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ITALIAN SYNTAX

A Government-Binding Approach

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tential complement does not seem possible at all. The reasons for this remain unclear. Cf. Note 54.

⁵⁹ As L. Rizzi has pointed out to me, there appears to be a one way correspondence between S-pronominalization and the preposition that introduces the infinitive: direct object pronominalization always corresponds to *di*, while the inverse is not true, given (130b). Notice in any case that an account of S-pronominalization based on the preposition selected would not provide a solution and thus an alternative to the text discussion: it would merely change the problem to how to account for selection of the preposition.

⁶⁰ This is even clearer in English than in Italian. Given the derivational parallelism between (i) (lacking in Italian) and (iii), which differ with respect to passive morphology, there is no reason for the lack of (iv), derivationally parallel to (ii) and differing from the latter with respect to passive morphology.

- (i) John_i was expected [t_i to leave].
- (ii) John_i was invited t_i.
- (iii) John_i seemed [t_i to leave].
- (iv) The boat_i sank t_i.

THE SYNTAX OF INVERSION

2.0 INTRODUCTION

In this chapter, we will attempt to provide a characterization of inversion, namely of the set of constructions with *i*-subjects, comparing Italian with some other languages. Our first step will be to assume, following a well established line of research, that inversion in Italian is closely related to another property of this language: the *pro*-drop, or null-subject (henceforth NS) property. Namely, we assume that the existence of the type in (1a), is strictly related to the existence of (1b).

- (1) a. Ha parlato Giovanni.
has spoken Giovanni
- b. Ha parlato.
(he) has spoken

This assumption is supported by typological evidence: most Romance languages are like Italian in having both (1a) and (1b), while French, English and other languages lack both. Furthermore, it is supported by the following consideration: since Italian allows 'null' subject pronouns as in (1b) in general, it is natural to expect that it also allows 'null' non-argument subjects corresponding to French *il* and English *there*, an assumption under which we can regard Italian as analogous to English and French, in the manner illustrated by (2), where \emptyset is a null NP.

- (2) a. There have arrived three girls.
- b. Il est arrivé trois filles.
it is ('has') arrived three girls
- c. \emptyset sono arrivate tre ragazze.
(it) are ('have') arrived three girls

If the parallelism between Italian and English-French of (2) is real, then the existence of (1a) does depend on the NS property of Italian, the property that makes (1b) possible. We will assume that all cases in (2) are indeed to receive parallel analyses. We put aside for the moment the well known differences between the three languages in question: the difference in productivity, the constructions with *il* and *there* each being possible only with a restricted class of verbs, while Italian inversion is possible with any verb; the difference with respect to verb agreement, the

verb agreeing apparently with the i-subject in both the English and the Italian examples in (2), though not in the French example;¹ and the difference with respect to the so-called “definiteness restriction”, which appears to hold in English and French, as in **There has arrived John*, **Il est arrivé Jean*, though not in Italian, as in (1a).²

Once we have made the assumption that inversion is related to null subjects, the next logical step will be to provide a characterization of the NS property. This we will do in 2.1, returning in 2.2 to inversion and the relation between the non-argument subject and the i-subject. In 2.3 we will point to an analogy – in Italian – between the latter relation and the one holding between a subject and an emphatic pronoun. Some not well understood limitations on inversion will be addressed in 2.4. In the last two sections (2.6, 2.7) we will discuss inversion in French and in English, preceding this (2.5) by a discussion of inversion in the Piedmontese dialect, which appears to have a dual inversion strategy, combining the strategy of Italian with one closely resembling that of French.

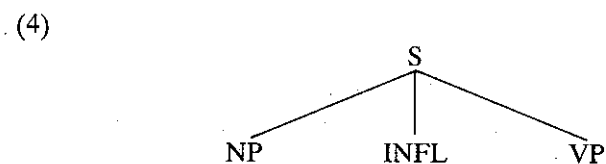
2.1 NULL SUBJECTS AND CLITICIZATION

The characterization of the NS property which we will adopt is the one provided in Rizzi (1982b, IV). With Rizzi, we will follow Taraldsen (1978) in assuming that null subjects are analogous to cliticized objects, and specifically that the inflectional morpheme of the verb can function as a subject clitic. We thus assume a parallelism between the two cases in (3).

- (3) a. Giovanni la vede [e]
 Giovanni sees her.
- b. [e] ved-e Maria
 He sees Maria.

This view aims to capture on the one hand analogies in distribution between null subjects and cliticization, and on the other the correlation between the NS property and richness of inflection (Italian contrasting with French in having a richer inflectional system).³

As we saw in I.0.3, within the GB framework it is supposed that the inflectional element of tensed verbs generally assigns nominative Case to a subject under government. The inflectional element (INFL) will govern the subject position, since at syntactic levels of representation it is taken to occur as in (4), moving onto the verb after S-structure, in the phonology.



While INFL thus governs the subject position for purposes of Case assignment, it is also supposed that, in English, the relation of INFL to the subject does not satisfy the more restrictive notion PROPER GOVERNMENT required by the ECP.⁴ This accounts for well-known subject-object asymmetries like (5), (6).

- (5) a. The girl that_i you know [that John likes t_i] . . .
 b. **The girl that_i you know [that t_i likes John] . . .*
- (6) a. *?*The book that_i you know [who_j t_j bought t_i] . . .*
 b. ***The man that_i you know [what_j t_j bought t_i] . . .*

The cases in (5) illustrate the so called “**that-trace*” phenomenon, and the cases in (6) a phenomenon that seems closely related. Together, (5) and (6) point to the general impossibility of Wh-extracting the subject over a filled complementizer. We will refer to this (following Rizzi) as “COMP-trace” effect (or phenomenon). Within the GB framework, such phenomena fall under the ECP. Thus (5b) and (6b) are ruled out because the subject position is not properly governed, while the object position in (5a), (6a) is (by the verb.) We will abstract away from the fact, irrelevant here, that both (6a, b) are Wh-island (subjacency) violations. Wh-extraction of the subject will be possible (in English) when the COMP position is not filled, such as when *that* is deleted in (5b), since this will allow the intermediate trace in COMP (not shown in (5b)) to properly govern the subject position, satisfying the ECP (cf. Note 4). Analogously, *who_j* will properly govern *t_j* in (6a).

It has been known, since it was noted in Perlmutter (1971), that NS languages do not manifest the COMP-trace effect, so that Italian sentences apparently identical to (5b), (6b) are grammatical. (Italian also does not observe Wh-island conditions. Cf. Rizzi (1978b).) While only partly related to the rest of our discussion, this third difference between NS and non-NS languages (beside null subjects and free inversion) plays a major role in Rizzi’s theory, which we are adopting, and in much of the literature on the subject. It therefore seems appropriate to address it briefly.

As Rizzi points out, the apparent immunity of NS languages to the COMP-trace effect could follow directly from the assumption that in those languages INFL not only governs, but *properly* governs the subject

position, an assumption which seems required in any case by the well-formedness of (3b), given the ECP. Under this view, cases analogous to (5b) would be well-formed, the ECP being satisfied just as in (3b). However, Rizzi has shown – conclusively, I think – that the immunity of Italian to the COMP-trace effect is only apparent, and that in Italian examples superficially identical to (5b), (6b) it is not the subject which is Wh-extracted, but rather (in our terms) the *i*-subject. Wh-extraction thus leaves a trace in post verbal position, where it is properly governed by the verb, on a par with traces of objects. From this point of view the third difference between NS and non-NS languages is a direct reflex not of the first, i.e. null subjects, as one might have thought, but rather of the second, i.e. free inversion. The Italian equivalent of **Who do you think that came* is thus grammatical only because Italian has **Came John*.⁵ This represents an important reinterpretation of the cluster of properties of NS languages, previous attempts having invariably related both free inversion and lack of COMP-trace effect directly to null subjects.⁶

Under Rizzi's reinterpretation, the impossibility of Wh-extracting the subject over a filled complementizer holds quite generally, for NS and non-NS languages. But languages will differ in the strategies they use to overcome this prohibition. In languages like Italian, which have a fully productive inversion strategy, inversion will suffice, while other languages will need additional devices. (Notice that inversion in English also bypasses the prohibition in question. Compare **How many people do you think that were in the room* and *How many people do you think that there were in the room*). Thus English has deletion of *that* in cases like (5b); and French has a rule changing *que* to *qui* in similar configurations. (For discussion and further references see Chomsky and Lasnik (1977), Pesetsky (1979), Kayne (1980a)).

Granting that only *i*-subjects (not subjects) can be extracted over a complementizer in Italian, the question at this point – as Rizzi points out – is how to allow an *ec* in subject position in cases of null subjects, as in (7a), while disallowing it in cases of extraction, as in (7b).

(7) a. [e] parla
He speaks.

b. *Chi credi [che [e] parli]
Who do you think that speaks?

Government versus *proper* government by INFL will not distinguish the two cases in (7). What will distinguish them, is our initial assumption that in cases like (7a) INFL has a pronominal character, like a clitic; (7b) will then be ruled out on a par with (8).

(8) *Chi_i credi che Giovanni la vede [_ie]

Who do you think that Giovanni sees her?

It is reasonable, even at a pre-theoretical level, to assume that an object cannot be interpreted in conjunction with both a clitic and a Wh-phrase (aside perhaps for some cases of clitic doubling, cf. Note 10). Specifically, we will assume that an *ec* related to a clitic is an anaphor (falling under principle A of the Binding Theory, see II.0.3 below), while an *ec* related to a Wh-phrase must be a variable.⁷ Example (8) is thus excluded, and so is (7b).⁸

We therefore assume that INFL in NS languages has the option of being either just like INFL in English (non-pronominal and not a proper governor), or just like a clitic, namely pronominal. In this latter case (and only in this case) it will be a proper governor.⁹ The first possibility will account for the cases in which the subject is not null. The second possibility will be responsible for the NS phenomena, i.e. for null subjects, whence free inversion, whence the apparent lack of COMP-trace effect. Availability of the second possibility represents the NS (or pro-drop) parameter.

A characterization of the NS parameter partly similar to Rizzi's, which shares Rizzi's reinterpretation of the distribution of COMP-trace phenomena, has been given by Chomsky in LGB, following in part Jaeggli (1980). Chomsky also assumes that the empty position of NS sentences is related to the inflectional element of the verb, but he assumes that such a position is not an instance of [e], as in Rizzi's theory, but an instance of PRO, the element that enters into Control. Under Chomsky's formulation, the *plus* value of the NS parameter consists of the possibility for INFL (in (4)) not to govern the subject position at all, an idea which is implemented by assuming that in NS languages INFL can either move to the verb in the phonology, as in English, or in the syntax, thus leaving the subject position ungoverned at S-structure. Under the second option, the element PRO will be allowed in subject position, and in fact required, since [e] will be ruled out by the ECP, and lexical NPs and variables will fail to receive Case.

The parallelism between NS and cliticization is preserved in Chomsky's discussion, which assumes, following Jaeggli (1980), that null objects related to clitics are also instances of PRO. Within our account however, there will be no motivation for assuming PRO in the case of clitics, an assumption that leads to the undesirable conclusion that clitics must 'absorb' government by the verb (in addition to Case).¹⁰ Rather, we assume that null objects related to clitics are quite analogous to traces (though they do not arise from movement), transmitting a θ -role to their antecedents. Since we assume the analogy between NS

and cliticization and since we assume [e] not PRO for the case of cliticization, it follows that we must adopt Rizzi's, not Chomsky's formulation.¹¹

We note that within a framework in which null elements are intrinsically defined there would be a certain argument in favor of the PRO hypothesis. Consider cases combining NS and NP-movement, like (9).

- (9) [_ie] sono stato invitato [_ie]
 (I) have been invited.

Within the framework in question, the θ -criterion would force us to assume that the D-structure direct object in (9) is not [e] but PRO, since this is the only null element that can receive a θ -role, and therefore that the S-structure subject is PRO. However, the argument disappears in the framework of LGB, Chapter 6, which we are adopting. In this framework [e] and PRO do not differ in content, but only in the contexts where they can occur at S-structure (governed versus ungoverned ones). The D-structure object in (9) would now be PRO, if by PRO we identify the null element that has an independent θ -role, but could become [e] linked with inflection once it is moved into subject position, since the two are not distinct in content.

While we thus assume that INFL is analogous to clitics (an assumption supported also by the fact that in certain Italian dialects there are real subject clitics functioning as inflection; cf. 2.5 below), comparison between (9) and the corresponding case involving subject clitic SI in (10), will require further discussion.

- (10) [_ie] si è stati invitati [_ie]
 SI has been invited

In 1.6 above, we assumed that in cases like (10), SI is in object position in D-structure, later undergoing NP-movement, and finally cliticizing from subject position. This analysis was required by our assumption that clitics are arguments, and as such must, by virtue of the projection principle and the θ -criterion, be associated with a θ -role at all levels. The question now is whether such considerations relative to subject clitic SI carry over to the inflectional element INFL, which we are also taking to be a subject clitic. We note that, if they did, we would be led to the rather strange conclusion that INFL too must be base-generated in object position in (9), in order to receive a θ -role, undergoing NP-movement in the course of the derivation. This would conflict with our previous assumption that the structural position of INFL at all syntactic levels is the one indicated in (4) (i.e. the one in [_SNP INFL VP]). However, there is reason to believe that the considerations in question do not carry over to INFL.

Note that we are independently assuming that INFL in Italian is ambiguously either a clitic, as in (11a), or just like INFL in English, as in (11b).

- (11) a. [e] ved- e Maria
 (he) se- es Maria
 He sees Maria.
- b. Giovanni ved- e Maria
 Giovanni se- es Maria
 Giovanni sees Maria.

But we must assume further that this ambiguity of INFL, i.e. the possibility of being either plus or minus pronominal, holds not only across different sentences, as in (11), but also within the same sentence, across different derivational levels. Consider (12), where (b) derives from (a) via rightward NP-movement.

- (12) a. Giovanni telefon- a
 Giovanni telephon- es
 Giovanni telephones.
- b. [e] telefon-a Giovanni

Clearly, in the D-structure (12a), INFL cannot be pronominal, since it has no *ec* to be associated with. Yet it must be pronominal (a non-argument pronominal in this case) in the S-structure (12b), where it is associated with the *ec*. This assumption that the pronominal status of INFL need not be determined till late in the derivation will now suffice to account for (9) ([_ie] sono stato invitato [_ie]) under our general assumptions. In this case, INFL will be non-pronominal in D-structure (as in the English [e] have been invited I). There will therefore be no requirement that it be associated with an *ec*. The *ec* in object position will be assigned a θ -role in D-structure as we discussed above (in this respect it will be PRO), and then moved into subject position. Once object θ -role is thus associated with the subject position (as in I_i have been invited t_i), INFL will – necessarily – become pronominal (an argument pronominal in this case), so as to be associated with the subject position and the θ -role which is transmitted to that position by the object. Therefore, although sometimes a clitic, the element INFL is thus effectively exempted from the requirement that it be associated with a θ -role at all levels.

While our view of SI therefore does not carry over to INFL, we may still ask whether our view of INFL could carry over to SI: if SI could function just like INFL, then in (10) it would not need to be generated in object position at all, contrary to our analysis of 1.6, and just like INFL. The question in essence is whether it would be appropriate to analyze SI as a special inflectional element.¹² The answer to this seems to be no. The motivation that led us to assume ambiguity with respect to pronominal or nonpronominal status for INFL, is lacking in the case of SI. In particular, there is no alternation like (11) in the case of SI. Thus, while we have [e] *si vede Maria* 'SI sees Maria', possibly parallel to (11a), we do not have **La gente si vede Maria* 'People SI-see Maria' or anything of the sort, parallel to (11b). We must therefore assume that SI is unambiguously pronominal, and that our conclusions of 1.6 above stand.¹³

There are two other respects in which the inflectional element differs from subject clitic SI. The first difference is that, unlike SI, INFL does not allow Object Preposing, as in (13).

(13) a. *Maria_i si vede spesso t_i*
Maria SI sees often

b. **Maria_i vede spesso t_i*
Maria (he) sees often

The ungrammaticality of (13b) follows straightforwardly from the θ -criterion and from the fact that there is only one INFL. Assuming that the verb must always obligatorily agree with the subject (when the latter has person features, cf. 1.7), INFL in (13b) must be non-pronominal, since it must agree with *Maria* which however has object θ -role. Thus, there remains no element analogous to SI of (13a) to bear subject θ -role. Notice that in (13a), although we assume SI to be related to the subject position (cf. 1.6.2), there is no question of conflict of verb agreement (between *Maria* and SI), since we have argued that, being impersonal, SI does not induce any verb agreement at all – and that it does not induce third person singular agreement. (cf. 1.7.) In this respect we predict (correctly) that O.P. should be possible with a subject clitic only if this is also impersonal, i.e. if it leaves the verb free to agree with some other NP.

The second difference between INFL as a clitic and SI is that only the latter induces auxiliary *essere* (E) as in (14).

(14) a. [e] *si è mangiato bene*
SI has eaten well

b. [e] *h-o mangiato bene*
(I) have eaten well

Recall that a relation between the subject position and a clitic is one of the cases that trigger the rule of E-assignment (cf. 1.7.) Yet in the case of INFL, we find auxiliary *avere*, as in (14b).

A plausible account of this apparent discrepancy in our theory can be given by regarding E-assignment/pp agreement on the one hand, and verb agreement on the other as analogous but complementary systems. That is to say, both as systems through which certain relations between constituents are given morphological manifestation, and yet as systems whose domains do not overlap. Then, since the relation between the subject and INFL is part of the verb agreement system, we will expect that it should not induce auxiliary E. But we will then also expect that a subject clitic should induce E just in case it does not also induce verb agreement. And this seems to be true as SI does not induce verb agreement (cf. 1.7.)

In this section we have provided a characterization of the null subject property of Italian, adopting the theory of Rizzi (1982b, IV), which appears quite compatible with the rest of our discussion. Under this characterization, the inflectional element of the verb binds the *ec* in subject position in the same manner as an object clitic binds an *ec* in object position.¹⁴ The inflectional element in Italian thus alternates between being a pronominal, in which case it will *properly* govern the subject position, and not a pronominal, in which case it will govern the subject position, assigning nominative Case to it, but not *properly* governing it. We assume that when INFL is a pronominal it is sometimes an argument (as in (3b), (11a)), and sometimes a non-argument (as in (12b)) just like other pronominals such as French *il* or English *it*.

2.2 NULL SUBJECTS AND FREE INVERSION

We will argue that, in inversion sentences, a certain relation holds between the non-argument in subject position and the *i*-subject, as in (15), where the relation is expressed by coindexing.

(15) *There_i have arrived [_ithree men]*

We will also argue that an analogous relation holds between the non-argument in subject position and the sentence in cases like (16).

(16) *It_i seems [_ithat John is here]*

Existence of such a relation in cases like (15), (16) is supported by a number of considerations. First there is the distribution of these pleonastic elements. *There* is only found when there is an NP in post verbal position, and correspondingly pleonastic *it* is only found when there is an S.¹⁵ This follows if *there* must in fact be coindexed with an NP, and *it* with an S, but it would be an accident if the latter elements did not bear any rela-

tion to the post verbal argument. Another piece of evidence is plural verb agreement in (15): if the relation in question exists, we can assume that in (15) the *i*-subject transmits plural features to the subject position, and we thus avoid duplication of verb agreement mechanisms.¹⁶ We can also naturally assume that in (15) *there* transmits Case to the *i*-subject (or forms a chain with it. See below.)

A rather ingenious argument for coindexation in both *there* and *it* cases, which we will attempt to reproduce succinctly, is given in LGB, 3.2.3, on the basis of observations of D. Sportiche and T. Stowell. Chomsky points out the quasi-grammaticality of cases like (17a, b) despite the fact that in these cases the relation between antecedent and anaphor seems even less local than in fully ungrammatical cases like (17c).

- (17) a. They_i expected [_Sthat [pictures of *each other*_i] would be on sale]
 b. They_i think [_S₁ it is a pity [_S₂ that [pictures of *each other*_i] are hanging on the wall]]
 c. *They_i expect [_Sthat *each other*_i will come]

Chomsky proposes to account for these facts in a way which we may summarize as in (18).

- (18) a. An anaphoric relation is possible only if there is no accessible SUBJECT different from the antecedent. Where SUBJECT is either a subject or INFL.¹⁷
 b. There is a general condition “*[_i . . . α_i . . .]” disallowing coindexation between a category and one of its constituents.

The generalization in (18a) is implied by the binding theory under a further elaboration that Chomsky proposes. The claim in (18b) appears to have independent justification (see LGB for details). Under (18), (17c) will be correctly ruled out as there is an accessible SUBJECT, namely the INFL relative to the tensed complement, intervening to rule out the anaphoric relation. In contrast, (17a) will be allowed since the same INFL is not accessible, by virtue of (18b). In particular, since it is assumed that INFL is always coindexed with the subject, and thus with *pictures of each other* in (17a), further coindexation between INFL and *each other* would violate (18b). This makes INFL not accessible in the relevant sense, and thus leaves *each other* free to be coindexed with an NP outside the clause. Turning now to (17b), here *each other* will be free to have an antecedent outside S₂ for precisely the same reasons as those discussed in connection with (17a). But in order to have an antecedent outside S₁ as well, it must be the case that neither the element *it*, nor INFL relative to S₁ (INFL₁) are accessible. This in fact follows from coindexation

between *it* and S₂, which is what we are trying to prove: the element *it* is the subject of S₁ and is thus coindexed with INFL₁; S₂ is coindexed with *it* and thus with INFL₁ as well; since *each other* is a constituent of S₂, its coindexation with either *it* or INFL₁ would violate (18b). Thus neither *it* nor INFL₁ are accessible SUBJECTS, and *each other* can have the more remote antecedent *they*.¹⁸

As Chomsky notes, it would not be possible to claim that pleonastic *it* is not an accessible SUBJECT in general, since it must be in (19), where it does disallow a more remote antecedent.

- (19) *They_i think it bothered *each other*_i [_Sthat . . .]

The case in (19) is as expected under (18), since *each other* is here outside the clause coindexed with *it*, and (18b) will thus play no role.

Parallel evidence for coindexation in the case of *there* is provided by examples like (20) (from LGB).

- (20) They_i think there are [some letters for *each other*_i] at the post office.

Again, *each other* will be allowed (by (18b)) to have the remote antecedent *they*, since it is contained within a phrase coindexed with the intervening subject *there*.

Implicit evidence for coindexation between *it*, *there* and the post verbal argument is also provided by the discussion in LGB, Chapter 6. As we mentioned in I.0.3, in this chapter Chomsky attempts to reduce the Case Filter to the θ -criterion, by appealing to the notion of chain. For example, in *John_i was invited t_i*, the chain (*John_i*, *t_i*) has one Case, assigned to the subject position, and one θ -role, assigned to the object position. Given such one-to-one correspondence between Case and θ -roles, one can advance the hypothesis that Case assignment is always a prerequisite for θ -role assignment (except for the case of PRO however, which does not require Case, cf. Note 8, I.0.)¹⁹ But pleonastic elements like *it* and *there* would falsify this hypothesis unless they formed chains with post verbal arguments. That is, taken in isolation, pleonastics have Case, as can be shown since they do not occur in general as subjects of infinitives, but have no θ -role, since they are non-arguments. It is only if they are taken in conjunction with a post verbal argument that the association between Case and θ -roles holds. A chain formed by the pleonastic and an argument will have one Case: assigned to the pleonastic, and one θ -role: fulfilled by the argument.

On the basis of the several arguments we have given, we thus conclude that elements like *there* and *it* are coindexed with post verbal phrases, NPs or Ss.

We will now claim that, for the aspects we just discussed, Italian is analogous to English, namely that in Italian too one finds non-argument

subjects coindexed with a post verbal NP or S. Before turning to Italian however, we consider the fact that there are two different types of cases in which the configuration 'It . . . that S' is found. In one, exemplified by (21a) (and presumably (16)), the clause has object θ -role, and in the other, exemplified by (21b), the clause has subject θ -role.

- (21) a. It was expected [that John would leave]
 b. It bothers me [that John left]

That the clause in (21a) bears object θ -role is obvious from the parallelism with *Someone expected [that John would leave]*, where it clearly does. That the clause in (21b) bears subject θ -role is obvious from the fact that, while the active verb *bother*, assigns subject θ -role in general as in *Bill bothers me*, it does not itself fulfil that θ -role. Thus, if we replace the element *it* with an element that will necessarily fulfil the θ -role, the example will be ungrammatical unless we eliminate the clause: *Bill bothers me (*that John left)*. In (21b) *it* must thus transmit subject θ -role to the clause, which – incidentally – is further evidence for coindexation.

If we take D-structure – as usual – to be a pure representation of θ -structure (or of "thematically relevant grammatical functions", in Chomsky's terms), with all the arguments in the position in which they are assigned θ -role, it will follow that the clause is base-generated in its position in (21a), but moved from subject position in (21b).^{20,21} Both constructions in (21) are generally labelled "extraposition". Given the preceding discussion, this may not seem too appropriate for referring to the type in (21a). But we can use the term in a manner parallel to our use of *inversion*, namely to identify a certain configuration descriptively, while remaining neutral on the derivational history.

Given the two types of extraposition we have characterized, the parallelism we are assuming between extraposition and inversion (i.e. between (15) and (16)) will lead us to expect that, at least in principle, there should be two types of inversion as well. Existence of these two types in Italian is in fact precisely what we argued for in chapter 1. The two types are exemplified in (22).

- (22) a. [_ie] arriv- a Giovanni,
 arriv- es Giovanni
 Giovanni arrives.
 b. [_ie] telefon- a Giovanni,
 telephon- es Giovanni
 Giovanni telephones

As we argued, we take the *i*-subject in (22b) to be derived by movement, but the one in (22a) to be base-generated. Then, while the coindexation of (22b) may be due to movement, that of (22a) must be due to some

other procedure. But the existence of such a procedure is now established independently of our discussion of Italian, by extraposition cases like (21a). We thus assume the same coindexation relation between a non-argument subject and a post-verbal argument, NP or S, whether the latter has undergone movement, as in (21b), (22b), or not, as in (21a), (22a). We put aside for the moment the question of whether English also has both types of inversion. Pursuing the analysis of Italian inversion, we assume that in both examples of (22) the null subject falls under the characterization of 2.1 above. The *ec* is thus properly governed by INFL under the pronominal option for INFL. In these cases INFL will be a non-argument pronominal element, like *it* and *there*.

We may note that the two types of both extraposition and inversion emphasize the relevance of the notion of chain. Thus, while the argument has subject θ -role in one case ((22b), (21b)), and object θ -role in the other ((22a), (21a)) the two cases appropriately fall together in terms of chains, since there is exactly one chain, with one argument and one θ -role, in both cases.

Continuing to extend to Italian the analyses we outlined for English, we will assume that, as in English, the relation between subject and *i*-subject is responsible for transmitting Case to the *i*-subject, as well as transmitting the features of the *i*-subject to the subject position.²² We then correctly expect that the impossibility of lexical subjects with infinitivals, illustrated by (23a) should carry over to *i*-subjects, as in (23b).

- (23) a. *La speranza [(di) Giovanni arrivare] è svanita
 the hope (of) Giovanni to arrive is vanished
 b. *La speranza [(di) arrivare Giovanni] è svanita
 the hope (of) arrive Giovanni is vanished

Both (23a, b) will be ruled out by lack of Case on the NP *Giovanni* (or the chain containing it), analogously to corresponding English cases, cf. **The hope some men to arrive . . . / *the hope there to arrive some men . . .*²³ On the assumption that not only Italian inversion, but Italian extraposition, too, is analogous to its English counterpart, we will predict the ungrammaticality of the infinitival version of (24a) in (24b).

- (24) a. Mi è capitato di nuovo [di vedere Maria]
 (it) to-me is happened again of to see Maria
 It happened to me again to see Maria.
 b. *La probabilità di capitarmi di nuovo [di vedere
 the probability of (it) to happen-to-me again of to see
 Maria] è scarsa
 Maria is scanty

Notice that the ungrammaticality of (24b) and the parallelism with its English counterparts, cf. the gloss or, for example, **It to seem that John is incompetent would be embarrassing*, provides a fairly strong argument for the existence of the subject position in these cases. For cases of inversion, one could have tried to argue that the inflectional element simply assigns nominative Case to the right rather than to the left, and correspondingly agrees with a post-verbal rather than a pre-verbal NP. The parallel ungrammaticality of (23a, b) might thus have been accounted for under this view, without invoking the presence of a subject position. But a similar approach to extraposition cases would fail to account for (24b). In fact there is little reason to believe that the sentential complement in (24b), or that Ss in general, require Case. The ungrammaticality of (24b) will thus only follow if we assume the existence of a subject analogous to English *it*.

Notice that the account of (24b) we are thus providing assumes that the subject of the infinitival cannot be PRO: since chains headed by PRO never require Case, (24b) ought to be grammatical if PRO was allowed. But that PRO cannot occur in such cases is established independently of Italian: **To seem/To happen that S would be embarrassing*. What must be assumed is that PRO cannot be a non-argument, quite generally. As far as I can see, at the present stage of understanding, this condition must be stipulated.

Returning to inversion and to the relation between subject and i-subject, we note that, in Italian, evidence for such a relation is also provided by the system of auxiliary assignment and past participle (pp) agreement of 1.7 above. Consider the identity in auxiliary and pp agreement in (25a, b), under the analyses we are now assuming.

(25) a. Maria è arrivata t

Maria is arrived (fem.)

Maria has arrived

b. [e] è arrivata Maria

is arrived (fem.) Maria

Under the formulation of 1.7 above, in (25a) both *essere* (E) and pp agreement are determined by the relation between the subject and the direct object. In particular the pp will agree with the element that serves as the antecedent in the relation (i.e. *Maria*). It must then be the case that an analogous relation between the subject and the direct object exists in (25b), just as we are assuming. (Specifically, a *binding relation*₁ must be involved, given our formulation of 1.7. We will return to the exact status

of these relations with respect to the binding theory). As in (25a), the pp will agree with the element coindexed with the direct object, namely the subject. Since the subject bears the traits transmitted by the i-subject, pp agreement is as expected. Notice that we do not assume that the pp agrees directly with *Maria* in (25b), and we thus predict that, under inversion, verb agreement and pp agreement will always go together. This is correct, as shown for example by French, which lacks both verb agreement and pp agreement in corresponding cases, as in (2b) (*Il est arrivé trois filles*). Cf. also Note 60.

Having thus considered auxiliary and pp agreement in one subcase of inversion, involving ergative verbs like *arrivare*, we must consider the other subcase, involving non-ergative verbs. This is illustrated by (26).

(26) a. *Maria ha telefonato*
Maria has telephoned

b. [e] [VP[VP ha telefonato] Maria]
has telephoned Maria

Under our discussion of 1.7, the lack of both E and pp agreement in (26a) is due to the lack of any relation involving either the subject or the direct object. The identical results in (26b) will follow from our definition of direct object as "an NP in an A-position governed by the verb" (cf. (86), (87), ch. 1). Since the i-subject in (26b) is adjoined to VP, it is not in an A-position; and it is thus not a direct object under the definition. Its relation with the subject will therefore not trigger either E or pp agreement. The system of E assignment/pp agreement thus appears to be sensitive only to relations between elements which are especially 'close' to the verb.

Notice that in 2.1 above, in adopting Rizzi's theory of NSs, we have committed ourselves to the view that all i-subjects can undergo Wh-movement, which in turn implies – given the ECP – that all i-subjects must be governed. Thus, the i-subject in (26b) must be governed like an object, and yet it must be distinguishable from a direct object for E assignment and pp agreement. These two constraints force us in effect to conclude that rightward moved i-subjects are adjoined to VP, just as we have been assuming: in order to be governed by the verb, such i-subjects must be within VP, but in order to be distinguished from direct objects at S-structure, where E assignment/pp agreement applies, they must only be *adjoined* to VP. They will then be governed under the 'extended' notion of c-command (cf. (12) in I.0.3 and discussion).

The difference with respect to auxiliary assignment that we find between the two subcases of inversion is reproduced within cases of extraposition, as in (27).

- (27) a. [e] mi è capitato [di rivedere Maria]
 (it) to-me is happened of to see-again Maria (E)
 It happened to me to see Maria again.
- b. [e] mi ha seccato [rivedere Maria]
 (it) me has bothered to see-again Maria (A)
 It bothered me to see Maria again

The contrast in (27) follows (under a straightforward extension of the formalism of 1.7) from the assumption that in (27a) the clause has object θ -role, i.e. it is the analogue to the direct object NP of (25b), while in (27b) it has subject θ -role and is thus analogous to the VP adjoined i-subject of (26b).²⁴ The distribution of auxiliaries thus confirms the similarity between inversion and extraposition and provides evidence for the existence of the subject position in both cases.

We can now address the questions which were left open in chapter 1. One question concerned the essential synonymy of inverted and non-inverted forms. This synonymy follows rather obviously from the fact that inverted/non-inverted pairs have identical θ -structures, i.e. originate from one D-structure. Thus (25b) is in its D-structure configuration while (25a) derives from the same structure via leftward NP-movement, and (26a) represents the D-structure configuration while (26b) is derived from it. Another question concerned the fact that the verb appears to agree with a post verbal NP if and only if the latter NP receives nominative Case (cf. discussion in 1.2 above). This will follow from the fact that both agreement traits and nominative Case are transmitted by the same relation. If that relation exists, both properties obtain; if it does not exist, neither property obtains. It is useful in this connection to consider each of the variants of the SI-construction, as in (28).

- (28) i. a. [e] si leggerà volentieri [alcuni articoli]
 SI will read (sg.) willingly a few articles
- b. [e] li si leggerà volentieri [e]
 them SI will read (sg.) willingly
- ii. a. [Alcuni articoli] si leggeranno volentieri t
 a few articles SI will read (pl.) willingly
- b. [_ie] si leggeranno volentieri t_i
 (they) SI will read (pl.) willingly

- iii. a. [e] si leggeranno volentieri [alcuni articoli]
 SI will read (pl.) willingly a few articles
- b. *[e] li si leggeranno volentieri [e]
 them SI will read (pl.) willingly

In (ia), the verb does not agree with *alcuni articoli*, and the latter is not nominative. This is directly established by (ib), where the phrase pronominalizes as accusative *li*. The variant in (i) is therefore a normal transitive construction, with clitic SI as a subject. In (iia) the phrase *alcuni articoli* has been moved into subject position, where it triggers verb agreement, and where we assume it receives nominative Case. As we expect, (iia) has the NS counterpart (iib). Derivation of (iib) is parallel to that of (iia), with [e] replacing [alcuni articoli]. Because of the *ec* in subject position linked to object θ -role, verb inflection (INFL) must take the pronominal option to fulfil the θ -role. In (iib) INFL is thus the nominative counterpart to accusative clitic *li* of (ib). In (iia) the subject-object relation is established not by movement as in (iia), but in the same way as in *Arriva Maria*, etc. INFL is also pronominal here, as in (iib), but non-argument pronominal in this case (like *it*, *there*). The relation indicated in (iia) will cause transmission of the direct object (i-subject) features, resulting in verb agreement, and transmission of nominative Case to *alcuni articoli*, which therefore fails to pronominalize as accusative *li* in (iib).²⁵

Still in connection with the SI-construction, consider now the paradigm in (29), and the parallelism between (29b, c), which will further confirm our analysis.

- (29) a. [e] ci si [molte cose inutili] a Natale
 to-themselves SI buys many useless things at Christmas
 We buy ourselves many useless things at Christmas.
- b. *[Molte cose inutili] ci si comprano t a Natale
 many useless things to-themselves SI buy at Christmas
- c. *[e] ci si [molte cose inutili] a Natale
 to-themselves SI buy many useless things at Christmas

In (29a), a reflexive clitic coreferential with SI is possible, but in (29b) it is not. We can rather naturally account for this by assuming that only the subject position, and not SI itself, can be the antecedent for a reflexive clitic. Thus, in (29a) the reflexive can be coreferential with SI because the subject position is (solely) related to SI. But in (29b) the subject position is occupied by the phrase *molte cose inutili*, so that the reflexive can no

At a superficial glance, the corresponding contrasts in Italian seem to be much weaker, as in (34).

- (34) a. **Sembrava** intervenire Giovanni
 seemed to intervene Giovanni
- b. ?**Sperava** di intervenire Giovanni
 hoped to intervene Giovanni

However, under special conditions the contrast appears very vividly in Italian too, as in (35), (36).

- (35) a. Sembravano intervenire molti
 seemed to intervene-of-them many
- b. *Speravano di intervenire molti
 hoped to intervene-of-them many
- (36) a. Sembrava intervenire Giovanni [a risolvere il problema]
 seemed to intervene Giovanni to solve the problem
- b. ?*Sperava di intervenire Giovanni [a risolvere il problema]
 hoped to intervene Giovanni to solve the problem

The reason for the difference between (34b) and (35b), (36b) is that in the latter cases the i-subject is necessarily within the infinitival complement which contains the ergative verb *intervenire*, and is actually the direct object of *intervenire*. Recall how Ne-CI as in (35), and occurrence before a sentential complement as in (36) were two of the criteria given above (see 1.3, 1.8) to determine whether the i-subject was in direct object position (rather than adjoined to VP). Thus in (35) and (36) the matrix subject and the i-subject are effectively separated by a clause boundary, as for example in (37a) below. But in (34) the i-subject could simply be derived via rightward movement from matrix subject position (i.e. from *Giovanni sembrava/sperava di intervenire*) with adjunction to the matrix VP, so that no clause boundary would intervene, as in (37b).

- (37) a. [e] sperava [di intervenire Giovanni . . .]
- b. [e] sperava [di intervenire] Giovanni

We will return to the fact that while the additional measures of (35), (36) are required to bring out the contrast in Italian, nothing is required in the case of English or French (see 2.6, 2.7 below).

At a certain descriptive level, we could then say that inversion appears bounded with Control verbs (let us say *clause-bounded*) but unbounded with Raising verbs. One can in fact have inversion over any number of

Raising verbs, without significant changes in the results (cf. *There seemed to be likely to be a riot*, etc.).

The apparent unboundedness with Raising verbs has a rather obvious explanation. It is clearly due to the fact that the non-argument subject undergoes Raising, so that the analysis of, for example, (36a) is as (38).

- (38) [_ie] sembrava [_it_i intervenire Giovanni_i . . .]

Thus there is good reason to believe that there is, not a direct connection here between the subject and the i-subject in the embedded clause, but rather a two-step connection, each step having a character of locality. Before turning to Control verbs, we note that configurations like (38) support our view that the verb never agrees directly with a post-verbal NP. In fact in such cases the NP in question could be arbitrarily far away from the verb (given an arbitrarily long sequence of Raising verbs). Direct verb agreement would thus imply, rather implausibly, that the verb agreement rule is subject to no locality conditions at all. Under our assumption that the traits of the i-subject are transmitted to the subject position via the chain that links the two, nothing has to be added for (38).

Beside cases involving Raising verbs, in Italian there are actually other cases in which inversion seems to have an unbounded character. Consider (39).

- (39) a. Lui sperava di intervenire a risolvere il problema
 he hoped to intervene to solve the problem
- b. Sperava di intervenire lui a risolvere il problema
 hoped to intervene he to solve the problem

The grammatical case in (39b), which is the inverted counterpart to (39a) by our descriptive criteria, seems to differ from the ungrammatical case in (36b), only in that the pronoun *lui* replaces the R-expression *Giovanni*. To give a descriptive characterization of the facts, we would thus have to say that inversion is bounded, except when the i-subject is a pronominal. But we will see below that even this second curious exception is only apparent, so that the bounded character of inversion is in fact quite general.

Let us then consider the typical violation of such boundedness, as in (40), in the analysis we assume.

- (40) *[e] sperava [di [e] intervenire Giovanni [_S . . .]]

The question now is: Is (40) ruled out by independent principles, and is the bounded character of inversion thus merely a reflex of those principles, or do we have to assume specific locality conditions on the relation

diagrammed in (40)? For cases like (40), independent principles, such as the θ -criterion, seem to suffice. In fact, the complement verb *intervenire* assigns a θ -role to its object – here *Giovanni* – but no θ -role to its subject which must therefore be interpreted as a non-argument, i.e. differently than PRO. Main verb *sperare* on the other hand does assign a θ -role to its subject. The latter will thus be interpreted as an argument, i.e. as a null subject analogous to *he*, and the sentence could thus only have the interpretation ‘He hoped that Giovanni would intervene’ (not ‘Giovanni hoped to intervene’). But (40) is ungrammatical under such an interpretation as well, since even aside from the unresolved status of the embedded subject, the NP *Giovanni* has no Case.³⁰

However, while the θ -criterion may thus be sufficient for (40), it will not be for other cases. Consider in particular the parallelism between (41) and (42), involving the SI-construction.

(41) a. *I sindacati si speravano [di convincere t a fare ulteriori
the Unions SI hoped (pl.) to convince to make further
concessioni]
concessions

b. I sindacati si vorrebbero [convincere t a fare
the Unions SI would want (pl.) to convince to make
ulteriori concessioni]
further concessions

(42) a. *[e] si speravano [di convincere i sindacati a fare
SI hoped (pl.) to convince the Unions to make
ulteriori concessioni]
further concessions

b. [e] si vorrebbero [convincere i sindacati a fare
SI would want (pl.) to convince the Unions to make
ulteriori concessioni]
further concessions

The contrasts in (41), (42) are due to the restructuring process (of Rizzi (1978a) and ch. 5 below) applying in the (b), but not in the (a) cases. Since *sperare* is not a restructuring verb, the phrase within brackets in (41a) is sentential, and O.P. as in (41a) is thus ruled out by locality conditions on NP-trace relations (principle (A) of (31a)). But in (41b), where *volere* is a restructuring verb, the infinitival complement has been reanalyzed, so that the relevant locality conditions are no longer violated. The

exact nature of the restructuring process need not concern us here. What is relevant is to note that inversion in (42) behaves exactly like NP-movement in (41).

Unlike (40) above and other cases, (42a) can be ruled out only by invoking locality conditions on the inversion relation. This is for two reasons. First, no problem arises with respect to the θ -criterion. Both the subject and the object positions involved have exactly the same status as their counterparts in the simple case *Si convincerò i sindacati a . . .* ‘SI convinced (pl.) the Unions to . . .’, or for that matter in (42b). Secondly, we cannot claim that in (42a) (and (41a)) SI can no longer be a controller for the embedded subject PRO on the grounds that the subject position is now related to (and, in (41a), occupied by) the object, as illustrated in (43).

(43) NP_j si_i speravano [di PRO_i . . .]

In fact, a relevantly analogous configuration is otherwise possible, as in (44).³¹

(44) [_jCerte cose] si_i dicono spesso t_j senza [PRO_i pensare]
certain things SI say often without thinking

We often say certain things without thinking

Notice further that it would be both false and irrelevant to claim that (42a) is derived from (41a) via rightward NP-movement and is therefore ungrammatical for the same reason that (41a) is. False, because in (42a, b) the *i*-subject occurs in its D-structure position, preceding the sentential complement *a fare . . .* (Recall that the order ‘*i*-subject, S-complement’ is a diagnostic for base-generation of the *i*-subject.) Irrelevant, because the question would remain as to why (42a) should be impossible when there is no movement at all, as in *Arriva Maria*, etc.

We thus have several reasons at this point to assume that the inversion relation is analogous to the relation between an NP and its trace. One reason is that, just like NP-trace relations, inversion relations trigger the system of E-assignment/pp agreement of 1.7, as we saw in 2.2. A second reason is that both NP-trace and inversion relations must fall under a common notion of ‘chain’, if Case-theory and θ -theory are to be unified along the lines of LGB, 6, as we discussed in 2.2. A third reason is that, as we just saw, the two appear subject to analogous locality conditions.³²

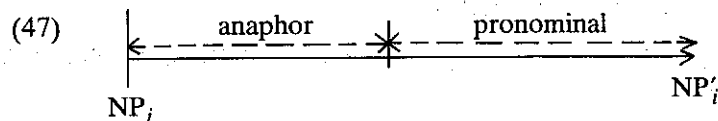
Let us then return to our initial problem, posed by (45) with respect to the binding theory in (46).

(45) a. There_i arrived [_ithree men]

b. [_ie] arriva [_i {Giovanni
lui }]
arrives {Giovanni
he }

- (46) a. (A) An anaphor is bound in its governing category
 (B) A pronominal is free in its governing category
 (C) An R-expression is free
- b. α is bound by β if and only if α is c-commanded by and coindexed with β . 'Free' equals 'not bound'.

It is intuitively clear that the binding theory is a mechanism regulating coreference. As such, it prescribes that, of two coreferential NPs one of which c-commands the other, the one which is c-commanded will never be an R-expression, but will be either an anaphor or a pronominal, depending on its 'distance' from the one which c-commands it. We may schematically represent this as in (47).



The demarcation line between anaphors and pronominals in (47) is determined by the governing category for NP_j , for example by the clause boundary in *John_i said to himself_i [that he_i would leave]*. We thus have a class of expressions which have local antecedents: anaphors; a second class which have remote antecedents: pronouns; and a third class which have no antecedents at all: R-expressions.

If we take (46) as saying something about coreference, it is clear why R-expressions are required to never have antecedents (on a path of c-command, which is what seems to be relevant). It is because they independently refer, unlike anaphors and pronouns. But if the purpose of (46) is that of regulating coreference, we have no reason to expect that the same formal principles should hold in cases like (45), where the antecedent (NP_i of (47)) is not an argument, and hence is not referential.³³ Both Chomsky and Rizzi implement the assumption that (46) should not apply to (45), by reconsidering (46b). Under their reconsideration, the cases in (45) do not fall within the definition 'bound' of (46b), and (46a) is thus irrelevant. We will pursue the alternative, which consists of leaving (46b) as is, and reconsidering (46a) instead.

Let us assume that 'free' of (B), (C) in (46a) means 'argument free'. Under this assumption, (45) will not violate (46a) since the *i*-subjects in (45) are only *non-argument* bound within their governing category. Assuming naturally that the same qualification ought to be extended to (A), i.e. that 'bound' in (A) should be interpreted as 'argument bound', we will predict the ungrammaticality of cases like (48).³⁴

- (48) *There_i arrived [_ieach other]

The anaphor in (48) is in fact not *argument* bound (only *non-argument* bound). As both Chomsky and Rizzi note, non arguments like *there*, which are not proper antecedents in cases like (48), are however proper antecedents in cases like (49), with respect to their own traces.

- (49) There_i seemed [_ito arrive three men]

This suggests that the proposed qualification 'argument' (bound/free) in (46) only holds for arguments, i.e. for elements that bear θ -roles, not for traces, which do not. We will assume that this is correct. Principle (A) will thus read as in (50), and (B), (C) will have analogous expansions.³⁵

- (50) a. An argument anaphor is argument bound in its governing category.

- b. A non-argument anaphor is bound in its governing category.

Principle (50a) will thus rule out (48), while (50b) will allow (49).

We must now ensure that locality conditions hold on the relations in (45). We will assume the following:

- (51) An argument bound by a non-argument, is bound in its governing category.

The advantage of this approach is that the relations in (45) are now binding relations, so that both the system of E assignment/pp agreement of 1.7 and the definition of 'chain' can refer simply to binding relations rather than to two types of relations. We also note that within Chomsky's and Rizzi's solutions, locality conditions on inversion (which they do not provide) would necessarily remain unrelated to the conditions in (46a), while this is not true in our case. In fact, although (51) is a separate condition, the similarity with (46a) raises the possibility — which we will not pursue here — that the former could be collapsed with the latter. Note in particular that the effect of (51) is exactly complementary to that of (B) and (C). That is, while pronominals and R-expressions must be free within their governing category with respect to arguments, they must be bound within their governing category with respect to non-arguments, suggesting that the binding theory actually reverses itself when the antecedent changes from argument to non-argument.³⁶

We now turn to the class of exceptions noted above, i.e. to (52).

- (52) [_ie] sperava [di intervenire lui_i a risolvere il problema]
 hoped to intervene he to solve the problem

If (52) were a case of inversion in the theoretical — not just the descriptive — sense, namely if the pronoun *lui* was non-argument bound by the matrix subject, this case would violate the locality condition in (51). However, there is good reason to believe that (52) is not a case of inversion in the theoretical sense.

We note first that such pronouns as *lui* in (52) occur in cases where there is no inversion, as in (53).

- (53) Giovanni interviene lui.
Giovanni intervenes himself.

In (53), *lui* is understood as coreferential with the subject *Giovanni*, analogously to *himself* of the English translation. This means that, though formally a pronoun, *lui* of (53) is not a 'pronominal' in the sense of (B) of the binding theory (46a). Rather, such emphatic pronouns (henceforth 'ep's') must be regarded as anaphors. (We will argue for this below.) If (53) thus suggests that (52) need not be case of inversion, (54) suggests that in fact it cannot.

- (54) Persuase Maria [PRO a intervenire $\left\{ \begin{array}{l} *lui \\ lei \end{array} \right\}$
(he) persuaded Maria to intervene $\left\{ \begin{array}{l} he \\ she \end{array} \right\}$
a risolvere il problema]
to solve the problem
He persuaded Maria to intervene $\left\{ \begin{array}{l} himself \\ herself \end{array} \right\}$ to solve the problem.

If (52) were a case of inversion, there would be no reason why masculine pronoun *lui* should not occur in (54), just as it does in (52). This contrast between (52) and (54) indicates that the pronoun in these cases is related not to the *matrix* subject, but rather to the embedded subject PRO, controlled in (54) by *Maria*, whence feminine *lei*. The possibility for ep's to be related to PRO is also established by (55), in which the ep has no other possible antecedent.

- (55) [PRO andarci noi] sarebbe un grave errore
to go-there we would be a serious mistake
To go there ourselves would be a serious mistake.

The exceptionality of (52) will then disappear under the analysis in (56), once *lui* is interpreted as an ep.

- (56) [_ie] sperava [di PRO_i intervenire lui_i ...]
He hoped to intervene himself

In (56) the matrix null subject will be an argument (analogous to *he*) and the pronoun in the complement will be an ep related to PRO. There will, therefore be no direct relation between the matrix subject and the pronoun.

Although the occurrence of an ep, which we may refer to as '(subject) doubling', and inversion are different phenomena as we have just argued, there are (in Italian) some striking similarities between the two, which we will discuss in the remainder of this section.

First, the contrast in (57) relative to i-subjects, appears duplicated in the case of ep's as in (58).³⁷

- (57) a. ??Sperava Giovanni [di risolvere il problema]
hoped Giovanni to solve the problem
b. Interverrà Giovanni [a risolvere il problema]
will intervene Giovanni to solve the problem
(58) a. (?)?Giovanni sperava lui [di risolvere il problema]
Giovanni hoped he to solve the problem
Giovanni hoped himself to solve the problem.
b. Giovanni intervorrà lui [a risolvere il problema]
Giovanni will intervene he to solve the problem
Giovanni will intervene himself to solve the problem.

In 1.8 above we argued that the i-subject in (57b) can unproblematically occur before the complement only because it is base-generated in that position, and that the contrast in (57) is therefore due to the fact that unlike *intervenire*, *sperare* is not an ergative verb. The parallelism of (57) and (58) will now suggest that the ep in (58b) is in the same position as the i-subject of (57b), namely in trace position (the same would hold in (52), and for *lei* in (54)). Examples (57b) and (58b) would thus be equally possible because *Giovanni* and *lui* occupy a base-generated position, while (57a), (58a) would both be problematic because with non-ergative *sperare* there is no such position, so that both the i-subject and the ep would have to be interpolated in some fashion.

That the i-subject and the ep make use of the same position here (that of direct object of the matrix verb), is confirmed by the fact that when such a position seems no longer available for the i-subject, as in (59c) contrasting with both (59a) and (59b), the ep is also barred, as in (60b) contrasting with (60a).

- (59) a. Viene Giovanni [a prenderlo]
comes Giovanni to fetch-it
b. Giovanni lo viene [a prendere]
Giovanni it comes to fetch
Giovanni comes to fetch it.
c. *Lo viene Giovanni [a prendere]
it comes Giovanni to fetch

- (60) a. *Giovanni viene lui [a prenderlo]*
Giovanni comes he to fetch-it
 Giovanni comes himself to fetch it.

- b. **Giovanni lo viene lui [a prendere]*
Giovanni it comes he to fetch

In (59), (60), *venire* is an ergative verb, like *intervenire* of (57), (58), whence the grammaticality of (59a), (60a). In addition however, *venire* can trigger the restructuring process. One of the indicators that restructuring has occurred is the cliticization of embedded objects to the matrix verb; (59b,c) and (60b) must therefore be cases of restructuring. What (59c) then indicates is that the NP position which separates the main verb from the complement in the absence of restructuring as in (59a) is no longer there once restructuring occurs. In chapter 5 below, we will consider how the restructuring process produces this effect. Here, it is sufficient to note that it does. But, given the parallelism between (60b) and (59c) we must conclude that the ep in (60a) does indeed occupy the same position as the i-subject in (59a), i.e. that *lui* in (60a) is in trace position.

While we thus have reason to assume that ep's can occur in trace position, it is clear that they do not occur only in trace position. In fact they are found not only with ergative verbs or passives, but also with other forms, as in *Giovanni ha telefonato lui* 'Giovanni has telephoned himself', etc. It may then seem reasonable to assume that when ep's are not in trace position, they are adjoined to VP, so that the parallelism with i-subjects becomes rather general. Occurrence in non VP final position, as in *Giovanni esaminerà lui il caso* 'Giovanni will examine himself the case' could then be accounted for by the same rule (discussed in 1.8), which we assume produces a similar order with i-subjects, as in *Esaminerà Giovanni il caso* 'Will examine Giovanni the case'. (As suggested in Note 37 we may assume that ep's can be permuted with other constituents slightly more freely than i-subjects).

But the formal similarity between inversion and doubling goes beyond the range of positions in which i-subjects and ep's can occur. We must assume in fact that a binding relation exists between the subject and the ep, just as it exists between the subject and the i-subject. This assumption is implicit in our conclusion that ep's sometimes occur in trace position, and is confirmed by cases like the following, which do not involve a trace position.

- (61) *Giovanni voleva [che Maria telefonasse* $\left. \begin{array}{l} \text{lei} \\ * \text{lui} \end{array} \right\} \text{a Piero}$
Giovanni wanted that Maria should phone $\left. \begin{array}{l} \text{herself} \\ \text{himself} \end{array} \right\} \text{Piero}$

The grammatical variant of (61) shows that an ep is possible in this position. Since *telefonare* is not an ergative verb, this is not a trace position, and is thus not independently coindexed with the nearest subject. In order to rule out the ungrammatical variant we thus have to appeal to locality conditions on the relation between an ep and its antecedent. The most reasonable assumption is indeed that, while they are intrinsically pronominals, functionally ep's are anaphors, just like traces, with which they overlap in distribution. Principle A will then apply. Undoubtedly, the functionally anaphoric status of these pronouns must be due to the fact that they are not arguments.³⁸

In so far as they are non-arguments, ep's are thus analogous to the null subject of inversion. Compare the following two cases.

- (62) a. $\left[\text{e} \right] \text{viene Giovanni}$
comes Giovanni
 b. *Giovanni viene lui*
Giovanni comes he

The null subject in (62) is interpreted as a non-argument pronominal. Since the i-subject *Giovanni* transmits agreement traits to the subject position, the latter is in effect a third person pronominal, just like *lui* of (62b). The two cases in (62) are thus virtually symmetrical. The only respect in which the symmetry breaks down is in that the pronominal of (62a) is a clitic (as we saw in 2.2, 2.3 above), whereas the one in (62b) is not. We may ask whether this difference is accidental. The answer is no. Thus, *lui* of (62b) could not be a clitic, precisely because it is an 'emphatic' pronoun. As such, it carries emphatic stress, and lack of stress is one of the conditions that characterize cliticization. Cf. **HO invitato LUI**/***LO ho invitato** 'I invited HIM', where capital letters indicate stress. On the other hand, the pronominal of (62a) *must* be a clitic. We note in fact that non-arguments will never carry emphatic or contrastive stress, presumably because they are semantically empty. (Cf. **It seemed that John was incompetent, but IT never seemed that he was dishonest*.) Given the relation between stress and cliticization just noted, we then naturally expect that, in a language that has subject clitics, non-argument subjects will always be clitics. Thus, aside from a predictable difference, the two cases in (62) are exactly symmetrical.

The symmetry in (62) becomes identity of surface forms if we replace *Giovanni* in (62a) with a pronoun, as in (63a), and *Giovanni* in (62b) with the pronominal of NS sentences, as in (63b).

- (63) a. $\left[\text{e} \right] \text{viene lui}$
comes he

b. [e] viene lui

He comes himself

A sentence like *Viene lui* is thus ambiguously a case of inversion or of doubling. But the identity of the two cases in (63) goes in fact beyond the surface. In both cases we have a binding relation between the subject position related to a clitic pronominal (INFL) and a non clitic pronominal in post verbal position. The only difference between the two cases will concern which element bears the θ -role. In (63a) the i-subject *lui* bears the θ -role, whereas in (63b) the null subject does.³⁹

The ambiguity between inversion and doubling of cases like (63) disappears in infinitivals however, which allow doubling as we have seen, and as in (64a), while not allowing inversion, as we saw in 2.2, and as in (64b).

(64) a. [PRO andarci noi] sarebbe un errore
to go-there we would be a mistake

To go there ourselves would be a mistake.

b. *[e] andarci Giovanni] sarebbe un errore
to go-there Giovanni would be a mistake

In (64a) we have a chain with one θ -role and one argument, namely PRO. We are independently assuming that quite generally there are no Case requirements for PRO. We further assume that there are no Case requirements for ep's. In the framework of LGB, 6, in which Case requirements are a reflex of θ -role assignment, this follows naturally from the fact that ep's have no θ -role, that is, they are non-arguments. Example (64a) will thus be well formed. (The fact that ep's are formally nominative (i.e. identical to nominative argument pronouns), forces us to assume that nominative is the unmarked form in Italian.) In (64b), as in (64a), we have a chain with one θ -role and one argument. However in this case the argument is not PRO but the phrase *Giovanni*, with respect to which Case requirements hold. Consequently (64b) is ungrammatical and (64a) unambiguously a case of doubling.

In this section we have thus argued that there are locality conditions holding on relations between a non argument subject and a post verbal argument. We have further argued that such conditions are best characterized by an appropriate extension of the binding theory. This allows us to regard inversion and extraposition relations as binding relations, like NP-trace relations. To the extent that they appear to exist, the locality conditions discussed provide further evidence for our claim of 2.2 above that the relations themselves exist.

We have also considered the case of emphatic pronouns in Italian, relevant to account for the apparent existence of a class of unbounded

cases of inversion. We noted that the two strategies of inversion and doubling, which bear some analogy at the descriptive level in that both allow the presence of a NP with subject traits in post verbal position, appear to be in certain respects analogous at the formal level as well. In particular this is so with respect to the structural positions used, the relation linking the subject position and the post verbal NP, and the use of a non argument pronominal. Doubling becomes in fact superficially non-distinct from inversion when it occurs with a null subject.

2.4 RESIDUAL QUESTIONS

In this section we discuss certain cases with respect to which the theory of inversion we have proposed seems to be deficient.

One such case is exemplified in (65a,b), in which an i-subject occurs within a PP.⁴⁰

(65) a. *[e] furono parlate [de [le vacanze]]
were talked about the vacations

b. *[e] si parlano spesso [de [le vacanze]]
SI talk often about the vacations

Nothing in our discussion so far rules out such a case. The relation in (65) is legitimate from the point of view of the locality conditions we are assuming (i.e. (51)), and it therefore ought to be possible both for nominative Case to be transmitted to the post verbal NP, and for agreement traits to be transmitted to the subject position. Also, it seems unlikely that (65) could be ruled out in terms of Case conflict arising from both transmission of nominative Case from the subject position and assignment of ('oblique') Case by the preposition.

In fact other cases which are in this respect analogous, such as (66), are grammatical.

(66) a. [e] se ne_i leggeranno volentieri [alcuni [i,e]]
SI of-them will read (pl.) willingly a few

We will eagerly read a few of them.

b. [e] ne_i furono fatti leggere [alcuni [i,e]]
of-them were made to read a few

A few of them were made to be read.

According to our discussion of Ne-Cl in 1.4 above, the phrase *alcuni [e]* in (66a, b) must be in its D-structure position, and is therefore the direct object of *leggere* in both (66a, b). In terms of our discussion of the SI-

construction, the verb in (66a) can assign accusative. The direct object here is therefore in a context of accusative Case assignment, and yet it is nominative (cf. the discussion of (28) above, and Note 25). The same is true in the 'causative' construction in (66b), where, while the matrix verb *fare* has passive morphology and is therefore not a Case assigner (as we discuss in 3.1), the embedded verb *leggere* can assign Case (we discuss the causative construction in chapter 4 below). While (66b) is perhaps a little odd, it is not at all comparable to either of (65). We must therefore assume that Case assignment is obligatory not intrinsically, but only in so far as NPs must receive Case. Under this assumption, accusative assignment in (66a,b) will freely fail, and the i-subject will correctly be assigned nominative (recall that we are assuming on the basis of the discussion in 2.2, that a post verbal NP will transmit agreement traits only if it is nominative).

In 2.3 above, we stressed the similarity in the distribution of inversion relations and NP-trace relations. Note that the similarity continues to hold with respect to (65), given (67).

(67) a. *Le vacanze furono parlate [di t]

the vacations were talked about

b. *Le vacanze si parlano spesso [di t]

the vacations SI talk often about

Presuming that the parallelism between (65) and (67) is not fortuitous, one may wonder whether any of the existing theories of preposition 'stranding', which would account for (67), might be extended to cover (65).⁴¹ However, in contrast to the parallel status of (65)–(67), (68a, b) exemplify a configuration in which an NP-trace relation is possible, while an inversion relation is not, a fact again not predicted by our theory.⁴²

(68) a. Giovanni sembrava [t conoscere la strada]

Giovanni seemed to know the way

b. *[e] sembrava [Giovanni conoscere la strada]

seemed Giovanni to know the way

Despite this breakdown in parallelism, there seems to be no reason to dissociate the locality conditions on inversion from the binding theory. In fact the ungrammaticality of (68b) is duplicated in the case of ep's, for which it is fairly clear that the binding theory is involved, as in (69).

(69) *Giovanni sembrava [lui conoscere la strada]

Giovanni seemed he to know the way

Recall that we have argued that ep's can generally occur in trace position. From this point of view, the ep of (69) should then be unproblematic. Some other consideration would thus have to be appealed to in order to exclude this example, and we may plausibly expect that this will rule out (68b) as well. Notice that while both (69) and (68b) are unaccounted for, they represent yet another respect in which the distributions of inversion and of doubling are analogous.

There is one possibility that comes to mind, to exclude uniformly all the ungrammatical cases we just reviewed, which I will now briefly consider, even though it turns out to be incompatible with the rest of our discussion. This consists of supposing contrary to what has been assumed in the previous sections, that both i-subjects and ep's must be assigned nominative Case under government by a verb, tensed or infinitival.⁴³ Under this proposal, the cases in (65) would be ruled out because the intervening PP boundary blocks government by the verb, preventing the NP *le vacanze* from being assigned nominative Case. Example (65) would thus in effect be excluded quite analogously to (67) if we adopted the account of preposition stranding of Kayne (1981b). Kayne argues – on the basis of a proposed elaboration of the ECP – that in languages that do not allow preposition stranding, cases like (67) are excluded because the ec fails to be governed by the verb, whereas in languages that do allow preposition stranding, verb and preposition are 'reanalyzed' (as in Hornstein and Weinberg (1981)), so that government by the verb will in fact obtain.

For the cases in (68b) and (69) one could assume that the notion of government which is relevant for nominative assignment is a particularly restrictive notion, such that government here is blocked by intervening clause boundaries even though these are not maximal projections. Thus, *Giovanni* in (68b) and *lui* in (69) would fail to receive Case. This idea would not be too implausible since, within our discussion notions of government more restrictive than the one entering into the ECP are independently required to account for the lack of Exceptional Case Marking in Italian (see 4.1.3), and for the lack of assignment of auxiliary *essere* with some Raising verbs (see 2.6.2). That Case assignment is involved may seem to be supported in part by the fact that 'small clauses' (sc's), which – unlike Ss, as we assume – generally allow Case assignment across their boundaries as shown by (70), yield slightly different results in the configurations of (68b) and (69), as (71) shows.

(70) a. Ritengo [_{sc} Giovanni ammalato]

I believe Giovanni sick

- b. *Ritengo [_S Giovanni essere ammalato]
I believe Giovanni to be sick
- (71) a. Giovanni_i sembrava [_{t_i} ammalato]
Giovanni seemed sick
- b. ?*[_ie] sembrava [_{sc}Giovanni_i ammalato]
seemed Giovanni sick
- c. ??Giovanni_i sembrava [_{sc}lui_i ammalato]
Giovanni seemed he sick

The fact that the sc and S examples in (71b, c), and (68b)–(69) contrast only weakly, thus mirroring (70) only in part, would remain problematic, however.

But whatever exactly its intrinsic merits, the above proposal conflicts with some of our other assumptions, in particular the following.

I. Under this approach, the Case Filter is no longer derivable from the θ -criterion (as in LGB, 6). This is because, in order to block infinitival cases of inversion like (72a), and appropriately distinguish them from other cases like (72b), it will no longer be sufficient to require that the chain be Case marked since we would be assuming that the i-subject in (72a), just like the one in (72b), has Case.

- (72) a. *[[_e] andare Giovanni] sarebbe un errore
to go Giovanni would be a mistake
- b. [_e] sembrano [_t intervenire_i] [molti [_ie]]
seem to intervene-of-them many

Within this system we could not assume that nominative assignment to the right is limited to tensed verbs, both because of the well formed (72b) and because of infinitival cases with ep's such as *Andarci noi* 'To go there ourselves...' discussed in 2.3. In order to rule out (72a) we would thus have to appeal to Case requirements on the non-argument subject (which is in a Case assigning position in (72b), but not in (72a)), even though the latter has no θ -role.⁴⁴ Such dissociation of Case requirements from θ -roles would also be implied by the assumption under this hypothesis that ep's require Case.

II. In order to avoid arbitrary assignment of nominative Case to post verbal NPs (cf. **Giovanni invita io* 'Giovanni invites I' versus *Giovanni viene lui* 'Giovanni is coming himself'), a requirement to the effect that a post verbal nominative must be coindexed with a subject would have to be added to our grammar.

III. While independent Case assignment to both subject and i-subject would thus be postulated, Case transmission by coindexing would still have to be allowed, for cases like (73a) contrasting with (73b) (cf. 1.6.2).

- (73) a. [_iQuegli articoli] risultano [_{t_i} essersi già letti t_i]
those articles turn out SI-to be ('have') already read
 Those articles turn out to have already been read.
- b. *Sarebbe bello [PRO_i essersi invitati t_i]
(it) would be nice SI-to be ('have') invited
 ... to have been invited.

As we discussed in 1.6.2 above, we assume that (73a) is grammatical because SI is related to the subject position within its clause, which is in a chain bearing nominative Case, whereas there is no corresponding nominative Case in (73b). But given that Case transmission across clause boundaries is thus possible in (73a) (as well as in other cases involving subject clitic *ci* to be discussed below), nothing seems to prevent it in (68b), (69), in which *Giovanni*, *lui* should therefore have Case regardless of whether the preceding verb can assign it.

This kind of solution thus seem essentially incompatible with the assumption that Case is a property of chains or of indices: an assumption which we will continue to adopt, both because of conceptual advantages (it allows us to deduce the Case filter from the θ -criterion), and because of empirical advantages (it allows us to give an account of (73) and other cases.) We will thus leave the problems of (65), (68b), (69) (and (71b, c)) unsolved, simply keeping in mind their existence.

2.5 PIEDMONTESE YE

2.5.0 Introduction

In the preceding sections we provided a theoretical characterization of inversion in Italian. We claimed that i-subjects are linked to a non-argument in subject position and that the relation between the i-subject and the non-argument falls under locality conditions parallel to those which hold of antecedent-anaphor relations. We began our discussion by regarding inversion in Italian as essentially analogous to inversion in French and English, once we make allowance for the existence of empty subjects in Italian. In doing so we put aside a number of well-known differences. It is to those differences that we now turn, especially to the difference in the productivity of inversion. In this section we consider null subjects and inversion in the Piedmontese dialect (in the variety spoken

in the Turin area), one of Italy's many regional languages. Piedmontese is of particular interest since it provides an almost perfect link between Italian and French, as we will see. The discussion of Piedmontese also provides a natural basis for dealing with Italian pleonastic subject *ci* 'there', which we thus also consider in this section.

2.5.1 Inflectional Clitics

Like Italian, Piedmontese is a NS language, as (75) below will illustrate. It differs from Italian in having a series of overt subject clitics. These are given in (74), along with the corresponding non-clitic nominative pronominal (with which they can cooccur, as we see directly).⁴⁵

(74)	Subject Pronouns		Clitic
	Non-clitic		
Sg. 1	mi		e
2	ti		t
3	chiel/chila		a
Pl. 1	nui (autri)		e
2	vui autri		(e)
3	lur		a

In tensed sentences, these clitics always occur, regardless of whether or not the subject position is filled, as in (75), where 'CL' in the glosses is a clitic in (74).

- (75) a. $\left\{ \begin{array}{l} \text{Giuanin} \\ \text{Chiel} \end{array} \right\} a \text{ mangia}$
 $\left\{ \begin{array}{l} \text{Giuanin} \\ \text{he} \end{array} \right\} CL \text{ eats}$
- b. A völ [mangé]
 (he) CL wants to eat

Furthermore, such clitics occur *only* in tensed sentences, never in infinitivals, as in (76).

- (76) Giuanin a völ [mangé]
 Giuanin CL wants to eat

This distribution follows if we regard these elements as part of a tensed inflection, namely as forming a discontinuous inflection with verb-inflection proper.⁴⁶ If this analysis is correct, it will lend further plausibility to our assumption that the inflectional element in Italian has clitic properties.

However, since Piedmontese allows 'Clitic Doubling', namely coexistence of a clitic and a non-clitic phrase related to it (with dative objects),

one might suggest that (75a) should be regarded as a case of Clitic Doubling. Under this view, the alternation in (75) would be analogous to the one in (77).

- (77) a. E y_i parlava [_i a Giuanin]
 (I) CL to-him spoke to Giuanin
 I spoke to Giuanin.
- b. E y_i parlava [_ie]
 (I) CL to-him spoke
 I spoke to him.

The conclusion that the clitics of (74) are inflectional elements may thus not seem required; they would simply be the subject counterparts to object clitics, allowing doubling, like the latter. The alternation in (75) would thus follow, and the absence of these elements in infinitivals, as in (76) could be handled by supposing that subject clitics require nominative Case. However, further considerations support the analysis of these elements as part of inflection over the alternative, as we will show.

Corresponding to Italian impersonal SI and pleonastic *ci* 'there' respectively, Piedmontese has the two subject clitics *se* (henceforth 'SE') and *ye*. In the presence of either SE or *ye*, the relevant element in (74) still appears, as in (78).⁴⁷

- (78) a. A s mangia bin
 CL SE eats well
 We eat well.
- b. A y era tanta gent
 CL there was much people
 There were many people.

This is expected if *a* of (78) is part of inflection, since there is no reason, under our assumptions, why verb inflection should disappear in the presence of subject clitics like SE, *ye*. But it is unexpected if *a* in (78) is truly analogous to the dative clitic in (77), since Clitic Doubling never involves coexistence of two clitics, only of a clitic and a non-clitic phrase.⁴⁸

Also, under Raising, subject clitics like *ye* of (78b), (79a) remain stranded in the infinitival, as in (79b), whereas clitics like *a* never do, as in (80).

- (79) a. [_ie] a y_i é tanta gent
 CL there is much people
 There are many people.

- b. [_ie] a püdria [t_i esye_i tanta gent]
 CL could be-there much people

There could be many people.

- (80) a. Giuanin a mangia
 Giuanin CL eats

- b. Giuanin_i a püdria [t_i mangé]
 Giuanin CL could eat

Again, this follows if *a* in (80) is part of the tensed inflection, but not if it is a subject clitic unrelated to inflection. We will thus assume that the clitics of (74) are indeed part of inflection, and will refer to them as "inflectional clitics". We now turn to inversion.

2.5.2 Inversion

Piedmontese has two inversion strategies. One is exemplified in (81) and is quite analogous to the Italian strategy. The other is exemplified in (82) and involves the use of the pleonastic clitic *ye*.

- (81) a. I client a telefonu
 the clients CL telephone

- b. A telefonu i client
 CL telephone the clients

- (82) a. I client a riva
 the clients CL arrive

- b. A y riva i client
 CL there arrives the clients

Beside differing with respect to the presence of *ye*, (81b) and (82b) also differ with respect to verb agreement: plural in (81b), singular in (82b). For the analysis of (81b) we assume complete analogy with corresponding Italian cases, regarding clitics like *a* now as part of INFL. For the analysis of (82b), we assume that *ye* is the clitic analogue to English *there*. Like the latter, *ye* can also be a locative pronoun. That *ye* of (82b) is related to the subject, can be easily shown. It is clear that it is not a locative here since, unlike the locative in (83a), *ye* of (82b) can cooccur with a locative expression, as in (83b).

- (83) a. * A y purtava sempre i cit
 (he) CL there took always the kids

al Valentin
 to the 'Valentin' (a public park)

- b. A y riva i client ntel negosi
 CL there arrives the clients in the store

Also, *ye* of (82b) cannot appear if the subject position is occupied as in (82a), so that *ye* of (84) will necessarily have a locative reading.

- (84) I client a y riva
 the clients CL there arrive

The clients arrive there.

We therefore take the analysis of (82b) to be essentially as in (85), where the relation between *ye* and the subject position is analogous to the one we have with the subject clitic SI of 1.6 above. We will return to the difference in agreement between (82b) and (81b).

- (85) [_ie] a y riva [_i i client]
 CL there arrives the clients

We now consider the distribution of the two inversion strategies. It is clear that the two types of inversion in (81b), (82b) correspond exactly in their distribution to the two types of inversion we claimed exist in Italian since, aside from some apparent exceptions to which we return, inversion with *ye* as in (82b) appears possible with all and only the verbs which we would analyze as ergative on the basis of independent criteria. The relevant criteria are the same as those we employed for Italian, in particular, alternation with a transitive form, as in (86) (on euphonic *l*, see Note 47), cliticization of *ne* as in (87) (see Note 47 on *na*), and auxiliary selection, as in (88) (cf. also the auxiliary alternation in (86)). With respect to both the syntax of *ne* and auxiliary selection, Piedmontese is indeed just like Italian.⁴⁹

- (86) a. A lan chersú tüti i presi
 (they) CL have increased all the prices

- b. A lé chersüye tüti i presi
 CL is increased-there all the prices

There has increased all the prices.

- (87) a. A y na riva tanti
 CL there of-them arrives many

There arrives many of them

- b. *A na telefonu tanti
 CL of-them telephone many

(88) a. I client a sun riva
 the clients CL are ('have') arrived

b. I client a lan telefonà
 the clients CL have telephoned

The class of apparent exceptions alluded to above is represented by ergative verbs that take the clitic *se*, equivalent to Italian *si* of 1.5 above. With these verbs, *ye* does not appear, as in (89).

(89) A lé rumpùse due fnestre
 CL is broken-themselves two windows

Two windows have broken.

Regarding this fact, we note first that in cases like (89), just as in cases in which *ye* does appear, and unlike those involving non-ergative verbs, there is lack of verb agreement; and second that there is reason to think that *ye* is actually deleted in the presence of some clitics (not all, given (87a)), as (90) illustrates. Notice the lack of verb agreement in (90c).

(90) a. A lé rivaye dui regai
 CL is arrived-there two presents

There has arrived two presents

b. *A lé rivameye dui regai
 CL is arrived-to-me-there two presents

c. A lé rivame dui regai
 CL is arrived-to-me two presents

(There) has arrived to me two presents

It is thus rather natural to assume that in cases like (89), (90c), *ye* is present underlyingly and is later deleted in the presence of *se*, *me*, let us say by a phonological rule. This will account for lack of verb agreement in such cases, and our generalization on the distribution of *ye* will hold in full.

Piedmontese thus strongly supports our view of chapter 1 that in Italian there are two different types of inversion, related to the two different classes of verbs (ergatives and non-ergatives), a view under which the superficial uniformity one observes in Italian is somewhat fortuitous.

Let us now consider what exactly determines the distribution of *ye*. The most natural assumption, and the one we will adopt, is that pleonastic *ye* is only available for insertion in D-structure. If *ye* cliticized by movement, this assumption would suffice to exclude it with non ergative verbs since, in D-structure, the subject position of a non-ergative verb will contain an argument, and *ye* could thus not be inserted. However, we must assume that *ye* is introduced as a clitic, to account for its failure to

undergo Raising in cases like (79b), a consideration to which we will return in connection with Italian *ci*. Some further assumption will then be required to rule out the coexistence of a full subject NP and *ye* in D-structures like (91a), which would give rise to the ungrammatical S-structure (91b).⁵⁰

(91) a. *I client a y telefonu
 the clients CL there telephone

b. * $[_i e]$ a y_i $\left\{ \begin{array}{l} \text{telefonu} \\ \text{telefonu} \end{array} \right\} _i$ client
 CL there $\left\{ \begin{array}{l} \text{telephone} \\ \text{telephones} \end{array} \right\}$ the clients

We can naturally rule out D-structures like (91a) by postulating that *ye*, which is a subject clitic, must be related to an empty category, and not to a full NP. This condition is required independently, though at S-structure, by the ungrammaticality of (92b) (which corresponds to the impossible interpretation of *ye* as a pleonastic in (84)) derived from the well-formed (92a).⁵¹

(92) a. $[_i e]$ a y_i riva $[_i i \text{ client}]$ ntel negosi
 CL there arrives the clients in the store

b. * $[_i I \text{ client}]$ a y_i riva t_i ntel negosi
 the clients CL there arrive in the store

The extension to D-structure of the condition required by (92b) is a rather natural one. Recall that, as we discussed in 1.4, we assume that if a clitic is base-generated, it must be related to its *ec* at all levels, thus also in D-structure. This conclusion was required by the projection principle for those clitics which we take to be arguments (i.e. those which correspond to *him*, etc.). What is required for *ye* is that this conclusion be generalized to all clitics, even those that are not arguments. Such a generalization seems reasonable, and we will assume it is true. Thus, while the projection principle gives us (93) with the parenthesized portion included, we will assume (93) holds even with that portion omitted.

(93) A base-generated (argument) clitic must be associated with the relevant *ec* at all levels.

The condition in (94), required for (92b), will thus hold at all levels as a result of (93). This will rule out the D-structure (91a).

(94) * $NP_i ye_i$...
 where NP_i is not an *ec*.

Occurrence of *ye* is thus limited to ergative verbs by postulating that it can only be inserted in D-structure and that once inserted it behaves as a

subject clitic, requiring an *ec* in subject position. Although insertion of *ye* is thus possible with ergative verbs, we assume of course that it is not necessary, to account for cases in which NP-movement applies (like (82a)).

2.5.3 Italian *ci*

Italian *ci* has a more limited distribution than its Piedmontese counterpart *ye*, but its syntactic behavior is otherwise quite analogous.

We have noted that Piedmontese *ye* selects ergative verbs. We now note that it also occurs with 'be' of existential and locational sentences as in (95a) (also as in (79) above). This is the domain in which *ci* is also possible, as in (95b).

- (95) a. A y é tanti client ntel negosi (Piedmontese)
 CL there is many clients in the store
 There are many clients in the store.
- b. Ci sono molti clienti nel negozio (Italian)
 there are many clients in the store

(We will return to the difference with respect to verb agreement between (95a) and (95b).) Occurrence of *ye* with 'be' suggests that the latter verb is relevantly analogous to ergative verbs, which means that the *i*-subjects of (95) are base-generated in post verbal position. If this is correct, it would then be perfectly natural to suppose that the cases in (96) are derived via leftward NP-movement from the same base forms, as the analyses indicate.⁵²

- (96) a. [_i Tanti client] a sun t_i ntel negosi (Piedmontese)
 Many clients are in the store.
- b. [_i Molti clienti] sono t_i nel negozio (Italian)
 Many clients are in the store.

This would in effect reverse the traditional view of the corresponding English cases (cf., in particular, Milsark (1974), (1977)) under which the forms of (96) are basic and those of (95) are derived via rightward movement. There are good reasons to believe that this reinterpretation, first proposed on independent grounds in Stowell (1978), is correct. One reason is precisely the occurrence of 'be' with Piedmontese *ye*, which we just noted.

Another reason is that there are cases of *ci/ye* which would have no source under a rightward movement derivation, such as for example (97a), given the ungrammaticality of (97b) (It is quite clear that (97a) represents the same construction as (95); a number of relevant facts will appear in the ensuing discussion).⁵³

- (97) a. Ci vogliono altri soldi. (Italian)
 there want other moneys
 It takes more money.
- b. *Altri soldi vogliono. (Italian)
 other moneys want

Yet another reason is represented by Ne-Cl as in (98a, b). Ne-Cl is also possible in (97a), as shown in (98c).

- (98) a. A y na ié tanti ntel negosi. (Piedmontese)
 CL there of-them is many in the store
 There are many of them in the store.
- b. Ce ne sono molti nel negozio. (Italian)
 there of-them are many in the store
 There are many of them in the store.
- c. Ce ne vogliono altri. (Italian)
 there of-them want others
 It takes more of them.

Recall that under our analysis of 1.4, Ne-Cl is only possible if the quantified phrase is base-generated in post verbal position, as with ergative verbs. The evidence for an ergative analysis of 'be' is, we find, rather strong, and we will review it more systematically in 2.7 below. Under such an analysis, appearance of *ye* as in (95a) is expected.

We will take Italian *ci* to be subject to exactly the same syntactic constraints we proposed for *ye*, in particular insertion only at D-structure, as in (95b). In addition however, we must presume that *ci* is subject to a lexical constraint allowing its occurrence only with 'be' (and some idioms, like the one in (97a)).

While our proposal that *ye/ci* can only be inserted at D-structure thus accounts for the fact that inversion with these elements is not possible with non-ergative verbs, we must note that a stronger condition seems to hold, in particular that if a verb allows *ye/ci*, then inversion without the latter elements is not possible, or is at least awkward, as in (99), (100).

- (99) a. Tanti curidur a sun rivà. (Piedmontese)
 Many racers have arrived.
- b. A lè rivaye tanti curidur. (Piedmontese)
 CL is arrived-there many racers
 'There has arrived many racers.'
- c. ?*A sun rivà tanti curidur. (Piedmontese)
 CL are arrived many racers

- (100) a. Una lettera è nella busta. (Italian)
A letter is in the envelope.
- b. C'è una lettera nella busta (Italian)
there is a letter in the envelope
- c. ?*È $\left\{ \begin{array}{l} \text{nella busta una lettera} \\ \text{una lettera nella busta} \end{array} \right\}$ (Italian)
is $\left\{ \begin{array}{l} \text{in the envelope a letter} \\ \text{a letter in the envelope} \end{array} \right\}$

It is not too clear how this fact could be expressed formally: since in chapter 1 we argued that inversion by rightward movement was always possible, even with ergative verbs (see the discussion of (122), ch. 1), the (c) cases above would be expected to be derivable from (a). We must therefore suppose that there is some hierarchy within the two inversion strategies, whereby inversion with *ye/ci* must be chosen if it can.

However exactly it is to be accounted for, the ungrammaticality of (c) in (99), (100) is of interest, because it gives rise to a situation in which inverted forms are necessarily distinguished from their non-inverted counterparts by the presence of an overt pleonastic element. This will enable us to test rather directly the claim of Rizzi (1982b, IV) that only *i*-subjects and not subjects can be *Wh*-moved in Italian (and, we assume, in Piedmontese, given its NS language status). The test gives the results in (101), (102).

- (101) a. ??Vaire curidur t las dit ch'a sun rivà? (Piedmontese)
'How many racers did you say that have arrived?'
- b. Vaire curidur t las dit ch'a lé rivaye?
'How many racers did you say that there has arrived?'
- (102) a. ??Che cosa hai detto che è nella busta? (Italian)
'What did you say that was in the envelope?'
- b. Che cosa hai detto che c'è nella busta?
'What did you say that there was in the envelope?'

The good cases of extraction, those in (b), are the ones that have the pleonastic element, whereas those in (a), that do not, are bad. The results are therefore as predicted by Rizzi's theory.⁵⁴

Sentences with an *ec* in subject position, but with subject clitics like *ci* or *SI* raise the question of whether inflection (and, correspondingly, Piedmontese inflectional clitics) play any role in these cases. So far, we have been tacitly assuming that subject clitics are simply related to an *ec*, in the way in which object clitics are, as in (103), and that nothing else is involved.

- (103) a. [_ie] si_i costruisce molte case in questa città. (Italian)
SI builds many houses in this city
- b. [_ie] c_i'è del pane sul tavolo. (Italian)
there is some bread on the table

It is clear however that the possibility of having an *ec* in subject position here is determined by the NS property of Italian, since there appears to be no such possibility in French, which we will maintain is not a NS language. Thus, while we assume that French *se-moyen* (henceforth *SE*) corresponds to Italian *SI*, and that French *y* of the *Il y a*-construction corresponds to Italian *ci*, French cases like (104) would be ungrammatical with an empty subject position, as in **Se construit* . . . , **Y a* ((104a) from Kayne (1975, p. 330)).

- (104) a. Il se construit beaucoup d'immeubles dans cette ville (French)
it SE builds many buildings in this city
- b. Il y a du pain sur la table (French)
it there has ('is') some bread on the table

Recalling that we characterized the NS property as the possibility for inflection to perform as a subject clitic, two hypotheses come to mind to account for (103) versus (104):

- I. The NS property is as we defined it: the *ec* in (103) is allowed because it is related to inflection (INFL), as in other NS sentences. Under this view, there are then two subject clitics in (103), *SI/ci* and INFL.
- II. The NS property must be redefined to allow an *ec* in subject position when this is related not only to INFL, but also to other subject clitics, like those of (103). (French lacks this property.)

There are several considerations leading to the conclusion that I, not II is true. The first consideration has to do with the already noted fact that in the presence of clitics like *SI/ci*, inflection – in particular the inflectional clitics of Piedmontese – does not disappear, as in (78) above: **A s mangia bin** 'CL SE eats well'. If II were true, one might expect that the inflectional clitic *would* disappear, since it would be unnecessary. A second consideration relates to the fact that there is 'pro drop' only preverbally, not postverbally, as in (105) versus (106) (analogous facts hold in Piedmontese).

- (105) a. Io sono alla festa. (Italian)
I am at the party
- b. Sono alla festa. (Italian)
(I) am at the party

(106) a. Ci sono io alla festa. (Italian)
 there am I at the party

b. *Ci sono alla festa. (Italian)
 there am (I) at the party

If SI/*ci* in (103) could satisfy well-formedness requirements on the empty subject, then perhaps inflection (which as we have just said does not disappear) would be free to be related to the post verbal nominative in (106b), exactly as it is related to the pre verbal nominative in (105b). Thus, II does not — at least not obviously — account for (106b), but I does: under the latter, since there is only one INFL, there can be only one empty position.⁵⁵

A third consideration has to do with the stranding of these clitics under Raising as in (107) (analogous to the Piedmontese case in (79)).⁵⁶

(107) a. [_ie] pareva [_t_i esserci del pane sul tavolo]
 seemed to be-there some bread on the table

There seemed to be some bread on the table.

b. [_ie] parevano [_t_i volerci altri soldi]
 seemed (pl.) to want-there other moneys

It seemed to take more money.

We note that, in this configuration, French differs from Italian not with respect to the *embedded* subject, which is contiguous to *ci*, but with respect to the *matrix* subject, which is contiguous to the tensed inflection, as in (108).

(108) Il_i semblait [_t_i y avoir du pain sur la table]
 it seemed there to have ('be') some bread on the table

There seemed to be some bread on the table.

This shows that I, not II, must be correct: if II were true, and if (103) were grammatical because SI, *ci* can 'properly govern' the *ec* (or whatever the right local condition is), we would not expect (107) to be equally grammatical since the relevant configurational relation between SI/*ci* and the subject of the tensed verb — say, proper government — is certainly lost in (107). However, if I is true and if tensed inflection is thus what is relevant to the occurrence of the *ec* in (103), then the grammaticality of (107) is expected since, in the latter, tensed inflection — unlike *ci* — is indeed on the main verb.

We must therefore conclude that I is correct, and thus that there are two pronominals related to the subject position in (103): SI/*ci* and INFL. This is hardly surprising since we must in any case make a similar assumption for French, where we find both subject clitic SE/*y* and non-

argument subject *il*, as in (104) above. Thus INFL in (103) and (107) (like the inflectional clitic of (79) above) will be the clitic analogue to French non-argument *il*.⁵⁷

Cases like (107) provide us with the opportunity to draw a few other conclusions regarding the syntax of *ci/ye*. It is clear that, under Raising, pleonastic *ci/ye* not only *can* be stranded as in (79b), (107), but in fact *must*, as illustrated by **Ci pareva essere del pane sul tavolo* in contrast with (107a). Apparent exceptions like *Ci dovrebbe essere del pane sul tavolo* 'There should be some bread on the table' are irrelevant here since we will see that the higher position of *ci* in these cases is due not to Raising, but to the process of Clitic Climbing characteristic of restructuring verbs like *dovere* (see ch. 5). Pleonastic *ci* and *ye* thus differ from the other subject clitic SI (Piedmontese SE is like SI) which, as we saw, can undergo Raising. This difference is accounted for by our assumption that *ci* and *ye* are base generated in clitic position, whereas for SI we assumed cliticization by movement. Since *ci* and *ye* are never in NP position, NP-movement will never affect them.

Notice however that, while we thus predict that Raising of *ci/ye* should not be possible, nothing we have said so far rules out insertion of *ci/ye* directly on the matrix verb in cases like (107). The phrase *del pane/altri soldi* would perhaps have to move first to embedded subject position, and then back to post verbal position if there were no other way to establish the appropriate coindexing with that position, but none of the conditions we have so far proposed would be violated.⁵⁸ What seems to be required to rule out generation of *ci* in the matrix is that not only the relation between *ci* and the *ec*, but also the inversion relation of *ci* be established at D-structure under appropriate locality conditions. These conditions would then be violated, for example, in [_ie] *ci_i pareva* [[_e] *essere NP_i . . .*] We will assume that this is correct, returning in 2.7.2 below to discuss other facts that support it, and to consider its exact theoretical status.

As with other cases of inversion discussed in 2.3, in (standard) Italian cases like (107), the main verb obligatorily agrees with an *i*-subject which is actually within a sentential complement. Thus we find plural agreement in (107b), and *Parevo/*Pareva esserci io . . .* 'seemed (1st sg.)/seemed (3rd sg.) to be-there I . . .'. This shows that Raising here is obligatory. If it were not, the matrix subject ought to be interpretable as a non-argument related to the clause, like *it* of *It seems that . . .*, and third person singular agreement ought to be possible. The obligatoriness of Raising in these cases, and analogously in the cases discussed in 2.3 (e.g. (38)) follows from Case theory. It is only if Raising applies that the chain containing the *i*-subject is extended to a Case-marking position. The *ci*-construction is in fact impossible in non-Raising infinitivals, like the other cases of inversion discussed above (cf. (23)), and as in (109) (analogous facts hold, of course, for Piedmontese *ye*).⁵⁹

- (109) *La probabilità $\left\{ \begin{array}{l} \text{di esserci Giovanni} \\ \text{di volerci le chiavi} \end{array} \right\}$...
 The probability $\left\{ \begin{array}{l} \text{there to be Giovanni} \\ \text{it to take the keys} \end{array} \right\}$...

Notice that in infinitivals, instances of the *ci*-construction involving a pronominal *i*-subject like (110a) contrast with superficially similar cases like (110b).

- (110) a. *[Non esserci noi all'inaugurazione] sarebbe un errore.
not to be-there we at the inauguration would be a mistake

- b. [Non andarci noi] sarebbe un errore.
not to go-there we would be a mistake

Note to go there ourselves would be a mistake.

As we pointed out in 2.3, the grammaticality of (110b) is predicted under the analysis of *noi* as an emphatic pronoun, that is, as a non-argument. The argument here is the PRO subject of the infinitival, which does not require Case. But in (110a) the analysis of *noi* as an *ep* is impossible: while *ci* of (110b) is a locative, the one in (110a) is necessarily a pleonastic subject, given the presence of an overt locative phrase. Because of *ci*, the null subject of the infinitival in (110a) can therefore not be interpreted as an argument (cf. Note 57). The argument must then be *noi*; hence Case is required and ungrammaticality results, just as in (109).

2.5.4 Verb Agreement

We will conclude this section with some considerations on verb agreement and the 'definiteness' restriction. We have seen that the various inversion constructions of the languages we are dealing with exhibit differences in verb agreement. The case of Piedmontese will suggest that these differences are at least in part predictable from the nature of the non-argument subject involved.

Like Italian, Piedmontese has systematic verb agreement with the *i*-subject when the empty subject is related only to inflection (cf. (81b)). However, things are different when *ye* is present. With *ye*, there is no verb agreement when the *i*-subject is third person (cf. (82b)), but agreement is required when the *i*-subject is first or second person (singular or plural), as for example in (111).

- (111) a. E seve rivayé vui autri. (Piedmontese)
There have arrived you-pl

- b. *A lé rivayé vui autri. (Piedmontese)
There has arrived you-pl

The facts of Piedmontese are actually duplicated by Italian at a substandard level. Thus, at that level, verb agreement can fail with *ci* as in (112a), but not in the absence of *ci*, as in (112b).⁶⁰

- (112) a. C'era molti clienti nel negozio. (Substandard Italian)
There was many clients in the store

- b. * $\left\{ \begin{array}{l} \text{Arriva} \\ \text{Telefona} \end{array} \right\}$ i clienti (Substandard Italian)
 $\left\{ \begin{array}{l} \text{arrives} \\ \text{telephones} \end{array} \right\}$ the clients

But again, agreement cannot fail, even with *ci*, for first and second person *i*-subjects, as in (113).

- (113) a. C'eravate voi nel negozio.
There were you-pl in the store

- b. *C'era voi nel negozio.
There was you-pl in the store

Since agreement can fail in English too (especially in spoken English) as in *There's many people*, it would seem that for those constructions that employ pleonastic *there* or its equivalents, the differences separating Piedmontese, Italian and English are indeed minimal. Once we put aside the difference between first-second and third person of Piedmontese and Italian, not verifiable in English because of the definiteness restriction (see below), we can regard standard Italian as identical to standard English, while substandard Italian is identical to spoken English and Piedmontese.

Thus, while language specific idiosyncrasies must play some role, so as to distinguish standard Italian from Piedmontese over otherwise identical constructions (cf. (95)), the qualitative differences across the two types of inversion suggest that a major role is played by the non-argument subject. We may assume that the presence of lexical material such as *there* and its equivalents interferes with the transmission of agreement to the subject position, which is automatic and necessary in simple NS cases of inversion. For first and second person *i*-subjects, we must assume that somehow they transmit agreement traits more 'strongly', though we have no explanation for this. For elements like *it* and its French counterpart *il*, which *never* allow transmission of agreement (as noted in Note 22, cf. *It is/are my friends*, etc.) we may assume that they do not simply interfere in the manner of *there*, but that — unlike *there* — they have third person singular agreement properties of their own (like argument *it/il*) which trigger normal subject-verb agreement.

Turning now to the definiteness restriction, it is known from the literature that both the *there*-construction of English and the *il*-construction of French are ungrammatical with *i*-subjects like *the dog, my dog, John, he*, etc. As some of our examples have shown, this is not true of any case of inversion in Italian or Piedmontese. However some form of restriction along the lines of the one holding in English and French appears to hold for the constructions with *ci* and *ye*, though apparently not for the other inversion strategy.

Thus, quantifier phrases like 'everyone', which are impossible in English and French, appear to be impossible with *ci/ye* too, as in (114), though they are not in (115).

- (114) a. ?*A lé rivaye tüti. (Piedmontese)
 'There has arrived everyone'
- b. ?*C'erano tutti nel negozio. (Italian)
 'There was everyone in the store'
- (115) a. A lan telefonà tüti. (Piedmontese)
 CL have telephoned all
- b. Sono arrivati tutti. (Italian)
 have arrived all

It would thus seem that with respect to the definiteness restriction also, the lexical versus non-lexical nature of the non-argument subject plays a role, but we have no specific proposal to make regarding this. (For discussion of the definiteness restriction see the references of Note 2.)

2.5.5 Conclusion

In this section we have seen that Piedmontese has two different inversion strategies, one for ergative verbs, the other for non ergative verbs. Both strategies rely on the NS property of Piedmontese, but in different ways. The strategy relative to non ergative verbs requires the NS property because no element is inserted with respect to the subject position. The other strategy requires it because, although the element *ye* is inserted, the latter is a clitic and does not therefore properly govern the subject position, so that the governing property of INFL must again be resorted to.

We thus predict that if a language had an element like Piedmontese *ye* that was not a clitic, then only one of the two strategies would rely on the NS property. Our predictions can in fact be sharpened further. Recalling how we suggested in 2.3 above that the non-argument subjects of inversion and extraposition are clitics in Italian because they never carry stress, we propose a general principle to the effect that a non-argument subject will be a clitic whenever it can. In a NS language it always can. But not

so in a non NS language, since clitics do not govern the subject position. If we then consider a hypothetical language which differs minimally from Piedmontese in being a non NS language, this language will have an element analogous to *ye* which is not a clitic. It will then have inversion with ergative verbs since the NS property will no longer be involved, but will lack inversion altogether with non ergative verbs. In the next section we argue that French is exactly such a hypothetical language.

2.6 FRENCH *IL*

2.6.1 Subject Pronouns

We will begin by claiming that French is a non-NS language. This claim is superficially challenged by the fact that French subject pronouns *je, tu, il/elle/non-argument il, nous, vous, ils/elles* exhibit some of the properties of clitics. This fact is discussed in Kayne (1975, pp. 83–86). Kayne notes that these pronouns behave like object clitics in that: (i) They cannot be separated from the verb by intervening material, as in ***IL, souvent, mange du fromage** 'He often eats cheese', (ii) they cannot be modified, as in ***Ils deux partiront bientôt** 'The two of them will leave soon'; (iii) they cannot be conjoined, as in ***Il et Jean partiront bientôt** 'He and Jean will leave soon'; (iv) they cannot be contrastively stressed, as in ***IL partira le premier** 'HE will leave first'; (v) they behave differently from other subject NPs with respect to certain phonological rules.

Nevertheless we will assume, unlike Kayne (1975), but in agreement with Kayne (1982) that the subject pronouns of French are not clitics at syntactic levels, and that the correct way to account for (i)–(v) above is to regard them as 'phonological clitics', i.e. clitics with respect to aspects of the phonology only, perhaps by assuming that they cliticize in the phonology.

There are several arguments against an analysis of French subject pronouns as (syntactic) clitics. Note first that they cannot be inflectional clitics, like those of Piedmontese, since they do not cooccur with a subject NP as in ***Jean il mange du fromage** 'Jean he eats cheese'. But they must also not be real (i.e. non-inflectional) subject clitics since they cooccur with subject clitics like *SE* and *y* as in *Il se construit . . . , Il y a . . .* of (104) above and (116a), (117a) here below. If *il* is in subject position, then there is a precise reason for its occurrence in these cases: to fill that position. But if it is a clitic, then there is no reason: why should there be two clitics? Secondly these pronouns undergo Raising, just like other subject NPs, and unlike subject clitics *SE, y*, which remain stranded, as is illustrated by (116) and (117).

- (116) a. **Il se construit** beaucoup d'immeubles.
 it SE builds many buildings

b. *Il* semble *se* construire beaucoup d'immeubles.
it seems SE to build many buildings

(117) a. *Il y a du pain.*
it there has ('is') some bread

b. *Il* semble *y* avoir *du pain.*
it seems there to have ('be') some bread

There are only two possible reasons for the appearance of *il* on the higher verb in (116b) and (117b): (i) It is an inflectional clitic; or (ii) It has undergone Raising. But (i) is false, as we have just argued. Therefore (ii) must be true and *il* must be in subject position at least when Raising applies. But French subject pronouns must be in subject position even in S-structure, given that, as Brandi and Cordin (1981) note, they allow coordination as in (118a), a kind of coordination which is impossible with subject clitics, whether inflectional as in (118b), or not, as in (118c).

(118) a. Tu manges et bois (French)
you eat and drink

b. *T mange e beive (Piedmontese)
(you) CE eat and drink

c. *Si mangia e beve (Italian)
SI eats and drinks

The different results of (118) follow only if French *tu* is in subject position. VP coordination will then be unproblematic in (118a), just as in its English translation, while in (118b, c) it will be excluded, presumably by general constraints on coordination, since only one of the VPs has a subject clitic in it.

Arguments against a clitic analysis of French subject pronouns are also given in Couquaux (1981) who notes that the negation *ne* follows subject pronouns, as in *ELLE N'aime pas les épinards* 'She does not like spinach', while it precedes clitics, as in *Elle NE LES aime pas* 'She does not like them' (even *subject* clitics, as in *Il N'Y a pas . . . , Il NE SE construit pas . . .*).

We conclude therefore that French subject pronouns are in NP position (at syntactic levels), and therefore that French is a non-NS language.

2.6.2 *Il*-inversion and Auxiliary Assignment

In French there are two types of inversion. The first type involves non-argument *il* as in some of the examples we have seen above. The second type does not involve *il* and only occurs in conjunction with Wh-movement, as in *Quand partira ton ami?* 'When will leave your friend?' (from

Kayne and Pollock 1978). We will not deal with the latter type of inversion, generally referred to as "Stylistic Inversion" (see Kayne and Pollock (1978), a characterization of which falls outside the scope of our discussion. We will only consider inversion not specific to Wh-movement contexts, namely *il*-inversion (including the *Il y a* construction).

Il-inversion discriminates between certain verbs and others, as in (119).

(119) a. *Il* est arrivé trois amis.
it ('has') arrived three friends

b. ??*Il* a téléphoné trois amis.
it has telephoned three friends

The contrast in (119) recalls of course other familiar ones, especially once we note that *il*-inversion quite generally allows cliticization of *en*, which we assume is just like Italian and Piedmontese *ne* (i.e. is derived from base-generated, direct object positions only).

(120) *Il en* est arrivé trois.
it of-them is ('has') arrived three

Indeed (119) suggests that our expectation of 2.5.5 is fulfilled, that as we move to a non-NS language we may find inversion with ergative verbs only. This is in fact our claim. Specifically, we are claiming that, like Piedmontese *ye*, French *il* is only available for insertion in D-structure, from which it should follow that *il*-inversion is possible with all and only those constructions that allow an empty subject in D-structure. Thus it is possible with ergative verbs and impossible with non-ergative verbs. (The claim that the *il*-construction is base-generated has been independently made by Herschensohn (1979), (1982).)

Our claim will be supported by two arguments. One argument is more strictly empirical: by reviewing the verbs which can appear in *il*-inversion, we will see that there are independent reasons to assume that they are ergative. The other argument is more conceptual: it derives from the fact that *il*-inversion has uniform distribution over certain syntactically well defined domains. This suggests that the bifurcation of (119) is indeed along syntactic, not lexical, lines. (This argument is of the same kind as the ones we presented in chapter 1, in connection with the distributions of *ne* and of auxiliary *essere*.) Let us begin with the first, empirical argument.

If we assumed, as may seem reasonable, that the two auxiliaries of French, *être* 'be' and *avoir* 'have' (henceforth "E" and "A", respectively), reflect exactly the same system of auxiliary assignment we postulated for Italian, then we would expect *il*-inversion to be possible with all and only the verbs that take auxiliary E. One half of this expectation seems to be

fulfilled unproblematically: it seems to be the case, as noted for example in Obenauer (1976), that verbs that take E, like *arriver* of (119), allow *il*-inversion rather generally. The other half of the expectation is not entirely fulfilled however, since there are cases of *il*-inversion with verbs that take A, like those in (121) (also due to Obenauer (1976)).

(121) a. Il a manqué trois élèves.
it has been missing three pupils (A)

b. Il a disparu plus de sept cents sucettes.
it has disappeared more than seven hundred lollipops (A)

c. Il a surgi d'autres correspondances.
it has arisen some other correspondences (A)

We note that with the majority of such cases, the corresponding verbs in Italian take auxiliary E (as is true of *mancare*, *sparire*, *sorgere* 'be missing, disappear, arise', the verbs of (121)). There are two ways to account for the difference in auxiliary with this class of verbs: (i) French has a different class of ergative verbs (the verbs in (121) are ergative in Italian, but not in French). (ii) French has a somewhat different system of auxiliary assignment. Although (i) and (ii) are not logically incompatible, we clearly want to assume that only one of them is true, not both, to keep theoretical differences between Italian and French to a minimum. If (ii) rather than (i) was true, cases like (121) would pose no problem for our hypothesis since such verbs would in fact be ergative (and we would also account for the fact that these cases too allow *en*, as in *Il en a manqué trois* 'It has been missing three of them').

There is independent reason to believe that (ii) is indeed true: there is at least one case in which we are most likely to be dealing with the exact same syntactic configuration, and in which French has auxiliary A, while Italian has E. This is the passive construction, as in (122).

(122) a. Jean a été invité.
Jean has been invited (French) (A)

b. Giovanni è stato invitato.
Giovanni is ('has') been invited (Italian) (E)

Given (122), (ii) must be true, and we thus proceed to assume that (i) is false, and that French has the same class of ergative verbs as Italian.

To account for auxiliary A in (121), we would have to say that in the configuration in (123), which is the one relevant to ergative verbs both under inversion and not (cf. 1.7, 2.2), lexical factors are allowed to play a role in French, though not in Italian.

(123) NP V NP

Due to such lexical factors, E will be assigned to *arriver* of (119), but not to the verbs of (121), while in Italian all of the corresponding verbs will be assigned E. Let us put aside for the moment auxiliary assignment in (122), to which we return in 2.7.

It is clear that auxiliary assignment in French is in any event only partly lexical, since there are, as in Italian, syntactic regularities: always A with transitive verbs, and always E with *se-moyen* and reflexive constructions as in (124).

(124) a. Il s'est vendu beaucoup de livres.
it SE is ('has') sold many books (French) (E)

b. Jean s'est regardé.
Jean himself is watched (French) (E)

Jean has watched himself.

Notice that although we have so far assumed that auxiliary assignment in Italian is *entirely* predictable from the syntactic configuration, this is not quite true. Italian also has an area of idiosyncrasy, like French. This is represented by Raising configurations like those in (125).

(125) a. Maria ha potuto [t risolvere il problema] (Italian)

Maria has been able to solve the problem (A)

b. Maria è sembrata [t risolvere il problema] (Italian)

Maria is ('has') seemed to solve the problem (E)

In our discussion in 1.7 we distinguished two cases in which E was assigned, (126a) and (126b) below. But it now appears that we must consider three, thus also (126c), interpreting the latter as distinct from (126b).

(126) a. NP cl-V

b. NP V NP

c. NP V [_S NP...]

French never allows E in the configuration (126c), as shown by the contrast between (125) and (127).

(127) a. Marie a pu résoudre le problème
Marie has been able to solve the problem (French) (A)

b. Marie a semblé résoudre le problème
Marie has seemed to solve the problem (French) (A)

However, French always requires E in the configuration (126a). This is shown by (124) (we assume that as with SI (cf. 1.6) SE holds a relation with the subject position). What emerges is therefore a general picture in which the Italian system has (126a) and (126b) as the core cases, and (126c) as the periphery, while French has (126a) as the core case, (126b) as the periphery, and (126c) outside the system altogether, as in (128).⁶¹

(128) Assignment of Auxiliary *Essere/Etre*

	<i>Italian</i>	<i>French</i>
a. NP <u>cl</u> -V	core	core
b. NP V NP	core	periphery
c. NP V [<u>S</u> NP ...]	periphery	—

Recalling how we defined relations that trigger E assignment as relations between the subject and an element contiguous to the verb (cf. (86), ch. 1), we note that the three cases of (128) are ordered precisely according to the degree of proximity of the relevant element to the verb: since clitics form one morphological unit with the verb, the clitic of (128a) is plainly 'closer' to the verb than the direct object of (128b); and the latter is in a reasonable sense closer to the verb than the subject of the complement in (128c), given the intervening clause boundary. It thus appears that the rule of E assignment is parameterized with respect to the degree of contiguity it requires, with not only Italian and French differing in the value of the parameter, but also with each language having a stronger and a weaker version of the rule depending on the degree of contiguity.

From the point of view of our formalism of 1.7 and of our definition of *element contiguous to the verb* as "either a clitic or an NP in an A-position governed by the verb" ((87), ch. 1), it would seem that what is parameterized is the notion of government that enters into the system. At least two different notions seem to be needed, to appropriately distinguish the governed NP in (128b) from the one in (128c), both internally to each language, and across languages. We may refer to them as STRONG GOVERNMENT, obtaining in (128b), and WEAK GOVERNMENT, obtaining in (128c). Perhaps the relation between the verb and the clitic in (128a) could also be captured in terms of government: a third and the strongest notion (call it SUPERGOVERNMENT).

Recall, too, from 1.7 that in Italian the relation of (128b) triggers not only E assignment, but pp agreement as well, since a 'direct object' (defined as "an NP in an A-position governed by the verb") is involved. This is true of (128c) as well, but only in the sense that *if* the relation triggers E it will trigger pp agreement, and vice-versa (compare feminine *sem-*

brata of (125b) versus masculine *potuto* of (125a)). The same is true of (128b) for French: pp agreement is found with all and only the ergative verbs that take E (as with *arriver*, etc., never with *manquer*, etc.). The generalization is therefore that, although in a periphery configuration E assignment can either succeed or fail, pp agreement must either succeed or fail with it. We take this to mean that although E assignment and pp agreement are two different rules, as we argued on the grounds that pp agreement is not predictable in general from the auxiliary, there being no pp agreement in (128a), they are nevertheless part of a closely integrated system. This fact is important for some of our later discussion.

While either auxiliary can thus be assigned in the periphery, it appears that even in the periphery there are important subregularities. In particular, a principle seems to be operative to the effect that if a verb, in its various modes of complementation, ever falls into the core of the system, then the auxiliary assigned in the core is maintained in the periphery. This explains in particular the difference between the two verbs of (125). *Sembrare*, unlike *potere*, occurs not only with Raising, but also as in (129).

- (129) [e] sarebbe sembrato [_S che Maria (Italian)
 (it) would be ('have') seemed that Maria (E)
 risolvesse il problema]
 would solve the problem.

The case in (129) is a core case. Indeed it falls under (128b), once we simply generalize the latter to S complements. (This generalization was already implied by our discussion in 2.2 above.) *Sembrare* therefore *must* take E in (129) and then appears to maintain it in the periphery case (125b).

But the corresponding French case in (127b) is outside the periphery. Therefore it is in effect a core case for the assignment of A. The configuration of (129), corresponding to (128b) is a periphery case for French, but since French *sembler* takes A in a core case, as in (127b), we expect it to maintain it in cases like (129). This is correct (Cf. *Il a semblé que ...* 'It has seemed that ...') This principle also allows us to correctly predict that all French ergative verbs that have transitive alternants in the manner of (130) and (131), ought to take A. They do — another important subregularity.

- (130) a. Jean a coulé le bateau.
 Jean has sunk the boat (A)
 b. Le bateau a coulé t
 the boat has sunk (A)

(131) a. La chaleur a étouffé plusieurs personnes.
 the heat has choked several people (A)

b. Plusieurs personnes ont étouffé t
 several people have choked (A)

Since in the transitive configuration of (130a), (131a) *couler* and *étouffer* fall outside of the system in (128) and are therefore core cases for A, they will maintain A when they occur as periphery cases, as they do in (130b), (131b).

The ergative verbs of (130b), (131b) differ from those ergative verbs that take the morpheme *se*, which always take auxiliary E, like *se casser* in (132).

(132) a. Jean a cassé la fenêtre.
 Jean has broken the window (A)

b. La fenêtre s'est cassée t
 the window itself is broken (E)

The window has broken.

The difference between (132) and (130)–(131) leads us to believe that (132b) must be a core case in (128), in particular that the subject position in (132b) must be linked with *se*. This suggests a revision of our analysis of 1.5 above, which assigned no syntactic role to 'ergative' *si*: a point to which we will return. The conclusion of immediate relevance is that there is no reason at all to believe that French and Italian have different classes of ergative verbs, only differences in auxiliary assignment.

While cases like (121) are thus accounted for, our hypothesis regarding the distribution of *il*-inversion still faces some problems of empirical adequacy. One problem is represented by the class of ergative verbs like those of (130b), (131b), which do not readily allow *il*-inversion, as shown in (133).

(133) a. ??Il a coulé deux bateaux.
 it has sunk two boats

b. ??Il a étouffé plusieurs personnes.
 it has choked several people

This is quite general for this class, while the class of verbs like *se casser* of (132b) appear with *il* rather freely, as we predict. The nature of the difficulty in (133) is not very clear, but it may be related at least in part to the fact that unlike the *se casser* class these verbs give no overt indication that the subject position lacks a θ -role, so that cases like (133) would be essentially ambiguous, *il* being interpretable as an argument as

in *It/he has sunk two boats*. (With the *se casser* class, the overt indication is *se*, and no ambiguity can arise.)⁶²

Other apparently problematic cases are represented by isolated instances of *il*-inversion with verbs that cannot reasonably be characterized as ergative, which have appeared in the literature, such as (134) (from Grimshaw (1980)).

(134) Il mange beaucoup de linguistes dans ce restaurant.
 it eats many linguists in this restaurant

Verbs like *manger* are in fact not ergative by any of the criteria that our discussion provides or suggests. A few instances of *il*-inversion involving transitive verbs, like (135) (from Kayne (1979)), are also attested.

(135) Il prend corps dans ce pays une grande espérance.
 it is taking shape in this country a great hope

We have nothing to say about these cases beyond noting that they are rare (speakers differ on the acceptability of (134).) We will thus assume that our hypothesis provides an acceptable approximation to the empirical facts.

We now turn to the second argument that we promised for our analysis of *il*, noting that *il*-inversion is distributed quite uniformly over some syntactic domains: systematically impossible – with very few exceptions like (135) – with transitive verbs, systematically possible with passive and *se-moyen* (SE) constructions, as in (136).

(136) a. Il a été construit beaucoup d'immeubles dans cette ville.
 it has been built many buildings in this city

b. Il se construit beaucoup d'immeubles dans cette ville.
 it SE builds many buildings in this city

Since the class of verbs that appear in sentences like (136) is exactly the class of transitive verbs (on the distribution of SE, see below), *il*-inversion is either systematically possible or systematically impossible over the same class of verbs, depending on the syntactic configuration. This clearly stresses the syntactic, non-lexical, character of the factors that determine its distribution. Also, the facts of (136) support our claim that *il*-inversion is base-generated, since the cases in (136) are exactly those which we have independent grounds for believing are base-generated in that configuration. (The grounds for this are independent not only of this discussion of *il*-inversion, but even of the ergative hypothesis.) Thus, as is standard within the literature (cf. Note 32, ch. 1), we take cases like (137) to be derived from the same base forms as (136), via NP-movement.

(137) a. [_iBeaucoup d'immeubles] ont été construits t_i dans cette ville.
many buildings have been built in this city

b. [_iBeaucoup d'immeubles] se construisent t_i dans cette ville.
many buildings SE build ('are built') in this city

The existence of the D-structures in question is clearly not incidental to the fact that *il* can appear as in (136): if we take 'be' adjective constructions, which differ minimally from passives like (136a) precisely in that they do not have that D-structure, we find that they cannot appear with *il*. In fact there are minimal pairs like (138).

(138) a. Il a été achevé plusieurs constructions cette année.
it has been finished many buildings this year

b. *Il a été inachevé plusieurs constructions cette année.
it has been unfinished many buildings this year

The contrast in (138) is, in this context, the exact counterpart to the one we noted for Italian in 1.3, relative to Ne-Cl (cf. (29), ch. 1). Of course cliticization of *en* is analogously possible in (138a): **Il EN a été achevé plusieurs . . .** 'It has been finished several of them . . .'

Note however that, in order for our claim to be true that both examples of (136) represent D-structure configurations, and that *il* is inserted in D-structure, it must be the case that French SE, unlike Italian SI, is base-generated in clitic position. We believe that this is the case. This conclusion is independently required by the systematic failure of SE to undergo Raising, as in (116b) above, and (139).

(139) a. Il semble se construire beaucoup d'immeubles.
it seems SE to build many buildings

b. *Il se semble construire beaucoup d'immeubles.
it SE seems to build many buildings

We will return to this difference between Italian and French.

We conclude that, in French, the non-argument subject of inversion, *il*, can only be inserted in D-structure, like Piedmontese *ye*. Because of this, *il*-inversion is only possible with ergative verbs, passive and *se-moyen* constructions.⁶³ The impossibility of inversion in other cases and thus the more limited scope of French inversion compared with inversion in Italian and Piedmontese, is due to the non-NS character of French. Since INFL cannot properly govern the subject position, in French, insertion is always required, but no element is available for insertion after NP-movement.

Notice that we find no deeper reason why insertion of *il* or *ye* should be constrained to D-structure. However, since it is a fact that the distribution of these elements is restricted, any theory is bound to have some

condition on their occurrence: the condition we are assuming is maximally simple, and empirically adequate.

We can now account for the Raising/Control contrast of (33) above: **Il semblait/*voulait venir beaucoup de monde** 'It seemed/wanted to come many people': while *il* is Raised into matrix subject position with *sembler*, with the Control verb *vouloir* it cannot be Raised and it can also never be inserted since such verbs require an argument subject in D-structure. *Il*-inversion will thus be impossible with Control ('Equi') verbs altogether. This is not true of Italian inversion, as we noted in 2.3. We saw in fact that in Italian, inversion with Control verbs was impossible only if the *i*-subject was within the complement, but possible (though perhaps marginal) otherwise, as in (34) above: **Sembrava/?Sperava di intervenire Giovanni** 'seemed/hoped to intervene Giovanni'. This follows from the fact that in Italian no insertion into subject position is required, which is to say it follows from the NS property of Italian.⁶⁴

2.6.3. *Se moyen*

In this subsection, we will argue that, like the more limited distribution of French inversion compared with Italian inversion, the more limited distribution of *se-moyen* ('SE') compared with that of Italian SI, is also predictable from the NS property.

As is well known (cf. for example Rizzi (1976b)), SE differs from SI in that it essentially only occurs with transitive verbs, either as in (136b), or as in (137b), repeated as (140a), (140b) respectively.

(140) a. Il_i se construit [_i beaucoup d'immeubles] . . . (French)
it SE builds many buildings

b. [_iBeaucoup d'immeubles] se construisent t_i . . . (French)
many buildings SE build

Many buildings are built . . .

While the cases of (140) can be duplicated in Italian, as we know from 1.6 (cf. **Si costruiscono molte case . . .** 'SI build many houses . . .', **Molte case si costruiscono . . .** 'Many houses SI build ("are built") . . .') none of the Italian cases in (141) can be duplicated in French.

(141) a. [_ie] si_i mangia bene qui (Italian)
SI eats well here

We eat well here.

b. [_ie] si_i è appena arrivati t_i (Italian)
SI is just arrived

We have just arrived.

- c. [_ie] si_i è stati invitati t_i (Italian)
SI is been invited

We have been invited.

This divergence is of interest because of course we assume that SE and SI are fundamentally the same element. This assumption rests on obvious morphological, semantic and syntactic similarities. Note in particular how SE fails to appear in infinitivals, in either one of the variants of (140), just like SI, as shown in (142).

- (142) a. *La possibilité [de se construire des immeubles] est
the possibility of SE to build any buildings is
 limitée. (French)
limited
- b. *Beaucoup de livres s'achètent sans [se lire] (French)
many books SE buy without SE reading
 Many books are bought without being read.

This contrasts with the possibility for all *se*'s (reflexive, inherent reflexive, ergative) to appear in infinitivals, as in (143).

- (143) a. Il serait agréable [de se voir plus
It would be pleasant to see each other more
 souvent] (French)
often.
- b. Jean a passé la nuit sans [s'endormir] (French)
Jean has spent the night without falling asleep.
- c. Le verre est tombé sans [se casser] (French)
The glass has fallen without breaking.

The contrast between (142) and (143) is identical to the one noted for Italian in 1.6. Within our theory, such contrasts are due to the fact that SI, SE require that Case be assigned to the subject position, unlike *si*, *se*.

Let us then consider how the French counterparts to (141) can be excluded. Under the assumption, which we have already made, that SE is base-generated in clitic position, (141b,c) are excluded directly. In fact these are exactly the cases which we claimed required a movement analysis of SI.⁶⁵ What about (141a)? It would seem that by simply inserting *il* into the empty subject in D-structure it ought to be possible to derive the French counterpart of (141a), (144).

- (144) *Il se mange bien ici.
it SE eats well here

However there is reason to believe that, at least in languages like French, Italian and English, non-argument subjects must always be linked with an S or NP argument, as *il* is in (140a). This assumption is required by the fact (to which we will return) that these languages do not have passives with intransitive verbs, i.e. the so called 'impersonal' passives, like **It was danced by everyone*. French has some impersonal passives, such as *Il sera parlé de vous par tout le monde* 'It will be talked about you by everybody' (from Kayne (1975)), but there are also some corresponding cases of SE: *Il se réfléchit à de drôles de choses ici* 'SE thinks about funny things around here' (from Kayne (1975, p. 397, Note 64)). It therefore seems reasonable to assume that cases like (144) ought to be ruled out only to the extent that impersonal passives are. We suppose therefore that what accounts for the contrast between (144) and (140a) is the fact that in (144) there is no post verbal argument to which *il* could be related.

Yet the problem of (144) is not entirely solved: In 2.5.3, we concluded that in Italian cases like (141a) (*Si mangia bene qui*) INFL plays the role of a non-argument pronominal, just like French *il*. Since, in Italian, impersonal passives are at least as unproductive as in French, we must assume for Italian too that non-argument subjects are linked to arguments, from which it follows that the Italian equivalent of *il* in (141a) must be linked to argument SI (cf. Note 57). But why is the same not sufficient for *il* in (144)?

A plausible solution to this problem is provided by recent work of M. R. Manzini (1982), suggesting that the difference between French and Italian here is a reflex of the definiteness restriction. Since it is an independent fact that French *il* only occurs with 'indefinite' arguments, unlike the corresponding non-argument subject of Italian, we may assume that SE/SI is definite in the relevant sense, whence the difference between (144) and (141a). The analogue to (141a) will thus be ruled out differently from the analogues to (141b,c). But this seems correct since, while the prohibition excluding (141a) in French is sometimes relaxed, as in Kayne's example *Il se réfléchit à de drôles de choses ici*, the one excluding (141b,c) is not.

The above discussion has accounted for the differing distributions of SI/SE by appealing to two differences between Italian and French: the definiteness restriction, and the fact that SE is base-generated as a clitic, unlike SI. Although we have no precise understanding of the definiteness restriction, we have suggested in 2.5.4 that it is related to the presence of lexical elements like *there*, *il* (and *ci/ye*), as it never appears with null subjects related only to INFL. If this is correct, then one of the two differences simply derives from the NS property.

Let us consider the second difference and see whether it too can be derived. As we argued in 1.6, cases of the type '[_ie] si_i ... t_i ...' like

those in (141b, c) are possible because SI cliticizes by movement, so that it can undergo NP-movement before it cliticizes. But suppose SE cliticized by movement, like SI. Could corresponding French cases, which would be of the type 'Il_i se_i ... t_i ...', be derived? Not if *il* can only be inserted in D-structure as we claim, since NP-movement of SE would be blocked. Thus, while cliticization by movement of Italian SI gives rise to sentences that could not exist otherwise, cliticization by movement of French SE would not. On the contrary, cliticization by movement of SE would exclude all sentences of the type 'Il se ...' which are possible under a base-generation analysis, like (140a) above. Thus, if we simply postulated that the choice between the two possible analyses of these elements is determined by a principle that aims at maximum productivity, which is not unreasonable, it would automatically follow from the NS property holding in Italian but not in French that Italian SI should be analyzed as moved, while French SE is analyzed as base-generated. Assuming that something along these lines is correct, then the different distributions of SI/SE will now be *entirely* predictable, like the difference in the productivity of inversion, from the different status of the two languages with respect to the NS property.

Notice that our discussion of SE confirms the analysis of SI as a case of cliticization by movement: if SI were base-generated like SE, it would remain a mystery why French and Italian should have such different configurations of data.

2.7. ENGLISH *THERE*

2.7.0 Introduction

In this section we consider inversion in English, namely constructions with pleonastic *there*. We will distinguish two subcases: *there* with *be*, and *there* with other verbs: the so called 'presentational' sentences. We will try to account for a number of differences between inversion in English and inversion in the other languages we have considered. In the case of inversion with 'be' in particular, we will maintain that virtually all the observable differences are reducible to the fact that the Romance counterparts to *there* are clitics.

Given our previous discussion, one might expect that, like *ye/ci* and French *il*, English *there* may also be restricted to insertion in D-structure. We will argue that this is true, or at least is a strong tendency. We will begin by arguing that this view is tenable when *there* occurs with *be*.

2.7.1 'Be' as a Raising Verb

Consider the two forms in (145).

(145) a. There is a man on the roof.

b. A man is on the roof.

If we accept the idea, convincingly argued for in Milsark (1974), that pairs like (145) originate from a common D-structure, there will be two ways of expressing this idea. One is to assume that (145a) is representative of the D-structure configuration, the other that (145b) is. Under the first possibility, derivation of (145a,b) will be as in (146), where both (b,c) are derived from (a).

(146) a. [e] is [a man] on the roof →

b. There_i is [_ia man] on the roof

c. [_iA man] is t_i on the roof

Under the second possibility, (145a) is derived from (145b) via rightward movement of [*a man*] and insertion of *there*. Early analyses, including Milsark's, assumed that the second possibility was true. As far as we can make out, this assumption rested on two considerations:

I. A base form like (146a) would be implausible since the existence of complements, or even phrases, corresponding to some of the material that can follow *be*: our *X* of (147), is not independently attested.

(147) There was [_Xa man { arrested
singing
drunk
on the roof }]

II. A syntactic rule permuting the subject and *be* in linear order has the right properties since it appears to operate quite mechanically with respect to any instance of *be*, whether copular, progressive, or passive, as (147) illustrates.

However, Stowell (1978) has shown that both I and II are crucially flawed. In particular, with respect to II, it is not true that rightward movement would treat all instances of *be* alike, since — as Milsark himself notes — it must fail with 'semi-modal' *be*, as in *A man is to leave at noon* → **There is a man to leave at noon*. With respect to I, complements such as *X* of (147) are indeed attested. In particular by the cases in (148).

(148) a. { We had
We needed } [_Xthe car painted green]

b. We { like
want
keep } [_Xthe hens { locked up
in the barn
pecking at dirt }]

The existence of such phrases as *X* of (147) is attested, not only in cases like (148) noted by Stowell (which are somewhat peculiar to English), but rather massively by complements of verbs like *believe*, *consider* and by 'reduced' relatives, if we give up the idea, which was common in earlier literature, that there is a process of *be* deletion, specifically, if we do not regard cases like (149b), (150b) as derived from the corresponding (a) cases by deletion of the portions in boldface.

(149) a. I consider [him **to have been** accepted in the program]

b. I consider [him accepted in the program]

(150) a. A student [**who has been** accepted in the program] has arrived

b. A student [accepted in the program] has arrived

There are good arguments in the literature to the effect that there is no process of (*Wh-*)*be* deletion. In this work, we will simply take that conclusion for granted, noting in passing how some arguments arise specifically from the material we will be discussing. For more extensive discussion of (*Wh-*)*be* deletion, see in particular Williams (1975), Burzio (1981, 3.3). Rather than (*Wh-*)*be* deletion, we will postulate the existence, alongside of tensed and infinitival clauses, of a third type of clause, which, following Williams (1975), we refer to as a SMALL CLAUSES. The complement in (149b) will then be a small clause ('sc'). The alternation of (149a, b) will now be due to the fact that different types of clauses freely alternate as complements of a verb, in the unmarked case. As for relatives like the one in (150b), the most natural assumption is that they have a PRO subject controlled by the head of the relative, as in (151), so that they too will be small clauses. We will refer to these as SMALL CLAUSE RELATIVES.

(151) A student_{*i*} [PRO_{*i*} accepted . . .] . . .

Relativization in (150b) therefore does not involve *Wh*-movement as in (150a), but Control.

The complement in (147) (*X*) will thus be a sc, and so will those in (148). The four possibilities of (147) are indeed found with sc's in general as in (152), although present participles do not occur freely with complements of *believe*, *consider*, for reasons which remain unclear.⁶⁶

(152) a. I { believe } [sc him { accepted in the program }
 { consider } { ?? applying to the program }
 { proud to be here }
 { on the committee }]

b. A student_{*i*} [sc PRO_{*i*} { accepted in the program }
 { applying to the program }
 { proud to be here }
 { on the committee }] . . .

A sc will thus have a subject, and a predicate ranging over past participle, present participle, adjective, PP.

On the one hand there will therefore be no argument against the derivation in (146). On the other there will be good arguments for it. In particular – as Stowell notes – the impossibility of **There is a man to leave at noon*, no longer requires a special stipulation to the effect that rightward NP-movement must fail with semi-modal *be* (the "Semi-Modal Restriction" of Milsark (1974)). The independent assumption that semi-modal *be* is a modal, and as such does not take sc complements, will suffice. Also, leftward movement as in (146c) is far preferable to the rightward movement of the alternative. Note in particular that within our framework we would expect rightward movement to place the *i*-subject into a VP final position (cf. 1.8), which is clearly not the case here (cf. (147)). Following Stowell (1978), we will thus analyze *be* as a Raising verb taking a sc complement.⁶⁷ We will then slightly revise our analysis of Italian and Piedmontese locational constructions to include the sc boundaries, so that for example Italian (103b) above is now C'è [sc del pane sul tavolo] 'There is some bread on the table'.

Notice that the fact that the subject of passives is the 'semantic' object of the verb, will follow much as in the traditional analysis of passives, since we assume that when the predicate of the sc is a past participle, NP-movement occurs internal to the sc as in (153a), while no analogous movement occurs with present participles, as in (153b).

(153) a. [e] was [John_{*i*} invited t_{*i*}] → John was invited.

b. [e] was [John walking] → John was walking.

We assume, specifically, that past participles fail to assign a θ -role to their subject: the same property which we had been attributing to the passive morphology as a whole. Therefore *John* in (153a) could only be linked with object θ -role. For present participles, we assume that they maintain the same properties of θ -role assignment as the corresponding verb, so that *John* in (153b) will have subject θ -role. Analogously for complements of *believe*, *consider*, as in *I consider [John_{*i*} invited t_{*i*} to the party]*.

The same considerations will hold for sc relatives, so that we will have the two different cases in (154).

(154) a. A student [PRO_{*i*} accepted t_{*i*} in the program]

.. b. A student [PRO applying to the program]

Our analysis of sc relatives will thus predict correctly that the relativized element will always be the subject of the corresponding verb with present participles, as in (154b), while with past participles it will never be the subject, as (155a) shows. Rather, with past participles, it will be either the

direct object, as in (154a), or the object of a preposition in cases in which the preposition can be stranded, as in (155b), or in general some NP that can move into subject position.⁶⁸

(155) a. *A student [PRO applied to the program] has arrived.

b. The rights [PRO_i infringed upon t_i] were mine.

To avoid confusion we note here that the property of the past participles in (153a), (154a) which we have been discussing, is not to be extended to past participles of active complex tenses, such as the one in *John has walked*. The latter will be regarded as forming a verbal unit with the aspectual auxiliary, a unit which is identical to the corresponding verb with respect to assignment of θ -roles. Where confusion may arise, we will refer to the past participles of (153a), (154a) as PASSIVE (PAST) PARTICIPLES.

While it could be shown that it does not incur any of the problems of (*Wh*-)*be* deletion, the analysis we are proposing will account precisely for the parallelism between *sc*'s and *be* clauses that (*Wh*-)*be* deletion analyses aimed to capture. The relation has simply been reversed: *Be* clauses (for example, (153)) are now essentially 'augmented' small clauses, whereas under (*Wh*-)*be* deletion *sc*'s were 'reduced' *be* clauses.

Romance provides further evidence that Stowell's analysis of *be* is correct. First, we recall from 2.5.3 that both the distribution of Piedmontese *ye* and the possibility for Ne-Cl point to the existence of D-structures like (146a) (i.e. of the type '[e] *be* NP ...'), thus confirming the analysis in question. Then, we note that the differences between French and Italian in the cases in (156), (157) provide further confirmation.

(156) a. Marie a été [_{sc} t à la mer] (French)

Marie has been at the sea (A; no ag't)

b. Marie è stata [_{sc} t al mare] (Italian)

Maria is ('has') been ('fem.') at the sea (E; ag't)

(157) a. Marie a été [_{sc} t invitée t] (French)

Marie has been invited (fem.) (A; no ag't; ag't)

b. Marie è stata [_{sc} t invitata t] (Italian)

Maria is ('has') been (fem.) invited (fem.) (E; ag't; ag't)

The distribution of auxiliaries and agreements in (156), (157) follows straightforwardly from our discussion of 2.6.2, but crucially only under the Raising analysis of 'be', not under the traditional analysis. Let us first

consider the Raising analysis, the one given in those examples. The relation in (156) is a periphery case for Italian (cf. (128c), assuming that *sc* boundaries are just like *S* boundaries for *E* assignment); therefore we expect *E* to be possible in (156b). But if we also consider the principle we discussed in 2.6.2, we can actually predict that *E* should be not only possible, but necessary here. The reason is that 'be' also occurs in existentials (in Italian; French uses 'have' of *Il y a ...*) like (158), which are core cases for Italian, since no clause boundary is involved (cf. (128b)).

(158) [_ie] c_i'è stato [un terremoto] (Italian)

there is ('has') been an earthquake (E)

While *E* is thus assigned in (156b), *A* is assigned in (156a), since the configuration is outside of the system for French (cf. (128c)). The distribution of pp agreement in (156) follows in the same way as that of *E*.

In (157), the relations involving the matrix subject are identical to those in (156). Auxiliary and agreement on the main verb are thus correctly predicted, as in (156). As for the relation internal to the complement, the latter will give rise to a core case for Italian, and a periphery case for French. No auxiliary will appear here, since there is no auxiliary in *sc*'s, but pp agreement will. The agreement of (157b) is thus predicted to be necessary, the one in (157a) to be possible.⁶⁹

Let us now consider the traditional analysis of 'be'. The latter would fail in particular with respect to (156b) and (157a), given in that analysis in (159).

(159) a. Maria è stata al mare (Italian)

Maria is ('has') been (fem.) at the sea (E; ag't)

b. Marie a été invitée t (French)

Marie has been invited (fem.) (A; no ag't; ag't)

In (159), since there is no binding relation, auxiliary *E* and pp agreement are quite unexpected. In (159b), since the configuration would be a periphery case for French, auxiliary *A* is predicted possible, but what is curious is that the rightmost past participle (the passive participle) should exhibit agreement. As we saw in 2.6.2, we never find any case in which the same subject-object relation triggers either one of *E* assignment or pp agreement without triggering the other. This would be the only case. The distribution of *E* and pp agreement thus provide evidence that the Raising analyses in (156), (157), rather than the traditional analyses in (159) are correct.

Further support for the Raising analysis of 'be' is provided by reflexive/reciprocal *si/se*. The latter quite generally fails to occur with derived

- b. [e] c'era [del pane sul tavolo] (Italian)
there was some bread on the table

D. The latter configuration is impossible however with any other type of inversion, as suggested in (167) (and as we have seen in (99), (100) above).

- (167) a. *Il était [du pain sur la table] (French)
it was some bread on the table

- b. *[e] era [del pane sul tavolo] (Italian)
was some bread on the table

Concerning A–D above, one may suppose that, over such frequently used constructions, the different distributions we have just noted, merely reflect language specific idiosyncrasies. However, we will suggest that there are more principled reasons for the differences.

With regard to point A, if 'be' is a Raising verb, then *ci*, *ye* are presumably excluded from sentences like (162) by the same factors that exclude them from other Raising structures. In 2.5.3 above, we claimed that with *ci* the inversion relation must be established at D-structure, subject to locality conditions. Under this view, (162) will be ruled out because the inversion relation of its D-structure (168) is 'non-local'.

- (168) [_ie] ci_i furono [e] costruite [molte case] (Italian)
there were built many houses

A D-structure condition ruling out the relation of (168) is thus empirically supported by the ungrammaticality of cases like (162) involving 'be' and by the non appearance of *ci* on Raising verbs in general, discussed in 2.5.3, but we may ask what the theoretical status of such a condition is. Our idea is that *all* relations involving base-generated clitics must exist at D-structure. This would follow from the projection principle for a core number of cases, namely for clitic-*ec* relations, in the manner we discussed in 1.4. However, our claim is that this reflex of the projection principle is in effect generalized to an operative principle that deals with *all* relations involving base-generated clitics in the same fashion. This would also explain (by replacing (93) above) the fact noted in 2.5.3 that pleonastic *ci* must be linked with a non-argument subject even at D-structure, and the fact noted just above, that reflexive *si* cannot occur with a derived subject. The latter follows because *si* must have an antecedent even at D-structure. If relations that involve clitics *must* obtain at D-structure, it is natural to assume that they will have to obey locality conditions, even at D-structure, and we will then consider what these conditions are. In Part II, where we return to these issues, we will claim that it is the usual binding conditions that apply at D-structure. Example

(168) is then ruled out by the binding principle we proposed for inversion: (51) above.⁷⁰

The same considerations ruling out (162), namely the ill-formedness of D-structures like (168), will rule out the cases in (165) as well.⁷¹ The cases in (164) will be allowed in contrast with (162) and (165) because the non-argument subjects *il* and the *ec* of Italian are Raised, so that there will be no violation of locality conditions here. Notice that there will never be an analogous possibility of Raising applying in *ci/y* cases, since *ci/y* is inserted directly as a clitic and not in NP position.

The impossibility of (162) will contrast with the possibility of superficially similar cases in which an adjective rather than a passive participle is involved, like (169).⁷²

- (169) C'erano [molte case disabitate]
there were many houses uninhabited

The grammaticality of (169), like that of (166), will be due to the fact that the S-structure subject of the *sc* is in that position at all levels, so that locality conditions on the inversion relation will never be violated.

We have so far covered A and C above. We now consider D before turning to B. As we discussed in 2.5.3, the ungrammaticality of (167b) seemingly forces us to assume that inversion possibilities are hierarchically ranked and that inversion with *ci* is higher in the hierarchy; (167b) will thus be impossible because (166b) is possible. Similar considerations for French will rule out (167a) given (166a).⁷³ We are thus left with B and the cases in (163).

It would seem reasonable to suppose that the impossibility of (163) is related to that of (167). Let us then suggest that in the context (170), where NP is lexical, *ci/y/ye* is required not only if it is possible as we assumed in the preceding paragraph, but even if it is not.

- (170) ___ be NP...

The configuration of (170) will then be ruled out altogether in the case of passives since, though *ci/y* is required, the latter cannot be successfully inserted, for the reasons we discussed. We may regard the condition requiring insertion of *ci/y/ye* in (170) as universal over the languages in question, thus affecting English *there* as well, although English has no alternative inversion strategy. We may then further assume that in (standard, contemporary) English the relevant conditional is strengthened to a biconditional, i.e. that not only will (170) require *there*, but that *there* (when it occurs with *be*) will require the context in (170) as well. This will rule out ?**There were built several houses*, parallel to (164) and contrasting with (161a) (*There were several houses built*).

Although a few things have been left vague at the formal level, we take this discussion to provide some explanation for the distribution of the various inversion strategies with 'be'. In essence, our thesis is that the distribution reflects, not so much a difference between English and the Romance languages under discussion, but rather a difference between the type of inversion with *there/ci/y/ye* and all other types. As for the differences between *there* and *ci/y/ye*, these appear predictable from the fact that *ci*, *y*, *ye* are clitics. This will itself be predictable on the basis of the principle mentioned in 2.3 and 2.5.5 above, which we may regard as universal, a principle prescribing that non-argument subjects (which cannot receive stress) will be clitics whenever they can. Thus, English *there* cannot be a clitic, since English has no clitics, while Italian and Piedmontese will have clitics *ci/ye* since these languages do have clitics and furthermore since in these languages INFL can properly govern the subject position. French will have clitic *y* because it too has clitics and because, although INFL is not a proper governor in this language, it has another non-argument subject (beside *y*) which is not a clitic and which can thus fill the subject position, namely *il*. Our principle predicts in fact that in a non-NS language that has clitics, like French, any non-argument subject 'can' be a clitic, so long as there is one which is not, like *il*.

We now note that some of the configurations possible with 'be', such as the one in (171a) (relevantly analogous to (161b)), are not possible with other verbs, as shown in (171b).

- (171) a. There are [many people sick]
 b. ?*There seem [many people sick]

Be and *seem* do not differ if instead of *there* insertion, NP-movement occurs, as in (172).

- (172) a. Many people_i are [t_i sick]
 b. Many people_i seem [t_i sick]

The ungrammaticality of (171b) is unlikely to be related to the occurrence of *there* (although *ci/y/ye* give the same results). More likely, it is related to the ungrammaticality of the cases in (173), noted in 2.4 above.

- (173) a. ?*Sembra [Giovanni ammalato]
seemed Giovanni sick
 b. ??Giovanni sembrava [lui ammalato]
Giovanni seemed he sick

Since we lack a precise understanding of (173), we will not be in a position to account for the contrast in (171). It may seem reasonable to sug-

gest however that the grammaticality of (171a) and analogous cases is related to the fact that *be* also occurs in existentials (as in *There is a Santa Claus*), whereas *seem* does not.⁷⁴

We now turn to instances of *there* with verbs other than *be*, that is, presentational *there*.

2.7.3 Presentational *there*

English *there* is not restricted to 'be' like Italian *ci*, yet its distribution is clearly more limited than that of Piedmontese *ye* or French *il*. There are two ways in which we may attempt to account for this difference. One is to assume that, while *there* can be inserted with *all* ergative verbs, English has a different, more restricted class of ergative verbs than the Romance languages we have discussed. The other is to assume that, while English has the same class of ergative verbs, additional constraints account for the limited distribution of *there*.

Now note that the existence of 'semantic' restrictions — limiting occurrence of *there* roughly to verbs of appearance — is independently established, by minimal pairs like (174) (from Kayne (1979)).

- (174) There has just $\left\{ \begin{array}{l} \text{appeared} \\ \text{??disappeared} \end{array} \right\}$ another book by Smith.

It is in fact very unlikely that *appear* and *disappear* of (174) could differ with respect to whether they are ergative or not. We thus assume that the rather limited productivity of presentational *there* is due to semantic factors, which we will not attempt to define precisely, referring for this to relevant literature, in particular to Milsark (1974), Stowell (1978), Kayne (1979), Guéron (1980). If we assume no other difference between *there* and *ye/il*, we will predict *there* to be possible *only* with ergative verbs, though not with all of them. This prediction is fulfilled in some respects, but not in others. We first consider the respects in which it is.

The majority of verbs with which *there* can appear most naturally, such as those in (175), are indeed verbs that we would independently assume are ergative.

- (175) arise, emerge, develop, ensue, begin, exist, occur, arrive, follow

The verbs in (175) will in fact be ergative under our assumption that English has roughly the same class of ergative verbs as Italian, since the Italian equivalents *sorgere*, *emergere*, *svilupparsi*, *succedere*, *cominciare*, *esistere*, *accadere*, *arrivare*, *seguire* are all ergative, taking auxiliary E (on *cominciare*, *seguire* 'begin, follow' see below).

The correctness of the hypothesis that *there* occurs only with verbs whose Italian counterparts take auxiliary E, is suggested by the fact that it solves some problems noted in Milsark (1974). Consider the contrast between (176) and (177).

- (176) a. A rainstorm followed.
 b. There followed a rainstorm.
- (177) a. A taxicab followed.
 b. *There followed a taxicab.

The two different meanings of *follow* pointed out by Milsark, i.e. 'occur after' and 'move in the same direction as, but behind', are also found with its Italian counterpart *seguire*, but are associated with different auxiliaries, as in (178).

- (178) a. Alla bella giornata era seguito un temporale. (Italian)
 to the nice day was followed a storm (E)

A rainstorm had followed after the nice day.

- b. L'auto si era mossa ed il tassì aveva seguito. (Italian)
 the auto itself was moved and the taxi had followed (A)

The auto had moved and the taxicab had followed.

This suggests that the verb of (176) is ergative, whereas the one of (177) is intransitive. The contrast between (176b) and (177b), a rather curious fact in the context of Milsark's discussion, is thus accounted for by our hypothesis. A similar case noted by Milsark is represented by the contrast between *start* and *begin* in (179), (180).

- (179) a. The riot began.
 b. There began a riot.
- (180) a. The riot started.
 b. *There started a riot.

In Italian we find only one verb corresponding to both *start* and *begin*, but again one featuring two different auxiliaries, as in (181).

- (181) a. Gli operai avevano appena cominciato (i lavori) (Italian)
 the workers had just started (the works) (A)

- b. I lavori erano appena cominciati (Italian)
 the works were ('had') just begun (E)

The contrast between (179b) and (180b) would then follow if we assumed that only *begin*, not *start* is ergative, like *cominciare* of (181b).⁷⁵

The correctness of the hypothesis that *there* only occurs with ergative verbs can be partially confirmed, even independently of any Italian facts, by noting that if we take the class of verbs which we assume are ergative because they have transitive alternants, such as *spill*, *assemble*, *circulate*, *roll*, etc., results with *there* are rather systematically on the good side, too systematically to be accidental.^{76,77}

- (182) a. (?) There spilled large amounts of wine over the floor.
 b. (?) There assembled a large number of people in the square.
 c. (?) There circulated many crazy ideas at the conference.
 d. (?) There rolled a big boulder into the lake.

In so far as the aspects of the distribution of *there* just noted can be accounted for along the lines discussed, they provide evidence for the existence of a class of ergative verbs in English. We may note a few further reasons for assuming that English has such a class of verbs. One reason is theoretical. As we noted in 1.3 above, within our theoretical framework, such a class is expected, in English as well as in Italian. A few other reasons of a more empirical nature are discussed in Burzio (1981). These concern in particular *-er* affixation, as in (183), and the distribution of 'expletive' objects, as in (184).

- (183) killer, walker, *arriver

- (184) a. He walked [the hell out of those shoes]
 b. *They arrive [the hell out of those bus terminals]

A most natural assumption regarding *-er* affixation is that it requires that the verb assign subject θ -role. Nominals in *-er* in fact specifically refer to that θ -role, i.e. a *killer* is one who kills (not one who is killed). The contrast in (183) will then follow from the assumption that *arrive* does not assign subject θ -role, i.e. is ergative, unlike *kill* and *walk*.⁷⁸ As for the contrast in (184) it will follow from the same assumption in conjunction with the descriptive generalization introduced in 1.8 above that verbs have one direct object at most. In (184b) there are two: the trace of *they* and the phrase within brackets. (We will see how this descriptive generalization follows from Case theory.) Notice that both *-er* affixation and expletive objects are impossible with the verbs of (175), as well as with those of (182) at least in their ergative use. Thus *developer* cannot refer to the idea of *A brilliant idea developed*; *beginner* cannot be the riot of (179); and while *follower* can perhaps refer to the taxicab in (177), it can never refer to the rainstorm of (176).

Turning now to the respects in which our prediction is not fulfilled, we note that cases involving non ergative verbs also exist, as in (185), from Milsark (1974).

(185) a. There walked into the bedroom a unicorn.

b. There ambled into the room a frog.

However, Milsark distinguishes cases like (185) from cases involving the verbs in (175). He notes that with verbs like *walk* the *i*-subject (our terminology) occurs in VP final position, (cf. (185)), whereas with the verbs of (175) it occurs VP internally, adjacent to *V*, as for example in (186) (also from Milsark).

(186) There arose many trivial objections during the meeting.

The *V*-adjacent/VP final distinction noted by Milsark, which has no explanation within his discussion, seems to me to follow rather closely an ergative/non ergative distinction made on independent bases, and is then exactly what we would expect if *there* constructions could be derived not only by inserting *there* in *D*-structure, but also by insertion after rightward movement of the subject. The difference in linear order between, say, (185) and (186) would then simply be the counterpart to analogous differences we noted for Italian in 1.8 above.⁷⁹

Cases like (185) therefore do not challenge the existence of ergative verbs in English. If Milsark is right they in fact confirm it. What they challenge is the assumption that insertion of *there* is limited to *D*-structure. At this point we thus have to choose between relinquishing the latter assumption and losing those explanations which it provides, or maintaining it and regarding cases like (185) as somewhat outside of the core system. The second alternative would also be suggested by the fact that, at least for many speakers, such cases are on a lower scale of acceptability. It seems clearly preferable.

We have argued in this section that the cases in which *there* occurs most productively, namely those involving *be*, are clearly cases of base-generation. A Raising analysis of main verb 'be' is in fact supported by a number of convincing and quite independent arguments. Internal to English we have Stowell's arguments and the explanation for the Semi-Modal Restriction. Within Romance we have the distribution of Piedmontese *ye*, the possibilities for *Ne-Cl*, the distribution of reflexive *si/se*, the distributions of auxiliaries and *pp* agreement in Italian and French. Internal to French we have Couquaux' discussion of *En-Avant* to which we made reference.

Furthermore, we have seen how some superficial differences between *there* and its Romance counterparts *ci*, *y*, *ye* are predictable from the fact that the latter are clitics, a difference which is itself reasonably well predicted by independent considerations.

Finally, we have considered occurrences of *there* with other verbs and noted that while some evidence indicates that *there* selects ergative verbs, just as *ye* and *il* do, the occurrence of *there* with some non-ergative verbs

seems to falsify this view. We suggested that a way to avoid the paradox is to assume that instances of *there* with non-ergative verbs fall on a lower scale of grammaticality.

Our discussion leaves a residue of idiosyncratic differences among the various elements that correspond to *there*, represented by the fact that while Piedmontese *ye* is not constrained by any extrasyntactic factors, Italian *ci* and French *y* are *lexically* constrained to occurring with 'be' (realized as *avoir* in French), and English *there* is *semantically* constrained to presentational contexts, or verbs of appearance.

2.8 CONCLUSION

In the first part of this chapter, we characterized both inversion and extraposition as consisting of a relation between a non-argument subject and a post verbal argument NP or S. We argued that the latter relation is subject to locality conditions analogous to those holding for NP-trace relations, and attempted to capture such conditions under an extension of the binding theory.

If our claim is true that this characterization is to apply equally well to Italian and to English or French, then it must be the case that Italian employs empty subject positions in the way that English and French employ overt pleonastic subjects like *there* and *il*, so that the type of inversion one finds in Italian is strictly contingent on the Null Subject property. On the one hand, such a claim was supported by the fact that the relevant evidence cuts across the two types of languages. In particular we noted that evidence for coindexation between subject and post verbal argument arises both in English and in Italian. On the other hand, the claim seemed challenged by the more limited distribution of inversion in English, French than in Italian.

Since in chapter 1 we had argued for the existence of two types of inversion in Italian (a conclusion corroborated by the existence, even in English, of two kinds of extraposition), a natural way to address the more limited productivity of inversion in French and English is to ask whether these languages may not simply lack one of the two types. In essence, this is the question we considered in the second part of the chapter.

What has emerged is that this is indeed true, and that inversion by rightward movement is — to a very good approximation — missing in these languages. We have attributed this fact to a constraint limiting insertion of pleonastics like *il* and *there* to *D*-structure. NS languages like Italian will always allow inversion since they allow null subjects, and thus do not *require* insertion, though they may allow it. The view that it is insertion versus non-insertion of a pleonastic element that plays the major role in limiting the productivity of the construction is confirmed by the fact that, if we look only at inversion *with* insertion of a pleonastic ele-

ment, then the differences among the languages become of a smaller order, and indeed no longer follow the distinction between NS and non-NS languages. Thus inversion with *ye* in Piedmontese (a NS language) has approximately the same distribution as inversion with *il* in French (a non-NS language) and Italian *ci* has an even more limited distribution than its English equivalent *there*.

If this account is correct and if in fact the complete productivity of inversion in Italian is itself a reflex of the NS property, then our earlier assumption that Italian inversion shares essential properties with inversion in English and French, is not only no longer challenged, but is in fact supported, since it is precisely the latter assumption that allows us to predict the difference in distribution.

While we assume that, with respect to inversion, insertion of pleonastic elements is constrained to D-structure as we said, we must mention that no analogous restriction appears to exist with respect to extraposition (see, however, Note 63). Thus, for example, English *it* is not limited to the base-generated type of extraposition. We have no formal proposal to account for this difference, but we may informally relate it to the rather general tendency to place heavier phrases last. Since sentences are generally heavier than NPs, we may suppose that the lack of extraposition by rightward movement would run counter to the latter tendency to a greater extent than the absence of the corresponding type of inversion would.

NOTES

¹ Given cases like (2b) and others that will come up in this chapter, the definition of *i*-subject that was given in 1.1 above (p. 22), which was "The NP_i in a form ... V_j ... NP_i ... , such that the verb V_j agrees with NP_i and such that there is a near-synonymous from NP_i V_j ... ", will have to be slightly modified. In particular we will have to assume that the portion of the definition which refers to verb agreement holds only sometimes. We will continue to make reference to verb agreement in connection with *i*-subjects where this is applicable, as we did above.

² For discussion of the definiteness restriction, see Milsark (1974), Stowell (1978), Kayne (1979), Guéron (1980), as well as Safir (1980).

³ On the distributional analogies between clitics and null subjects, note that languages that have null subjects also have clitics; both null subjects and cliticization correspond to lack of contrastive stress; syntactic constructions that require cliticization for objects correspondingly require null subjects. An illustration of this is the strategy to form relative clauses by resumptive pronouns, discussed in Rizzi (1978b). Under the latter strategy it is null subjects and object clitics that can function as resumptive pronouns.

On the correlation between the NS property and richness of inflection, cf. Note 46 below.

⁴ The class of proper governors, which contains the lexical categories (N, A, V, P), excludes INFL, as we mentioned in 1.0.3. However, it must include elements in COMP which are coindexed with the *ec*, to account for the phenomena we discuss shortly below in the text. For further details, see LGB 4.4 (Cf. also Notes 8, 9).

⁵ Rizzi comes to this conclusion by noting that Italian is just like French (and English) in

not allowing wide scope interpretation of quantifiers in subject position, as in (ib) compared with the French counterpart (ia).

- (i) a. *Je n'ai exigé que personne soit arrêté.

I have NOT required that ANYBODY be arrested.

- b. *(in the interpretation)

Non pretendo che nessuno sia arrestato.

I do NOT require that ANYBODY be arrested.

Both cases in (i) are ungrammatical under a reading in which the quantifier is in the scope of the negation (i.e. under the 'nobody' reading), although for the Italian case there is one grammatical reading, for reasons which Rizzi discusses. The corresponding cases involving objects are (near) grammatical, as in (ii).

- (ii) a. ?Je n'ai exigé qu'ils arrêtent personne.

I have NOT required that they arrest ANYBODY.

- b. *Non pretendo che arrestino nessuno.*

I do NOT require that they arrest ANYBODY.

Assuming, as seems plausible, that the subject/object asymmetry of (i), (ii) must be accounted for in the same manner as the one in (5), (6), by postulating a rule that moves the quantifier to the higher S in LF, thus mimicking Wh-movement, it must be the case that Italian also disallows extraction from subject position; hence the hypothesis that Wh-movement never occurs from subject position. Rizzi's hypothesis can be tested directly in cases like (iii), where the inverted and the non-inverted forms differ by more than the position of the 'subject', as Rizzi discusses.

- (iii) a. Ne arrivano [molti]
of-them arrive many

[Quanti] credi che ne arrivano?
How many of them do you think will arrive?

- b. [Molti] arrivano
many (of them) arrive

*[Quanti] credi che arrivano?
How many of them do you think will arrive?

The fact that only the inverted form (iiia) has a Wh-moved counterpart confirms Rizzi's hypothesis (on *ne* and the null partitive phrase of (iiib) see 1.2, 1.4 above, Note 23 ch. 1, and Belletti and Rizzi (1981)).

⁶ See in particular Chomsky and Lasnik (1977), Taraldsen (1978), Pesetsky (1979), Kayne (1980a).

⁷ Cases like (8) (and analogously cases involving null subjects like (7b)) become possible where clitics can function as resumptive pronouns (cf. Note 3), e.g. as in *Chi credi che abbia sparso la voce che Giovanni la vede?* 'Who do you think has spread the rumor that Giovanni sees her?' It is easy to show that in these cases there is no movement, and the pronoun functions as a variable.

⁸ However, it appears that not only movement of the subject *over* an adjacent complementizer as in (7b) is impossible, but even movement *into* such a position. Compare the ungrammaticality of *[Quanti] arrivano? 'How many (of them) arrive?' with (iiib) of Note

5. Italian thus appears to have an even stronger prohibition than English, as Rizzi notes. Two possibilities come to mind to account for this fact, not accounted for in the text (i). Somehow, in Italian an *ec* in subject position must always be interpreted as related to INFL (i.e. as a pronominal, never as a variable). (ii) Proper government of the subject by an element in COMP (cf. Note 4) is a marked option, taken only by those languages that do not have an alternative such as a productive inversion strategy. Italian would thus differ from English not only in not allowing proper government from COMP under *that*-deletion, but in not allowing proper government from COMP altogether. Of these possibilities Rizzi assumes (i), but it seems to us that (ii) might be more principled.

⁹ Under the pronominal option, INFL will be a proper governor just like a noun (cf. Note 4).

¹⁰ Government absorption, unlike Case absorption, seems suspicious because, whereas Case can reasonably be regarded as a feature, which *can* thus be absorbed, government is a certain type of configurational relation, which we expect to change only when the configuration changes. The conceptual difficulties associated with government absorption are paralleled by empirical difficulties. Consider for example (i).

- (i) a. Giovanni la fa riparare [e]
 Giovanni *it makes repair*
 Giovanni has it repaired.
- b. Giovanni gli butta l'acqua addosso [e]
 Giovanni *to-him throws the water upon*
 Giovanni throws water on him.

There is reason to believe that in the causative construction of (ia) both verbs govern the embedded object. It would thus be unclear how the clitic could absorb government from both. Analogously in (ib), it seems at most plausible that the clitic could absorb government from the verb, but government by the preposition would remain, still incorrectly barring PRO.

As empirical evidence for the governed status of the object position, Jaeggli cites Spanish cases like (ii) involving Wh-movement in so called "Clitic Doubling" constructions.

- (ii) *₃A quien la viste?
 to whom-her (you) saw
 Who did you see?

If clitic *la* made the object position ungoverned, then indeed (ii) would be excluded by the ECP. However, the status of sentences like (ii) seems to be tied to dialect specific factors rather than to the ECP. For example, Borer (1981) reports that in certain dialects of Spanish such sentences are acceptable.

¹¹ But there are stronger reasons for rejecting the PRO hypothesis, acknowledged in Chomsky (1981c). One is the difference in syntactic/semantic properties between established instances of PRO and NSs: while PRO is only definite in interpretation when it is controlled, as in *Mary hopes [PRO to go]*, and is otherwise 'arbitrary', as in *[PRO to leave] would be rude*, a NS is always definite and never controlled. This difference can be accommodated under the PRO hypothesis, but not very naturally. Another reason for rejecting the hypothesis relates to the cases of inversion in Spanish discussed in Torrego (1984), which provide rather convincing evidence for government of NSs, a conclusion also suggested by the class of Italian gerundive constructions of Rizzi (1982b, III, IV).

¹² Cf. Belletti (1982).

¹³ The point of the text seems to me to stand in spite of cooccurrence of SI with first person plural *noi* in Tuscan dialects (cf. Note 47, ch. 1), as in *Noi si va* 'we-SI goes'.

As Belletti (1982) notes, the view that SI is an instance of INFL seems supported by the fact (discussed in 1.7) that SI does not induce verb agreement, i.e. one could suppose that with SI the verb is not inflected since SI itself is the inflection. However, this interpretation seems to me challenged by the fact that in Italian dialects in which INFL has overtly the form of a clitic, such a clitic does appear with SI, as in the Piedmontese example (i).

- (i) A s mangia bin.
 clitic SI eats well
 We eat well.

If SI was INFL, one might expect third person singular clitic *a* of (i) not to appear. For further discussion, see 2.5.1.

¹⁴ While INFL can bind the subject position because it c-commands it, as in (4), the same is not true of subject clitics like SI. For the latter, we assume as discussed in Note 45, chapter 1, that the binding relation is essentially reversed, the subject position binding the clitic. We will be more explicit on these matters in 2.5.3 below, where we extend the discussion to the other subject clitic *ci* (cf. Note 57). In this respect the two relations in (14) actually differ, so that, as an alternative to the solution proposed in the text, one might consider accounting for the difference in auxiliary by sharpening up the formulation of the E assignment rule.

¹⁵ Actually there are a few cases in which non-argument *it* occurs in conjunction with NPs as in *It is John*, *It is time to go*. As for weather *it*, we assume with LGB, 6 that the latter is a 'quasi' argument, therefore not a non-argument. The (near-)argument status of weather verb subjects is stressed (somewhat theory internally) by the fact that in Italian these verbs take either auxiliary. Under our proposals, the possibility for auxiliary E corresponds to a possibility for the verb to be ergative, and thus have a D-structure direct object. But by the projection principle, direct objects – unlike subjects – cannot fail to have a θ -role, from which we infer that the NP associated with a weather verb has some θ -role, i.e. is not a non-argument.

¹⁶ Milsark (1974) has noted a certain peculiarity in this kind of agreement, illustrated in (i).

- (i) a. [A chimp and a gorilla] { [?]*was
 were } in the cage.
- b. There { was
 ??were } [a chimp and a gorilla] in the cage.

The contrast between (ia) and (ib) argues against the view that in *there*-constructions the verb agrees directly with the *i*-subject. However, we have no explanation for the effect in (ib). This effect is also found with Italian constructions employing pleonastic subject *ci* 'there' though not with other instances of inversion in Italian.

¹⁷ In Chomsky's discussion INFL contains the feature [\pm tense] as well as the agreement element AGR. It is actually the latter element rather than INFL which is referred to in Chomsky's version of (18a). Our discussion slightly simplifies Chomsky's by not distinguishing AGR from INFL.

¹⁸ There is some conceptual analogy between such a discussion of cases like (17b) (and (20) below) and the discussion of 'reconstruction in LF' which we will present in 3.3 below, in the sense that one can view the grammaticality of, for example (17b) in terms of reconstruction of S_2 into the position occupied by non-argument *it*. One thus wonders whether phenomena exemplified by (17b) (and (20)) and reconstructions phenomena may in fact not be of one kind. But we will not pursue this question here.

¹⁹ The view that Case is necessary for θ -role assignment goes under the name of the VISIBILITY HYPOTHESIS and was first advanced by Y. Aoun.

²⁰ We must note however that the requirement that all arguments must be in a θ -position at D-structure is relaxed for base-generated clitics.

²¹ Notice that the hypothesis that the clause is moved rightward even in cases like (21a) (from *That John would leave was expected*) is untenable (even aside from the unnecessary complexity of having movement first to the left and then to the right) since, as is noted in Williams (1980), some such cases would then fail to have a source, cf. *It was felt/reasoned that S vs. *That S was felt/reasoned*; analogously with *It seems that S vs. *That S seems*.

²² In the case of Italian we must assume that person, number, and gender features are transmitted. Person and number features are required by verb agreement, e.g. *Siamo arrivati noi* 'Have arrived we'. Number and gender features are required by part participle agreement (which we assume is with the subject position). In English only transmission of number features is attested, since *there* only occurs with third person *i*-subjects, and since English has no past participle agreement.

We will see in 2.5.4 below that while the general case of inversion in Italian differs somewhat from *there*-constructions with respect to verb agreement, there is essentially no difference between English and Italian if we consider constructions that involve the equivalent of English *there*, namely *ci*. Where they exist, differences between English and Italian seem therefore predictable from the constituency of the non argument subject. This gives us reason to believe that contrasts like (i) are also predictable along the same lines.

- (i) a. It is $\left\{ \begin{array}{l} \text{me} \\ I \end{array} \right\}$.
 b. Sono io.
 am I

We may in fact assume that it is a general property of non-argument subjects like *it* that they do not allow transmission of features. (Compare French *il*, which never does.) Agreement will thus occur in (ib) because Italian does not require an element like *it*, presumably a reflex of the NS property.

²³ Note that if the discussion in Rizzi (1982b, IV) is correct, in Italian infinitival inflection can also be a proper governor, like tensed inflection (Rizzi points to a class of infinitivals that have some of the properties of NS sentences). If this is true, then (23b) will be ruled out only by lack of Case marking and not also by the ECP, since the subject position will be governed.

²⁴ The auxiliary is therefore a diagnostic for subject versus object θ -role of sentential arguments. Another diagnostic is provided by the observation of Radford (1977) that complementizer *di* only occurs with complements (i.e. Ss) that have object θ -role (cf. (27)). The correctness of Radford's observation is emphasized by the contrast between passives like *Mi fu proibito di posteggiare* 'It was forbidden to me to park' and superficially similar adjectival cases like *Era proibito (*di) posteggiare* 'Parking was forbidden'. The same facts do not seem to hold however in French, which allows *Il est facile de chanter* 'Singing is easy'.

²⁵ Cases like (28iiib), i.e. **Li si leggeranno volentieri*, are actually reported as uncommon, rather than as totally impossible, by some descriptive grammars (cf. in particular Lepschy and Lepschy (1977, p. 218). Within our proposal, such marginal possibility, contrasting with the absolute impossibility of, for example, **Li arriveranno* 'They will arrive' is to be related to the fact that the transitive verb *leggere* in (28iiib) can assign accusative whereas ergative verbs like *arrivare* cannot (as we will discuss in 3.1 below). Notice in fact that our discussion in the text does not make clear what exactly would exclude (28iiib), it assumes only implicitly that non nominative NPs cannot enter into a chain with the subject position.

The account of failure of pronominalization of *i*-subjects which we are providing here thus differs from the one given in Kayne (1979). Kayne assumes that French cases like (i) are ruled out by the definiteness restriction.

- (i) *Il l'est arrivé.
 It has arrived him.

For us, (i) is ruled out by the hypothesis that clitics like *le* are exclusively accusative. The superiority of our account is established by the fact that a 'definiteness' account of (i) fails to carry over to Italian cases, in which the definiteness restriction is inoperative.

²⁶ In this respect clitic reflexives differ from non clitic ones and from other elements like PRO, which can still take SI for an antecedent even after Object Preposing: *Queste cose si dicono sempre di se stessi* 'These things SI always say about themselves' (for an example with PRO see (44) in 2.3 below). Cf. also Note 42, chapter 1.

²⁷ Also, the exclusion of non third person objects in both of (b) and (c) below, which we noted in 1.6, is likely to be better captured under our analysis of inversion than under the alternative we are dismissing. (Only under our analysis are (ib, c) structurally parallel).

- (i) a. Si invitò voi.
 SI invited (3rd sg.) you (pl.)
 b. *Voi si invitaste.
 you (pl.) SI invited (2nd pl.)
 c. *Si invitaste voi.
 SI invited (2nd pl.) you (pl.)

²⁸ The same considerations and the whole discussion carry over to the assumption that there is coindexation between the subject and INFL (cf. discussion of (17a) above). Thus in, for example *John arrived* such coindexation would violate C of (31a), since *John*, an R-expression, ought to be free in its S.

²⁹ In the following discussion we will deal only with inversion, which provides the relevant evidence, not with extraposition. But we will assume, as seems natural, that the conclusions regarding locality conditions hold for extraposition as well.

³⁰ Actually, (40) is ruled out by more subtle assumptions than those discussed in the text, in particular by the assumption that chains cannot intersect. If they could, there would be one chain transmitting embedded object θ -role to the embedded subject, which would thus be PRO, and another transmitting matrix subject θ -role to the embedded object *Giovanni*, and (40) would be well-formed with respect to the θ -criterion. To the extent that our discussion provides instances of intersecting chains (cf. 1.6), the θ -criterion account of (40) may be weakened, strengthening the need for the locality conditions we will discuss below.

³¹ The relevance of SI as an antecedent for PRO in (44) is emphasized by the fact that corresponding passive cases like (i) are ungrammatical.

- (i) ?*Queste cose sono state dette senza pensare.
 These things have been said without thinking.

We must note however that there are cases of Object Preposing, like (ii), discussed in Burzio (1981, 6.4), in which Control by SI is not entirely felicitous.

- (ii) ??[_j Gli operai]_i si_i informarono t_j [di PRO_i voler chiudere la fabbrica]
 the workers SI informed (of) to want to close down the plant

Yet even such cases contrast with (42a), so that the point of the text remains. The reasons for the difference between (ii) and (44) are not entirely clear but are at least in part

due to the fact that the animate phrase *Gli operai* of (iii), unlike the inanimate *Certe cose* of (44), is also a potential antecedent for PRO.

³² Recall, also, that the coindexing of inversion (and extraposition) must play a role with respect to the binding theory to allow remote antecedents in cases like (i) discussed in 2.2 above.

- (i) They_i think there_j are |_j some letters for each other_i|

Rather than the simpler version of (31), the formulation of the binding theory which is relevant here is the one that incorporates the notion 'accessible subject' in the manner of (18) above (i.e. the formulation of LGB, p. 220). As discussed in 2.2, Chomsky argues that *there* in (i) is not an accessible subject for *each other* because it is coindexed with a phrase containing the latter. But if such coindexation and the relation *there_j-NP_i* in (i) was not a binding relation, one would see little reason why it should be relevant to the binding conditions. Note in particular that the independent motivation for the condition **|_i ... α_i ... |* of (18c) above comes from cases like (ii), where binding relations would be involved (cf. LGB, p. 212)).

- (ii) **|_i the friends of each other_i's parents|*

³³ Notice that whereas the non-argument status of *there* is established by its intrinsic content (i.e. by the fact that subject *there* is never an argument), the non-argument status of the null subject in (45b) is determined only contextually, and in particular by the fact that the latter does not bear a θ -role. This is true of other cases, for example of English *it*, which is intrinsically ambiguous as to whether or not it is an argument, and is thus unambiguous only contextually.

³⁴ Within Rizzi's proposals (48) would be ruled out by the assumption that *each other* is θ -dependent on *there*, so that the relation between the two would not count for the binding theory and *each other* would be free in violation of (A) of (31). Under Chomsky's account, (48) would be ruled out in a rather analogous fashion if co-superscripting is involved, but some additional assumption would be required to avoid permitting the two elements in (48) to also be co-subscripted.

³⁵ This may seem to give rise to a paradox with respect to cases like (i).

- (i) a. **There_i seem [t_i to arrive each other_i]*
b. *They_i seem [t_i to like each other_i]*

If traces are non-arguments, then both (iab) ought to be ruled out on a par with (48). Notice however that some distinction is required independently of our discussion: It is a fact that in (i) we cannot determine locally whether *each other* has the proper antecedent, but must know what the antecedent of the trace is. A natural way to capture this is to assume that the antecedent in (i) is not the trace itself, but rather the chain containing it. But then the chain in (ib) is in effect an argument, while the one in (ia) is not, and the contrast in (i) will correctly follow from (50). One may then expect that the same considerations applying to NP-trace chains may apply to inversion (and extraposition) chains. This expectation is fulfilled for example by (ii).

- (ii) *|_ie| si è comprato la macchina anche |_iGiovanni|*
to-himself is bought the car also Giovanni
Giovanni also has bought himself a car.

As we will discuss later on, reflexive *si* requires an argument antecedent at all levels. We must conclude therefore that the chain is what counts in (ii).

Incidentally, some of the above considerations may shed light on the fact that, while NP-trace relations allow VP coordination as in (iia), inversion (and extraposition) relations do not, as in (iiib).

- (iii) a. *John_i [VP was arrested t_i] and [VP was later released t_i]*
b. **There_i [VP arrived three men_i] and [VP will arrive three women_i]*

If we assume, as seems reasonable, that in (iiib) *there* forms chains with both *three men* and *three women*, and if we regard chains as non-distinct from their members (along the lines suggested above), then in effect the two post verbal NPs in (iiib) c-command each other, since *there*, which is a member of a chain containing either one, c-commands the other. Since the two NPs in question are coindexed, and since they c-command each other under the 'chain' notion, (C) of (31a) is violated. Notice that if this or any account of (iiib) in terms of the binding theory is correct, then it must be the case that the coindexing of inversion is indeed relevant for the binding theory as we are claiming in the text.

³⁶ Formally, what is thus suggested is that each principle of the binding theory should be parameterized as in (i), where α ranges over *plus* and *minus*.

- (i) (A) An anaphor is α argument α bound in its governing category
(B) A pronominal is α argument α free in its governing category
(C) An R-expression is α argument α free (in its governing category)

While (i) seems rather straightforward, it is inadequate as it stands, and would have to be complicated in two ways: to express the fact that reference to "argument" must be dropped from (A) when the anaphor is a trace, as we discussed in the text (cf. (49)); and to express the fact that (B), (C) for the minus value of α (covering the inversion cases) apply only if a non-argument antecedent is in fact present.

³⁷ In the case of ep's, contrasts are somewhat weaker and, in general, there is a higher degree of freedom in the position in which ep's can occur than there is with i-subjects. We may plausibly attribute this to the fact that ep's are less 'heavy' and are thus more susceptible to being moved by late reordering rules, say by the rule of Complement Shift of 1.8 above. However, to the extent that contrasts like the one in (58) are noticeable, passives predictably pattern analogously to ergative verbs, while *be*-adjective constructions do not, as shown in (i).

- (i) a. *Giovanni fu mandato lui [a risolvere il problema]*
Giovanni was sent he to solve the problem
Giovanni was sent himself to solve the problem.
b. *(?)?Giovanni era contento lui [di risolvere il problema]*
Giovanni was happy he to solve the problem

³⁸ English ep's like *himself*, etc. will differ from Italian ones in that they are anaphoric not only functionally, but also intrinsically.

Notice that if the anaphoric rather than pronominal status of Italian ep's is indeed due to their being non-arguments as supposed in the text, then one might consider the fact that with such elements the binding theory seems to reverse as we pass from arguments to non-arguments. That is, while argument *lui* is subject to (B) of (46), non-argument *lui* is subject to its converse, namely (A). This recalls in part the reversal we noted with respect to the non-argument subjects of (45) above (cf. Note 36). At the present time however, we see no enlightening way to relate the two phenomena.

³⁹ There is no intonational difference between the doubling and the inversion interpretations of, for example, *Viene lui*. Every such sentence is thus perfectly ambiguous. The ambiguity may only be theoretical however since speakers seem to have no intuition that such cases are ambiguous. This is not surprising given the essential formal identity of the analyses.

⁴⁰ We will not be concerned here with the still ungrammatical but much better variant **Fu pensato alle vacanze* '(it) was thought about the vacations' (with no verb agreement

and no pp agreement), which would be a case of impersonal passive (see 3.2.2 below), with no *i*-subject.

⁴¹ If the same principles that rule out preposition stranding in (67) are involved in (65), then cases like (65) ought to be grammatical in languages that allow preposition stranding. This prediction cannot be tested in English however, since English requires the *i*-subject to appear between *be* and the past participle, as in *There were several people arrested* versus ??*There were arrested several people*. Cases like (65), e.g. **There were talked about many people*, are thus independently excluded.

⁴² The impossibility of inversion as in (68b) holds in English and French also. Cf. some of 2.7.2 below.

⁴³ The assumption that a verb can assign nominative to its right would seem to be required independently by cases like (i), if the analysis of Rizzi (1982, III) is correct.

- (i) Ritengo \llbracket COMP *esser* \rrbracket lui partito
 (I) believe to be he left
 I believe him to have left.

Rizzi argues that in such cases the auxiliary is moved into COMP and assigns nominative to the subject under government.

⁴⁴ The non-argument subject would naturally fall under the original version of the Case Filter because it is phonologically realized, as INFL (on infinitival INFL cf. Note 23), analogously to other clitics. Recall that the assumption that such non-argument subjects cannot lack phonological realization (i.e. cannot be PRO) is required independently (cf. 2.2).

Some evidence for formulating the Case Filter independently of the θ -criterion is suggested by the impersonal passives, which we will discuss in 3.2.2 below. With such passives the pleonastic subject is apparently not linked to any argument, and hence to any θ -role, and yet it still appears to require Case.

⁴⁵ Since Piedmontese is mostly a spoken language, it does not have a well established orthography. The one used in the text will be partly arbitrary.

⁴⁶ As noted in Kayne (1983), languages like Piedmontese show that the link between the NS property and richness of inflection is to be interpreted with respect to the *extended* notion of inflection, which includes inflectional clitics: in Piedmontese inflection proper is no richer than in French and yet Piedmontese is a NS language.

⁴⁷ A number of phonological rules will be at work in the forthcoming text examples. In particular we will have to assume: (a) In certain environments *ye* turns to *y* (*ye* is also a dative clitic either gender either number, whence the possibility of a dative reading in some cases as will be mentioned); (b) In certain environments *se* (all cases: reflexive, impersonal, etc.) turns to *s*; (c) A euphonic *l* is inserted between clitics and 'be' or 'have' in certain cases, whence for example *lan, lé* (as in (86a), (89)). The latter is realized as a glide in some environments, whence *ié*, etc, as in (98a); (d) Clitic *ne* is realized as *na* when proclitic.

⁴⁸ Coexistence as in (78) will then also suggest that *se/ye* are not part of inflection, as we noted in Note 13.

⁴⁹ As some of the next few examples show, in auxiliary-past participle structures, clitics are enclitic to the past participle in Piedmontese, unlike in Italian.

⁵⁰ The status of (91) would change of course if *ye* were interpreted as a dative object (cf. Note 47).

⁵¹ Notice that in so far as it does not allow movement into subject position, as in (92b), *ye* differs from SI of 1.6.2 (and its Piedmontese counterpart) which does allow such movement. The behavior of *ye* is not surprising, since we regarded the possibility for Object Preposing with SI as exceptional.

⁵⁷ On the basis of the analysis in (96) we correctly expect ep's to be possible as in (i).

- (i) Giovanni era lui nel negozio.
 Giovanni was himself in the store.

On the other hand, the assumption that (95) and (96) have common D-structures may seem to be challenged by the fact that the corresponding French cases exhibit two different verbs, as in (ii).

- (ii) a. Il y a du pain sur la table.
 it there has some bread on the table
 There is some bread on the table.
 b. Le pain est sur la table.
 The bread is on the table.

However, this is not particularly problematic, as we show in 2.7.2 below.

⁵³ Idiom *volerci* of (97) is quite analogous to English *It takes* of the gloss. In both cases we have a verb which is normally transitive, but ergative in the idiom. As we expect, *volerci* takes auxiliary *essere* in contrast to *volere*, which takes *avere*. Italian and English differ in the choice of pleonastic element. This difference may in a sense be predictable from the fact that English *there*, unlike Italian *ci* is constrained to presentational contexts, as we see in 2.7.3. Notice that we must assume that *ci* is obligatory with *volere* here, to account for the lack of (97b). This is quite natural given that the expression is an idiom. Analogously with English *it*, to rule out **More money takes*, etc.

⁵⁴ Note that the less than complete ungrammaticality of (101a), (102a) would indicate that extraction from subject position is not completely impossible, only to the extent that these cases are better than the inverted forms without overt pleonastics in (99c), (100c). But the difference, if any, is too narrow to draw any conclusion.

Note also that the ungrammaticality of (101a), (102a) remains even when 'short' movement is involved, as in ??*Che cosa è nella busta?* 'What is in the envelope?'. This too agrees with Rizzi's findings. Cf. Note 8.

⁵⁵ Cases like (106b) will also argue against any rule of 'nominative pronoun drop' that one may propose to account for NS sentences.

⁵⁶ Stranding of SI is more problematic, as we noted in Note 40, ch. 1.

⁵⁷ This conclusion requires a number of minor readjustments to our previous discussion.

In Note 45, chapter 1, and in Note 14 above, we assumed that the *ec* in subject position binds the clitic. We have now seen that the *ec* is itself bound by INFL. Thus, in effect it is the chain INFL-*ec* (which is the clitic equivalent to French *il*) that binds the clitic. Relations between a non-argument subject and a subject clitic are therefore essentially analogous to inversion relations.

Consider now cases like (i), examined in Note 45, chapter 1.

- (i) [e] si fu invitati [e]
 SI was invited

The correct interpretation of such cases seems to me to be that the chain represented by INFL and the *ec* in subject position, which does not have argument status (like French *il*), binds SI, whereas the same chain extended to SI, which does have argument status since SI is an argument, will bind the object position.

A slight reinterpretation will also be required for the cases in (28) above repeated here below.

- (ii) a. [e] si leggerá volentieri [alcuni articoli]
 SI will read (sg.) willingly a few articles
 b. [e] si leggeranno volentieri [alcuni articoli]
 SI will read (pl.) willingly a few articles

In our previous discussion we assumed that only in (iib) was there a non-argument subject due to the pronominal option for INFL. We assumed that such non-argument sub-

jects were linked to the post verbal NP, whence plural agreement. For (iia) we tacitly assumed that the *ec* was solely related to SI. Since we are now assuming that a non-argument subject is present in (iia) also, we must then regard alternations like (ii) as due to the fact that the non-argument subject can be linked either with argument SI, as in (iia), or with the post verbal argument, as in (iib). Note that we assume that SI is coindexed with the subject position even in cases like (iib). This situation is no different from the one which arises in Object Preposing cases discussed in 1.6.2. As in those cases, we have in (iib) two intersecting chains: A subject-SI chain, and an INFL-subject-object chain. Note that we have claimed that there are intersecting chains in (i) too: An INFL-subject-SI chain, and a SI-subject-object chain.

It also follows from the discussion in the text that the subject of sentences containing *ye/ci* is no longer an *ec* in the sense intended in the formulation of (94), and in fact is not an *ec* at all in the case of French *y* (cf. (104b)). This suggests changing the condition in (94) to "where NP_i is an argument". In regard to this, consider **Ci sono alla festa of* (106b). In the text, we assumed it to be ungrammatical because the NS phenomenon is limited to pre-verbal positions. However, this reason would disappear under the analysis in (iib) which would be the NS counterpart to (iia).

- (iii) a. * $lo_i ci$ sono t_i alla festa
I there am at the party
 b. * $[_i e] ci$ sono t_i alla festa
(I) there am at the party

Clearly we want to rule out (ib) analogously to (ia). But then the notion *ec* in (94) must be irrelevant altogether. What is relevant is definitely the notion *argument*: what (ia, b) have in common is an argument subject, incompatible with *ci*.

⁵⁸ The lexical restrictions which we must independently assume, to limit insertion of *ci* to 'be' and some idioms would actually suffice to prevent insertion of *ci* with Raising verbs. However, these considerations would be ineffective for *ye*, which is equally impossible with Raising verbs, and which is not subject to lexical restrictions.

⁵⁹ There is a curious set of exceptions to the impossibility of inversion with *ci* in infinitivals, which has no counterpart in inversion without *ci*. This is illustrated in (i).

- (i) a. Potrebbe esserci del pane senza [esserci dell'acqua]
There could be some bread without there being some water
 b. *Potrebbero arrivare dei ragazzi senza [arrivare delle ragazze]
could arrive some boys without arriving some girls

Contrasts like that in (i), for which we have no explanation, have been noted for French in Kayne (1979). Kayne's suggestion is that (ia) is grammatical because the verb (*avoir*, in French) assigns objective Case. However this must be false, given Italian *Ci sono io/*me*.

⁶⁰ As we noted in 2.2, French cases like (ia) allow us to establish that past participle agreement is with the subject, not with the *i*-subject, since it goes together with verb agreement. The same is true of substandard Italian cases like (ib).

- (i) a. Il est arrivé trois filles.
it is arrived (sg.) three girls
 b. Ci sarebbe $\left[\begin{array}{l} \text{stato} \\ *stati \end{array} \right]$ troppi clienti nel negozio.
there would be (sg.) been (sg. only) too many clients in the store
 There would have been . . .

This kind of data is not available in Piedmontese, which independently lacks past participle agreement in these cases, due to enclisis of *ye*, as in *staye 'been-there'* (cf. Note 49).

⁶¹ There appears to be one exception to the generalization captured by (128a) for French, represented by the *Il y a* construction in (i).

- (i) Il y a eu du pain sur la table
it there has had ('been') some bread on the table (A)

In (i) we assume a link between subject clitic *y* and the subject position. This ought to trigger E by (128a). One is led to speculate that this exceptionality of (i) and the fact that French uses 'have' as a main verb in these cases are related, but we will not pursue this matter.

⁶² Partial confirmation for this view is provided by the fact that English *It proved that the problem was unsolvable*, under the reading 'It turned out that . . .' is also odd. This case is similar because it too is potentially ambiguous, between the above reading and 'It, i.e. that particular fact, proved that . . .'. However, Italian *Affondarono due navi* 'sank two ships/they sank two ships' ought also to be relevantly analogous, but it is essentially perfect, though ambiguous.

⁶³ We may expect that *il* should be analogously confined to base-generated cases of extraposition. This seems true, given (i) (cf. the Italian cases in (27) above).

- (i) a. Il m'est arrivé [de revoir Marie]
It has happened to me to see again Marie
 b. $\left\{ \begin{array}{l} ?*Il \\ \text{Ça} \end{array} \right\}$ m'ennuierait [de revoir Marie]
It would bother me to see again Marie

However, the fact that *il* is possible with 'be' adjective cases like (ii) is surprising since we assume that in these cases the argument has subject, not object θ -role.

- (ii) Il est facile [de chanter]
It is easy to sing.

Recall that *il* is never possible with 'be' adjective cases when the argument is an NP, as in (138b), a fact which is predicted precisely by the assumption that, with adjectives, the argument has subject θ -role (cf. Note 13, ch. 1). We are therefore faced with a puzzling difference between S and NP complements. We return to this in Note 73 below.

⁶⁴ We note that, within a theory in which null elements were *intrinsically* defined, the text discussion would actually provide an argument against the PRO analysis of null subjects of LGB (cf. 2.1 above). This is because cases like *Ha telefonato il tuo amico* 'Has telephoned your friend' would require insertion of PRO late in the derivation, after NP-movement. But our account of the absence of such cases in French is based specifically on the idea that this kind of 'late' insertion is not possible, and that no insertion is required in Italian. The argument disappears however, if we assume that null elements are *contextually* defined, as in LGB, 6. Under this view, a null element can simply 'become' PRO in the course of the derivation if the contextual conditions obtain, so that no insertion would be required for the above case.

⁶⁵ Under the base-generation analysis, the link between SE and the subject position will be the same as with SI. It will simply be a base-generated link, as with all base-generated clitics. The existence of such a link is established, for all variants of the construction with SE, and independently of our discussion in 1.6, by the fact that this construction systematically selects auxiliary E, and must therefore be a case in (128a) above. We thus assume that SE is transmitted θ -role from the subject position. (The assumption that SE has θ -role is supported among other things by the fact that it requires Case in (142).)

Under these assumptions, cases like (140a) imply that our view is correct that *il* is only inserted in D-structure, rather than the conceivable alternative that *il* is only inserted in non- θ positions.

⁶⁶ Also, special restrictions hold for *sc* relatives, in which the predicate must always be somewhat 'complex'. Consider **A student happy*, **A student arrested*, etc.

⁶⁷ 'Be' will be an ergative verb when it takes an NP complement, as in *There is a Santa Claus*. The lack of **A Santa Claus is* requires some special stipulation. Notice that this requirement does not arise from choosing the leftward movement alternative. Rightward movement requires a similar stipulation.

⁶⁸ Notice that even with present participles it may be an element other than the D-structure subject which is relativized:

- (i) The boat [PRO_i sinking t_i in the harbor] is mine

The point here is that present participles do not differ from the corresponding verb with respect to θ -role assignment.

⁶⁹ Notice however that agreement of the passive participle as in (157a) and in *sc*'s in general is systematic, suggesting that this is in fact a core case even in French. To account for this we might regard subject-object relations within *sc*'s as being more 'local' than they are within other clauses.

⁷⁰ Notice that, while the inversion relation of (168), repeated in (i), is ill-formed, the clitic-*ec* relations of (ii) must be well-formed.

- (i) * $[_i e] ci_i$ furono $[[e] costruite [molte case]]$

- (ii) a. $[_i e] ne$ furono $[t_i invitati [molti [e]]]$

Many of them were invited.

- b. Maria $_i$ gli fu $[t_i presentata t_i [e]]$

Maria was introduced to him.

- c. Maria $_i$ ne era $[t_i affascinata [e]]$

Maria was fascinated by it.

We will return to clitic-*ec* relations in *sc* structures, which are problematic independent of our discussion in this section (cf. II. 0.3).

⁷¹ Notice that our account of both (162) and (165) relies on the assumption that inversion relations cannot be established iteratively, since if they could, the D-structure for (162), (165) could be as in (i), where there is no violation of locality conditions.

- (i) $[[e] ci furono [[e] costruite [molte case]]]$

⁷² Cases like (169) do not necessarily require this particular analysis. In fact the adjective here could be internal to NP, as in $[[\text{Molte case disabitate}] \text{ sono in vendita}]$ 'Many houses uninhabited (uninhabited houses) are for sale', perhaps as a *sc* relative. In this case, (169) would be an existential sentence (of the *There is a Santa Claus* type). However, other cases, like (ia), do require a *sc* analysis of the material that follows 'be', given the impossibility for (ib).

- (i) a. C'era $[[\text{Giovanni ammalato}]]$
there was Giovanni sick

- b. * $[[\text{Giovanni ammalato}]]$ mi ha scritto
Giovanni sick has written to me

A relevant minimal pair would then be (ia) versus **Ci fu Giovanni arrestato* 'There was Giovanni arrested'.

⁷³ On the assumption that *y*, like English *there*, can only be related to an NP, not to an S, and if 'Il est [$[_{sc} \text{NP} \dots]$]' is impossible because *y* should be inserted, as argued in the text, then we would expect 'Il est [$[_{sc} \text{S} \dots]$]' to be possible. This would actually enable us to account for the type 'Il est Adj S' (e.g. *Il est facile de chanter* 'It is easy to sing') which we were unable to account for in Note 63, by regarding the latter as derived from 'Il est [$[_{sc} \text{S Adj}]]$ ', via extraposition of the S.

⁷⁴ In English, some existentials with verbs like *seem* are found however, as in *There seems little reason to doubt it*.

⁷⁵ From this point of view, the alternation *John started the car/The car started* is spurious, not a genuine transitive/ergative alternation. Some analogously spurious cases must be assumed for Italian, given for example (i), pointed out to me by L. Rizzi.

- (i) a. *Il mulo ha girato la macina.*
the mule has turned the millstone (A)

- b. *La macina ha girato.*
the millstone has turned (A)

Milsark also cites contrasts between two different meanings of *grow* and *develop*. The Italian counterparts do not shed light in these cases however.

⁷⁶ Insertion of *there* is systematically impossible with the so called 'middle' verbs, e.g. *The car drives nicely* (cf. **There drove (nicely) many cars*), even though an NP-movement analysis of middles would seem plausible. Thus it must be the case that middles somehow differ from ergative verbs. Keyser and Roeper (1984) in fact point out a number of independent differences between middles and ergative, although their analysis of 'ergative' verbs differs from ours.

⁷⁷ The hypothesis that *there*, like *il* is only available for insertion in D-structure will furthermore account for its non-occurrence with Control verbs noted in 2.3 above (E.g. for **There tried to be several people at the party/at the party several people*).

⁷⁸ There are some exceptions to the generalization that ergative verbs do not allow *-er* affixation, such as for example (?) *He is a slow feeder* in the ergative sense of *feed*. Exceptions of this sort are totally lacking with respect to the Italian counterpart *-ore*. But there would not be much reason to conclude from this that English has a smaller class of ergative verbs, since it is clear that English has a more liberal use of the *-er* affix, given such cases as, for example *A two-hundred and fifty pounder, an eighteen wheeler, A go-getter*, etc., the Romance counterparts of which are completely inconceivable.

⁷⁹ Insertion of *there* after rightward movement would lead us to expect cases with transitive verbs. Some such cases are in fact attested, although they seem very rare. Some are cited in Kayne (1979).