

When indirect questions look like relative clauses and behave as relative clauses: a syntactic and diachronic analysis of French ‘ce que’

0. Introduction: puzzling indirect questions in French French exhibits curious indirect interrogative clauses, as in (1), that really look like light-headed relative clauses (Citko, 2004), as in (2), and whose syntactic analysis is often neglected in the literature. These interrogative clauses are introduced by the demonstrative *ce* (light-head), followed by the complementizer *qui/que* (see Kayne, 1976).

(1) Je me demande [**ce que** ton père a cuisiné ____].

I me ask this that your father has cooked
 ‘I wonder what your father has cooked.’

(2) J’aime [_{DP} **ce** [_{CP} **que** ton père a cuisiné ____]].

I-like this that your father has cooked
 ‘I like what your father has cooked.’

This strategy has arisen in order to fill the gap in the paradigm of indirect questions in French, which cannot be introduced neither by the *wh-que* (3) nor by its strong counterpart *quoi* (4) when the referent is [-animate] (Obenauer, 1976).

(3) *Je me demande [**que** ton père a acheté]. (4) *Je me demande [**quoi** ton père a acheté].

The central problem here is the following: how could it be that these interrogative clauses are interpreted as questions since neither *ce* nor *qui/que* is [+wh]? Are these indirect questions what they look like, that is to say relative clauses? If this is the case, how could a verb like *se demander* (‘to wonder’), which selects CPs, be satisfied with a complex DP?

1. The incorporation hypothesis We have explored several explanations in order to solve this syntactic problem. One of them is ‘the incorporation hypothesis’. The idea is that *ce-que* is indeed a *wh*-element that has evolved from the grammaticalization of an original structure (5). If this were the case, *ce-que* would be like ‘what’ in English. It is interesting to notice that other Romance languages have developed a *wh*-element stemming from a *D+que* combination, that is even found in direct questions. This is the case for example in some dialects of Northern Italian ((6), Munaro 2001).

(5) [_{DP} *ce* [_{CP} *que*...]] → [_{CP} *səkə*...]

(6) Sen-che t’a-t fait ?
 D-que CL-have-CL done

But ‘ce que’ in French cannot introduce root questions such as (7).

(7) *Ce que tu veux ?
 this that you want

Moreover, the possibility of insertion of a preposition between *ce* and the strong counterpart of *que* (*quoi*), directly goes against this incorporation hypothesis (see (8)).

(8) Je me demande [_D **ce** [_{CP} **sur quoi** tu travailles]].

I me ask this on what you work
 ‘I wonder what you are working on.’

2. An unusual behaviour for indirect questions What is even more puzzling is that these indirect questions introduced by *ce que* behave in some respects like relative clauses (RCs). First, it will be shown that they unselectively block any kind of extraction (9-10). So, contrary to typical IQs, which are weak islands, *ce que* IQs are strong islands, just like RCs.

(9) *[Comment]_i tu te demandes ce que la machine pourrait réparer e_i? [adjunct]
 how you you ask this that the machine could repair

(10) *[Quel objet]_i tu te demandes ce qui pourrait réparer e_i? [argument]
 which object you you ask this that could repair

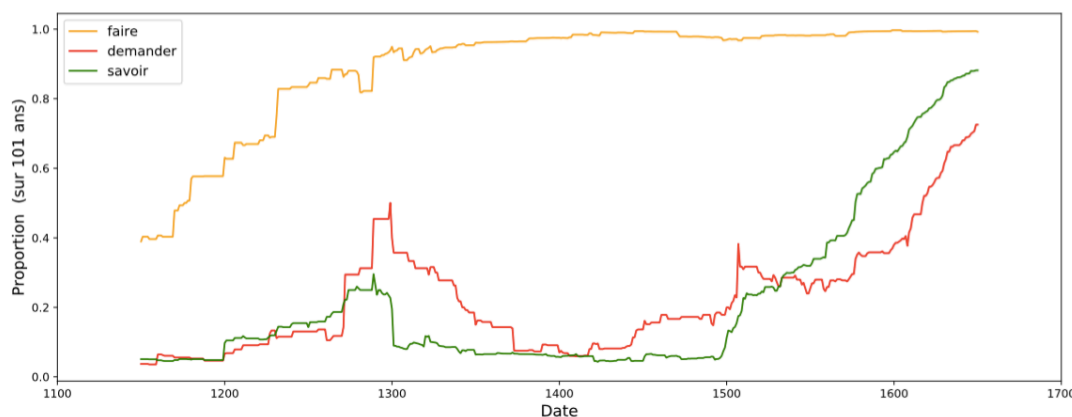
Second, *ce que* IQs display matching constraints on pied piping (11) that are known to be typically associated with free relatives (Groos & van Riemsdijk 1979: 12), and not with IQs (13).

- (11) *Je me demande à ce que tu penses. (12) *Je veux rencontrer à qui tu penses
 I me ask to this that you think I want meet about who you think
 (13) Je me demande à qui tu penses
 I me ask about who you think

3. A diachronic study In order to shed light on this syntactic puzzle, we undertook a diachronic study tracking the evolution of *ce que*. Based on the corpus Frantext, we counted the occurrences of *ce que* (compared to *que* alone) when it introduces subordinate clauses selected by three different verbs: *faire* ('to do', which selects RCs), *savoir* ('to know', which selects extensional IQs) and *demander* ('to ask/to wonder', which selects intensional IQs). We found a significant difference between *faire* and the two other verbs, that is to say between RCs and IQs (see Graph 1). In RCs (under *faire*), *ce que* alternates with *que* in Medieval French but then becomes prevalent very early (around 1300), whereas in IQs (under *savoir* and *demander*), the use of *ce que* became dominant only much later (at the beginning of the 17th century). Before the 17th century, *que* alone was used in IQs, without the demonstrative *ce* (11).

- (11) Il li demande que ele a. [Anonymous (1155), *Eneas*, vol. 1]
 He her ask what she has
 'He asks her what she has.'

Among IQs, there is a split between *savoir* and *demander*, that is to say between extensional and intensional IQs: *ce que* appeared earlier with verbs like *savoir*, which is expected if *ce que* is intrinsically nominal given that such verbs can select a DP (not only a clause). If we zoom in on the 17th century, we realise that the change with intensional IQs is very sudden and abrupt and occurs around the middle of the century (still less than 50% of *ce que* under *demander* between 1600 and 1650, but 100% of *ce que* under *demander* between 1650 and 1700). We will discuss this change, which seems to be due to a normative intervention.



Graph 1. Proportion of *ce que* depending on each matrix verb, from the 11th century to the 17th century (moving average over a window of 101 years).

4. *Ce que* IQs are RCs! In the light of the syntactic behaviour of these IQs and their diachronic evolution, I claim that *ce que* IQs are light-headed RCs. My proposal is that *ce* in *ce que* indirect questions is non referential, it is an expletive, so uninterpretable semantically. Both structures, *true ce que* relative clauses and *ce que* interrogatives disguised as relative clauses, are generated through a matching derivation involving a null operator. But the predicative relation holding between the operator and the head *ce* only takes a value in *true* relatives, where *ce* is referential. In *ce que* interrogatives, it is the interrogative verb which gives the wh- interpretation to the operator. That's why *ce que* cannot introduce direct questions.