(Que)-Deletion in Quebec and Europe

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Abstract Using the corpora Phonologie du Français Contemporain (PFC) and Corpus de français parlé au Québec, this study tests possible contributing factors to (que)-deletion as identified in previous studies (Connors 1975, Sankoff, Sarrasin, and Cedergren 1971, Martineau 1985, 1988, 1993) and compares deletion rates in Quebec and Europe. The first-person forms of the verbs *penser* 'think', *dire* 'say' and *croire* 'believe' were targeted for extraction from the corpora. The sociological factors of gender, age and geography were tested alongside the linguistic factors of phonological and syntactic context following (que), intervening material and verb choice using logistic regression analysis in Rbrul.

The results show a rate of (que)-deletion in Quebec similar to the rates observed in previous studies and higher than in Europe. The overall rate of deletion in the Quebec sample is 23.9% (N=63/264) while it is 11% (N=15/136) in Europe. All factors with a significant P-value pattern similarly in Quebec and in Europe.

1 Introduction

A well-represented variable in English linguistic studies is variable deletion of (that). However, very few studies up to now have examined this phenomenon in French. Even though (que)- '(that)' deletion is not part of standard French, its frequency in Quebec warrants a closer look. With the existence of this variable in Quebec for more than 40 years and in English for even longer, one may be tempted to attribute deletion in Quebec to the influence of English. However, studies by Connors (1975) and Martineau (1993) show that this is not a satisfactory explanation. As Thompson and Mulac (1991) were correct in stating that (that)-deletion in English doesn't occur randomly, there is reason to believe that (que)-deletion in French is not random either.

2 Previous Studies

Concerning the influence of English, Martineau (1985) conducted a study on (que)- deletion using a corpus comprised of native French speakers from a heavily

anglicized community in Ottawa as well as speakers from a primarily francophone community in Quebec. The results show that the complementizer (que) is deleted as often in Quebec as in Ottawa. She concluded that English reinforces natural tendencies but does not cause this deletion. Connors (1975) quickly found that (que)-deletion could not simply be a translation of deleted (that) in English when she found examples of (que)-deletion where it is not possible to delete (that) in English. Arteaga (2009) presented a study showing that null complementizers existed in Old French. Martineau (1993) confirmed that opinion verbs favored (que)-deletion in Old French and went on further to say that in certain dialects of French these same verbs still favored it as recently as the 1960s and 70s. Considering its existence in Old French, in some dialects of French and in other Romance languages, Martineau proposed that (que)-deletion is linked more to the structure of the French language than to English influence.

The first study of (que)-deletion in Quebec was carried out by Sankoff, Sarrasin and Cedergren in 1971, whose main results appear in Sankoff (1980). By analyzing the speech of French speakers in Montreal, they found that deletion is phonologically conditioned, including the phonological context preceding and following (que). According to this study, sibilant consonants favor deletion the most, followed by other consonants and then vowels. Shortly after this study, Cedergren and Sankoff (1974) analyzed the speech of 16 speakers from the Montreal corpus in order to see if there was a difference in frequency of (que)-deletion according to gender and profession. They found that manual laborers delete (que) more often than professionals but that there is no gender effect.

In 1975 Connors reanalyzed the data from Sankoff, Sarrasin, and Cedergren (1971) by comparing them with a French dialect found in Missouri in which (que)-deletion had been attested. First, she refuted the idea that deletion exists in order to reduce consonant clusters by showing that the complementizer (que) is often not deleted in the context [+sibilant] __ [-sibilant]. Then she refuted the idea that the context / __ *clitic* conditions deletion by showing occurrences of a null complementizer before the pronouns *nous* 'we', *autres* 'others' and *ça* 'this', none of which are clitics. Keeping in mind that 45/56 deletions of (que) were before *ce* 'it' or *je* 'I', she proposed that the context / __ *pronoun* conditions the deletion before phonological rules apply. Therefore, according to her, deletion is primarily syntactic.

The study conducted by Martineau (1985) on (que)-deletion in Ontario and Quebec looks at this phenomenon in three different constructions: circumstantial

clauses, relative clauses and as a complementizer. She found that (que) as a complementizer is most favorable to deletion. According to her, several factors, including social and linguistic, simultaneously play a role. More precisely, she analyzed the social factors of gender, age, neighborhood, social class, profession and education while also looking at the linguistic factors of style, phonology and syntax as well as lexical and discursive roles.

As for the social factors, Martineau found that age and social class have a minor influence on deletion. There is a distinction between the frequency of deletion among the youngest and oldest speakers, where the latter delete (que) less. Concerning social class, speakers among the low socioeconomic class simplify their articulation the most, thereby deleting (que) more often. However, Martineau admitted that these conclusions are not very clear due to the small number of examples in relation to age and due to the process of consonant cluster reduction with regard to social class.

This study shows that a more formal style disfavors a null complementizer, in part due to the lexical role of the verb. The verbs *penser* 'to think' and *croire* 'to believe' can communicate more or less the same idea, but *croire* is more formal and disfavors deletion. Martineau found that *penser* represented 47% of the verbs preceding a deleted (que). While *penser* is a verb used very frequently in French, it is worth noting that other frequent verbs such as *savoir* 'to know' and *vouloir* 'to want' do not favor deletion. Thus, it is an informal style and the lexical role of certain verbs that favor deletion.

Concerning the other linguistic factors, the phonological context following (que) is the most important according to Martineau. Occlusives as well as sibilant and non-sibilant fricatives favor a null complementizer the most, followed by liquids and nasals and finally vowels and pauses. Deletion before the first group serves to reduce consonant clusters. Returning to the idea of the importance of pronouns after (que) stated by Connors (1975), Martineau said that pronouns in this context play a syntactic role as well as a phonological one. If the examples with a pronoun in this context are removed, the phonological properties of the sibilants remain. She highlighted the existence of lexical noun phrases that begin with a sibilant like *sa mère* 'his/her mother' that favor deletion. Thus, the two roles are important. Contrary to Sankoff (1980), the phonological context preceding (que) is not very important because it is lexically conditioned, as previously mentioned. Martineau concluded that discursive factors having an influence on deletion are the

number of clauses preceding (que) and the presence of elements that are able to diminish comprehension of the sentence.

3   Methods

With (que)-deletion having been attested in the Ivory Coast (Boutin, 2007) and in Quebec, there is reason to believe that it may occur in spoken French in Europe. The aims of this study are to determine if there has been change in Quebec French with regard to the frequency of (que)-deletion, to test some of the possible contributing factors as identified in previous studies, with an emphasis on the results of Martineau (1985), and to compare this phenomenon in two francophone regions, Quebec and Europe. The hypotheses are that the rate of deletion in Quebec will be consistent with or greater than that found in previous studies, that there will be a higher rate of deletion in Quebec than Europe, that there will be a greater influence of linguistic factors than social ones and that (que)-deletion will pattern similarly in Quebec and Europe, especially concerning linguistic factors.

For this study I chose speakers from different cities in France and Switzerland to represent French as it is currently spoken in Europe. The examples analyzed were taken from the Phonologie du Français Contemporain (PFC) corpus for the European speakers and the Corpus de français parlé au Québec for the speakers representing Quebec. These two corpora were launched around the beginning of the 21st century and contain excerpts of spontaneous language in an informal context, thereby affording a very good possibility of finding occurrences of this phenomenon which is characteristic of nonstandard French.

The three verbs chosen for analysis are *dire* 'to say', *croire* 'to believe' and *penser* 'to think'. All three verbs belong to the group of opinion verbs that have been shown to favor deletion in Quebec and also favored deletion in Old French (Martineau, 1993). Among the group of verbs that favor deletion, Martineau (1985) found the highest rate of deletion after *penser*, while *croire* had a much lower rate of deletion due to the formality of the verb. The first-person present forms of each verb were analyzed. In the PFC corpus I searched for all examples of (que), overt and null, in the French cities/regions of Dijon, Nantes and Aix-Marseille produced by a total of 13 males and 14 females. In addition, I looked for all occurrences in the Swiss cities of Nyon and Neuchâtel produced by a total of 14 males and 12 females. In the Corpus de français parlé au Québec I chose several sub-corpora

that offer a variety of ages with a total of 26 males and 24 females. I excluded all examples of the verbs in the following contexts:

- The verb could be a discourse marker.

  Example: il en avait parlé je **pense** euh l'été passé
  'he had talked about it I **think** uh last summer'

- The phonological and/or syntactic context after (que) cannot be determined.

  Example: je **pense** {que euh; que} moi je connais les chiens de tout le monde
  'I **think** {that uh; that} me I know everybody's dogs'

- The use of the verb is not certain according to the transcription.

  Example: mais il y en a quoi {parce; je **pense**} qu'il y en a trois quatre cents dans en Ontario si pas plus
  'but there are some {because; I **think** that} there are three four hundred of them in Ontario if not more'

- The speaker uses the verb in direct discourse.

  Example: mais je **dis** 'ils vont partager ces autres'
  'but I **say** "They are going to share these others"'

- The verb is used in a construction with a false start or a correction.

  Example: Alors, je **crois** que, je sais pas s'il y a un côté sentimental.
  'So, I **believe** that, I don't know if there is a sentimental side.'

- There is more than one possible placement of omitted (que).

  Example: Donc je **dis** de toute façon ils font quarante-cinq heures en moyenne.
  'Therefore I **say** anyhow they do forty-five hours on average.'

  (Que) could be placed after *dis* or after *façon*.

- The use of the verb is by the interviewer.

Considering the constraints on time and resources, this study analyzes certain social and linguistic factors. Concerning social factors, I consider geography, age and gender. To my knowledge, no study has been conducted that compares this phenomenon in Quebec to another francophone region. Based on the finding by Martineau (1985) that age has a minor influence on (que)-deletion, I test this factor to see if its influence can be confirmed. Regarding gender, the studies by Cedergren and Sankoff (1974) and Martineau (1985) showed that gender does not have an effect. However, considering sociolinguistic tendencies, it is possible that it has an effect. Therefore, I consider this as a potential influencing factor. The lexical role of the verb preceding (que) is examined by comparing the three aforementioned verbs. Previous studies paid much attention to the context after (que), and the conclusions about the roles of syntax and phonology in this context do not agree. Thus, I have chosen to analyze the phonological role in this context using the three groups derived by Martineau (1985) as well as the syntactic role by considering whether the word after (que) is a pronoun or other lexical category. Martineau (1985) found that the presence of elements able to diminish comprehension of a sentence disfavor deletion. In order to test the effect of intervening material I consider the presence of such elements in the matrix clause as well as the subordinate clause. The analysis of these factors is done using Rbrul.

4   Results

In all, there are 400 examples of the complementizer (que), 78 of which are null. This gives a deletion rate of 19.5% compared to that of Sankoff (1980) of 23% and that of Martineau (1985) of 32%. While the number of deletions is quite low and does not allow one to draw definitive conclusions, the results can give some indication of what is occurring linguistically in these two French-speaking regions. Table 1 summarizes the results of the social factors. These results show that males delete (que) more often than females and that gender has a weak effect. As for the geographic location, Quebec favors deletion while Europe disfavors it. The proportion of deletions in Quebec (23.9%; N=63/264) is very close to that found by Sankoff (1980) and falls between the proportions found by Sankoff (1980) and Martineau (1985). In comparison, the rate of deletion in Europe is 11% (N=15/136). As expected, the rate of deletion in Quebec is consistent with previous studies and is higher than in Europe. Both gender and geographic location have a significant p-value (<0.05).

For age analysis, I divided the speakers into three age groups: younger (22-34), middle (35-59) and older (60+). The older speakers delete the most followed by the middle age group and finally the younger group. Males and females follow this same pattern although there is more variation in the deletion rates for females. While these results are not statistically significant, they differ from those of Martineau (1985). As previously mentioned, it was the youngest age group in her study that deleted the most often and the oldest group who did so the least. As a preliminary step to gain insight, I looked at the deletion rate of the youngest speakers in the corpora (22-25-year-olds) and found that they had a rate of 27.3% (not shown in Table 1), a rate similar to the oldest group. This warrants further investigation but tentatively suggests this may be a case of age grading.

	total number of examples	deletion rate (%)	factor weight	P-value
Gender				
Male	164	25.6	0.58	0.0107
Female	236	15.3	0.42	
Geography				
Quebec	264	23.9	0.614	1.44e-3
Europe	136	11.0	0.386	
Age				
22–34 yrs (young)	163	15.3	0.414	0.107
35–59 yrs (middle)	159	20.1	0.496	
62+ yrs (old)	78	26.9	0.59	
Age: Gender				
22–34: Male	53	24.5	0.554	0.401
22–34: Female	110	10.9	0.446	
35–59: Male	71	25.4	0.506	
35–59: Female	88	15.9	0.494	
62+: Male	40	27.5	0.44	
62+: Female	38	26.3	0.56	

Table 1   Comparison of social factors for (que)-deletion

Table 2 shows the interaction of gender and age by region. Although the interaction of gender and geography does not favor or disfavor deletion, we

see that males in each region delete (que) at a higher rate than their female counterparts. Moreover, males and females in Quebec delete (que) more often than European French speakers. Laberge and Chiasson-Lavoie (1971) suggested that (que)-deletion is not very stigmatized in Quebec. This could explain why the rate of deletion in Quebec is considerably higher than in Europe. According to sociolinguistic trends, males prefer covert prestige while females prefer overt prestige. Females are more likely to use language that is most similar to what is considered standard. The results here show that males in each region delete (que) more commonly than females in the same region. Considering that there is not a marked gender difference in Europe, conclusions related to prestige may be premature. Martineau (1985) found no gender influence for complementizers, but she found that females delete (que) less in the relative pronoun construction and suggested that this is due to the fact that it is more stigmatized in the latter construction. Cedergren and Sankoff (1974) found no gender effect on the complementizer. The results of the present study also show no significant gender effect, although a weak one is suggested. There may be a slight stigmatization that accounts for the differences between males and females.

As for the interaction of age and geography, we can see that the older speakers delete (que) more often followed by the middle age group and then the younger group. This is the same as the overall age pattern. Thus, with both gender and age we see that both regions follow the same pattern.

	total number of examples	deletion rate (%)	factor weight	P-value
Geography : Gender				
Europe : Female	89	10.1	0.526	0.507
Quebec : Female	147	18.4	0.474	
Quebec : Male	117	30.8	0.526	
Europe : Male	47	12.8	0.474	
Geography : Age				
Europe : Younger	75	9.33	0.494	0.969
Quebec : Younger	88	20.5	0.506	
Europe : Middle	41	12.2	0.514	
Quebec : Middle	118	22.9	0.486	
Europe : Older	20	15.0	0.492	
Quebec : Older	58	31.0	0.508	

Table 2   Interaction of gender and age with geography

Concerning the linguistic factors, below are two examples taken from the corpora I consulted for each phonological group proposed by Martineau (1985).

Group 1: occlusive consonants, sibilant and non-sibilant fricatives

(1.1)   Je crois que **c'**est naturel.
'I believe that it's natural.'

(1.2)   et puis que on m'appelle mais il est sur silencieux mais je pense **je** vais l'entendre vibrer.
'and then someone calls me but it's on silent but I think I am going to hear it vibrate.'

Group 2 : liquids and nasals

(2.1)   Ah je pense que **m**aintenant il commence à avoir des structures aussi à midi hein.
'Ah I think that now they're starting to have organized activities at noon also.'

(2.2)   si je dis que **l**a langue allemande est difficile
        'If I say that the German language is difficult'

Group 3 : vowels

(3.1)   Je pense qu'o**n** bosse trop, comme des fous.
        'I think that we work too much, like madmen.'

(3.2)   Ouais je crois qu'i**l** était un petit peu engagé euh, ouais.
        'Yeah I believe that he was involved a little bit, yeah.'

Table 3 shows the results of the analysis of the phonological context. The three phonological groups proposed by Martineau (1985) behave the same way in this study with the exception of group 2. The greatest proportion of deletions occurs before the group of occlusive consonants and sibilant and non-sibilant fricatives followed by vowels and finally the liquids and nasals. The first group favors deletion while the second and third groups disfavor it. The second group contains too few examples to draw any definitive conclusions regarding the pattern it exhibits. This factor is statistically significant.

In order to know if the word immediately following (que) plays a syntactic role, I categorized the context following (que) by "pronoun" or "other category". Some examples to illustrate this are found in (4.1) – (4.4).

Pronoun

(4.1)   Ben, moi je pense que **c**'est pas pire qu'avant seulement on a
        'Uh, me, I think that **it**'s not worse than before only we have'

(4.2)   je te dis pas qu'**ils** avaient raison de le faire
        'I'm not saying to you that **they** were right to do it'

Other Category

(4.3)   je crois que **beaucoup** de Romands, euh sont quand même euh assez
        réticents
        'I believe that **a lot** of Francophone Swiss uh are still uh rather hesitant'

(4.4)   je pense qu'**après** une heure et demie t'auras pas fini ton affaire encore
         'I think that **after** an hour and a half you still won't have finished'

Connors (1975) and Martineau (1985) both found that a pronoun after (que) favors a null complementizer. According to the results of this present study, a pronoun in the context following (que) does not favor or disfavor deletion and is not statistically significant. Nonetheless, there are slightly more deletions after a pronoun than all other lexical categories.

Table 3 shows that *dis* and *pense* strongly favor deletion while *crois* strongly disfavors it. As Martineau (1985) suggested, *crois* is more formal than its counterpart *pense* and could account for the very low rate of deletion. *Pense* is used much more frequently with the complementizer construction than either *dis* or *crois*. While Martineau (1985) found that *penser* accounted for 47% of verbs before a deleted (que), this study shows that *dis* is associated with a higher rate of deletion than pense. Lexical conditioning is shown to be significant in this study.

Martineau (1985) suggested that items potentially diminishing the comprehension of an utterance containing a null complementizer disfavor deletion. To determine if intervening material affects the deletion rate, I looked at material intervening in the matrix clause between the verb and (que). Examples of intervening material in the matrix clause are adverbs like *toujours* 'always' and *des fois* 'sometimes' as well as negation (*pas*). This study shows that intervening material disfavors deletion and that the effect is statistically significant.

Intervening material between (que) and the following verb was analyzed to see if intervening material in the subordinate clause affects deletion. Examples of intervening material are conjunctions such as *depuis que* 'since' and interjections such as *euh* 'uh'. Intervening material slightly disfavors deletion although its effect is not significant.

	total number of examples	deletion rate (%)	factor weight	P-value
Phonological				1.45e-04
1	243	25.9	0.698	
2	24	8.33	0.376	
3	133	9.77	0.418	
Syntactic				0.868
Pronoun	336	19.6	0.507	
Other category	64	18.8	0.493	
Verb				4.91e-04
Dis	49	30.6	0.728	
Pense	298	20.5	0.61	
Crois	53	3.77	0.192	
Intervening Material Matrix				0.0182
No	366	20.8	0.672	
Yes	34	5.88	0.328	
Intervening Material Subordinate Clause				0.28
No	356	20.2	0.559	
Yes	44	13.6	0.441	

Phonological context following (que)

1 = occlusive consonants, sibilant and non-sibilant fricatives

2 = liquids and nasals

3 = vowels

Table 3   Comparison of linguistic factors

Previous studies came to different conclusions regarding the role of the syntactic and phonological environments following (que). Table 4 shows the interaction of these two variables. One can see that pronouns favor deletion except after the second phonological group; the liquids and nasals. It seems that there are too few examples of group 2 to draw any definite conclusions. The first group has a deletion rate higher than the third group which is consistent with what Martineau (1985) suggested. If the pronouns are removed, the phonological pattern holds. This evidence plus the p-value of the phonological context versus the one for the

syntactic environment suggest that the phonological context after (que) is more important than the syntactic.

	total number of examples	deletion rate (%)	factor weight	P-value
Phonological : Syntactic				0.281
1 : Pronoun	213	26.3	0.921	
1 : Other category	30	23.3	0.79	
2 : Pronoun	5	0	0.0129	
2 : Other category	19	10.5	0.987	
3 : Pronoun	118	8.47	0.868	
3 : Other category	15	20.0	0.132	

Table 4   Interaction of phonological and syntactic factors

In order to see if the linguistic factors show the same trends in Quebec as in Europe, I compared each linguistic factor for the two regions. The results appear in Table 5. For the phonological environment following (que), group 1 has a higher proportion of deletions than group 3 in both regions while group 2 has the highest proportion of deletions in Quebec and the lowest in Europe. Aside from group 2, which contains a very small number of examples, both regions exhibit the same pattern. The syntactic environment following (que) shows a higher deletion rate in Europe after a pronoun, whereas Quebec shows the opposite. The three verbs show the same pattern in both locations with *dire* having the highest deletion rate followed by *penser* and then *croire*. Regarding intervening material in the matrix clause, there are more deletions when there is no intervening material. This pattern holds true for both regions. A difference in the two regions can be seen with regard to intervening material in the subordinate clause. Here, there is a higher deletion rate in Europe when there is intervening material, whereas Quebec shows the opposite. It should be mentioned that by region some categories below have relatively small numbers of examples. However, we can draw some tentative conclusions. Likewise, the p-values for the interaction of these factors are not significant. Nevertheless, it is worth noting that all factors having a significant p-value when individually analyzed with regard to deletion rate pattern the same in both regions while those with insignificant p-values differ by region. The one exception is the second phonological group.

	total number of examples	deletion rate (%)	P-value
Geography : Phonological			0.235
Q : 1	168	35.1	
Q : 1	111	20.7	
Q : 2	16	43.8	
E : 2	17	0	
Q : 3	119	11.8	
E : 3	62	11.3	
Geography : Syntactic			0.926
Q : Pronoun	252	26.2	
E : Pronoun	140	17.1	
Q : Other category	51	27.5	
E : Other category	50	12.0	
Geography : Verb			0.43
Q : Dis	40	30.0	
E : Dis	9	33.3	
Q : Pense	219	23.3	
E : Pense	79	12.7	
Q : Crois	5	0	
E : Crois	48	4.17	
Geography : IM Matrix			0.214
Q : No	240	25.8	
E : No	126	11.1	
Q : Yes	24	4.17	
E : Yes	10	10.0	
Geography : IM Sub			0.165
Q : No	247	24.7	
E : No	109	10.1	
Q : Yes	17	11.8	
E : Yes	27	14.8	

Table 5   Interaction of linguistic factors and geography

5   Discussion

It is important to note that the corpora analyzed for this study are not the same as for previous studies and more than 20 years have passed since the most recent study cited in this paper. In addition, I only analyzed the deletion of (que) after the first-person conjugation of *penser*, *croire* and *dire*. The rate of (que)-deletion in Quebec reaches a level comparable to what Sankoff (1980) found, while this phenomenon is rarer in Europe. This fact is not surprising when one takes into account the long history of (que)-deletion in Quebec and the lack thereof in Europe. The results of the social factors presented in this study show some differences with the previous studies that I consulted. A weak gender effect is suggested by the data presented here, while previous studies showed that gender was not a significant factor. In both regions, males use a null complementizer more than females in the same region, and in Quebec they do so with a frequency of 30.8%. The higher rate of deletion in Quebec could be an indicator that this deletion is not very stigmatized there. There is more of a gender distinction with regard to the deletion rate in Quebec than in Europe. This area needs to be further explored in order to determine the possible role of prestige and stigmatization.

Age, while not having statistical significance, diverges greatly from what Martineau (1985) found. In this study it is the oldest speakers who delete (que) most often, followed by the middle age group and then the youngest speakers. Martineau (1985) found the reverse to be true. Based on a preliminary look at the youngest speakers of the corpora, 22-25-year-olds, they have a similar rate of deletion to the oldest group, 27.3% and 26.9% respectively. This suggests that there may be age grading. Level of education should also be considered in further research as it may shed light on this factor.

The results of this study support the importance of the phonological context following (que). The occlusive consonants and the sibilant and non-sibilant fricatives favor deletion while the liquids, nasals and vowels disfavor it. While group 2 has a lower deletion rate than group 3, contrary to what Martineau (1985) found, there are fewer deletions after vowels than after occlusives and fricatives. The small number of tokens with a liquid or nasal in this context could play a role here.

The syntactic context after (que) shows that there are slightly more deletions after a pronoun, but the effect is not statistically significant. If the pronouns are removed, the phonological pattern holds. This suggests that it is the phonology

of the context following (que) that has more influence. However, it should be noted that there is very little difference in the deletion rates of the "pronoun" and "other" groups. Sankoff (1980) found the phonological context preceding and following (que) to be the conditioning factors of this deletion while Martineau (1985) found the phonological context following (que) to be more important than the syntactic one. When Connors (1975) analyzed the context after (que) she found that pronouns favor deletion more than noun phrases. This present study shows only the difference in the rate of deletion before pronouns and all other possible grammatical functions. In looking at the excerpts, several words immediately following (que) in the category "Other" are not part of a noun phrase. So, to make a fair comparison with Connors' study, the lexical category of the word immediately following (que) would need to be placed in one of three groups; pronoun, noun phrase, other.

Martineau (1985) found that any intervening material that could diminish comprehension of an utterance disfavors deletion. The present study shows that intervening material in both the matrix clause and the subordinate clause disfavors deletion.

The comparison of linguistic factors in the two regions shows some of the same general tendencies. The first phonological group contains a higher proportion of deletions than the third group in both Quebec and Europe. The second phonological group is where the largest difference can be seen. It is this group that contains the highest proportion of deletions in Quebec and the lowest in Europe. However, as previously stated, there is an insufficient number of tokens for the second group to draw any definitive conclusions. Concerning the syntactic context following (que), Quebec shows a similar rate of deletion before a pronoun and a non-pronoun with the most deletions being before a non-pronoun. In Europe there are more deletions before a pronoun. The Quebec results diverge from previous studies while those from Europe support previous findings. Although the pattern for intervening material in the matrix clause is the same in both regions, it is dissimilar for the subordinate clause. Europe has a higher rate of deletion when there is intervening material in the subordinate clause while the opposite is true in Quebec. There is little difference in the deletion rates in Europe for intervening material in either clause. Finally, in both regions the greatest number of deletions occur after *dis*, followed by *pense* and then *crois*. Connors (1975) found that *dire* was among the verbs that most favor deletion, while Martineau (1985) found that it favors deletion but not as much as verbs such as *penser*. She found that *penser* represented 47% of

the verbs preceding a deleted (que) while *dire* represented 28%. This discrepancy should be further explored.

6   Conclusion

This study shows a deletion rate of 23.9% in Quebec as compared to 23% found by Sankoff, Sarrasin and Cedergren (1971) and 32% found by Martineau (1985). The deletion rate in Quebec appears unchanged since these two previous studies. While (que)-deletion is present in Europe, Quebec favors this type of deletion but Europe disfavors it. Results of this present study suggest a weak gender effect with males slightly favoring deletion. There is lexical conditioning as evidenced by the favoring effect of *dire* and *penser* and the disfavoring one of *croire*, probably due to its formality. Regarding the phonological environment following (que), occlusive and fricatives favor deletion while vowels disfavor it. The phonological context appears to play a larger role than the syntactic context following (que) based on the statistical significance of the individual factors and the phonological pattern remaining once pronouns are removed. Intervening material between the matrix verb and (que) disfavors deletion. All of these factors were shown to be statistically significant, and all of them pattern the same in Quebec and Europe.

Age, the syntactic environment following (que) and intervening material between (que) and the following verb were not shown to be significant factors. Both Quebec and Europe have a higher deletion rate among the oldest speakers followed by the middle age group and finally the youngest group. Regional differences exist for the remaining two factors. The fact that Quebec and Europe exhibit the same pattern for all significant factors in this study with the exception of the second phonological group suggests that (que)-deletion is closely linked to the structure of the French language. Further research needs to be done to determine whether or not there is age grading, the effect of education level, the possible role of prestige and stigmatization, the syntactic role of noun phrases versus pronouns following (que) and reasons for the high deletion rate after *dire*.

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