are produced by a number of word types, which fall into cases where the yod belongs to the root and others where it originates in a suffix. In the former category, items occur whose [Cj] i) may (*li-er* 'to join', *ni-er* 'to deny') or ii) may not (*copi-er* 'to copy', *unifi-er* 'to unify') be word-initial. The latter group is made of three suffixes: iii) *-ier* /-ière (*abricot-ier* 'apricot tree', *chemis-ier* 'blouse'), iv) *-ien* (*alsac-ien* 'Alsatian', *brésil-ien* 'Brazilian') and v) 1pl *-i-ons*, 2pl *-i-ez* (imperfect *nous batt-i-ons* 'we beat', subjunctive *que nous batt-i-ons* 'that we beat', conditional *nous batt-er-i-ons* 'we would beat').

Group i) of course cannot produce [CəCj] items, which also appear to be absent in groups ii) and iv). Group v) does create [CəCj], but only with [rj] (C'rj). This is because there are no roots ending in [CəC] to which

imperfective/subjunctive *-i-ons*, *-i-ez* could be added, and conditional *-i-ons*, *-i-ez* only attach to infinitives, which always end in *-r*. When belonging to the first group of verbs in *-er*, the *-e-* appears as schwa in the conditional, hence producing [Cəɾj] as in *vous aiməɾ-i-ez* (*aimer* ‘to love’). In this case, schwa may be dropped if the following yod expands into [rij] (a pattern called *diérèse*: *ram’rijez* (*ramer* ‘to row’), *fil’rijez* (*filer* ‘to push off’), *donn’rijez* (*donner* ‘to give’), but must be pronounced if followed by rj (**ram’rjez*, **fil’rjez*, **donn’rjez*) (Tranel 1981:285f), Klein 1992:23, Dell 1973:263).

In sum, thus, only iii) *-ier* / *-ière* produces [CəCj] sequences.

⁶ Relevant work includes Dell (1972, 1973), Morin (1979 [1971]), Lyche (1979), Tranel (1981:64-66, 1987:115-121), Kaye & Lowenstamm (1984), Klein (1992), Rizzolo (1999), Durand & Lyche (1999) and Côté (2018).