Final version. Submitted.

A that-trace effect on ellipsis

Isabelle Haïk

Normandie Univ, UNICAEN, CRISCO, 14000 Caen, France

Abstract

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This article is on CP ellipsis in French. Whereas antecedent-contained ellipsis is fine when the ellipsis is a complement, as in *Eve parle aux gens qu'elle veut* 'Eve speaks to the people that she wishes,' it regularly has difficulty when it is an extraposed subject, as in **Eve parle aux gens que ça lui plait* 'Eve speaks to the people that it pleases her.' In that case, antecedent-contained ellipsis is possible only when no *que* 'that' occupies COMP, namely when no overt complementizer intervenes between the *wh* operator and the extraction site of that operator, as in *Eve parle à qui ça lui plait* 'Eve speaks to whom it pleases her.' This minimal pair with subject extraposition shows a *that*-trace effect triggered by the ellipsis.

Keywords: antecedent-contained ellipsis (ACE), *that*-trace effect, syntax

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Normandie Univ, UNICAEN, CRISCO, 14000 Caen, France

Introduction

One of the questions posed by ellipses is the statement of the conditions on their viability. An ellipsis may be either a true absence or a silent category (Hankamer and Sag 1976; Chao 1987). When ellipsis is a silent category, work such as Zagona (1982), Haïk (1987), Lobeck (1995), Merchant (2001) and Authier (2011) has claimed that it falls under some form of the Empty Category Principle. I will show that certain antecedent-contained ellipsis (henceforth ACE) constructions in French are subject to the *that*-trace effect, when the operator has to cross over the *que* 'that' complementizer. I claim that it is the ellipsis itself, because it happens to be a trace, that triggers this *that*-trace effect. So, this paper aims to establish the fact that an ellipsis which is an extraction site triggers a *that*-trace effect.

1. ACE in French

French does not have VP-deletion, but ellipsis of full clauses is permitted, in particular in antecedent-contained constructions (see Authier 2011 and Busquets and Denis 2001 for studies on the Vs that allow CP-ellipsis in French). Antecedent-contained clausal ellipses are possible when the elliptical clauses are complements, such as the following:

- (1) ?Henri a bien reçu la lettre que l'avocat avait dit []. Henri has well received the letter that the attorney had said. 'Henri did receive the letter that the attorney had said.'
- (2) Il n' habite pas la maison que ses parents croyaient/pensaient []. He NEG occupies not the house that his parents believed/thought. 'He does not occupy the house that his parents believed/thought.'
- (3) Elle est entrée où personne ne pouvait se douter []. She is entered where nobody NEG could 'She entered where nobody would suspect.'

¹ Thanks to the anonymous readers of this article for their very helpful comments, and to my fellow linguists for discussions. The bulk of this article was completed in 2009. This is a summary, which, for lack of space, does not include the study of the *bon...sembler* expression 'seem fine', which is the object of a separate article.

² Chao (1987), following the work of Hankamer and Sag (1976), argues that there are two kinds of ellipses, those that are projections of a head, in which ellipsis is a silent phrase, and those that create discontinuous elements, like the missing elements of Gapping, in which the missing material is really missing and is not a silent category. I follow her conclusions, and my claim bears on ellipses of the first type.

- (4) ?L'inconnu est bien parti avec la personne que le témoin pensait []. The stranger is well gone with the person that the witness thought 'The stranger did leave with the person that the witness thought.'
- (5) Marie n'est pas allée à l'école qu'elle dit/prétend []. Marie NEG is gone to the school that she says/claims 'Marie did not go to the school that she says/claims.'
- (6) Elle est partie au moment où elle a voulu []. She is gone at-the moment where she has wanted 'lit: She left at the time when she wanted.'

Even though such sentences sound better when the embedded clause contains a pronoun that is either first or second person, or that is coreferential with the matrix subject, I will pursue this work with the idea that they are all basically well-formed, especially with the matrix verbs *dire* 'say', *vouloir* 'want', *penser* 'think', *se douter* 'suspect', for instance.³ Moreover, in general, ACE is slightly preferred with headless relatives than headed ones, but headed relatives do not sound fully excluded.

Extraction from overt clausal complements is possible too, supporting the generalization that extraction of and from complements is unproblematic (Kayne 1983):

- (7) Henri a bien reçu la lettre que l'avocat avait dit qu'il avait reçue. Henri has well got the letter that the attorney had said that he had got 'Henri did receive the letter that the attorney had said he had received.'
- (8) Il n'a pas eu l'idée que ses parents croyaient/pensaient qu'il avait eue. He NEG had not the idea that his parents believed/thought that he had 'He did not have the idea that his parents believed/thought he had.'

So, let us concentrate on wh-extraction from subject-like ellipses. Extraction is impossible from the subject, as shown in (9), perhaps for the same reason as with overt clauses, some form of the left-branch condition of Ross (1967), as shown in (10). In that case, there is no distinction between overt and silent clauses.

(i) La personne que tu sais est arrivée. not : 'the person who you know has arrived has arrived', but: 'X, you know who I mean, has arrived'.

As for the preference for a same subject in (1) or (4), pointed out in Haïk (1987) with contrasts like (iii)-(iv) and attributed to the i-within-i condition, we will take it as a given of ACE constructions. See Kennedy (1994) and Fiengo and May (1994) among others for further reflection and analyses on that topic:

- (iii) John goes everywhere Mary wants him to.
- (iv) *John goes everywhere Mary wants Peter to. (unless *Peter* carries focus stress)

³ Some relative clauses containing the second person pronoun are idiomatic, like *qui/que tu sais* 'who you know', *qui/que tu penses* 'who you think'. Such relative clauses assert connivance with the hearer about the identity of the individual without having to name that individual. They do not have an ACE interpretation, as in (i):

- (9) *Albert achète les voitures que [] lui plaît. Albert buys the cars that [] him-DAT pleases 'Albert buys the cars that (buying them) pleases him.'
- (10)*Albert achète les voitures qu' acheter - lui plaît. Albert buys the cars buying - him-DAT pleases that Lit: 'Albert buys the cars that buying – pleases him'.

However, wh-extraction is possible from extraposed subject clauses. There are two types of subject extraposition in French, those with the dummy subject il and those with the dummy deictic pronoun, ca or ce 'this' (see Pollock 1981). I will refer to the latter as ca-sentences. For lack of space, I will not examine il-sentences. Extraposition with ca yields forms like (11):

(11)Ca lui plaît (,) d'aller à Paris. Ca him-DAT pleases of to go to Paris 'It pleases him (,) to go to Paris.'

Wh-extraction from the extraposed subject, relatives in (12)-(13), wh questions in (14)-(15), is fine:

- la maison que ca lui plaisait d'acheter (12)the house that ca him-DAT pleased of to buy 'the house that it pleased him to buy'
- 1' (13)la personne à qui amuse de parler ça the person to whom him-ACC amuses of to speak ça 'the person to whom it amuses him to speak'
- (14)Quelle maison est-ce que ça lui dirait d'acheter? What house O that ça him-DAT would say of to buy 'What house would it appeal to him to buy?'
- Max sait à quel client ca lui de vendre sa voiture. (15)plairait Max knows to which client ça him-DAT would please of to sell his car 'Max knows to which client it would please him to sell his house.'

And ACE seems possible too, though we will see in the next section that it is not always true:⁴

(16)Eve va à son travail quand/les jours où ca lui dit/plaît. Eve goes to her work when/the days where ça her-DAT says/pleases 'Eve goes to work when/the days when it appeals to her/pleases her.'

⁴ French has no word equivalent to what, so I have not given an inanimate wh counterpart to (17) or (18).

- Eve parle 1' (17)avec qui ça arrange. Eve speaks with who her-ACC ça suits 'Eve speaks with whom it suits her.'
- (18)Eve invite qui ça l' arrange / lui plaît. Eve invites who ça her-ACC suits / her-DAT pleases 'Eve invites who it suits her.'
- convenait.5 (19)Max est allé où /?à l'endroit ça lui où Max is gone where /?to the place where ca him-DAT suited 'Max went where/to the place where it was convenient to him.'

Moreover, before we dig into sentences like (16)-(19), let me add a remark. I haven't dwelt on it in this paper, but ACE is not possible in all ca-sentences but only those that have a psychological meaning and which contain a pronoun coreferential with the matrix subject. Extraposition with a *ça* subject is possible with certain predicates, as in (20), and for some reason they do not allow ACE, as in (22), even though they allow relativisation from an extraposed clause, as in (21):

- qu'elle (20)Ce/ça serait bien parle son patron. à good Ce/ça would be that she talk to her boss 'It would be good if she had a word with her boss.'
- (21) qu'elle parle la personne à qui ce/ca serait bien the person to who ce/ca would be good that she talk 'the person to whom it would be good that she spoke'
- (22)*Elle parlera à qui ce/ça serait bien. She will speak to who ce/ça would be good 'She'll speak to whom it would be good.'

The logic of the paper is to question the restrictions that we will uncover, provided that ACE is allowed at all, namely, provided that the predicate of the relative clause allows extraction from an extraposed clause, as in (12)-(15). So, we will not consider sentences like (22), which do not allow ACE of the extraposed clause at all.

It is ACE in the context of psychological *ca*-sentences that is the subject of this article.

2. ACE in ca-sentences

2.1. The facts

The sentences in (16)-(19) contrast with the following:

(23)*Eve va les jours plaît. à son travail que ça lui Eve goes to her work the days that ca her-D pleases 'Eve goes to work the days that it pleases her.'

As we see in (19), some headed relatives are felt slightly less acceptable than headless relatives, as often with ACE, but they are not excluded.

- (24) *Eve parle avec les gens que ça l' arrange. Eve speaks with the people that ça her-ACC suits 'Eve speaks with the people that it suits her.'
- (25) *Eve invite les gens que ça l' arrange. Eve invites the people that ça her-ACC suits 'Eve invites the people that it suits her.'
- (26) *Eve va à l'endroit que ça lui plaît. Eve goes to the place that ça her-DAT pleases 'Eve goes to the place that it pleases her.'

The well-formed sentences are those with *wh* relatives (with a slight preference for free relatives) with no overt complementizer. And the ill-formed ones are those with headed relatives containing the *que* 'that' complementizer. Recall that ACE with *que* is fine with complement ellipses:

(27) Il est allé à l'endroit qu' il voulait/l'endroit qu'on aurait pu parier []. He is gone to the place that he wanted/the place that we could have bet 'He went to the place that he wanted/the place that we could have bet.'

To be complete, witness sentences with *comme* 'as', (28) and (30), and compare them with their counterparts with the complementizer *que*, (29) and (31):⁷

⁶ Contrary to English, *que* may not introduce relative clauses with locative or temporal antecedents, which require $o\hat{u}$ 'where', 'when'. A sentence like (i) is ill-formed:

(i) *Marie va à son travail les jours que le soleil brille.

Marie goes to her work the days that the sun shines 'Marie goes to work the days when the sun shines.'

That requirement is suspended in antecedent-contained contexts, one of the many differences between ellipses and their overt counterparts, a challenge for theories in which ellipsis is a silent copy of its antecedent (see Merchant 2001):

(ii) Albert ne donnera pas sa communication le jour qu' il croyait.

Albert NEG will give not his talk the day that he thought 'Albert will not give his talk the day that he thought.'

⁷ As for pied-piping, it is regularly forbidden in French in ACE structures, as shown in (i) and it is the case too in ca-sentences, as in (ii), some of which may sound marginal, but in general are clearly bad. So, the relevant sentences for our purposes will be without pied-piping.

- (i) *Elle votera pour les personnes pour qui elle voudra. She will vote for the people for whom she will want 'She will vote for the people for whom she will want to.'
- (ii) *Elle s' est dirigée vers un coin vers où ça lui disait. She REFL is moved toward a place toward where ça her told 'She moved toward a place toward which that appealed to her.'

- (28) Il a tourné sa lettre comme ça lui disait. He has worded his letter as ça him-DAT said 'He worded his letter as it appealed to him.'
- (29) *Il a tourné sa lettre de la façon que ça lui disait. He has worded his letter with the way that ça him-DAT said 'Lit: He worded his letter the way that it appealed to him.'
- (30) Il se tient comme ça lui plaît. He behaves as ça him-DAT pleases 'He behaves as it pleases him.'
- (31) *Il se tient de la façon que ça lui plaît.

 He behaves in the way that ça him-DAT pleases
 'Lit: He behaves in the way that it pleases him.'

Again, que is fine when the ellipsis is a complement, though the register sounds slightly substandard in that case:

(32) Il se tient de la façon qu' il veut/qu' on nous avait prévenus []. He behaves of the way that he wants/that they us had warned 'He behaves in the way that he wants/that they warned us.'

Before dealing with these contrasts, first, in section 2.2, we will put aside a potential explanation of the facts in (23)-(26), and second, in section 2.3, we will see that there is indeed a silent category in the clauses we are discussing. Considering the first question, we could think that the problem with sentences in (23)-(26) is that the relativized NP is a complement of P, forcing the elliptical clause to produce preposition-stranding, which is forbidden in French.

2.2. Eliminating an account based on preposition-stranding

If the ellipses were overt, sentences like (24) would be rejected because of preposition stranding inside the relative clause, impossible in French:

(33) *Eve parle avec les gens que ça lui plaît de parler avec.

Eve speaks with the people that ça her pleases of to speak with 'Eve speaks with the people that it pleases her to speak with.'

One reason not to favor this analysis is that there exist other cases that do not involve P-stranding, illustrated in (18) and in (23) and (25)-(26), which display the same contrast. (23), (25)-(26), which have *que*, are bad and their counterparts with overt *whs* in (16), (18)-(19) are good.

Moreover, preposition-stranding should also exclude ACE of complement clauses, as in (1)-(6), (27) and (32), but all of them are fine. So, the question of the ill-formed cases of extraction in ACE contexts has nothing to do with preposition-stranding.

Let us now turn to the second question. I am claiming that *wh*-extraction occurs from a silent extraposed clause. However, perhaps there is no extraposed ellipsis in such sentences.

Given that I want to show that the ellipsis is the faulty element in such ACE sentences, we must make sure there indeed is a silent extraposed clause.

2.3. Eliminating an account with no ellipsis

I repeat a minimal contrast:

- (25) *Eve invite les gens que ça l'arrange. 'Eve invites the people that it pleases her.'
- (18) Eve invite qui ça l'arrange. 'Eve invites who it pleases her.'

At first sight, an account of the contrast according to which there would be no ellipsis in such sentences, with ca the plain subject of the embedded clause, seems plausible, with this deictic pronoun interpreted as having as its antecedent the matrix clause. But ca is overt and overt elements cannot be extraction sites in general, as noted in Haïk (1985:177):

(34) *Marie did everything you did it.

(35) Marie va à son travail les jours où elle a dit à son patron que ça l'arrangeait.

Marie goes to work the days where she told her boss that ça her suited

The reading that is relevant for the discussion, and which is available, is: 'Marie goes to work the days when she told her boss that is suited her to work then'. In that case, où 'when' does not have the reading of the conjunction, that in which it bears on *dire* 'say', but the reading in which it bears on the semantically reconstructed embedded ellipsis. This shows that the operator has moved from some embedded position, strengthening the idea there is an ellipsis there, from which the operator can be extracted.

To conclude, treating *quand* and $o\dot{u}$ as conjunctions can at most partially account for the facts. There necessarily are sentences in which the operator has moved from an ellipsis site, as the interpretation of the operator proves.

3. Arguments for an extraposed CP ellipsis: the verb tenter and the pair chanter/enchanter

Certain facts show that the extraction site of ACE *ça*-sentences is an extraposed clause. These facts do not hold for all speakers of French, as we will see, but some, like myself and a number of colleagues and other informants make clear delineation between various parameters concerning *tenter* 'tempt' and the pair *chanter*/*enchanter* 'allure'. This dialect makes a correlation between the dative (*chanter* and dative *tenter*) and extraposition, and the

accusative (*enchanter* and accusative *tenter*) and right-dislocation. This dialect will help us formulate the claim that the ellipsis site is in the extraposed position for all speakers.⁸

The first set of facts is quite intriguing, but we will see, first, that those phenomena point to the existence of an ellipsis and, second, that that ellipsis is an extraposed clause. They concern on the one hand the verb *tenter*, 'tempt, allure' and on the other hand the pair of verbs *chanter* (literally 'sing') and *enchanter* (lit. 'enchant'), which both have the metaphorical meaning 'allure' in *ça*-sentences. We will see that these verbs are in a complementary distribution according to whether they enter an extraposition structure or not. In such a situation, instead of taking an accusative argument, they must take a dative one: *tenter* can do so and takes the right dative subcategorization frame, *enchanter* only accepts an accusative complement, but speakers have the dative verb *chanter* at their disposal, with that particular meaning. We will conclude that the dative frame of *tenter* and *chanter* is that of extraposition, in which *ça* is an expletive, and that the accusative frame of *tenter* and *enchanter* is without extraposition but with right-dislocation, with a referential *ça*.

First, consider the verb *tenter* 'tempt'. In my dialect, *tenter* is transitive, as in (36). Its internal argument may not be a dative, as shown in (36)-(38):⁹

- (36) Le cinéma ne tentait pas Eve ce soir-là. The movies NEG tempted not Eve that evening 'The movies did not tempt Eve that evening.'
- (37) *Le cinéma ne tentait pas à Eve ce soir-là. Same as (36), with a dative *Eve*, introduced by à 'to'
- (38) *Si ça tente à Max, dis-lui qu'on peut partir demain. If ça tempts to Max tell him that we can leave tomorrow 'If that tempts Max, tell him we can leave tomorrow.'

For most speakers, Accusative *tenter* must display right-dislocation, revealed by an obligatory intonation break. The right-hand phrase may be a clause or something else:

- (39) Ça la tente, de partir en Italie/ce film. Ça her-ACC tempts to go to Italy/this movie 'It appeals to her, to go to Italy/this movie.'
- (40) *Ça la tente de partir en Italie/ce film. Same as (39) but with no intonation break

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⁸ Some speakers have a more extensive grammar, meaning that they accept more forms than this dialect. My claim is still that they only allow extraction from an extraposed position, if we make the assumption that this fact results from some general grammatical condition, presumably the necessity to extract from a "governed" position, as opposed to a more peripheral position.

⁹ On the internet, we find dative quantifiers as in $\hat{q}a$ tente \hat{a}_{Dat} quelqu'un lit.: 'it tempts to somebody' $\hat{q}a$ tente \hat{a}_{Dat} personne lit.: 'it tempts to nobody', in the younger generation. But a lexical DP, like \hat{a} Marie is impossible to my ear. However, clitics are much freer: speakers of Quebec French and some French speakers indiscriminately use the dative or accusative clitics with tenter, (le/lui tente 'tempts him/to him'), so none of the data presented here holds for them.

But *tenter* may indeed have an internal dative argument: in ca-sentences. In that case, its semantic subject appears to the right with no possible intonation break (except for those speakers who use both clitics indiscriminately, ca le/lui tente de c 'it tempts him/to him to c V'):

- (41) Ça lui tentait d'aller au cinéma. Ça her-DAT tempted of to go to the movies. 'It tempted her to go to the movies.'
- (42) ?? Ça lui tentait, d'aller au cinéma. Same as (41), with an intonation break

Moreover, in the dialect under discussion, with dative *tenter*, extraposition decreases in acceptability if the extraposed phrase is not a clause, as in (43). Then, accusative *tenter* is the only option. Usually, phrases other than clauses prefer to be right-dislocated than extraposed, showing that accusative *tenter* but not dative *tenter* may enter the right-dislocation structure.

(43) *Ça lui tentait, un/ce film.

Ça her-DAT tempted a/this movie

'That appealed to her, a/this movie.'

So, there are two well-known rightward configurations to distinguish. With *tenter*, either the verb takes an accusative object, and the right-hand clause is dislocated, as seen with the preference for a strong intonation break, or the verb is dative, and the right-hand clause is extraposed, as evidenced for the preference for a closer prosodic association with the verb. I assume that with right-dislocation, the right-dislocated element is outside the argument-structure of the clause and the subject φa is fully referential, and with extraposition, φa is an expletive. The referential vs non referential nature of φa in, respectively, the accusative vs dative frame, can explain the contrast between (36) and (37). In this pair, the verb is not construed with a right-hand silent clause. Rather, its subject is its only argument, and thus it must be referential. Given that only accusative *tenter* is well-formed in such a situation, we can conclude that only accusative *tenter* has a referential φa subject, not dative *tenter*. In conclusion:

Accusative *tenter* has a referential subject, and if the structure has a right-hand clause, that clause is right-dislocated, whereas dative *tenter* has a non referential ca subject, paired with an extraposed clause.

Now, going back to ACE, we note a relevant contrast between accusative *tenter* and dative *tenter*. For a number of speakers, except those who indiscriminately use the accusative and the dative clitics, or those who never accept dative *tenter* (some speakers only use *tenter* with an accusative object), ACE is rather bad with accusative *tenter*:

- (44) ??Elle fait comme ça la tente.
 She does as ça her-ACC tempts
 'She does as she likes.'
- (45) ??Elle invite qui ça la tente.

 She invites who ça her-ACC tempts
 'She invites who that pleases her.'

Whereas it is perfect with dative tenter:¹⁰

- (46) Elle fait comme ça lui tente. She does as ça her-DAT tempts 'She does as she likes.'
- (47) Elle invite qui ça lui tente. She invites who ça her-DAT pleases 'She invites who she wants.'

Given that ACE is not possible in the accusative frame, where there is no extraposition, and that ACE is possible in the dative frame, where there is extraposition, we conclude that ACE is fine exclusively when there is an extraposed clause. This is what we wanted to prove: *ça*-sentences (*elle invite qui ça lui plaît* 'she invites who she feels like') involve extraposition of some elliptical material, with *ça* an expletive-like element. We have shown it with the dative-accusative alternation of *tenter*, an accusative verb which speakers force into the semantic and syntactic dative frame when needed, namely, in antecedent-contained sentences.

¹⁰ The speakers who do not use *tenter* with a dative at all are unable to accept any form of ACE with *tenter*, like (44) or (46). Because accusative *tenter* lacks the required extraposition structure, as in (44), or *tenter* is dative, as in (46), which they do not have.

¹¹ Pay heed to the fact that not all accusative verbs are prohibited in *ça*-sentences. Accusative *tenter* and the forthcoming pair *chanter* and *enchanter* ('allure to') form a distinct subclass from that of the psych verbs that we have considered up to now. The alternation that they display belongs to them only. The other psych verbs that we have considered in *ça*-sentences, like *arranger* and *plaire* 'suit', are either constantly accusative, like *arranger*, or constantly dative, like *plaire*. Those verbs are fine in ACE sentences, where they take their argument with its expected case, accusative for *arranger* and dative for *plaire*. Similarly, commenting on the study to come, the reason why I think *chanter* and *enchanter* form a minimal pair is that *enchanter*, which is accusative, does not allow ACE, whereas it should, if it were like *arranger*. To express the desiderative meaning of *enchanter* in ACE sentences, one may use the verb *chanter*, which has the meaning of *enchanter* but is dative. I do not think that is coincidental. And the same holds for dative and accusative *tenter*, which are in complementary distribution.

Moreover, if it is right that ACE always involves extraposition and not right-dislocation in *ça*-sentences, then, since regular accusative verbs like *arranger* may display ACE, they should be compatible with extraposition, contrary to *enchanter* and accusative *tenter*, which I think do not enter the extraposition structure. This is confirmed, extraposition, with no or little intonation break is fully acceptable with *arranger*, as compared with *enchanter* (cf. (35) or (49) and accusative-*tenter*, which, as claimed earlier in this section, for instance in (40), and repeated in (i), are incompatible with extraposition in the dialect under discussion:

(i) Ça les arrangeait/??tentait/??enchantait de partir la nuit. Ça them-ACC suited/??tempted/??enchanted of to leave the night 'It suited them to leave at night.' Interestingly, there exist two verbs, which sound alike and which speakers use as if they meant one for the other, in a complementary distribution similar to that of the two frames of *tenter*, one verb specializing for the dative and extraposition and the other for the accusative and right-dislocation. These verbs are *chanter* 'sing' and *enchanter* 'enchant', which, in the constructions under discussion, and only in these, have the respective meanings 'please' and 'delight', which is close to that of *tenter* 'allure'. Their subject argument denotes the delighted prospect of doing something. *Chanter* is dative and *enchanter* accusative.

First, the verb *enchanter* is fine with a referential subject, and, if the subject clause occurs to the right, in the dialect under discussion, there preferably is an intonation break:

- (48) Max pensait que le film/cette idée les enchanterait.

 Max thought that the movie/that idea them-ACC would delight 'Max thought that the movie/that idea would delight them.'
- (49) Max pensait que ça les enchanterait, (d'aller voir) le film/cette idée.
 them-ACC would delight
 Same as (48) with the accusative verb *enchanter* 'delight', with a right-hand phrase separated by an intonation break
- (50) ?Max pensait que ça les enchanterait d'aller voir ce film Same as (49), without an intonation break

This means that the surface subject of *enchanter* is always referential, and that *ça* is not an expletive when the subject clause is to the right, but a referential subject, paired with that right-dislocated clause.

As for *chanter*, the dative verb of this pair, the status of the subject is not clear-cut among speakers. I do not accept a referential surface subject:

(51) *Max pensait que le film/cette idée leur chanterait.

Max thought that the movie/that idea them-DAT would please 'Max thought that the movie/that idea would please them.'

In general, right-dislocation, indicated with a strong intonation break, is rejected:

(52) *Max pensait que ça leur chanterait, (d'aller voir) le film/cette idée. ¹²
Max thought that ça them-DAT would please, (to go see) the movie/that idea 'Max thought that that would please them, going to the movie/that idea.'

As for extraposition, extraposition of an overt clause is not common and sounds uneasy, though not fully excluded:

(53) ?Max pensait que ça leur chanterait d'aller voir le film.

Max thought that ça them-DAT would sing of to go see the movie 'Max thought that it would please them to go see the movie.'

But *chanter* sounds perfect with what I claim is a silent extraposed clause. First, when that clause is recovered from the linguistic context, as in the following:

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¹² One speaker has accepted it, but in general it is rejected.

(54) Qu'il achète ce piano, si ça lui chante. That he purchase this piano if ça him-DAT sings 'Let him purchase this piano, if that appeals to him.'

This structure could be analyzed in two ways. Either ca is referential and picks its reference from the linguistic context, or there is an elliptical extraposed clause, licensed by and interpreted through the linguistic context. I will propose that, here, as elsewhere, for instance, in (51), the surface subject of *chanter* is not referential. This can be observed by expanding the ca of (54) above. That yields an unacceptable sentence:

(55) *Qu'il achète ce piano, si [en acheter un] lui chante.

That he purchase this piano if [of-it to buy one] him sings

'Let him buy this piano, if buying one appeals to him.'

This means that (54) contains a silent extraposed clause. The structure is compatible too with an overt clause, whether it repeats the matrix clause or names a consequence of it:

- (56) Qu'il achète ce piano, si ça lui chante d'en acheter un. That he purchase this piano if ça himDAT sings of of-it to buy one 'Let him buy this piano, if it appeals to him to buy one.'
- (57) Qu'il achète ce piano, si ça lui chante de se ruiner.

 That he purchase this piano if ça himDAT sings of himself go bankrupt 'Let him buy this piano, if it appeals to him to go bankrupt.'

I analyze (54) as involving Lapointe's (1991) empty operator of parenthetical clauses inserted inside a discourse as in "..., he said...", because the si- 'if'-clause is a comment clause, taking the preceding clause as the object of its comment. Syntactically, the preceding clause is the antecedent of the operator:

Another case in which extraposition is fine is when extraction occurs from the extraposed clause:

(59) Voici le piano que ça lui chanterait bien d'acheter Here is the piano that ça lui-DAT would sing well of to buy 'Here is the piano that it would well appeal to him to buy'

So, these combined facts mean that *chanter*, which is dative, only accepts extraposition and not right-dislocation, in the relevant dialect.

Now, interestingly, in that dialect, ACE is preferred with *chanter* than *enchanter*: ¹³

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¹³ The speaker mentioned in footnote 12 who exceptionally accepts *chanter* with right-dislocation (cf. (52)) also accepts (60), namely, ACE with *enchanter*, meaning that he does not distinguish *chanter* from *enchanter* and allows both verbs to enter the right-dislocation and the extraposition structures.

(60)	*Elle fait comme	ça	1'		enchar	nte.	
	She does as	ça	her-A	CC	enchar	nts	
(61)	Elle fait comme	ça	lui		chante		
	She does as	ça	her-D	AΤ	sings		
	'She does as she plea	ses.'					
(62)	??Elle invite qui	ça	1'		enchar	nte.	
	She invites who	ça	her-ACC		enchants		
(63)	Elle invite qui	ça	lui		chante		
	She invites who	ça	her-D	AΤ	sings		
	'She invites who it appeals to her.'						
(64)	??Elle traîne	où	ça	1'		enchante.	
` ′	She hangs around	where	ça	her-AC	CC	enchants	
(65)	Elle traîne	où	ça	lui		chante.	
	She hangs around	where	ça	her-DAT s		sings	
'She hangs around where it appeals to her.'							

The fact that *chanter* does not like a lexical subject, as in (51) and (55), shows that *chanter* does not accept referential subjects in subject position, whatever they are, so, among others, deictic ca as in ca is not referential there, hence that it is an expletive, and hence that there is an extraposed clause associated with it, in that case a silent one.

Again, as with *tenter*, the dative frame must be used in the antecedent-contained *ça*-sentences. These verbs have complementary subcategorization frames: the dative frame (*chanter*) is used with extraposition and the accusative frame (*enchanter*) is used in all other cases. ACE with *tenter*, and *chanter/enchanter* shows a requirement for the dative, meaning a requirement for an extraposed clause.

To sum up sections 2 and 3, ACE-sentences have operators and not conjunctions, where the lexical scope (the semantic relation with the verb) of the moved operators indicates, at least in situations of embedding, a silent extraction site. Moreover, there is a class of verbs, like *tenter* and *chanter* vs *enchanter*, for which the dative frame is evidence for extraposition, proving the presence of an elliptic extraposed clause in ACE-sentences, the sites out of which internal merge is done.

4. The *that*-trace effect

4.1. Hunting for the empty category

Informally speaking, we observe that the possibility of ACE from the extraposed clause of a ca-structure depends on what is on the left edge of the relative clause. Whatever the exact analysis of headless relatives, i.e., whether they have an empty nominal head or no head at all, they contain no overt complementizer. Also, whether an adverbial clause headed by ca when or ca where is like a headless relative with an empty head, or just a CP, it does not have a 'that' comp either. Then, provided that we analyze comme 'as' as a relative pronoun in sentences like (28) and (30), we find that the good sentences have an operator with no overt complementizer and the bad sentences have the ca 'that' comp. If It is obvious that we may

¹⁴ Alternatively, to coincide with the analysis to come, *comme* 'as' may be analyzed as a conjunction, similar to *puisque*, *ainsi*, etc., which, associated with the null operator, becomes able to check the E feature of its TP complement. This makes it equivalent to a *wh* pronoun,

link these facts to the *that*-trace effect. The '*that*-trace effect' refers to the fact that, in all languages, the presence of an overt complementizer blocks the extraction of subjects. Thus, extraction of embedded subjects is excluded from clauses with an overt complementizer:

(66) *Who do you think that -trace left?

In *ça*-sentences, there is an empty category somewhere that is subject to the *that*-trace effect just diagnosed. An obvious candidate for that empty category is the copy category (or categories) of the *wh* operator. This means that, in (67), internal *wh* merge of the *wh* operator would respect conditions on internal merge, and, in (68), it would not:

- (67) Il a invité qui ça l'arrangeait. (cf. (18)) 'He invited who it suited him.'
- (68) *Il a invité la personne que ça l'arrangeait. (cf. (25)) 'He invited the person that it suited him.'

Suppose ellipsis is an expanded category. In that case, (67)-(68) would have the following derivations (the silent clauses could be finite, as in the first examples, or infinitival introduced with de, as in the second ones, we do not know which are used, since they are silent):

- (69) Il a invité qui; ça l'arrangeait [t; qu'il invite t;] Il a invité qui; ça l'arrangeait [-t; de inviter t;]
- (70) *Il a invité la personne Op_i que ça l'arrangeait [t_i qu'il invite t_i] *Il a invité la personne Op_i que ça l'arrangeait [t_i de inviter t_i]

In (69), it is an overt wh pronoun that merges in the higher Spec of the relative CP, and in (70), it is the empty operator. There are two copies to consider. The lower one is an object, and objects meet no difficulty for internal merge, so it cannot be the faulty one:

(71) Il a invité la personne Op que ça lui disait d'inviter Op
He has invited the person Op that ça him-DAT told of to invite Op
'He has invited the person that it pleased him to invite.'

The intermediate position is the specifier of the extraposed CP. If that position were the faulty one, we would expect this to carry over to overt forms, but internal merge is possible from overt extraposed clauses, as in (72), a *wh* question, or (73), a relative clause:

- (72) Qui est-ce que ça lui plairait que la firme engage?
 Who Q that ça him-DAT would please that the firm hire 'Who would it please him that the firm hired?'
- (73) Il a rencontré la personne que ça l'arrangeait de rencontrer. He has met the person that ça him suited of to meet 'He has met the person that it suited him to meet.'

but restricts its pronoun-like quality to a subset of the sentences in which it occurs, those containing Lapointe (1991)'s empty operator of parenthetical clauses.

Kennedy and Merchant (1997) study a number of differences between overt forms and the ellipsis counterparts, but those differences all display acceptability of ellipses and unacceptability of the overt counterparts. For the ACE-*ça*-sentences with *que*, it is the reverse, the overt forms are fine and the ellipses are ruled out (**la personne que ça l'arrange []* 'the person that it suits him' vs *la personne que ça l'arrange d'inviter* 'the person that it suits him to invite') and conditions on Spell-Out cannot target forms which are silent, like ellipses.¹⁵

So, unless the *that*-trace effect somehow were a PF phenomenon excluding the intermediate copy in (70) and not in (69), there does not seem to be anything wrong with it. Rather, the opposition between ellipses and overt clauses leads to the idea that ellipses themselves fall under some specific requirement.

4.2. A Minimalist-type analysis

Descriptively speaking, we have seen that ACE is excluded if and only if *que* 'that' is present in the structure, no matter the grammatical function of the *wh* trace, as if the ellipsis itself and not the moved operator were sensitive to the presence of *que*.

Zagona (1982) has claimed that VP ellipsis is subject to the ECP, Lobeck (1995) that ellipses are subject to some head-government constraint, which she expresses as the requirement of Spec to Spec movement of the ellipsis. Merchant (2001) also comes to that conclusion, and implements this idea with the hypothesis that elliptic categories have an unchecked E-feature borne on their heads which needs to be checked by the head that takes the ellipsis as its complement in order to be rightly interpreted. It must be interpreted as silent by the phonetic component and as a repetition of a previous focused phrase in the semantic component. This means that, as far as we are concerned, the extraposed silent CPs have an E-feature on their C head which must move to the head of the main C of the relative clause to be checked there. It is this head-to-head movement that yields proper-government effects. ¹⁶

¹⁵ They state that the conditions that rule out the overt forms hold at PF, as conditions on Spell-Out. As ellipses are unpronounced, conditions on PF interpretation apply vacuously to them. For example, consider the ban on preposition-stranding in French, and its availability in ellipses (see Hirschbüler 1978, Larson 1987 and Grosu 1996):

(i) Elle parle avec l'homme que tu m' as dit [qu'elle parlait à]

(ii) *Elle parle avec l'homme que tu m' as dit qu'elle parlait à. She speaks with the man that you me have told that she spoke to 'She is speaking with the man that you told me (that she was speaking to).'

If a stranded preposition cannot be interpreted phonetically, then (ii) crashes at PF, whereas (i) is fine, because the preposition need not be phonetically interpreted.

¹⁶ For recent studies of ellipsis, and ACE, see also Elbourne (2005), Fox (2002) and Merchant (2000). As for Authier (2011), following Johnson (2001), he claims that ellipses move to a topic position, another movement analysis of ellipsis, and shows that clausal ellipses are fine whenever clausal topicalization is fine. This has led him to discover a difference between tensed clauses and infinitivals, where only the tensed ones may host an ellipsis. Authier claims that "French topicalized infinitivals, like English topicalized VPs, must be able to find a finite clause to land in, as in" (i), to be compared with (ii), where the landing site is in an infinitival:

(i) Soulever ce sac de ciment tout seul, tu risques pas de pouvoir []!

We will take Merchant's analysis as a leading idea and suppose that the *that* complementizer cannot check E (is not a proper governor, to borrow Zagona's 1982 or Lobeck's 1995 account), but the null complementizer, \emptyset , can. In the latter case, E may move to C and be checked by \emptyset . This means that ellipsis is possible if the relative-clause C contains the null complementizer \emptyset but not *que* 'that'. To visualize the derivation in *ça*-sentences, supposing that extraposed clauses are adjoined to TP, and that *de* is an infinitival complementizer, onto which the E feature is attached, we get:

- (74) Il voit [CP qui [C' [E-Ø]C [TP [TP ça lui plaît] [CP deE-[TP PRO voir qui]]]]] He sees who ça himDAT pleases of to see who 'He sees who it pleases him.'
- *Il voit les gens [CP Op [C' que [TP [TP ça lui plaît] [CP deE [TP PRO voir Op]]]]]

 He sees the people that ça himDAT pleases of to see Op

 'He sees the people that it pleases him.'

In (74), E heading the rightward extraposed CP merges with the C of its main clause, in bold. That C is headed by the null comp, \emptyset , which properly checks E, by assumption. When C is occupied by *que* 'that', as in (75), whether or not E moves to the upper C, *que* 'that' cannot check it, by assumption, and the derivation crashes because E is left unchecked. This yields the *that*-trace effect, where extraction out of a subject-like ellipsis is excluded when *que* is present.

Still thinking in terms of the ECP, if extraposed sentences are subject to the *that*-trace effect, it is because they are not lexically related to the verb (not head-governed). We expect complement ellipses to be fine even with the *que* complementizer, since, following Merchant's logic, they can be checked by the verb, provided that it belong to the class that accepts elliptical complements. And, as often noted in the article, that is the case:

(76) Elle parle aux gens qu'elle veut []
She speaks to the people that she wants
'She speaks to the people that she wants to.'

to-lift this bag of cement all alone you are-likely not of to-be-able 'Lifting this cement bag on your own is not something you're likely to be able to do. (Authier's (47))

(ii) *Paul a téléphoné pour [obtenir son visa plus rapidement, pouvoir []].
Paul has phoned to to-obtain his visa more quickly to-be-able
'Paul called so that he could get his visa more quickly.' (Authier's (46))

Authier shows that ellipsis too is impossible in that infinitival context:

(iii) ?*Je ne sais pas si je peux soulever 150kg, mais pouvoir [] impressionnerait I neg know not if I can lift 150kg but to-be-able would-impress mes amis.

my friends
'I don't know if I can lift 150kg, but to have that ability would impress my friends.' from Authier's (48c)

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(77) Elle travaille les jours qu'elle peut []
She works the days that she can
'She works the days that she can.'

Lastly, let us turn to one problem that can be raised if we say that clausal ellipsis triggers a *that*-trace effect. In French, the *that*-trace effect is attested for subject extraction:

(78) *Qui crois-tu que soit venu?
who think-you that be come
Qui crois-tu [qui que [qui soit venu]_{IP}]_{CP}
Lit: 'Who do you think that came?'

Subject extraction is saved by the *qui* complementizer (cf. Kayne 1983), also analyzed as a weak pronoun in Koopman and Sportiche (2008) (see discussions of the *que/qui* alternation or the ECP and recent developments in Sportiche 2008):

(79) Qui crois-tu qui soit venu? who think-you qui be come 'Who do you think came?'

But clausal ellipsis is not rescued by qui:

(80) **Il a invité la personne qui ça lui plaisait. He has invited the person qui ça him pleased 'He has invited the person that that pleased him.'

In fact, that is not surprising, *qui* is known to save extraction of the subject that is strictly next to the complementizer. For instance, it does not save adjuncts. ECP effects on adjunct extraction are tested by extracting adjuncts from islands:

- (81) *Dans quel intérêt a-t-elle regretté le fait que/qui la police lui ait parlé? In what interest has she regretted the fact that the police him_{DAT} had spoken Lit: 'What did she regret the fact that the police had spoken to him for?'
- (81) is to be understood with *dans quel intérêt* 'what for' taking lexical scope over the embedded predicate. In fact, the sentence with *qui* is much worse, because *qui* sounds like an inappropriate word form. Returning to *ça*-sentences, given that *qui* may not rescue extraposed ellipses, such sentences display the usual, English-type, *that*-trace effect, in which extraction is bad with *que* 'that', with no saving device.

4.3. A GB-type analysis

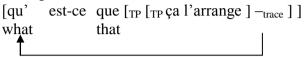
(82) *Qu' est-ce que ça t' arrange?
What that ca you suits

(83) *Qu' est-ce que ça lui plaît?
What that ça her pleases

(84) *Qu' est-ce que ça lui convient?
What that ça her suits

This means that the extraposed clause is in a position that triggers the *that*-trace effect:

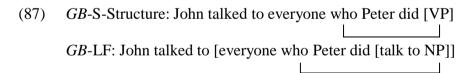
(85) Configuration of a *that*-trace effect on the extraposed element:



Returning to ACE, suppose that, as in GB theory, empty categories and ellipses are unstructured, namely, do not have internal structure. At first sight, this seems curious in the case of extraction from ellipsis, because, if empty categories were unstructured, an operator would be related to a position that does not seem to qualify as its trace. Let us consider VP-deletion:¹⁷

(86) John talked to everyone who $_{DP}$ Peter did [] $_{VP}$

Extraction from ellipsis would then be impossible, unless one analyzed the ellipsis as the syntactic trace of the moved operator. That is what was proposed in Haïk (1985) and (1987). In contexts when the ellipsis is an extraction site, that ellipsis was analyzed as the syntactic variable of the moved operator, so that an A'-relation was permitted between an empty VP (or CP) and any moved *wh*. It was assumed that the labels of the categories were only checked at LF, allowing a categorial mismatch between the operator and its variable during the derivation. In other words, a sentence like (86) has a derivation as in (87) before LF and, at LF, the content of the VP is restored as a copy of its antecedent, as in Hankamer and Sag (1976), Williams (1977), Partee and Bach (1984) and May (1985):



As for the *ça*-sentences under discussion, a similar derivation can be invoked:

- 1. Antecedent-contained *ca*-sentences are derived by *wh* internal merge of the operator.
- 2. The original position of the operator is the position of extraposition, even if the operator is not a clause.
- 3. All the proper elements and relations are restored at LF by copying the antecedent of the ellipsis onto the ellipsis.

(i) Who did John talk to? And who did Bill?

¹⁷ Extraction from an ellipsis is also possible in non antecedent-contained contexts, as in (i), raised by an anonymous reviewer. The question is the same as to the exact steps of such derivations:

Let us illustrate this. First, sentences are derived by internal merge of a phrase from the extraposed position. So, the pre-LF form is the extraposed structure with an expletive ca and an operator that has merged up from the extraposed position:

At LF, the content of the extraposed material is provided by plugging a copy of the matrix clause onto the site of the silent clause. Following Haïk (1985), the copying process does not necessarily go on indefinitely, it may stop at the DP:

That yields the right semantic result and accords with the syntax of extraposition, given that, at LF, the extraposed element is a clause.

5. Evaluating the accounts

The question whether the French facts may pull apart the two types of analyses, one in which ellipsis falls under the ECP because it is an ellipsis (its head is E, and E must move to a higher head, as in Merchant 2001) or because it is trace-like, (the trace of Lapointe's operator or the trace of a *wh* element in ACE-contexts, as in Haïk 1987), is a tricky one. I will leave this question pending, though the second analysis might be preferred if it can be shown that a clausal ellipsis, if present at all in a structure, is always a trace, the trace of some overt or covert element provided by the structure, which it is allowed to plug onto. As a matter of fact, it seems that ACE structures favor the emergence of otherwise impossible ellipses, because they are *wh* constructions and *wh* constructions create traces, whereas the E analysis should not depend on whether the whole construction is a *wh* construction or not. Just to fuel the debate, I will mention one fact.

Ellipsis is not permitted with all verbs in all constructions, for instance, with the verb *dire* 'say' in an adversative clause, as in (91), to be compared with (92), which contains the verb *pouvoir* 'be able', claimed in Busquets and Denis (2001) to allow ellipsis because it is a

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¹⁸ We saw in section 3.1, around the discussion of (43), that material other than clauses usually prefer to be dislocated than extraposed, nevertheless this will be the beginning of the derivation, because I suppose that this selection requirement is not checked prior to LF.

deontic element.¹⁹ But when the verb occurs in an antecedent-contained structure, ellipsis is possible, as in (93) and other examples of the text:

- (91) *Marie devait partir, mais elle n' avait pas dit.

 Marie had to leave but she Neg had not said 'Marie had to leave, but she had not said (it)'
- (92) Marie devait partir, mais elle n' a pas pu.

 Marie had to leave, but she Neg has not be able 'Marie had to leave, but she wasnt'able (to)'.
- (93) Elle est partie le jour où elle a dit. She is left the day when she has said 'She left the day she said (that she would leave)'

(93) is interpreted with an elliptic clause as complement of *dire*. If, following Haïk, we analyze it as relativization of où 'when' from the complement position of *dire*, with LF-copying of the antecedent-clause onto that complement position, then (93) starts with a structure similar to that of complement extraction, which is well-formed:

(94) La chose qu'elle a dite The thing that she has said

So, the derivation starts with a *wh* direct object of *dire*, and then the ellipsis gets filled in, and the result is as good as an overt form:

(95) Elle est partie le jour où elle a dit qu' elle partirait. She was left the day where she has said that she would leave

This would be a case where the ellipsis becomes viable because it starts as a trace, the trace of the wh phrase. With Merchant's E, one wonders why E would be allowed in a wh configuration, as in (93), and not in a plain one, as in (91).

Conclusion

The main bulk of this article has been empirical. Its purpose was to show that a subset of clausal ellipses in French display the *that*-trace effect, confirming the claim made in various work that ellipsis falls under some form of the ECP. Then, the theoretical question has been why this should be so. For certain analyses, it is because ellipsis is a special kind of category, therefore subject to a specific requirement forcing it to move somewhere, leading to proper-

(i) A sees B waiting before the closed door of C's house:
A: « Ah? Elle ne t'a pas dit? »
« Oh? She didn't tell you? »

Speaker A means that C hasn't said SOMETHING explaining her not answering the door.

¹⁹ This shows that ellipsis with *dire* cannot be recovered in a simple way from the linguistic context. However, it may be recovered from the utterance situation:

government effects. For me, it is because an ellipsis plugs onto an unstructured category: the trace of the empty operator of parenthetical clauses or the trace of moved wh operators.

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Isabelle Haïk University of Caen Normandy Département d'Anglais 14032 Caen Cedex France

isabelle.haik@unicaen.fr