

Cyclicality and Extractability of Extraposition Constructions in French

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Cyclicity and Extractability of
Extraposition constructions in French
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0. There are in French two rules of extraposition of a sentential subject: I1-Extraposition which leaves the pronoun I1 in subject position, and Ça-Extraposition which leaves ç a or ce(c' before vowels) as the subject.²

I1-Extraposition (I1-E)

- (1) Il est tout à fait possible que Jean vienne.
(It is very possible that Jean will come.)
- (2) Il est probable que j'achète une voiture.
(It is probable that I will buy a car.)
- (3) Il serait intéressant de visiter Avignon.
(It would be interesting to visit Avignon.)

Ça-Extraposition (Ça-E)

- (4) C'est tout à fait possible que Jean vienne.
- (5) C'est probable que j'achète une voiture.
- (6) Ç a serait intéressant de visiter Avignon.

Although these two extrapositions look similar, they differ as to extractability: it is possible to extract from the extraposed clause in the I1-E ((7)&(9)), but not from the extraposed clause in the Ç a-E construction ((8)&(10)).

- (7) La voiture qu'il est probable que j'achète
(The car that it is probable that I will buy
est vieille mais pas chère.
is old but cheap.)
- (8) *La voiture que c'est probable que j'achète
est vieille mais pas chère.
- (9) Que serait-il } intéressant de visiter
Ou'est-ce qu'il serait } ?
(What would it be interesting to visit?)
- (10) *Que serait-ce } intéressant de visiter
*Qu'est-ce que ç a serait } ?

This correlates with the fact that

a) I1-E, like Extraposition from subject position in English (cf. arguments presented in Hankamer & Sag, forthcoming: "On the Cyclicity of Extraposition") can be shown to be cyclic. I will give three arguments to this effect in section 1.³

b) For Ç a-E on the other hand there are no arguments that it is cyclic, and in fact I will present in section 2. three arguments that it is postcyclic.

1. Cyclicity of I1-Extrapolation
 1.1 First argument

- (11) Il a l'air d'être arrivé une fois de plus
 (It looks like it happened once again that
 qu'elle se soit perdue.
 she got lost.)

This sentence can be derived in two ways. If I1-E is cyclic then we must be able to derive it by applying I1-E on the lower cycle, followed by Raising into Subject position on the upper cycle.

The other derivation would be to apply I1-E post-cyclically on the upper clause after Raising has applied. In other words Raising would give (12), to which I1-E would apply to give (11). However this derivation is impossible, because the verb avoir l'air does not allow I1-E, as can be seen in (13).

- (12) Que Marie se soit perdue a l'air d'être arrivé
 une fois de plus.
 (13) *Il a l'air que Marie s'est perdue.
 (It looks like Marie got lost.)

(The verb avoir l'air only allows Raising.)

The same argument can be made on the basis of other sentences (14&15) where the upper verb also does not allow I1-E (16&17).

- (14) Il est foutu d'arriver que Marie se perde.
 (It is bound to happen that Marie get lost.)
 (15) Il commence a m'arriver de me tromper sans
 arrêt,
 mistakes all the time.)
 (16) *Il est foutu qu'elle se soit perdue.
 (17) *Il commence que je me trompe sans arrêt.

The argument given above crucially depends on the existence of the constraint on certain verbs that they do not allow I1-Extrapolation. In order to strengthen the argument it is necessary to show that the constraint holds for derived subjects as well as for deep-structure subjects:

- (18) *Il est foutu d'étonner Jean que Marie lui donne un cadeau.
 (It is bound to surprise J that M give him a present.)

- (19) *Il étonne J que M lui donne de l'argent.
(It surprises J that M give him money.)
- (20) *Il a l'air de réjouir ta soeur que tu viennes.
*Il réjouit ta soeur que tu viennes.
- (21) *Il a commencé à ennuyer sa mère que Paul fume.
*Il ennuie sa mère que Paul fume.

In sentence (18) the lower verb cannot extrapose (Cf.19) therefore we must assume that the sentential subject gets raised. If être foutu allowed extraposition of derived subjects, (18) would be good, but it isn't. This shows that the constraint on être foutu holds for derived subjects as well as base subjects..The same argument can be made for (20) and (21).

This will be an important point to keep in mind throughout the arguments dealing with Extraposition rules: if a verb has certain constraints on the movement of its subject, these constraints are as true of derived subjects as they are of deep structure subjects.

1.2 Second argument.

Consider the following sentences:

- (22) Il semble s'en suivre que J a décidé de partir.
(It seems to result that J decided to go.)
- (23) *Que J ait décidé de partir semble s'en suivre.
- (24) Que J ait décidé de partir semble étonnant
Que J décide de partir semble arriver souvent.
- (25) Il s'en suit qu'il va partir.
- (26) *Qu'il va partir s'en suit.

If I1-E is not cyclic then Raising would apply first to give (23) and then I1-E would apply over sembler, which allows I1-E. But (23) is ungrammatical. This means that if (22) is really derived by first raising and then I1-E we must claim that sembler takes obligatory I1-E. However this is clearly wrong as seen in (24). Sembler does allow a sentential subject if it got into subject position by Raising.

If we adopt the derivation for which I1-E is cyclic we can account for *(23): the embedded verb s'en suivre requires I1-E, as seen in (25) & (26). Under these conditions

Il-E must apply on the lower cycle, preventing the later raising of the sentential subject, thus explaining the ungrammaticality of (23). The Il is what gets raised. Only if the Il-E applies on the lower cycle is (22) derivable. Therefore Il-E must be cyclic.

1.3 Third argument.

(27) Il est considéré nécessaire que tu viennes.
(It is considered necessary that you come)

(28) *Il est considéré que tu as tort.
(It is considered that you are wrong.)

For the present argument assume that the structure of the above sentence (27) is identical to that of the English sentence "It is considered to be necessary that you come.". Also assume the rules of raising into object position and être deletion. I will justify these assumptions in 1.4.

If Il-E were postcyclic, (27) would have to be derived by extraposing the que-clause from the subject position, over the verb être considéré. However (28) shows that this is impossible, for that verb does not allow Il-E. We are forced to conclude that Il-E cannot be postcyclic.

Cyclic application of Il-E will give (27), since the embedded sentence contains the predicate (être)nécessaire which allows Il-E.

1.4 Arguments for Raising into Object position (RO)
The existence of RO in French has been contested. The alternative would be for the base to generate sentences of the form:

(29) NP V NP AP

where V belongs to a small class of verbs such as considérer, croire, trouver, etc... I will argue for RO against the alternative solution (29).

1.4.1 Distribution of infinitival vs que clauses after considérer, trouver etc.

The argument is that we find that there are restrictions on what kind of sentential object can occur with which AP and that these restrictions turn out to be the same as those required in a simplex sentence of the form NP beAP. Consider:

(30) Je considère stupide de se tuer sans raison.
(I consider stupid to kill oneself w/o reason.)

(31) *Je considère peu probable de se tuer sans raison.
(I consider it unlikely to kill...)

(32) Je considère peu probable que quelqu'un se tue sans raison.

(30), (31), & (32) correlate with (33), (34) & (35):

(33) Se tuer sans raison est stupide

Il est stupide de se tuer sans raison.

- (34) *Se tuer sans raison est peu probable.
 *Il est peu probable de se tuer sans raison.
- (35) Que quelqu'un se tue sans raison est peu probable.
 Il est peu probable que quelqu'un se tue sans raison.

Être stupide allows an infinitival subject, but être probable does not. If there is no RO, we must state these restrictions twice; once for subjects of être AP, and once for objects of verbs like considérer. But the occurrence of infinitival objects of considérer follows with only one set of restrictions, if there is a simple S embedded under considérer, and if there is a rule of RO.

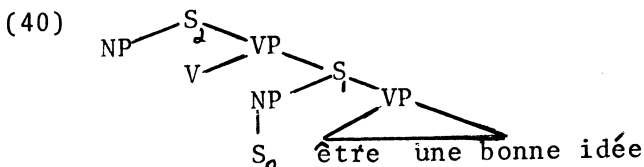
1.4.2 With a sentential object the AP has to be an Il-Extrapolation predicate.

Another ad-hoc feature of a base like (29) is that sentential objects are only allowed when the AP is an Il-E predicate in the simplex sentence NP be AP. Consider the following examples: (36) & (37) show that the predicate une bonne idée (a good idea) does not allow Il-E

- (36) Chatouiller un gorille n'est pas une bonne idée
 (Tickling a gorilla is not a good idea.)
- (37) *Il n'est pas une bonne idée de chatouiller un gorille.
- (38) Elle trouve ce voyage une très bonne idée.
 She finds this trip a very good idea.)
- (39) *Elle ne trouve pas une bonne idée de chatouiller le gorille.
 She doesn't find it a good idea to tickle the gorilla.)

Although the predicate une bonne idée is fine as an AP after trouver when the object is a noun (as in (38)), the sentence is no good with a sentential object. Under the analysis that assumes the deep-structure (29), only an ad hoc restriction can account for this.

However the ungrammaticality of (39) will follow from that of (37) in the following way if we assume that there is RO: If RO exists, the DS of (39) must be like (40):



Sentence (37) shows that in S_1 , I1-E cannot apply. Therefore when RO applies it raises the sentential subject S_0 into Object position giving (41)

(41) *Je ne trouve pas chatouiller le gorille une très bonne idée.

This is exactly the same judgement as for the English sentence (42):

(42) *I find to sit in the park very enjoyable.

The ungrammaticality of (41) and (42) is explained by the independently motivated Internal NP Clause Constraint (cf. Ross 1967, Kuno 1973 for discussion). This constraint will rule out any sentence in which the embedded sentential subject is raised into object position. Therefore sentence like (41) can never arise.

The difference in grammaticality between (43) and (44)

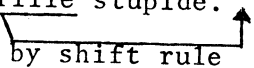
(43) *Je ne trouve pas une bonne idée de chatouiller le gorille.

(44) Je trouve stupide de chatouiller un gorille.

is due to the fact that in (44), I1-E can optionally apply on the lower cycle, but that in (43) I1-E is impossible on the lower cycle (see (37)).

The contrast between (43) and (44) is in itself an argument for the cyclicity of I1-E, for if it could not apply on the lower cycle, sentence (44) would be ungrammatical. And in that case, even postulating a sentential-object shift rule to allow (45) to escape the Internal NP Clause Constraint will not solve the problem:

(45) *Je trouve chatouiller un gorille stupide.

by shift rule 

to give (44).

There would still be left to explain why this hypothetical shift rule cannot apply to sentences like (41) and give a grammatical sentence (note that the output of such a rule would be (43) which is ungrammatical).⁴

1.4.3 Derivation of sentences with I1-E.

(46) Il est considéré absolument nécessaire que tu viennes.

(It is considered absolutely necessary that you come.)

This sentence needs to be derived. As seen above (27), if there is an embedded sentence, RO, and if I1-E is cyclic, the grammaticality of it follows.

However with a deep structure like (29), no derivation of (46) seems possible. We cannot say that Passive applies and then the sentential subject is extraposed, because the verb être considéré does not allow II-E. There is one alternative left, which is to say that there exists a rule of object extraposition which has the following properties

- a. It applies only to the verbs that get into structures like (29) : considerer, trouver, croire, etc...
- b. It applies only to sentential objects: objects of verbs like considérer that are simple nouns cannot appear in final position, but must remain between the verb and the AP. Note that this property would follow automatically if sentences like (46) are derived by a rule of extraposition from subject position.
- c. It applies only over II-E predicates.
- d. It has the same restrictions with respect to these predicates as II-E does.
- e. It is cyclic because it must precede Passive (in(46)).

This rule has the same properties as II-E and no properties of its own, which makes it very suspicious looking. Just like the shift rule mentioned above, this extraposition rule is an ad hoc device to recreate the effects of subject extraposition in an embedded S in the framework where neither an embedded S nor the rule of RO are believed to exist. Allowing such a solution means dividing a very simple general rule into independent processes, most of which are not otherwise motivated. Therefore postulating a rule of RO & an embedded S, which lets you keep a unified rule of Extraposition from Subject position, is a better alternative.

1.4.4 Conclusion to arguments for RO

Three arguments were presented that there is a rule of RO in French. I believe them to be convincing. However two points remain obscure:

- why is there no verb être after RO ?
- why does the raised II not appear in object position, but (re)appear in subject position after Passive has applied ?

The easiest solution to the first question is that there is a rule of être deletion (when the embedded S does not contain a deletable être, RO cannot apply),⁵

A possible answer to the second question is that languages differ as to where they must leave pronouns to mark a position in a sentence: English requires a pronoun both in subject position and in object position, French seems to do without the pronoun in object position, and I believe that Spanish for example, can do without either one. These questions need to be investigated.

2.0 Ça-Extrapolation is postcyclic.

We have seen that the construction that allows extraction out of the extrapolated sentential subject is derived by the cyclic rule of I1-E. I will now show that the rule that derives sentences where extraction is impossible out of the extrapolated sentential subject cannot be cyclic but must be postcyclic.

2.1 There exist no arguments, to my knowledge, that Ça-Extrapolation is cyclic. This is the first out of three that it must be postcyclic.:

The verb arriver (to happen) takes both I1 and Ça-Extrapolations, as in

- (47) I1 arrive que l'administration renvoie des
(It happens that the administration fires some
employés illégalement.
employees illegally.)
- (48) Ça arrive que l'administration renvoie des
employés illégalement.

But notice the contrast:

- (49) I1 a l'air de menacer d'arriver que l'adminis-
tration renvoie des employés illégalement.
- (50)? *Ça a l'air de menacer d'arriver que l'adminis-
tration renvoie des employés illégalement.

Since I1-E is cyclic we can say that in (49), it has applied on the lowest cycle, followed by two applications of Raising with menacer and avoir l'air. If Ça-E were cyclic we would expect exactly the same derivation to be possible: Ça-E over arriver and then Raising of the dummy subject, in this case ça. But as we see it is impossible (sentence (50)). Therefore Ça-E cannot be cyclic.

However there is a problem: Ça-E seems to apply regardless of what the verb is, which means that under a postcyclic analysis of Ça-E, we would expect it to apply over the verb complex a l'air de menacer d'arriver, giving (50). But notice the following:

- (51) *Qu'on les renvoie a l'air de menacer d'arriver.
(It looks like it threatens to take place that
they be fired.)
- (52) ?*Qu'ils renvoient des employés arrive.
(That they fire employees happens.)
- (53) Qu'ils renvoient des employés arrive très souvent
(That they fire employees happens very often.)
- (54) Qu'ils renvoient des employés injustement a l'ai
(That they fire employees unjustly seems to
de menacer d'arriver très souvent.
threaten to happen very often.)

The verb arriver cannot have only a sentential subject in (52). This does not mean that Ça-E is obligatory as can be seen in (53) and (54), but rather that there exists a constraint against leaving verbs like arriver, which do not have much semantic content at the end of their sentence; this I will call the No Dangling constraint. This predicts that we can improve (50) either by adding something after arriver or by changing the lowest verb to one not sensitive to the constraint.

- (55) Çà a l'air de menacer d'arriver souvent qu'ils renvoient des employés injustement.
 (56) Çà a l'air de commencer à lui sembler louche (It seems to be starting to look fishy to him que Marie rentre si tard. that M. come back so late.)

Therefore it seems true that (50) is out because the semantically 'light' verb is left dangling. We need to explain why arriver is not felt to be dangling in (48) and (57):

- (48) Ça arrive que l'administration renvoie des employés illégalement.
 (57) ?Ça menace d'arriver que des employés soient renvoyés illégalement.
 (*Dislocated intonation.)

The more Raising verbs precede arriver, the more the **extraposed** sentential subject needs to be dislocated, with a pause before it and also the sentence intonation characteristic of dislocation (rise of level of pitch and drop on the sentential subject.). Sentences (55) and (56) are good only as dislocations. However (48) and (57) do not require a break or special intonation, and in fact (57) is out as a dislocation. In the cases of Extraposition without dislocation, the verb arriver is not in any sense dangling and the No Dangling constraint does not apply. But when only the dislocated reading is possible, as in the cases where the verb complex contains more than two verbs, the constraint rules out the sentences.

Therefore the explanation of the ungrammaticality of (50) under the theory that Ça-E is postcyclic is based on these two factors:

- the No Dangling constraint.
- Ça-E becomes like right dislocation when it applies over several verbs,

Notice that if Ça-E were assumed to be cyclic, it would be supposed to extrapose over one verb at a time, and there would be no way to explain the difference in intonation between (56) and (48).

2.2 An argument similar in nature to the first one can be given for sentence (58):

- (58) *Ça a été trouvé nécessaire que tu fasses un effort
(It was found necessary that you make an effort)

The cyclic analysis of Ça-E cannot explain the ungrammaticality of (58) for it should be derivable by applying 1) Ça-E -2) Raising into object position -3) Passive. It would then be parallel to (59), which is grammatical:

- (59) Il a été trouvé nécessaire que tu fasses un effort

The contrast between (58) and (59) shows that while on the one hand Il-E is cyclic, Ça-E has to be postcyclic.⁶

2.3 The rule of Ça-E, unlike Il-E which can apply freely, is discourse conditioned. It can apply only when all the information contained in the sentential subject is known from context or previous discourse.

The contrast can be seen in the following interchange:

-Qui va venir demain?

(60) -Il est probable que Jean viendra.

(61)?*-C'est probable que Jean viendra.

(It is likely that Jean will come.)

In (60) and (61) Jean is the new information requested by the first speaker. It cannot be part of the extraposed clause in (61). However (63) is good because the extraposed clause contains no new information:

-Est-ce que Jean va venir demain?

(62) -Il est possible qu'il vienne.

(63) -C'est possible qu'il vienne.

It follows from this that Ça-E sentences cannot be discourse initial (no information presupposed). Thus while (64) is well-formed as the first sentence of a conversation, (65) is not:

(64) Il est possible que je m'en aille en vacances.

(It is possible that I leave on vacation.)

(65) *C'est possible que je m'en aille en vacances.

It has been argued (Hankamer, 1973, 1974) that only non-cyclic rules are discourse sensitive, therefore we expect Ça-E not to be cyclic, but postcyclic. The contrast with Il-E supports this conclusion.

3. Conclusion.

We have seen that the two Extraposition constructions of French differ as to extractability:

- in I1-E construction extraction is possible out of the extraposed sentential subject.
- in Ça-E construction extraction is impossible out of the extraposed sentential subject.

This correlates with cyclicity: -I1-E is cyclic
 -Ça-E is postcyclic

How can we block extraction out of postcyclically extraposed S-subjects? The Extraposition constructions are identical except for the dummy subject. A possible solution would be to make extraction rules sensitive to the presence of Ça. However this will not do because there are many sentences containing que-clauses and Ça that have nothing to do with Ça-E constructions, and from those que-clauses extraction is allowed.

Another reason that such a solution must be wrong is that there exists a more general principle that can explain the facts: other pairs of rules have the same differences in behavior as I1/Ça-E, and only the cyclic one allows extraction out of what it moves (cf. Pinkham, 1975). One such pair is Extraposition from Subject position / Extraposition from Object position, which exhibit the following contrast in extractability:

- (66) What do you expect it to be most likely that she will make for dessert ?
- (67) *What would you like it very much that she prepare for dinner ?

The conclusion to this paper is therefore that the correlation between extractability and cyclicity demonstrated for the rules of I1-E and Ça-E is a reflection of the general principle :

Constituents moved by postcyclic movement rules become Islands.

1: Many thanks to Jorge Hankamer for his helpful suggestions, comments, and unlimited encouragement. Comments made to me by Michael Szamosi and Paul Neubauer were also very useful.

2. Several native speakers of French agree with me on the judgements. It should be emphasized that it is the contrast between sentences that I am interested in, not the absolute judgements of grammaticality.

3. Jacobson and Neubauer (1974) have presented arguments for the cyclicity of Extraposition in English, one of which is superficially similar to those presented here. Their argument, however, depends crucially on an assumption about the correct formulation of an exception feature for the

verb seem, an assumption that **they** do not justify. For this reason I do not think that the particular argument which they present can be considered convincing.

4. There is a rule of Right Dislocation (from object position) which leaves Ça: it operates on NP-clauses as well as regular NP's.

Je trouve ça laid , les gorilles.

Je trouve ça stupide , de chatouiller un gorille.

5. Michael Szamosi (in preparation) argues against RO in French and to be deletion (être deletion) in general.

6. Ça-E does not apply over être trouvé, probably because of the impersonal nature of the construction. The argument is not affected, since we also find the following contrast, which shows that Ca-E cannot be cyclic:

i) On a trouvé nécessaire que tes parents viennent.

(It was found necessary that your parents come.)

ii) (?with pause)

(*without pause) On a trouvé ça nécessaire qu'ils viennent

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