Variable Deletion of *que* in the spoken French of Ottawa-Hull

1. Introduction

Few studies have devoted complete attention to the deletion of *que* in Canadian French and so far analyses have not reached any agreement concerning the factors conditioning this process. Sankoff, Sarrasin and Cedergren (1971), whose main results appeared in Sankoff (1980 a,b), concluded that *que*-deletion is phonologically conditioned. According to them, the *que*-deletion rule tends to apply more frequently in sibilant environments, less often in other consonantal contexts and still less often in non-consonantal contexts. Connors (1975), in a reanalysis of the data from Sankoff, Sarrasin and Cedergren (1971), concluded, however, that *que*-deletion is conditioned syntactically since the presence of a pronoun following *que* favors its deletion. My work shows that the discrepancy between the preceding studies comes in part from the fact that the *que*-deletion rule involves many factors simultaneously.

2. Methods

I used 30 interviews from oral vernacular conversation. These interviews constitute a sub-part of the corpus of the Ottawa-Hull project directed by Shana Poplack of the University of Ottawa (Poplack, 1983). Like the 120 informants of this project, the 30 informants of my study are evenly divided according to sex, age and neighbourhood. Interviews have been recorded at the informant's residence with quite often the participation of other members of the family. The interviews last two or three hours in general, with, for most of them, many narrations and lively discussions. My corpus amounts to 8201 occurrences. Occurrences of *que* studied appear in complement clauses (1), relative clauses (2), and circumstantial clauses (3).1
(1) Je pense que / Ø c'est ça.  
'I think it's that.'

(2) C'est ça que / Ø je dis.  
'That's what I say.'

(3) C'est parce que / Ø tu veux.  
'It's because you want.'

For each factor that has been studied, I calculated the number of que deleted out of the total number of que that could have been deleted. This was done for each informant. I computed the average frequency of que-deletion for the factor studied; I also calculated the standard deviation which gives me a way to evaluate the dispersion of my results. Student-t test was used to verify if the differences found were significant; the confidence interval was .05. Although sociological, stylistic and linguistic factors have been studied in my thesis (Martineau, 1985), only this latter aspect is presented here.

3. Results and Discussion

The total average deletion of que is 28%. Complement and circumstantial clauses are significantly more favorable to que-deletion than relative clauses; the frequency of que-deletion for each type of clause is shown in Table 1. Sankoff (1980b) had already noted that relative clauses favored less que-deletion. In relative clauses, que is probably less often deleted because, besides linking the subordinate clause to the matrix clause as the conjunction does in complement and circumstantial clauses, it also serves as an antecedent.

<table>
<thead>
<tr>
<th></th>
<th>% of que-deletion</th>
<th>Total number of occurrences</th>
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<tbody>
<tr>
<td>Total</td>
<td>28%</td>
<td>8201</td>
</tr>
<tr>
<td>Complement clauses</td>
<td>32%</td>
<td>3413</td>
</tr>
<tr>
<td>Circumstantial clauses</td>
<td>28%</td>
<td>2722</td>
</tr>
<tr>
<td>Relative clauses</td>
<td>22%</td>
<td>2066</td>
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Table 1. Total average of que-deletion; Average frequency of que-deletion according to the type of clause.
3.1 Phonological and grammatical contexts preceding que

The phonological context preceding que has been analyzed according to the seven following divisions: vowels, glides, liquids and nasals, non-sibilant fricatives, sibilant fricatives, stops and finally pauses. In complement clauses, sibilants are significantly more favorable to que-deletion than vowels and other consonants, except stops. In circumstantial clauses, sibilants are also significantly more favorable than other consonants and vowels. However, in relative clauses, vowels are significantly more favorable to que-deletion than consonants, except sibilants (Table 2).

A. Complement clauses
   1. Sibilant fricatives (52%; N: 393)
   2. * Stops (41%; N: 160)
   3. Vowels (29%; N: 2272); Liquids and nasals (26%; N: 334); Non-sibilant fricatives (24%; 191); Pauses (24%; N: 62)

B. Circumstantial clauses
   1. Sibilant fricatives (32%; N: 2084)
   2. Liquids and nasals (20%; N: 111); Vowels (17%; N: 522)

C. Relative clauses
   1. Vowels (26%; N: 1271)
   2. * Sibilant fricatives (19%; N: 196)
   3. Liquids and nasals (17%; N: 387); Stops (12%; N: 125)
   4. Pauses (1%; N: 66)

Table 2. Average frequency of que-deletion according to the phonological context preceding que.

Each group is significantly distinguished from the others but there are no significant differences within a group. The star that appears sometimes beside a group means that this group is neither significantly distinguished from the group immediately above it nor from the group immediately below it. Absence of a division means that no or less than 25 occurrences have been found. N= total number of occurrences.
Contrary to what Sankoff (1980a, b) concludes, the influence does not appear to be clearly phonological in the context preceding que. Important differences among the three types of clauses are found, particularly concerning vowels. However, the influence of certain words in the context preceding que seems to be determinant. Since the lexical influence is different from one type of clause to another, they are presented separately.

In the complement clauses, the verb penser 'to think' is particularly favorable to que-deletion with an average frequency of deletion of 47%. The form penser of the verb penser, which totalizes 85% of sibilant occurrences preceding que, is significantly more favorable to que-deletion than sibilant occurrences other than penser (Pense: 55%; Sibilant occurrences other than penser: 35%). Many studies on the deletion of that in English point out that the verb to think has a favorable influence (McDavid (1964); Bolinger (1972); Wasserman (1976); Kroch and Small (1978)). Likewise, Wanner (1981:51) notes for Italian that: "Within the allowed omissions of che, some verbs, rather some privileged forms of some privileged verbs, concentrate the vast majority of such surface deletion on themselves". In Italian, certain forms of the verbs parere 'to appear', sembrare 'to seem', and credere 'to believe' are particularly favorable to deletion of che.

Although the verb penser is used quite frequently, this aspect does not seem to be the reason of its favorable influence on que-deletion since other frequent verbs like savoir 'to know' and vouloir 'to want' are not very favorable to que-deletion (respectively, 17% and 19%). As Kroch and Small (1978) note in their study on the deletion of that, lexical formality is often a more important factor than frequency. Use of formal verbs like croire 'to believe', which has a meaning similar to penser, adds a degree of formality and probably contributes to maintain que. The verb penser seems to be used as an expression for which the realization without que is very generalized. This use could have been strengthened by the fact that there is no change in the mode of the subordinate clause when the verb penser is used in the matrix clause (4). This may even lead to an analysis of the subordinate clause as an independent clause (5). Moreover, the verb penser seems to be often used as a simple punctuated expression in the discourse, the same way the expression t'as 'you know' is used (6).
(4) Je pense je vais y aller.
'I think I'll go there.'

(5) Je pense: 'Je vais y aller'.
'I think: 'I'll go there'.'

(6) Je vais je pense y aller.
'I will, I think, go there.'

The lexical influence in the complement clauses is not limited to the verb penser; verbs such as sembler 'to seem' and falloir 'to have to' also trigger a high frequency of que-deletion (respectively, 52% and 42%) ((7) and (8)).

(7) Me semble il aime ça.
'It seems to me he likes it.'

(8) Faut tu penses à ton avenir.
'You have to think about your future.'

We may contrast the verb penser, which does not trigger subjunctive in the subordinate clause and is highly favorable to que-deletion with the verb vouloir, which does trigger subjunctive but does not favor as much que-deletion. However, the mode of the subordinate clause does not seem to have a direct influence on que-deletion since we may also find a verb like falloir, which even if it triggers subjunctive, is highly favorable to que-deletion.

In the circumstantial clauses, sibils preceding que are also highly favorable to que-deletion. However, this favorable character of sibilant consonants is essentially caused by, what I will call, the complex conjunction parce que which totalizes 95% of sibilant occurrences preceding que. It is obviously difficult in this context to distinguish the influence of parce que from that of the sibilant consonants. But, if the sibilant occurrences linked to parce que are removed from the computation, the remaining sibilant consonants are neither more nor less favorable to que-deletion than other consonants and vowels. Therefore, parce que, which appears in 73% of circumstantial clauses, has a determinant influence on que-deletion; the relatively high frequency of que-deletion that parce que triggers (32%) explains most of the results in the circumstantial clauses. The lexical influence is overwhelming in circumstantial
clauses; for instance, as shown in (9), among temporal circumstantial clauses, there is a great difference in que-deletion frequency according to the complex conjunction used.

(9) Depuis que (33%); après que (16%); aussitôt que (14%); avant que (11%); jusqu'à temps que (7%).

The complex conjunction parce que has a special status compared to the other complex conjunctions in (9) because it is constituted by a preposition (par) which has incorporated the sequence ce que. A similar process has occurred for the complex conjunction lorsque. In fact, frequent use of parce que in addition to high frequency of que-deletion for this complex conjunction may have contributed to a reanalysis in terms of lexicalization for the form parce.

In the relative clauses, vowels preceding que are significantly more favorable to que-deletion but, contrary to what was found in the two other types of clauses, this influence is not clearly linked to a particular word. However, pronouns are significantly more favorable to que-deletion than other words preceding que in relative clauses (Pronouns: 32%; Other words: 19%). Moreover, pronouns finishing with a vowel like moi or ça constitute around one third of the words that appear in the vocalic context preceding que (for instance, C'est ça que j'aime) and they are significantly more favorable to que-deletion than other words finishing with a vowel (Pronouns finishing with a vowel: 33%; Other words finishing with a vowel: 22%). This latter group is not even significantly more favorable to que-deletion than consonants. Although pronouns may be linked to a high frequency of que-deletion, it seems that this result may perhaps be simply an effect of the fact that they often appear in cleft relatives (92% of pronouns preceding que appear in cleft relatives). Cleft relatives (10) are significantly more favorable to que-deletion than non-cleft relatives (11) (Cleft relatives: 26%; Non-cleft relatives: 15%).

(10) C'est ça que je dis.
'That's what I say.'

(11) Je regarde les vues que mon mari aime.
'I watch the movies that my husband likes.'
Most of the cleft relatives belong to the type c'est...que, as (10) exemplified. The first part of the structure has an ascending intonation while the second part has a descending intonation. The ascending intonation preceding que which is created by the particular structure of cleft relatives has probably an influence on que-deletion. In fact, Connors (1975) notes that the accentuation preceding que favors que-deletion. Moreover, Bolinger (1972) makes the same observation for deletion of that in English. In brief, in relative clauses, the particularly favorable character of vowels and pronouns is probably an effect of cleft sentences.

3.2 Phonological and grammatical contexts following que

In the context following que, the phonological context is an important factor of the conditioning. The phonological context has been divided the same way as the one preceding que. In the three types of clauses, there is a tendency for stops and sibilant and non-sibilant fricatives to be the most favorable to que-deletion, followed by liquids and nasals, these being followed by vowels (Table 3). In fact, the phonological context following que is the only factor among all the factors studied for which the tendencies are similar from one type of clause to another.
A. Complement clauses
   1. Stops (56%; N: 440); Sibilant fricatives (58%; N: 1262); Non-sibilant fricatives (57%; N: 32)
   2. Liquids and nasals (17%; N: 300)
   3. Pauses (6%; N: 150); Vowels (6%; N: 1229)

B. Circumstantial clauses
   1. Sibilant fricatives (49%; N: 826); Non-sibilant fricatives (50%; N: 37); Stops (41%; N: 210)
   2. Liquids and nasals (22%; N: 456); Vowels (15%; N: 983)
   3. Pauses (6%; N: 210)

C. Relative clauses
   1. Sibilant fricatives (49%; N: 797); Non-sibilant fricatives (58%; N: 30)
   2. Stops (28%; N: 130)
   3. Liquids and nasals (12%; N: 90)
   4. * Pauses (7%; N: 32)
   5. Vowels (1%; N: 987)

Table 3. Average frequency of que-deletion according to the phonological context following que.

See legend of Table 2.

The non-sonorant consonants (obstruents) are more favorable to que-deletion than the sonorant elements (liquids, nasals, and vowels); the sonorant consonants (liquids and nasals) are more favorable to que-deletion than vowels. Therefore, the relevant factor is the sonority of the segment following que. As was pointed out by Sankoff (1980a), sibilants following que favor que-deletion, except that it is not only sibilant consonants but more generally the less sonorant consonants which favor que-deletion. Finally, pauses do not favor deletion of que, probably because they cause the schwa to be maintained, hence also the consonant [k].

According to Connors (1975), the fact that sibilants are favorable to que-deletion is caused by the pronouns ça, ce, and je, the consonant of which is sibilant. Also, according to her, pronouns following que are in general more favorable to que-deletion than other words and therefore, que-deletion rule is syntactically conditioned.
In my work, pronouns are significantly more favorable to que-deletion, but only in complement clauses. Even there, the influence is not only syntactic since, after pronouns following que are removed from the computation, phonological differences remain for the other words following que. It is difficult to explain the relative influence of pronouns and the explanations proposed until now are not really satisfying. For instance, many studies on deletion of that have noted the favorable character of the pronouns (McDavid (1964); Bolinger (1972); Wasserman (1976)). According to these, the fact that pronouns better indicate the beginning of the subordinate clause than other words when the complementizer is absent could be the reason for this difference. However, this explanation is not fully adequate because the flow of the spoken language should be rapid enough for the sentence structure to be analyzed appropriately. Another possible explanation, frequent use of pronouns, cannot be maintained since pronouns are also extremely frequent in relative and circumstantial clauses without being particularly favorable to que-deletion.

3.3 Discursive aspect

The influence of the complexity of the sentence has been studied by counting the number of clauses preceding and following que. I counted any clause which is not independent and which is therefore either a subordinate or a matrix clause.

There is no significant difference according to the number of clauses following que for the three types of clauses. However, some significant differences have been found according to the number of clauses preceding que in complement and relative clauses but not in circumstantial clauses (Table 4).
A. Complement clauses

Less than 2 clauses: 34%; N: 3013
2 clauses or more: 21%; N: 400

B. Circumstantial clauses

Less than 2 clauses: 27%; N: 2404
2 clauses or more: 27%; N: 318

C. Relative clauses

Less than 2 clauses: 23%; N: 1887
2 clauses or more: 9%; N: 179

Table 4. Average frequency of que-deletion according to the number of clauses preceding que.
N: Total number of occurrences.

The presence of two clauses or more preceding que contributes to maintain que in complement and relative clauses. In a complex sentence, que is more often kept, probably so that the clauses are better delimited. As Wasserman (1976:149) remarks for English: "Use of the that-complementizer is sometimes reputed to act like a traffic rule for speech processing". We may suppose that que has the same role in French in complement and relative clauses. However, in circumstantial clauses, this factor does not have an influence. The loss of que has not the same impact as in relative and complement clauses since there remains the first term of the complex conjunction (for example, parce from parce que) which serves to indicate the beginning of the subordinate clause (ex., C'est parce que veux).

4. Conclusion

In conclusion, the frequency of deletion of que is quite high and reflects the fact that que is most importantly an element which serves to link clauses. Que-deletion is not a new phenomenon in French since it already existed during the Middle Ages. Deletion of the complementizer in medieval Italian is also attested by Wanner (1981). As he remarks, nowadays, complementizer deletion is a rule shared among others by English, German and, in a less productive way, by Italian and Spanish. However, most grammarians consider that que-deletion no longer pertains to Modern French. It is
nonetheless still present in spoken Canadian French.

My work shows clearly the need to take many factors simultaneously into consideration in order to give a complete account of que-deletion. Que-deletion is without any doubt influenced by the phonological context following que since it is the only factor for which similar tendencies appear systematically from one type of clause to another. The less sonorant the element following que is, the more que-deletion is favored. Que-deletion would thus help to avoid the creation of a consonantal cluster. Presence or absence of consonant [k] of que is partly determined by the possibility of forming an onset with the following segment.

Que-deletion is also influenced by other factors. First, relative clauses are less favorable to que-deletion, probably due to the semantic content of que. Second, in the phonological context preceding que, the results differ a great deal from one type of clause to another and there is no phonological influence completely independent from a lexical or syntactic influence. Finally, the number of clauses preceding que has an influence on que-deletion only in complement and relative clauses; this seems to indicate that the presence of que is necessary when the comprehension of the sentence might be delayed by its absence.

NOTES

1 Occurrences of que that do not appear in these three types of clauses have not been studied. Structures which have not been analyzed in the present study include, first, cases for which no instances of que-deletion have been found, as in comparative clauses (ex., Elle est moins grande que toi). Second, alternations between ce que and qu'est-ce que have not been studied. Third, que must have introduced a clause to be part of the corpus; for this reason, cases such as rien que have not been studied. Fourth, cases of que-insertion (ex., quand que, comment que, pourquoi que) have not been analyzed. Finally, ambiguous cases have been rejected; occurrences of piq que raise a problem because it is often impossible to determine if piq coordinates or subordinates the following clause (Lefebvre and Fournier, 1978), and therefore, they have been eliminated.
According to Lefebvre (1982), the sequence ce que /sk/ is an allomorph of the complementizer que. For her, the allomorph ce que is found in Canadian French in complex WH-phrases such as comment-ce que /k mask/ and pourquoi-ce que /purkwask/, these forms having been lexicalized. The /k/ of the cluster /sk/ can be deleted by the rule of reduction of final consonantal clusters.

REFERENCES

