On the Derivation of Genitive Relatives in Romance

Donca Steriade, MIT

October 1981
1.1. This paper deals with the derivation, in three Romance languages, of sentences in which WH-Movement appears to have removed a constituent from inside an NP. The constituent extracted is always a genitival NP (in Romanian) or a de NP phrase (in Italian and French) corresponding elsewhere, in case marking languages, to a genitival NP. Our analysis of these constructions is proposed as a solution to the problem raised by the pattern of extractions from NP in Romance, where the possibility of applying WH-Movement to the constituents of an NP appears to be governed by the Specified Subject Condition (SSC). The problem was diagnosed by Cinque (1979) in a paper on Italian di cui relatives and was shown by Zubizarreta (1979) to extend to French. As we shall see, essentially the same pattern of facts is also found in Romanian.

1.2. A brief history of the role and coverage attributed to the SSC in recent EST literature and of its relation to WH-Movement is in order here: the EST tradition preceding the publication of Rizzi's paper on WH-Island violations in Italian (Rizzi 1978) held all rules of sentence grammar including WH-Movement to be subject to SSC (see Chomsky 1977 for a statement of the immediately pre-Rizzi position on this). The apparent violations of SSC (and of the Propositional Island Constraint, PIC) involved in long distance extractions like (1) below were attributed to the 'escape hatch' status of the complementizer position through which WH-Movement takes place:

(1) \( \text{Who}_i [\text{do you think}[\text{he was talking to} e_i ?]] \)

The positions related by the rule of WH-Movement as applied to (1) are:

(2) \( \text{Who}_i [\text{ e}_i [\text{ e}_j ]] \)

On the assumption that the cyclic node mentioned in SSC is \( \tilde{S} \), the representation in (1) involves no violation of that principle. The trace \( e_i \) in Comp which mediates the relation between the moved constituent \( \text{Who}_i \) and the extraction site is outside the domain of the lowest subject.

The initial motivation for exempting WH-Movement from both SSC and PIC came with Rizzi's analysis of WH-Island violations in Italian: it was demonstrated there that the restricted set of WH-Island violations that are grammatical in Italian corresponds to all cases in which WH-Movement would take place in the configuration sketched below:

(3) \( \text{[Wh-word}_i [\text{[Wh-word}_j [\text{ e}_i \text{ e}_j ]]]} \)
In other words, Wh-Movement in Italian could, according to Rizzi's 1978 analysis, skip over one Wh-filled Comp, in apparent violation of both SSC and PIC. Since, aside from the Wh-Movement cases, SSC and PIC appeared to be obeyed in Italian exactly as they are in English, the natural conclusion was that the parameter of variation between the two languages did not involve the two opacity conditions and the choice of nodes bounding for Subjacency but rather only the choice of bounding nodes: the consequence of this move being that the opacity conditions do not govern Wh-Movement in either Italian or English.

Within the Governing Binding framework of Chomsky (1979,1981) the opacity conditions are partly replaced by a set of binding conditions (whose coverage is in fact both larger and narrower) in which the notion of specified subject plays no direct role. The question then arises as to whether there are any residues of the SSC not provided for in the new framework. One such case seems to be the pattern of possible Clitic Movement in causative constructions (cf.Rouveret and Vergnaud 1980). Another is the pattern of extractions via Clitic Movement from NP discussed by Cinque (1979). Our discussion here can afford to be neutral with regard to the question of possible SSC residues: the main point of the paper is that whatever else might be subject to SSC, covered or not by the newer binding conditions, the Wh-trace in NPs is not. I will continue to speak of the family of rules of Clitic Movement discussed here as if they are subject to opacity and, in particular, to SSC. This, however, should be interpreted as a descriptive statement rather than a theoretical claim about the status of SSC in the theory of grammar.

1.3. A secondary theme of the paper is the role played by Subjacency in regulating Wh-extractions from NP. A consequence of the analysis presented here is that Wh-Movement from NP is always blocked in Romance, in spite of the fact that the bounding nodes of at least Italian and French (NP and 5, following Rizzi 1978 and Sportiche 1978) should permit at least certain applications of Wh-Movement to the constituents of an NP. This fact is attributed to the action of the Empty Category Principle: any trace inside an NP will normally be not properly governed. This will rule out Wh-extractions from NP not only in Romance but also in any language which does not supply a proper governor to an empty category within NP. A brief discussion of the English pattern of extractions from NP shows this generalization to be essentially correct.
2.1.1. How to relativize possessors in Romanian without pied-piping.

The purpose of this incursion into the Romanian long distance rule system is to outline a strategy of relativizing constituents from NP's which, we shall claim, is essentially that used in all the three Romance languages under discussion: French, Italian, Romanian.

Romanian is introduced as the paradigmatic case of this strategy because it is the language in which the greatest number of direct arguments support our view. Once the strategy is illustrated in the transparent form that it takes in Romanian we shall turn to Italian and French to discover that it is used there too, in a slightly disguised form.

2.1.2. There are two strategies used in Romanian for relativizing constituents of an NP: the most widely used is pied-piping the highest NP or PP in which the Wh-word is nested:

(1)a. Omul \[ al \ c\text{"arui frate } \ [ a \ plecat \ [ S \] \] \]...
the man whose brother has left

b. Omul \[ \text{cu } [ al \ c\text{"arui frate } ] \ [ a m \ vorbit ] \ [ N P \] \]...
the man with whose brother I have talked

c. Popescu \[ \text{entuziasmul } [ m\text{"atugii \ c\text{"arui } ] } \ [ n e \ s u r p r i n d e a p e t o t \ [ S \] \]...
Popescu, the enthusiasm of the aunt whose us surprised all itsa jenat.
seemed embarrassed.

(P., the enthusiasm of whose aunt was a surprise to all of us ) further
We shall not discuss this type of Wh-movement here.

The second strategy, the one we are interested in, yields sentences like (2):

(2)a. Popescu \[ \text{\c\text{"aruia } [ c r e d e a m } [ a \ [ i ] \ c u n o s c u s e m } [ t o a t e } \ [ m\text{"atugile } \ [ S \] \] \]...
P whom I thought that-him I had met all the aunts
\[ \text{\i m i r e z e r v a o } s u r p r i z a . \]

Imi rezerva o surpriza.

to-me reserved a surprise.
b. Sticlele căroră le vărsasem [continutul lui în chiuva]... the bottles whom I had emptied the contents in the sink.

Relative clauses like (5) have a number of special properties that I summarize below:

(6)a. The relative pronoun is marked dative.

b. A dative clitic corresponds in the extraction clause to the relative pronoun.

c. The relative pronoun can only be interpreted as being the possessor of the NP in the extraction clause with which it is construed (in a loose sense of possession that I shall leave undefined here).

d. Relative pronouns like the ones in (5) can be construed with an NP only if:

(i) the NP is a direct object, the subject of an ergative verb, or a predicate nominal;

(ii) the NP, if a direct object, does not bear the pe-mark which singles out certain direct objects in Romanian.

Before illustrating each of the properties listed in (6) let me put some order in the list: (6) a and b are properties shared by any relative clause whose target is a dative NP:

(7)a. Popescu căruia credeam că i-a dedicat câteva românești... P. whom I thought that him I had dedicated a few songs.

b. Matuli căroră mi-erea teama că le poste viememecipă... the aunts to whom I was afraid to them to appear too liberated

(For the mechanism responsible for the presence of the clitics in the extraction clause see Steriade 1980)

2.1.3. The Possessive Dative construction

(6) c and d are properties shared by a clause bound construction that I shall call the Possessive Dative (PD). We shall investigate in this section some of the most salient properties of PD with the purpose of showing that the căruia-relatives in (5) are transforms of PD sentences, more precisely, that the relativized constituent in (5) is a possessive dative which, at the time
when Wh-Movement operates is no longer a constituent of the NP with which it is construed. The conclusion of this section will be that the căruia-relatives in (5) are derived in two steps, as diagrammed below:

(8) a. [ Comp [...[ N NP₁ ]]]
   \[ S \quad S \quad NP \quad [+wh] \]
   b. [ Comp [...[ N e₁ ]\[ NP₂ ...]]] by the PD rule
   \[ S \quad S \quad NP \quad [+wh] \]
   c. [ NP₁ [ [ N e₁ ] e₁ ...]] by Wh-Movement
   \[ S [+wh] \quad S \quad NP \quad [+wh] \]

Since my immediate purpose is only to show that the apparent case of extraction from NP in (5) is in fact a case in which the target of Wh-Movement is not embedded in an NP, I will make no attempt to explain the properties of PD. I will merely note that this rule appears to be identical and subject to identical constraints as the rule of Possessor Ascension of Choctaw, discussed within the framework of Relational Grammar by Davies 1981.

There are three restrictions on PD, all shared by the căruia-relatives:

(9) a. The rule is clause bound, in the sense that the dative clitic and the possessed NP must be clause mates;
   b. The possessed NP may be a direct object, the subject of an ergative verb, or a predicate nominal;
   c. The possessed NP, if a direct object, may not be pre-marked.

The condition in (9.a) is illustrated below:

(10) a. Nu-ți\[ NP \quad [\text{pot see} ]\[ umbrela } \[ e₁ ]\]
    Not-you\[ dat \quad I\-can \-see \-the-\-umbrella. \-I\-can't \-see \-your \-umbrella.
   b. Cel căruia\[ NP \quad [\text{nu-} ]\[ Puteam see ]\[ umbrela ]\[ e₁ ]\]
    The\-one\[ whom\[ dat \quad not-him\[ dat \quad I\-could \-see \-the-\-umbrella.
    The\ one\ whose\ umbrella\ I\ couldn't\ see.
   c. *Nu-ți\[ NP \quad [\text{pot see} ]\[ umbrela } \[ e₁ ]\]
    Not-you\[ dat \quad I\-can \-see \-subjective \-the \-umbrella
   d. *Cel căruia\[ NP \quad [\text{nu-} ]\[ Puteam see ]\[ umbrela ]\[ e₁ ]\]
    The\-one\[ whom\[ dat \quad not-him\[ dat \quad I\-could \-see \-subjective \-the \-umbrella

I assume without further argument that the relevant difference between (10.a-b) and (10.c-d) is that the complement of pot is sentential in (10.c-d), whereas in (10.a-b) pot is an auxiliary verb and see the umbrella belongs to the main VP.

The restrictions in (9.b-c) require some introduction to the Romanian case marking system: indirect objects are marked dative; non-prepositional NP constituents and ob-
jects of certain prepositions are marked genitive; direct objects, if specific and
either pronominal or human, are marked by the particle pe.(More on dative and pe-
marking in Romanian is found in Farkas 1978 and Steriade 1980.) (9.b-c) are illustrated
below:

(11)a. Ti-a plecat [nevasta e.]
you [NP dat] has left the-wife. Your wife has left.
b. Cel căruia, i-a plecat [nevasta e.]
The one whom [NP dat] has left the wife...

(12)a. Ti-am văzut [nevasta e.]
You [NP dat] I-have seen the wife. I have seen your wife.
b. Cel căruia, i-am văzut [nevasta e.]
The one whom [NP dat] I-have seen the wife

c. * Ti-am văzut-o [pe nevasta e.]
You [NP dat] I-have seen-her [pe wife]
d. * Cel căruia, i-am văzut-o [pe nevasta e.]
(The-one whom [NP dat] I-have
seen-her the wife

(13)a. Mi s-a declarat prieten la toți cunoscuții.
My self [NP dat] has declared friend to all acquaintances,
He declared himself a friend of mine to all acquaintances.
b. Cel care mi s-a declarat prieten la toți cunoscuții...

(14)a. * Ti(i)-am spus [nevestei să plece.
You [NP [NP dat] I-have told the-wife to leave.
I have told your wife to leave.
b. * Cel căruia, i(i)-am spus [nevestei e.] să plece...

(15)a. * Ti-am găsit [papucul [vărului e.]]
You [NP dat] I-have found the slipper of-the-cousin.
I have found the slipper of your cousin.
b. * Cel căruia, i-am găsit [papucul [vărului e.]]

(11) and (12) illustrate parallel PD and căruia-structures involving the possessors
of ergative subjects and direct, non-pe-marked objects. (13) illustrate the constructions
as applied to the possessor of a predicate nominal. (14)-(15) show that the possessors
of indirect object NPs and those of NPs not directly dominated by VP cannot 'ascend'.
The restriction to ergative subjects is further illustrated below for PD alone: the
facts of căruia-relatives are entirely parallel:
(16)a. \text{I}_i \text{ lipseste \ o pagină \ e}_i \ [ \text{scrisorii ăsteia}.] \\
\text{NP} \quad \text{NP}_i \\
\text{It dat is missing a page \ letter dat this dat.} \\
\text{A page of this letter is missing.}

b. \text{I}_i \text{ se topeau \ [ sandalele e}_i \] \text{de căldură \ [ lui Popescu].} \\
\text{NP} \quad \text{NP}_i \\
\text{Him dat were melting the sandals from heat to-Popescu dat} \\
\text{Popescu's sandals were melting from heat.}

c. \text{\text{*I}_i \text{ le preocupa[soarta.e}_i].} \\
\text{NP} \quad \text{NP}_i \\
\text{Him dat them acc preoccupies the fate. His fate preoccupies them.}

d. \text{\text{*Mi}_i \text{-a dansat \ [un prieten e}_i].} \\
\text{NP} \\
\text{Me dat has danced a friend. A friend of mine has danced.}

2.2. Let us sum up the results of the preceding section: We have two parallel constructions in Romanian: a clause bound construction, PD, in which a dative NP or a dative clitic is interpreted as the possessor of another NP and a class or relative clauses in which a dative relative pronoun is interpreted as the possessor of an NP in the extraction clause. Both constructions are subject to a single set of complex restrictions on the form and grammatical function of the possessed NP. This makes it extremely plausible to claim that the căruia-relatives are derived from the PD sentences and that the parallelisms noted in (10)-(15) stem from the fact that (10.a) is contained within (10.b) at the relevant stage in the derivation (before Wh-Movement), (10.c) is contained in (10.d), etc.
Are there alternative accounts? Suppose for example that the NP's which cannot enter the PD rule and the căruia-construction were in some sense islands of an unprecedented type. This doesn't sound promising but let us examine the consequences of such a move anyway: if an independent notion of island NP's can be defined to incorporate NP's subjects of verbs, and predicate nominals, then the separate and parallel ungrammaticality of \((10,c-d),(14,a-a'),(15,a-c')\) will follow without any need for deriving one from the other. The prediction is made however that the non-island NP's will be accessible to Wh-M of any sort and not only to the removal of the possessor NP. Thus parallel to the grammatical \((5),(10,c),(11,c)\), we would expect to find grammatical relatives on the pattern of \((17)\), in which a non-possessive constituent of the non-island NP has been extracted:

\[(17)a.*\text{Popescu} \left[ \begin{array}{c} \text{pe care} \mid \\
\text{cunoscuse} \mid \\
\text{mulțe studente} \mid \\
\text{supără} \end{array} \right] \mid \text{NP} \mid \text{PP} \mid \text{S} \]

P. with whom I-had-met many students angry

\[(17)b.*\text{Orașul} \left[ \begin{array}{c} \text{căruia} \mid \\
\text{zi regretam} \mid \\
\text{distrugerea} \mid \\
\text{că}\end{array} \right] \mid \text{NP} \mid \text{PP} \mid \text{S} \]

the city whom I-regreted the destruction

\[(17)c.*\text{Curtea} \left[ \begin{array}{c} \text{din care} \mid \\
\text{regretam} \mid \\
\text{copaci} \mid \\
\text{că}\end{array} \right] \mid \text{NP} \mid \text{PP} \mid \text{S} \]

the courtyard from which I-regretted the trees.

In \((17)a\) the PP complement of an AP embedded in a non-island NP has been extracted. The ungrammaticality of the result cannot be explained by subjunction; AP is not a bounding node, as shown in \((18)\):

\[(18) \text{Popescu} \left[ \begin{array}{c} \text{pe care} \mid \\
\text{mai mulțe studente} \mid \\
\text{pareau} \mid \\
\text{supără} \mid \text{că}\end{array} \right] \mid \text{NP} \mid \text{PP} \mid \text{S} \]

P. with whom several students appeared angry...

Thus \((17)a\) qualifies as a test-case for the island NP hypothesis and shows it to be wrong. \((17)b\) shows that a non-possessive genitive cannot be extracted from an
Before concluding, let me point out that any analysis in which the căruia-relatives are derived independently from the PD construction will face the additional problem of generating the obligatory dative clitic which appears in the extraction clause. The existence of the dative clitic follows, on our account, from the fact that căruia is a dative NP which, like all dative NPs, may (and in this case, must: see below) trigger Clitic Doubling. If căruia had been extracted directly from NP by Wh-Movement, the existence of the dative clitic in the extraction clause would be inexplicable: it is never the case that a genitive or a dative embedded within NP triggers Clitic Doubling:

\[
(2') \quad \alpha \cdot *_{i}^{m} \text{a plecat [un prieten al [Mariei]]} \\
\text{Her dat has left a friend of Mary's gen}
\]

\[
b. *_{i}^{m} \text{dezaprob [trimiterea scrisorii [lui Popescu]]} \\
\text{Him I-disapprove of the sending of the letter gen to-Popescu dat}
\]

I disapprove of the sending of the letter to Popescu.

Therefore, under the direct-out-of NP theory, the appearance of the clitic in the căruia-relatives can only be a consequence of Wh-Movement. But then again, this is mysterious: it can be argued (cf. Steriade 1980) that all the clitics found in the extraction clauses of Wh-constructions are the consequences of the local operation of Clitic Doubling. In this context, the difficulty posed by the dative clitics of căruia-relatives becomes apparent.
itself a position accessible to Wh-Movement. We can show that this is the case by comparing the fixed word order within NPs with the relatively free word order of constituents dominated by VP: a possessor dative, marked as such by the obligatory clitic doubling which it triggers, behaves in this respect as a daughter of VP, in direct contrast with an unascended genitiveval possessor:

(19)a. Am văzut[casa Mariei].
   I-have seen the-house of-Mary
b. *Am văzut[Mariei casa]
   I-have seen of-Mary the-house
c. I-am văzut casa Mariei
   Her-[I-have seen the house Mary]
d. I-am vazut Mariei casa

(20)a. Am văzut[casa ta]
   I-have seen the-house your
b. *Am văzut ta casa.
   you-[I-have seen the house you]
c. Ți-am văzut casa ție.
   you-[I-have seen the house you]
d. Ți-am văzut ție casa

In addition, (16.a) indicates that VP constituents can separate a possessor dative from its possessed NP. This can only happen if PD has applied:

(21) a. *Se topeau sandalale de căldură lui Țopescu.
   Were melting the-sandals from heat of Țopescu.
b. Mă se topeau sandalale de căldură numai mie.
   Me-[were melting the-sandals from heat only me]
   Only my sandals were melting from heat.
c. *Se topeau sandalele de căldură numai ale mele.
   Were melting the- sandals from heat only mine
has become, since Rizzi 1978, the test for whether $S$ or $\bar{S}$ is bounding for a certain language, we note that it is possible, though not necessary, that Romanian have the same set of bounding nodes as English. The pattern of Wh-Island violations, briefly illustrated below, indicates that Romanian may be a language in which comps could be doubly filled, thus allowing for a much larger class of extractions than Italian. The crucial contrasts which Rizzi used to differentiate the account of Italian Wh-Island violations based on $\bar{S}$ as a bounding node and the alternative doubly-filled-comp account are absent in Romanian. Both types of extractions are grammatical, at the same level of perceptual difficulty:

a. Această sarcină, [pe care] nu cred că a putut ghici că voi da ...
   this task ACC which not I-think that you-could guess whom
   it I-will give...

b. Aceasta sarcină [pe care] nu stiu că cine a putut ghici că voi da...
   this task Acc which not I-know who could guess whom
   it I-will give.

The lack of contrast between (16)a and b, (18)a and b suggests that the Wh-island violations of Romanian cannot be attributed to the fact that $\bar{S}$ rather than $S$ is bounding; but this of course doesn't tell us directly that $S$ is bounding.
(24) a. [[Cine] [cu cine] [a plecat]]?
    S who with whom S has left
b. Nu ştiu [[cine][cu cine] [a plecat]].
    Not I-know who with whom S has left.

More importantly, our analysis of căruia-relatives in Romanian provides a possible model for the derivation of genitival relatives in all languages which, like Romanian, French and Italian have independent means of extracting certain NP constituents into the clause. In the following section I will try to show that the di cui-relatives of Italian and the dont-relatives of French, must be derived by the same two-step strategy as the căruia-relatives. It will be established not simply that some genitival relatives of French and Italian rae derived in this way but rather that there is no alternative way of extracting a constituent from NP. The restrictions observed by Cinque and Zubizarreta on the operation of Wh-Movement from NP will be explained as restrictions on the rules which,like Romanian PD,mediate in Italian and French between an NP internal position and a position external to NP and internal to the clause.
In the following section I will restructure myself to a discussion of the French rule. Moreover, I consider here only the cases where en and dont in French, ne and di cui in Italian correspond to an NP complement like the one underlined in la generosità di Mario, l'auteur du livre. The homophones en and dont, ne and di cui that have quantificational interpretations (J'en connais trois; Ne sono arrivate tre) fall under different regularities. For these see Rizzi 1980.

I will propose here that (25.b), (26.b) are the result of Clitic Placement in conjunction with a general rule, applicable not only to pronouns, which extracts constituents out of NPs. This rule shows SSC effects: it applies only to syntactic subjects of NPs: possessors, subjects of active abstract nominals or subjects of passive abstract nominals:

I pro's have seen the coat in the entrance.

I pro's have applauded the decision to them dat send arms.

c. J'en ai déploré [la destruction].  
I pro's have deplored the destruction. I have deplored its destruction.

The rule is not restricted to pronominal subjects: we could assume that it applies to an adverbial phrase, be it [a pro], [a wh] both or neither. J. C. Milner (1978) provides examples where non-pronominal subjects of an NP are seen outside of their NP but still inside their clause:

(28)a. Il a été publié, de Zola [plusieurs livres] avant 1900.  
It was published of Zola several books before 1900.
The extraction of pronominal subjects of NP, subsumed under clitic placement by Kayne, is subject to essentially the same constraints as the extraction of non-pronominal genitival phrases: the impossibility of (29.a) parallels that of (29.b):

(29)a. *J’en ai pensé [ à [des œuvres remarquables e₁] ]
PP NP
I pro’s have thought of remarkable works.

b. J’ai pensé [d’artistes célèbres], [à [des œuvres remarquables e₁]].
PP PP NP
I will argue that a single phenomenon, similar to the PD rule of Romanian, underlies the cases of Clitic Placement in (26)-(27), the cases of En Avant in (30) below, the structures in (28) and the genitival relatives in (31):

(30) a. [La première partie e₁] en₁ est la meilleure.
The first part pro’s is the best.

b. [L’auteur e₁] en₁ a été arrêté.
The author pro’s was arrested.

(31) a. L’inspecteur [dont₁ [j’avais aperçu [le manteau e₁] à l’entrée...]
The inspector whose I had seen the coat in the entrance...

b. Le gouvernement [dont₁ [nous avions applaudi [la décision e₁] d’envoyer des armes...]
The government whose we had applauded the decision to send arms...

c. Zola [dont₁ [il a été publié [plusieurs livres e₁] avant 1900...]
Zola whose it was published several books before 1900...

d. Les artistes célèbres [dont₁ [tu prétends avoir vu [les œuvres e₁]...]
The famous artists whose you pretend having seen the works

e. Les amis [dont₁ [la visite e₁] te fait plaisir...]
the friends whose the visit pleases you...

This phenomenon is a rule which positions outside of the NP the subject of a subject or direct object NP. Under this analysis an account is necessary of the contrast between the fully acceptable dont-relatives like (31.e) and the corresponding en-sentences which are literary sounding or downright ungrammatical:
expressed as a general restriction on the rule of extraction from NP. This should be enough to show that the ungrammaticality of En Avant as applied to preverbal subjects of non-copular verbs is not an argument against our proposal. Nevertheless a statement is needed in the grammar of French about the contrast between (28,c), 31.e) and (32.b) and I shall propose filter (33) as a candidate for such a statement:
iven the striking similarities between (33) and the Romanian restrictions on PD as applied to subject NPs, given also the Italian restrictions on Clitic Movement to postverbal subjects (see Cinque 1979:2) it seems to me very likely that a general principle is indeed at work. One possibility is that rules like PD and Clitic Movement or their Romance ancestor used to be applicable only to constituents governed by the verb. If so, Romanian, and, to a lesser extent, Italian, where PD and Clitic Movement continue to be subject to this restriction, preserve an older state of affairs. French, on the other hand, has evolved in the following way: the restriction to NPs governed by the verb has split from the Extraction from NP rule and has become an independent surface filter. This allows a great many more structures to be derived by the Extraction from NP rule and to escape the filter: for example, (28.c) has been derived, under this analysis, by extracting d'amis sincères from the preverbal subject and then by fronting it. By the time filter (33) applies, the configuration it mentions is no longer to be found in (28.c).

3.2.1. I will present here three arguments that for at least certain types of direct relatives, the extraction of the genitival dont out of its NP is effected by the rule responsible for structures like (27) and (28).

The first argument is based on relatives like (34):

(34) Une femme [ dont₁ [ [ la beauté e₁ ] dépasse [ la vertu e₁ ] ] ]

A woman whose the beauty surpasses the virtue
a woman whose the beauty is equal to the virtue

The contrast is easily interpretable by assuming that whatever grammatical process is responsible for the anaphoric link between dont and la beauté is the same process s the one responsible for the link between dont and la vertu. This process, whether Extraction from NP followed by Wh-Movement, as I argue, or just Wh-Movement, cannot extract a constituent embedded in a structure like [ P [N_]].

This is illustrated by the examples in (36):

a. *J'en ai parlé [au [père e_1]].
   PP NP
   I have spoken to the father. I have spoken to his father.

b. *Quelqu'un [dont j'ai parlé [ au [père e_1]]] est parti.
   S S PP NP
   Somebody whose I have spoken to the father has left.

c. *Notre départ a été annoncé,[de Jean], [à [plusieurs adversaires e_1]]
   PP NP
   Our departure was announced of John to several opponents.
   Our departure was announced to several of John's opponents.

While there seems to be little or no dialectal variation concerning (36), the contrast between (34) and (35) characterizes only certain dialects of French: Grevisse (1964: 480) cites a multitude of double dont sentences similar to (35) with respect to the structural position of the second gap bound by dont:

(37) a. Un écrivain [ dont [[l'oeuvre e_1]] est à peu près inséparable
   S S NP
   A writer whose work is almost inseparable from the life.

(M. Arland Essais Critiques)

b. L'abbé Firmin, [ dont [ le bréviaire e_1] gonflait [ la large poche]
   S S NP
   [de [la soutane e_1]]] ...
   PP NP
   The abbé Firmin whose breviary distended the large pocket of the cassock

(M. Arnoux Les Crimes Innoce

In the dialects in which structures like (37) are acceptable, the double dont
sentences like (33) show little about the derivation of genitival relatives 
in French since it is unclear what mechanism relates the second gap to the 
relative pronoun. However, for the dialects in which the right contrast exists 
between (32) and (33), (34) the following argument can be made: given the 
fact that both positions bound by dont are subject to the same restrictions 
one must assume that the rule (or one of the rules) responsible for the binding 
effect has applied to the two positions. In the theory put forward in this paper 
the rule that could have applied to the two positions is the clause bound Extraction from NP. Alternatively Wh-M could have applied directly and independently 
to the two underlying don't's. The immediate outputs of these alternative 
derivations are given in (33):

\[
(33) \quad \begin{align*}
    a. \quad & \text{une femme} \quad \left[ \frac{S}{S} \right. \\
    & \left[ \begin{array}{c}
    \text{la beauté de wh} \\
    \text{de wh} \\
    \text{d} \\
    \end{array} \right] \\
    & \text{dépasse} \quad \left[ \frac{NP}{NP} \right. \\
    & \left[ \begin{array}{c}
    \text{la vertu de wh} \\
    \text{de wh} \\
    \text{d} \\
    \end{array} \right] \\
    b. \quad & \text{une femme} \quad \left[ \frac{S}{S} \right. \\
    & \left[ \begin{array}{c}
    \text{la beauté e de wh} \\
    \text{de wh} \\
    \text{d} \\
    \end{array} \right] \\
    & \text{dépasse} \quad \left[ \frac{NP}{NP} \right. \\
    & \left[ \begin{array}{c}
    \text{la vertu e} \\
    \text{d} \\
    \end{array} \right] \\
    c. \quad & \text{une femme} \quad \left[ \frac{S}{S} \right. \\
    & \left[ \begin{array}{c}
    \text{de wh} \\
    \text{de wh} \\
    \text{d} \\
    \end{array} \right] \\
    & \text{dépasse} \quad \left[ \frac{NP}{NP} \right. \\
    & \left[ \begin{array}{c}
    \text{la vertu e} \\
    \text{d} \\
    \end{array} \right]
\end{align*}
\]

In (33b) Extraction from NP has not only removed the two possessor PP's out 
of the NP's but also moved them into a preverbal position where they are adjacent. 
The motivation for assuming that Extraction from NP has this effect comes partly 
from the argument I am developing here and partly from the second argument that 
I will bring in favor of a derivation like (33b).

In (33c) Wh-M has independently applied to each of the de wh phrases in 
the sentence and moved them into COMP. My argument in favor of (33b) over (33c) 
is based on an indication that the reduction of the two coindexed de wh phrases 
(i.e. in the clitic position) can only occur in the position where they are shown in (33b). I will call the 
reduction rule Haplology (H).

Suppose that H has not applied preverbally in (33), as it would if (33b) were 
the correct derivation. Then one expects that a double don't-sentence in which 
the two de wh phrases originate in two different clauses will be, ceteris paribus,
as grammatical as (34). In fact this is not the case, as (39) shows:

(39) Un étudiant [dono le professeur \( e \)] dit \( S \) que \( S \) NP la thèse \( e \) est bonne.

A student whose the teacher says that the thesis is good.

In (39) the two positions out of which \( de \) wh has been extracted are not disjoint in reference:

(39a) a. Son \( _1 \) professeur dit que la thèse de Jean \( _1 \) est mauvaise.

b. Le professeur de Jean \( _1 \) dit que sa \( _1 \) thèse est mauvaise.

Moreover the second position is in itself accessible to Wh-M:

(39b) Un étudiant [dono le pense que \( S \) NP la thèse \( e \) est mauvaise...

And, of course the first position is also accessible.

This helps pin down the source of the unacceptability of (39): one of two things may have gone wrong, either of which is an intrinsic feature of the derivation of double don't-relatives sketched in (38a) (I). Either there is a constraint against double wh-movement or else the only position where H can legitimately apply is when the two phrases are adjacent and in preverbal position.

The derivation of (39) in a direct-out-of-NP Wh-M theory could be either (42a) or (42b):

(42a) Un étudiant [S \( \left[ \left[ \left[ \text{le professeur de wh} \_1 \right] \text{dit}\left[ \left. \left[ \text{la thèse de wh} \_1 \right] \right] \right. \right. \right. \right] \) ...

Haplogly

Wh-M [S \( \left[ \left[ \left[ \text{de wh} \_1 \text{ professeur e} \right] \text{dit}\left[ \left. \left[ \text{la thèse e} \right] \right. \right. \right. \right] \) ...

Haplogly

Wh-M [S \( \left[ \left[ \left[ \text{de wh} \_1 \text{ le professeur e} \right] \text{dit}\left[ \left. \left[ \text{la thèse e} \right] \right. \right. \right. \right] \) ...

Haplogly
(42.a) In \( (42.a) \) 

In (42.a) H applies at a distance and there is a single application of Wh-M for the entire relative clause. In (42.b) there is a double Wh-M application on the higher cycle and H applies locally, in the higher COMP. The reader has probably noticed that both (42.a) and (42.b) are derivations that would pose problems even if their output was an acceptable sentence. But since (42.a) is not acceptable we need not go into those problems: the unacceptability of (42.a) is the most straightforward way of showing that neither of the derivations shown in (42.b) is legitimate. Returning now to the derivation of (34), which is acceptable, we observe that the derivation shown in (38.c) or the alternative derivation shown in (38.d) below, in which H has applied before Wh-M, have the same features as the illegitimate derivations of (42.b) shown in (42.d):

(38)d. une femme [S [NP la beauté de wh] égale [NP la vertu de wh]]

by Wh-M

by H

It follows then that what differentiates (34) from (24) is the fact that a derivation like (38.c) is possible for (34) but not for (34). Since (38.a) is derived via Extrac tion from NP this argument establishes both the necessity of letting this rule apply to wh-phrases and the necessity to formulate the rule in such a way as to ensure that the two de wh phrases are moved into adjacent positions.

Notice that given filter (32) we do not expect to find grammatical sentences in which en corresponds to the double dont in (34). But the fact that for any given clause there is a single en slot suggests that this unique slot is the motivation for the Haplogogy rule. This observation leads to our second argument.

3.2.a. Suppose that the en slot is already occupied in the source sentence of a dont-relative. If Wh-M applies directly to the de wh constituent embedded in the NP the fact that the en slot is occupied shouldn’t matter: the two
features of the sentence (presence of en; Wh-M applied to a constituent inside an NP) do not interact. On our account however, Wh-M cannot apply directly inside an NP; and if, as we argue, the dont-relative must go first through a stage when de wh is positioned in the en slot then we predict that the derivation cannot be successfully completed, unless H can apply. Suppose H is blocked: either because it cannot apply if the two phrases are not lexically identical (as they are in (34))- and en is not lexically identical to dont- or because H applies only to phrases which bear the same referential index (as they do in (39)). Below we have exactly such a case: the en slot is filled by an en whose referential index must be distinct from that of the extracted dont:

\[
\text{(34) La France} \mid \text{je connais} \mid \text{peu de} \mid \text{p} \mid \text{ères} \mid \text{dont} \mid \text{les} \mid \text{enfants} \mid \text{e} \mid \text{en} \mid \text{sont} \mid \text{fiers.} \]
\]

France, I know few fathers whose children are proud of her.

Let us check now that (34) is the correct test case for our hypothesis: the construction linking la France to en is analyzed by Hirschbuhler 1977 under the name of Lefthand NP's. Hirschbuhler shows that the anaphoric link between LNP's and the coreferent pronouns is not subject to subjacency and in particular that it is not subject to the Complex NP Constraint (CNPC). This property is illustrated by (37):

\[
\text{(37) La France} \mid \text{je connais bien} \mid \text{ceux qui en} \mid \text{sont fiers.} \]
\]

France, I know well those who are proud of.

Since (34) is acceptable the ungrammaticality of (33) cannot be due to a CNPC violation. Also in (33) the dependencies are nested rather than overlapping, which ensures that Fodor's Nested Dependency Constraint has not been violated. Again the conclusion must be that what went wrong with (33) is something not related with Wh-M as such but to the operation of Extraction from NP: in this case, the fact that on the output of this rule H should have applied and was not able to apply, due to either or both of the two
reasons mentioned above.

Our first argument had established the possibility of deriving dont-relatives by Extraction from NP followed by Wh-M. The second argument shows that at least for structures like (43) only such a two step derivation is possible. If a derivation involving just Wh-M had also been available to the source of (44) its output should have been grammatical. This comes fairly close to showing that the only way of applying Wh-M to the (former ) constituent of an NP is to have that constituent extracted out of NP. More arguments for this in the last section. In the last part of this section we shall investigate a prediction made by the hypothesis that the target of Wh-M in a genitive dont-relative is a position outside NP.

3.2.3 Rizzi's study of wh-islands violations in Italian contains a brief consideration of the predictions of his S-bounding theory for the extraction from NP: he notes that if S but not S is bounding then applications of Wh-M to NP constituents should result in acceptable structures if the extracted constituents are moved into the first COMP:

\[ \begin{array}{c}
\text{S} \\
\text{NP}
\end{array} \]

If however the extracted constituents are moved into the next COMP up the resulting sentence should be as ungrammatical as other violations of subcency:

\[ \begin{array}{c}
\text{S} \\
\text{NP}
\end{array} \]

In other words, in a language where S and NP (but not S) are bounding nodes wh-island violations and Wh-M out of NP should be grammatical separately, but not combined, as they are in (46).

The third pattern of extractions seems to support Rizzi's predictions (though he admits that the relevant contrasts aren't clear). This of course should count as a counterargument to my proposal that Italian di cui...
The Italian pattern of extractions from NP cited by Rizzi in his 1978 article supports his predictions: this should, of course, count as a counterargument to my proposal that Italian *di cui* relatives should be derived via Clitic Movement. If Wh-Movement applies to a *di cui* phrase only after it has been positioned outside of NP there is no reason why this constituent should not be moved into the second Comp above it:

\[
\begin{array}{c}
\text{Wh-Movement} \\
\text{Clitic Movement}
\end{array}
\]

(47) [ [ [ [wh][N[ N e ]]]]]

On this point however Rizzi's data has been disputed: according to Tamburello 1979 there is no contrast between genitival *di cui* relatives which involve Wh-Island violations and parallel structures which do not. Tamburello claims however that there is a clear contrast between extraction of genitival *di cui* from subject and from object position. She cites the following pair:


   The boy of whom the conduct was judged severely by the teacher will be punished.


   The boy whose the teacher has severely judged the conduct will be punished.

Tamburello's judgments coincide, on the subject/object asymmetry, with those reported by Cinque (1979), who finds structures equivalent to (48.a) of questionable grammaticality. This last point is important: it appears that Italian differs from French not only in lacking En Avant structures but also in disallowing the Wh-Movement of constituents belonging to a non-ergative, preverbal subject NP. For our analysis this means that the Italian rule of Extraction from NP is subject to the same constraint as the Romanian PD rule: the NP whose possessor ascends into the clause must be governed by the verb. Since this rule of Extraction from NP must mediate, with its limited applicability, the Wh-Movement of any NP constituent it follows that there will be restrictions on the *di cui*-extractions like the ones observed by Tamburello.

Even more interesting is the conclusion which Tamburello's observation allows us to state: in Romanian and Italian the rules of PD and Extraction from NP are subject to a strict government condition and so are the Wh-extractions of genitival NP constituents. In French the rule of Extraction from NP is not subject to such a condition, as (28.c) and the En Avant phenomena show, and correspondingly, the extraction of the genitival *dant* from subject position is possible. It appears
that for each of these languages the extent to which genitival Wh-extractions are possible depends on the restrictions which limit the operation of the clause bound rule of PD or Extraction from NP.

3.2.4. In this section I take up the question of whether dont-relatives involving Wh-Island violations are grammatical or not. In French: consider sentences like (48):

(48)a. L'enfant [dont] [je ne sais plus] [A qui j'ai donné [les habits -]]
the child whose I can't remember to whom I gave the clothes...

b. L'enfant [dont] [je ne sais plus] [oh [j'ai mis [les habits -]]]
the child whose I can't remember where I put the clothes

c. Cet homme [dont] [j'ignore si vous êtes [l'ami -]]
this man whose I don't know if you are the friend

(from Grevisse 1964:478)

The total acceptability of (48) seems to indicate directly that a genitival dont can be extracted out of a wh-island. However, Dominique Sportiche has reminded me that the derivation of (48) according to the scheme in (47) should not be taken for granted: this is due to the existence of very similar dont-relatives in which it can be shown that no extraction has taken place at all.

(47)a. Un luxe dont j'imagine aujourd'hui qu'il devait être affreux...
a luxury about which I imagine today that it must have been in very bad taste... (François Mauriac Noeud de vipères)

b. Celui dont nous savons qu'un feu étrange le dévore...
the one about whom we know that a strange flame devours him
M. Bedel *Le mariage des couleurs*

c. Une monstrueuse erreur dont je me demande si elle ne lui avait a monstrous mistake about which I wonder if it had not been pas été soufflée par le diable... prompted to him by the devil...

(A.Billy *Madame*) all examples from Grevisse

(1964:478-479)

The structures in (49) can be more generally represented in the following way:

\[
\begin{align*}
\text{NP} & \quad \text{N} \quad \text{NP} & \quad \text{S} & \quad \text{d} & \quad \text{S} & \quad \text{wh} & \quad \text{S} & \quad \text{pron} & \quad \text{...}
\end{align*}
\]

Dont has no extraction source either in the embedded sentence or in the main sentence: the fact that *d*ont cannot correspond to a subject or direct object position and the fact that resumptive pronouns appear in what one might think of as the gap show that *d*ont has not originated in the lower sentence. The fact that expressions like *j'imagine de lui qu'il ..., je me demande d'elle si elle ...* are at the very best awkward shows that *d*ont has not originated in the higher sentence either. Let us suppose then that the *d*ont-relatives in (49) represent a resumptive pronoun strategy of forming relative clauses - whose invariable complementizer is *d*ont - very much like the resumptive pronoun strategy of Arabic or Modern Persian.

The question that we need to answer is whether sentences like (49) belong to the same category as (50) - in which case they are useless for our claim that genitival *d*ont-phrases can come out of wh-islands - or whether they are derived as in (47) by regular Wh-M.

The first and most obvious observation in favor of a derivation like (47) is the fact that (48) contain no resumptive pronouns. Compare (48) with the relative in (54) below, which follows the pattern of (49):}

\[
\begin{align*}
\text{S} & \quad \text{Ainsi chuchotaient au chevet de Mathilde Casemave son mari}
\end{align*}
\]
thus were whispering at M.C.'s bedside her husband
and her mother in law whose between the eyelashes she was watching
on the walls their two shadows huge and united...

(François Mauriac Genitriz from Grevisse 1964 : 479)

Another argument can be built on the observation that the resumptive
pronoun strategy is not subject to island constraints:

(52) a. Quelqu'un dont j' imagine que [ mon initiative de saluer ]
somebody about whom I imagine that my initiative to greet him
will bring me a lot of trouble
b. Quelqu'un dont j' imagine que [ mon initiative de saluer

somebody about whom I imagine that my initiative to greet
his mother in law will be misunderstood...

The subject la décision de saluer NP is an island, as can be shown in (53):

(53) * Quelqu'un que [ la décision de saluer ] causera des ennuis...
somebody who the decision to greet will bring trouble...

The same restriction applies to a dont relative which has a gap in the
target position rather than a pronoun:

(54) * Quelqu'un dont [ la décision de saluer la belle-mère ]
somebody whose the decision to greet the mother-in-law
sera mal interprétée...

will be misinterpreted...

What is the significance of these facts? Imagine that a dont-relative with
a gap, like (55):

(55) (= (53)a) L'enfant dont je ne sais plus à qui j'ai donné les
habits ...

is generated in fact by the resumptive pronoun strategy. How are we to account for the disappearance of the resumptive pronoun? The comparison between (54) and (52) shows that if there is a rule deleting the resumptive pronoun in such dont-relatives that rule must be sensitive to the same island constraint to which Wh-M itself is sensitive. This makes it quite unlikely that an ad hoc deletion rule rather than regular Wh-M is involved in the derivation of (55). We must therefore conclude that, since (55) was derived by Wh-M, the extraction of the genitival dont out of a wh-island is grammatical in French. The consequence of this is obvious: either the genitival dont has been extracted in violation of subjacency directly out of its NP:

\[
(56)(= (46)) \quad \begin{array}{c}
S \\
[ \quad [ \quad [ \quad wh \\
S \quad S \quad S \\
[ \quad [ \quad [ \quad N \quad de \quad wh ] ] ] ] ]
\end{array}
\]

or else the target of Wh-M was a syntactic position outside of the NP.

We must therefore rule in favor of the latter possibility, which is the one supported by our analysis. I have diagrammed the derivation in (56') below:

\[
(56') \quad \text{L'enfant} \quad [ \text{dont}_1 \quad [ \text{je ne sais plus} \quad [ \text{à qui}_i \quad [ \text{j'ai e}_1 \quad \text{donné [les habits e}_1] \quad e}_j.}
\]

Extract. from NP

Wh-Movement
4.1. Cinque's findings on the pattern of extractions from NP in Italian can be summarized by saying that the extraction by clitic Movement or Wh-Movement of constituents is subject to restrictions strongly reminiscent of SSC. Thus, to review only a few of the facts considered by Cinque, only di cui PP's can be extracted from NP and only when they qualify by independent tests as being the syntactic subjects of the NP:

(57) a. *Una persona[a cui i [l'attaccamento e i potrebbe rovinarci]]...
A person to whom the attachment could ruin us

b. *L'icona [[di cui i [hanno scoperto [il furto e i del custode]]]...
the icon of whom they-discovered the theft of the custodian

c. *Giorgio [[di cui i [abbiamo messo in ridicolo [la tua descrizione e i]]].
Giorgio of whom we have ridiculed your description

Correspondingly, Clitic Movement is impossible from these positions:

(58)a. * [L'attaccamento e i ] ne i potrebbe rovinarci.

b. * Ne i hanno scoperto [il furto e i del custode].

c. * Ne i abbiamo messo in ridicolo [la tua descrizione e i].

Zubizarreta (1979) has shown that similar generalizations hold for the French pattern of Wh-extractions from NP:

(59)a. Rembrandt [d'un e i [ le portrait d'Aristote e i ] a été exposé au Louvre...
Rembrandt whose portrait of Aristotle was displayed...

b. *Aristote [d'un e i [ le portrait e i de Rembrandt ] a été exposé...
Aristotle whose portrait of Rembrandt was displayed...

c. Aristote [d'un e i [ le portrait e i par Rembrandt ] a été exposé...
Aristotle whose portrait by Rembrandt was displayed...

d. L'Amérique[de l'un e i [ la conquête e i par l'Espagne ] a eu lieu...
America whose conquest by Spain took place...

e. *L'Amérique [de l'un e i [ la conquête espagnole ] a eu lieu...
America whose Spanish conquest took place...

d. *Cette planète [[sur laquelle i ] nous craignons [un atterrissage dangereux e i ]
This planet on which we fear a dangerous landing

The French version of Clitic Movement and the rule responsible for the structures in (28) (both, on our analysis, instances of Extraction from NP) are subject to parallel restrictions:

(60)a. J'en i connais [le portrait d'Aristote e i ].
I pro's know the portrait of Aristotle

b. *Hélène Fourment, j'en i ai vu[le portrait e i de Rubens] dans sa maison de Gand.
Hélène Fourment, I her have seen the portrait of Rubens in his house
of Gand.

c. Hélène Fournier, j'en ai vu [le portrait é par Rubens]...

Hélène Fournier, I her have seen the portrait by Rubens

d. De Rembrandt, j'ai vu seulement [le portrait d'Aristote é]

Of Rembrandt I have seen only the portrait of Aristotel.e

e. *De Chopin, j'ai vu seulement [le portrait é de Delacroix]

Of Chopin I have seen only the portrait of Delacroix.

f. *Nous craignons [sur cette planète], [un atterrissage difficile é].

We fear on this planet a difficult landing

g. *Nous en é / y é craignons [un atterrissage difficile é]

We its/ there fear a difficult landing

What identifies the extractable PPs as the subjects of the larger NPs are,
in cases like le portrait d'Aristote de Rembrandt or il furto del icona del custode
our intuitions about the grammatical relations of the extractable PPs, with respect to
the other complements of the head NP. Thus de Rembrandt and del custode are interpreted
as active subjects in the two examples given above, d'Aristote and de l'Amérique
are interpreted as passive subjects of le portrait d'Aristote par Rembrandt, la con-
guêste de l'Amérique par l'Espagne. In less clear cases Cinque uses a property
of the nominal modifiers which strongly correlates with subjecthood: the ability to
be replaced by a possessive adjective. Thus in son portrait d'Aristote, la conquête
espagnole de l'Amérique, la sua descrizione di Giorgio the adjectives correspond to
subject de NP modifiers. Corresponding structures where the possessive adjective
must be interpreted as a non-subject are impossible: son portrait de Rembrandt
(with son standing for the person portrayed), il suo furto del custode
(with suo referring to the object stolen) are ungrammatical. Predictably, son
portrait par Rembrandt and all corresponding passive nominals are grammatical.

It can also be shown that the possessive adjectives cannot be interpreted as cor-
responding to PPs like those in... l'atterrissage sur la planète, l'attaccoamento
a Giorgio: son atterrissage, il suo ataccoamento
contain no reference to the point of landing or the object of the attachment.

This follows from the idea that possessive adjectives can exclusively refer to
the subject of the NP they modify. If so, the ungrammaticality of (57.c), (58.c),
(59.e) is entirely parallel to that of (57.b), (58.b), (59.b).

In order to extend an SSC treatment of the impossibility of PP extraction from NP to cases
like (59.d), (60.f-g) Cinque has to assume that all NP's have subjects, in the latter
cases, PRO subjects.

Notice that the existence of NPs like the one in (61) seems to show that
the string position can not always identify the extractable di cui as the rightmost
one:

(61)a. la descrizione di Giorgio dei particolari del'incidente...
the description of George of the details of the accident...

b. Giorgio [[di cui], [abbiamo ricevuto [la descrizione dei particolari del'incidente]]...
Giorgio whose we had received the description of the details of
the accident...

c. *Gli particolari del'incidente [ [di cui], [abbiamo ricevuto [la descrizione di Giorgio e]]]...
The details of the accident whose we have received the description of Giorgio...

It seems therefore that Cinque's conclusion is inevitable: the crucial factor in distinguishing the grammatical extractions from NP from the ungrammatical ones is whether the extracted constituent is the subject or not. On this, he makes the following comment:

"One non trivial theoretical... remains: namely the crucial assumption that the trace of Wh-Movement behaves the same way as the trace of Clitic Movement with respect to opacity. Although in other domains of facts the motivated conclusion seems to be that the trace of Wh-Movement (...) is not subject to opacity (...) here the opposite assumption appeared to have the right consequences in underlining, among other things, the exactly symmetrical behavior of extraction through Clitic Movement and Wh-Movement."

I believe that, independently of the arguments presented above, which tend to support the view that Extraction from NP must mediate any Wh-Movement from NP, we can avoid drawing this conclusion: to see this, a comparison with the English pattern of extractions from NP is necessary. We consider for the moment only extractions of PP complements of an NP. For these, the observation can be made, following earlier suggestions of Bach and Horn (1977), that the class of PP complements of NP that can be extracted by Wh-Movement is exactly the same as the class of PP complements of NP that can appear extrapoled. The correlation is briefly illustrated below:

(62)a. [A book [about John]] has appeared recently.
b. [A book] has appeared recently [about John].
c. The man [[about whom] [[ a book] has appeared recently]]...
(63) a. [A cure for this disease] will soon be discovered.
   b. [A cure], will soon be discovered [for this disease].
   c. The disease [[for which][ [a cure] will soon be discovered]]...

(64) a. [One book from my collection] was never returned.
   b. *[One book was never returned[from my collection].
   c. *[The collection [[from which][ [a book] was never returned]]...

(65) a. I admire [people : from New Jersey].
   b. [People from New Jersey] are generally admired.
   c. *[People are generally admired [from New Jersey].
   d. *The state [[from which][ [people] are generally admired]]...
   e. *The state [[from which][ [I admire people]]...

Imagine now, for the sake of argument, that (62.a-b), (63.a-b) are related by a movement rule of Extraposition. This rule will be subject to rather ill-understood restrictions, as the contrasts between (62)-(63) and (64)-(65) show. It also appears that the rule of Wh-Movement, when applied to the PP complements of an NP, is subject to the same conditions: do we conclude that the restrictions, whatever they might be, apply directly to Wh-Movement? The more natural alternative is to claim that the restrictions to which Extraposition from NP appears to be subject have only an indirect effect on the applicability of Wh-Movement: in effect, that the extraction of a PP complement of an NP is impossible directly from NP. And that the few cases where it appears to be possible are the cases where the PP complement appears extraposed and therefore in a position accessible to movement.

This line of argument is open not be in the case of the problem discovered by Cinque. We can claim that the necessity of Wh-Movement appears to be subject to the conditions governing Wh-Movement is because the case of NP complements.

This line of argument is open to...

We can adopt this line of argument in seeking a solution to the problem discovered by Cinque: if Wh-Movement cannot apply to the complements of an NP and if some other clause-bound rule can, then the restrictions on the clause-bound rule will appear to govern the Wh-extractability of those complements. We have shown in the preceding sections why this view of the interaction between the clause-bound rule of Extraction from and Wh-Movement is necessary, independently of the opacity issue. We will consider below the consequences of assuming that the contents of NPs are inaccessible to Wh-Movement.
5. Both the opacity effects discovered by Cinque and the facts discussed earlier in section 3 establish that NPs are an absolute boundary to Wh-Movement. As mentioned already, this fact doesn't follow from subjacency: Italian and French at least have the required set of bounding nodes to allow some extractions from NP.

My suggestion is that the principle involved in restricting the accessibility of NP is the Empty Category Principle (ECP). The idea is not new: Kayne (1981§) uses a particular formulation of ECP to account for, among many things, the fact that preposition stranding is possible in English but not in French, Kayne suggests first that French and English differ in the governing properties of their prepositions: English prepositions are able to structurally govern their objects in the same sense in which verbs do. The fact that English verbs and prepositions govern in the same way allows reanalysis in simple cases of preposition stranding like (66):

\[(66) \text{Who}_i \text{ did you [vote}^j [\text{for}^j e_i)]? \]

I have indicated by the superscript \(j\) the sequence of reanalyzed constituents. In Kayne's sense, the PP\(^j\) for who in (66) is, as the result of reanalysis, in the percolation projection of the verb vote. Since prepositions do not structurally govern in French, or Romance for that matter, structures like (66), which result from reanalysis, will be unavailable. The stranded preposition in (67) below is not co-superscripted with the verb for lack of identical governing properties and therefore does not belong to the percolation projection of the verb:

\[(67) \text{Qui}_i \text{ as-tu [vote}^j [\text{pour} e_i)]? \]

Who did you vote for?

Given these representations, Kayne's formulation of ECP, cited in (68), determines that (66) will not violate it but that (67) will.

\[(68) \text{An empty category} \beta^1 \text{ must have an antecedent} \alpha \text{ such that (1) } \alpha \text{ governs } \beta \text{ or (2) } \alpha \text{ c-commands } \beta \text{ and there exists a lexical category } X \text{ such that } \beta \text{ governs } \beta \text{ and } \alpha \text{ is contained in some percolation projection of } X. \]

Note now that since nouns may not be assumed to have structural government properties in either English or French, they will not be subject to reanalysis, will not enter the verb's percolation projection and therefore will not qualify as proper governors for Kayne's ECP. This is basically the right result, given that extraction from NP is permitted only under exceptional circumstances.
Let us consider now what the exceptional circumstances are. Beginning with English, we note the contrast reported in Ross (1967) and Bresnan (1976) between extraction from NP by pied-piping and by preposition stranding:

(69) a. Reports which the government prescribes [the height[of[the lettering[on $e_1$]]]]
    $\text{NP}$ $\text{PP NP}$ $\text{PP}$

b.*Reports on which the government prescribes [the height[of[the lettering $e_1$]]]
    $\text{NP}$ $\text{PP NP}$

The generalization, couched in Kayne's terminology, seems to be that NPs are always available for co-superscripting with a governing category but that they cannot do themselves the governing of an empty category: they cannot be the X mentioned in (68). This suggests the following reformulation of the ECP:

(70) An empty category $\beta$ must have an antecedent $\alpha$ such that (1) $\alpha$ governs $\beta$ or (2) $\alpha$ c-commands $\beta$ and there exists a lexical category $X$ such that $X$ structurally governs $\beta$ and $\alpha$ is contained in some percolation projection of $X$.

Given (70) reanalysis no longer needs to be subject to an identical government condition and nouns can be incorporated in the percolation projection of a governing category. What then violates ECP in (67) will not be a gap in the chain of superscripting but the absence of an X that will structurally govern the empty category.

Reformulating the ECP as in (70) goes against the spirit of Kayne's proposal in one respect: it no longer allows deducing subjacency facts like the Complex NP Constraint from ECP. I believe, however, that the attempt to reduce subjacency to ECP was mistaken. On this see Aoun 1980. Note finally that (70) shares with Kayne's own (68) the property of disallowing all extractions from a subject NP, with or without preposition stranding.

The second exceptional class of circumstances under which an empty category must be assumed inside NP involves the outputs of PD and Extraction from NP, rules discussed above. These outputs are of the general form:

(71) clitic$_1$-V $[\bar{N} e_1]$ 

In cases where movement from the clitic position has taken place, the cases of dont, di cui, and cùruia-relatives, the structures will be:

(72) $e_1$-V $[\bar{N} : e_1]$

$\text{NP}$

While it is possible to maintain that the SSC effects discovered by Cinque have nothing to do with the possessor trace being properly governed (for one thing, they hold of both pre and postverbal NPs in French, but not in Italian or Romanian) the contrast between the grammatical (71)-(72) and (73) suggests that we deal in (71)-(72) with a special case of coindexation-proper government.
(73a) * clitic₁ - V [P [N N₁]]  
   PP NP  

b. * clitic₁ - V [N N₁]  
   NP oblique  

c. * clitic₁ - V [N [N N₁]]  
   NP NP  

Some of the facts summarized in (73) were given in (11)-(15) for Romanian, and in (29), (36) for French.

What permits the clitic in (71) to properly govern the trace inside NP may be a hitherto unidentified third clause of the ECP:

(74) An empty category β must have an antecedent α such that ...

(3) α is a feature of X and X structurally governs the category minimally containing β.

Thus in (71) the clitic is a feature of the verb which structurally governs the direct object NP. In the case of the indirect object (73.b) the condition of structural government is violated. In the case of (73.a) and (73.c) the empty category is not minimally contained within the phrase governed by the verb.

One thing remains to be made precise: our analysis of Extraction from NP was based on some indications that the constituents extracted by this rule are positioned in the clitic position where Haplogogy can take place. If however the same derivation were posited for the Romanian rule of PD, no explanation could be given to the striking fact that the possessor dative, unlike other dative NPs, requires rather than merely allows Clitic Doubling. Alternatively, we could assume that the Romanian PD rule is simply a detachment operation:

(75) [N N₁]  \Rightarrow  [N N₁]  
   NP  

If so, a clitic will be obligatory to insure proper government. I leave open here obvious questions about the reason why the two otherwise similar rules of PD and Extraction from NP should differ in this way.
FOOTNOTES

* This is an update of my MIT syntax generals paper, written in December 1979. Thanks go to Adriana Belletti, Guy Carden, Guglielmo Cinque, Luigi Rizzi and Dominique Sportiche for discussing with me the earlier version. The section on Romanian PD has benefitted from discussions with David Perlmutter.

The French judgments are those of Nathalie van Bockstaelle, Dominique Sportiche, Claire Dufour and François Cossec.

1. The clitic pronoun o 'her' in the extraction clause of (12.c) is a result of Clitic Doubling. For details on the derivation of clitics in the extraction clauses of Wh-constructions see Steriade 1980.

A. (16.d) is less ungrammatical on the benefactive reading A friend has danced for me. It is possible to distinguish benefactive datives from possessor datives in the following way: possessor datives cannot 'ascend' from: the position of object of a preposition:

(i) * Mi i se plimb[-cu[un unchi e i]]
     PP NP
     Me dat takes-a-walk with ar uncle. He takes a walk with an uncle of mine.

(ii) * Mi i-am gãsit-o [in [garaj e i]],
     PP NP
     Me dat I-have-found-it in the garage. I have found it in my garage.

Structures like (i)-(ii) are acceptable however with benefactive or adversative interpretations:

(iii) Mi s-a ascuns in garaj
     Me dat self-has hidden in the garage. He hid in my garage on me.

(iv) Mi s-au suit pe picioare furnici.
     Me dat have crawled on the legs ants. Ants have crawled on my legs.

These interpretations become impossible once the dative NP is inanimate:

(v) * I s-au aşezat casei la intrare.
     To-it dat have sat the-house dat at the entrance.
     They sat at the entrance of the house.

Note however that the animacy or humanness is not a condition on PD: non-human,
inanimate possessors are shown in (5) and (16). Thus the striking ungrammaticality of (v) is due to the fact that the PD rule cannot, for structural reasons, derive it, while the benefactive rule, because of the animacy condition, cannot interpret it.

3. Tanurello (1979) attempts to show that extraction of any PP complement of an NP is permissible in Italian, as long as the target NP is not in subject position. She fails to establish however that extraction has taken place from inside NP rather than from an extraposed position outside of the NP.
REFERENCES

AOUN, J., 1980 ECP, Move and Subjacency, unpublished paper, MIT.


1979 The Pisa Lectures, unpublished lectures, Scuola Normale Superiore, Pisa.


GODARD, D. 1980

GREVISSE, M. 1964 Le Bon Usage, Editions Duculot, Gembloux.


SPORTICHE, D. 1978 Syntax Generals Paper, MIT.

STERIADE, D. 1980 "Clitic Doubling in the Romanian Wh-Constructions and the Analysis of Topicalization", CLS, 16.


ZUBIZARRETA, M.-L. 1979 Extractions from NP in French and a Revision of Subjacency, unpublished paper, MIT.