

French Predicate Clitics and Clause Structure*

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1. Introduction

Although in general we have a reasonably good idea of constituency, we do not have as good an idea of the internal organization of constituents. A substantial amount of recent research has led to the conclusion that in many cases, a much more elaborate internal structure than previously assumed is necessary. Consider for example the internal structure of the NP *the destruction of the boat*. It would have been analyzed as in (1) until the mid 1980's but could reasonably be attributed the structure in (2) today (incorporating a combination of various ideas by Szabolcsi (1987), Abney (1987), Ritter (1991), Valois (1991), Koopman (1993) and simplifying somewhat):

(1) [NP [_{det} The] [_{N'} destruction [_? of [NP the [boat]]]]]

(2) [_{DP} [_{D'} the][_{NumP} [_{Num'} [_{Num} e] [_{NP} [_{N'} [destruct]_i+ion [_{VP} e [_{V'} e_i [_{VP} [_{DP} the boat [_{V'} e_i]]]]]]]

Every substring forming a constituent in (1) also forms a constituent in (2) but their internal organization is quite different. There are several sources to this kind of development. One undoubtedly is an ever greater scrutiny of detailed data simply ignored previously, which has led to the one (inflectional) morpheme/one head widely assumed now as a result of the work on head movement (Koopman, 1984, Travis, 1984, Baker, 1988, Pollock, 1990) or the emerging bias in favor of greater cross categorial uniformity in internal syntactic organization. In this context, what makes syntactic analysis particularly challenging is the fundamental indeterminacy consequential to the existence of silent morphemes (hence, by the one morpheme/one head principle, of silent categories). Arguments (based on paradigmatic regularity) for the existence of silent morphemes (e.g. English present Tense) are as strong as linguistic arguments can get. Once the existence of silent morphemes is accepted, the general question is raised of their content and distribution. Absence of overt morphemes is no guarantee of their structural absence. To illustrate, consider the small clause in (3)

(3) Jean considère [_w Pierre malade]

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John considers Peter sick

We face the question of whether *W* is indeed a constituent - Stowell's (1981) proposal. Granting that it is, we face the question of whether *Pierre* is generated within the AP projection of the adjective or not and whether it stays there. We also face the question of whether the head of *W* is *A* or not and if not the question of the nature of *W*. For example *W* could a priori be a full clause containing a full clause containing the AP.

In this article I will primarily examine some syntactic properties of small clauses. At the most general level, I will do this in the context of some general and restrictive assumptions about the nature of linguistic variation further discussed in Sportiche (1993a), a sort of methodological null hypothesis to which I try to adhere as strictly as possible.

At a more concrete level, I will do so in French, on the basis of the properties of the Predicate clitic *le*. This will lead to non standard conclusions about the syntactic analysis of clauses and of VP small clauses in particular. The general conclusion is that there are no small clauses, only (possibly restructured) clauses. Given the ubiquitous nature of small clauses due to the introduction of VP shells (Larson, 1988), the furthest consequences of this conclusion would entail the following:

1. A one predicate/one clause principle: each (elementary) predicate projects a full clause, containing at least the projection of this predicate with possibly its extension (modifiers and adjuncts), an Agreement projection and a Complementizer projection..
2. Possibly lexical decomposition: complex predicate are made up of as many elementary subpredicates as they take arguments. Each subpredicate is syntactically represented by its own projection with its argument as specifier and is part of a clausal structure as in 1.

2. Initial Considerations on the Structure of Small clauses

2.1 Some background on Small clauses and VP small clauses.

The dominant current view on small clauses is in its essentials shaped by the work of Stowell (1981). Stowell suggested then that a predicate of category *X* allows the projection of its subject as specifier of the phrasal projection *XP* of *X*. At the same time, Stowell suggested that these possibilities were illustrated by the "small clause" constructions below:

- (4) a. Louis considère [_{AP} Marie [_A drôle]]
 Louis considers Marie funny

- b. Marie voulait [_{PP} Louis [_{P'} dans son bureau]]
 Marie wanted Louis in her office
- c. Louis voyait [_{VP} Marie [_{V'} jouer de la cornemuse]]
 Louis saw Marie play the bagpipe

Putting aside for the moment the question of the exact constituent structure of the small clause, the proposal that the subject of the predicate and this predicate form a syntactic constituent met with some skepticism primarily, although not exclusively¹, on the basis of the fact that rules affecting constituents (e.g. movement rules) cannot affect small clauses.

Whether this is true is open to question. One of the most robust test of constituency, constituent coordination,² does treat small clauses as constituents (*Louis considère Marie drôle et Pierre stupide*/ *Louis considers Mary funny and Bill stupid*) but because it also treats as constituents strings that were believed not be (*Louis a donné un livre à Marie hier et une peinture à Barbara le jour d'avant*/ *Louis gave a book to Mary yesterday and a painting to Barbara the day before*). Two opposite conclusions are possible from these data: either constituent coordination is not a good test for constituency (and then some alternative theory must be put forth to explain how conjunction works) or the underlined strings do form constituents (and a theory of constituent structure must be developed to accommodate them). In the first case, this theory is Stowell's theory of small clauses. Directly relevant to the second case is Larson's (1988) theory of VP shells and adverbial modifications which motivates the right kind of constituent structure.

As for the failure of small clauses to undergo movement rules (preposing...) as an argument against small clause analyses, it is not convincing: these tests - unlike possibly constituent coordination, are not necessary and sufficient condition for constituency, but only sufficient conditions: not all constituents, say, prepose, an observation that surely needs to be explained but makes inferences of this kind suspicious. Thus VPs prepose in English (*eaten his soup, John has*) in Italian (*trovata, non l'ho ancora*/ *found her, I have not yet*) but do not in French (**mangé sa soupe, Jean a*) despite the good grounds there are for taking VPs to be constituents in French as well. Without a comprehensive theory of such failings, the validity of these inferences of non constituency is in doubt.

¹For example, Schein (this volume), or Williams (1983), who disputes the small clause analysis of *Someone seems [t sick]* on the basis because *someone* takes scope necessarily wider than *seem*, unlike in the raising case of *Someone seems [t to be sick]*. Some of these problems are discussed in Stowell (1991).

²Another is Right Node Raising: *Louis a emprunté et Marie a rendu un livre à Jean hier*/ *Louis borrowed and Marie returned a book to/from Jean yesterday*.

One conclusion that Koopman and Sportiche's (1991) VP internal subject hypothesis contribute to these questions is their conclusion that a predicate of category X does not merely allow the projection of its subject (i.e. its "external argument") as specifier of the phrasal projection XP of X, it requires it. In other words, explicitly on analogy with small clauses, they in effect advocate a Predicate Internal Subject Hypothesis (PISH) on the basis of a variety of distributional arguments. In most cases it is impossible to show directly that some particular structural analyses are impossible: instead, they are ruled out by Occam's razor, i.e. because they are unnecessary. In the present situation, the reasoning goes as follows. The VP internal hypothesis shows that subjects of (non "raising") clauses can sometimes be shown to raise from some VP internal position. Hence, subjects always raise from VP internal position. But the relation of the subject of a clause to its VP was the major case - apart from the controversial small clause case - in which a predicate X did not project all of its arguments within XP. Lack of support for such instances lead to the PISH.

The PISH puts the problem of small clauses in a different light: small clauses become the norm; a small clause in Stowell's sense is the canonical syntactic expression of the thematic relations holding between a predicate and its arguments. I should note however that, although, Koopman and Sportiche's work provides a number of reasons to believe that the subject of a clause is generated lower than where it appears, it is extremely difficult to provide a direct empirical argument for the proposition that the lowest such position is within the projection of the head (in general a verb) taking it as argument. The underlying idea is that if some arguments of a predicate X is projected within XP, e.g. objects, then all of them are. I will, having noted its empirical vulnerability, continue adopting the PISH.

2.2 The internal structure of small clauses

2.2.1 Subjects of small clauses move out

There is a number of reasons to believe that the structures of the strings given in (4) represent a substantial oversimplification. First, there are reasons to believe that the subject of small clauses always moves out. The possibility of movement is based on the distribution of stranded quantifiers. One of the arguments in favor of the PISH is developed at length in Sportiche (1988)³: the distribution of rightward stranded quantifiers. The idea is simply that the distribution of these stranded quantifiers reveals that of adjacent traces linked to their antecedents. A stranded quantifier like *tous*, Sportiche (1988) claims, appears (preceded and) followed by the trace of the DP denoting its restriction. Thus the structure of *les*

³Further discussion of some of these issues is found in Sportiche (1993), especially concerning the exact structural relationship between *t* and the Q *tous*, argued to be [t [Q [t]]].

enfants ont tous mangé/ The children have all eaten must be *les enfants ont [tous t mangé] / the children have [all t eaten]*.

- (5) a. Louis considère [_{DP*} ces immeubles] tous monumentaux
Louis considers these buildings all monumental(Plural)
- b. Marie voulait ces enfants tous dans son bureau
Marie wanted these children all in her office
- c. Louis voyait les musiciens tous jouer de la cornemuse
Louis saw the musiciens all play the bagpipe

The preceding sentences show that the presence of a trace of the subject of the small clause following the Q (to the left of =) lower than the position in which the subject actually appears. This suggest at the very least that all these structures can, and thus possibly must, be movement structures:

- (6) DP*[_{XP} t*... Predicate..]

Obligatory overt movement in the case of adjectival small clauses is corroborated by two observations. The first one is the agreement on the adjective in French⁴. A uniform theory of agreement leads to postulating the presence of an AGRa (for agreement-adjective) Phrase in which the agreement is established or checked:

- (7) [_{AGRaP} DP* AGR [_{AP} t* A...]]

Since agreement is obligatory (e.g. in 5a), this suggests, for French, that DP* has overtly moved at least to [spec, AGRa] (and possibly that A has raised to AGR). Movement is corroborated in English by an observation discussed in Huang (1993) based on the contrast between wh-movement and VP-preposing w.r.t. reconstruction illustrated below (this argument is discussed in Sportiche, 1990):

- (8) a. Which paintings of each other do the girls say the boys like
b. [_Z Listen to each other], the girls say the boys do

⁴The same argument can be constructed for English on the basis of bare nominals: *I consider the children fool*(s)*.

In (8a), the antecedent of the reciprocal can either be the main subject or the embedded subject. In other words, the binding theory can be satisfied either as if the preposed phrases was still in its base position or as if it was higher than the embedded subject c-commanded by the main subject. In (8b), only one reading is possible, namely with the reciprocal taking the embedded subject as antecedent. Why is there a contrast? If VP preposing carries the trace of its subject along, Huang reasons, we can derive this observation. Then the preposed VP is really [DP* listen to each other]. DP* counting as a subject for the binding theory, the reciprocal can only take it as antecedent explaining the lack of ambiguity of (8b). The contrast in (8) and its analysis provides an argument for the VP internal Subject Hypothesis, hence for the Predicate Internal Subject Hypothesis, i.e. for Stowell's theory of small clauses. Turn now to AP small clauses, which cannot be preposed by movement, as noted previously:

- (9) a. You consider [John very sick]
 b. How sick do you consider John
 c. *[John how sick] do you consider

However, consider reciprocal binding under wh-movement of AP's:

- (10) a. John considers [them proud of each other]
 b. How proud of each other does John consider them
 c. *They consider [John proud of each other]
 d. *How proud of each other do they consider John
 e. *They say I am considered proud of each other
 f. *How proud of each other do they say I am considered

In order to account for the ungrammaticality of (10d,f), we are lead to assume that the constituent preposed by wh-movement also contains the subject of the AP small clause and we are thus led to the assumption that *John*, the subject of the AP small clause has raised out of it (position of *t* within *W* irrelevant):

- (11) a. They consider the children/*John [_W t [proud of each other]]
 b. [_W t [How proud of each other]] do they consider the children/*John

2.2.2 Where do subject of small clauses move to?

Since the subject DP* of (some) small clauses raises out of the small clause, we may ask where DP* of (6) raised to, say in the case of adjectival small clauses such as (5a)?

Consider the case of French: DP* gets accusative so that [spec, AGRo] of the main clause would appear to be a reasonable candidate. But this is implausible because when this happens in the presence of a past participle, participle agreement should be able to be triggered.⁵ However, DP* remains post participial - *Louis a considéré ces immeubles monumentaux* - and participle agreement is impossible with post verbal accusatives. Although DP* could have raised to [spec,AGRo] and the participle to AGRo and then beyond it, recall, as illustrated by English *Do/*does the children know this*, that once established, the agreement relation is preserved under further movement of the agreeing head (see Aoun, Ben Mamoun and Sportiche 1994). This seems to rule this alternative out. Now as things stand, the only plausible alternative is [spec,AGRaP]. We need an intermediate A-position (as ultimate raising to [spec,AGRo], required for Accusative Case checking, is to an A-position). The following facts suggest that even more structure might be necessary:

- (12) a. J'ai considéré ces enfants tous très fiers de toi
I considered the children all very proud of you
b. *J'ai considéré ces enfants très tous fiers de toi
I considered the children very all proud of you
c. *All how proud of you do you consider the children
d. * How all proud of you do you consider the children

If the degree modifier is outside AP much like adverbs are outside VP - see Corver (1990) -, the contrast between (12a) and (12b) suggest that additional positions are necessary: presumably t*, trace of the DP* *the children*, is in [spec, AP] . The Q *all* can only immediately precede the degree modifier and is stranded: there is another t* adjacent to it. For the same reason as before - lack of participial agreement, DP* cannot be in [spec, AGRo] associated with the superordinate verb:⁶

- (13) [DP* ... all t* [... very ... [_{AP} t*... adjective ..]]]

⁵This is true even if participle agreement and AGRo are two distinct projections, as long as AGRo is higher, which is plausible in the event the two positions are not identical (participle agreement remains even if Accusative is unavailable).

⁶Also in need of an explanation is why (12c) is ill formed (no Pied Piping) and why (12b,d) are ill formed (not all t* are eligible stranding sites for Q).

Because the structural relationship between the external argument of a predicate and this predicate should be identical across categories, all the following examples raise the same question (note the lack of participle agreement throughout):

- (14) a. (avoir considéré) [les enfants [tous [très t malades]]]
have considered the children all very sick
- b. (avoir vu) [les enfants [tous [rapidement lancer leurs ballons]]]
have seen the children all quickly throw their balloons
- c. (avoir voulu) [les enfants [tous [exactement [au milieu de la pièce]]]
have wanted the children all right in the middle of the room

In the following section, I will develop a proposal concerning the syntax of the French predicate clitic *le* and argue on that basis that projection of predicates are dominated by a CP projection. Coupled with the conclusion that they are dominated by an AGR projection, it means that small clauses are clauses.⁷

3. Predicate Clitic *le*

3.1. The Problem

I now turn to the syntax of the predicate clitic *le*. We start from a number of observation made in Kayne (1975). The clitic *le* appears corresponding to predicates in sentences such as the following:

- (15) a. Louis est fou / Louis l'est// Louis reste fou / Louis le reste
Louis is crazy/ Louis it-is//Louis remains crazy / Louis it- remains
- b. Louis semble fou /?Louis le semble // Louis devient fou / Louis le devient
Louis seems crazy/Louis it-seems//Louis becomes crazy / Louis it-becomes

This *le* can be found corresponding to syntactically diverse predicates. For example:

⁷This conclusion is close to that of Bowers (1993). Bowers suggest that small clauses are instances of Predicate Phrases, that can be thought of as a kind of VP layer similar to Larson's (1988), not as clause as argued here.

- (16) Louis l'a été, en colère/ à plaindre/ professeur/ fidèle à ses amis/
 adoré de ses enfants / trahi par ses amis
 Louis it-has been, in a rage / to pity/ professor/ faithful to his friends
 adored by his children / betrayed by his friends

The clitic seems to be able to stand for a PP, an infinitival CP, an NP, an AP or a Adjectival participial Phrase, or a Verbal participial phrase.⁸ As we will see, it also exhibit a number of puzzling properties: it may only appear in certain kind of constructions, it cannot cooccur with certain other clitics, it shows selective sensitivity to the SSC (its placement is sometimes blocked by subjects, sometimes not). The rest of the article is devoted to trying to explain this behavior.

3.2. Adjectives with be

I begin by looking at constructions in which an A(djective) is in the complement structure of the verb *être/be* or related verbs such as *rester/remain* (=keep on being) or *devenir/become* (=come to be) which behave identically. I suppose that constructions of the form *[DP be/become/remain Adj]* involve raising of the DP subject of the adjective, in agreement with Stowell's (1981) proposal and the PISH. In the case of adjectives, *le* must be analyzed as pronominalizing a constituent larger than an Adjective. This conclusion is suggested by the following paradigm:

- (17) a. *Louis l'est/le devient/le reste très, fidèle
 Louis is it/ becomes it/remains it very, faithful
 b. Louis l'est/le devient/le reste, très fidèle
 Louis is it/ becomes it/remains it very, faithful
 c. Louis est si fiable qu'il viendra/* Louis l'est si qu'il viendra
 Louis is so trustworthy that he will come

(17a) simply suggests that the clitic must pronominalize a category containing at least the Degree Phrase, especially given the well formedness of such discourse as: *Est-tu fatigué? Très*, showing that the degree does not have to be a clitic itself requiring a host to its right. The same point is made by the deviance of

⁸Respectively exemplified by the last two. The distinction is made apparent by the choice of preposition introducing the agent (*de* vs *par*) and correlates with a stative/eventive difference in interpretation that can be corroborated by the kind of modifier they take (*si/so* vs *tant/so much*, cf. Ruwett, 1972).

(17c): it is impossible to leave the Degree behind, even if it is followed by some material. (17b) shows that the string “pronominalized” by *le* can indeed be understood to include a degree.

The following examples are more puzzling:

- (18) a. Louis est aussi fidèle que Marie était infidèle
 b. Louis est aussi fidèle que Marie l’était
 Louis was as faithful as Marie was

The puzzle is raised by the well formed (18a), an example of the Subcomparative construction, a degree comparison exemplified also by (18b), but one in which the compared adjective has been pronominalized. This construction of degree comparison is parallel in every respect to the quantity comparison found in such sentences as *J’ai mangé autant de pommes que tu as acheté de poires* (*I ate as many apples as you have pears*) and is most plausibly analyzed as an instance of wh-movement of a covert equivalent of *combien* (*how many/how much*), as it obeys all the diagnostic properties of wh-movement, e.g. apparent unboundedness, sensitivity to islands (cf. Chomsky, 1977) and ability to trigger Stylistic Inversion (Kayne and Pollock, 1978):

- (19) Louis est aussi fidèle
 Louis is as faithful
 que tu dis que Marie l’était / Marie était infidèle
 as you say that Marie was/ Marie was unfaithful
 que tu dis que l’étais Marie / ?qu’était infidèle Marie (Stylistic Inversion)
 as you say that was Marie/ that was unfaithful Marie
 que tu dis que Pierre pense que Marie l’était /était infidèle (Unboundedness)
 as you say that Pierre thinks that Marie was/ was unfaithful
 *que tu sais quand Marie l’était / était infidèle (wh-island)
 as you say when Marie was/ was unfaithful
 *que tu connais l’endroit où Marie l’était /était infidèle (Complex Noun Phrase)
 as you know the place where Marie was/ was unfaithful

In (18c) then, there has to be a covert *Combien* operator (glossed as OP) overtly (because of Stylistic Inversion) moving to [spec,CP] of the comparative clause:

(20) Louis est aussi fidèle [OP_i que [Marie était [t_i infidèle]]]

The difficulty is apparent: if *le* is a pronoun pronominalizes a category including the AP and the DegreeP, there is no source for the needed quantity operator: (18b) should be deviant the same way *Whose did you see it (it=picture)* or *l'homme dont je le connais (=l'homme dont je connais le frère/the man whose brother I know)* are. I conclude that *le* does not pronominalize an AP (or more precisely a DegreeP containing an AP).

The idea I will pursue is that (18b) is analogous to its English translation. The English equivalent, an instance of the Comparative construction, must be analyzed as involving wh-movement for the same reasons as Subcomparative (cf. Chomsky, 1977).⁹ The analysis assumed there was one involving wh-movement of [*how faithful*] followed by deletion in Comp. Updating it in current terms without deletion operations, we are led to assume that the adjective starts as silent, hence as a *pro*, hence as an AP complement of a silent equivalent of *how* (realized in some dialects as *what*) heading or in the specifier of a DegP.

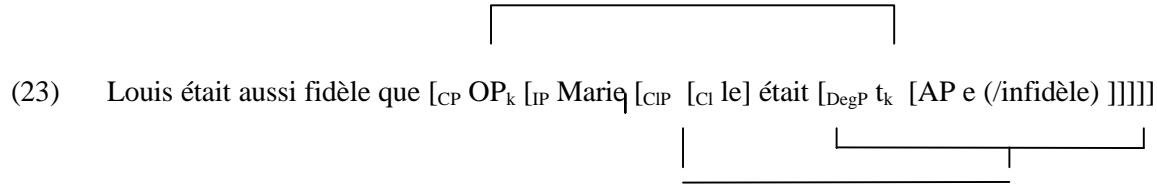
(21) Louis was as faithful as [CP [DegP (what) [AP e]]_i [IP Marie was t_i]]]

The only difference between English and French, I would contend, is that French must identify these silent elements by clitics. This can be done by adopting the proposal made in Sportiche (1992) concerning the syntax of pronominal clitics. There, I proposed that a pronominal clitic was the head, with some designated property [+P], of a projection part of the inflectional system of a clause. The element XP* with property [+P] that the clitic pronominalizes must move by LF to the specifier XP^ of this projection in order to have its [+P] property properly licensed:

(22) [CIP XP^ [[C_i le_[+P]] [... XP*_[+P] ...]]]

⁹Grimshaw (1987) and Corver (1993) argues that Subcomparatives in English and Dutch do not involve wh-movement. Strictly speaking, my arguments are only concerned with French and at any rate with the location of the missing quantity quantifier. I remain convinced that movement is involved because it overtly occurs in French Quantity wh-question questions with *combien* (thus violating the Left Branch condition and more generally undermining their most potent arguments against movement).

(I will use the notation XP^{\wedge}/XP^* to designate respectively the constituent pronominalized by *le* and its base position throughout). Combining (21) and (22), we get the following representation (with subsequent LF movement when the clitic is present and the adjective absent):¹⁰



The constituent “pronominalized” by the clitic must be in [spec,CIP] at LF. It must contain the trace of the wh-operator that has (overtly) moved to [spec,CP]. The presence of the overt clitic element in French vs its absence in English leads to one difference: the missing AP must be understood as identical to the compared AP in English but not so in French: although the interpretation of (23) is most naturally that Louis is as faithful as Marie was faithful, any adjective, rendered pragmatically prominent in some way, can qualify (so (23) could mean, say, that Louis is as faithful as Marie was unfaithful). This is to be expected as in effect, the clitic construction is interpreted as a pronominal. In effect, this analysis treats French Comparatives and Subcomparatives in extremely similar ways.

The necessity to take XP^* in the predicate clitic construction to be at least a DegP is corroborated by the following paradigm:

- (24) a. Louis l’est, fidèle à ses amis / friand de gourmandises
Louis is-it, faithful to his friends/ fond of these sweets
- b. ?Louis l’est à ses amis, fidèle / Louis l’est de ce genre de gourmandises, friand
Louis is it to his friends, faithful/ Louis is it of these sweets, fond
- c. Louis leur est fidèle / Louis en est friand
Louis to them is faithful/ Louis of-it is fond
- d. *Louis le leur est/ Louis l’en est
Louis to them is it/ Louis of-it is it

Although (24a) might seem to suggest that the clitic can correspond to the entire AP, (24b) suggests that it may correspond to the bare adjective. This second alternative is disconfirmed by the last two examples. The object of the adjective may cliticize (as dative *leur* or genitive *en*) but only if the predicate has not been cliticized. This is unexpected if *le* could stand for the bare A. If however, *le* stands for at least A-bar,

¹⁰ In this structure, t_k must not interfere with the raising of the DP *Marie* out of the small clause.

hence AP (given the general prohibition against affecting intermediate projections, cf. Chomsky, 1986), the ungrammaticality of the last example follows from the clitic having already pronominalized the entire AP. The possibility of (24b) can then be attributed to the PP (*à ses amis* or *de ce genre de gourmandises*) being understood as “extraposed”, a conclusion that squares well with its being perceived as focused or even contrasted. Two related questions remain; first that of how this PP is ultimately licensed, second the source of the ungrammaticality of (24d). One might think that (24d) would be ruled out by the following considerations: the source of the clitics *leur* and *en* being the extraposed PPs, they may not be cliticized because extraposed elements generally do not cliticize. But this is insufficient. To see why, turn to the first question, i.e. consider the grammaticality of (24b). How are the objects of the adjective licensed when the AP has been pronominalized? We cannot argue that *le* ambiguously pronominalizes A or A-bar: that would leave us with no explanation for either (17a) or (24d). We must conclude that a sentence containing the predicate clitic *le* is well formed if we are in principle able to construct an XP* with an internal structure that meets all the demands imposed by the various other elements present in that sentence. In this respect, (24b) is well formed because we are able to construct an XP* providing a source for these extraposed PPs. It is possible to have *Il l’est à ses amis* because I can construct an XP*, [*fidèle t*] to “replace” *le* and provide a source for *ses amis*. The ungrammaticality of (24d) is no longer derived: we can reconstruct an XP* containing an adjective with a silent object that would provide a source for the dative or the genitive clitic. The explanation for the ungrammaticality of (24d) must be found elsewhere.

The kind of explanation I would like to give to this is one that I will invoke several times throughout this article: the idea is that the various licensing conditions that have to be met at LF lead to ill formed representations because the antecedent of a trace must end up lower than this trace at LF. To see how this would come about, consider the kind of representation we would have to construct in order to license a sentence like (24d). Consider *Louis le leur est*, for example. To license the predicate clitic we need to postulate an appropriate XP[^] appearing in [spec,*le*] at LF. To license the dative clitic *leur*, we must make sure that this XP[^] can contain a silent category object of an adjective that will act as source for the dative clitic. Of course, (22) is meant to apply to all French clitics. This means that there should be a clitic projection associated with the dative clitic as well, in the specifier of which, call it YP[^], the phrase licensed by the dative clitic, say YP*, must appear at LF. Now notice the order of the clitics: the predicate clitic precedes the dative clitic (or the genitive clitic). If this order reflects the order of clitic projections, we have conflicting requirements: XP[^] must contain a trace of YP* at LF which is bound by a YP[^] lower than YP* at LF:

(25) [CIP [XP[^] ... [YP* t] ...] [[C_i le] [CIP YP[^] [[C_i leur] [... XP*]

This approach makes the prediction that, were the clitic originating within the predicate higher than the predicate clitic, the result should be well formed. It turns out that this prediction is correct and it makes sense of a very odd fact noted in Kayne (1975). He remarks the contrast between the b and c sentences:¹¹

- (26) a. Louis est dévoué à Pierre
Louis is devoted to Pierre
- b. *Louis le lui est, dévoué, à Pierre / *Louis le lui est fidèle
Louis it to him is, devoted, to Peter / Louis it to him is, faithful
- c. ?Louis me l'est, dévoué / ?Louis me l'est, fidèle
Louis to me it is, devoted / Louis to me it is, faithful

First and second person dative clitics, unlike third persons, appear higher than the predicate clitic *le*. The resulting configuration is consequently well formed as the order and thus the c-command relations of YP[^] and XP[^] is reversed, inducing c-command of YP* by its antecedent.

3.3. Adjectival Small clauses are CPs

We have shown that the constituent pronominalized by the clitic is at least DegP, but there is no bar in its being a larger constituent containing a DegP.

There are several advantages to assuming that the small clause complement of the verb *be* is at least a CP. A richer small clause structure explains why *le* appears to pronominalize the array of constituents that it does which is described in part in (16), namely CP, AP, PP, NP, VP. If the small clauses can contain structure over and above the (extended) projection of its predicate, we can explain this property by postulating that all small clauses contain say an CP and that non CPs apparently pronominalized by *le* are actually included in this CP. Besides the example in (16), there are several instances in which *le* seem clearly to pronominalize a CP. Thus the verbs *devoir* (*must*), *pouvoir* (*may/can*) or *se demander* (*wonder*) in French only take clausal complements and allow sentences such as *Marie le doit/Marie le pourrait/Marie se le demande* (*Marie must it, Marie can it/Marie wonders it*).

¹¹The contrast between the b and c sentence going in the direction indicated seem to be shared by all speakers, but the absolute degree of acceptability of the c example varies. The same is found in passive participle cases and follows in the same way: *Cette lettre a été envoyé aux enfants/* Cette lettre le leur a été/? Cette lettre me l'a été* (*this letter has been sent to the children/this letter it to them has been/This letter to me it has been*).

CP is in fact the minimal choice that will allow all these various constituents as subpart,¹² and I will from now on assume it is the correct choice.

As second consequence of this proposal, it allows analyzing some apparent exceptions to the general principle that only phrases of like categories can be conjoined, as most recently noted in Bowers (1993). Such cases of conjunctions as:

- (27) Louis est [triste et en colère]
 Louis is sad and in a rage

can be analyzed as involving the CP conjunction [_{CP} ... [_{AP} triste]] et [_{CP} ... [_{PP} en colère]] (an approach which of course carries over to other kind of small clauses such as *I consider John crazy and a good doctor*).

Finally, looking at small clause complements of non raising verbs, we have seen in (13) and (14) that the subject of the small clause must be outside DegP. This also provides evidence distinguishing between the option (23) and the option under consideration. If the small clause is a CP, we can assume that the subject occurs where it normally does in a clause, namely [spec,AGRs] (obviously, we will need to assume that T in such CPs does not turn AGRs into a Nominative Case assigner). This also allows accommodating the further requirement exemplified in (12) that the subject be at least one projection removed from the DegP projection (because of intervening, rightward stranded Qs). Under such a view, (14a) will have the following representation similar to what we would expect a clause to be:

- (28) (avoir considéré) [_{CP} e [_{IP} les enfants ... [très t malades]]]

This provides an (A-)position for the subject lower than the object agreement position of the participle, as required and makes it unsurprising that stranded Qs in small clauses distribute similarly to stranded Q in clauses. Thus, parallel to the examples in (14), we find:

- (29) a. (avoir considéré) [les enfants tous très t malades] /
 les enfants sont tous très malades
 (have considered) the children (are) all very sick
 b. (avoir vu) [les enfants tous rapidement lancer leurs ballons]

¹²This might explain why the predicate clitic *le* has the same form as the accusative clitic *le* under the assumption that CPs need Case. This would mean that the verb *be* may assign accusative.

- les enfants ont tous rapidement lancé leurs ballons
 (have seen) the children (have) all quickly throw(n) their balloons
 c. (avoir voulu) [les enfants tous exactement au milieu de la pièce]
 les enfants sont tous exactement au milieu de la pièce
 (have wanted) the children (are) all right in the middle of the room

The distribution of degrees and stranded quantifiers with respect to the subject of the predicate adjective of a small clause, as well as the failure of participle agreement indicates that this subject occupies an intermediate position, which we just took to be subject of clause. The distribution of Predicate *le* can in fact provide an argument that this subject and the rest of the small clause form a constituent (which we will ultimately conclude is indeed a CP). This argument is based on the following paradigm:

- (30) a. Louis est fou / Louis l'est
 Louis is crazy/ Louis it-is
 b. Marie considère [Louis fou] /*Marie le considère Louis
 Marie considers Louis crazy/ Marie it-considers Louis
 c. Louis a longtemps été considéré fou/ ?Louis l'a longtemps été considéré¹³
 Louis has long been considered crazy/ Louis it-has long been considered
 d. Marie croit Louis dans sa chambre/ ?Marie y croit Louis
 Marie believes Louis in his bedroom/ Marie there believes Louis

The puzzle is raised by the difference between (30a,c) and (30b). Clitic placement of *le* appears to be blocked by an overt subject of the predicate as in the b sentence but not by a subject trace:

- | | | | | |
|------|----------------------|-----------------|----------------|-----|
| (31) | Subject _j | Verb | t _j | A |
| | Louis _j | est | t _j | fou |
| | Louis _j | a été considéré | t _j | fou |

¹³The relative unacceptability of (30c) needs to be explained. I suggest it might be related to the marginal availability of Restructuring the *considérer* clause with the previous one in French to allow the clitic to “climb”. The same marginality is perceived in (i) ?*Jean en a longtemps été considéré fier* / ?*Il lui a longtemps été considéré fidèle* (*Jean of it has long been considered capable/ He to him has long been considered faithful*), for the same reason.

(30d) illustrates that overt subject of small clause do not block the movement of all clitics: the locative *y* replacing the locative predicate may cliticize over it. This shows that the small clause itself is not a general opacity domain for clitic placement. How then can we account for the different effects of lexical subjects and traces on the behavior of Predicate *le*. A simple explanation can be constructed under the assumption that predicate *le* actually stands for the entire small clause. If it does, the LF representation of sentences (30a) and (30b) should, according to the proposal in (22), include raising of the small clause to [spec, *le*]. Furthermore, if the subject of the small clause is an accusative DP, it should raise to [spec, AGRoP] to sanction Accusative Case. Given that the object agreement projection is lower than the clitic projections, we get the following respective representations for (30a) and (30b) at LF:

- (32) a. Louis_j ... [[_{small clause} t_j fou]_k [[*le*] est ... t_k]
 b. Marie ... [[_{small clause} t_j fou]_k [[*le*] considéré ... [Louis_j [AGRo.... t_k

The raised small clause will in all cases contain the trace of its subject. In the second case, the small clause must at LF raise higher than the (highest A-) position that its subject must raise to. We thus have a failure of proper binding. Not so in the first case since the subject of the small clause raises to an even higher A-position (AGRs).

4. Participial small clauses

4.1. *Avoir, Etre* and Predicate *le*

We have noted that the possibility of pronominalizing a variety of constituents by predicate *le* suggests a common categorial analysis for all small clauses. We also have seen some evidence, in the case of adjectival small clauses, that this constituent was reasonably taken to be CP. I now turn to evidence suggesting that (passive and past) participial small clauses should also be analyzed as full clauses and that *le* pronominalizes a CP.

In the most natural cases of predicate cliticization, the main clause contains the verb *be* (or the related *devenir/become*, *rester/remain*). This is illustrated in (33a) for an adjectival case. As expected, passive participles can also enter this construction as in (33b). That verbs like *be* play a special role in licensing the possibility of predicate clitic would appear confirmed by the impossibility of (33c):

- (33) a. Jean_i l'est/ le reste/ le devient [t_i e_j], malade_j
 Jean it-is/ remains/becomes, sick
 b. Jean_i l'a souvent été [t_i e_j], [arrêté par la police]_j

- Jean it-has often been, arrested by the police
- c. *Jean l'a, mangé sa soupe
- Jean has it, eaten his soup

Although there are a priori many possible approaches to the difference (that might be based on Case properties or invoking difference between passive and past participles) I will take the central factor to be the nature of the auxiliary involved, i.e. the difference between *have* and *be*. This approach will crucially be based on Kayne's (1993) proposal concerning the *have/be* alternation and on the clausal character of participial (small) clauses, which I find extremely convincing (in general outlook, with some disagreement in analytical details), and which I briefly summarize.

Kayne starts with two points. First, clausal possessive constructions alternate crosslinguistically roughly between *I have this book* and *a book is with me/to me/mine*. Secondly, aspectual auxiliary choice of *have* or *be* for a verb V in Romance (and beyond) systematically depends on the internal structure of the VP and correlates with the various possibilities of agreement (subject or object) on the participle. Kayne constructs the following account of this rule governed behavior: he suggests that *have* and *be* are variant of each other. He motivates the proposal that *have* = *be* + X^0 , i.e. that *have* is the verb *be* incorporating some head (which he takes to be like a hybrid P/D category). The relevant part of his proposal deals with aspectual auxiliary selection by a verb in its participial form as it interacts with (i) whether the superficial subject is an external argument of the verb and (ii) participle. He suggests that participle phrases are clauses containing at least the participial projection VP, an AGRo, a T and an AGRs projection, as well as an additional projection of D/P the specifier of which is an A-bar position (which I will simply note D* and DP* its projection) and that such clauses are complement of the verb *be*:

(34) ...BE [DP* D* [AGRs [T [AGRo [VP DP_{subject} [V DP_{object}]]

The AGRo projection is present to handle object agreement on the participial V, the DP projection is initially motivated by properties of the possessive constructions. The general idea - as it applies to French, is the following. If the V has an external argument, namely DP_{subject} here, it should not be allowed to raise outside DP* by A-movement. The blocking is due to the intervening [spec,DP*], an obligatory A-bar step on the way, which must be neutralized. This can be done either by incorporating D* to BE (yielding HAVE, and, he takes it, makes [spec,DP*] an A-position, but I would take it, alternatively, to extend the local domain of A-movement so that [spec, DP*] may be skipped) or by raising a strong - i.e. equipped with relevant features - AGRs to D, turning [spec,DP] into an A-position. If this AGRs to D*, or D* to *be*

takes place, DP_{subject} may then raise out of DP^* through $[\text{spec}, \text{AGRsP}]$. We know that this raising does not proceed through $[\text{spec}, \text{AGRoP}]$ because it does not trigger participle agreement.

The motivation for having an AGRs projection comes from Kayne's observation that auxiliary selection is sensitive, in a variety of cases found in Italian dialects, to the pronominal features of the subject (of subject pronouns in transitive and unergative sentences, of the reflexive clitic¹⁴ in reflexive constructions). The motivation for T is similarly based on the sensitivity exhibited by certain Italian dialects to tense in selecting auxiliary. The general idea in which this sensitivity is worked into auxiliary selection is by letting T or AGRs incorporate to D^* , prior to D^* incorporating into BE. The raising of an internal argument, DP_{object} , does not usually require any of this to happen (although it may nevertheless happen). In general however, a raising DP_{object} transits through $[\text{spec}, \text{AGRoP}]$ triggering agreement. Finally, for reasons that we discuss in the next section, reflexives always involve raising out of a subject (and of an object as well, with usually participle agreement). Here, the DP^* projection is neutralized by AGRs incorporating into D^* .

Applied to the French situation, this derives the fact that transitives and unergatives (which, agreeing with Chomsky, 1992 and Kayne, we take to be covert transitives) select auxiliary *have* and never trigger participle agreement, while unaccusative constructions (including passive constructions, *arriver* type verbs) select *be* and do trigger participle agreement obligatorily. With some unaccusatives (*la viande a cuit(*e)/ the meat has cooked*), the auxiliary *have* is selected. It must then be that escaping through $[\text{spec}, \text{AGRoP}]$ is disallowed, and it indeed is as the impossibility of participle agreement shows. Finally, reflexives both involve raising of a subject, and selection of *be* with participle agreement (when object raising is of a direct object).

It is worth noting that the mechanisms invoked by Kayne mirror exactly what we know happens in clauses: Raising to subject (or ECM now seen as involving raising to AGRo) requires $S\text{-bar}/\text{CP}$ deletion or some kind of $S\text{-bar}/\text{CP}$ transparency (this corresponds to D^* incorporating to BE). Mirroring the reflexive case are the following constructions:

- (35) a. Marie voit Louis qui vient / *Marie voit Louis que/qui Suzanne embrasse
 Marie sees Louis (who is) coming/Marie sees Louis who Suzanne is kissing
 b. Marie les a vus qui venaient / *Marie les a vus que/qui Suzanne embrassait

¹⁴See Sportiche, 1990, and references therein for extensive support that all French *se* clitics, whether reflexive, middle, neutral or inherent (i) correspond to DP_{subjects} and consequently (ii) superficial subjects in Reflexive Constructions are underlying objects. This conclusion seems to extend to other Romance languages (see e.g. Cortes, 1992 for Catalan).

- Marie sees Louis who is coming/Marie sees Louis who Suzanne is kissing
 c. Qui crois-tu qui est venu/ Qui crois-tu que/*qui Marie embrasse
 Who do you believe has come/ Who do you believe Marie is kissing

Rizzi (1991) argues that the availability of Kayne's (1972) *que/qui* rule can be derived from *qui* being analyzed as an agreeing form of the complementizer *que* turning [spec,CP] into an A-position. Movement of anything but the subject immediately following this C into [spec,CP] would violate locality conditions (that we can think of as A-movement skipping over a subject) as is exemplified in (35a,c). Turning [spec,CP] into an A-position would then allow A-movement of the subject of a tensed clause to A-position outside of it, an occurrence of which is presumably found in (35b) where the subject of the embedded clause has raised to [spec,CP] and on to [spec, AGRo] triggering participle agreement on *voir*.

Return now to (33c). Since the embedded DP* in (34) has most properties of a clause, I will take it to be a CP, the null hypothesis. In order to keep Kayne's generalization across possessive and participial constructions, I will continue taking participial clauses to be DPs, that is with D* taking a CP complement. Putting together our various assumptions, we now attribute it the following underlying structure (IP = AGRsP):

- (36) ... le ÊTRE.... [_{DP*} D* [_{CP} C [_{IP} AGRs [AGRo [_{VP} Jean [mangé sa soupe]]]]]

To license the raising of the subject *Jean* to subject of the main clause, the DPsubject *Jean* can raise to [spec,AGRs] but must be able to skip the CP and DP boundaries. In such cases, Kayne argues (we slightly modify his proposal to take into account the additional C projection) AGRs lacks the required properties to turn C (and D) into heads with A-specifiers (obviously, this must be allowed in tensed clauses if the paradigm in (35) is any indication, as well as in reflexive constructions, to which we return). The other option is to raise C to D and to BE, thereby extending the local domain within which *Jean* can move (by Baker's 1988 Government Transparency Corollary). This allows movement of this subject to the main clause and triggers BE --->HAVE (BE+D+(irrelevantly) C).

Suppose now that *le* pronominalizes CP, as we have assumed without argument so far. By LF, this CP pronominalized by *le* will have to raise to [spec, *le*] in the main clause containing the trace of C. This trace is now lower in the structure incorporated to C*.¹⁵

¹⁵Recall that strictly speaking the structure is well formed if a well formed "antecedent" for *le* can in principle be constructed. I will ignore this in order to simplify exposition.

- (37) DP_{subject} le ÊTRE+D*+C [DP* e [CP t [IP t_{subject} AGRs T AGRo [VP t [mangé sa soupe]]]]]
-

As a consequence the structure is ill formed. Note that the preceding account does not rule predicate cliticization on the verb *avoir* in general. It only does so if the heads incorporating to *être* turning it into have originate within the CP that *le* pronominalizes. Thus, *intéressé, Jean l'a été* (*interested, Jean it-has been*) is perfectly well formed. There are two participial clauses here, one with *intéressé* and one with *été*. It is the first one that is the CP pronominalized by *le*. It is C+D of the second one that yields *avoir* under incorporation.

Here then is the general form of the argumentation: *le* should be seen as always pronominalizing the same category. We have grounds to believe, in the adjectival small clause case, that this category is the whole small clause. Kayne provides independent evidence that participial small clauses are CPs. Postulating that *le* pronominalizes the whole participial CP explains a number of restrictions on the distribution of *le*. From this we conclude that *le* sometimes stands for a CP. Consequently it always does. The following sections provide more reasons to assume that *le* pronominalizes participial clauses.

4.2. Reflexives

Having auxiliary *être* in participial constructions turns out not to be a sufficient condition for predicate cliticization of the participle. Cliticization is impossible in reflexive constructions, whether the reflexivized argument is an object or an indirect object (a and b respectively):

- (38) a. *Jean se l'est, présenté à Marie (<-- Jean s'est présenté à Marie)
 Jean himself-it is, introduced to Marie (Jean has introduced himself to Marie)
 b. *Jean se l'est, offert un cadeau (<--Jean s'est offert un cadeau)
 Jean to himself it is, given a present (Jean has given a present to himself)

This is utterly unexpected, since (i) participial phrases are able to cliticize (ii) the auxiliary is the verb *be* (iii) there appears to be an additional clitic -the reflexive - originating in the participial clause but it cliticizes higher than predicate clitic and thus should create no problem, given the discussion of examples in (26). However, this is exactly what we expect when we conjoin Kayne's analysis of the Participial Clause Structure / *Have-Be* alternation with the idea that *le* pronominalizes CP.

To see why, we first need to understand the syntax of Reflexives. Reflexive constructions use auxiliary *be*, they show obligatory subject/participle agreement.¹⁶ There are strong grounds (see Sportiche, 1990 and references therein and below) for assuming that reflexive clitics (in Romance) correspond to DPsubjects and consequently (ii) superficial subjects in Reflexive Constructions are underlying objects raising to subject under A-movement much like in passive constructions. Consider now the structure of (38a), incorporating our general thesis about clitics (22):

- (39) ... *se le* ÊTRE.... [DP* D* [CP C [IP AGRs T AGRo [VP DP_{subject} [*présenté* Jean]]

To license the raising of the object *Jean* to subject of the main clause, DPsubject (i.e. the *pro* that *se* pronominalizes which we assume matches *se*'s features) must raise at least to AGRs, Kayne argues, which I will take to mean to [spec,IP] making AGRs strong.¹⁷ AGRs subsequently incorporates to C and D to allow A-movement out of DP*. The clitic *le* pronominalizes CP. This CP, containing the trace of C incorporated in D, will have to raise to [spec,*le*] in the main clause. We find again the usual violation: this trace is now lower in the structure than its antecedent, ruling the LF representation out.

4.3. Raising Structures and Non Reflexive *se*

An account along the same lines can be constructed for cases involving the *se* morpheme that are not reflexive (see Ruwet, 1972). Consider the following paradigm:

- (40) a. Ce livre s'est bien vendu ---> *Ce livre se l'est bien
 These books sold well
 b. L'eau s'est renversée ---> *L'eau se l'est
 the water spilled

¹⁶Except when the reflexive “is” an indirect object in Standard French (e.g. *Marie s'est offert(*e) un cadeau Marie s'est parlé(*e) / Marie gave herself a present, Marie spoke to herself*). The standard Italian situation is different with participle agreement with indirect reflexives, but only in the absence of a direct object clitic (if there is such a clitic, the participle agrees with it).

¹⁷Kayne suggests that *se* actually adjoins to AGRs to make it strong. This is incompatible with our treatment of clitics. I assume the relevant effect is triggered by the *pro* that *se* stands for raising to [spec,AGRsP]. My skepticism concerning clitic placement as successive incorporation is also based on considerations similar to those discussed in Sportiche (1992) in connection with Restructuring and Agreement.

- c. Jean s'est avéré fou --->*Jean se l'est avéré, fou
Jean turned out it, crazy

Se's function is not restricted to indicating reflexive constructions. It may also be used to indicate middle constructions (40a), appear in a lexically determined class of inchoative ++ verbs (40b) with causative counterparts (*renverser, disperser, réunir.../spill, disperse, gather*) or be inherent i.e. appear on a lexically determined class of verbs without any apparent semantic or grammatical correlations. (*s'évanouir, s'avérer/lose consciousness, turn out*). All these constructions have the same characteristics as reflexive constructions: they use auxiliary *be*, they show obligatory subject/participle agreement and are naturally analyzed in the same way. On the same grounds (see Sportiche, 1990), we assume that all French *se* clitics, whether reflexive, middle, neutral or inherent (i) correspond to DPsubjects and consequently (ii) superficial subjects in *se* Constructions are underlying objects.

The ill formedness of (40a) follows: *se* pronominalizes the thematic subject of *vendre* and the account proceeds as in the reflexive case (the only difference is that the subject is interpreted as existentially bound rather than bound to the object as in Reflexive constructions).

The case of (40b) and (40c) cannot be treated exactly alike because the verbs involved lack thematic subjects altogether (this is one of the major difference between inherent and middle constructions). What then does *se* pronominalize? To understand what happens here, it is necessary to review the reasons leading to the adopted analysis of Romance *se/si*.

We have already noted that *se* constructions use auxiliary *être* (a fact especially significant in languages like standard Italian in which this is a diagnostic property of unaccusativity), trigger participle agreement (which is always object agreement in French) with the superficial subject. Furthermore, Bouchard (1982) notes that reflexives are impossible with verbs lacking external argument: thus we have the contrast:

- (41) Jean lui semble être pâle /*Jean se semble être pâle
(Jean seems to him(*self) to be pale).

These facts points to the same conclusion: reflexive constructions are unaccusatives with the superficial subject being the underlying object (this is why *be* is used, and obligatory participle, i.e. object, agreement exactly like passive constructions triggered). Then (41) follows if we assume that *se* always pronominalizes the external argument of the verb: *seem* lacking one, there is no source for the reflexive. This analysis is compatible with the properties of middle constructions (middle verbs always have an implicit external argument, but it is not with the existence of neutral *se* verbs, inherent *se* verbs, particularly when they are raising verbs like *s'avérer*, which all lack external arguments. The essence of

the problem is that we want *se* to be able to be an expletive, a proposition incompatible with it being an (external) argument. Instead, this suggests that *se* should be linked to a position subject of a clause, but lower than say, Tense of the main clause. This is exactly what the full clausal structure of participial constituents provides: suppose that the morpheme *se* is not inherently linked to the external argument of a predicate but rather to [spec,AGRs] of the participial clause.

(42) The morpheme *se/si* is inherently linked to [spec,AGRs]¹⁸

By the extended projection principle, this is a position that exist regardless of whether the participle has an external argument or not. Hence there is no bar in having it in the neutral or inherent cases.

The facts in (40b,c) follow now, exactly as in the reflexive case:

(43) ... *se* le ÊTRE.... [DP* D* [CP C [IP *pro* AGRs [T AGRo [VP [avéré/renversé ...DP**]]]]]

An expletive *pro* must be sitting in [spec,AGRs] which will have to raise to [spec,*se*] at LF (a chain must be formed). This raising of *pro* out of DP* requires transparency of CP and DP*, i.e. raising of AGRs to C and D. Raising of CP to [spec,*le*] at LF will then create the offending configuration.

One question we have not adressed is how objects in passives, reflexives or *arrive*-type unaccusative structures escape DP*. The unaccusative case is different from the reflexive case because the verb only has one argument. (passive is either like unaccusatives or reflexive depending on whether the external argument of the predicate is represented or not). For unaccusatives, Kayne suggests the DP* projection is absent (it would be absent too for adjectives, explaining why they never take *have*). In our terms, even if AGRs to C takes place, CP raising to [spec,*le*] would not create an offending configuration. In the present case, DP** raising out of DP* and IP takes place (which participle agreement indicates is through [spec,AGRo]). There are two ways of allowing this to happen: if *pro* is an expletive, as in the present case, it would be enough to move DP** through [spec,AGRs]. Since it must move to [spec,*se*], DP** will have to move to [spec,*se*] on its way to the subject position of the main clause: we end up with expletive *se* agreeing with the superficial subject (*je me suis avéré malade, nous nous réunissons*). Kayne (1993a) however provides reasons to believe that movement from [spec,AGRo] to [spec,AGRs] is never possible in these participial clauses. Let us then adopt a second option which will work even if *pro* is an

¹⁸There is another undesirable feature of the analysis stating that *se* is an external argument, namely that we have stipulate external. Under this new formulation, it might possible to drop specific reference to AGRs and simply state that *se* is linked to AGR. I will not pursue this question here.

argument, as in reflexive or middle constructions. Assume incorporation of AGRo into AGRs prior to AGRs raising higher. The resulting category AGRs+AGRo being able to have only one set of pronominal features, this will derive subject/object pronominal agreement, that is the same agreement facts as previously (*je **me** suis avéré malade, nous **nous** réunissons*). It might also be the source of the surprising agreement found in middle constructions in French between the *se* morpheme and the superficial subject (viz. a talking book: *je **me** vend bien*).¹⁹

5. Clausal Structure

5.1. The complement Structure of Tense

We still need to account for the facts of (41) under the assumption (42). Before we do so, it is worth pointing out that the facts about the possibility of having predicate *le* are in fact independent of the presence of the aspectual auxiliaries. Thus the full paradigm is duplicated:

- (44)
- a. *Jean le, mange sa soupe
Jean it, eat his soup
 - b. *Jean se le, présente à Marie (<-- Jean se présente à Marie)
Jean himself-it is, introduces to Marie (Jean introduces himself to Marie)
 - c. *Jean se le, offre un cadeau (<--Jean s'offre un cadeau)
Jean to himself it is, given a present (Jean has given a present to himself)
 - d. *Ce livre se le, vend bien <--- Ce livre se vend bien
These books sell well
 - e. *L'eau se le, renverse <--- L'eau se renverse
the water spills
 - f. *Jean se l'avère, fou <--- Jean s'avère fou
Jean turns out it, crazy

It might appear that all but the f examples would be ruled independently by the necessity for *le* to cliticize, but this is far from obvious given Kayne's (1991) proposal that clitics may attach to (silent)

¹⁹How to handle the passive case is less clear, given the well formedness of passive participle predicate cliticization. Kayne suggests that just like adjectives and unaccusatives, they lack the the DP* projection because they all lack Tense interpretation.

functional heads, and thus may appear to be left stranded in front adverbials (cf. the archaic sounding *le bien connaitre* (*know him well*), orders of magnitude better than (44a-e) or the comparable ***connaitre Jean, le bien* (*know Jean, it well*) with *le* standing for the string *connaitre Jean*). It might also appear that (44f) could be ruled out in away parallel to the slightly deviant:

- (45) a. ?Jean_i le semble, fatigué_j
 Jean it-seems, tired
 b. ?Jean le paraissait, fou_j
 Jean it appears, crazy

But again the magnitude of deviance is quite different from that found in (44f).²⁰ The facts of (41) strongly suggest that we find under Tense a structure similar in the relevant respects to that of participial clauses. Suppose T takes a CP complement with the main verb in it:

- (46) ...T.... [CP [VP DP_{subject} [V DP_{object}]]

Attempting to pronominalize this CP is incompatible with the requirement that V incorporate to T at LF (in fact overtly in French). All the facts of (44) follow immediately.

We can now return to (41) the underlying structure of which will be:

- (47) se ...T.... [CP C [IP pro_{expl} AGRs [....AGRo [VP semble DP* [DP** être pâle]

In essence the account here is that both DP* and DP** compete for the same subject position, DP* because of the presence of the reflexive, DP** because we are dealing with a raising to subject predicate. In the absence of the reflexive construction, *sembler* selects auxiliary *avoir* and DP** raising does not trigger participle agreement. This is an indication that the raising of DP** cannot go through [spec,AGRo], hence must go through [spec,AGRs]. The same can be said of the raising of DP*. As an indirect object in French, it does not trigger participle agreement hence does not raise though

²⁰Kayne (1975) actually attributed the first one to the impossibility of pronominalizing a raising complement before the theory of small clauses multiplied the existence of raising structures.

[spec,AGRo] either. Both DPs must therefore transit through the same position, [spec, AGRs], which is impossible.²¹

5.2. Some General Consequences about Clause Structure

I have suggested that the predicate clitic *le* pronominalizes a CP. This hypothesis taken in conjunction with Kayne's analysis of participial clause can derive a number of complex distributional properties of this clitic. One consequence is that it confirms the clausal character of small clauses. In particular, we have concluded above in (47) that the VP small clause complement of T is in fact full fledged CP. The same conclusion is reached, on independent grounds in Sportiche (1994) who proposes to eliminate adjunction and adjunction structures altogether from the grammar. There I argued that there was some benefit in taking each VP to be a CP as it allowed keeping strict locality conditions on wh-movement without any recourse to adjunction structures (intermediate or not) with the consequence that wh-movement is exclusively to [spec,CP] (because landing sites for movement to specifier are target specific and because adjunction structures do not exist). I further argued that, taking seriously Stowell's (1993) view of Tense as temporal ordering predicates and the idea that crosslinguistic variation should be kept to a minimum, that the reason why T takes a CP complement is because it is of the category V (or P) itself (I will pick V for concreteness). Putting all these results together, the structure of a simple clause changes from (45a) to (45b), with the first AGR corresponding to AGRs, and the second to AGRo:

- (48) a. [CP C AGRs T AGRo [VP V ...
 b. [CP C [AGR [VP V [CP C [AGR [VP V ...

That is that clausal structure is constructed by stacking Verbs, each with its extended projection i.e. an Agreement Projection and a Complementizer Projection, a basic architecture that should be extended to all lexical categories. Naturally, we expect the evidence for these intermediate structures to be quite complex and remote. I furthermore believe them to be obscured by the existence of the well documented process of Restructuring that is apparent in several Romance and Germanic languages (for example

²¹The same result would hold for standard Italian, but for the opposite reason as *sembrare* takes *essere* and its participle agrees with its derived subject. At the same time, reflexivizing an indirect object (without cliticizing or passivizing a direct object) also triggers participle agreement. In Italian, the structure is thus ruled out because both DPs compete for [spec,AGRo]. This account predicts that (41) should be well formed in language unlike French but like Italian in selecting *be* with *seem*, and like French but unlike Italian in not having participle agreement with indirect object Reflexive.

Italian, e.g. Rizzi, 1978, Burzio, 1986 and Dutch, Evers, 1975). This process makes it appear that two clauses behave as one with respect to a number of phenomena (e.g. clitic placement, A-movement...) and its existence is established on the basis of pairs of biclausal sentences, identical in all relevant respects except for the fact that one sentence behaves as monoclausal and the other does not. Granting the existence of such a process, it should not be surprising to find cases of biclausal structures that obligatorily restructure, and thus systematically obfuscate underlying syntactic organization. I would argue that this is what happens in French Tensed clauses (explaining why tensed verbs raise to “T”), or with French sequence of auxiliaries (explaining why the pronominal argument of a main verb must appear on the highest auxiliary of its clause or why passive may skip all auxiliaries - recall that We would treat them as regular verbs, each with its own clause).

If, furthermore, we take seriously the idea of VP shells introduced by Larson’s (1988), a transitive VP such as [*John cook the food*], reasonably composed of two VPs, each with one argument in its specifier,²² represents two small clauses one on top of the other. By parity of reasoning such a VP would have to be analyzed as two clauses, understood as above, i.e. as (46a) instead of (46b), so that the sentence *John cooked the food* would have the structure (46c):

- (49) a. [VP John V [VP food cook]]
 b. [CP C [AGRs [VP John V [CP C [AGRo [VP food cook
 c. [CP C [AGR [VP [v ed] [CP C [AGR [VP John V* [CP C [AGR [VP food cook

where we can now reasonably take V as essentially being CAUSE, i.e. adopt a lexical decomposition analysis to syntactic structure, a consequence already implicit in the work of Hale and Keyser (1991). Again here, we expect the evidence to be complex. But even there, some suggestive evidence exist. Consider a VP with a double object construction alternation [*VP John give a book to Bill*] / [*VP John give Bill a book*]. Larson’s idea was to assimilate the double object alternation to active/passive alternation. That there should be a transformational approach to this question is surely the null hypothesis (lexical approaches assume stipulations are necessary). We should try to adopt it but we can follow a different route than Larson’s, conceptually similar to the one taken by Stowell (1981) to account for *there* insertion. His insight was to implement the idea that *there is a man on the roof* and *a man is on the roof* are transformationally related by deriving them both from a common source (an underlying small clause structure), rather than try to derive one directly from the other. A biclausal approach to the VP offers just that:

²²This is slightly different from Larson’s proposal but preserves its essential features.

(50) [CP C [AGR [VP John Cause [CP C [AGR [VP be [DP Bill's book]

under such a view, we can paraphrase the structure of *give Bill a book by cause there to be Bill's book*. with the expletive (*there*) in [spec, AGR*]. The double object alternation would then reduce to the two ways in which possessive constructions are realized (as construed by Kayne, 1993a): *give Bill a book* would correspond to *cause Bill to have a book*, with *Bill* raising to [spec, AGR*], *while give a book to Bill* would correspond to *cause a book to be to Bill*. This approach would provide an account of some striking similarities: e.g. *give John this new kind of cold*/**give this new kind of cold to John* is mirrored by *John has this new kind of cold*/**this new kind of cold is John's*...

I will not pursue this any further here but its logic is clear.

6. Further Properties and Residual Problems

6.1 Idiomatic *le* and Raising

I now turn to other prohibitions on predicate pronominalization by *le*. First of all, idiomatic predicates cannot undergo it:

- (51) a. Marie tombera malade / *Marie le tombera
Marie will fall ill
b. Louis voit juste/ *Louis le voit
Louis is right (lit. sees correct)

In the present case, the idea is the following: *tomber-malade* behaves syntactically like a V+A pair. Each member can be modified (by adverbials or degrees) moved in a limited way (to T for V)... yet form a semantically non compositional unit. Koopman (1994) shows that there are good grounds to assume that idiom chunks must incorporate (under head movement) to their highest member (basically to explain their restricted movement possibilities). Applied to the present case, this means that in order to get the idiomatic reading, *malade* incorporates into *tomber*. Suppose now we pronominalize *malade* with *le*. The possibly silent *malade* will have to be incorporated to *tomber* at LF, while the constituent XP* containing the trace of this silent A will have to appear in XP^= [spec,ClP] which is higher than the verb. The antecedent will thus end up lower than its trace.

(52) Marie [CIP [CP t_k ...]_i [[Cl le] [tombera+[C C_k ..[A malade]]] [CP t_i]]]]

|

For this account to go through, the possibility of reconstruction must be prevented. I have assumed throughout that when a phrase is targeted for movement, say XP, X^0 cannot reconstruct, only complements of X^0 , possibly adjuncts to XP, and higher pied piped material may (i.e. a P taking XP as complement). The clitic pronominalizes CP. Then C must be in [spec,CIP] at LF. In effect, the antecedent of this pro-CP must be understood as including an incorporated A (*malade*). Incorporation of this A being subject to the Head Movement Constraint, all heads intervening (in the sense of c-command) between the A and its ultimate incorporation site will have to incorporate too, and this includes C. Note that we cannot attribute the ungrammaticality of the examples under discussion to an impossibility of pronominalize an idiom chunk as pronominalization of an idiom chunk appears to me possible: *La justice, Saint Louis la rendait sous un chêne; Il l'a cassée et bien cassée, sa pipe* (*Justice, Saint Louis, dispensed it under an oak tree; He kicked it, his bucket*).

In the case of *voir juste* or *travailler fort* (*work hard*), *le* is ruled out because *juste/fort* really are adverbials rather than adjectives (as their lack of agreement with the subject indicate: **elle travaille forte*).

6.2. Adjunct Small Clauses

Adjunct predicates cannot be cliticized, an observation leading to substantial complications in various areas of syntactic analysis that I will not pursue here. I will limit myself to sketching the basic idea of an account:

- (53) a. Louis lis son journal allongé / *Louis le lis son journal
Louis reads his newspaper lying down/Louis it-reads his newspaper
- b. Marie travaille ivre/ *Jean le travaille
Marie works drunk /Marie it works
- c. Jean dort couvert/ *Jean le dort
Jean sleeps covered/ Jean it sleeps
- d. Marie mange sa viande crue/ Marie le mange sa viande
Marie eats her meat raw/Marie it eats her meat
- e. Henri est arrivé fatigué / *Henri l'est arrivé
Henri arrived tired/ Henri it arrived
- f. Jean mourra jeune/ * Jean le mourra

Jean will die young/ Jean it will die

Why should this be? Intuitively, these deviant sentences feel wrong because the predicate is not a complement of the main verb. Since cliticization involves movement (see e.g. Sportiche, 1992), it is tempting to capitalize on this intuition by attributing the deviance to an argument/adjunct distinction, i.e. to the ECP. The simplest way to bring in the ECP is to postulate enough structure so that we get an Adjunct Island violation. Assuming that *le* pronominalizes CPs, these small clauses will have to be postulated to be larger constituent XP out of which a CP will be extracted yielding a violation of the Adjunct Island Condition.

This simple account however cannot be the whole story. First it is not completely clear what this constituent XP could be. A sort of a *while/during* clause (*en/pendant* clauses in French) as in *Jean travaille en sifflant/ Jean works while whistling* is plausible in certain cases (54a) but seems not to give rise to the right interpretation. It seems to me that the correct semantic interpretation can be paraphrased by introducing an existential or universal frequency adverb (that may be redundant in case it is pragmatically clear that only one (potential) event is referred to) or a sort of generic when the sentence can be and is understood generically. For example:

- (54) (for 53a): Sometimes (/Always), when John reads his paper, John is lying down
or Typically, when John reads his paper, John is lying down

Secondly, extraction facts out of this putative adjunct give the following results:.

- (55) a. John works drunk/ *how drunk does John work
*John works drunker than Bill works / *John works as drunk as Bill works sober
- b. John eats his meat rare/ ?how rare does John eat his meat
*John works drunker than Bill works / *John works as drunk as Bill works sober
?John eats his meat more cooked than Bill eats his chicken/
?John eats his meat as rare as Bill eats his chicken cooked
- c. John will die young / ?how young will John die
?John will die younger than Bill will die
?John will die as young as Bill will live long
- d. John considers Bill intelligent/ how intelligent does John consider Bill
John considers Mary more intelligent than he does Bill

John considers Mary as intelligent as he considers Bill stupid

These examples show the paradigm of wh-extraction of small clause adjectives respectively in wh-questions, comparatives and subcomparatives. The judgments, although not secure, seem to be graded more or less as indicated: Subject controlled adjunct small clauses (55a) yield the least acceptable results. Object controlled adjunct small clauses (55b, and 55c - an unaccusative case, i.e. a case of trace control by the subject) yield better results, perhaps almost as good as in the case of complement small clauses (55d or the similar raising case *John is t sick..*).^{23, 24} My own judgments in French are more mixed:

- (56) a. ??Louis travaille aussi ivre que Marie travaille sobre
 Louis works as drunk as Marie works sober
 ??Les couvertures dont Marie dort couverte sont chinoises
 the blankets that Mary sleeps covered with are chinese
- b. Louis mange le boeuf aussi cru que Marie le mange cuit
 Louis eats beef as uncooked as Marie eats it cooked
 ?la confiture dont il mangeait son pain tartiné était faite maison
 The jam he ate his bread spread with was home made
- c. Pierre est arrivé aussi fatigué que Paul est arrivé ivre
 Pierre arrived as tired as Paul arrived drunk
 ??Les travaux dont Pierre est arrivé satisfait ne sont pas les siens
 the work Pierre arrived satisfied of are not his
- d. Pierre considère Marie aussi intelligente que tu la considères stupide
 Pierre considers Marie as intelligent as you consider her stupid
 Les gourmandises dont je crois Marie friande viennent de Cambrai
 The sweets you believe Marie fond of come from Cambrai

²³Judgments vary somewhat on the intermediate case. Chomsky, 1986, gives them as unacceptable. There seem to be agreement however on the intermediate status.

²⁴Absent from consideration here are subject control and object control complement small clauses, which seem not to exist (nothing like *John persuaded/promised Bill [PRO sick]* - this gap is discussed in Schein, this volume - nor certain Raising to subject complement small clauses as e.g. *John strikes me [as t intelligent]*).

Under the account given here, the relative acceptability of the examples in (56 a,b,c) as compared to the (totally unacceptable) cliticization case is problematic: we would expect extraction out of these adjunct small clauses to be unacceptable. There are two questions we are faced with are the following two, the first one being most crucial to us: (i) do these facts affect the conclusion that the small clause is a CP (ii) what accounts for the better than expected status of these cases of extraction out of adjuncts.

Let us address the impossibility of Cliticization as it relate to the first question. There is another way of construing the intuition locating the problem in a distinction between the type of dependent that these small classes instantiate. Trying to parse, say (53b), one wonders: work what? In fact in all the grammatical cases of Predicate cliticization, the pronominalized constituent can be replaced by *quoi/what* whereas in these bad cases, the question word would have to be *comment/how*. Let us take this to suggest that the missing element is perceived as an accusative object of the verb. We could then attribute the ungrammaticality of the examples in (53) to the fact, reflected by the choice of question word, that they are not getting Accusative Case. Some support for this idea comes what happens with control structures. Subject Control verbs allow pronominalization of their CP infinitival complements viz. *Partir, Jean l'a voulu/essayé/espéré/ promis à Pierre* (*Leave, John it has wanted/tried/hoped/pro-mised*) but they are never transitive. Object control predicate systematically disallow it **De partir, Pierre l'a persuadé Henri* (*To leave, Pierre it has persuaded Henri*), but indirect object control allows it: *De partir, Pierre l'a ordonné à Henri* (*To leave, Pierre ordered it to Henri*). The generalization emerging is that Predicate cliticization is impossible if there is an accusative object that may also cliticize as *le*. This would follow if *le* was accusative and could only pronominalize accusative marked CPs. An additional advantage, noted previously, would be to explain the homophony between the predicate clitic *le* and the pronominal accusative clitic *le* (an homophony also found in Italian with *lo*). As I mentioned at the outset, this raises many questions that I will leave unaddressed (the Case marking status of verbs like *be*, the relationship between Accusative case and participle agreement, Burzio's generalization, etc..).

Turn now briefly to the second question. If *le* must be accusative, these adjunct small clauses could either be adjuncts or non accusative complements. The extraction facts are surprising either way. Additionally, if indeed we were treating these adjunct small clauses as CPs, we would expect that they would be in principle cliticizable with an appropriate kind of oblique clitic (locative adjuncts, for example may cliticize as *y* in French). I know of no language allowing this. If these small clauses were complements, the reverse problem would arise (why aren't extractions simply perfect and why don't they cliticize with oblique clitic e.g. *lui*). That they should not be complement is corroborated by Dutch facts involving overt incorporation, with the following pair subject/object controlled small clauses (indicated by the choice of auxiliary *have* vs. *be*):

- (57) a. .. *omdat Jan heeft dronken gewerkt
 because Jan has worked drunk
 b. .. *omdat Jan is dronken vertrokken
 because Jan is gone drunk

The presence of the adjective *drunk* between the auxiliary and the participle indicates that this adjective has incorporated. Both sentences are out, as we would expect given the adjunct status of the adjective.

So it would seem we neither want these small clauses to be complements nor to be adjuncts.

I have no solution to offer. Instead, I will offer a radical speculation (further explored in Sportiche, 1994) based on the paraphrase given in (54). The idea is to make the adjunct predicate be the main predicate of the clause which would include what appears to be the main clause as a subconstituent. The missing frequency adverb behaves semantically as quantifier comparing the frequency of events (de Swart, 1991). In the example (54), these events are denoted respectively by [John reading his newspaper] and [John lying down], i.e. roughly speaking where the first one corresponds to the restriction of the quantifier and the second one to its nuclear scope. We might pursue the idea that these kinds of relations are always mapped syntactically the same way. On the model of [[All [the children]] came], we would be led to postulate the equative substructure for (58a) with its intuitive paraphrase (58b) and a simplified derived structure as in (58c):

- (58) a. [Sometimes [John reads the paper]] BE [John lying down]]
 b. [Some occurrences of [John reading the paper]] are [occurrences of John lying down]
 c. [John_i Tense [sometimes [t_i read the paper] [be [PRO_i lying down]]]

We would then expect that predicate cliticization and extraction would work like in equative structures disallowing predicate cliticization (the “object” is referential) and assimilating problems of extraction out of this object to difficulties in extracting out of specific DPs. It is easy however to imagine the obstacles that such a view encounters.²⁵

²⁵For example, how exactly to derive the surface structure, what is a root clause. One problem, namely how to account for the fact that PRO can only be controlled by Subjects and Objects - cf. Williams’ (1980) contrast *He ate the meat raw*/**He ate at the meat raw* - could be linked to objects and subjects having to raise high enough in the structure (if say the relevant AGRo is above sometimes in (58c)).

6.3 Some Residual Problems

I now go through some further observations about properties of predicate cliticization, for some of which I have no account to offer. Predicate Cliticization with raising verbs is not perfect ?*Jean le semble* (for unknown reasons) but much less degraded than if an idiom chunk is subject as in **Justice le semble, avoir été rendu*. I take the latter as showing that infinitival complement to *seem* do not pronominalize. This correctly captures the contrast *Malade, Jean le semble* but not **Etre malade, Jean le semble*. This impossibility might be related to “CP deletion” in view of the better (although not perfect): ?*que Jean soit/est malade, il le semble*.

Secondly, cliticization is impossible in unaccusative and extraposition impersonal constructions:

- (59) a. il est arrivé trois hommes ---> * il l’est
there is arrived three men ---> there is it
- b. il est important que Jean parte --> * il l’est
it is important that you leave ---> it is it
- c. *important, il l’est que tu partes
important, it is it that you leave

Comparing (59b) with *c’est important que Jean parte* --> *Ça l’est* which differ minimally from it by having an argument rather than an expletive subject suggests invoking the necessity of expletive replacement as a source of ungrammaticality. This does not seem compatible with the well formedness of the previously mentioned: *il semble que Jean soit parti* ---> ?*Il le semble* (it seems that John left--> it seems it), or with the impossibility of (59c) (compare 24b): there is no generalization that expletive subjects prevent predicate clitics.

Start with sentence (59a). Recall that we assumed unergatives to be covert transitives. Unaccusatives then become monadic predicates essentially so that the underlying structure of (59a) would be:

- (60) .. [_{VP} être [_{CP}* C*... [_{VP} trois hommes arrivé..

How then is order Verb Subject reached. Postulating that this arises from the verb *arriver* raising beyond the CP boundary (where it incorporates to *être*, which may then excorporate (see Koopman, 1994 for discussion of the relevant theory of Head movement), we both derive the word order and the impossibility

of (59a) for the usual reason: the pronominalized CP will contain the unbound trace of C* (since raising of the V will have to be through C*). If the raising of *arriver* is, for Case reasons, made responsible for allowing the subject to stay low, we derive the impossibility of impersonal constructions with small clauses (that Belletti (1988) attributes to the inherent nature of the Case assigned by the participle) as in (61a):

- (61) a. *Il a été considéré [trois hommes malades]
 it has been considered three men sick
 b. Il a été considéré+malades_i [trois hommes t_i]
 It has been considered sick three men

In (61a) Case on the subject of the small clause being linked to its predicate raising out of it is unavailable. This account could be extended to (59b) if the adjective *important* incorporates to *être* as well.

- (62) ... [_{VP} être+important_i [_{CP}* t_i... que Jean parte t_i

It could then be argued that the extraposed clause is not extraposed but rather in its base position as subject of *important*, in a manner consistent with Kayne's (1993b) general thesis about the non existence of rightward movement. This would derive both (59b) - for the same reason as (59a), and (59c) because there is no available CP to pronominalize. The same account could in turn be extended to the much improved (62b).

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