

INTRANSITIVE VERBS AND ITALIAN AUXILIARIES

by

LUIGI BURZIO

B.A., Brandeis University  
(1975)

SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS OF THE  
DEGREE OF

DOCTOR OF PHILOSOPHY

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

May 1981

MIT

(c) Luigi Burzio 1981

The author hereby grants to MIT permission to reproduce and to  
distribute copies of this thesis document in whole or in part.

Signature of Author .....  
Department of Linguistics and Philosophy  
May 4, 1981

Certified by .....  
Noam Chomsky  
Thesis Supervisor

Accepted by .....  
Samuel Jay Keyser  
Chairman, Departmental Graduate Committee  
H. H. H. M.  
MASSACHUSETTS INSTITUTE  
OF TECHNOLOGY

MAY 19 1981

INTRANSITIVE VERBS AND ITALIAN AUXILIARIES

by

LUIGI BURZIO

Submitted to the Department of Linguistics and Philosophy on  
 May 4, 1981 in partial fulfillment of the requirements for the degree  
 of Doctor of Philosophy.

ABSTRACT

If we accept some results provided by some recent generative studies on Italian, it will appear that some purely syntactic processes affect the selection between the two aspectual auxiliaries of Italian: essere (be) and avere (have), as in (i) and (ii).

- (i) a. Giovanni ha voluto venire  
 Giovanni has wanted to come
- b. Giovanni e' voluto venire  
 Giovanni is (has) wanted to come
- (ii) a. Si vorrebbe già aver comprato quei regali  
 One would like to already have bought those presents
- b. Quei regali si vorrebbero già essere comprati  
 Those presents one would like to already be (have) bought

In A Restructuring Rule in Italian Syntax, L. Rizzi has argued that in (i)b., but not in (i)a., a process altering the complementation relation between the two verbs has taken place, and that such a process is syntactic. Rizzi as well as other researchers have claimed that cases like (ii)b. are derived from cases like (ii)a. via application of the syntactic rule of NP-movement.

On the basis of this, one will be led to believe that syntactic factors play a role in the selection of the auxiliary in Italian. In this thesis we claim that not only is this belief correct, but that in fact the type of auxiliary reflects certain configurational properties of syntactic structure quite systematically.

This view is supported by the fact that the distribution of auxiliaries is entirely uniform over some well-defined syntactic domains, such as: a. Passives, b. Reflexives (when the reflexive element is a clitic), c. Impersonals, since each of those constructions will take essere invariably, and as in (iii).

- (iii) a. Giovanni e' stato invitato  
           Giovanni is (has) been invited
- b. Giovanni si e' vestito  
           Giovanni is (has) dressed himself
- c. Si sarebbe invitato anche Giovanni  
           One would be (have) invited Giovanni as well

On the fact that among the apparently intransitive verbs, some normally select avere, while others select essere as in "Giovanni ha telefonato/ Giovanni has phoned" versus "Giovanni e' venuto/ Giovanni is (has) come", we assume, following some recent studies within Relational Grammar, in particular D. Perlmutter's Impersonal Passives and the Unaccusative Hypothesis, that the class of apparent intransitives is syntactically non-homogeneous, in that with verbs like venire the apparent subject is in fact a direct object at the level at which thematic relations, or the "argument structure" of predicates, are represented. The earlier part of the thesis is devoted to providing evidence for this bifurcation within apparently intransitive verbs.

Beside providing an account for facts like those in (i), (ii), (iii) above, in the course of our discussion we will develop several subsystems of the grammar of Italian, test their interaction and examine some extensions to other languages. These subsystems are: The syntax of auxiliary assignment and past participle agreement. The syntax of "subject inversion". The syntax of "reduced relatives". The rule operative in causative and restructuring constructions. The syntax of reflexives.

Thesis Supervisor: Professor Noam Chomsky

Title: Institute Professor

Ai miei genitori

## ACKNOWLEDGEMENTS

It has been a great privilege for me to have been able over the last two years to devote my time and energy to the pursuit of my interests in linguistics, free from preoccupations and under virtually ideal circumstances. This privilege has been due to a large extent to my wife Virginia, who made a living for both of us and assisted me in every way possible. My work owes a great deal to her affection and endurance.

I am grateful to the sponsors of the MIT exchange program P-I-0039, which has enabled me to do my graduate work; to the sponsors of the Bureau of Educational and Cultural Affairs, U.S. Department of State exchange program G-I-1, under which I first came to this country; to the Commissione per gli Scambi Culturali fra l'Italia e gli Stati Uniti, for its role; and to the Wien International Scholarship Program of Brandeis University for enabling me to complete my undergraduate studies. I am also grateful for the general climate of opportunity which exists in this country, and which has made it possible for me to partially support myself through my studies by finding occasional employment.

There are many people without whose help I would probably not be at this point today, too many to mention. There are two however, without whose help I am certain that I would not be at this point. They are Professor Claudio Gorlier of the University of Turin, and Professor Allen Grossman of Brandeis University.

Some years ago I found myself in an environment in which the organizing principles seemed to be unwarranted privilege and intellectual lethargy, and in which I felt that the circumstances of my daily existence were quite beyond my control. It then struck me that even under those circumstances I retained complete freedom as to what I could do with my mind, and I began to pursue intellectual interests completely alien to that environment. I have thought in retrospect that my vision then was correct and that horizons do open up if one engages in intellectual pursuits. My horizons however, were nothing in comparison with the vistas which became apparent to me after my acquaintance with Noam Chomsky, and in comparison with the opportunities for personal and social emancipation that rational inquiry and his thought suggest. His influence on my way of thinking over these years has been quite pervasive.

The research which led to this thesis has been strongly based on much recent work on the syntax of Italian by Luigi Rizzi, work which appears to me remarkably insightful. Richie Kayne's book French Syntax has proved an invaluable source throughout my research. I have come to realize in the course of my work how important a contribution to the understanding of Romance syntax and to generative linguistics Kayne's book is, both for the material it covers and for the standard of scholarship it sets. While carrying out this task I

learned a great deal from the work of many people. Gary Milsark's thesis is one good example. I learned in particular from the people whose analyses I disagree with: a consideration which I hope my criticism will not obscure. For the view that there is a class of verbs whose apparent subject is the underlying direct object, which is central to my discussion, I am grateful to David Perlmutter who suggested it to me some years ago. Had he not left MIT, I am sure I would have further benefited from his insight. Late in the course of my work and at different points, I realized that the existence of such a class of verbs had also been assumed by other researchers. Cases in point are in particular John Bowers' thesis, Donna Jo Napoli's thesis, and Bob Fiengo's thesis. It also occurred to me then, that the work of those people deserves much more consideration than my discussion may seem to suggest.

I wish to thank my advisor Noam Chomsky for reading with great attention the dozen or so drafts which I submitted to him, and for giving such serious thought to my ideas. His can only be an example of extreme professional dedication, since the alternative view that my drafts or ideas were irresistibly interesting, I know is false. An analogous praise goes to the other members of my committee Ken Hale and Morris Halle. I thank Morris Halle also for his concern over the years and for his advice, which has invariably turned out to be sound. If it was not that I regard mistakes as such an essential part of life, I would be listening to him constantly.

For valuable discussion I thank especially Adriana Belletti, Guglielmo Cinque, Jane Grimshaw, Osvaldo Jaeggli, Rita Manzini, Luigi Rizzi, Dominique Sportische, Tim Stowell, Maria Luisa Zubizarreta. Several corrections have been due to comments from Richie Kayne, and several mistakes remain due to those comments of his which I haven't yet given him a chance to send.

I have been greatly stimulated in my work by the general atmosphere of intellectual commitment by which one is invariably struck when setting foot in the department. For contributing to such an atmosphere I thank Joseph Aoun, Hagit Borer, Denis Bouchard, Jim Huang, Bob Ingria, Alec Marantz, Carol Neidle, Yukio Otsu, Dave Pesetsky, Anne Rochette, Ken Safir, Barry Schein, Jane Simpson, Donca Steriade.

I thank my parents who, while they did not have the opportunity to complete elementary school, understood my desire to pursue my own education till I was thirty-eight.

Last but not least I thank my friend Barbara Greehey who carried out the colossal task of typing all of this up from an extremely degenerate manuscript and under adverse circumstances, in great style.

## TABLE OF CONTENTS

	<u>Page</u>
Abstract .....	2
Acknowledgements .....	5
0. GENERAL INTRODUCTION .....	11
0.1 Prefatory Note .....	11
0.2 Theoretical Framework .....	12
0.3 Organization .....	19
 CHAPTER 1: VP ADJUNCTION VERSUS BASE GENERATION .....	22
1.0 Introduction .....	22
1.1 The Distribution of NE .....	23
1.2 Passive .....	25
1.3.1 Impersonal <u>si</u> .....	27
1.3.2 Object Preposing .....	32
1.4.1 Ergative Verbs .....	38
1.4.2 Minus Thematic Subject .....	41
1.4.3 Ergative <u>si</u> .....	45
1.5 VP-Adjunction .....	48
1.6 Auxiliary Assignment .....	50
1.7 Linear Order .....	57
1.7.0 Introduction .....	57
1.7.1 Complement Shift .....	57
1.7.2 Sentence Pronominalization .....	65
1.7.3 Stranded Prepositions .....	68
1.7.4 Benefactive Datives .....	69
1.8 Inherent Reflexives .....	72
1.9 Conclusion .....	79
Footnotes .....	80
 CHAPTER 2: THE THEORY OF INVERSION .....	101
2.0 Introduction .....	101

	<u>Page</u>
2.1.1 The Relation $R_i$ .....	101
2.1.2 Raising and Control .....	108
2.2.1 Subject Doubling .....	110
2.2.2 The Relation $R_d$ .....	115
2.2.3 Subject Pronoun Drop .....	120
2.2.4 Case Marking .....	126
2.3.1 The Syntax of Inversion .....	132
2.3.2 Focus .....	142
2.4 Non Distinctness .....	144
2.4.0 Introduction .....	144
2.4.1 Reflexive Agreement .....	145
2.4.2 SI-construction .....	146
2.4.3 Auxiliary Selection .....	148
2.4.4 Conclusion .....	151
2.5.1 The NIC Alternative .....	152
2.5.2 The ECP Alternative .....	156
2.6 Minus Accusative .....	159
2.7 Conclusion .....	173
Footnotes .....	175
 CHAPTER 3: EXTENSIONS .....	186
3.0 Introduction .....	186
3.1 Piedmontese .....	187
3.1.0 Introduction .....	187
3.1.1 Base Generation .....	188
3.1.2 The Syntax of <u>ye</u> .....	191
3.1.3 Locutionals in Italian .....	193
3.1.4 <u>Ci</u> under Restructuring .....	200
3.1.5 Wh-movement .....	204
3.2 French .....	205
3.2.0 Introduction .....	205
3.2.1 The General Distribution .....	206
3.2.2 Passives and Se-Moyen .....	209
3.2.3 The Syntax of <u>il</u> .....	212
3.3 Small Clauses .....	218
3.3.0 Introduction .....	218
3.3.1 <u>To be</u> Deletion .....	218
3.3.2 Base Generation .....	225
3.3.3 Present Participles .....	230

	<u>Page</u>
3.4 There-be Constructions .....	234
3.4.0 Introduction .....	234
3.4.1 Background .....	234
3.4.2 The Alternative .....	237
3.4.3 Participle Sequences .....	248
3.5 English Ergative Verbs .....	252
3.5.1 Preliminaries .....	252
3.5.2 -Er Affixation .....	255
3.5.3 Expletive Objects .....	258
3.5.4 Verbal ES .....	262
3.5.5 Non-vacuous Loss of Accusative .....	270
3.6.1 Non-vacuous Loss of Thematic Role .....	280
3.6.2 Italian sc relatives .....	283
Footnotes .....	291
 CHAPTER 4: MOVEMENT AND RECOVERABILITY .....	317
4.0 Introduction .....	317
4.1 <u>Each</u> Interpretation .....	317
4.2 Quantifier Scope .....	322
4.3 <u>There</u> Interpretation .....	328
4.4 Conclusions .....	332
Footnotes .....	337
 CHAPTER 5: CAUSATIVE CONSTRUCTIONS .....	345
5.0 Introduction .....	345
5.1 Faire-Infinitive .....	345
5.2 Faire-par .....	346
5.2.0 Introduction .....	346
5.2.1 Agent Phrase .....	347
5.2.2 The "Passive Meaning" .....	354
5.2.3 Alternatives .....	361
5.3 Overlap between FP and FI .....	364
5.3.0 Introduction .....	364
5.3.1 Cliticization .....	364
5.3.2 NP-movement .....	371
5.4 Proper Binding .....	375
5.4.0 Introduction .....	375
5.4.1 Privileged Relation .....	376
5.4.2 Summary .....	385
5.5 Ergative under <u>Fare</u> .....	389
5.5.0 Introduction .....	389
5.5.1 Dative Cliticization .....	390
5.5.2 The "Reflexive" Problem .....	397
5.5.3 Cliticization and Case Assignment .....	400
5.5.4 Dativization .....	404

	<u>Page</u>
5.6 Subcategorization of Causative Verbs .....	409
5.7 Reflexives .....	425
5.7.0 Introduction .....	425
5.7.1 The Syntax of Reflexives .....	426
5.7.2 Reanalysis .....	447
5.7.3 Reflexives in sc Relatives .....	454
5.7.4 Reflexives with <u>Fare</u> .....	461
5.7.5 On a Lexical Theory of Reflexives .....	477
Footnotes .....	487
 CHAPTER 6: RESTRUCTURING CONSTRUCTIONS .....	539
6.0 Introduction .....	539
6.1 Background .....	542
6.2 VP-movement .....	550
6.2.0 Introduction .....	550
6.2.1 Restructuring with <u>andare</u> , <u>venire</u> .....	550
6.2.2 Similarities between Restructuring and Causatives ..	557
6.3 Subject Deletion .....	561
6.4 Non-distinctness .....	562
6.4.0 Introduction .....	562
6.4.1 Semantic Recoverability .....	564
6.4.2 Control Verbs .....	571
6.4.3 Passive .....	575
6.4.4 Sc Relatives .....	577
6.4.5 Restructuring under <u>fare</u> .....	585
6.4.6 Aspectuals .....	591
6.4.7 Conclusion .....	599
6.5 The Change of Auxiliary .....	603
6.5.0 Introduction .....	603
6.5.1 Pp Agreement with Cliticization .....	604
6.5.2 Pp Agreement with SI .....	607
6.5.3 Differences between Restructuring and Causatives ..	610
6.5.4 Auxiliaries .....	613
6.5.5 The Alternative .....	622
6.5.6 Conclusion .....	626
6.6 Reflexives under Restructuring .....	631
6.7.1 Passive <u>essere</u> .....	644
6.7.2 Lack of Auxiliary .....	650
6.8 "Di" Complements .....	652
6.9 Residual Questions .....	655
6.10 Conclusion .....	664
Footnotes .....	667
BIBLIOGRAPHY .....	712
BIOGRAPHICAL NOTE .....	719

## 0. GENERAL INTRODUCTION

### 0.1 Prefatory Note

This study represents a -rather modest- extension of some insights provided by other researchers. Around 1976, I became rather intrigued by Luigi Rizzi's study of the restructuring process in Italian, both because of my interest in Italian syntax and because of the rather persuasive style of Rizzi's discussion. I then took some interest in those matters in connection with my syntax exam at M.I.T. Some questions left open in Rizzi's article seemed to invite further research: the theory fell short of providing a satisfactory account for the "Change of Auxiliary" phenomenon, a phenomenon on which speakers' judgements are very strong, and which could not fail to be a reflex of the more purely "generative" aspects of the knowledge of language, given its seemingly bizarre nature, and the hopelessly scattered character of any evidence available to the learner.

At about the same time David Perlmutter, (then at M.I.T.), who was much interested in closely related matters, suggested to me that the surface subject of verbs which appear with auxiliary essere, was likely a "deep structure" direct object: a view which seemed immediately supported by the fact that cliticization of ne, generally limited to direct objects, succeeded exactly with those "subjects".

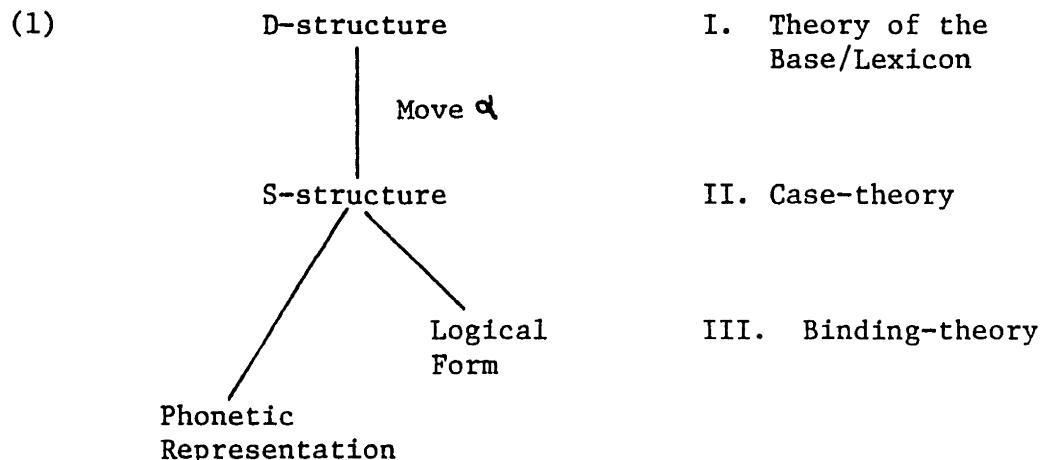
My insight then, was that if auxiliary essere was generally associated with some configurational aspects of mental representation, then the change of auxiliary ought to follow simply from the configurational alterations brought about by restructuring, without requiring any further provision. If correct, such assumptions would in fact help determine what the exact formulation of restructuring must be.

In essence this is the idea behind my work here. One may well wonder why it should have taken all this time to just say such a thing. I have wondered myself.

## 0.2 Theoretical Framework

In this discussion, we will assume the framework of the Extended Standard Theory (EST). Essentially, though not always literally, we will follow the variant presented in Chomsky's On Binding (Chomsky (1980)). However, for some aspects we will also draw on more recent developments and in particular on the Government-Binding theory (Chomsky (forthcoming)). In spite of the fact that we refer to two different variants of the theory, our overall set of assumptions will not be inconsistent, as far as I can see. We will also note that for most of our discussion, the specificity of the underlying assumptions will not be so crucial as to even discriminate between those two variants of the general theory.

A rough characterization of the framework we are assuming, is as follows. The grammar is organized on four different levels of representation, as indicated in (1), where some of the levels are associated with sets of principles such as those in I, II, III.



For representations at the level of D-structure (analogous though not identical to the "Deep Structure" of earlier models), we assume that they are generated by a context-free phrase-structure grammar (i.e. by rules of the type " $S \rightarrow NP, VP; VP \rightarrow V, NP; \text{etc.}$ "). We refer to the latter system as the "Base (component)". Lexical insertion will take place at this level. In fact we will assume that representations at this level are in essential respects projections of the lexicon. In particular we will assume that, given for example a verb, but analogously with the other lexical categories (N, A, P), its complement system in D-structure represents with no deviance its subcategorization frame. The typology of complementation will be appropriately constrained by assuming a narrow definition of possible Base-rule. We further assume that the task of providing such definition can be accomplished by postulating a general rule system for the Base, as is done in  $\bar{X}$ -theory. (For a notable attempt, see Jackendoff (1977)).

Concerning subjects, and with verbs -differently here with other categories-, we assume that D-structure representations also reflect lexical properties, but in a rather different manner. We assume that in sentential structures a subject NP-node is always present (at least in the languages in question), and that only whether or not the latter node is filled with a referential expression will depend on properties of the verb, as for example in the two different D-structures in (2) (where " $[_{NP}^e]$ " is a NP containing no lexical material). These matters will be discussed in detail in chapter 1.

(2a)  $[_{NP}^e] John \text{ think } [S Bill \text{ to be a fool}]$

(2b)  $[_{NP}^e] seem [S Bill \text{ to be a fool}]$

S-structures (analogous though not identical to the "Surface Structures"

of earlier versions) are derived from D-structures via the syntactic component proper. We assume the latter to perform movement operations, under the generalized characterization "Move  $\alpha$ ,  $\alpha$  a category". We assume that the only "intrinsic" constraint on Move  $\alpha$  is the "Subjacency" condition, as given in (3).

- (3) Subjacency condition: "Move  $\alpha$ " can cross at most one bounding node.

The "bounding nodes" in (3) will be NP and, language-specifically either S or  $\bar{S}$  (for relevant discussion cf. Rizzi (1978b)). Typical violations of the Subjacency condition will be those in (4), where two bounding nodes are crossed.

- (4a) \*John wonders which book he believes the claim that you stole \_\_  
 (4b) \*Which book does John wonder who believes you stole \_\_?

(4a) and (4b) are respectively violations of the "Complex NP Constraint" and of the "Wh-island Constraint" of earlier discussions (cf. Ross 1967), both constraints now being subsumed by "Subjacency".

Further, though this time extrinsic, constraints on Move  $\alpha$ , will result from assuming that the possibilities for "building" any structure are limited (let us assume by an appropriate theory of adjunctions). Outside of those possibilities, movement will have to resort to already existing but vacant positions, such as "[<sub>NP</sub>e]" in (2b) (thus yielding (5) below). We assume that movement will never cause any "loss" of structure. The position vacated by movement will be referred to as a "trace" of the moved category. We assume movement to give rise to a relation between the two positions involved, as indicated by the indices in (5) (derived from (2b)) where "t" is a trace. This relation will be maintained through subsequent levels of representation.

- (5) [<sub>NP<sub>i</sub></sub> Bill] seems [<sub>S<sub>i</sub></sub> <sub>t<sub>i</sub></sub> to be a fool]

Further constraints on movement will result from assuming that such relation between a NP and its trace (though not that between a Wh-phrase and its trace, as we will note below), is subject to the binding conditions which we will discuss shortly.

The set of principles referred to as Case-theory will operate on S-structure representations. The latter principles will consist of the requirement that all NP's with a phonological matrix have Case, as expressed by the filter in (iv) of (6); and of the mechanisms of Case assignment in (i), (ii), (iii) of (6).

#### (6) Case-theory

- (i) NP is assigned Objective Case when governed by V, unless V is not a Case-assigner.
- (ii) NP is assigned Oblique Case when governed by P.
- (iii) NP is assigned Nominative Case when it is the subject of a tensed clause.
- (iv) \*NP, when NP has a phonological matrix and has no Case.

We assume the notion of "subject" in (iii) above to be a configurational notion. The format of (iii) can perhaps be rendered more similar to that of (i) and (ii) by assuming that Nominative Case assignment is due to government by "Tense" (as in Chomsky (1980)), or to government by verb-inflection (as in Chomsky (forthcoming)). The nature of the "unless" clause in (i) of (6) will be discussed in 2.6 below. One major effect of the system in (6) will be to disallow phonologically realized subjects with infinitivals in general, whence (7b) contrasting with (7a) (and with (5)). Phonologically realized subjects of infinitivals will be allowed only under some special conditions (Exceptional Case Marking)

as we will point out in the course of the discussion.

(7a) It seemed that Bill was a fool

(7b) \*It seemed Bill to be a fool

Case-theory will thus interact with movement since NP's generated in Case-less positions will have to move in order to receive Case. On the notion "government", which plays a role in (6), since the latter is now the object of extensive study, we will not pretend to provide an exhaustive characterization of it. Rather, we will start from the definition in (8), similar to the one in Chomsky (1980), and we will further elaborate in the course of the discussion.

(8) Government: A is governed by B if A is C-commanded by B and no major category boundary intervenes between A and B.

(Where C-command is as defined in (10) below.)

We will suggest that some such notion enters not only into Case-assignment, but into other systems also. (In the Government-Binding theory the latter notion enters crucially into both Case and Binding theories).

We now turn to the Logical Form (L.F.) level of representation, which we assume provides the essentials for semantic interpretation. The latter level is derived from S-structure by application of Interpretive rules and Construal rules. The former category will be represented by rules such as the one suggested in May (1977b) assigning "scope" to quantifiers (cf. 4.2. below), or the one postulated in Milsark (1974) for the interpretation of "There-be-NP ..." constructions. Construal rules will be rules assigning antecedents to anaphors -we may assume- by coindexing, as in (9). When this occurs we will say that the antecedent "binds" the anaphor.

(9) Bill<sub>i</sub> looked at himself<sub>i</sub>

While we may assume coindexing essentially free, the range of possible binding relations will be defined by the proper binding conditions in (10) (from Chomsky (1980)).

(10) Binding-theory

- (i) An anaphor must be C-commanded by its antecedent. Where C-command is defined as: "A C-commands B if A does not contain B (and therefore  $A \neq B$ ) and B is dominated by the first branching category dominating A; then B is in the "domain" of A".
- (ii) Opacity: If A is in the domain of the subject of B, B minimal, then A cannot be free in B (where "free" is defined as "not bound").
- (iii) Nominative Island Condition (NIC): A nominative anaphor cannot be free in  $\bar{S}$ .

(i), (ii), (iii) above will for example account for the ungrammaticality of (11a), (11b), (11c) below respectively.

- (11a) \*Himself looked at Bill
- (11b) \*Bill didn't expect Mary to look at himself
- (11c) \*Bill didn't believe that himself would win

We assume that among the Construal rules is a rule of "disjoint reference" operating between pairs of NP's to prohibit coreference, as for example between the underscored phrases in "Bill expected him to win". We assume that the outcome of the latter rule must conform with the full system in (10) whenever the second NP of the pair (i.e. the one which is C-commanded is a pronominal (the designations "antecedent" "anaphor" in (10) will apply to the two NP's in question respectively). Hence the parallelism between the failures in (11) and the "failures"

of disjoint reference (i.e. the success of coreference) in (12), respectively.

(12a) The girl [he liked ] never looked at Bill  
rel. clause

(12b) Bill didn't expect Mary to look at him

(12c) Bill didn't believe that he would win

(The complexity of (12a) relative to (11a) is required to avoid C-command of either phrase by the other, cf. disjoint reference in "He looked at Bill", where "He" C-commands "Bill").

We assume the rule of disjoint reference to obey only the "C-command" part of the binding theory (i.e. (i) of (10)) when the second NP of the pair is non-pronominal, whence disjoint reference in "He didn't believe that Bill would win", contrasting with (12c) (where the second NP is pronominal), and with (12a) (where the second NP fails to be C-commanded by the first).

We assume that NP-traces, i.e. traces resulting from NP movement, are anaphors. NP/trace relations will thus fall under the system in (10), hence "\*Bill seemed that t was a fool", contrasting with (5) and (7a) above, and from our standpoint parallel to (11c). (In our discussion in chapters 4 and 5 however, we will suggest that the conditions in (10) apply in a somewhat different manner to NP-traces than they do to other anaphors). Wh-traces will not be subject to the conditions in (ii) and (iii) of (10) (we assume that they are not anaphors, but rather "variables"; for relevant discussion cf. Rizzi (1978b), Freidin and Lasnik (1981)). The asymmetry between NP-traces and Wh-traces will thus be analogous to the one just noted between pronominal and non-pronominal NP's (with respect to disjoint reference).

We assume that part of the well-formedness conditions in L.F. is the requirement that no NP position be unfilled and unbound (a D-structure form like (2b) will thus have to undergo relevant changes in the course of the derivation).

As for the level of Phonetic Representation (P.R.), we assume that it is derived from S-structure via the operation of some deletion rules, of "stylistic" rules and of the phonological component proper. We also assume that some filters may operate in this part of the derivation.

It may be worth noting how a system such as the one we so sketchily described, relies not so much on the elaborate character of rule systems, as was the case with the theoretical models employed some years ago, but rather on the existence of several diverse sets of principles. As Noam Chomsky has recently pointed out, this shift in focus appears to be a rather significant ongoing development. Of some relevance to our discussion will be the fact that we no longer assume the existence of different and extrinsically ordered syntactic rules (such as "Passive", "Reflexivization" etc.), but will appeal instead to the principles of Case-theory and Binding-theory.

### 0.3 Organization

The discussion will run as follows. In chapter 1, I point out a number of respects in which the verbs selecting auxiliary essere differ from other verbs and from intransitives taking avere in particular. Special attention will be given to the set of constructions which are generally regarded as the result of some rule of "subject inversion". On the basis of the differences noted, the claim is put forth that essere verbs appear in base forms of the type "[<sub>NP</sub>e] V NP" and are thus

unlike intransitive verbs.

In chapter 2 I attempt to provide a theory for "subject inversion" constructions in general. I will argue that some useful insights are to be gained from studying the relation between subjects and emphatic pronouns.

In chapter 3, I try to extend the results of chapters 1 and 2, relative to Italian, to some other languages I am familiar with. The extension to Piedmontese (the dialect of the Turin area), is rather straightforward. I then claim that, if extended to French, our view can provide a rather natural account of the distribution of non-pronominal il, although some problems may remain. A parallel case for English appears more delicate. Our claim that the English verbs which appear with "non-agentive" subjects are just like Italian essere verbs will be based on the distribution of some expletives and on some observations relative to the "There" construction. Chapter 3 is tangential to the main line of discussion, with some exceptions: The analysis of "reduced" relatives in 3.3 and further comments in 3.6, which will be of relevance for the discussion in 5.7 and in chapter 6; and the discussion of Italian locational constructions in 3.1.3 and 3.1.4, which will be referred to in some of chapter 6.

In chapter 4 I discuss the interaction between movement rules and rules of the L.F. component. The conclusions of chapter 4 will play a role in chapter 5 and the discussion of the interaction between the rule of VP-movement at work with "causative" predicates and L.F. rules. Chapter 5 relates primarily to chapters 1 and 6: to chapter 1 in so far as some further differences in behavior between essere verbs and intransitives are pointed out, here with respect to embedding under

causative verbs; to chapter 6 for the many parallelisms between causatives and the restructuring constructions discussed in the latter chapter. In chapter 5, I will also present a theory of reflexive clitics. We will review the behavior of reflexives in several syntactic domains, such as "reduced" relatives, and complements of causative verbs.

In chapter 6 I claim that, given the hypothesis of chapter 1, and for a formulation of the restructuring process identical to the VP-movement rule of chapter 5, the distribution of auxiliaries under restructuring follows correctly, "Change of Auxiliary" included.

The examples given in the course of the discussion will be accompanied by grammaticality judgements expressed by the usual diacritics. Some of the examples will appear with structural analyses. It may be worth pointing out that, unless otherwise specified, the judgements will always refer to sentences, and not to analyses (i.e. they will not reflect our view on the correctness of the analysis, but only a speaker's response to the sentence).

Throughout the discussion, I will use the notation "[<sub>S</sub>" to refer to a clause boundary in general. I will thus generally ignore the distinction between S and  $\bar{S}$ . This is done for simplicity of exposition, in view of the fact that we do not deal with the complementizer system. The reader should not be confused. In most case "[<sub>S</sub>" will in fact stand for an  $\bar{S}$  boundary. However in some other cases it may well stand for an S boundary: for example where a process of  $\bar{S}$  deletion might have applied.

## 1. VP ADJUNCTION VERSUS BASE GENERATION

### 1.0 Introduction

It is generally believed that a rightward movement rule is responsible for deriving the cases in (2) from the corresponding cases in (1) (cf. for example Kayne (1980)).

- (1a) Giovanni arriva  
Giovanni arrives
- (1b) Giovanni telefona  
Giovanni telephones
- (1c) Giovanni scrive una lettera.  
Giovanni writes a letter
- (2a) Arriva Giovanni  
Arrives Giovanni
- (2b) Telefona Giovanni  
Telephones Giovanni
- (2c) Scrive una lettera Giovanni  
Writes a letter Giovanni

In our first two chapters we will be concerned with partially disputing this view. In particular we will claim that, while the position of the underscored phrase in (2b) and (2c) is the result of rightward movement, the position of the same in (2a) is the result of base-generation. We will claim that as a consequence of this, there is a structural asymmetry between (2b), (2c) on the one hand, and (2a) on the other, and that in those two cases the underscored phrase is adjoined to VP, while in the latter case it is in direct object position.

All cases in (2) will nevertheless fall together in some respects. We note in particular that the underscored phrase appears in complementary distribution with an analogous phrase in pre-verbal position in all three, that the verb appears to agree with the latter phrase in all three, and that, as we shall see, the latter phrase is nominative in all

three. Uniformity with respect to these aspects, will be discussed in chapter 2. It will be attributed to the fact that the same provision relates the underscored phrase to the subject position in all cases. In this chapter we will focus on the structural asymmetry mentioned.

Throughout the discussion, unless quotes are used, the terms subject, (direct) object will be intended to refer to configurational notions. Thus, subject will be "the NP in [<sub>S</sub>NP VP]"; direct object will be "the NP in [VP<sub>V</sub> NP]" or, more precisely "the NP governed by V". Each of the underscored NP's in (2) and the like, will be referred to as i-subject. This is meant to be reminiscent of "inverted subject" and thus refer to the subject-like properties of these phrases, while at the same time remaining neutral as to whether or not a rule of "inversion" has applied. I-subject is therefore a pre-theoretical notion here, and is defined as: The NP' in a form "...V'...NP'..." such that the verb V' appears to agree with it, and such that there is a near synonymous form "NP' V'..." By "appears to agree" we mean to suggest that we are not assuming that there is an agreement rule operating between the verb and the i-subject directly.<sup>1</sup>

To facilitate exposition, and in particular the task of providing intelligible English glosses, i-subjects will henceforth be underscored and marked with the subscript "s" (for "subject") in the transliterations. Parenthesized translations will be provided alternatively to the transliterations, or additionally, when deemed necessary.

### 1.1 The Distribution of NE

Some i-subjects allow cliticization of a partitive phrase while others do not:

- (3a) Arrivano molti studenti / Ne arrivano molti  
       Arrive many studentss                   Of them arrive manys
- (3b) Telefonano molti studenti / \*Ne telefonano molti  
       Telephone many studentss               Of them telephone manys

While this difference will follow from the structural asymmetry we are postulating as we shall see in a moment, a view alternative to ours will have to attribute the contrast in (3) to some lexical idiosyncrasy, distinguishing arrivare from telefonare. In the following discussion, we will attempt to show that the latter view is quite implausible.

To start, we note that outside of the domain of i-subjects, cliticization of ne (henceforth Ne-Cl), is entirely predictable from syntactic parameters, and as informally stated in (4).

- (4) Ne-Cliticization: possible with respect to all and only direct objects.

The following set of examples will provide a brief illustration of this point.

- (5a) Giovanni ne ha insultati due  
       Giovanni of them has insulted two
- (5b) \*Giovanni ne ha parlato a due  
       Giovanni of them has talked to two
- (6a, cf. 3a) \*Molti ne arrivano  
               Many of them arrive
- (6b, cf. 3b) \*Molti ne telefonano  
               Many of them telephone

Furthermore, even within the domain of i-subjects, the possibility for Ne-Cl is entirely uniform over some syntactically definable subdomains: a rare accident, if lexical idiosyncrasies played any role. One such subdomain is that of transitive verbs. With the latter, Ne-Cl from an i-subject is systematically impossible, as in (7).

- (7a) Hanno fatto domanda molti studenti  
 Have made (submitted) application many students<sub>s</sub>
- (7b) \*Ne hanno fatto domanda molti  
Of them have made application many<sub>s</sub>

In the following three sections we will review subdomains over which Ne-Cl from an i-subject systematically succeeds.

### 1.2 Passive

With passive forms, i-subjects permit Ne-Cl systematically, as in (8).

- (8a) Molti studenti furono arrestati  
 Many students were arrested
- (8b) Ne furono arrestati molti  
Of them were arrested many<sub>s</sub>

We proceed to claim that the statement in (4) is indeed an exhaustive characterization of the syntax of ne. This will imply that if an i-subject allows Ne-Cl, as in (3a) or in (8b), it must be a direct object (i.e. structurally it must occupy a direct object position; recall our definition of direct object). On the other hand if Ne-Cl is impossible, as for example in (3b) or (7b), it will have to be the case that the i-subject is not in direct object position. We assume in fact that in the latter two cases it is adjoined to VP, as will be discussed in 1.5 below.

Our claim will then be supported by the fact that with cases like (8b), a form in which the phrase "molti ne" is in direct object position, is independently attested, i.e. the D-structure form. I assume in fact the correct analysis of Italian passives to be quite analogous to the analysis of English passives as currently assumed within the EST (but see below for further elaborations on the latter analysis, especially

3.4). Relevant arguments will be implicit in much of the discussion. If the latter phrase is simply in its D-structure position in (8b) as we are claiming, we will predict that other copular constructions, which we assume have no analogous D-structure forms, should behave differently. This prediction is correct. In fact, Ne-Cl appears to distinguish passives from the so-called "unpassives" (cf. Siegel (1973)), as in the following.

- (9a) In quell'obitorio, molte vittime erano riconosciute  
In that mortuary, many victims were recognized
  - dalle famiglie  
by their families
- (9b) In quell'obitorio, molte vittime erano sconosciute  
In that mortuary, many victims were unknown
  - alle autorita'  
to the authorities
- (9c) Ne erano riconosciute molte  
Of them were recognized manys
- (9d) \*Ne erano sconosciute molte  
Of them were unknown manys
- (10a) In questo paese, troppi diritti sono limitati  
In this country, too many rights are limited
- (10b) In questo paese, troppi diritti sono illimitati  
In this country, too many rights are unlimited
- (10c) Ne sono limitati troppi  
Of them are limited too manys
- (10d) \*Ne sono illimitati troppi  
Of them are unlimited too manys
- (11a) Al Parlamento, sono stati giustificati alcuni interventi statali  
In Parliament, were justified a few state interventionss
- (11b) Secondo il Parlamento, sono stati ingiustificati  
According to Parliament, were unjustified
  - alcuni interventi statali  
a few state interventionss

- (11c) Ne sono stati giustificati alcuni  
Of them were justified a few  
 (11d) \*Ne sono stati ingiustificati alcuni  
Of them were unjustified a few

The examples in (b), (d) above differ from those in (a), (c) in that no verb exists corresponding to the quasi-participial adjectives sconosciuto, illimitato, ingiustificato; i.e.: \*sconoscere, \*illimitare, \*ingiustificare respectively.<sup>2</sup>

A case exactly parallel to passives is represented by the "impersonal" construction, which -like passives- also allows preposing of the direct object. In order to address the latter case, we will have to make a brief digression, to introduce the impersonal construction.

### 1.3.1 Impersonal si

In this section we will give a general presentation of the "impersonal" construction, a construction which will be resorted to frequently in the course of later discussion. The analysis presented here is essentially the one in Rizzi (1976b), with some extensions concerning the status of impersonal si with respect to Case assignment. Extensive discussion of this construction has been presented in Napoli (1973).

In (12), the particle "si" has approximately the indefinite meaning of "one/you/people".

- (12) Si mangia bene in questo ristorante  
 One eats well in this restaurant

We will henceforth refer to this "si" (distinct from the reflexive morpheme which we will discuss later on), as "(impersonal) SI", and will give it as "SI" in the glosses.

SI is rather obviously a clitic in derived structure since it can occur between the verb and other clitics, as in (13).

- (13) Gli si telefona domani (\*Si gli ...)  
To him SI phones tomorrow  
(We will call him tomorrow)

However, SI is clearly also a "subject" (in some relevant sense) given its complementary distribution with a subject NP, as in (14).

- (14a) Con un po di musica si lavorerebbe meglio  
With a little music SI would work better
- (14b) ... uno lavorerebbe meglio  
... one would work better
- (14c) ... \*uno si lavorerebbe meglio

Furthermore, SI can be only a "subject" (again, in the relevant sense) given that it never alternates with objects, as in (15).

- (15a) Giovanni prende in giro la gente  
(Giovanni takes people for a ride)
- (15b) \*Giovanni si prende in giro (\* ... prende in giro si)  
(Giovanni takes SI for a ride)

Let us then conclude that SI is a clitic that can be related to subject positions only. We will regard this as a peculiarity of the syntax of SI. We now note that, in the sense in which SI is thus a "subject", it can be a derived "subject" also (i.e. it will not always represent a D-structure subject as in (12) or (13)). Consider in fact the passive in (16a) or the Raising case in (16b) (where stare (per) is a Raising predicate by the usual diagnostics; see later discussion).

- (16a) Si e' stati accusati ingiustamente  
SI has been accused unjustly
- (16b) Si stava per vincere  
SI was about to win

We will account for these facts by assuming that SI is inserted (in D-structure) under any NP node. As such it will undergo NP-movement, just like other NP's. We further assume that SI must obligatorily cliticize in the course of the derivation, and that it can do so from subject

position only: a constraint on the syntax of SI. The S-structure for (12) will thus be as in (17a), where SI has been cliticized. The one for (16a) will be as in (17b), where SI has undergone first NP-movement to the left, and then cliticization to the right. We will refer to the latter process as "SI-cliticization" (SI-C1), and assume explicitly that it is a movement operation (on this see fn. 8). (16b) will have a derivation analogous to (16a).

- (17a) [i e] si i mangia bene in questo ristorante  
 (17b) [i e] si i e' stati accusati t i ingiustamente

We will assume that in derived structure, SI properly "binds" the subject position, in spite of the fact that the latter is not C-commanded by SI. Some such exceptional provision seems required for any case of subject cliticization. The subject position vacated by SI will henceforth be indicated as in (17). This is not intended to suggest that the latter is different than a trace (but with the reservations of fn. 5).

The next relevant observation will be that SI does not freely occur in infinitivals, as for example in the following (note that Italian clitics go to the right of an infinitive).

(18c) Si e' detto quelle cose	{ senza pensare *senza pensarsi }	.
SI said those things	{ without thinking without SI thinking }	

We assume that the grammatical cases above, all involve PRO as the subject of the infinitive, respectively: PRO-arbitrary (cf. Chomsky (1980)); PRO controlled by "Giovanni"; PRO controlled by SI. We will account for the contrasts in (18) by naturally suggesting that SI must be assigned Case, like lexical NP's. The ungrammatical examples in (18) would thus violate the Case filter (cf. (6) in 0.2 above; but see below for details).<sup>3</sup>

However there is one exception to the general failure of SI to appear in infinitivals, represented by Raising cases like (19) (but see also the cases in fn. 3).

(19)	?	{ sembrava      } mangiarsi molto bene
		{ risulta       }
		{ (It) seemed }
		{ Si to eat very well }
		{ turns out    }
(One seemed/ turns out to eat very well)		

Although the configuration in (19) never yields perfect results, and is in fact close to impossible with other Raising predicates (cf. "?\*Stava per vincersi" contrasting with (16b)), I will assume that these cases are essentially grammatical, and that additional and apparently idiosyncratic factors are responsible for their less than perfect status (rather than assuming that these are essentially out, and that idiosyncratic factors can partially "rescue" them).<sup>4</sup> This decision is based on the fact that the contrast with parallel Control cases such as (18) or (20) here below is always significant (see also the discussion of ci shortly below).

(20)	*	{ Pensava      }	di mangiarsi molto bene
		{ Pensavamo }	
		{(He)      }	Thought      SI to eat very well
		{(We)      }	

We will assume that cases like (19) are derived by first cliticizing SI to the infinitive, and then applying "Raising" to the NP that SI is related to, namely its "residue" or trace, whereas (16b) would be derived by applying Raising first and then SI-Cl (recall that we are assuming no extrinsic ordering of rules).<sup>5</sup> We now suggest that in (19), the Case requirements for SI are satisfied by the fact that the "Raised" NP is in a Case-marking position. We thus assume that the analysis for (19) is as in (21), where the Case required by SI is assigned to the matrix subject.

- (21) [<sub>i</sub>e] sembrava [<sub>S<sup>t</sup>i</sub> mangiarsi molto bene]

Although this conclusion that SI can receive Case "at a distance" as it were, may seem odd, a parallel conclusion will be required for the element ci of locational constructions (also a clitic but otherwise analogous to English there in the pleonastic use), to be discussed in 3.1.3 below. To briefly anticipate the relevant facts, we find with the latter Raising/Control contrasts analogous to those discussed above, and as in (22).

- (22a) Lo spettacolo ha avuto luogo  
The show took place
- |   |   |
|---|---|
| { senza che <u>ci</u> fosse molta gente }   | { *senza esserci molta gente }          |
| { without that there were too many people } | { without there to be too many people } |
| (... without there being too many people)   |   |
- (22b) Sembrava esserci molta gente  
(It) seemed there to be many people  
(There seemed to be many people)

The infinitival subcase of (22a) is thus analogous to the SI cases in (18) and to (20); (22b) is analogous to (19). We note that no marginality is involved here, suggesting that it was appropriate to disregard the marginality of (19). Here too we will assume that the contrast is due to the fact that the subject NP related to ci must be Case-marked: a requirement which is fulfilled in the Raising case, where the latter NP ends up in matrix subject position, but not in the Control case.

Notice furthermore that a dissociation between SI and the NP which is Case-marked, is suggested even by the simplex case, such as (17a) for example. In fact, it would seem more natural to assume that it is always the subject position which receives nominative, rather than assuming that in this case SI (as a clitic) does. Notice also that the Case filter as stated refers to NP's, not to clitics, and is thus congruous with the latter assumption. The Case filter, namely "\*NP, when NP has a phonological matrix and has no Case" will work correctly here, provided that the underscored portion is interpreted as "is associated with" rather than "contains". This particular reading of "has", and the view that NP's can be dissociated from their phonological matrices is not particular to SI or ci, but at least at the intuitive level, is clearly suggested by cliticization in general (cf. some of the discussion in 5.7).<sup>6</sup>

We now turn to the aspect of the SI-construction which is more directly relevant to our discussion.

### 1.3.2 Object Preposing

When the SI-construction has a direct object, as in (23a), an essentially synonymous variant like (23b) is generally possible.

- (23a) Si guarda le manifestazioni sportive con interesse  
SI watches sporting events with interest

- (23b) Le manifestazioni sportive si guardano con interesse  
 Sporting events SI watch with interest

I will assume following Rizzi (1976b), that (23b) is derived from (23a) via NP-movement. In particular I will assume that the direct object can be moved to fill the subject position vacated by cliticization of SI. We will often refer to the latter instance of NP-movement as "Object Preposing" (O.P.), for expository convenience. The assumption in Rizzi (1976b) that NP-movement is involved, is based on the result of the usual diagnostics for movement, such as idiom chunks, and on other relevant considerations. Further arguments will also be implicit in some of my discussion here and in later chapters. The latter assumption is relatively uncontroversial, and accepted for example in Belletti (1980), Longobardi (1980b) and, for the French equivalent of these constructions, in Ruwet (1972), Kayne (1975). A parallel syntactic derivation in the framework of Relational Grammar, has also been argued for in Aissen and Perlmutter (1976) with respect to the Spanish counterpart of (23b). (Grimshaw (1980), however, takes a "lexical" approach to the French equivalent of (23b); on the latter approach see below, especially 5.7.5).

O.P. appears totally optional in some cases, highly preferable in others, with dialectal variation: in some (mostly non-Tuscan) dialects it is near-obligatory in most cases.<sup>7</sup> Throughout this discussion, I will assume an idealized dialect in which O.P. is always perfectly optional: no theoretical consequence is attached to this decision as far as I can see.

The subject status of the phrase "Le manifestazioni sportive" in derived structure in (23b) can be easily determined, for example by the fact that the latter triggers verb agreement, and can be replaced by a

"null" pronominal (subject pronoun drop), as in (24).

- (24) Si guardano con interesse  
 (One watches them with interest)

An interesting question which arises here, is that of determining how the Case requirements associated with SI in the cases discussed in 1.3.1 above, may be enforced in this configuration. It is reasonable to assume that the answer will have to be one of the following three possibilities:

- i) SI continues to be obligatorily related to the subject, and the latter must be Case-marked, just as with the cases of 1.3.1 and even though the subject position is now occupied by material moved in from object position.
- ii) Si has the option to "absorb" (or "inherit") either the Case of the subject (generally nominative), or that of the direct object (i.e. accusative). Under this view the cases in 1.3.1 would instantiate the former option (i.e. absorption of the subject-Case). Instantiation of the latter option (i.e. absorption of the object-Case), would require O.P. obligatorily, since the object would otherwise fail to receive Case, hence presumably (23b).<sup>8</sup>
- iii) There are no longer any Case requirements concerning SI once O.P. occurs. These three hypotheses make different empirical predictions. The difference concerns cases like the following, where the O.P. example will systematically contrast with the analogous passive.

- (25a) Sarebbe bello } [  $S^{PRO_i}$  essere invitati  $t_i$  a quella festa ] }  
 (It) would be nice } \* [  $S^{PRO_i}$  invitarsi  $t_i$  a quella festa ] }
- (25b) Giovanni sperava } [  $S^{di PRO_i}$  essere invitato  $t_i$  ] }  
 Giovanni hoped } \* [  $S^{di PRO_i}$  invitarsi  $t_i$  ] }
- } to be invited }  
 } SI to invite (us) to that party }
- } to be invited }  
 } SI to invite (him) }

(25c) Giovanni parlo'	{	senza [ <sub>S<sup>PRO</sup></sub> <sub>i</sub> essere interrogato <sub>t<sub>i</sub></sub> ]	}
		*senza [ <sub>S<sup>PRO</sup></sub> <sub>i</sub> interrogarsi <sub>t<sub>i</sub></sub> ]	
Giovanni spoke	{	without being asked	}
		without SI asking (him)	

The ungrammatical cases in (25) are exactly parallel to the ungrammatical cases in (18) respectively, we will note. The hypothesis that O.P. should not be associated with any change in Case requirements for SI, namely i), will thus make correct predictions. Under the latter hypothesis SI in (25) fails to be associated with any Case-marked NP, just as in (18) above, whereas it will be associated with a nominative subject in (23b) (i.e. "Le manifestazioni sportive") just as in (17a) (i.e. "[<sub>NP</sub>e]"). This view would imply that in a sense there would be two nominatives in (23b): "Le manifestazioni sportive" and SI. I assume that this is correct. (In chapter 2 we will claim that all cases of "inversion" also give rise to two nominatives). Hypothesis ii), whereby SI would absorb (or "inherit") accusative Case from the direct object position, would predict that the O.P. cases should be entirely parallel to the corresponding passives (passive morphologies do in fact withhold accusative just in the latter fashion, as we shall see below, and cf. "\*It was expected John to leave"). The latter would thus fail to account for the contrasts. Hypothesis iii) would also analogously fail.

Just like the ungrammatical cases in (18), those in (25) will also have grammatical Raising counterparts, such as for example (26), contrasting with (25b).

- (26) [<sub>i</sub>I regali di Natale] sembravano sempre [<sub>S<sub>i</sub></sub>comprarsi <sub>t<sub>i</sub></sub>  
in quel negozio]

Christmas presents seemed always SI buy in that store  
(... seemed always to be bought ...)

We are claiming that, in (26) just as in (21), the Case requirements relative to SI are fulfilled by the matrix subject. In both of its variants, namely with and without O.P., the SI-construction will thus distinguish between Raising and Control predicates.<sup>9</sup> We now return to the main line of discussion in this chapter.

Alongside of the two variants in (23) repeated here below as (27a), (27b) respectively, we find a third variant such as (27c), essentially synonymous with each of the other two.

- (27a) Si guarda le manifestazioni sportive con interesse  
SI watches sporting events with interest
- (27b) Le manifestazioni sportive si guardano con interesse  
Sporting events SI watch with interest
- (27c) Si guardano le manifestazioni sportive con interesse  
SI watch sporting events with interest

By the terms of our discussion, (27c) will be the i-subject counterpart of (27b). In fact in both (27b) and (27c) the verb appears to agree with the phrase "le manifestazioni sportive", differently from (27a) where the verb has singular inflection, agreeing presumably with SI. (on this issue cf. 1.6 below and fn. 5 above). The cases in (27b) and (27c) will furthermore fall together in another respect. Consider the cliticization facts in (28), relative to (27a) and (27c) respectively.

- (28a) Le si guarda con interesse  
Them SI watches with interest
- (28b) \*Le si guardano con interesse  
Them SI watch with interest

We assume that cliticization of the phrase "le manifestazioni sportive" in (27a) where the verb does not appear to agree with it, will succeed

as in (28a) because the latter phrase is marked accusative. Cliticization of the same phrase in (27c) where the verb does appear to agree with it, will fail as in (28b) because, while the latter phrase is marked nominative, clitics like le require accusative Case. We will assume in general that there are no nominative clitics comparable to le etc., and that the only nominative clitics are SI, as discussed above, ci of locationals, to be discussed in 3.1.3, and the "null" pronouns of "subject pronoun drop" to be discussed in chapter 2. The phrase "le manifestazioni sportive" will be naturally assumed to be nominative in (27b) also, as with all S-structure subjects of tensed clauses (cliticization will of course fail there too, cf. (28b)). Cases (27b) and (27c) will thus appear analogous with respect to verb agreement and Case marking of the phrase "le manifestazioni sportive". It will remain to be accounted for why a difference in verb agreement, as between (27a) and (27c) should be accompanied by a difference in Case assignment, namely why the properties of i-subjects cluster in that particular fashion. We address those matters in chapter 2.

We now note that with all i-subjects of the type in (27c), as with i-subjects of passives, Ne-Cl is possible, as in (29) (Assume "si → se" in some phonological environments).

- (29a) Si guardano molte manifestazioni sportive  
SI watch many sporting events<sub>s</sub>
- (29b) Se ne guardano molte  
SI of them watch many<sub>s</sub>

Our point here is that if a process of "subject inversion" was always involved, it will indeed seem rather curious that Ne-Cl, while generally possible with direct objects, should systematically be possible with i-subjects which are "related to" direct objects in some rather obvious

way (it being the case that subjects both of passives and of O.P. cases are D-structure direct objects). Our claim is that the relation just alluded to in quotes is the "identity" relation: a view under which the facts cease to be "curious". We will thus assume that both i-subjects of passives (as was discussed in 1.2), and i-subjects like the one in (27c) are direct objects (recall the definition of direct object). This implies that essentially there will be no difference in structure between (27a) and (27c), only one of Case. Of course Ne-Cl will succeed in (27a) as well, as in (30).

- (30) Se ne guarda molte  
SI of them watches many

Given the lack of contrast between (29b) and (30) versus the contrast in (28), Ne-Cl will differ from direct object cliticization, as the latter but not the former appears sensitive to the Case of the direct object. This result seems quite reasonable, since ne cliticizes only a subpart of the direct object and we would thus not assume that it shares the Case of the direct object. (We may assume instead that ne has no Case, or perhaps always the same Case, say "genitive"). On related matters cf. 5.5.3 below.

We now discuss a third case which we will regard as parallel to passives and O.P.-constructions.

#### 1.4.1 Ergative Verbs

Some verbs can appear in both transitive and "intransitive" frames such that the same selectional restrictions holding for the direct object of the transitive case will hold for the subject of the "intransitive" one. For example:

- (31a) La marina americana ha affondato la nave  
The American Navy sank the ship

- (31b) La nave e' affondata  
The ship sank
- (32a) Il caldo ha soffocato Giovanni  
The heat choked Giovanni
- (32b) Giovanni e' soffocato  
Giovanni choked

We will express the object-subject relation which we just described, by referring to cases like (31) and (32) as "AVB/BV" pairs (V: a verb). There will thus be a well-defined class of verbs that enter into such pairs. A sample of such verbs is given in (33).

- (33a) **migliorare, peggiorare, aumentare, diminuire,**  
improve      worsen      increase      diminish
- cicatrizzare, ingrassare, raffreddare, consumare,**  
cicatrize      fatten      cool      wear out
- sprofondare, gelare**  
sink in      freeze
- (33b) Verbs of adjectival derivation, like: **rinverdire,**  
turn green
- annerire, rimbecillire,**      **ispessire;**  
blacken      (cause to) become stupid      thicken
- and verbs with the im/in prefix expressing change  
of state, like: **inviperire, incivilire.**  
(cause to) become angry      (cause to) become civilized

Let us henceforth refer to verbs which appear in the "BV" member of AVB/BV pairs as "ergative", rather than "intransitive" verbs. We now note that with ergative verbs, Ne-C1 from an i-subject is systematically possible, as in (34), (35).

- (34a) Sono affondate quattro navi  
Sank four ships
- (34b) Ne sono affondate quattro  
Of them sank four
- (35a) Sono soffocati quattro spettatori  
Choked four spectators

- (35b) Ne sono soffocati quattro  
      Of them choked fours

If i-subjects of ergative verbs arose as a result of rightward movement, it would be once again curious that Ne-C1 should treat those i-subjects -though not others- just like direct objects, given that exactly those are independently related to direct objects in the manner described (i.e. they appear as direct objects in the corresponding AVB form). We thus proceed to claim that i-subjects of ergative verbs, such as "quattro navi" in (34), are direct objects, and that ergative verbs appear in D-structure configurations of the type "[<sub>NP</sub>e] V NP", (where "[<sub>NP</sub>e]" is a lexically empty NP), thus analogous to the D-structure forms of passives. We are therefore claiming that cases like (34), (35), just like the corresponding passive and O.P. cases discussed above, are essentially in their D-structure configuration. Cases like (31b) and (32b) will then be derived via NP-movement of the direct object into subject position, as with the corresponding passive and O.P. cases. We are thus adopting a view which has been held for some time within Relational Grammar, cf. for example Perlmutter (1978a).<sup>10</sup>

Aside from the arguments relative to Italian, which will appear throughout the discussion, there will be two rather obvious arguments to support our view of ergative verbs in general. The first argument has to do with the fact that this view would reduce the amount of idiosyncrasy in the mapping between D-structure representation (which we assume is essentially carried over into L.F. by means of trace theory), and semantic interpretation. In particular, under this view there would be no dissociation between D-structure direct objects and some appropriate notion of "patient" or "theme" (cf. Jackendoff (1972)).

Thus for example, in "The boat sank", "the boat" would not be a D-structure subject/patient, but simply a D-structure direct object (as in "The Navy sank the boat"), the latter syntactic function being sufficient to predict the semantic function "patient" (on related discussion, cf. 3.5.5, 5.2.1).

The second argument has to do with the fact that if such a class of verbs did not exist, there would be an unexplained gap in the typological spectrum. We discuss this in the next subsection.

#### 1.4.2 Minus Thematic Subject

It is clear that the D-structure subject of some verbs must be referential, while that of other verbs must not be, as is shown by the contrasts in (36), (37).

- (36a) John expects that Bill will win
- (36b) \*John seems that Bill will win
- (37a) \*It expects that Bill will win
- (37b) It seems that Bill will win

Some specification to the latter effect will have to be part of the lexical entry of verbs. On this we will assume that D-structure represents without deviance the "thematic structure" of the sentence, the latter being synonymous with "argument structure" in the familiar sense. We will assume in particular that all and only the "thematic", or "argument" positions must be occupied by "R" expressions, where "R" stands for "referential" in the appropriate sense (a sense covering: "table", "John", "sincerity" etc. but not: non-pronominal "it", "there", "[<sub>NP</sub>e]", etc.), as in the well-formedness criterion in (38).<sup>11</sup>

- (38) Thematic well-formedness: Every thematic position must be

occupied by an R-expression. Every R-expression must occupy a thematic position.

We now assume that the "thematic positions" of (38) are, for objects, those and only those which appear in the subcategorization frame of the verb. Concerning subjects, we assume that part of the lexical entry for verbs like seem, is the statement in (39).

(39) Do not assign a thematic role to the subject.

Given the specification in (39), the subject of a Raising verb, like seem, will not be a thematic position (i.e. it will have no thematic role). By the criterion in (38), holding of D-structure, the latter position may not contain an R-expression in D-structure, hence (36b), (contrasting with "John seems to win" where Raising has applied) and (37b). We assume non-pronominal it of (37) to not be an R-expression, as discussed. It will therefore be irrelevant for these cases whether it is present in D-structure, or inserted later in the derivation. For a verb like expect, we will assume the specification in (39) to not hold, and by implication the converse to hold. The subject of expect will thus be a thematic position (since it is assigned a thematic role), therefore by (38) the latter position will have to contain an R-expression in D-structure, hence (36a), (37a). Further discussion on these matters, and some justification for the view that D-structure representation works differently with subjects than with objects, will be presented in 5.2.1 below.

We may assume (for the moment; see below for further qualifications) that the specification in (39) holds of passive morphologies in analogous fashion, thus accounting for the parallelism between (36b)/(37b) and (40a)/(40b) here below respectively.

(40a) \*John was expected that Bill would win

(40b) It was expected that Bill would win

If we now simply assume that lexical specifications concerning the subject are independent from the complement system that the verb selects, we will expect the spectrum of D-structure forms in (41), where "  " is shorthand for "[<sub>NP</sub>e]" or "NP not containing an R-expression". (This spectrum is not exhaustive, cf. fn. 12).

(41a) NP V S

(41b)    V S

(41c) NP V NP (S)

(41d)    V NP (S)

The type in (41a) will be instantiated by verbs taking a sentential complement such as expect in (36a), the type in (41b) by the counterparts for which the statement in (39) holds, namely by verbs like seem in (37b). (41c) will be the general case of transitive verbs (and, for the "S" option, the case of verbs like persuade, as in "Bill persuaded John [<sub>S</sub><sup>PRO</sup> to go]"). We will now have no reason to expect that (41c) should not have a counterpart for which (39) holds, and that the type in (41d) should be missing from the paradigm.

We will then assume that D-structure forms like (41d) do in fact exist, and that such forms are instantiated by ergative verbs like sink of "The boat sank" (for the "S" option, see 1.7.1 below).<sup>12</sup> The question of why there is no "It sank the boat" analogous to "It seems that ...", will be addressed in chapters 2, 3 below. Lexical entries for ergative verbs would thus be related to those for the corresponding transitives by the statement in (39). In particular we assume that, given the lexical entry of a transitive verb, a new lexical entry can

be produced by adding the specification in (39) (or dropping its converse). We will assume that this is a lexical process, relating different lexical items. Given the general properties of the lexicon, we thus expect that this process should not be fully productive, as is in fact the case (cf. for example "John buys the groceries/\*Groceries buy easily here").

On passives, whose D-structure forms will be similar to those of ergative verbs, but which nevertheless appear to be fully productive, we will assume that the latter are derived, not by a lexical process proper, as the one just described for ergative verbs, but rather by a process of derivational morphology, hence the systematic morphological changes between verbs and corresponding passive forms, versus no (systematic, cf. 1.4.3 below) morphological change across transitive-ergative pairs. To the different circumstances of their respective derivations we will also attribute other differences between ergatives and passives (cf. for example "The boat was sunk by the Navy/\*The boat sank by the Navy"), which we will briefly touch on in later chapters, in particular in 2.6, 3.5.5, 5.2.1 (cf. also some of 6.4.4). We will therefore assume that something like the statement in (39) plays a role both in the lexicon proper, and with processes of derivational morphology.

The relation between an S-structure form AVB and a corresponding BV form, will therefore be partly lexical and partly syntactic in the form of NP-movement. Our view will thus differ both from purely lexical approaches to this relation, as in Jackendoff (1976), Wasow (1977), Grimshaw (1980), and from purely syntactic approaches, as in Fiengo (1974) (but will in fact be fairly similar to some of the discussion in Bowers (1973)).

Once we assume that the D-structure form of (41d) exists, there will be no particular reason to assume that it can only exist in conjunction with a corresponding transitive form of the type in (41c). Notice in fact that there is no systematic association between the forms in (41b) and those in (41a), (for example there is a Raising seem, but no seem taking a thematic subject), although sporadic associations are found, as for example with English prove of "John proved the problem to be unsolvable/The problem proved to be unsolvable" (we discuss this case in 3.5.5 below).<sup>13</sup> We will then assume that verbs appearing in the D-structure frame of (41d) exist, for which there is no transitive counterpart. By extension we will now use the designation "ergative" to refer to not only BV members of AVB/BV S-structure pairs, but to all verbs that appear in D-structure with a direct object, and with a non-thematic subject, i.e. with a non "referential" (generally empty) subject.

Returning now to Italian, I will assume that all and only the verbs which allow Ne-CI from an i-subject are ergative verbs. Thus in (3) above, repeated here below, arrivare will be an ergative verb, while telefonare will be non-ergative, i.e. intransitive.

- |       |  |   |  |
|-------|--|---|--|
| (42a) | Arrivano molti studenti<br>Arrive <u>many students</u> <sub>s</sub>      | / | Ne arrivano molti<br>Of them arrive <u>many</u> <sub>s</sub>       |
| (42b) | Telefonano molti studenti<br>Telephone <u>many students</u> <sub>s</sub> | / | *Ne telefonano molti<br>Of them telephone <u>many</u> <sub>s</sub> |

Under this view, the distribution of Ne-CI will thus be entirely accounted for by the statement in (4) (i.e. Ne-CI will be possible from all and only direct objects).<sup>14</sup>

#### 1.4.3 Ergative si

Before proceeding with the main discussion we must note that verbs entering transitive/ergative pairs exist, such that a reflexive clitic

will appear in the ergative use. E.g.:

- (43a) Giovanni rompe la finestra  
Giovanni breaks the window

- (43b) La finestra si rompe  
The window itself breaks  
(The window breaks)

The class of verbs that pattern as in (43) is rather large, to include for example those in (44).

- (44) accumulare, concentrare, radunare, allargare, capovolgere,  
accumulate concentrate assemble widen capsizes  
  
muovere, sviluppare, dividere, riempire, laureare,  
move develop divide fill up graduate  
  
liquefare, sporcare, rovesciare, attorcigliare  
liquefy dirty spill twist

We can assume that si in these cases is the morphological reflex of the "loss" of subject-thematic role discussed above, which is involved in the derivation of ergative entries from transitive ones: a lexical derivation, as we are assuming. Si in (43b) must be a clitic, rather than forming one lexical item with the verb, since for example it can be separated from the verb by an auxiliary, cf. "La finestra si e' rotta/  
The window (itself) has broken" (as noted for example in Grimshaw (1980)).  
Si in (43b) will furthermore be a reflexive clitic, in the sense that it will follow the inflectional paradigm in (45), relative to reflexive clitics in general.<sup>15</sup>

(45)	pers.	sg.	pl.
	1	mi	ci
	2	ti	vi
	3	si	si

We will often refer to reflexive morphemes in (45) simply as "si" (as distinct from impersonal SI) for ease of exposition. The si of (43b)

will be referred to as "ergative si". Other instances of si will be "inherent reflexive" si and "reflexive" si to be discussed in 1.8 and 5.7 below, respectively.

We will assume that ergative si does not play any major syntactic role. In particular it will not play any thematic role, as is fairly obvious (i.e. it is not an "argument"). Furthermore it will not enforce any Case requirements. In this respect it will differ from SI, and, unlike the latter, will thus freely occur in infinitivals as in (46) (contrasting with (25c) above).

- (46) La finestra e' caduta senza ...  
The window fell without ...

[<sub>S</sub><sup>PRO</sup><sub>i</sub> rompersi <sub>t</sub><sub>i</sub>]  
breaking (itself)

We assume however that ergative si is somehow related to the subject position. Let us say that the latter is an indicator that assignment of thematic role to the subject position has been suspended. In 5.4.1 below we will see in fact that ergative si can be omitted exactly in those cases in which there is no subject position.

I will not provide any insight here as to why this marker occurs in some cases and not in others (such as (31b) for example). We will regard this fact as an idiosyncratic aspect of the lexicon.<sup>16</sup>

Except for the presence of the reflexive clitic which will agree with the subject as per (45), si ergatives will be just like the other ergatives, and all the considerations previously made will hold here as well. In particular, Ne-Cl from an i-subject will be systematically possible, as in the following (assume "si → se" in some phonological environments).

- (47a) Si rompono molte finestre  
Theyelves break many windows<sub>s</sub>

- (47b) Se ne rompono molte  
 Themselves of them break many<sub>s</sub>

The account of the relation between the verb in (43b) and the one in (43a) given above is similar in some respects to the one presented in Grimshaw (1980). The latter account in fact postulates the existence of a lexical operation of "inchoativization" (see Grimshaw's (32)), which will have the same effect as the compounding of (48a), (48b) below (my paraphrase).

- (48a) Insert si; suspend subject thematic role.

- (48b) Turn object into subject

My discussion may be viewed as essentially following Grimshaw in postulating the existence of a lexical operation with the effect (48a). However, it will differ crucially from Grimshaw's account in assigning a syntactic character to (48b), in the form of the familiar NP-movement.

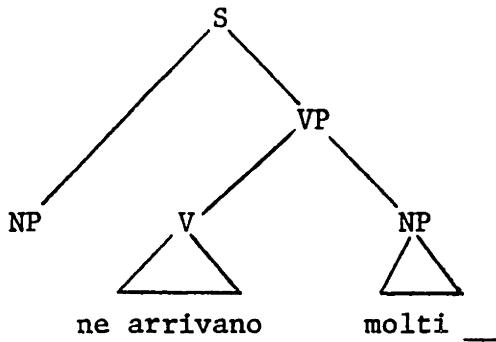
One piece of evidence in favor of our approach has already been presented: If (48b) was a lexical operation, si ergatives would be syntactically non-distinct from intransitives, and the noted asymmetry with respect to Ne-C1 from i-subjects would go unexplained. Further relevant discussion will appear below. See 5.7.5 in particular.

### 1.5 VP-Adjunction

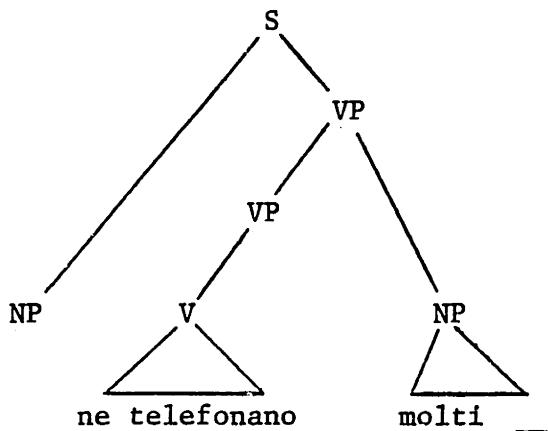
We now return briefly to the assumption of 1.0 that some i-subjects are derived via rightward movement and to our view that Ne-C1 fails just in those cases. Following Kayne (1979) I will assume that rightward movement right-adopts the moved NP to VP. In that reference, this conclusion is reached essentially from theoretical considerations concerning in particular the theory of adjunctions. On the matter see also van Riemsdijk (1978). Evidence in support of VP-adjunction will also

appear in chapter 2. The cases in (3) above would thus essentially have the analyses in (49) respectively. (We continue to ignore the question of the status of the subject NP in these cases. See chapter 2).

(49a)



(49b)



(49b) will then be ill-formed since it does not conform with the syntax of Ne-Cl, namely (4) (i.e. "direct objects only"). The accidental character of (4) may be partly removed by assuming the relation between ne and "\_\_" (let us say its "trace") in (49) to simply be an anaphoric relation thus falling under the general binding conditions.<sup>17</sup> Ne will then C-command its trace in (49a) but not in (49b). The general binding conditions will also rule out Ne-Cl from preverbal position, as for example in (6a) above, repeated here:<sup>18 19</sup>

(50) \*[<sub>i</sub>Molti \_\_] ne arrivano <sub>i</sub>t<sub>i</sub>

Related discussion, concerning the exact notion of proper binding, will appear in chapter 4, and in 5.4.

This rudimentary account of Ne-Cl will be sufficient for our purposes here. For a more extensive discussion compatible with our view, see Belletti and Rizzi (forthcoming).

### 1.6 Auxiliary Assignment

The claim that our ergative analysis of verbs like arrivare, permits an interesting account of the distribution of aspectual auxiliaries, will underlie much of our discussion. In this section we will propose a system of auxiliary assignment and past participle agreement, and will show how it can account for the more general cases. Later in the discussion, and especially in chapter 6 we will see how the same system operates in some rather special cases. In chapter 2, we will see how it interacts with "inversion".

The bifurcation in (3), concerning Ne-Cl, appears to mirror exactly the distribution of the two aspectual auxiliaries Essere and Avere (Be and Have respectively; henceforth "E" and "A" respectively). In fact all and only the verbs that allow Ne-Cl from an i-subject take E.<sup>20</sup> (To my knowledge this correlation has been first noted by D. Perlmutter, cf. Perlmutter (1978)).

Postulating significant syntactic differences between the two cases in (3) (involving arrivare, telefonare respectively, will thus enable us to link auxiliary selection to syntactic parameters. This appears to be a desirable result since the alternative, namely assuming that auxiliary selection is the result of lexical properties appears rather unappealing even at first blush. In fact, quite aside from the fact that the correlation with Ne-Cl just mentioned would go unexplained, the latter alternative would be at a loss to account for the absolute regularities observable over well-defined syntactic domains: Always E with passive, SI-construction

and clitic reflexives as discussed here below; always A with transitive verbs (in other than the constructions just mentioned). Also puzzling would be the systematic auxiliary switch across transitive/ergative pairings as in (31)/(32) where we will note the "ha"/"e'" (A/E) alternation.<sup>21</sup>

Auxiliary E overlaps rather conspicuously in its distribution with past participle (henceforth "pp") agreement. In particular the overlap concerns: passives, as in (51a); cases involving reflexive clitics, as in (51b); ergative verbs, as in (51c).

- (51a) Maria e' stata accusata  
Maria has been accused (E; pp ag't)
- (51b) Maria si e' accusata  
Maria herself has accused (E; pp ag't)
- (51c) Maria e' arrivata  
Maria has arrived (E; pp ag't)

Auxiliary E and pp agreement appear dissociated in two cases. The first dissociation, involving pp agreement but no E, is found with direct object clitics (where the pp agrees with the clitic), as in (52).

- (52) Giovanni la ha accusata  
Giovanni her has accused (A; pp ag't)

The second dissociation, involving E but no pp agreement, is found with the general case of the SI-construction, as in (53).

- (53) Si e' telefonato a Giovanni  
SI has telephoned Giovanni (E; no pp ag't)

The intransitive case in (53) will contrast with the ergative case in (54) where the pp appears with plural agreement, agreeing with SI as we shall assume.

- (54) Si e' arrivati  
SI has arrived (E; pp ag't)

As it appears, pp agreement in the SI-construction will quite generally

be limited to those cases which require pp agreement independently, such as ergative verbs as in (54) (cf. 51c), passives and reflexives as in (55) here below respectively (cf. (51a), (51b)), as well as the configuration relative to the "Change of Auxiliary" which will be discussed in chapter 6 (e.g. "Si e' voluti andare/ SI has wanted (pl) to go"; cf. 6.5.2).<sup>22</sup>

- (55a) Si e' stati accusati  
SI has been accused (E; pp ag't)

- (55b) Ci si era odiati  
Themselves SI had hated (E; pp ag't)  
(We had hated ourselves/each other)

To account for these facts we will claim that auxiliary selection generally reflects some relational properties of the subject in derived structure; and that pp agreement analogously reflects relational properties of the direct object. In particular, we will propose the system in (56).

- (56a) Essere assignment: The auxiliary will be realized as Essere when a binding relation exists between the subject and a nominal constituent of the predicate.

- (56b) Past Participle agreement: A past participle will agree (in gender and number) with an element binding its direct object.

We will assume that the system in (56) operates in S-structure.<sup>23</sup> The notion "direct object" in (56b) will be the usual structural notion, defined as "the NP which is governed by the verb".<sup>24</sup> For the notion "constituent of the predicate" of (56a) the latter will have to be closely related to the definition of direct object, for reasons that will be clear later on, especially in chapter 6. We will define it as in the following:

- (57) An element is a constituent of the predicate if and only if it is either part of the verb morphology or it is governed by the verb.

We assume that clitics are part of the verb morphology in the sense of (57). The scope of the system in (56) will have to be limited in some way which we will discuss shortly. We may first see how this system adequately covers the cases so far discussed.

The passive in (51a) will be straightforwardly accounted for by assuming the familiar analysis, namely by assuming the existence of a trace in direct object position, bound by the phrase "Maria". Such binding relation will trigger both (56a) and (56b).<sup>25</sup> The ergative case in (51c) will be accounted for analogously since under our view, it has an entirely parallel analysis. For the reflexive case in (51c), as will be discussed more in detail in 5.7 below, we assume the subject to be related to the clitic si. Since we regard clitics as part of the verb morphology in (57), this relation will induce E. Again referring to 5.7 for details, we further assume si in (51b) to be related to a phonologically null direct object position. This relation will induce pp agreement. The account we have just given, will represent a first piece of evidence for our analysis of verbs like arrivare. In fact if the latter verbs were intransitive, there would be no reason why they should fall together with passive and reflexive constructions with respect to auxiliary selection.

We now consider the cases where pp agreement and E are dissociated. The case in (52) involving pp agreement but no E will follow from the fact that a binding relation affects the direct object (i.e. we assume a binding relation between the clitic and an empty NP in direct object position, as with si above and whether the clitic is moved or base-generated), while no relation affects the subject. Thus only (56b) will be triggered. This will be

a second piece of evidence supporting our analysis of verbs like arrivare.

In fact it is the latter analysis that allows us to collapse pp agreement in (51c) and pp agreement in (52) under the formulation in (56b). Under a different view, pp agreement in (51c) would presumably have to be expressed as in (58), and thus remain unrelated to pp agreement in (52).

- (58) A past participle will agree with the subject if the auxiliary is Essere

While the account in (58) might seem reasonable given the apparent morphological analogy between "essere-past participle" sequences, as in (51c) and "essere-adjective" sequences, as in "Maria e' malata/ Maria is ill" where the adjective will agree with the subject, the latter account is falsified by the case in (53), featuring E but no pp agreement. (A case analogously problematic for (58) will be discussed in 5.7.1).

The case in (53) will be correctly predicted, given our discussion in 1.3 and the analysis in (59).

- (59) [<sub>i</sub> e] [VP<sub>si</sub><sub>i</sub> e' telefonato a Giovanni]  
(see (53))

Since we assume SI to bind the subject position in (59) (cf. 1.3), a binding relation will exist involving the subject, though none will involve the direct object, therefore only E will be assigned. The case in (54) will also be correctly predicted. The latter will in fact have the analysis in (60), where SI has undergone first NP-movement, and then cliticization.

- (60) [<sub>i</sub> e] [VP<sub>si</sub><sub>i</sub> e' arrivati <sub>i</sub> t<sub>i</sub>]  
(see (54))

We will naturally assume that the trace of SI in subject position in (60) contains the features of SI. Since the latter binds the direct object,

agreement will ensue. On the fact that SI appears plural for pp agreement, but singular for verb agreement, we may suggest the following account. We assume that SI only bears gender and number features, in particular it will be plural and either gender (the feminine counterpart to (54) will be "Si e' arrivate"); but that it lacks the feature "person" (implicit in the definition "impersonal si" which is often used). Pp agreement will thus be able to operate correctly, and yield plural agreement; but verb agreement (in person and number) will not operate at all -so we shall assume- due to the lack of person feature, thus leaving the verb in its neutral, third person singular, form (as with other "impersonals", cf. "it seems that ...").

The difference in pp agreement between (53) and (54) will thus represent a third piece of evidence in favor of our hypothesis. In fact, if both arrivare and telefonare were intransitive verbs one would see little reason why they should differ here. The passive case in (55a) will be quite analogous to the ergative case in (54). For the reflexive case in (55b) we will assume that the reflexive clitic (cf. fn. 22) is related to the direct object position, just as in (51b) (postponing details till 5.7). This relation will correctly induce pp agreement.

The SI-construction will take E and feature pp agreement generally, in the variant in which O.P. has applied, as in (61).

- (61) [<sub>i</sub> Quei libri] si sono letti <sub>i</sub> volentieri  
 Those books SI have read willingly      (E; pp ag't)

Agreement of the pp with the derived subject "Quei libri", as well as E, will be predicted by our theory, given the analysis.

Our discussion so far, would be compatible with an alternative formulation of pp agreement. One could in fact suggest that the pp agrees

not with the antecedent to the direct object, but with the direct object itself, when it has an antecedent. We may in fact reasonably assume that a phonologically null direct object may contain relevant features. However this alternative will be rejected by some of the discussion in chapter 3.

We must note that ne (at least the "partitive" ne so far discussed) also induces pp agreement, as in (62)

- (62) Giovanni ne ha trovati due  
Giovanni of them has found two (plural ag't)  
(Giovanni found two of them)

Since ne does not cliticize the direct object, but only part of it, our system in (56) would require some modification to cover the case in (62). A natural way is suggested by the discussion in Belletti and Rizzi (forthcoming) and their assumption that the null phrase related to ne is governed by the verb. We could then simply replace "direct object" in (56b) with "an element governed by the verb". However we will neglect to implement this revision formally.<sup>26</sup>

As mentioned above the formulation in (56) will require some further qualification. Consider in fact the following.

- (63) Maria ha accusato se stessa  
Maria has accused herself (A; no pp ag't)

In (63), the relation between the phrase "Maria" and reflexive "se stessa", must not "count" either for pp agreement, or for E assignment. We will thus need a characterization of the relations that "count" for (56). We will assume here that the relations that enter into (56) are those between elements that do not have independent thematic roles, meaning by this that the two elements in question must not be independent "arguments" in D-structure. In chapter 5, we will note that other aspects of the syntax (or, more likely, aspects of the L.F.) recognize this bifurcation within the class of binding (i.e. anaphoric) relations.

Under this view, all NP-trace relations will count, and so will those between a clitic and the corresponding NP, whether the clitic is base-generated or moved, while relations such as the one between "Maria" and "se stessa" in (63) will not. See further discussion below especially 5.4.<sup>27</sup> If our discussion is correct, then one might say that auxiliary-pp agreement is essentially a system of "clues" to the recovery of the thematic structure (i.e. the "argument" structure).

## 1.7 Linear Order

### 1.7.0 Introduction

In this section we will review some evidence distinguishing ergative and intransitive verbs in terms of the different linear order in which the i-subject can occur with respect to complements of the verb. We will argue that the differences follow from our hypothesis.

### 1.7.1 Complement Shift

The hypothesis that i-subjects of non-ergative verbs are right-adjoined to VP would predict that those i-subjects should follow all complements of the verb. Some of the following cases, where scrivere, parlare are not ergative, might therefore seem surprising.

(64a) Giovanni scrivera' una lunga lettera a Piero  
Giovanni will write a long letter to Piero

(64b) Scrivera' Giovanni una lunga lettera a Piero  
(see (64a))

(64c) Scrivera' una lunga lettera Giovanni a Piero  
(see (64a))

(64d) Scrivera' una lunga lettera a Piero Giovanni  
(see (64a))

(65a) Giovanni parlera' di linguistica  
Giovanni will talk about linguistics

- (65b) Parlera' Giovanni di linguistica  
 (see (65a))

- (65c) Parlera' di linguistica Giovanni  
 (see 65a))

We will attempt to preserve our view that the i-subject is always adjoined to VP with non-ergative verbs, by suggesting that some of the cases in (64), (65) are derived via a "late" rule of "Complement-Shift" (henceforth C-Shift): a rule that can permute the linear order of post verbal constituents. We will thus assume that such a rule has applied in all the cases in which a complement appears to the right of the i-subject in the above examples. The latter suggestion might seem independently plausible, since it might account for the rather free order of complements in Italian, as for example in (66), (67), (68).

- (66a) Giovanni scrivera' una lunga lettera a Piero  
 Giovanni will write a long letter to Piero

- (66b) Giovanni scrivera' a Piero una lunga lettera  
 (see (65a))

- (67a) Giovanni parlera' di linguistica per tre ore  
 Giovanni will talk about linguistics for three hours

- (67b) Giovanni parlera' per tre ore di linguistica  
 (see (67a))

- (68a) Mario persuase Giovanni a parlare di linguistica  
 Mario persuaded Giovanni to talk about linguistics

- (68b) Mario persuase a parlare di linguistica Giovanni  
 (see (68a))

- (68c) ?Mario persuase a parlare Giovanni di linguistica  
 (see (68a))

We will assume that C-Shift is a "stylistic" rule, i.e. a rule operating in the phonological component of the grammar. Under this view, the latter rule will not be expected to affect either syntactic representation, or representation in L.F.

We may assume, following similar suggestions advanced for English (cf. Ross (1967) Postal (1974)), that in general C-Shift will tend to place heavy phrases last, as indicated by contrasts like the following.

- (69a) ?Ho prestato il libro che ho appena terminato di leggere  
I lent the book that I just finished reading

a Giovanni  
to Giovanni

- (69b) Ho prestato a Giovanni il libro che ho appena terminato di leggere  
(see (69a))

- (70a) Ho prestato il tuo libro alla persona di cui ti ho parlato  
I lent your book to the person of whom I spoke to you

- (70b) ??Ho prestato alla persona di cui ti ho parlato il tuo libro  
(see (70a))

We now note that C-Shift appears to fail in some cases, independent of the relative "heaviness" of the phrases involved. Consider in fact the following, involving subject-Control verb pensare.

- (71a) Giovanni pensa di studiare linguistica  
Giovanni thinks to study linguistics  
(Giovanni thinks he will study linguistics)

- (71b) ??Pensa Giovanni di studiare linguistica  
Thinks Giovanni to study linguistics

- (71c) ?Pensa di studiare linguistica Giovanni  
Thinks to study linguistics Giovanni

We may assume that the intermediate status of (71c) is due to the fact that rightward NP-movement of the subject is more difficult when the structure of complements is relatively complex, as would seem to be rather generally the case. For (71b), we must assume that C-Shift cannot freely permute a sentential complement and an i-subject. Let us now consider the following where (72a) is superficially similar to (71a), but where venire is an ergative verb taking a sentential complement.

- (72a) Giovanni viene a prendere il libro  
 Giovanni comes to take the book

- (72b) Viene Giovanni a prendere il libro  
 Comes Giovanni<sub>s</sub> to take the book

- (72c) ?Viene a prendere il libro Giovanni  
 Comes to take the book Giovanni<sub>s</sub>

The contrast between (71b) and (72b) will follow from our view, since, while the former will have the derivation we discussed, the latter will simply be in its D-structure configuration. Still deferring discussion of the exact status of the subject NP in cases involving i-subjects, (72b) will thus essentially have the analysis in (73). (For reasons that will be discussed later on, we assume the preposition a preceding the infinitive in (73) to be in VP (like English to), while we assume di, in cases like (25b) above to be in complementizer position).

- (73) ....viene [NP<sub>i</sub> Giovanni] [S<sub>i</sub> PRO<sub>i</sub> a prendere il libro]

In (73) "Giovanni" is the direct object of "venire" and the latter verb is thus an object-Control verb. We are therefore claiming that the contrast between (71b) and (72b), is related to the contrasts here below, involving Ne-Cl and auxiliary selection respectively.

- (74a) Ne vengono molti a studiare linguistica  
Of them come many<sub>s</sub> to study linguistics

- (74b) \*Ne pensano...molti...  
Of them think...many<sub>s</sub>...

- (75a) Molti studenti sono venuti a studiare linguistica  
 Many students have come to study linguistics (E)

- (75b) Molti studenti hanno pensato di studiare linguistica  
 Many students have thought to study linguistics (A)

Returning to the other cases in (72), we assume that (72a) is derived from a form like (72b) via NP-movement. For (72c) we will rather naturally assume that it is derived from (72a) via rightward NP-movement

("inversion"), as there will be no reason within our discussion, to prevent such a derivation. Contrasts like the one between (71b) and (72b) are rather systematic and can be reproduced by pairing up verbs from the two different sets here below.

- (76) Non-ergative: pensare, sperare, pretendere, affermare,  
think      hope      pretend      affirm

cercare, odiare, esitare, desiderare  
try      hate      hesitate      wish

- (77) Ergative: venire, intervenire, tornare, andare,  
come      intervene      return      go

scendere, salire, uscire, accorrere, correre, riuscire  
descend      climb      exit      rush in      run      succeed

Passives and O.P. constructions will again behave like ergative verbs as predicted. Namely they'll also allow the i-subject to occur before a sentential complement, as in the following, respectively.

- (78a) Alcuni studenti furono persuasi a seguire la lezione  
A few students were persuaded to follow the lesson

- (78b) Furono persuasi alcuni studenti a seguire la lezione  
Were persuaded a few students to follow the lesson

- (79a) Gli studenti si persuasero a seguire la lezione  
The students SI persuaded to follow the lesson

- (79b) Si persuasero gli studenti a seguire la lezione  
SI persuaded the students to follow the lesson

((79a) (79b): We persuaded the students to follow the class)

The prohibition against permuting the linear order of sentential complement and i-subject assumed for (71b), appears to be relaxed when the verb takes also an NP complement, as in the following.<sup>28</sup>

- (80a) Piero manderà il suo avvocato ad occuparsi della faccenda  
Piero will send his lawyer to deal with the matter

- (80b) ?Manderà il suo avvocato Piero ad occuparsi della faccenda  
Will send his lawyer Piero to deal with the matter

- (80c) ?Mandera' il suo avvocato ad occuparsi della faccenda Piero  
 Will send his lawyer to deal with the matter Piero<sub>s</sub>
- (81a) Piero persuase due ragazze a venire alla festa  
 Piero persuaded two girls to come to the party
- (81b) ?Persuase due ragazze Piero a venire alla festa  
 Persuaded two girls Piero<sub>s</sub> to come to the party
- (81c) ?Persuase due ragazze a venire alla festa Piero  
 Persuaded two girls to come to the party Piero<sub>s</sub>

The results in (80c), (81c) can be taken to reflect the noted fact that rightward movement of the subject NP appears generally more difficult when the structure of complements is complex. The lack of contrast between the b and the c cases will then suggest that C-Shift can apply freely to the complement here. In Williams (1975), it has been noted that the "distance" from the verb appears to govern the possibility for ellipsis. Thus, relative to (81), we find the contrast in (82) (analogous to Williams' (46)).

- (82a) \*Piero persuase a venire alla festa  
 Piero persuaded to come to the party
- (82b) Piero persuase due ragazze  
 Piero persuaded two girls

Williams' principle will account for the asymmetry in (82), as well as for the fact that ellipsis will generally fail to apply to the complement of Control verbs like pensare of (71), in the manner of (83) here below.

- (83a) Maria ha sognato a lungo di andare in vacanza,  
 Maria has dreamt for a long time to go on vacation,
- (83b) \*e adesso pensa/ spera/ pretende/ etc. Piero  
 and now thinks/ hopes/ pretends/ etc. Piero<sub>s</sub>

We may then suggest that distance from the verb in the sense of Williams, affects in parallel fashion the possibilities for ellipsis and for C-Shift, thus accounting for the contrast between (81b) and (71b).

Some possibilities for S ellipsis exist also with ergative verbs, as

for example in (84).

- (84a) Mario non e' andato a prendere il giornale,  
Mario did not go get the newspaper,

- (84b) ma adesso va Piero  
but now is going Piero

The latter fact will be quite congruent with our view, since with those verbs the complement would be at some "distance" from the verb (cf. (73)), namely separated from the verb by a direct object, as in the case of persuadere in (82b). On the impossibility for "\*... ma adesso Piero va" contrasting with (84b), see some of 2.3 below. The general distribution of S ellipsis, and in particular, contrasts like the one between (83) and (84) will thus, in some reasonable sense, also support our hypothesis.

Our claim in this subsection will be partially weakened however, by the existence of some apparent exceptions to our generalization. In fact, while the order "i-subject S-complement" is possible quite generally among ergative verbs, the latter order is slightly less than generally impossible with non-ergative verbs. Consider in fact the few exceptions here below, where none of the verbs involved is ergative (notice auxiliary A).

- (85a) Giovanni ha      } provato      } a telefonare al medico

                        } provveduto      }  
Giovanni      } tried to      } call the doctor  
                        } took steps to }

- (85b) ?Ha      } provato      } a telefonare al medico Giovanni  
                        } provveduto      }

- (85c) Ha      } provato      } Giovanni a telefonare al medico  
                        } provveduto      }

- (86a) Giovanni ha      } cominciato      }      a zappare il giardino  
                          } continuato      }  
  
Giovanni      } began      }      to dig the garden  
                  } continued      }  
  
(86b) ?Ha      } cominciato      }      a zappare il giardino Giovanni  
                  } continuato      }  
  
                        (see (86a))  
  
(86c) Ha      } cominciato      }      Giovanni a zappare il giardino  
                  } continuato      }  
  
                        (see (86a))

Again, the possibility for the linear order in (85c), (86c) seems to correlate with the possibility for S ellipsis, as in the following, respectively.

- (87a) Ha      } provato      }      Giovanni  
               } provveduto      }  
               (Giovanni tried/saw to it)

(87b) Ha      } cominciato      }      Giovanni  
               } continuato      }  
               (Giovanni began/continued)

One might then suggest that the exceptionality of these cases consists of the fact that the S-complement is not at a minimal "distance" (in the sense of Williams) from the verb. We would then correctly predict that the cases in (85c), (86c), could be derived from the corresponding b cases by C-Shift, and that S ellipsis could apply as in (87). However, it would remain unclear how "distance" could be expressed in these cases.

We finally note that, in spite of the fact that all of the verbs which allow the order "i-subject S-complement" discussed so far take infinitives preceded by the preposition a (i.e. both the ergatives and those in (85), (86)), there appears to be no systematic correlation between those two facts. For example, we find cases also taking a, but

not allowing the order in question, as in (88).

- (88a) Giovanni mirava ad ottenere la promozione  
Giovanni aimed at obtaining the promotion
- (88b) Mirava ad ottenere la promozione Giovanni  
(see (88a))
- (88c) ??Mirava Giovanni ad ottenere la promozione  
(see (88a))

Furthermore, we find cases allowing the latter order but taking preposition di, as will be discussed in 1.8 below.

### 1.7.2 Sentence Pronominalization

Some infinitival complements can be pronominalized, as in (89), (90).

- (89a) Mario sperava davvero di vincere la gara  
Mario was hoping really to win the race
- (89b) Mario lo sperava davvero  
Mario it was hoping really  
(Mario was really hoping it)
- (90a) Giovanni acconsenti' ad occuparsi del problema  
Giovanni consented to deal with the problem
- (90b) Giovanni vi acconsenti'  
Giovanni to it consented

The result of S-pronominalization is the accusative clitic lo in (89); the clitic vi (otherwise locative, meaning "there") in (90). The factors that govern S-pronominalization are not well understood. While there appears to be some correlation between the type of preposition that precedes the infinitive and the pronominal form that obtains, the correlation is less than systematic, as some of the examples below will show. On the other hand, some infinitivals cannot be pronominalized at all. E.g.:

- (91a) Giovanni cerca di finire la tesi  
Giovanni seeks to finish the thesis
- (91b) ?\*Giovanni lo/vi/ci cerca  
Giovanni it/there seeks

In spite of these apparent idiosyncrasies, the following fact seems quite

general: S-pronominalization in the accusative is not possible when there is a direct object, as for example in the following, contrasting with (89) above.

- (92a) Piero minaccio' Giovanni di prendere provvedimenti  
Piero threatened Giovanni to take action

(92b) \*Piero lo minaccio' Giovanni/ ?Piero ne minaccio' Giovanni  
Piero it threatened Giovanni Piero of it threatened Giovanni

(93a) Piero mando' Giovanni a prendere il giornale  
Piero sent Giovanni to get the newspaper

(93b) \*Piero lo mando' Giovanni/ Piero ci mando' Giovanni  
Piero it sent Giovanni Piero there sent Giovanni

We will notice here how the same preposition (i.e. di) does not correspond to the same pronominal form in (89) and in (92); (vi and ci in (90), (93) corresponding to the same preposition a, are also less than freely interchangeable, although as locative clitics they generally are). A further contrast will be noted between (92), (93) and cases taking an indirect object, where sentence pronominalization can again yield an accusative, as in (94).

- (94a) Piero ha promesso a Giovanni di prendere il giornale  
Piero has promised to Giovanni to get the newspaper

(94b) Piero lo ha promesso a Giovanni  
Piero it promised to Giovanni

Failure of accusative S-pronominalization continues to be the case when the direct object is a trace, as with the passive and the SI-construction after Object Preposing here below (cf. 93b)).

(95b) (A <u>prendere il giornale</u> ) [i Giovanni]	<u>*lo</u>	<u>ci</u>	si mando' t <sub>i</sub>
To fetch the paper      Giovanni	{ it	{ there	} SI sent

We will now note that the verbs in (77) above (i.e. the ergative verbs taking sentential complements) never allow S-pronominalization in the accusative. E.g.:

- (96a) Giovanni va a prendere il giornale  
 Giovanni goes to get the newspaper

- (96b) \*Giovanni lo va / Giovanni ci va  
 Giovanni it goes      Giovanni goes there

Under our view, the fact that accusative S-pronominalization with verbs like andare (go) is impossible, could be naturally attributed to the presence of the direct object, just as in the cases in (92), (93), (95) above. In 2.6 below, we will point out a second reason which would prevent accusative S-pronominalization with ergative verbs, namely the general failure of these verbs to assign accusative Case. We note however that the forthcoming discussion will not invalidate our point here: in fact both lines of reasoning will simply converge in pointing to our analysis of these verbs, as will be noted in 2.6.<sup>30</sup>

Since it appears that infinitives preceded by the preposition a, never pronominalize in the accusative, even when there is no direct object, one might conceive of an alternative, attempting to relate the lack of accusative pronominalization to the fact that complements of all of the verbs in (77) take the preposition a. However, such an account would not go much beyond stating the problem. In fact why should a-infinitive but not di-infinitive fail to yield accusative pronouns? and/or why should all of these verbs take a-complements?<sup>31</sup> Furthermore the value

of deriving the distribution of S-pronominalization from the character of the preposition is questionable in general since, as we noted, the correspondence is not systematic. In particular some verbs taking a-complements will not allow S-pronominalization at all as with esitare in "Giovanni esita a chiamare il medico; \*Giovanni vi/ci esita/ Giovanni hesitates to call the doctor; Giovanni there hesitates". Furthermore the latter view, unlike ours, will fail to account for the cases in 1.8 below where, as we shall see, the preposition di is involved, but which will also not yield accusative S-pronominalization.

### 1.7.3 Stranded Prepositions

Consider the following, involving non-ergative verb sparare.

- (97a) Un carabiniere ha sparato addosso al dimostrante  
 A policeman has fired upon (to) the demonstrator  
 (A policeman has fired on the demonstrator)

- (97b) ?Ha sparato addosso al dimostrante un carabiniere  
 Has fired upon (to) the demonstrator a policeman<sub>s</sub>

We assume that the marginality of (97b) depends, as in some of the previous cases on the fact that rightward NP-movement of the subject is more difficult when the complement system is relatively "heavy". This view will be supported by the fact that the result improves if the dative phrase "al dimostrante" of (97) is cliticized, thus "stranding" the preposition "addosso", as in (98).

- (98) Gli ha sparato addosso un carabiniere  
 To him fired upon a policeman<sub>s</sub>

We now note that permutation of the stranded preposition and the i-subject appears rather difficult, as in (99).

- (99) ??Gli ha sparato un carabiniere addosso  
 To him fired a policeman<sub>s</sub> upon

Turning now to ergative verbs such as cadere, we will observe rather

different results and, in particular, (100) contrasting with (99).

- (100) Gli e' caduto un carabiniere addosso  
 To him fell a policeman upon

We will take such a contrast to support our hypothesis since, under the latter, the case in (100) will simply be in its D-structure form, with the phrase "un carabiniere" in direct object position, and the particular linear order will thus be straightforwardly expected. The case of relative ordering between i-subjects and some prepositional complements, will thus be quite parallel to the case of relative ordering between i-subjects and sentential complements discussed in 1.7.1 above.<sup>32</sup>

As expected, passives and SI-constructions will behave just like ergative verbs here, and as in (101).

- (101a) Gli fu spinto un carabiniere addosso  
 To him was pushed a policeman upon  
 (A policeman was pushed over him)
- (101b) Gli si spinsero due carabinieri addosso  
 To him SI pushed two policemen upon  
 (We pushed two policemen over him)

#### 1.7.4 Benefactive Datives

Dative benefactives generally appear to the immediate right of a direct object, as in the following.<sup>33</sup>

- (102a) Una mareggiata ha capovolto la barca a Giovanni  
 The rough seas capsized the boat to Giovanni  
 (The rough seas capsized Giovanni's boat)
- (102b) ??Una mareggiata ha capovolto a Giovanni la barca  
 The rough seas capsized to Giovanni the boat
- (102c) ??Ha capovolto la barca una mareggiata a Giovanni  
 Capsized the boat the rough seas to Giovanni
- (103a) Giovanni ha rotto la gamba al tavolo  
 Giovanni broke the leg to the table  
 (Giovanni broke the leg of the table)

(103b) ??Giovanni ha rotto al tavolo la gamba  
Giovanni broke to the table the leg

(103c) ??Ha rotto la gamba Giovanni al tavolo  
Broke the leg Giovanni to the table

The transitive verbs in (102), (103) all have ergative counterparts.

With the latter, we will now note the following paradigms.

(104a) ?La barca si e' capovolta a Giovanni  
The boat (itself) capsized to Giovanni  
(Giovanni's boat capsized)

(104b) ??Si e' capovolta a Giovanni la barca  
Capsized to Giovanni the boat

(104c) Si e' capovolta la barca a Giovanni  
Capsized the boat to Giovanni

(105a) ?\*La gamba si e' rotta al tavolo  
The leg (itself) broke to the table  
(The leg of the table broke)

(105b) ?\*Si e' rotta al tavolo la gamba  
Broke to the table the leg

(105c) Si e' rotta la gamba al tavolo  
Broke the leg to the table

Under our view these facts can be accounted for rather naturally. In particular both the transitive and the ergative paradigms can be attributed to some apparently general requirement that direct objects and dative benefactives occur contiguously and in that order.<sup>34</sup> However, if the i-subjects in (104), (105) were the result of a process of "inversion", then indeed the parallelism between the transitive paradigm of (102), (103) and the paradigm of (104), (105) would seem a rather curious accident. Notice in particular that it would have to be the case not only that "inversion" is semi-obligatory here, but also that permutation of the i-subject and the dative is required exactly in these cases. In fact in general, i-subjects of non-ergative verbs appear to the right of datives rather unproblematically, as in (106).

- (106) Ha telefonato/parlato/scritto/portato aiuto a Giovanni  
 Has telephoned spoken written given assistance to Giovanni

suo fratello  
his brother<sub>s</sub>

Results similar to those in (104), (105) are found with the ergative verbs in the following examples, each corresponding to the b variant of the above.

- (107) ??Si e' riempito/rovesciato a Giovanni il secchio  
 Has filled up/spilled to Giovanni the bucket<sub>s</sub>

- (108) ??Si e' gonfiata a Piero la faccia  
 Swelled to Piero the face<sub>s</sub>

- (109) ??Si e' sporcato a Mario il vestito  
 Got dirty to Mario the suit<sub>s</sub>

- (110) ??Si e' attorcigliata a Piero la corda  
 Got twisted to Piero the rope<sub>s</sub>

- (111) ??E' aumentata a Piero la febbre  
 Increased to Piero the temperature<sub>s</sub>

- (112) ??E' gelata a Giovanni la mano  
 Froze to Giovanni the hand<sub>s</sub>

- (113) ??E' sprofondata a Piero la casa  
 Sank in to Piero the house<sub>s</sub>

Once again passives and SI-constructions pattern like ergatives, as in the following, parallel to (104), (105).

- (114a) ?La barca fu capovolta a Giovanni  
 The boat was capsized to Giovanni

- (114b) ??Fu capovolta a Giovanni la barca  
 Was capsized to Giovanni the boat<sub>s</sub>

- (114c) Fu capovolta la barca a Giovanni  
 Was capsized the boat<sub>s</sub> to Giovanni

- (115a) Per renderlo inservibile,  
 To render it useless

?due gambe si ruppero al tavolo  
two legs<sub>s</sub> SI broke to the table

- (115b) ??si ruppero al tavolo due gambe  
 SI broke to the table two legs<sub>s</sub>

- (115c) si ruppero due gambe al tavolo  
 SI broke two legs<sub>s</sub> to the table

### 1.8 Inherent Reflexives

In many cases a reflexive morpheme will alternate with an overt object, as in (116).

- (116a) Giovanni si accusa  
 Giovanni himself accuses
- (116b) Giovanni accusa Piero  
 Giovanni accuses Piero

This alternation will be expected under the rather natural view that si in (116a) is related to a "null" object, as we assume is the case with other clitics, such as lo in "Giovanni lo accusa; (Giovanni accuses him)". We will henceforth refer to instances of si, which allow such alternations, as "Reflexive si". A theory of reflexive clitics will be presented in 5.7 below.

The case in (117a) here below, though superficially similar to the case in (116a), will not allow the reflexive morpheme to alternate with a lexical NP as in (117b).

- (117a) Giovanni si sbaglia  
 Giovanni himself mistakes  
 (Giovanni is mistaken)
- (117b) \*Giovanni sbaglia Piero  
 Giovanni mistakes Piero

Cases like (117) are rather numerous. We will refer to the verbs that occur with si in the manner of sbagliarsi in (117), as "Inherent Reflexive" verbs, and to this particular occurrence of si, as "Inherent Reflexive" si. A sample of inherent reflexive verbs is given in (118).

- (118) Pentirsi, risentirsi, immaginarsi, arrampicarsi, rinfrancarsi  
 repent resent imagine climb hearten

sbrigarsi, ricordarsi, stancarsi, riposarsi, sbagliarsi,  
 hurry remember get tired rest be mistaken  
 suicidarsi, accorgersi, fidarsi, arrabbiarsi, arrangiarsi  
 commit suicide notice trust get angry manage  
 congratularsi, vergognarsi, ricredersi, interessarsi  
 congratulate be ashamed change mind take interest

It would seem reasonable to assume that, differently than with reflexives, with inherent reflexives, si is not related to any object, thus accounting for the lack of alternation in (117). If this view is correct, it would then follow from our discussion that inherent reflexive verbs are either essentially intransitive, or essentially ergative. We then proceed to note that inherent reflexives exhibit all of the relevant properties of ergative verbs. In particular, they will generally allow Ne-Cl from an i-subject as in (119) (where si → se), unlike intransitive verbs.

- (119) Se ne erano sbagliati molti  
 Themselves of them had mistaken many<sub>s</sub>

Unlike intransitive verbs, inherent reflexives will appear with auxiliary E and pp agreement, as in (120).

- (120) Maria si era sbagliata  
 Maria (herself) had mistaken (E; pp ag't)

They will also trigger pp agreement in the SI-construction as in (121) (where si si → ci si), again unlike intransitive verbs (cf. 1.6 above).

- (121) Ci si era sbagliati  
 (SI-self) SI had mistaken (E; pp ag't)

With the few inherent reflexives which take S-complements, we will note that the order "i-subject S-complement", typical of ergative verbs, is possible with reasonably good results, as in (122).<sup>35</sup>

- (122a) (?)Si pentira' mio fratello di aver smesso di studiare  
 Will repent (himself) my brother<sub>s</sub> for giving up studying

- (122b) (?)Si vergognava mio fratello di non essere andato a scuola  
 Was ashamed my brother<sub>s</sub> for not having gone to school

- (122c) (?)Si e' arrangiato mio fratello a riparare la finestra  
 Managed my brother<sub>s</sub> to repair the window

Furthermore, in the few relevant cases, and in spite of the overall marginality of the results, we can detect the preference for the order "i-subject benefactive-dative" noted for ergative verbs in 1.7.4 above, as in (123), (124).

- (123a) ??Il cavallo si e' stancato a Giovanni  
 The horse got tired to Giovanni  
 (Giovanni's horse got tired)

- (123b) ??Si e' stancato a Giovanni il cavallo  
 Got tired to Giovanni the horse<sub>s</sub>

- (123c) (?)Si e' stancato il cavallo a Giovanni  
 Got tired the horse<sub>s</sub> to Giovanni

- (124a) ??Il figlio si e' suicidato ad un mio amico  
 The son committed suicide to a friend of mine  
 (A friend's son committed suicide)

- (124b) ??Si e' suicidato ad un mio amico il figlio  
 Committed suicide to a friend the son<sub>s</sub>

- (124c) (?)Si e' suicidato il figlio ad un mio amico  
 Committed suicide the son<sub>s</sub> to a friend

With inherent reflexives, S-pronominalization will fail to produce accusatives, as with ergative verbs, and as in (125).

- (125a) (Di aver smesso di studiare)  
 For giving up studying

Mio fratello \*se lo pentira'/ se ne pentira'  
 My brother it will repent of it will repent

- (125b) (Di non essere andato a scuola)  
 For not having gone to school

Mio fratello \*se lo vergognera'/ se ne vergognera'  
 My brother it will be ashamed of it will be ashamed

- (125c) (A riparare la finestra)  
 To repair the window

Mio fratello \*se lo e' arrangiato/ ci si e' arrangiato  
 My brother it managed there managed

In connection with the discussion in 1.7.2, we note that the cases in (125) involve complements with the preposition di (rather than the preposition a of the cases in 1.7.2), thus supporting our view that the failure of accusative S-pronominalization is not predictable from the type of preposition preceding the infinitive. On the hypothesis that inherent reflexives are essentially ergative verbs, we may also note the following case.

- (126a) Il dibattito ha interessato Mario  
The debate interested Mario

- (126b) Mario si e' interessato (del dibattito/ al dibattito)  
Mario got interested of the debate to the debate

The case in (126) is reminiscent of the transitive/ergative pairs discussed above. In fact, the same selectional restrictions holding for the object of the transitive in (126a), appear to hold for the surface subject of the inherent reflexive in (126b).

On the basis of these facts, we will conclude that inherent reflexives are ergative verbs, just like the si-ergatives of 1.4.3 above.<sup>36</sup> The D-structure form for -for example- (117a), will therefore be as in (127).

- (127) [NP<sub>e</sub>] si sbaglia [NP<sub>Giovanni</sub>]

As with ergative si, we assume that the si of inherent reflexives is a marker indicating that the subject position has no thematic role. In 5.4.1 we will see in fact how in these cases too (as with si-ergatives), the si can fail to appear exactly when no subject position exists.

If all inherent reflexives are ergative, the prediction will ensue that no inherent reflexive will appear with an overt direct object (distinct from the i-subject). This prediction appears fulfilled to a fairly good approximation. For example we note the lack of a direct object in (126b). We will further note the cases in (128), (129) here below.

- (128a) Giovanni ha sbagliato tutto  
Giovanni has mistaken everything  
(Giovanni has done everything wrong)

(128b) Giovanni si e' sbagliato  
(Giovanni was mistaken)

(128c) \*Giovanni si e' sbagliato tutto  
(Giovanni was mistaken everything)

(129a) Giovanni      } ricorda      }                  la guerra  
                      gli ricorda }  
Giovanni      } remembers      }                  the war  
                      reminds him (about) }  
  
(129b) \*Giovanni      } ricorda      }                  della guerra  
                      gli ricorda }  
Giovanni      } remembers      }                  of the war  
                      reminds him }

(129c) Giovanni si ricorda della guerra  
Giovanni (himself) remembers of the war  
(Giovanni remembers the war)

In (128) we note that while sbagliare can appear with a direct object, its inherent reflexive counterpart sbagliarsi cannot, thus fulfilling our prediction.<sup>37</sup> In (129), while ricordare must obligatorily appear with a direct object rather than a "genitive" object, its inherent reflexive counterpart ricordarsi can appear with the genitive, which suggests that the latter is "avoiding" the direct object, as we would expect.<sup>38</sup> We must note however, that alongside of (129c) we also find "Giovanni si ricorda la guerra", essentially synonymous with the latter, but taking a direct object. One might perhaps suggest that this case is simply the reflexive counterpart of "...gli ricorda la guerra" of (129a). This view would be slightly unsatisfactory however since the respective semantics are not entirely parallel (i.e. "remember" versus "remind"). But whether or not the latter view is plausible, there will be a few other apparent counterexamples, which would not in any case be amenable to this account. Consider in fact the following.

- (130b) \*Giovanni gliela sogna  
           Giovanni to him them dreams
- (131a) (La spiaggia) Giovanni se la immagina  
           (The beach)   Giovanni (to himself) it imagines  
                      (Giovanni imagines it)
- (131b) \*Giovanni gliela immagina  
           Giovanni to him it imagines

In both (130) and (131), the reflexive morpheme fails to alternate with non reflexive objects, and yet a direct object is present, contrary to the predictions of an ergative analysis. We will assume that these cases are somewhat idiosyncratic and that they are to be analyzed as real reflexives. In particular we assume that, as with reflexives, the si is related to a null object of the verb here. We will then stipulate that exactly in these cases the relevant object must be obligatorily realized as a reflexive clitic.<sup>39</sup> Si in (130a), (131a) will therefore represent an obligatorily-reflexive dative benefactive. This view may not seem too implausible given the rarity of these cases (namely given the relative rarity of cases exhibiting a direct object in the manner of (130), (131), within the class of cases in which si fails to alternate with a non-reflexive object in the manner of (117)). Furthermore this view will seem independently supported by the following considerations.

While benefactive datives generally appear in conjunction with direct objects, they do no co-occur with equal generality with sentential complements, whence the contrast between "Giovanni se lo legge/ (Giovanni reads it to (/on) himself)" and "?\*Giovanni si spera di andare in vacanza/ (Giovanni hopes to go on vacation to (/on) himself). We now note the cases in (132), (133).

- (132a) Giovanni sogna di andare in vacanza  
           Giovanni dreams to go on vacation

- (132b) Giovanni immagina di andare in vacanza  
 Giovanni imagines to go on vacation

- (133a) ??Giovanni si sogna di andare in vacanza  
 (see (132a))

- (133b) ?Giovanni si immagina di andare in vacanza  
 (see (132b))

While sognare, immaginare can freely take sentential complements as in (132), the corresponding forms with si of (130), (131) above will not very well occur with a sentential complement, as in (133). This will suggest that si in these cases is indeed a benefactive dative, as we are assuming. The latter si will thus differ from inherent reflexive si of "Mio fratello si pentira' di non essere andato a scuola/ (My brother will repent (be sorry) for not having gone to school)", which occurs with a sentential complement unproblematically.

The cases in (130), (131) will not differ from the cases previously discussed with respect to auxiliary selection, since reflexives generally take E, just like ergative verbs (cf. 1.6 above).<sup>40</sup> However, we will correctly predict that they should differ in other respects, and in particular that they should not allow Ne-C1, from an i-subject, as in (134), (135).<sup>41</sup>

- (134a) Si sognano le vacanze molti studenti  
 Dream the vacations many students<sub>s</sub>

- (134b) \*Se ne sognano le vacanze molti/ \*Se ne sognano molti ...  
Of them dream the vacations many<sub>s</sub>

- (135a) Si immaginano la spiaggia molti studenti  
 Imagine the beach many students

- (135b) \*Se ne immaginano la spiaggia molti/ molti la spiaggia  
Of them dream the beach many<sub>s</sub> / many<sub>s</sub> the beach

We will predict in fact that the i-subject in (134), (135) should be adjoined to VP rather than in direct object position, whence the failure of Ne-C1.

To conclude, we assume that verbs like sbagliarsi in (117a), which we refer to as "inherent reflexives" are ergative verbs. We further assume that there is a small class of verbs, like sognarsi, immaginarsi, in (130), (131), with which a benefactive dative must obligatorily be reflexive. We may refer to the latter cases as "obligatory reflexives". Some further properties of inherent reflexives will be discussed in 5.7 below.

### 1.9 Conclusion

In this chapter we have claimed that there is a class of "ergative" verbs which appear in D-structure forms of the type "[<sub>NP</sub><sup>e</sup>] V NP...", and which are thus distinct from intransitives. We have argued that this hypothesis is supported by the systematic differences in syntactic behavior which can be observed between the presumed members of the latter class and intransitive verbs. The differences we reviewed concern: Ne-C1 from i-subjects; auxiliary selection and pp agreement; relative linear order of i-subject and complements of the verb; pronominalization and ellipsis of sentential complements. Other significant differences between ergative and intransitive verbs will be pointed out in the course of the remaining discussion. In particular, we will deal with: the behavior in "reduced" relatives, in 3.6; the behavior with respect to embedding under "causative" predicates, in 5.5; the behavior with respect to reflexive clitics, in 5.7.

## Footnotes to Chapter 1

1 This definition of i-subject is not foolproof. Concerning the first conjunct, namely The NP' in a form "...V'...NP'..." such that the verb appears to agree with it, a particular notion of "appears" will be required. In fact clearly there could be more than one NP in the sentence which match verb inflection in features, as for example in (2c) where both "Giovanni" and "una lettera" are third person singular. We can easily get around this difficulty by defining "appears to" as in the following: "A verb appears to agree with an NP if and only if, for any variation in person/ number features of that particular NP, a parallel variation in verb inflection will be required to preserve the grammatical status of the sentence". By this definition, "una lettera" in (2c) is not the i-subject given "Scrive due lettere Giovanni/ Write (sing) two letters..." or "\*Scrivono due lettere Giovanni/ Write (pl) two letters...".

Concerning the second conjunct, namely The NP' in a form "...V'...NP'..." such that there is a near-synonymous form "NP' V'...", we must note the existence of cases like (i) and (ii) below, which one might regard as near-synonyms.

(i) Giovanni ha peggiorato la situazione  
Giovanni worsened the situation

(ii) La situazione e' peggiorata a causa di Giovanni  
The situation worsened because of Giovanni

Clearly in (i) we want "la situazione" to be a direct object and not an i-subject. It would not be appropriate to exclude unwanted cases like (i) by requiring that the pre-verbal "..." in "...V...NP'..." be null, since we will claim in chapter 2 that it is not null. A definition which would serve the purpose and which would be compatible with later discussion, will be The NP' in a form "...V'...NP'..." such that the

subject of V' is referentially non-distinct from NP', and such that there is a near synonymous form "NP' V'...". This will allow the subject of V' to be either a non-referential element (such as English there) or a pronominal form coreferential with the subject (as we will claim is the case in Italian).

As will be pointed out in chapter 3, the first conjunct (namely the one concerning agreement) is true in Italian, but not in general. On the other hand the second conjunct (based on near-synonymy) would have been insufficient for our discussion of Italian, given cases like (iii) and (iv) to be discussed in 1.3.2 below, which are synonymous, but for which we want to assume that the underscored phrase is an i-subject only in (iv), where the verb appears to agree with it.

- (iii) Si guarda le manifestazioni sportive
- (iv) Si guardano le manifestazioni sportive  
(Both: One watches sporting events)

2 As expected, any ambiguous case will be disambiguated by Ne-Cl.:

- (i) Erano traviate molte ragazze borghesi  
Were corrupt/corrupted many middle class girls  
(passive/ unpassive)
- (ii) Ne erano traviate molte  
Of them were corrupted manys  
(Many of them were corrupted: passive/\*unpassive)

The alternation (i)/(ii) can be reproduced with sdentato: "toothless/made toothless"; subordinato: "subordinate/ subordinated".

3 An obvious suggestion at this point would be that SI must not only be assigned Case, but that it must be assigned nominative Case. This would account for the fact that it appears to function only as a subject in general. This view would be parallel to the one we will

take for direct object clitics, which we will claim appear only in conjunction with accusative Case (cf. 1.3.2 below). However, this suggestion will be rejected, on the basis of the fact that in those contexts where some form of accusative seems to be marginally assigned to the subject, as in (i), where lo is an accusative clitic, the ungrammaticality of the corresponding SI case, such as (ii), does not seem to be at all comparable to that of (15b) repeated here as (iii), where SI is actually related to an object.

(i)       ?Lo ritengo aver speso troppo  
             (I believe him to have spent too much)

(ii)   (?)?Ritengo essersi speso troppo  
             (I believe SI (us) to have spent too much)

(iii)     \*Giovanni si prende in giro  
             (Giovanni takes SI (people) for a ride)

Therefore I will continue to assume that the fact that SI cliticizes only from subject position is a reflex of its syntax (i.e. of a configurational constraint), rather than a reflex of the fact that it requires nominative Case. However, this decision is based on rather narrow grounds since the status of cases like (i) is unclear (cf. Rizzi (to appear), Kayne (to appear cf, fn. 14)). The consequences that this decision will have for the rest of our discussion are relatively minor and have to do with some of chapter 5, as will be pointed out.

4 The configuration in (16b) (Si stava per vincere) is also subject to idiosyncrasies, as has been noted in Rizzi (1976b, fn. 18).

5 However, there is one difficulty associated with this view and represented by the contrast in past participle agreement between (i) and (ii).

- (i) Si<sub>i</sub> e' risultati t<sub>i</sub> mangiare molto bene  
 (ii) [<sub>i</sub>e] e' risultato t<sub>i</sub> mangiarsi molto bene  
 (both: SI (we) turned out to eat very well)

As will be discussed in 1.6 below, in the appropriate environment SI will trigger plural past participle agreement, as in (i). The same is not true of "[<sub>i</sub>e]" in (ii), given singular agreement there. This is not expected, since the trace of SI generally acts just like SI for past participle agreement, as in (iii).

- (iii) Si<sub>i</sub> dovrebbe t<sub>i</sub> essere risultati t<sub>i</sub> mangiar bene  
 SI should have turned out to eat well

One might suggest a slight revision here, consisting of assuming that the position vacated by SI requires the insertion of a pleonastic element (analogous to French il/ English it), phonetically null due -presumably- to the general possibility to have null subject pronouns in Italian (subject pro-drop), cf. "piove/ (It) rains". Assuming the latter element to have singular features would account for the singular past participle agreement in (ii). However this view would jeopardize one result to be achieved in chapter 3 accounting for an important difference between SI and French Se-moyen. The latter result is in fact based on the assumption that only French, which is not a "subject pro-drop" language requires the insertion of such a pleonastic element.

I thus leave the question concerning (ii) open.

6 Another case in which Case requirements hold of a phonetically null NP is of course that of "subject pro-drop". The "definite" reading found with "subject pro-drop" will in fact be associated only with Case-marked positions, as shown by the contrast in (i).

- (i) Bisogna       $\left\{ \begin{array}{l} \text{che vada} \\ \text{andare} \end{array} \right\}$   
                         (It is necessary that)  $\left\{ \begin{array}{l} (\text{he: definite subject}) \text{ go} \\ (\text{indefinite subject}) \text{ to go} \end{array} \right\}$

7 We must note that O.P. will never succeed with at least first and second person pronouns, as in the following.

- (i) Si inviterà'    me/te/lui    nci/voi/loro  
       SI will invite    me/you/him    us/you/them
- (ii) \*Io si inviterò' / \*Tu si inviterai / ?Lui si inviterà'  
       I SI will invite    You SI will invite    He SI will invite  
       \*Noi si inviteremo/ \*Voi si inviterete/ ?Loro si inviteranno  
       We SI will invite    You SI will invite    They SI will invite  
       (All reflexive readings ignored)

8 This is essentially the view taken in Belletti (1980). The latter furthermore assumes that SI is base-generated in clitic position. The two aspects are independent, as far as I can see. For example one can imagine a movement analysis of SI as in the text, and the Case mechanism of ii) (in the text); or a Base-generated analysis of SI and a Case mechanism as in i). On the Case aspect, see the text. On base-generation versus movement of SI, the two approaches are to a large extent equivalent. Notice however that the base-generation approach would have to postulate movement of some null pronominal form in cases like (i): a solution not too obviously natural.

- (i) [<sub>i</sub> pronominal?] si e' stati accusati <sub>i</sub>  
       SI has been accused

Aside from this debatable difficulty, a movement analysis of SI seems to us preferable since in our discussion it will appear that within the class of subject clitics, some, such as SI, can be "Raised", while others such as ci of locationals and French Se-moyen cannot (cf. chapter 3).

Assuming that the latter type is generated in clitic position, while the former (i.e. SI) is generated in NP position, would seem to adequately provide for the difference.

9 The contrast between Control and Raising cases discussed, and exemplified in (i), (ii) here below has been repeatedly noted in the literature. However none of the suggestions so far advanced on the matter seem to us empirically adequate.

- (i) ?[<sub>i</sub> Il medico] e' risultato [<sub>S<sub>i</sub></sub> chiamarsi <sub>t<sub>i</sub></sub> per nulla]  
 The physician turned out SI to call (him) for nothing  
 (... to be called)

- (ii) \*[<sub>i</sub> Il medico] temeva [<sub>S</sub> di PRO<sub>i</sub> chiamarsi <sub>t<sub>i</sub></sub> troppo tardi]  
 The physician feared SI to call (him) too late  
 (...to be called...)

On some earlier suggestions cf. discussion and references cited in Burzio (1978, fn. 16). More recently, Rizzi (1980b), has proposed a solution in terms of the Government-Binding theory. In particular he has suggested that in (ii), PRO is governed by SI, thus violating the general requirement of that framework that PRO be ungoverned. The latter suggestion makes different empirical predictions than the one in the text with respect to the following cases.

- (iii) (?)? [<sub>i</sub> Il medico] pareva sempre [<sub>S<sub>i</sub></sub> risultare  
 The physician seemed always to turn out  
 [<sub>S<sub>i</sub></sub> chiamarsi <sub>t<sub>i</sub></sub> per nulla]]  
 SI to call (him) for nothing  
 (...to be called...)

- (iv) \*<sub>i</sub> Il medico temeva proprio [<sub>S</sub> di PRO<sub>i</sub> risultare  
 The physician feared really to turn out  
 [<sub>S<sub>i</sub></sub> chiamarsi <sub>t<sub>i</sub></sub> troppo tardi]]  
 SI to call (him) too late  
 (...to be called...)

- . (v) (?)?[\_i Il medico] temeva [\_S di PRO\_i risultare  
                   The physician feared to turn out  
                   [\_S\_t\_i esser stato chiamato t\_i troppo tardi]]  
                   to have been called too late

The facts here are not overwhelmingly clear due to several interfering factors. For one thing all of the three examples above violate a prohibition on sequences of infinitives brought to light in Longobardi (1979), and briefly discussed in 6.2.2 below. This prohibition generally gives rise to rather mild ungrammaticality. Furthermore, the results of applying O.P., or Raising, or -especially- both, to animate NP's as in these examples, are often unnatural. The complexity of the examples will clearly also be a factor. However, it seems to us that the ungrammaticality of (iv) is essentially the same as that of (ii) and significantly different from that of either (iii) or (v). The view that (ii) is ungrammatical because PRO is governed by SI would now predict that (iv), where PRO is no longer so governed, should be grammatical (or noticeably better than (ii)). On the other hand the parallelism between (ii) and (iv) is predicted by the view in the text. In fact in both cases SI is related to PRO rather than to a Case-marked NP, unlike either (i) or (iii) where SI is related to the matrix subject (which is Case-marked). Notice that implicit in our discussion (and for the examples in the text, independently) must be the view that Case can be "transmitted" via a chain of traces, as in (i), (iii), but not when a PRO intervenes, as in (ii), (iv). The intuition behind this assumption is of course that the matrix subject and the relevant traces in (iii) are in some sense a single NP (i.e. one argument), whereas in (iv) the matrix subject and PRO are, in the same sense, two different NP's. In our discussion this intuition will remain unexpressed at the formal

level. For a more adequate discussion of the interaction between movement and Case-assignment, cf. Chomsky (forthcoming).

10 In Relational Grammar literature, the designation "unaccusative" is used for the verbs which we refer to as "ergative" (cf. some of the discussion below, where we claim that these verbs do not assign accusative). Our "intransitives" are referred to as "unergative".

11 In Chomsky (forthcoming) it is assumed that the criterion in (38) holds not only of D-structure, but in some particular form, of all other levels of derivation also. Although clearly preferable methodologically, the stronger claim is not adopted here because it would seem problematic to maintain it in view of the insertion in the course of the derivation of expressions which one might consider "referential", such as the emphatic pronouns, and the null pronominal of "inversion". Also, our analysis of O.P. in 1.3, where the same subject position is related to two arguments: SI and the moved NP, might violate Chomsky's formulation. Likely problematic would also be the case of NP-movement into trace position in the "Restructuring" cases discussed in 2.1 below.

12 Two more possible verb types will be predicted by our discussion given the possibility for no complement at all, namely: "NP V" and "V". The former will represent the general case of intransitive verbs. For the latter we may assume that it is instantiated by "weather" verbs, as in "it rains".

13 Pairings between the two forms "NP V S" and "V S" are also instantiated by any verb which might appear both in Control and in Raising frames, as has been argued for example for English "begin"

(cf. Perlmutter (1970), Ross (1972), and for the French counterpart, Kayne (1975, 3.7), Ruwet (1972, ch. 2); for the Italian counterpart cf. for example 6.4.6 below and references cited). It must be noted however that in our discussion we will assume with Chomsky (forthcoming) that Raising but not Control verbs induce  $\bar{S}$  deletion (see 5.6 below). If this is correct then such Control/Raising pairs would not be "minimal", i.e. they would not express one elementary difference, but rather two independent differences: one with respect to subject-thematic role assignment; the other with respect to  $\bar{S}$  deletion. On the contrary, "Exceptional Case Marking" (ECM)/ Raising pairs, as with English prove of the text (see 3.5.5 for details) would be "minimal", since we assume that both ECM and Raising verbs trigger  $\bar{S}$  deletion; see some of the discussion in 5.6.

14 Underlying my discussion in the text is the assumption that, while D-structure pairings "A V B/ \_\_V B" (V: a verb) are possible, pairings "A V B/ B V" are impossible (i.e. the assumption that the lexicon does the minimal amount of work required, leaving the rest to the syntax). By a parallel assumption we do not expect D-structure pairs "A V B/ \_\_ V A" although we might expect "A V B/ A V". From this it follows that in "Giovanni mangia/ Giovanni eats", mangiare is intransitive and not ergative give the existence of "Giovanni mangia la minestra/ Giovanni eats the soup" (the hypothetical ergative being "\*La minestra mangia tutti i giorni/ The soup eats every day"). Then, my argument in the text could have been strengthened by noting another well-defined sub-domain over which Ne-Cl from i-subjects is perfectly regular and in this case impossible: that of verbs like intransitive mangiare, as in

the following.

- (i) Mangiavano alcuni studenti  
Were eating a few studentss

- (ii) \*Ne mangiavano alcuni  
Of them were eating a fews

15 These verbs will almost exclusively appear with the morpheme si, because the NP that the reflexive agrees with is generally inanimate, as in "La finestra si e' rotta/ The window (itself) broke", hence third person. This fact will be irrelevant to our discussion. A "talking" window, as in an animated cartoon, would say "Mi sono rotta/ I (myself) broke".

16 With regard to these two different classes of ergative verbs we may note that some verbs appear in both classes. E.g.:

- (i) Questo materiale (si) raffredda/ (si) indurisce rapidamente  
This material cools/hardens rapidly

Also, it appears that across Romance languages, cognates do not systematically belong to the same class. This would support the view of the text that the distribution of ergative si reflects lexical idiosyncrasies.

17 The qualification "partly" is due to the fact that C-command would not rule out Ne-CI from indirect objects as in (5b). Some further principle would also have to be invoked to prevent Ne-CI across clause boundaries (but subjacency might be considered), as in;

- (i) \*Giovanni ne pensava che molti avrebbero partecipato  
Giovanni of them thought that many would have participated

- (ii) \*Giovanni non ne sa quanti invitare  
Giovanni of them wonders how many to invite

18 Notice that a configuration analogous to (50) but derived by Wh-movement is possible:

- (i) Quanti \_\_\_ ne arrivano ?  
How many of them arrive ?

We may thus assume that Wh-movement is immune to the conditions ruling out (50). Intuitively, this would correlate with the immunity of Wh-movement to Opacity as noted, for example, in Rizzi (1978b). It remains unclear however, how this correlation is to be expressed from the formal point of view.

19 Beside being cliticized (as ne), a partitive phrase can be null. This can only occur with respect to a preverbal position. The distribution is therefore the converse of that of Ne-Cl.

- (i) Molti studenti arrivano/ telefonano  
Many students arrive/telephone
- (ii) Molti \_\_\_ arrivano/telefonano  
Many \_\_\_ arrive/telephone
- (iii) \*Arrivano/ Telefonano molti \_\_\_  
Arrive/ telephone many<sub>s</sub>

It seems intuitively plausible to suggest that the asymmetry (ii)/(iii) should be related to the one noted for Ne-Cl (i.e. like the trace of ne, the gap in the above can be interpreted in one position only), but the matter will not be pursued here. On this and the questions of fn. 17 see Belletti and Rizzi (forthcoming), Kayne (1981), and my brief review of the latter in 3.2.3 below.

20 The "only" part of "all and only the verbs that allow Ne-Cl from an i-subject take E" must be qualified, given the fact that Ne-Cl as found with ergative verbs is never found with Raising verbs, although some Raising verbs take E, a case in point being (i).

- (i) \*Ne erano sembrati [ <sub>S</sub>molti \_\_\_ superare l'esame]  
Of them had (E) seemed many<sub>s</sub> to pass the exam

The ungrammaticality of (i), and of the corresponding "\*Erano sembrati molti studenti superare l'esame" will not invalidate our views, rather it will follow from the presence of clause boundary, as will be discussed in chapter 2. On auxiliary selection with Raising verbs, see chapter 6.

21 One further regularity of the distribution of auxiliaries is represented by "AV" verbs of fn. 14, i.e. intransitive verbs such as mangiare in "Giovanni mangia/ Giovanni eats", which have also transitive entries, cf. "Giovanni mangia la minestra/ Giovanni eats the soup". These verbs always take A, as predicted by our view that they could not be ergative. Cf. fn. 14.

22 As will be discussed shortly below in the text, SI triggers third person singular verb agreement, but plural past participle agreement. Concerning reflexive agreement we assume that SI selects third person plural reflexive si (cf. the paradigm in (45)), and that there is a phonological rule "si si → ci si" yielding (55b). We assume the reflexive to be third person plural rather than singular (even though the third person singular is also si) because of the plural in "SI era odiato se stessi" involving a non-clitic reflexive. We note that one could have suggested that SI selects first person plural reflexive ci, which would not require any phonological rule. However, the latter view is falsified by the fact that when the two clitics do not cluster, as in (i), si and and not ci appears.

(i) Non so come si sia potuto      } odiarsi      }      così a lungo  
    } \*odiarcì }

I wonder how SI could have hated SI-self/ each other for so long  
In (i), SI has undergone Raising.

23 It is clear that the system in (56) operates in derived structure: for example it must follow NP-movement. On our assumption that it operates in S-structure rather than in L.F., the latter is based on the following facts. It is currently assumed that phrases containing quantifiers such as nessuno (see example below), are moved in L.F., and that this operation has many of the properties of (overt) Wh-movement. For convincing arguments, see Rizzi (forthcoming) and references cited therein. We now note that, while in some styles or dialects Wh-movement can induce pp agreement (cf. fn. 27), as in (i) where "%" will indicate the peculiar style, there is no style or dialect (to my knowledge) in which a corresponding L.F. movement as presumably in (ii), induces pp agreement in comparable fashion. Hence the contrast between (i) and (ii).

(i) La ragazza che Giovanni aveva { invitato } ...  
   { % invitata }

The girl that Giovanni had invited ...

(ii) Giovanni non aveva { invitato } nessuna ragazza  
   { \*invitata }

Giovanni had not invited no girl (any girl)

24 We assume that indirect object clitics are related to (phonologically null) PP's, as in (i) (the question of the exact content of phrases related to clitics will be addressed in 5.7).

(i) Giovanni le<sub>i</sub> ha telefonato [<sub>pp</sub> ]  
        Giovanni to her has telephoned  
        (...phoned her)

This will correctly prevent pp agreement with indirect object clitics, even though the PP may be governed by the verb, since the notion of direct object refers to NP's, not to PP's. However if datives were not

PP's, but simply NP's (marked dative), a different notion of direct object would be required. Cf. fn. 26 for an exceptional case of pp agreement with indirect object clitics.

25 In 6.6 below, we will propose a slightly different analysis of passive morphologies. However, that revision will not invalidate our discussion here.

26 We are also neglecting the case of pp agreement with indirect object reflexives, as in (i).

- (i) I ragazzi si erano parlati  
The kids to each other had talked (pl)

We will discuss this case in 5.7 below.

27 On the basis of this characterization, Wh-movement would be expected to induce pp agreement. In standard, contemporary Italian, this is not the case. While our formulation thus appears somewhat inaccurate, we must also note that it appears not too far from correct since, as noted in fn. 23, in non standard varieties of Italian, pp agreement with Wh-movement is in fact found, as for example in the literary style of (i) (discussed in Valesio (1976), and from D'Annunzio (1898)).

- (i) Sotto i miei occhi fissi che aveva riarsi la luce rossa  
Under my staring eyes that had burned (pl) the red

e fumosa del petrolio  
and smoky light of kerosene lamps

(... that the red and smoky light of kerosene lamps had burned)

In view of this and of the fact that the formal problem of excluding Wh-movement cases from the scope of (56b) would in any case not be too serious, we will leave the formulation as given in the text, bearing in mind the slight inaccuracy.

28 We will note that the linear order ignored in the paradigms in (80), (81) as, for example, in (i) yields the worst judgements:

- (i) ??\*Mandera' Piero il suo avvocato ad occuparsi della faccenda  
 Will send Piero<sub>s</sub> his lawyer to deal with the matter

The results here have to do in part with the difficulty in distinguishing the subject from the direct object. In fact the results slightly improve when verb agreement can disambiguate:

- (ii) ??Persuase Piero due ragazze a venire alla festa  
 Persuaded Piero<sub>s</sub> two girls to come to the party

29 We may note that at least the type of ellipsis found with provare, provvedere differs rather significantly from the type found with ergative verbs, which has in fact a more limited distribution. Consider in particular the following, where (ii) is related by ellipsis, to each case in (i).

- (i) a. Mario non ha riparato la macchina,  
 Mario did not repair the car,

b. Mario      } non ha pensato di      } riparare la macchina  
                   } avrebbe desiderato      }

Mario did not think/ would have liked to repair the car

c. Mario      } non la ha fatta      } riparare  
                   } non la ha voluta      }

Mario did not have it repaired/ did not want to repair it

- (ii) ma adesso prova/ provvede      Piero  
 but now is trying/ is providing Piero<sub>s</sub>

(but not Piero will try/ will see to it)

The latter paradigm shows that with provare, provvedere, a missing infinitival can be anaphoric to very different types of phrases, and in particular to :a tensed clause; an infinitival taking a different or no preposition; part of a complex predicate created either by the restructuring or the causative process (see chapters 5,6), respectively. The

corresponding results with ergative verbs are quite different. Consider in fact the following, involving ellipsis with respect to: a tensed clause; an infinitival taking a different preposition; part of a complex predicate.

- (iii) a. Giovanni non ha accompagnato Maria a casa,  
Giovanni did not take Maria home,
- b. \*ma adesso va Piero  
but now is going Piero<sub>s</sub>
- c. ma adesso va Piero ad accompagnarla  
but now is going Piero<sub>s</sub> to take her
- (iv) a. Mario non ha pensato di comprare il giornale  
Mario did not think to buy the paper  
(Mario did not think of buying the paper)
- b. \*?ma adesso va Piero  
but now is going Piero<sub>s</sub>
- c. ma adesso va Piero a comprarlo  
but now is going Piero<sub>s</sub> to buy it
- (v) a. Mario } non la ha fatta } riparare,  
} non la ha voluta }  
Mario did not have it repaired/ did not want to repair it
- b. \*ma adesso viene Piero  
but now is coming Piero<sub>s</sub>
- c. ma adesso viene Piero a ripararla  
but now is coming Piero<sub>s</sub> to repair it

Given our suggestion in the text that S-ellipsis and C-Shift have analogous distributions, one might suggest that the order "i-subject, S-complement" found with ergative verbs could be derived via C-Shift, since we noted that ellipsis can apply to those complements in some cases. If that suggestion was viable it could conceivably weaken our claim that the order "i-subject S-complement" is basic. However notice that the latter suggestion is not viable given the contrasts between b and c in each of (iii), (iv), (v) above. In fact each contrast shows

that while the order "i-subject S-complement" is possible, ellipsis is not: if we assume parallel distributions of S-ellipsis and C-Shift, the c cases could not have been derived via C-Shift.

Whether S-ellipsis with cominciare, continuare, also differs from that of ergative verbs, is less clear. On some peculiarities of the latter two predicates, see 6.4.6 below.

30 An analogous point can be raised for the passive in (95a). One could in fact note that the fact that passive morphologies fail to assign accusative in general, would be sufficient to rule out accusative pronominalization as in (95a), independent of the trace in direct object position. However, if our discussion in 2.6 below is correct, the failure to assign accusative and the trace in direct object position are related matters. Furthermore we assume that there is no parallel failure to assign accusative on the part of the verb in the O.P. case in (95b). Thus in that case accusative pronominalization of the complement must fail exclusively because of the trace in direct object position (We assume that the latter trace is assigned accusative there). In general we thus assume that the presence of a direct object (whether it is lexical or a trace), will invariably be associated with failure of accusative pronominalization of the complement because, if the verb assigns accusative, the direct object must receive it.

31 Notice that attempting to derive the "ci" (there) pronominalization from the fact that the verbs in (77) also take locative complements would not do at least for riuscire, which does not take locatives, and would in any case fail to account for the failure of accusative S-pronominalization with the inherent reflexives of 1.8 below.

32 The contrast is found with other "strandable" prepositions also, though in a weaker form:

- (i) ?Ci ha mangiato Giovanni sopra  
There has eaten Giovanni<sub>s</sub> on (A)  
  
Ci e' salito Giovanni sopra  
There has climbed Giovanni<sub>s</sub> on (E)  
(Giovanni ate/climbed on it)
- (ii) ?Ci ha dormito Giovanni dentro  
There has slept Giovanni<sub>s</sub> in (A)  
  
Ci e' entrato Giovanni dentro (E)  
There has entered Giovanni<sub>s</sub>  
(Giovanni slept in/entered into it)
- (iii) ?Gli lavora Giovanni assieme  
To him works Giovanni<sub>s</sub> with (A)  
  
Gli andra' Giovanni assieme  
To him will go Giovanni<sub>s</sub> with (E)  
(Giovanni works/will go with him)

The contrasts further weaken when the prepositional object is not cliticized:

- (iv) (?)Ha dormito Giovanni dentro a quella tenda  
Has slept Giovanni<sub>s</sub> inside that tent (A)  
  
E' entrato Giovanni dentro a quella tenda  
Has entered Giovanni<sub>s</sub> into that tent (E)

33 Examples of the type of (102a) are actually slightly odd unless the dative is cliticized, as in (i).

- (i) Una mareggiata gli ha capovolto la barca  
The rough seas to him capsized the boat

The contrast between (102a) and (i) is rather mild however, and for the sake of discussion I will assume (102a) etc. to be perfect. For a discussion of the corresponding, but much sharper contrasts in standard French, see Kayne (1975, ch. 2). Analogous comments hold for the ergative case to be discussed shortly below in the text.

34 We may assume that the relation of "metonymy", i.e. of part to the whole (as in Stowell (1979), Gueron (1978)) will account for the greater severity of the judgements in (105), where it holds between direct and indirect objects.

35 Opportunities to test linear order with respect to stranded prepositions as in 1.7.3 are rather rare. See the weak contrast in (i), analogous to (i) of fn. 32:

- (i) Ci si e' arrampicato Giovanni sopra  
There (himself) has climbed Giovanni on  
  
?Ci ha mangiato Giovanni sopra  
There has eaten Giovanni on  
  
Ci ha mangiato sopra Giovanni  
There has eaten on Giovanni  
  
(Giovanni has climbed/eaten on it)

36 Notice that our discussion will provide no explanation for the fact that si-ergatives but not inherent reflexives are systematically paired with transitive verbs.

37 A weaker form of the same point can be made by observing that, while cognates often have analogous subcategorizations, English congratulate is transitive while Italian inherent reflexive congratularsi takes a prepositional object (con NP: with NP). Analogously, with transitive resent versus inherent reflexive risentirsi di NP (of NP).

38 Notice that the pairing of (128a) and (128b), for an ergative analysis of the latter creates a discrepancy for the discussion in fn. 14, since it instantiates the presumed impossible D-structure pairing "A V B/ \_ V A". Analogously for ricordare/ ricordarsi in (129).

We will consider this case rare and the discussion in fn. 14 essentially correct.

39 One might well suggest that this special provision is in fact predictable from the semantics of the verb, namely from the fact that, for example, "to dream for the benefit of someone other than the self" does not make sense. Note however that this view is essentially applicable to all inherent reflexives, take for example "Giovanni si sbaglia/ Giovanni (himself) mistakes (... is mistaken)" of (117). If adopted, this view would then suggest that all inherent reflexives should be given reflexive analyses, i.e. that they should all be analyzed as being transitive, with obligatorily-reflexive objects (essentially the view taken in Kayne (1975)). In conjunction with our discussion in the text and the evidence indicating that they must be at least (though not at most) ergative, this would imply that inherent reflexives are systematically ambiguous between ergative and transitive D-structure analyses, i.e., for example, between "[<sub>NP</sub><sup>e</sup>] si sbaglia Giovanni" and "Giovanni si sbaglia NP<sub>Ø</sub>" (where NP<sub>Ø</sub> is the null NP related to the clitic). As far as I can see this conclusion could be correct, and would be generally compatible with the rest of our discussion.

40 These cases exhibit pp agreement, like the general case of indirect object reflexives and as, for example, in (i).

- (i) Maria si era immaginata le vacanze  
Maria (to herself) had imagined the vacation (E; pp ag't)

If, as would seem natural, pp agreement with indirect object reflexives (noted in fn. 26 above and to be discussed in 5.7 below) is due to some minimal extension of our system of pp agreement of 1.6, i.e. if we say

that, with reflexives, "the past participle will agree with an element binding its direct or indirect object" (cf. (56b) above), then pp agreement in (i), will count as evidence that a null indirect object is indeed present in these cases, as we are assuming.

41 Cases like (133) appear to improve if the complement is pronominalized, as in (i).

- (i) (?) (Di andare in vacanza) Giovanni se lo immagina  
To go on vacation      Giovanni (to himself) it imagines

Accusative S-pronominalization here contrasting with lack of it in, for example, (125), will then confirm our view that we are no longer dealing with ergative configurations in these cases.

## 2. THE THEORY OF INVERSION

### 2.0 Introduction

In the previous chapter, we reviewed several constructions in which a direct object can be moved into subject position, and in particular: passives, ergative verbs, SI-construction. We claimed that a class of cases exists, in which such movement fails. In this chapter we will claim that a strategy which consists of inserting a designated element such as for example English there, exists universally, and that the latter provides a systematic alternative to movement of the object into subject position.

Our discussion here will be limited to Italian. Extensions to some other languages will be considered in chapter 3. We will claim that the latter strategy operates with both cases of i-subjects discussed in chapter 1, namely not only with cases in which the subject position is empty from D-structure, but also in those cases in which the empty subject position results from rightward NP-movement.

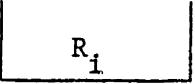
We will begin the discussion on the assumption that in all sentences containing i-subjects, a subject NP node exists, namely we will assume that in Italian there is no base-rule " $S \rightarrow VP$ ". Evidence for this view will be implicit in some of the discussion, and will be pointed out explicitly in 2.4.4 below.

#### 2.1.1 The Relation $R_i$

Let us assume without discussion that an i-subject is related in some fashion to the subject position, and to the particular position in which it appears in the near-synonymous form. We will refer to such a relation as " $R_i$ " (for "inversion"). One instance of  $R_i$  will thus be the

one indicated in (1b), which has a near-synonymous form (1a).

- (1a) [<sub>i</sub> Giovanni] arriva <sub>i</sub>  
Giovanni arrives

- (1b) NP arriva Giovanni  
  
(see (1a))

We will claim that the relation  $R_i$  has the essential properties of anaphoric relations, with the subject position functioning as an antecedent. In order to present evidence which will bear on this view we will briefly digress to provide a preliminary characterization of the restructuring process, discussed in Rizzi (1978a) and to be addressed in detail in Chapter 6.

We assume with Rizzi that in Italian a special process which we will refer to as "restructuring" is available, which can alter the complementation relation between a main verb and its complement roughly in the manner of (2), where the resulting 'complex predicate' contains no clause boundaries.

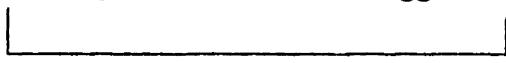
- (2) Restructuring:  $NP_1[V_P V_1 \dots [S^{NP_2} V_2 \dots]]$   
 $NP_1[cp V_1 V_2 \dots]$   
(cp: a complex predicate)

We assume that this process is possible when  $V_1$  in (2) belongs to a certain (relatively small) class of verbs. We will also assume that one of the manifestations of restructuring is that clitics related to objects of the embedded verb will appear on the main verb (see chapter 6 for further discussion). We will then attribute the contrast in (3) to the fact that restructuring has applied in (3a), but not in (3b), as we will assume that volere, but not sperare is a member of the class of verbs

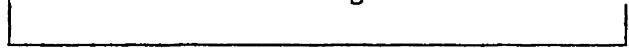
which trigger restructuring ("restructuring verbs").

- (3a) Giovanni lo vuole leggere  
Giovanni it wants to read
- (3b) \*Giovanni lo spera di leggere  
Giovanni it hopes to read

Even on the basis of such a cursory characterization we can account for the contrast in (4), where O.P. has moved the embedded direct object into matrix subject position.

- (4a) [<sub>i</sub> Quei libri] si vorrebbero leggere <sub>i</sub>  


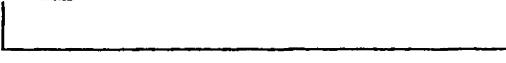
Those books SI would want to read

- (4b) \*[<sub>i</sub> Quei libri] si speravano [<sub>S</sub> di PRO leggere <sub>i</sub>]  


Those books SI hoped to read

In fact we assume that the NP/trace relation indicated in (4b) violates general binding principles, i.e. Opacity (cf. 0.2 above), since the trace is in the domain of the embedded subject. However an analogous relation will be predicted possible once restructuring has applied as in (4a), since the trace in question is no longer in the domain of the embedded subject, or even within the embedded clause given our formulation in (2) above. The possibility for O.P. in the manner of (4a) will thus be another diagnostic for restructuring, like the cliticization facts in (3a). On the passive case parallel to (4a), see discussion in chapter 6.

Returning now to the relation  $R_i$ , we will note that in (5), where restructuring has applied in a but not in b, the latter relation has a distribution parallel to that of the NP/trace relation in (4).

- (5a) NP ne vorrebbero intervenire molti  

- of them would want to intervene many<sub>s</sub>

- (5b) \*NP speravano [S di PRO intervenirne molti]  
 hoped to intervene of them many<sub>s</sub>

Ne-Cl in (5) is relevant to our discussion because it will ensure that the i-subject is the direct object of ergative intervenire and is thus within the embedded clause. In fact an example superficially analogous to (5b) but without Ne-Cl is grammatical, as in (6).

- (6) Speravano di intervenire molti studenti  
 Hoped to intervene many students<sub>s</sub>

The contrast between (5b) and (6) will be attributed to the fact that, while the i-subject in (5b) must be within the embedded clause for the reasons mentioned, in (6) the latter may be freely analyzed as being adjoined to the matrix VP, as indicated in (7).

- (7) NP [VP [VP speravano [S di PRO intervenire]] molti studenti]

We thus expect only (5b) to be parallel to (4b), and no particular problem to arise in (6). The position of ne in (5a) will be an instance of the general fact mentioned, that under restructuring all clitics appear (semi-)obligatorily, cf. ch. 6) on the higher verb. That Ne-Cl from the i-subject here is essentially the same phenomenon we discussed in chapter 1, is shown by the fact that the contrast "Ne arrivano molti; \*Ne telefonano molti" of (3) in chapter 1, is reproduced here as between (5a) and (8) (on the relatively mild ungrammaticality of (8) see some of the discussion in 6.2.1 below).

- (8) ??Ne vorrebbero telefonare molti  
Of them would want to phone many<sub>s</sub>

We also note that essentially the same purpose of ensuring that the i-subject is within the complement, which is achieved in (5) by Ne-Cl, is achieved in (9) by the presence of a sentential complement to the

right of the i-subject.

- (9a) Voleva intervenire Giovanni [<sub>S</sub><sup>PRO</sup> a risolvere il problema]  
Wanted to intervene Giovanni<sub>s</sub> to solve the problem
- (9b) \*Sperava di intervenire Giovanni [<sub>S</sub><sup>PRO</sup> a risolvere il problema]  
Hoped to intervene Giovanni<sub>s</sub> to solve the problem

We recall in fact from 1.7.1 that the linear order "i-subject S-complement" cannot be obtained by applying the "stylistic" rule of Complement-Shift (a rule applying in the phonology branch of the grammar), and must therefore reflect the configuration at syntactic levels. Since we are assuming the sentential complement to be within the minimal VP containing "intervenire", the i-subject must also be. Thus the i-subject will be in embedded direct object position in both (5) and (9), and we will take the two respective contrasts to be quite analogous.

The restructuring case represented by (5a) and (9a) is important here, because it will indicate that cases such as (5b) and (9b) cannot be ruled out by considerations of thematic well-formedness. In fact we assume that restructured cases are derived from orthodox base-forms, namely we are assuming that restructuring is an entirely syntactic process and that it does not reflect peculiarities of base-forms. This assumption will be adequately justified in chapter 6. We therefore assume that the cases in (5), and analogously those in (9), are derived from well-formed D-structure forms of parallel thematic structure, like those in (10) respectively.

- (10a) Molti studenti vorrebbero [<sub>S</sub> [<sub>NP</sub><sup>e</sup>] intervenire PRO]
- (10b) Molti studenti speravano [<sub>S</sub> [<sub>NP</sub><sup>e</sup>] intervenire PRO]

NP movement within the complement will then give rise to (11) respectively.

(11a) [<sub>i</sub>Molti studenti] vorrebbero [<sub>S</sub><sup>PRO<sub>i</sub></sup> intervenire <sub>t<sub>i</sub></sub>]

(11b) [<sub>i</sub>Molti studenti] speravano [<sub>S</sub><sup>di PRO<sub>i</sub></sup> intervenire <sub>t<sub>i</sub></sub>]

We will then assume that (5a), (9a) are derived via restructuring and movement of the matrix subject into embedded object position, as in the following.

(12a) Rest.: [<sub>i</sub>Molti studenti] vorrebbero intervenire <sub>t<sub>i</sub></sub>

(12b) NP-movement: [<sub>i</sub>e] vorrebbero intervenire [<sub>i</sub>molti studenti]

On the a-priori plausibility of such NP-movement into trace position, we note first that the moved NP and the trace will independently be coindexed (given straightforward semantic considerations, and regardless of how coindexing between matrix subject and PRO in (11) is actually done; see ch. 6). We will also note that similar cases are independently attested. One such case is the case of O.P. of 1.3.2 above where, as we discussed, the direct object is moved into the position occupied by the trace of SI. Another instance of insertion of lexical material into trace position will be represented by the case of "emphatic pronouns" to be discussed in 2.2 below. Notice also that the apparent problem arising from the improperly bound trace in subject position in (12b) will be rather obviously subsumed by the general case of rightward NP movement (as in "telefona Giovanni").

We must note here that Ne-C1 in (5a) will still reflect base-generation, as assumed to be generally the case in chapter 1, although in a slightly different manner than the discussion of chapter 1 might have implied. In fact the structural position from which Ne-C1 occurs in (5a) is base-generated. However the phrase which gives rise to Ne-C1 is moved into that position in the course of the derivation and as indicated in (12). This reconsideration will be of no consequence for

the discussion of chapter 1.

Assuming then that the kind of movement exemplified in (12b) is not ruled out by factors intrinsic to the nature of movement operations or by considerations of thematic well-formedness, it will seem quite plausible to regard (5b) and (9b) as violations of binding principles and therefore as analogous to (4b). We may then assume the "tensed" case in (13), to be also ruled out in terms of binding principles in the manner of (5b), (9b) (there is no restructured counterpart here, since restructuring does not apply with tensed complements; see ch. 6).

(13) \*NP speravano [Sche Giovanni ne venisse molti]

[  
                        ]  
hoped that Giovanni of them would come many<sub>S</sub>  
(Many of them hoped that Giovanni would come)

We must note however, that (13) would presumably involve a violation additional to the one of (5b) and (9b) since the trace position in which the matrix subject would have to move in this case, will bear a different index (i.e. it will be coindexed with "Giovanni"). This view is supported by the fact that the ungrammaticality of (13) is much more severe than that of (5a) and (9a). Let us then assume that  $R_i$  is analogous to anaphoric relations in having a "bounded" character. We may roughly say that  $R_i$  is "clause-bounded".<sup>1</sup> Before continuing, we will note another aspect of the interaction between restructuring and the distribution of i-subjects, which will play a role later on.

The intersection between the class of ergative verbs and that of restructuring verbs happens to be non-null. For most speakers it has at least the two members andare, venire. We now consider the following cases.<sup>2</sup>

- (14a) Giovanni va a prenderlo (no rest)  
 Giovanni goes to fetch it
- (14b) Va Giovanni a prenderlo (no rest)  
 Goes Giovanni<sub>s</sub> to fetch it
- (15a) Giovanni lo va a prendere (rest)  
 Giovanni it goes to fetch
- (15b) \*Lo va Giovanni a prendere  
 It goes Giovanni<sub>s</sub> to fetch

Given the position of the clitic lo, restructuring must have applied in (15), but not in (14). The configuration (14b) typical of ergative verbs taking sentential complements, thus appears no longer possible if restructuring has applied. For our purposes here it will be sufficient to assume that, as a result of restructuring, the two verbs will come to be contiguous, as expressed by the provisional formulation in (2). A detailed discussion will be presented in chapter 6. Thus the NP position representing the direct object of an ergative main verb, will no longer be present between the two verbs after restructuring, whence the ungrammaticality of (15b). We will now proceed to make some other observations relative to the distribution of i-subjects, before attempting a solution.

### 2.1.2 Raising and Control

The generally clause bounded character of  $R_i$  which we noted above, appears violated with Raising verbs, hence the contrast in (16), where parere is a Raising verb, and sperare is a Control verb.

- (16a) \*Speravano di intervenirne molti  
 (see (5b))
- (16b) Parevano intervenirne molti  
 Seemed to intervene of them many<sub>s</sub>

The configuration in (16) will thus be a diagnostic for Raising versus

Control analyses of verbs which take sentential complements. With regard to Raising predicates we must also note the following. Under the terms of our discussion, some i-subjects can be base-generated in place, such as the one in (1) above involving ergative verb arrivare. We then note the lack of parallelism between (1) and the corresponding Raising case here below, where (17b) would also represent the base-configuration, analogously to (1b).

- (17a) [<sub>i</sub>Giovanni] pareva [<sub>S<sub>i</sub></sub> leggere molto]  
          Giovanni seemed     to read a lot

- (17b) \*Pareva [<sub>S</sub> Giovanni leggere molto]  
          Seemed Giovanni to read a lot

The lack of (17b) may be surprising given (16b), since it would then seem that  $R_i$ , while impossible over a short span in (17b), is in fact again possible when it spans longer distances, as in (16b).

One further observation will consist of noting that our characterization of  $R_i$  as clause-bounded would seem violated not only with Raising verbs, as in (16b), but also with Control verbs if the i-subject is a pronominal as in (18b), essentially synonymous with (18a). (18b) will thus contrast with (9b), where the i-subject is not a pronominal.

- (18a) Lui sperava di intervenire a risolvere il problema  
          He hoped to intervene to solve the problem
- (18b) Sperava di intervenire lui a risolvere il problema  
          (see (18a))

We will summarize the observations we have made so far, as in (19).

- (19a) The configuration "...V, i-subject, infinitival-complement"  
          is possible only when "V" is an ergative verb (cf. 1.7.1  
          above).
- (19b) If restructuring applies, the possibility in (19a) is  
          suspended (cf. 2.1.1 above).

- (19c)  $R_i$  appears generally clause-bounded (cf. (5b), (9b) above).
- (19d) Cases involving Raising verbs constitute an apparent exception to (19c) (cf. (16b) above).
- (19e) Cases involving personal pronouns constitute an apparent exception to (19c) (cf. (18b) above).
- (19f) The *i*-subject cannot occur in its D-structure position when the latter is to the immediate right of a Raising verb.  
(an apparent exception to (19d)) (cf. (17b) above).

We now turn to an aspect of the syntax of Italian, where rather similar facts can be observed.

### 2.2.1 Subject Doubling

Consider the following cases.

- (20a) D'ora in poi, Giovanni verra' *lui* invece di mandare  
From now on, Giovanni will come himself instead of  
  
sua sorella  
sending his sister
- (20b) D'ora in poi, Giovanni lavorera' *lui*, invece di  
From now on, Giovanni will work himself, instead of  
  
far lavorare suo padre  
making work his father  
(..making his father work)
- (20c) D'ora in poi, Giovanni leggera' la corrispondenza *lui*,  
From now on, Giovanni will read the correspondence himself  
  
invece di farla leggere alla segretaria  
instead of having it read by the secretary

In (20), the pronoun *lui* agrees (in person and number) with the subject and is understood as an emphatic repetition of the latter (analogously to English "himself" of the glosses<sup>3</sup>). Such emphatic pronouns are found exclusively with animate subjects:

- (21a) \*Maria inviterebbe      Giovanni *lui/lui* Giovanni  
Maria would invite      Giovanni himself/ himself Giovanni

(21b) \*Maria telefonerebbe a Giovanni lui/ lui a Giovanni  
 Maria would phone to Giovanni himself/ himself to Giovanni

(21c) \*Il dibattito ha interessato gli intervenuti esso  
 The debate interested those intervened itself

Emphatic pronouns (henceforth "ep's") appear to have some degree of freedom as to their position of occurrence:

(22a) Giovanni scriverà lui una lunga lettera a Piero

(22b) Giovanni scriverà una lunga lettera lui a Piero

(22c) Giovanni scriverà una lunga lettera a Piero lui

(All: Giovanni will write a long letter to Piero himself)

We will notice however the following limitations. Ep's will not occur between auxiliary and verb:

(23) \*Giovanni ha lui scritto a Piero  
 Giovanni has himself written to Piero

Ep's cannot very well occur between a verb and an adverb:

(24) ?\*Giovanni scriverà lui subito a Piero  
 Giovanni will write himself immediately to Piero

Therefore ep's differ in distribution from both adverbs and floating quantifiers, given the following:

(25a, cf. 23) I ragazzi hanno      } subito      }      scritto a Piero  
   } tutti      }  
                                        } immediately      }      written to Piero  
                                        } all      }

(25b, cf. 24) I ragazzi scriveranno tutti subito a Piero  
                                        The kids will write all immediately to Piero

We further note that ep's will occur before a sentential complement only in some cases, as in (26), where venire, but not pensare is an ergative verb.

(26a) Giovanni viene lui a prendere il libro  
 Giovanni comes himself to fetch the book

(26b) ??Giovanni pensa lui di studiare linguistica  
 Giovanni thinks himself to study linguistics

Again ep's will differ here from adverbs and floating quantifiers:

- (27) I ragazzi pensano {veramente tutti} di studiare linguistica  
The kids think {really all} to study linguistics

The contrast in (26) is reminiscent of the one noted in 1.7.1 for i-subjects.<sup>4</sup> In fact the degree of similarity appears significant: The contrast is systematic and can be reproduced with pairs of ergative and non-ergative verbs from the two sets in (76), (77) of chapter 1. As with i-subjects, passives and SI-constructions behave analogously to the ergative case here as well, as in (28).<sup>5,6</sup>

- (28a) Giovanni fu mandato lui ad occuparsi di quella faccenda  
Giovanni was sent himself to deal with that matter

(28b) Gli oppositori si manderanno loro a prendere atto  
The opponents SI will send them to verify  
  
della situazione  
the situation  
  
(Opponents will themselves be sent to..)

The distribution of ep's seems to reproduce not only the generalization proposed in 1.7.1 for i-subjects, but even the deviances from such generalization that were noted. Thus, with other than ergative verbs, ep's will occur before an S-complement more easily when the latter is at some "distance" from the verb, as in (29) analogous to (81c) of chapter 1.

- (29) (?) Piero persuase due ragazze lui a venire alla festa  
Piero persuaded two girls himself to come to the party

Ep's will furthermore appear before the complement of provare, provvedere, cominciare, continuare, the verbs which we noted were exceptional in 1.7.1, as in the following, analogous to (85c), (86c) of chapter 1, respectively.

- (30a) Giovanni            } provera'  
        Giovanni will    } provvedera'  
                         } try  
                         } take steps  
  
 (30b) Giovanni ha      } cominciato  
        Giovanni        } continuato  
                         } began  
                         } continued

lui a telefonare al medico  
himself to call the doctor

lui a zappare il giardino  
himself to dig the garden

We now note that the possibility for the order "ep, S-complement" as in (26a), is suspended if restructuring has applied, as in (31b) contrasting with (31a).

- (31a) Giovanni viene lui a prenderlo  
        Giovanni comes himself to fetch it      (no Rest)
- (31b) \*Giovanni lo viene lui a prendere  
        Giovanni it comes himself to fetch      (Rest)

Once again adverbs and floating quantifiers will appear to behave differently:

- (32a) Giovanni lo verra' subito a prendere  
        Giovanni it will come immediately to fetch
- (32b) ?I ragazzi lo verranno tutti a vedere  
        The kids it will come all to see  
        (The kids will all come to see it)

Therefore the points in (19a) and (19b) above relative to i-subjects, appear to have exact counterparts for ep's. In order to account for this parallelism, we will suppose that ep's and i-subjects both occur in direct object position, when appearing before a sentential complement. This view will naturally lead us to expect that ep's and i-subjects should not co-occur before a sentential complement. This seems indeed to be the case, as indicated by the following examples.

- (33a) Giovanni viene lui a prenderlo  
        Giovanni comes himself to fetch it
- (33b) Viene Giovanni a prenderlo  
        Comes Giovannis to fetch it

- (33c) \*Viene       $\left\{ \begin{matrix} \text{Giovanni lui} \\ \text{lui Giovanni} \end{matrix} \right\}$       a prenderlo  
       Comes       $\left\{ \begin{matrix} \text{Giovanni himself} \\ \text{himself Giovanni} \end{matrix} \right\}$       to fetch it

Our view that ep's can occur in direct object position will make a further correct prediction to the effect that Ne-Cl ought to be impossible in (34c) contrasting with (34a) and (34b) respectively.

- (34a) Ne verranno alcuni  
Of them will come somes
- (34b) Verranno anche loro alcuni miei amici  
 Will come also themselves some friends of mines  
 (Some friends of mine will also come themselves)
- (34c) \*Ne verranno (anche) loro alcuni  
Of them will come (also) themselves somes

In fact the i-subject could not be in direct object position in (34b), (34c) given the presence of the ep to its left and must therefore be assumed adjoined to VP, whence the failure of Ne-Cl. (34b) will indicate that there is no prohibition against co-occurrence of ep and i-subject in general, even though such co-occurrence might be subject to rather intricate discourse conditions, sometimes fulfilled by the use of intensifiers like anche, proprio ("also", "exactly") with the ep.<sup>7</sup> The assumption that ep's occur in direct object position in cases like, for example, (26a) and (34b) will imply that when they do so occur, ep's are essentially phonologically realized traces.

Having assumed that the distribution of ep's and that of i-subjects overlaps partially, we may go one step further and assume that ep's and i-subjects occur in the same set of structural positions altogether, namely that ep's, like i-subjects, are either in direct object position or adjoined to VP. We can then assume that some of the cases reviewed above and involving non-ergative verbs (in particular (22a) and (22b))

are derived by application of the rule of Complement-Shift discussed in 1.7.1 (for the cases in (20) one might perhaps suggest that the "invece/instead" complement is a complement of S and not of VP). We will see below how the view that ep's can occur adjoined to VP, is in fact empirically supported.

### 2.2.2 The Relation $R_d$

We will refer to the relation between the subject and its "double", namely the ep, as  $R_d$  (for "doubling"). We will note that  $R_d$  exhibits the essential properties of anaphoric relations. In particular  $R_d$  appears to have a "bounded" character, as in (35).

- (35a) Maria pensava che Piero intervenisse *lui* a risolvere  
 Maria thought that Piero would intervene himself to

il problema  
 solve the problem

- (35b) \*Maria pensava che Piero intervenisse *lei* a risolvere  
 Maria thought that Piero would intervene herself to

il problema  
 solve the problem

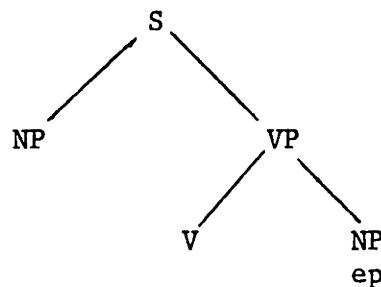
The results in (35) will follow if we assume that ep's are anaphors, as was already implicit in the claim that they can occur in trace position.

(35b) would then be ruled out by Opacity. Thus ep's will fall under the same binding conditions as other anaphors, though they will differ from some (say, reflexive se-stesso, PRO) in that they will not have an independent thematic role (i.e. they will not be independent 'arguments'), in spite of the fact that they are -presumably- referential expressions. In our discussion this "non-thematic" status will follow from assuming that they are not present in D-structure, i.e. that they are inserted in the course of the derivation. Recall in fact how the thematic

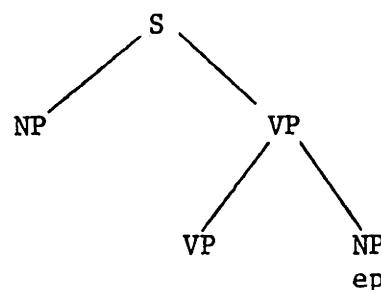
well-formedness criterion in (38) of chapter 1, is assumed to apply exactly at D-structure level. For the case of ep's adjoined to VP we will have to assume that VP-adjoined positions can be created independent of movement operations (i.e. in this case the position will be created in conjunction with the insertion of an ep).<sup>8</sup>

We are now in a position to deduce that ep's can only be related to subjects (and to i-subjects, cf. (34b)), as we noted was the case. Consider in fact the two options which we are envisioning for ep's as in (36) below.

(36a) Direct object position



(36b) Adjoined to VP



In (36a), since the ep is inserted in trace position as discussed, the latter will always be coindexed with the subject, given independent constraints on the syntax of movement. In (36b), the ep could have no other antecedent than the subject, since the latter is the only NP which will C-command the ep. This result will thus support the view that ep's

are adjoined to VP. However, notice that we predict that i-subjects could also function as antecedents to ep's. Consider the contrast between (34b) repeated here as (37a), (37b), and the parallel contrast in (38).

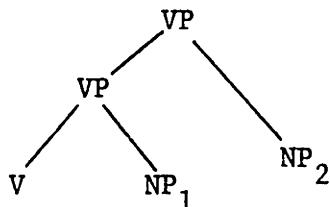
- (37a) Verranno anche loro alcuni miei amici  
Will come also themselves some friends of mine<sub>s</sub>
- (37b) \*Verranno alcuni miei amici (anche) loro  
Will come some friends of mine<sub>s</sub> (also) themselves
- (38a) Parteciperanno anche loro alcuni miei amici  
Will participate also themselves some friends of mine<sub>s</sub>
- (38b) \*Parteciperanno alcuni miei amici (anche) loro  
Will participate some friends of mine<sub>s</sub> (also) themselves

While ep's and i-subjects can co-occur as noted, only one order appears possible. Assuming naturally that the i-subject is the antecedent to the ep in (37) and (38) we note that while generally ep's must follow their antecedent, they seem to be required to precede it in these cases.

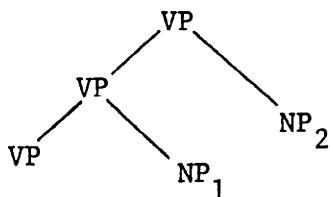
---

This fact will be accounted for by our analysis. Consider in fact the two configurations here below concerning the ergative case in (37) and the non-ergative case in (38) respectively.

- (39a) Ergative



- (39b) Non-ergative



In (39a), of the two post verbal positions, one is base-generated, the other created by a structure building rule of adjunction to VP. In (39b) both positions are assumed created by adjunction to VP. However, in either case,  $NP_2$  will C-command  $NP_1$ , but not the converse. Therefore in either case the order ep, i-subject but not the converse is predicted possible. This provides evidence for VP-adjunction for both i-subjects and ep's.

The relation  $R_d$  has a superficially non-bounded character with Raising verbs, as in (40), where the ep within the complement of parere, would seem related to the matrix subject.

- (40) [<sub>i</sub>Giovanni] pare sempre [<sub>S<sup>t</sup></sub><sub>i</sub> intervenire lui  
Giovanni seems always to intervene himself  
[<sub>S<sup>PRO</sup></sub> a risolvere questi problemi]]  
to solve these problems

The reasons for the apparent exceptionality of (40) will be rather transparent: We will simply assume that the antecedent for the ep in (40) is not the matrix subject, but rather the trace in embedded subject position, just as the analogous trace will be the antecedent for the reflexive in "John<sub>i</sub> seems <sub>t<sub>i</sub></sub> to hate himself". We now consider the parallel Control case in (41).

- (41) [<sub>i</sub>Giovanni] sperava [<sub>S<sup>di</sup></sub><sub>i</sub> intervenire lui  
Giovanni hoped to intervene himself  
[<sub>S<sup>PRO</sup></sub> a risolvere questi problemi]  
to solve these problems

Again the reasons for the apparent unbounded character of the relation between "Giovanni" and "lui" in (41) will be transparent: we will assume that the antecedent for the ep is the embedded subject PRO (cf. "John<sub>i</sub> tries PRO<sub>i</sub> to like himself"). That this view is correct is confirmed

by cases like (42) and (43).

- (42) Giovanni persuase Maria [<sub>S</sub><sup>PRO</sup> a intervenire  
   } lei  
   }\*lui  
   } herself  
   }\*himself  
   Giovanni persuaded Maria to intervene  
   [<sub>S</sub><sup>PRO</sup> a risolvere il problema]]  
   to solve the problem

- (43) Sarebbe un gravissimo errore [<sub>S</sub><sup>PRO</sup> andarci noi]  
   It would be a serious mistake to there go ourselves

In fact (43) shows that no antecedent for the ep other than PRO is necessary, while (42) will show that no antecedent other than PRO is possible. The fact that the ep in (41) "appears" to be related to the matrix subject will thus be accidental.

Our discussion so far has therefore shown that the first four observations in (19) above relative to i-subjects, have exact counterparts relative to ep's. In particular we have seen, corresponding to (19a), that the configuration "...V, ep, infinitival-complement" is possible only when "V" is an ergative verb (cf. (26) above). Corresponding to (19b) we have seen that the latter possibility is suspended if restructuring applies (cf. (31b) above). Corresponding to (19c) we have seen that  $R_d$  is generally clause-bounded (cf. (35b), (42)), and we have seen that cases involving Raising verbs constitute an apparent exception to the clause bounded character of  $R_d$  (cf. (40)). The latter point will correspond to (19d). However, our discussion has also pointed to an asymmetry between  $R_i$  and  $R_d$ , represented by the Control case, namely by the fact that alongside of (41) above, there is no corresponding "\*sperava di intervenire Giovanni a risolvere il problema" (i.e. (9b) above). We will return to this asymmetry in 2.3.1 below. In the next subsection, we will address the point in (19e).

### 2.2.3 Subject Pronoun Drop

Following recent discussion (cf. for example Taraldsen (1978), Rizzi (1979)), I will assume that the "null" subject relative to the so-called "subject pronoun drop" (henceforth "spd") is quite analogous to the "null" objects associated with object cliticization. This view is supported by the fact that the null subject of spd behaves analogously to cliticization in some significant respects. As noted in Rizzi (1979) (see also fn. 6, chapter 1), the null subject of spd will allow a "definite" reading, as for example in (44).

- (44) Legge le istruzioni  
 (He-definite) reads the instructions

The definite reading of the subject in (44) is analogous to the definite reading found with object cliticization, as in (45a), and is unlike the "indefinite" reading associated with the other "null" subject, namely PRO, as in (45b).

- (45a) Giovanni lo ha invitato  
 (Giovanni has invited him-definite)

(45b) E' importante [<sub>S</sub> PRO leggere le istruzioni]  
 It is important (for someone-indefinite) to read the instructions

Spd will furthermore behave analogously to cliticization, and again unlike the other null subject PRO, with respect to relativization by resumptive pronoun. As noted in Rizzi (1978b), Italian has an alternative strategy to form relative clauses when the movement conditions (subjacency) would be violated. When the head of the relative is related to an object position, this strategy requires the presence of a clitic pronoun as in (46a), contrasting with (46b) where a non-clitic pronoun occurs.

- (46a) Lo studente che non credo alla voce  
 The student that I do not believe the rumor  
 che lo hanno arrestato e' Giovanni  
 that they him arrested is Giovanni

- (46b) ??Lo studente che non credo alla voce  
 The student that I do not believe the rumor  
 che hanno arrestato lui e' Giovanni  
 that they arrested him is Giovanni

When the head of the relative is related to a subject, the resumptive pronoun strategy requires spd, as in (47a) contrasting with (47b) where an overt pronoun appears.<sup>9</sup>

- (47a) Lo studente che non credo alla voce  
 The student that I do not believe the rumor  
 che esce con Maria e' Giovanni  
 that (he) goes out with Maria is Giovanni

- (47b) ??Lo studente che non credo alla voce  
 The student that I do not believe the rumor  
 che lui esce con Maria e' Giovanni  
 that he goes out with Maria is Giovanni

While thus being analogous to the null object of cliticization, the null subject of spd will again differ from the other null subject, namely PRO, which never functions as a resumptive pronoun with this type of relative clause, as in (48).

- (48) \*Lo studente che non credo alla possibilita'  
 The student that I do not believe the possibility  
 [<sub>S</sub> di PRO uscire con Maria] e' Giovanni  
 to go out with Maria is Giovanni

We will assume that spd languages instantiate a possibility for pronominal forms to cliticize from pre-verbal position in tensed clauses. We will then suggest that there is an unstressed (clitic) pronominal form "pro" associated with definite reading like other clitic pronominals, whose phonological matrix is non-distinct from the inflectional element of the verb. Namely we will assume that when this form "pro" cliticizes, let us say by movement, like SI (cf. 1.3.1), its phonological matrix will coalesce with the inflectional element of a tensed verb.<sup>10</sup> This proposal

is an adaptation of the one presented in Rizzi (1979) which will be discussed in 2.5.2 below. We assume the form pro to be analogous in many respects to the form SI discussed in 1.3.1 above. In particular we assume that, like SI, pro cliticizes only from subject position.<sup>11</sup> We then expect the parallelism in (49), (50) here below. (We alert the reader that pro is henceforth a feature of our analysis, and has no phonetic realization as discussed. I.e. "pro legge le istruzioni" etc., is henceforth our analysis of (44) etc.).

- (49a) [<sub>i</sub> e] si<sub>i</sub>-telefonera' a Giovanni  
SI will phone (to) Giovanni

- (49b) [<sub>i</sub> e] pro<sub>i</sub>-telefonera' a Giovanni  
(he) will phone (to) Giovanni

- (50a) \*Giovanni si<sub>i</sub>-invita [<sub>i</sub> e]  
Giovanni invites SI

- (50b) \*Giovanni pro<sub>i</sub>-invita [<sub>i</sub> e]  
Giovanni invites (him)

We further assume that pro, just like SI, is inserted under any NP node, thus accounting for the parallelism between the following (cf. discussion in 1.3.1).

- (51a) [<sub>i</sub> e] si-e' stati accusati t<sub>i</sub> ingiustamente  
SI has been accused unjustly

- (51b) [<sub>i</sub> e] pro-e' stato accusato t<sub>i</sub> ingiustamente  
(he) has been accused unjustly

Since we assume that pro, like SI, has a phonological matrix, we will predict that the latter should require Case, just like SI, and hence not occur in infinitivals in general. We will thus predict the impossibility for the definite reading in (45b) (recall that we are associating definite reading with pro). Such impossibility will thus

be parallel in our discussion to the impossibility for SI to occur in Control infinitivals noted in 1.3.1 (cf. (18), chapter 1). We further predict that both pro and SI could be Raised, as in (52).

- (52a) [<sub>i</sub> e] pro-potrebbe [<sub>S<sup>t</sup></sub><sub>i</sub> vincere]  
           (he) could               win

- (52b) [<sub>i</sub> e] si-potrebbe [<sub>S<sup>t</sup></sub><sub>i</sub> vincere]  
           SI could               win

However, we will also predict some differences between pro and SI. Since we assume the phonological matrix of pro, to be non-distinct from the inflectional element of a tensed verb, we expect no form like (53a), parallel to the case in (53b) discussed in 1.3.1 above.

- (53a) (\* in the particular analysis, see below)

- [<sub>i</sub> e] sembra [<sub>S<sup>t</sup></sub><sub>i</sub> mangiare-pro<sub>i</sub> bene]  
           (it) seems (him) to eat well

- (53b) ?[<sub>i</sub> e] sembra [<sub>S<sup>t</sup></sub><sub>i</sub> mangiarsi bene]  
           (it) seems SI to eat well

Although we do not know exactly what a form with the analysis in (53a) would look like at the phonetic level (if we are correct, because there is no instance of it), our claim that such a form does not exist, is not vacuous under the relevant assumptions. We in fact assume that pro has a phonological matrix, and that the latter will generally coalesce with verb inflection (i.e. we are not assuming that pro has no phonological content). Since there is no form like (53a), for any non-null phonological content of pro (other than SI), our claim is true.

We will furthermore predict that there should be no Object Preposing with pro as there is with SI (cf. 1.3.2), namely that there should be no form (54a), analogous to (54b).

- (54a) \*[<sub>i</sub> I regali di Natale] pro-comprano <sub>i</sub> in quel negozio  
 Christmas presents (he) buy in that store  
 (He buys Christmas presents in that store)

- (54b) [<sub>i</sub> I regali di Natale] si-comprano <sub>i</sub> in quel negozio  
 Christmas presents SI buy in that store  
 (SI buys Christmas presents in that store)

In fact, since we assume that the inflectional element on the verb is non distinct from the phonological realization of pro, we will naturally assume that in the presence of pro, the latter element could not agree with any NP other than pro. If we further assume that verb inflection must obligatorily agree with the S-structure subject, we will deduce the impossibility for cases like (54a), as desired.

Returning now to our main discussion and to pursuing the similarities between  $R_i$  and  $R_d$ , we will consider the case in (55), relative to the point in (19e).

- (55a) Lui sperava di intervenire a risolvere il problema  
 He hoped to intervene to solve the problem
- (55b) Sperava di intervenire lui a risolvere il problema  
 (see (18a))

In 2.1.2 we took (55b) near synonymous with (55a), to suggest that with pronouns, differently than with non-pronominal NP's, the relation  $R_i$  appears to have an unbounded character. However we are now in a position to interpret the case in (55b) rather differently. In particular we will assume that, rather than an unbounded case of  $R_i$ , (55b) represents a "bounded" and straightforward case of  $R_d$  in which the embedded subject, i.e. PRO, is the antecedent to the ep lui, and in which the matrix subject has been cliticized, namely has been affected by spd. We are therefore no longer regarding (55b) as analogous to the ungrammatical "\*sperava di intervenire Giovanni a risolvere il problema" (i.e. (9b)), but rather

as analogous to the grammatical "Giovanni sperava di intervenire lui a risolvere il problema" (i.e. (41)), with the difference that spd has affected the underscored phrase. The analogy between (55a) and (55b) will from this standpoint be accidental. We will therefore discard the observation in (19e) as irrelevant to the characterization of  $R_i$ .<sup>12</sup>

We will thus assume that spd can freely co-occur with ep's, not only as in (55b), but in general and even in the same clause as in the following.

- (56a) Esce lui con Maria  
(He) goes out himself with Maria
- (56b) Ha telefonato lui  
(He) has phoned himself

However, we will assume that unlike the pronoun lui in (55b) which is unambiguously an ep as we have just discussed, the pronouns in (56) are ambiguously either ep's or i-subjects. The i-subject analysis, and the exact nature of the ambiguity, will be discussed below. Here, we consider the analysis in which lui in (56) is an ep related to a subject which has undergone spd (as implied by the glosses). For ease of exposition, through many of the following examples we will neglect to express cliticization of pro, and will simply represent the structure as existing prior to pro-cliticization. The analysis of the cases in (56) will therefore be as in (57).

- (57a)  $pro_i$  esce  $lui_i$  con Maria
- (57b)  $pro_i$  ha telefonato  $lui_i$

That the analysis in (57) is correct is confirmed by the fact that the cases in (56) can enter into relativization by resumptive pronoun, as in "Lo studente che non credo alla voce che e' uscito lui con Maria e' Giovanni/ The student that I do not believe the rumor that (he) has gone

out with Maria is Giovanni" and in "Lo studente che non credo alla voce che abbia telefonato lui a Maria e' Giovanni/ The student that I do not believe the rumor that (he) has phoned himself Maria is Giovanni". It will be recalled that participation in the resumptive pronoun strategy is an exclusive characteristic of spd (i.e. pro) and object clitics. Analogously, we can test the spd analysis of (55b) by noting the grammaticality of "Lo studente che non credo alla voce che sperava di intervenire lui a risolvere il problema e' Giovanni/ The student that I do not believe the rumor that (he) thought to intervene himself to solve the problem is Giovanni".

#### 2.2.4 Case Marking

As is implied by the fact that ep's have a phonological matrix, we will assume that they must be assigned Case. We will further assume that ep's receive nominative Case, as can be determined from the morphology of first and second person singular pronouns in (59), analogous to (56) (like those in (56), these cases will be ambiguous; this will not affect our point. Cf. below).

- (58a) Esco       $\left\{ \begin{array}{l} \text{io} \\ \text{*me} \end{array} \right\}$     con Maria ;    Esci       $\left\{ \begin{array}{l} \text{tu} \\ \text{*te} \end{array} \right\}$     con Maria  
                  (I am going out myself       /    You are going out yourself  
                  with Maria)
- (58b) Ho telefonato       $\left\{ \begin{array}{l} \text{io} \\ \text{*me} \end{array} \right\}$     ;    Hai telefonato       $\left\{ \begin{array}{l} \text{tu} \\ \text{*te} \end{array} \right\}$   
                  (I have phoned myself       /    You have phoned yourself)

We will assume that nominative Case accounts for the fact that ep's fail to have clitic counterparts as in (59b) contrasting with (59a).

- (59a) Giovanni e' intervenuto lui a risolvere il problema  
                  Giovanni has intervened himself to solve the problem
- (59b) \*Giovanni lo e' intervenuto a risolvere il problema  
                  (see (59a))

As was discussed in 1.3.2, we assume in fact that clitics like lo, etc. necessarily reflect accusative Case, and that the only nominative clitics are SI as discussed in 1.3 and pro, as discussed in this chapter. Since ep's occur post-verbally, we will assume that they cannot undergo nominative cliticization, i.e. spd, although our claim here will not be testable (i.e. the form "Giovanni arriva" corresponding to "Giovanni arriva lui" exists independently; but see fn. 11). On our view that ep's never receive accusative even though in some cases they occur in accusative marking position, as for example in (28b) repeated here below, we will assume that Case assignment is never intrinsically obligatory (but only obligatory extrinsically, as required by the Case filter in (6) of 0.2 above).

- (60) Gli oppositori si manderanno loro a prendere atto  
 The opponents SI will send themselves to take note  
 della situazione  
 of the situation

In (60), accusative assignment will thus freely fail, and nominative will be assigned, in the manner we are about to discuss. We will assume that it is part of the definition of ep's that they must be assigned nominative (cf. (66) below). We furthermore assume for both ergative verbs and passive morphologies as in (61) respectively, that they generally fail to assign accusative Case, as will be discussed in 2.6 below. Therefore, the possibility for accusative assignment to the ep, will not even arise in these cases.

- (61a) Giovanni e' intervenuto lui a risolvere il problema  
 Giovanni has intervened himself to solve the problem
- (61b) Giovanni fu mandato lui a risolvere il problema  
 Giovanni was sent himself to solve the problem

We now address the question of how nominative Case is assigned to

ep's. Relevant to this issue will be the contrast in (62).

- (62a) [<sub>i</sub> Giovanni] pareva [<sub>S<sub>t</sub></sub><sub>i</sub> leggere molto]  
Giovanni seemed to read a lot

- (62b) \*[<sub>i</sub> Giovanni] pareva [<sub>S</sub><sub>i</sub> leggere molto]  
Giovanni seemed himself to read a lot

We must note here that the case in (62b) is exactly parallel to the case "\*pareva Giovanni leggere molto" discussed above and relevant to the last point in (19). We then conclude that all of the points in (19) relative to i-subjects have counterparts relative to ep's. On the ungrammaticality of (62b) we note that since we assume that ep's can be freely inserted in trace position, as was discussed above, there could be no structural considerations preventing the occurrence of the ep here. We further note that, while we assume that ep's are anaphors and thus subject to the constraints of the Binding theory, no violation of binding constraints could be involved in (62b) since subjects of infinitives are generally accessible to anaphoric relations, a case in point being the trace in (62a). By elimination, it would thus seem reasonable to infer that the ungrammaticality of (62b) must be accounted for in terms of Case theory.

Let us assume that the notion "government", which appears to enter into Case assignment rather generally, is involved here as well. Assuming that VP boundaries do not block government, as will be supported by further discussion, especially in chapter 5, we note that the only element which systematically governs ep's is the subject. In fact while ep's are governed (at least) by both the verb and the subject when they occur in direct object position, when they occur adjoined to VP, they will only be governed by the subject (i.e. for example the verb will not

C-command a position adjoined to VP; cf. discussion of Ne-Cl in 1.5).

If the subject is responsible for Case assignment to ep's, we note that it will not be possible to suggest that ep's "inherit" nominative Case from their subject-antecedent. This view would in fact be falsified by some of the cases we reviewed, in which the ep had no nominative, or even Case-marked, antecedent, but was rather related to the Case-less element PRO (cf. (41), (42), (43) above). We will then suggest that ep's are assigned nominative Case when governed by a subject, and regardless of the Case status of the latter. We then consider our notion of "government" as given in 0.2 above, and as repeated here below.

- (63) Government: A is governed by B if A is C-commanded by B and no major category boundary intervenes between A and B.

We will now attribute the ungrammaticality of (62b) to the fact that, due to the presence of the clause boundary, the ep will not be governed by the subject, and will hence fail to receive nominative Case. We now address an apparent problem.

With the Government-Binding theory (Chomsky (forthcoming)), we will assume that all traces must be governed. This condition, which we refer to as the "Empty Category Principle" (ECP), will be additional to those expressed under our brief characterization of the Binding theory in 0.2 above. We assume that the ECP must hold of L.F. representations. (62) is now seemingly paradoxical, since it must be the case that the trace in (62a) is governed, while the ep in (62b) is not. On this we will assume that two different notions of "government" are involved. We will refer to one notion as "trace-government", to the other as "Case-government". We can then follow the Government-Binding theory in

assuming that infinitival complements of Raising verbs, differently than complements of Control verbs, have weaker boundaries. Specifically, we may assume that Raising verbs trigger a process of  $\bar{S}$ -deletion. We then assume that there is a form of government which obtains across such weaker boundaries, and which fulfills the general condition on traces (ECP) which we discussed. This will be our "trace-government". Trace-government will then be defined as in (63), where only  $\bar{S}$  and not S will count as a "major category boundary". (62a) is therefore well-formed. In addition however, we will assume that there is also a more restrictive notion, namely "Case-government" pertaining not only to nominative Case-assignment to ep's but to Case-assignment in Italian quite generally. Some independent evidence for the existence of this more restrictive notion will be represented by the general lack of Case assignment across clause boundaries in Italian, as will be briefly discussed in 5.6 below. The latter notion will be defined also as in (63), but we will assume that in this case, S (even without  $\bar{S}$ ) counts as a "major category boundary" in (63). (62b) will thus be ill-formed. Since we assume that the notion of Case-government which we just characterized, does not extend to Case assignment, for example, in English, we may refer to it as "Case-government for Italian", neglecting the qualification "for Italian" when discussing Italian.

For Case assignment across clause boundaries in English (Exceptional Case Marking) as in (64) we may assume that the notion of government that enters into Case assignment in English, which we may refer to as "Case-government for English", is a less restrictive notion than "Case-government for Italian".

(64) I expect [<sub>S</sub>John to read a lot]

In particular we will assume that "Case-government for English" is identical to trace-government. With the Government-Binding theory we will assume that Exceptional Case Marking verbs trigger  $\bar{S}$  deletion, just like Raising verbs, whence the well-formedness of (64). Further relevant discussion will appear in 5.6 below.

We must point out with respect to the discussion of (62b) and our view that Case cannot be assigned in general across clause boundaries (in Italian), that the latter view will not give rise to a paradox with respect to some of our earlier discussion and the case in (65) in particular.

- (65)  $[_i e]$  sembrava [ $S_i$  mangiarsi molto bene]  
 (It) seemed SI to eat very well

In 1.3.1 (cf. (21), ch. 1) we assumed that Case requirements for SI in (65) were fulfilled by the fact that the matrix subject " $[_i e]$ " to which SI is related, is in a Case marking position. We thus assumed that SI could receive Case "at a distance", a distance which in this case involves the crossing of a clause boundary. We note here that although matters remain not entirely clear from the formal point of view (as noted in fn. 9, ch. 1), there is no conceptual problem here in appropriately distinguishing the case in (65) from the one in (62b). In fact, in 1.3.1, we have regarded the NP " $[_i e]$ " in (65) as "having" in the sense of "being associated with" a phonological matrix, namely SI. There will now be no sense in which "Giovanni" in (62b) analogously "has" the phonological matrix "lui".<sup>13</sup>

We will take our discussion so far to have exhaustively characterized the syntax of ep's. The latter will be represented by the three 'modules' in (66).

- (66a) Insert freely under an NP node. (Assuming naturally that insertion is only possible into phonologically null NP's, and that the only possibility to add structure is represented by adjunction to VP, the range of possibilities for such insertion will consist exactly of traces and VP-joined NP's).<sup>14</sup>
- (66b) Assign Nominative, when governed by a subject (Case-government for Italian).
- (66c) Assign an antecedent under the binding theory.

We may note that the requirement in (66b) will essentially subsume the one in (66c). In fact given our restrictive notion of Case-government for Italian, an ep will automatically have a proper subject-antecedent, whenever it is assigned nominative. We will continue to assume however, that the binding requirement also holds (cf. also below). We may assume that the requirement that the ep agree (in person, gender and number) with the antecedent is in fact part of the binding requirement (cf. John likes himself/\*herself). We now return to the relation  $R_i$ .

### 2.3.1 The Syntax of Inversion

The many similarities noted will suggest that i-subjects and ep's fall under analogous constraints. We will begin by assuming that i-subjects fall under the same Case-assignment provision as ep's, namely (66b) (assign nominative when Case governed by a subject). The conclusion that i-subjects are in fact nominative will follow from our assumption that the cases in (56) (i.e. "esco io..." etc.), where a nominative pronoun is the only possibility, have not only an ep analysis, but also an i-subject analysis (i.e. the assumption that the type "esce lui..."

is not only analogous to "Giovanni esce lui ...", but also to "esce Giovanni..."). The view that i-subjects are nominative is further confirmed by the fact noted in 1.3.2, that they fail to cliticize even when they are in direct object position, as in (67), (68), each analogous to the ep case in (59).

- (67a) E' intervenuto Giovanni a risolvere il problema  
Has intervened Giovanni to solve the problem

- (67b) \*Lo e' intervenuto a risolvere il problema  
Him has intervened to solve the problem

- (68a) Fu mandato Giovanni a risolvere il problema  
Was sent Giovanni to solve the problem

- (68b) \*Lo fu mandato a risolvere il problema  
Him was sent to solve the problem

We will further assume that, like ep's, i-subjects are also "bound" by an element in subject position. In particular, we will assume the existence of the strategy in (69).

- (69) Subject Inversion: Insert a designated element in subject position, to bind a nominative NP.

We will henceforth use the term "(subject) inversion" to refer to application of the strategy in (69), whether or not the post verbal nominative phrase has been affected by movement.

We assume the strategy in (69) to be universal, and the "designated element" to be for example there in English, and il in French, as will be discussed in chapter 3. For Italian we will assume that the designated element in (69) is an unstressed (clitic) pronominal. Given the general non-existence in Italian of non-nominative Case marked subjects (i.e. the lack of Exceptional Case Marking; cf. 5.6), the latter element will systematically be a nominative clitic, namely pro.<sup>15 16 17</sup> On the possibility that the other nominative clitic, namely SI could function

as a designated element in (69), we note that such a possibility is perhaps instantiated in some dialects (cf. Tuscan "Si sarebbe intervenuti Giovanni ed io/ SI (we) would have intervened Giovanni and I". See also some of the discussion in 2.4.2 below). For the dialects in which SI seems excluded, we will require that the designated element be not only a pronoun, but a personal pronoun, i.e. one which bears person-features, thus excluding the impersonal SI (cf. discussion of the latter in 1.6). We assume that (69) applies with respect to empty subjects, whether empty as a result of base-generation or as a result of movement.

We now note that "a nominative NP" in (69) is systematically a phrase that "could have been" a subject, in some sense. Given the system of nominative assignment that we are postulating, namely "Assign nominative when Case-governed by the subject", and assuming that no other provision exists to assign nominative, it will have to be the case that if a NP is nominative, either (70a) or (70b) is true.

(70a) NP is Case-governed by the verb

(70b) NP is adjoined to VP

In fact, we assume that, given any  $NP_2$  within VP (VP minimal), as in " $NP_1 [VP^V \dots NP_2 \dots]$ ", it will be (Case) governed by the subject  $NP_1$  if and only if it is also (Case) governed by the verb V, depending on whether or not the underscored portion contains a major boundary (we assume that VP boundaries do not block government). We then assume that VP-adjunction is the only possibility for an NP governed by the subject to occur outside VP minimal. The strategy in (69), will apply to the general configuration in (71) (essentially by definition, since it is defined as applying to cases in which the subject position is empty, and in which there is a nominative NP in post verbal position).

- (71) [NP<sup>e</sup>] V ... NP<sub>nominative</sub> ...

The set of configurations characterized by (71) will now consist of two subsets, depending on whether the nominative NP is defined as in (70a) or as in (70b). Let us consider the first subject, namely the one relative to (70a). We note that for every form within this subset "[NP<sup>e</sup>] V' ... NP'<sub>nominative</sub>...", where NP' is the nominative NP, there will exist a corresponding form "NP'<sub>i</sub> V' ... t<sub>i</sub> ...". In fact given the empty subject, and given that Case-government (of NP') implies trace-government (i.e. Case government is the more restrictive notion), NP' could have moved into subject position. Thus for every case in which (69) applies with respect to a nominative in (70a), there will be a (near synonymous) movement counterpart. This gives rise to a rather general overlap in distribution between movement and inversion. Consider for example the passive case in (72) (ergative cases will be quite analogous).

- (72a) pro<sub>i</sub> fu mandato [i Giovanni] [S<sub>PRO</sub> a risolvere il problema]

- (72b) [i Giovanni] fu mandato t<sub>i</sub> [S<sub>PRO</sub> a risolvere il problema]

(both: Giovanni was sent to solve the problem)

On the predicted overlap in distribution between movement and inversion, we will, in particular, note the following.

- (73a) \*pro<sub>i</sub> furono parlate [PP<sup>a</sup> [i le ragazze]]

- (73b) \*[i Le ragazze] furono parlate [PP<sup>a</sup> [t<sub>i</sub>]]

(both: The girls were talked to)

We assume that the ungrammaticality of (73b) contrasting with (72b) is due to the fact that the trace t<sub>i</sub> will fail to be (trace) governed, given the presence of the PP boundary. This view will account for the general failure of preposition stranding in Italian (on English see some of the discussion in 3.6 below). The ungrammaticality of (73a)

contrasting with (72a) will now follow in parallel fashion. We in fact assume that (Case) government of "le ragazze" by the subject will also fail due to the PP boundary. Nominative Case assignment will thus fail to obtain, thus preventing the inversion strategy of (69) from applying (we are assuming that Case assignment by the preposition -and Case assignment in general- can freely fail).<sup>18</sup> Since our notion of Case-government implies trace-government, but not the converse, we predict that every case of application of (69) with respect to a nominative in (70a) will have a movement counterpart, though not the converse. We will thus correctly allow for the lack of overlap between movement and inversion in (74), where (74b) is analogous to the case in (62b) relative to ep's.

(74a) [<sub>i</sub> Giovanni] pareva [<sub>S<sup>t</sup></sub><sub>i</sub> leggere molto]

(74b) \*pro<sub>i</sub> pareva [<sub>S</sub> Giovanni leggere molto]

(both: Giovanni seemed to read a lot)

As discussed for the case in (62), we assume that trace-government but not Case government obtains across the S boundary in (74). (74a) will thus be well formed, while in (74b) nominative assignment will fail, thus giving rise to ungrammaticality by lack of Case on "Giovanni".

Let us now consider the second subset of cases in (71), the one relative to (70b), namely the one composed of cases in which the nominative NP is adjoined to VP. Given the empty subject position, and the fact that the VP-adjoined NP could not be base-generated in that position (thematic well-formedness: the latter position is not an "argument" position), all such cases must be derived by rightward NP-movement.<sup>19</sup> Therefore for every form of the type "pro<sub>i</sub> V'...NP'<sub>i</sub>..." derived via (69) and in which NP' is adjoined to VP, such as (75a),

there will be a near-synonymous form of the type "NP' V'..." such as (75b).

(75a)  $\text{pro}_i [VP [VP^{\text{ha telefonato}}] [i \text{Giovanni}]]$

(75b) Giovanni [VP<sup>ha telefonato</sup>]

(both: Giovanni has phoned)

This means that the notion "nominative NP in (69)" will be essentially coextensive with the pretheoretical notion of i-subject given in 1.0 above. In fact, a nominative NP in (69) whether of the type in (70a) or of that in (70b) will be "the NP' in a form "...V'...NP'..." such that there is a near-synonymous form "NP' V'..." (cf. definition of i-subject in 1.0, and fn. 1, ch. 1). We can thus redefine i-subject, now in theoretical terms, as "the NP bound by a designated element in subject position". However, we will still make use of the pre-theoretical notion in some of our discussion.

We will now see how our account can accommodate all of the observations we made so far. Since the designated element in Italian "pro" is inflected, i.e. has person, gender and number features, like pronominals in general, we will naturally assume that the latter will agree in features with the post verbal nominative it binds, namely we will assume that there is feature agreement associated with the binding relation, as with the case of ep's or with other cases of anaphora. This will straightforwardly account for the "apparent" agreement of the verb with i-subject. We will assume in fact that the verb simply agrees with pro. Thus no special provision will be required for verb agreement in these cases. For the case of uninflected designated elements, such as English there of French il, we will assume that the binding relation established by the provision in (69), gives rise to the possibility

for the i-subject to "transmit" agreement features (at least number) to the element in subject position: even though the latter element is invariant, a possibility which we will assume is instantiated in accordance with language (and dialect) specific idiosyncrasies. Cf. the less than systematic agreement facts with English there-constructions, and the complete lack of verb agreement with the French *il*-construction. Relevant discussion will be presented in chapter 3.

Let us now consider the paradigm in (76), and the "clustering" of properties of i-subjects, discussed in chapter 1.

(76a) [NP<sub>e</sub>] si guarda le manifestazioni sportive con interesse

(76b) [<sub>i</sub>Le manifestazioni sportive] si guardano t<sub>i</sub> con interesse

(76c) pro<sub>i</sub> si guardano [<sub>i</sub>le manifestazioni sportive] con interesse

(all: SI (we) watches sporting events with interest)

In (76a) the subject position is bound by SI. The verb will therefore bear singular agreement, as always in this configuration, cf. some of 1.6. The phrase "le manifestazioni sportive" is assigned accusative by the verb, whence the possibility for cliticization as in "le si guarda...". In (76b), the phrase "le manifestazioni sportive" is in subject position. It will then trigger (plural) verb agreement, and it will be subject to undergoing nominative cliticization (i.e. *spd*), as in "pro<sub>i</sub> si guardano t<sub>i</sub> con interesse". In (76c), if pro is to be inserted in subject position, the phrase "le manifestazioni sportive" must be assigned nominative (cf. the formulation of (69)): we assume that accusative assignment by the verb can freely fail (and in general that Case-assignment is not intrinsically obligatory). Thus nominative will be assigned under our provision (i.e. under government by the subject), and pro will be inserted, inducing plural verb agreement.

Our system therefore predicts that there will be no plural verb agreement (i.e. no pro) unless "le manifestazioni sportive" failed to cliticize (i.e. unless it was nominative). It therefore predicts the ungrammaticality of "\*le si guardano (pl) con interesse". In order to ensure that no nominative Case is assigned unless pro is inserted, : a condition which is required rather generally, given for example "Giovanni ha invitato \*io (me)/ Giovanni invited I (me)", we will assume that a Case relation between a subject position and a post-verbal nominative, implies a binding relation (though not the converse, given (74)). Namely we will assume that if a NP is assigned Case by the subject, it must also be bound by it. Extended to the case of ep's this will mean that (66b) above (Case assignment) implies (66c) (Binding).

The syntax of i-subjects will thus be quite similar to that of ep's. We note in particular that the analyses of ep cases and of i-subject cases will in fact converge for the type in (77).<sup>20</sup>

(77a) pro<sub>i</sub> esce lui<sub>i</sub> con Maria  
goes out he<sub>s</sub> with Maria

(77b) pro<sub>i</sub> ha telefonato lui<sub>i</sub>  
has phoned he<sub>s</sub>

The analysis in (77) where we regard the pronoun lui as an i-subject, (cf. glosses), is in fact identical to the analysis in (57) where lui was regarded as an ep. The structures relative to ep and to i-subject respectively, will thus only differ in their manner of derivation, not in their S-structure representation. The ep derivation for, for example, (77a)-(57a) being "pro<sub>i</sub> esce t<sub>i</sub>... → pro<sub>i</sub> esce lui<sub>i</sub>..." (uscire: an ergative verb), while the i-subject derivation is "[<sub>NP</sub>e] esce lui... → pro<sub>i</sub> esce lui<sub>i</sub>...". We note that the fact that the two S-structures coalesce here will not create any problem for the view that

semantic interpretation is derived from S-structure exclusively. In fact, as far as I can see, there is no sense in which cases like (77) seem "ambiguous" to speakers. We may assume that what is essential for semantic interpretation is the notion that pro and lui in each of (77), represent a single "argument": a notion intrinsic in either derivation.

In our discussion, the essential difference between ep's and i-subjects will be that the latter require a Case-marked antecedent, namely pro, while the former can have antecedents which are not Case-marked, such as PRO. Our view thus correctly predicts that ep's but not i-subject should freely occur in infinitivals, whence the contrasts here below.

- (78a) E' importante [S<sup>PRO</sup><sub>i</sub> partecipare allo sciopero noi<sub>i</sub>]  
It is important to participate in the strike ourselves

- (78b) \* ... [S<sup>pro</sup><sub>i</sub> partecipare allo sciopero [<sub>i</sub>gli operai]]  
... to participate in the strike the workers<sub>s</sub>

- (79a) Si potrebbe mandare i ragazzi al mare  
SI (we) could send the kids to the sea  
senza [S<sup>PRO</sup><sub>i</sub> andarci noi<sub>i</sub>]  
without going there ourselves

- (79b) \* ... senza [S<sup>pro</sup><sub>i</sub> andarci [<sub>i</sub>tua madre]]  
without going there your mother<sub>s</sub>

- (80a) Giovanni sperava [S<sup>di PRO</sup><sub>i</sub> intervenire lui<sub>i</sub>]  
Giovanni hoped to intervene himself  
a risolvere il problema]  
to solve the problem

- (80b) \* ... sperava [S<sup>di pro</sup><sub>i</sub> intervenire [<sub>i</sub>Giovanni]]  
hoped to intervene Giovanni<sub>s</sub>  
a risolvere il problema]  
to solve the problem

The ungrammatical cases above will be ruled out by the fact that pro (or any pronominal satisfying (69) for Italian), will fail to be assigned Case. We will assume that the case in (80b) will continue to be ruled out under the alternative analysis in (81), this time because the relation between pro and the phrase "Giovanni" is blocked by Opacity.

- (81) \*pro<sub>i</sub> sperava [<sub>S</sub> di PRO intervenire [<sub>i</sub> Giovanni]  
a risolvere il problema]  
(see (80b))

We then expect that when Opacity does not generally rule out relations between the matrix subject and embedded objects, as in the cases of restructuring discussed above, a link between pro and "Giovanni" as in (81) ought to become possible, as in fact in (82).

- (82) pro<sub>i</sub> [cp voleva intervenire [<sub>i</sub> Giovanni]  
wanted to intervene Giovanni<sub>s</sub>  
a risolvere il problema]  
to solve the problem  
cp: a complex predicate (see ch. 6 for details)

The case in (82) will have the derivation we discussed above (cf. (12) above), with the addition of pro-insertion in subject position.

We now consider the contrast between (81) and the parallel Raising case in (83) (analogous to (16b) above).

- (83) pro<sub>i</sub> pareva sempre [<sub>S</sub> <sub>t</sub><sub>i</sub> intervenire [<sub>i</sub> Giovanni]  
seemed always to intervene Giovanni  
a risolvere il problema]  
to solve the problem

On this contrast we will assume that a trace of pro is not distinct from pro with respect to the binding condition required by (69), whereas PRO is. The phrase "Giovanni" is thus properly bound by a designated element in (83), namely by the trace of pro, but not in (81). We will

regard this non distinctness between traces and their antecedents with respect to the rules of the L.F. as being rather general, and will return on the question in chapter 4. The case in (83) will thus differ from those in (78b), (79b), (80b), since in the former pro is moved into a position in which it can be assigned Case.

As the reader can easily verify, this discussion has accounted for all of the observations in (19), and for the peculiarities so far noted.

### 2.3.2 Focus

Beside being similar in the respects we noted, "doubling" and inversion appear to share one other property, which will be worth noting even though it does not relate directly to the rest of the discussion. When the subject plays a contrastive role, as in some of the cases of ellipsis discussed in 1.7.1 above, either doubling or inversion will be required, as in (84).

- (84a) Mario non e' riuscito a riparare la macchina, ma adesso  
Mario did not succeed to repair the car, but now

\*Giovanni prova  
Giovanni is trying

prova Giovanni  
Is trying Giovannis

Giovanni prova lui  
Giovanni is trying himself

- (84b) Mario non e' andato a prendersi il giornale, ma adesso  
Mario did not go to get the newspaper, but now

\*Piero va  
Piero is going

va Piero  
Is going Pieros

Piero va lui  
Piero is going himself

The facts in (84) would seem amenable to the following account. We assume that contrastive role, as played by the 'subject' in (84) falls under the notion of focus of Chomsky (1977), where focussed constituents are moved by a L.F. rule. We assume furthermore the truth of the results in Rizzi (1979), where it is argued that a prohibition holding for Wh-movement and for L.F. operations exists universally, preventing extraction from subject position as, for example in (85).

(85a) \*Who do you think that will come?

(85b) \*Qui crois-tu que viendra?  
(Gloss as (85a))

The prohibition in (85) has been variously discussed in the literature as that-trace filter (Chomsky and Lasnik (1977)); NIC (Taraldsen (1978), Kayne (1979a), see also Pesetsky (1978)); ECP (Chomsky (forthcoming)). In Rizzi's view, in order to circumvent the prohibition, Italian would systematically resort to inversion prior to Wh-movement. In our terms, this would mean that cases like (86a) are systematically derived by applying Wh-movement to forms like (86b).

(86a) Chi credi che verra'?  
Who do you think that will come?

(86b) ... che pro<sub>i</sub> verra' [i chi]

Some facts bearing on the correctness of this view will be presented in 3.1 below.

From the two assumptions above it would follow that focus could not apply to a pre-verbal NP. We may then naturally assume that focus will either require inversion so as to apply to the i-subject (as with Wh-movement) or doubling, so as to apply to the subject's double.<sup>21</sup>

## 2.4 Non Distinctness

### 2.4.0 Introduction

In the course of our discussion so far, we have presented some evidence indicating that whatever relates Italian sentences with *i*-subjects (assume in the pretheoretical sense of "i-subject") to their counterparts with pre-verbal subjects, is not a "stylistic" process. We have seen in fact that such pairs of sentences differ in some significant syntactic respects, one being Ne-Cl, as discussed in chapter 1. If the results in Rizzi (1979) briefly referred to in 2.3.2 above are correct, such pairs will correspondingly have different L.F. representations. There are however, many syntactic respects in which such pairs appear non distinct, and which would suggest, if taken in isolation, that the relation in question is indeed stylistic. In this section we will see how this non-distinctness will be accommodated within our theory.

We noted above that verb agreement is one of the aspects on which inversion seems to have no effect (in Italian). We pointed out that no special provision was needed given our proposal (i.e. the verb will simply agree with pro). This is a welcome result since, aside from the view that inversion is 'stylistic', an alternative claiming that the verb can agree directly with a post verbal NP would face at least two serious difficulties: (i) The agreement rule would somehow have to discern the subject among several possible post verbal NPs; (ii) in Raising contexts, the rule would -rather suspiciously- have to span an unbounded distance, essentially recapitulating the "movement" history, as in the schema in (87) where  $V_1$ ,  $V_2$ ,  $V_n$  are Raising verbs, and  $NP_i$  is the *i*-subject.

(87) · pro<sub>i</sub> V<sub>1</sub>[S<sup>t</sup><sub>i</sub> V<sub>2</sub> ... [S<sup>t</sup><sub>i</sub> V<sub>n</sub> NP<sub>i</sub>] ...]

#### 2.4.1 Reflexive Agreement

Reflexive clitics bear the same agreement whether inversion has applied or not, as in (88).<sup>22</sup>

(88a) Io e Giovanni ci siamo iscritti  
I and Giovanni ourselves enrolled

(88b) Ci siamo iscritti io e Giovanni  
Ourselves enrolled I and Giovannis

Our theory will make it possible to assume that reflexives uniformly agree with the NP in pre-verbal position, since pro and the i-subject have the same features.<sup>23</sup>

Consider now reflexives in the SI-construction:

(89) Ci si compra molte cose inutili a Natale  
To ourselves SI buys many useless things for Christmas  
(We buy ourselves...)

In (89), where we assume a phonological rule changing si si into ci si, one of the si's is impersonal, the other reflexive (i.e. a dative benefactive). We naturally assume (given the meaning) the latter to be coreferential with, and to agree with, the former. We now note how O.P. will interfere:

(90) \*Molte cose inutili ci si comprano a Natale  
Many useless things to ourselves SI buy for Christmas

We can account for (90) by suggesting that the reflexive clitic in (89) agrees with the "trace" of SI in subject position and that it will no longer be able to agree when alien lexical material is present in the same position.<sup>24</sup> We note that the view that reflexives can agree with a trace will be independently plausible given, for example, the Raising case in (91).

- (91) [Io e Giovanni] dovremmo [<sub>i</sub> <sup>s</sup> <sub>i</sub> iscriverci]  
       I and Giovanni should enroll ourselves

We now notice that the i-subject counterpart to (90), is equally ungrammatical, as in (92). (Notice the superficially minimal contrast with (89)).

- (92) \*Ci si comprano molte cose inutili a Natale  
       To ourselves SI buy many useless things for Christmas

(92) will be evidence for the presence of "alien lexical material", namely pro in subject position.

Other aspects of the SI-construction will provide further evidence for the existence of pro.

#### 2.4.2 SI-construction

Impersonal SI can function (subject to some dialectal variation) as a resumptive pronoun with respect to a first person plural NP in the type of relativization discussed in 2.2.3 above.

- (93) Proprio noi, che tutti ammettevano la possilita'  
       Exactly us, that everybody admitted the possibility  
             che si sarebbe vinto le Olimpiadi senza difficolta',  
             that SI would win the Olympics without difficulty  
             non abbiamo potuto partecipare  
             could not participate     (...that we would win the...)

However O.P. appears to interfere, as in (94).

- (94) ?\*Proprio noi, che tutti ammettevano la possilita'  
       Exactly us, that everybody admitted the possibility  
             che le Olimpiadi si sarebbero vinte senza difficolta'...  
             that the Olympics SI would win without difficulty...

The results in (94) would follow from the reasonable assumption that it is not SI itself that acts as a resumptive element, but the NP position that SI binds. The presence of alien lexical material in such a position would then interfere, in a manner similar to the one discussed

for the reflexive case in 2.4.1. We now note the analogous (though slightly weaker) results in the i-subject counterpart (95).

- (95) ??Proprio noi, che tutti ammettevano la possibilita'  
 Exactly us, that everybody admitted the possibility  
 che si sarebbero vinte le Olimpiadi senza difficolta'...  
 that SI would win the Olympics without difficulty...

The contrast between (95) and (93) will again be evidence for the existence of material in subject position, and of pro.

Consider now the following case of subject Control:

- (96a) Si informo' gli operai di voler chiudere la fabbrica  
 SI informed the workers to want to close down the plant  
 (We informed the workers that we wanted to close down the plant)
- (96b) ?\*Si informo' gli operai di aver superato l'esame  
 SI informed the workers to have passed the exam  
 (We informed the workers that they had passed the exam)

Given the meaning, we will assume that SI is the controller in (96a).

Once again, O.P. will interfere:<sup>25</sup>

- (97) ??Gli operai si informarono di voler chiudere la fabbrica  
 The workers SI informed to want to close down the plant

We may then assume that Control in (96a) is done, not by SI directly, but by via the subject position. (However, see 6.4.1 below for further discussion). The presence of alien material in such a position, namely pro would then account for the results in (97). We now note that the i-subject counterpart to (97) here below produces analogous (though somewhat weaker) results. Cf. the contrast with (96a).

- (98) ?Si informarono gli operai di voler chiudere la fabbrica  
 SI informed the workers to want to close down the plant

This will be again evidence for the existence of pro. We also note that intermediate results are obtained for a reading in which the derived subject, rather than SI is the controller, as in (99) (contrasting with (96b)).

(99)(?) Gli operai si informarono di aver superato l'esame  
 The workers SI informed to have passed the exam

(Reflexive reading ignored: We informed the workers  
 that they had passed the exam)

The i-subject counterpart to (99) will yield analogous results (though somewhat more marginal, but nevertheless in contrast with (96b)).

(100) ??Si informarono gli operai di aver superato l'esame  
 Si informed the workers to have passed the exam  
 (We informed the workers that they had passed the exam)

We will thus assume that pro can marginally become the controller in (100), just as the phrase "gli operai" does in (99).

#### 2.4.3 Auxiliary Selection

In this subsection we will discuss the interaction between the theory of inversion of 2.3 and the system of E-assignment/ pp-agreement of 1.6, repeated here below.

(101a) Essere assignment: The auxiliary will be realized as Essere when a binding relation exists between the subject and a nominal constituent of the predicate.

(Where: an element is a constituent of the predicate if and only if it is either part of the verb morphology or it is governed by the verb)

(101b) Past Participle agreement: A past participle will agree (in gender and number) with an element binding its direct object.

(Where: a direct object is the NP governed by the verb)

On the notion of government entering into (101), we assume that the latter is intermediate between the two slightly different notions defined in 2.2.4 above. In particular we will assume that S boundaries block government in (101) only in some cases, depending on lexical idiosyncrasies. This matter will be discussed in 6.5 below. In the

cases discussed here, S boundaries will not play any role. We will see how our discussion accounts for the fact that sentences with i-subjects never differ with respect to either auxiliary selection for pp agreement, from their counterparts with pre-verbal subjects. Consider the typical cases in (102), (103).

- (102a) [<sub>i</sub>Maria] [<sub>VP</sub><sup>e</sup>' arrivata <sub>i</sub>t]  
           Maria    has arrived                                 (E; pp ag't)

- (102b) pro<sub>i</sub> [<sub>VP</sub><sup>e</sup>' arrivata [<sub>i</sub>Maria]]  
                   has arrived    Maria                                 (E; pp ag't)

- (103a) Maria [<sub>VP</sub><sup>ha</sup> telefonato]  
           Maria    has telephoned                                 (A; no pp ag't)

- (103b) pro<sub>i</sub> [<sub>VP</sub><sup>ha</sup> telefonato] Maria  
                   has telephoned Maria                                 (A; no pp ag't)

We assume that auxiliary E in (102a) is determined by the binding relation between the subject "Maria" and the trace in direct object position. The same relation will determine pp agreement. Given our analysis, an analogous relation will now obtain between the subject pro and the direct object "Maria" in (102b). Thus both E and pp agreement will follow in the latter case too. The auxiliary invariance between (102a) and (102b) will thus be evidence that a binding relation exists between a designated element and the i-subject. The invariance of pp agreement will furthermore provide evidence for our view that pro agrees in features with the i-subject. Notice that such invariance of pp agreement would provide evidence for the existence of pro -and unless inversion was regarded as "stylistic"- even under the view which we discarded in 1.6, that pp's agree with the subject when the auxiliary is E.

In (103a), no binding relation involves the subject. Thus E will not be assigned. Furthermore, no binding relation will involve the

direct object (no direct object exists in this case). Hence there will be no pp agreement. In (103b), the subject pro will bind the phrase "Maria". However the latter relation will fail to enter into the system in (101), since the phrase "Maria" is adjoined to VP, and hence not governed by the verb (thus neither a constituent of the predicate in (101a), nor a direct object in (101b)). Therefore neither E nor pp agreement will obtain.

We will also correctly expect that ep's should not alter the results of E-assignment and pp agreement, as in the following, corresponding to (102) and (103) respectively.

- (104a) Maria e' arrivata (lei)  
Maria has arrived (herself)
- (104b) Maria ha telefonato (lei)  
Maria has phoned (herself)

In fact the ep in (104a) will not alter the binding relation between "Maria" and the direct object as in (102a), whether the latter ep is adjoined to VP or inserted into trace position. In (104b), the ep is adjoined to VP. Thus the relation between "Maria" and "lei" just like the one between pro and "Maria" in (103b), will have no effect on the system in (101). We may note that all of the relations we just discussed are of the same type as NP-trace relations, namely they are relations between elements which do not have independent thematic roles (i.e. not two different arguments). Thus none of those relations will be excluded from the system in (101) a priori (recall from 1.6 how, for example, a relation between a NP and reflexive se-stesso, will not enter into (101)).

Further comment will be required with respect to the system in (101), by our assumption that the element pro is syntactically quite

parallel to the clitic element SI. In fact, while the latter triggers E assignment as we have discussed, and as in (105a), the former does not, as in (105b).

- (105a) [NP<sup>e</sup>] si-e' lavorato molto  
SI has (E) worked a lot

- (105b) [NP<sup>e</sup>] pro-ha lavorato molto  
(He) has worked a lot

For (105a), we assume that the relation between SI and its trace in subject position induces E. However, the analogous relation which we assume for pro in (105b) appears to perform differently. On this, although we have no formal account to offer, we may suggest that E assignment and verb-agreement are in some sense parallel systems: they both express relations between the subject and the predicate. We may then assume that if a relation enters into one of the systems, it will not also enter into the other. Since pro enters into verb agreement it will not also enter into E assignment. We then expect that SI, which enters into E assignment, should not also enter into verb agreement. This is correct, as was noted in 1.6 above.

#### 2.4.4 Conclusion

In this section we have reviewed several respects in which inverted/non-inverted pairs are non-distinct. It must be noted that, while this non-distinctness is accounted for by our analysis as we have argued, it would not follow from a theory that assigned radically different analyses to inverted and non-inverted structures. For example it would not follow from a theory that analyzed "arriva Giovanni" as "S → VP → V NP". Such a theory, conceivable for example as an extension to Italian of the proposal presented in Borer (1980) for Hebrew, would have to

duplicate the verb agreement and the reflexive agreement mechanisms, and face parallel complications concerning auxiliary assignment and pp agreement. The parallelism between doubling and inversion, which we assumed, would also not be expressed.

We will now review some alternative theories.

### 2.5.1 The NIC Alternative

The theory of inversion (for French and Italian) in Kayne (1980) differs from the one presented here in two major respects: All i-subjects are adjoined to VP, namely there are no i-subjects in direct object position (no ergative verbs). A different treatment is given to the relation we referred to as  $R_i$ . Since the two aspects are relatively independent of one another, we may attempt to review them separately. Roughly, they pertain to chapters 1 and 2 respectively. Let us consider the familiar alternation in (106).

- (106a) (Kayne's 68) \*Ne hanno telefonato molti  
Of them have phoned many<sub>s</sub>

- (106b) (Kayne's 67, 52) Ne sono arrivati molti  
Of them have arrived many<sub>s</sub>

In the proposal in question, the results in (94a) are accounted for as in the following quote:

- (107) (Kayne (1980, p. 89)) "We suggest that a solution to (68) should have the following form: There exists a constraint such as that proposed in May (1977a) prohibiting NPs which are to serve as "names" ("names" are to include indefinite "specifics") from containing a "free variable". The subject of a verb like telefonare, when postposed, must be a "name".<sup>26</sup> But in (68), that subject is (<sub>NP</sub> molti (e)), where e is the trace of ne and e is not bound within NP. Therefore, it cannot be a "name". Whence the ungrammaticality of (68)."

(106b) will be allowed thanks to the following provision:

- (108) (Kayne's fn. 28) "(67) shows that it would be incorrect to require "name" status of every NP binding a (null) anaphor. ..."

Thus the bifurcation with respect to Ne-Cl discussed in chapter 1, is obtained by assuming that some verbs but not others will require "namehood" of their subjects. The stipulatory character of this provision is conceded in Kayne's discussion:

- (109) (Kayne's fn. 26) "... We are not, however, in a position to propose an analysis capable of accounting for the near-obligatory "name"-character of the subject NP of verbs like telefonare (when that NP becomes an "object" of the fare-V complex, in the sense of Rouveret and Vergnaud (1980), it need not be a "name": Ne ho fatti telefonare molti "(I) of-them have had telephone many (i.e. I have had many of them phone)'), nor to eliminate the near-primitive status of "name". ..."

However the problem is even more serious than the quote in (109) would indicate if our discussion in chapter 1 is correct. In fact, subject "namehood" would surprisingly have the absolute regularities in (110).

- (110) (Subject namehood)

- Always obtains for transitive verbs
- Always obtains for intransitive verbs that enter into transitive uses in the manner of eat, given "John eats/ John eats the soup". (See fn. 14, ch. 1).
- Never obtains for "intransitives" that enter into transitive uses in the manner of sink, given "The boat sank/ John sank the boat"
- Never obtains for passives for SI-constructions after O.P.

We further note that direct objects appear totally unconcerned about "namehood", whether or not they bind a "null anaphor" as specified in (108), since they always allow Ne-Cl, as in (111).

- (111) Giovanni ne persuase [<sub>i</sub><sup>molti</sup> \_\_] [<sub>S<sup>PRO</sup></sub><sub>i</sub> a telefonare]  
 Giovanni of them persuaded many to phone

Given the regularities just noted, the view that Ne-Cl from an i-subject reflects namehood: a primitive notion, unrelated to syntactic parameters, seems rather untenable. This approach would of course leave unexpressed the other aspects of the bifurcation, that we discussed in chapter 1, namely those differences in linear order discussed in 1.7. Furthermore the account of auxiliary assignment that we are attempting here would not be possible.<sup>26</sup> We now turn to the other aspect.

The theory in question is primarily aimed at accounting for the typological relation between absence of the "that-trace filter" effect (see 2.3.2 above) and "free" inversion. The latter two sets of facts, which coexist in Italian, are derived from the single provision in (112).

- (112) (Kayne (1979a), p. 85) "...in Italian, the NIC holds only for nominatives that are nonnull."

The merits of (112) with respect to the "that-trace filter" effect will not concern us here (on this see Rizzi (1979) discussed below, with respect to which Kayne's proposal was an illuminating but earlier attempt, though published later). Under this approach, inversion is regarded as rightward movement in all cases, giving rise to a relation between a VP-adjoined NP and a trace in subject position. Such a relation is claimed to be ill-formed due to the NIC (of Chomsky (1980); cf. 0.2 above). The case of languages like English and French that do not have "free" inversion (i.e. inversion featuring a null subject) will thus follow. But thanks to (112) above, inversion will be allowed in

Italian. Kayne assumes furthermore that the type of movement involved is analogous to Wh-movement. As a result of the latter assumption, we must note, all aspects for which inverted/ non inverted pairs are non distinct (see 2.4 above) would automatically be accounted for. In particular, it would follow that an inverted subject will be nominative, from the fact that one moved by Wh-movement is. It would follow that the verb will agree with an i-subject since it will agree with a subject displaced by Wh-movement. Analogously for reflexive agreement. Furthermore, no variation as to either auxiliary type or past participle agreement would presumably be expected from inversion since Wh-movement of the subject does not induce any. However, in the light of some of my previous discussion, the following deficiencies will be apparent.

If the inverted subject is simply related to the preverbal position in the manner described, there will be no (obvious) way to account for Raising/Control alternations as in (16) above, repeated here.

- (113a) \*Speravano di intervenirne molti (Control)  
Hoped to intervene of them manys

(113b) Parevano intervenirne molti (Raising)  
Seemed to intervene of them manys

Since (112) above grants inversion unconditional immunity, there will also be no way to separate the normal case of Control (113a) from the case of Control that has undergone restructuring, like (5a), repeated here.

- (114) Ne vorrebbero intervenire molti  
Of them would want to intervene many<sub>s</sub>

Furthermore, the following difficulties will arise even independent of my discussion.

The relation between an i-subject and its trace in Kayne's theory, would violate C-command (i.e. a NP adjoined to VP will not C-command

the subject position). If this relation is to be legitimized by (112), it must be the case that C-command is part of the NIC. This is not obviously a desirable result, since C-command is required (for all anaphora) independent of the NIC, and would be profitably factored out, were it not for this theory. Finally, immunity to the NIC falsely predicts Raising from tensed clauses, as in (115b), contrasting with (115a).

- (115a) [<sub>i</sub>I ragazzi] sembravano [S<sub>i</sub><sup>t</sup> amare la musica]  
           The kids seemed                 to like the music

- (115b) \*[<sub>i</sub>I ragazzi] sembravano [S<sup>che</sup> t<sub>i</sub> amassero la musica]  
           The kids seemed                 that liked music

#### 2.5.2 The ECP Alternative

The theory developed in this chapter, owes much to the already mentioned discussion in Rizzi (1979). In the latter discussion a proposal is presented essentially along the following lines: The inflectional element on the verb can (as an approximation: "optionally") take on a nominal character. As a result, such element will have either one of the following clusters of properties.

- |                                      |  |
|--------------------------------------|--|
| (116a) Plus nominal                  | (116b) Minus nominal                         |
| (i) It absorbs Case                  | (i) It assigns Case                          |
| (ii) It is a proper governor         | (ii) It is not a proper governor             |
| (iii) It allows a pronominal reading | (iii) It does not allow a pronominal reading |

---

The framework in (116), in conjunction with the theory of Government-Binding of Chomsky (forthcoming), and in particular with the Empty Category Principle (ECP), will predict sped and inversion possible for the "plus nominal" option in (116a). In particular (ii) in (116a) will

guarantee "government" (i.e. well formedness with respect to ECP) of an empty subject, thus allowing either spd or inversion. Languages with weak inflectional systems (e.g. English) will lack the "plus nominal" option and hence not allow either spd or "free" inversion. Rizzi's discussion is at present the latest of several notable attempts to typologically relate the two latter properties to immunity to the "that-trace filter" effect. It will therefore have goals analogous to those of Kayne (1980). As mentioned in 2.3.2, Rizzi's theory maintains the universal character of the prohibition on extraction from subject position (deriving the latter from ECP) and attributes the apparent immunity of Italian, to systematic availability of inversion prior to Wh-movement. Crucial to the latter view is therefore only that inversion exists as a syntactic option in Italian, and not so much how the latter works in detail. As it is, my review will concern rather peripheral aspects of the discussion in question.

One obvious similarity with the theory in 2.3.1 is the claim that inversion will involve the presence of two nominals: one in post verbal position; another (ultimately, in our theory) incorporated into the verb morphology (recall how pro will cliticize). Rizzi assumes that i-subjects are assigned nominative post verbally, independent of the subject position, i.e. that there is no "inheritance" of Case from subject position. This is also rather similar to our view. We will now consider the differences.

The theory in question assumes that inversion is derived by movement in all cases (the question of the bifurcation with respect to, for example, Ne-Cl is not raised). Since there is no insertion provision parallel to our (69) above, the subject position after inversion will

be occupied by a trace. It must then be assumed that proper binding of this trace by the i-subject is not required (though it would remain unclear why it should not be), since C-command would not obtain. We will then note that if no binding requirement is assumed to hold between the subject position and the i-subject, the generally "bounded" character of inversion would go unexpressed. In particular, if inversion always consists of adjunction to VP as there assumed, nothing obvious will prevent adjunction to the VP in the complement, thus presumably giving rise to "\*speravano di intervenirne molti", namely (5b) above.

Another difference will concern the way in which i-subjects are prevented from occurring in infinitivals generally, and in particular the account given to Raising-Control alternations such as the one in (117), given now in the analysis presumed under Rizzi's theory.

- (117a) \*Maria spera [<sub>S</sub><sup>t<sub>i</sub></sup> intervenire [<sub>i</sub> Giovanni]]  
 Maria hopes to intervene Giovanni

- (117b) Sembra [<sub>S</sub><sup>t<sub>i</sub></sup> intervenire [<sub>i</sub> Giovanni]]  
 Seems to intervene Giovanni

(117a) is ruled out by resorting to the assumption (of Chomsky (forthcoming); briefly discussed above) that Raising but not Control verbs can "govern" across clause boundaries. (117a) would thus be a violation of ECP (i.e. lack of government for t<sub>i</sub>). Therefore (117a) would be ruled out differently from its non-inverted counterpart, i.e. "\*Maria spera di Giovanni intervenire", which is excluded by lack of Case on the underscored phrase. This is perhaps a conceptual disadvantage with respect to our discussion, in which both variants are ruled out in the same fashion and by lack of Case: recall how our analysis of the complement in (117a) would be "pro intervenire Giovanni", where pro would fail

to receive Case. The ECP account of (117) would furthermore encounter a difficulty with respect to the Raising case in (117b). In fact, if nothing other than fulfillment of the ECP is required in (117b), we will expect that no "Raising" should be necessary. We note however, that when no Raising occurs, as in (118a), the verb appears with third person singular inflection, due -we may assume- to the presence in subject position of the Italian counterpart to it of "It seems..." as will be discussed in 2.6 below. However, as (118b), (118c) show, cases like (117b) work differently and exhibit apparent agreement with the i-subject.

- (118a) Sembra che gli studenti interverranno  
(It) seems that the students will intervene
- (118b) \*Sembra intervenire gli studenti  
(It) seems to intervene the students
- (118c) Sembrano intervenire gli studenti  
Seem to intervene the students

The correct predictions ensue from our theory however, since we assume the result of inversion in (117b) to be not a trace, but pro in embedded subject position. Case requirements would then obligatorily induce Raising of the latter, whence the correct verb agreement.

This concludes the discussion of the advantages that the theory proposed would have over some noteworthy alternatives.

## 2.6 Minus Accusative

In the following discussion we will note that ergative verbs systematically fail to assign accusative Case. We will further note that the same appears true of all other cases which, like ergative verbs, do not assign a thematic role to the subject. This will lead us to suggest that there is a universal correlation between those two

properties. As was implicitly assumed so far, we will assume here that passive morphologies, namely forms of the type "be past-participle", are essentially complex verbs. In chapters 3 and 6, we will actually suggest that passive morphologies have a more complex internal structure. The revision will be of no consequence for our discussion prior to that point.

We begin by noting the contrast here below, where accusative forms such as "me" and clitic "lo" obtain with transitive "soffocare", in (119a) but not with its ergative counterpart in (119b).

- (119a) Il caldo ha soffocato Giovanni  
The heat choked Giovanni

Il caldo lo ha soffocato  
The heat him choked

Il caldo ha soffocato	{	me	}
	*	io	
The heat choked	{	me	}
	{	I	}

- (119b) E' soffocato Giovanni  
Choked Giovanni

\*Lo e' soffocato  
Him choked

Sono soffocato	*me
	io
Choked	me
	I

We are assuming that the base forms relevant to (119b) are of the type "[<sub>NP</sub>e] V NP", where the empty NP must be filled in the course of the derivation either by movement or by insertion. We must now note that if the only possibility for inserting material into subject position was represented by the inversion provision of (69) above, the lack of accusative in (119b) would fail to be indicative of the properties of the verb. In fact the latter provision requires nominative Case, and

we would then assume that, even if it was possible, accusative assignment would have to fail, in order to allow nominative, as discussed above for "Si guardano le manifestazioni sportive/ SI watch sporting events". We will assume that the possibilities for insertion in subject position in Italian, are in fact rather limited, as we will briefly discuss below.

We will suggest, that beside the insertion provision of (69) above, there is a second provision, also allowing the insertion of a clitic form in subject position, in cases essentially corresponding to occurrences of pleonastic it in English (as in "It seems..."). In the terms of our discussion, the latter subject clitic will also be pro, i.e. a nominative clitic. It will differ from the pro inserted under inversion only in its feature content, in particular in being invariant and third person singular, like English it. We now note that while pro of inversion occurs in conjunction with a nominative NP as we have discussed and as in (120) (analogously to English there; cf. chapter 3), invariant pro generally occurs in conjunction with sentential complements, as in (121)-(123).

- (120) pro<sub>i</sub> fu invitato [<sub>i</sub>Giovanni]  
          was invited Giovanni<sub>s</sub>

- (121) pro sembra [<sub>S</sub>che Giovanni sia incompetente]  
(It seems     that Giovanni is incompetent)

- (122a) pro mi sembra [<sub>S</sub>di PRO rispettare i suoi diritti]  
(It) to me seems to respect his rights  
(It seems to me that I am respecting his rights)

- (122b) pro bisogna [<sub>S</sub>PRO rispettare i suoi diritti]  
(It is necessary to respect his rights)

- (123) pro mi fu suggerito [<sub>S</sub>di PRO fare domanda]  
(It) to me was suggested to apply

We must note incidentally that the existence of such pronominal form as pro of (121), (122), (123), is attested by the fact that the latter cases, just like the case in (120), have no infinitival counterparts, as shown in the following, where b and c corresponding to (120) and (121) respectively, will contrast with a.

- (124a) La possilita' [<sub>S</sub> di PRO<sub>i</sub> essere invitati <sub>t<sub>i</sub></sub>]  
 The possibility to be (of being) invited

e' remotissima  
 is very remote

- (124b) \*La possilita' [<sub>S</sub> di pro<sub>i</sub> essere invitato [<sub>i</sub>Giovanni]]  
 The possibility to be invited Giovanni

e' remotissima  
 is very remote

- (124c) \*La possilita' [<sub>S</sub> di pro sembrare [<sub>S</sub> che Giovanni  
 The possibility to seem that Giovanni

sia incompetente]] e' sempre presente  
 is incompetent is always present

As was discussed in 2.3.1 above, the general impossibility for pro of inversion to occur in infinitivals, as in (124b), is attributed to the fact that the latter would fail to receive Case. The same account will carry over to (124c) under our analysis. (The cases in (122), (123), will also lack infinitival counterparts<sup>27</sup>). The existence of pro will in turn imply that a subject NP node exists even in cases like (121)-(123) (cf. 2.4.4).

We may suggest that the co-occurrence of pro and the sentential complement in the above examples, is not accidental, and that in fact there is a parallelism between the cases in (121)-(123), and the one in (120). In particular we may suggest that invariant pro "binds" the sentential complement, just as pro in (120) binds the NP complement.

The view that there is such parallelism, may seem supported -at least intuitively- by the fact that, just like NP complements, some sentential complements appear to alternate with pro in subject position, as in the following.<sup>28</sup>

- (125a) Non sapevo che pro ti fosse stato ordinato  
I did not know that (it) to you had been ordered

di smettere di fumare dal medico  
to stop smoking by the doctor

- (125b) ?Non sapevo che di smettere di fumare ti fosse stato  
I did not know that to stop smoking to you had been

ordinato dal medico  
ordered by the doctor

We may then assume that possibilities for insertion of material in subject position are in general well-regimented and related to the presence of either a nominative phrase or a sentential complement. However, we note that, even neglecting the case of "weather" verbs as in "pro piove/ (It) rains", which might be a special case, some marginal possibility exists for apparently "free" insertion, as with the following.

- (126a) (?)?Gli fu sparato addosso  
(It) to him was fired upon  
(He was fired on)

- (126b) ?Gli fu detto del pericolo  
(It) to him was told about the danger

- (126c) ??Gli fu parlato a lungo  
(It) to him was talked at length

We will assume that the "impersonal" passives in (126), and correspondingly rare cases in English and French, instantiate a possibility, rather limited in these languages, but quite general in others (Dutch, for example), to insert an element in subject position free of binding requirements. We may assume in fact that languages differ as to whether or not they have impersonal passives by the availability of a

relaxed version of the strategy in (69) above, one which does not make use of the parenthesized portion in "insert a designated element in subject position (to bind a nominative NP)". Further discussion of impersonal passives will be presented in 3.6 below.

We now note that alongside of the marginal possibility for cases like (127), there is no comparable possibility for cases like (126), involving ergative verbs.

- (127a) \*Gli cade me addosso  
 (It) to him falls me upon  
 (It falls me on him)

- (127b) \*Gliele scappava  
 (It) to him them escaped  
 (It escaped them to him)

- (127c) \*Arriva te  
 (It) arrives you

If accusative Case could be assigned to the underscored phrases in (127), we would expect the latter cases to be parallel to those in (126), since we are assuming that a form pro unrelated to any complement could be inserted for example in the structure "[<sub>NP</sub>e] arriva te" of (127c). We will thus attribute the sharp contrast between (126) and (127) to lack of Case on the underscored phrases in (127) and to the fact that ergative verbs do not assign accusative Case in general. The direct objects in (127) will thus have to be assigned nominative. We then assume, as discussed in 2.3.1, that if nominative is assigned, a binding requirement ensues, which in turn will cause pro to agree with the nominative it binds. This will account for the fact that with ergative verbs, there will be no "impersonal" forms parallel to those in (126), even when the direct object receives nominative, as in (128).

- (128a) \*Gli cade io addosso  
 (It) to him falls I upon

- (128b) \*Gli scappava le galline  
 (It) to him escaped (sing) the chickens

- (128c) \*Arriva tu  
 (It) arrives you

We also note that if ergative verbs assigned accusative Case, forms like the following would be expected.

- (129) \*pro andrebbe } i ragazzi } [S<sub>PRO</sub> a prendere il libro]  
 (It) would go    } me }  
                   } the kids }      to fetch the book  
                   } me }

In fact, in (129) pro should presumably be allowed to occur, as related to the sentential complement, analogously to the cases in (121)-(123) above. We thus assume that (129) is ruled out by lack of Case on the underscored phrase, and conclude that ergative verbs in general do not assign accusative Case. Further evidence supporting this conclusion will be presented in 5.5.3 below.

We now turn to passives, which we assume are parallel to ergative verbs in not assigning a thematic role to their subject. That passives do not assign accusative is rather clear. Impersonal forms with direct objects, parallel to the impossible ones in (127) are also impossible, as in (130) contrasting with (126).

- (130a) \*Glieli fu regalato  
 (It) to him them was given

- (130b) \*Fu invitato te  
 (It) was invited you

Again we will assume lack of Case on the underscored direct objects.

Also lacking is the type in (131b) involving a sentential complement, thus parallel to the ergative case in (129), and contrasting with the corresponding active form in (131a).

- (131a) Giovanni lo informò' [S<sub>CHE</sub> il denaro era sparito]  
 Giovanni him informed that the money had disappeared

- (131b) \*pro lo fu informato [<sub>S</sub>che il denaro era sparito]  
 (It) him was informed that the money had disappeared

The case in (131b), ungrammatical, as we shall assume, for lack of Case on the direct object, will contrast minimally with cases involving indirect objects, which are quite unproblematic, as in (132), analogous to (123) above.

- (132) pro gli fu rivelato [<sub>S</sub>che il denaro era sparito]  
 (It) to him was revealed that the money had disappeared

We further note contrasts of the following type in English.

- (133a) Bill expected [<sub>S</sub>John to leave]

- (133b) \*It was expected [<sub>S</sub>John to leave]

We will naturally regard ECM in English as in (133a), as a subcase of accusative assignment. The ungrammaticality of (133b), contrasting with the tensed case "It was expected that John would leave", will be due to the failure of accusative assignment to "John". We thus conclude that passive morphologies do not assign accusative Case.

We now consider verbs which do not assign a thematic role to the subject, and which take sentential complement, like those in (121) and (122) above. We assume that this class has in fact two subclasses, one of which is represented by Raising verbs, like sembrare in (121) (cf. "Giovanni sembra essere incompetente/ Giovanni seems to be incompetent" analogous to (121)), the other by verbs taking Control complements, such as indirect object Control sembrare in (122a), and "arbitrary" Control bisognare in (122b), all of them also taking tensed complements. These verbs also fail to assign accusative. In fact, we note first that there is no verb of this type which appears with an accusative object, while some appear with dative objects, like sembrare

in (122a). Secondly, we note that all of these verbs fail to pronominalize their complements in the accusative as in (134b) related to (134a).

- |  |   |
|--|---|
| (134a) pro sembra<br>(It) seems<br><br>pro mi sembra<br>(It) to me seems<br><br>pro bisogna<br>(It) is necessary | { [S che Giovanni legga molto]<br>that Giovanni reads a lot |
| (134b) *pro <u>lo</u> sembra<br>(It) <u>it</u> seems<br>(It seems it)  |   |
| *pro me <u>lo</u> sembra<br>(It) to me <u>it</u> seems<br>(It seems it to me)                                    |   |
| *pro <u>lo</u> bisogna<br>(It) <u>it</u> is necessary<br>(It is necessary it)                                    |   |

The cases in (134b) will contrast with, for example, (135b) related to (135a), where accusative pronominalization is possible.

- |  |  |
|--|--|
| (135a) Maria pensa <u>che</u> Giovanni legga molto<br>Maria thinks that Giovanni reads a lot |  |
| (135b) Maria <u>lo</u> pensa<br>Maria <u>it</u> thinks<br>(Maria thinks it)                  |  |

We note further that in English there is no verb of this kind which enters into ECM (recall: a subcase of accusative assignment). In fact no case exists such as hypothetical "pseudo-seem" appearing as in (136b), contrasting with (136a) (and with (133a)).

- |  |  |
|--|--|
| (136a) It seemed that Bill would win   |  |
| (136b) *It pseudo-seem [S Bill to win] |  |

We will thus conclude that Raising verbs, and in general verbs taking sentential complements, which do not assign a thematic role to their

subject, are never accusative assigners. We further conclude on the basis of the evidence discussed, that the two lexical properties of verbs: "assignment of thematic role to the subject", which we refer to as "*T*", and "accusative Case assignment", which we refer to as "*A*" are quite generally related as in the statement in (137).

$$(137) \quad -T \quad \rightarrow \quad -A$$

We have in fact seen that all the cases instantiating "*-T*" (failure of assignment of thematic role) also instantiate "*-A*" (failure of accusative). (137) is logically equivalent to "*A* → *T*".

We note that some correlation between the two lexical properties in question is in fact predicted by our general framework. Consider the configuration in (138), where "*V[-A]*" is a verb which does not assign accusative.

$$(138) \quad [_{NP}] \; V[-A] \dots NP_1 \dots$$

(Where  $NP_1$  is governed by *V*, and only by *V*)

In (138), there will be essentially two possibilities for  $NP_1$  to receive Case (to simplify discussion we ignore here the distinction between trace-government and Case-government, which we assume exists in Italian).

- i) Movement of  $NP_1$  into subject position (subject of *V*, given general constraints on movement). ii) Nominative assignment and insertion of a designated element in subject position. Essentially, this will mean that the subject position must be base-generated empty, namely that "*-T*" must be true. In fact, cases in which the subject position is vacated in the course of the derivation, can be ruled out rather straightforwardly. Consider the case "[<sub>NP</sub>e] *V* ...  $NP_1 \dots NP_2 \dots$ " in which  $NP_2$  has been moved from subject position. Such a case will be ruled out by disjoint reference. In fact, both  $NP_1$  and  $NP_2$  will have to be

coindexed with the subject position:  $NP_2$  because it receives Case from the latter position (recall our assumption that Case-assignment implies binding),  $NP_1$  either because it receives Case from the subject, or because it is moved into subject position. However, disjoint reference will also apply between  $NP_1$  and  $NP_2$ : either because  $NP_2$  (adjoined to VP) C-commands  $NP_1$  (governed by V), or because  $NP_1$  (moved in subject position) C-commands  $NP_2$  (adjoined to VP). The conjunction of coindexing and disjoint reference will result in a paradox. Rather similar considerations will rule out the case in which the subject position is vacated by leftward NP movement (Raising). Another case in which the subject position could be vacated in the course of the derivation is represented by the Italian SF construction, discussed in 1.3, where the subject cliticizes to the verb. However we will assume that verbs which can only appear in such constructions are not allowed to exist, namely we assume that the lexicon is organized so as to guarantee maximum use. The latter case will therefore be irrelevant. For verbs appearing in the configuration in (138), the conditional in (139) would thus have to hold (equivalently " $T \rightarrow A$ ").

$$(139) \quad -A \rightarrow -T$$

However, our framework will not require that the statement in (139) should hold for verbs appearing in other than the configuration in (138). For example we would expect that in a base form "NP V S", where there is no NP to assign Case to, the verb could very well lack the capability to assign accusative (thus contrary to (139), since the verb has the property " $T$ "). However since we find no evidence that would ever falsify it, we will assume that (139) holds categorically (see also some remarks on Control verbs below).<sup>29</sup> Furthermore our

framework will not predict that the statement in (137), which we saw appears true empirically, should necessarily hold, since nothing would prevent the existence of the D-structure configurations in (140) (instances of "-T"), where "V[+A]" is a verb which can assign accusative.

(140a) [NP<sup>e</sup>]V[+A] NP

(140b) [NP<sup>e</sup>]V[+A] S

(140c) [NP<sup>e</sup>]V[+A] NP S

In fact, we are assuming that in (140a), accusative assignment could freely fail, to allow nominative assignment and the insertion of pro. Alternatively, NP could be moved into subject position. In (140b), we assume that invariant pro could be inserted and coindexed with the clause. Analogously for (140c), where NP would receive the accusative Case. However, the forms in (140) are exactly those which we saw do not exist (cf. (128), (134), (129) respectively and discussions).

On the basis of the fact that the statement in (137) appears rather strongly true empirically, and that we regard the one in (139) as being also true for the reasons discussed, we will assume that the conjunction of the two, namely (141) is quite generally true.

(141) T ↔ A

We will regard (141) as a well-formedness condition on all verb forms, whether these are derived by processes of derivational morphology (like passive morphologies) or not (like Raising and ergative verbs). The condition in (141) will therefore pertain to the lexicon. Since syntactic constraints would only require that the statement in (141) be true in part, we will conjecture that the lexicon exceeds the specifications imposed by the syntax, and that it is organized so as to reduce the number of "surface" forms derivable from the same D-structure. We

thus assume that all and only the verbs which take thematic subjects can assign accusative Case. Whether they actually do will depend on their complement system.

The fact that ergative verbs fail to assign accusative, will account for the fact, noted in 1.7.2, that the latter verbs fail to pronominalize their complements in the accusative. In 1.7.2, we argued that the reason why accusative pronominalization failed, was essentially that in those cases, namely in forms like "*Giovanni viene a prendere il libro*", there was a trace in direct object position (preceding the complement). We now note that what arises from the discussion in this section is not a second reason for the failure of accusative pronominalization, but essentially the same one as was invoked in 1.7.2. In fact, if venire is a "-A" verb, and if (141) is true as we are assuming, it must also be a "-T" verb. It then follows that in "*Giovanni viene a prendere il libro*" the phrase "*Giovanni*" could not be base-generated in subject position, but must rather be moved into such position, whence a trace in direct object position as claimed in 1.7.2.

We will note that the condition in (141), and in particular the part in (137) (i.e. "-T — -A"), will overlap in empirical content with the condition suggested in Chomsky (1979) (Pisa Lectures) that NP traces only occur in non Case marking positions. Our condition will in fact ensure that in most cases NP traces will not be in accusative marking positions: Given the fact that all instances of NP trace arise from movement into subject position, ignoring the SI construction to which we return below, the subject position will systematically have to be empty in D-structure, namely "-T" will have to be true. Our

condition will then require that the verb fail to assign accusative, which will imply that the resulting trace will not be in an accusative marking position. However the two provisions will also differ in empirical content. First, unlike (141), the requirement that NP traces fail to occur in Case marking positions, will provide no account for the lack of direct objects (versus the existence of indirect objects) with Raising verbs, or for the lack of accusative S pronominalization as in (134) above. Secondly the requirement that NP traces never occur in Case marking positions would be falsified (at least apparently) by the SI construction, where traces alternate with accusative NP's, as in "Si legge il libro; Il libro si legge t (SI reads the book)" while no problem would arise for (141) (i.e. since these cases do not instantiate "-T", we do not expect "-A"). Finally, if extended to nominative Case, the latter requirement would also be falsified by our discussion above, where we claimed that traces and nominative NP's alternate rather generally.

If the discussion in this section is correct, the capability of verbs to assign accusative Case is not related to lexical specifications concerning the complement system of the verb (subcategorization), as one might have otherwise assumed, but rather to lexical specifications concerning the subject system (i.e. subject-thematic role assignment). We note that our view implies among other things that the distribution of ECM versus Control infinitivals in English does not reflect the capability by the main verb to assign Case (namely we will not be assuming that in general verbs take Control complements when they are not Case assigners). Rather we will assume that a different parameter is involved in determining the latter distribution, namely the

capability to govern across clause boundaries, by triggering  $\bar{S}$  deletion, as briefly discussed in 2.2.4 above. We are therefore assuming that, beside subcategorization, three parameters determine verb types: "T", "A", " $\bar{S}$  deletion". However, given the relation in (141), the first two will essentially reduce to one. Further relevant discussion will follow in 3.5.5, 3.6, 5.6 below.

## 2.7 Conclusion

In this chapter we have argued that subject inversion consists of inserting in subject position, a designated element which will be linked to the "subject" by a binding relation. The designated element will thus play a resumptive role with respect to the "subject", which will account for the essential synonymy of inverted and non-inverted forms.

We have claimed that in Italian the inversion strategy operates identically on two different sets of structures, one due to base-generation, the other derived by rightward NP-movement. We will see in chapter 3 how in some other languages, inversion will in fact discriminate between the two sets. We have further claimed that in Italian, the element inserted is the pronominal form pro which undergoes cliticization, or "spd". This provides the appropriate connection between spd and the Italian type of inversion, often noted at the level of language typology. We have argued that pro differs from the element PRO entering into Control, and in particular that pro unlike PRO must be assigned Case. It is conceivable that the latter could be the only difference between the two, although this view would not provide an immediate account of some of the empirical differences noted. Recall in particular the "definite" reading, and the possibility to function

as a resumptive pronoun in relative clauses, associated only with pro and not PRO. One could then go on to suggest that the latter difference is only apparent, and that there is only one element, namely PRO, occurring in different environments. Such reduction of the inventory of "null" elements would indeed be rather desirable, and has in fact been attempted in Jaeggli (1980), Chomsky (forthcoming). In our discussion, we will continue to assume that pro and PRO are intrinsically distinct, but we trust that the essence of our discussion will stand, should the latter reduction prove feasible.

Many of the cases we discussed in this chapter and in the previous one, instantiate a dissociation between NP-movement and passive morphology. Both types of dissociation have appeared: passive morphology without movement, as in "Fu invitato Giovanni/ Was invited Giovanni", or "It was decided that John was a fool" or the impersonal passives of 2.6 above; movement without passive morphology, as in "Giovanni arriva t". These cases would falsify earlier accounts, in which passives were regarded as the result of one single operation, expressing both morphological changes and NP movement. Unlike those accounts, our discussion will not predict a systematic and intrinsic correlation between the two aspects, but only some partial correlation, contingent on extrinsic factors such as we will discuss below. See in particular, 3.5.5, 3.6, 5.2.

## Footnotes to Chapter 2

1 The assumption that  $R_i$  is clause bounded will strengthen the need to assume a rule of Complement Shift as discussed in 1.7.1, given the apparent violation of clause boundedness in (ii) below (pointed out to me by A. Belletti).

(i) Giovanni pensava [<sub>S</sub> di PRO parlare di linguistica]

(ii) (?)Pensava di parlare Giovanni di linguistica  
(Giovanni thought he would talk about linguistics)

We will therefore assume that in (ii) "Giovanni" is adjoined to VP, and that the stylistic rule of C-Shift has moved the phrase "di linguistica" to the right.

2 This paradigm can be duplicated with respect to the "causative" rule (assumed in chapters 5,6 below to be analogous to restructuring) affecting the verb vedere and its complement in (iii), (iv) (notice the position of gli). See 5.6 for relevant discussion.

(i) I ragazzi si videro parlargli (no causative)  
The kids SI saw talk to him

(ii) Si videro i ragazzi parlargli (no causative)  
SI saw the kids talk to him

(iii) I ragazzi gli si videro parlare (causative)  
The kids to him SI saw talk

(iv) \*Gli si videro i ragazzi parlare (causative)  
To him SI saw the kids talk

(All: We saw the kids talk to him)

3 The analysis of Italian emphatic pronouns that I am about to present is not likely to straightforwardly extend to English "himself", etc., since the two respective distributions differ.

4 Though parallel, the contrast here is somewhat weaker than the one

noted in 1.7.1. Also weaker is the contrast due to stranded prepositions, parallel to the one in 1.7.3. E.g.:

- (i) (?)Giovanni ci ha mangiato lui sopra  
Giovanni there ate himself upon
- (ii) Giovanni ci e' salito lui sopra  
Giovanni there climbed himself upon  
(Giovanni      } ate      } himself on it)  
              } climbed     }

We can account for the difference by suggesting that complements can be "shifted" more easily to the right of ep's than to the right of i-subjects, given that ep's are relatively less "heavy" (recall that we assume that C-Shift tends to place heavier phrases last).

5 The configuration in (21a) appears to distinguish between passives and "copula plus adjective" constructions:

- (i) ??Giovanni era orgoglioso lui di aver terminato la tesi  
Giovanni was proud himself to have completed the thesis

This distinction, as well as the parallel one relative to i-subjects in (ii), (iii), does not however appear as strong as the one provided by Ne-C1 discussed in 1.2 above.

- (ii) Fu mandato Giovanni a prendere il libro  
Was sent Giovanni<sub>s</sub> to fetch the book

- (iii) ??Era orgoglioso Giovanni di aver terminato la tesi  
Was proud Giovanni<sub>s</sub> to have completed the thesis

Relative to (i) and (iii), we also note that the respective counterparts in (iv), (v) below, which we would predict possible, are in fact not perfect.

- (iv) ?Giovanni era orgoglioso di aver terminato la tesi lui  
Giovanni was proud to have completed the thesis himself

- (v) ?Era orgoglioso di aver terminato la tesi Giovanni  
Was proud to have completed the thesis Giovanni<sub>s</sub>

6 It must be noted that in general ep's in cases of O.P., appear less than perfect and contrast with the corresponding passive cases, as in (i), (ii).

(i) Giovanni      { ?si mando'      } lui a prendere il libro  
                   \ fu mandato      }

Giovanni SI sent/ was sent himself to fetch the book

(ii) Giovanni      { ?si mando'      } a prendere il libro lui  
                   \ fu mandato      }

Giovanni SI sent/ was sent to fetch the book himself

As shown by (ii), the difficulty is found also when the ep is in VP final position. Thus (i) will not be counterevidence with respect to our claim that ep's can occur in trace position, but will rather point to a peculiarity of the SI-construction. Conceivably the difficulty is due to the fact that O.P. cases have, in some sense, two subjects: SI and the moved NP; thus two potential antecedents for the ep.

7 Wh-movement can apply to (34a) to produce (i) (cf. fn. 18, ch. 1). Application of Wh-movement to (34c) producing (ii) will not amend its ill-formedness, as expected:

(i) [<sub>i</sub> Quanti] ne verranno [<sub>i</sub>]  
     How many of them will come

(ii) \*Quanti ne verranno (anche) loro  
     How many of them will come (also) themselves

We note here that (ii) will also indicate that ep's cannot be inserted into the position of a trace left by Wh-movement. In fact if they could, (ii) should presumably be derivable from (i) given the analysis indicated.

8 Notice that the assumption that VP adjoined positions can only arise in conjunction with movement, could be easily preserved by suggesting that the subject is first moved into a post verbal position

and adjoined to VP, thus creating the NP node in that position, and then moved back into subject position, leaving a trace. The ep would then be inserted into the trace. Under this view, ep's would be uniformly inserted into trace position.

9 We note the following construction also induces resumptive pronouns.

- (i) Giovanni si', che lo hanno arrestato  
Giovanni yes, that they arrested him  
(Giovanni for sure they arrested him)
- (ii) Giovanni si', che esce con Maria  
Giovanni yes, that (he) goes out with Maria

Here too clitic objects alternate with null subjects (as in (ii)), confirming the view in the text.

10 We assume that pro cliticizes by movement, essentially for the same reasons for which we assumed that SI cliticizes by movement and is not base-generated in place (see fn. 8, ch. 1), namely because of the fact that pro, just like SI, and unlike other subject clitics, such as ci (on the latter see 3.1 below), appears to undergo NP movement. In spite of this, base-generation analysis of both SI and pro remain conceivable. To assume that pro is base-generated, would amount to suggesting that verb inflection in Italian can perform as a clitic, governing the subject position. This is in fact the proposal in Rizzi (1979), to be reviewed in 2.5.2 below.

11 It will not be sufficient to assume that pro is a nominative clitic. It must also be assumed that it is a pre-verbal nominative. This conclusion, which cannot be reached on the basis of forms like "arriva", which one might assume related to either "Giovanni arriva" or to "arriva Giovanni" in analogous fashion, can be reached on the basis of cases

like "C'ero io in cucina/ There was I in the kitchen", to be discussed in 3.1 below, which fail to yield "\*C'ero in cucina".

12 This will mean that our pre-theoretical characterization of i-subject, which in fact led to the observation in (19e), was misleading. On a post-theoretical characterization, which will not be so misleading, see below.

13 The corresponding O.P. case in (i) ((26) of chapter 1), will require a slightly more subtle discussion.

---

- (i) [<sub>i</sub>I regali di Natale] sembrano sempre [<sub>S<sub>i</sub></sub>comprarsi <sub>t<sub>i</sub></sub>]  
 Christmas presents seems always SI to buy  
 in quel negozio]  
 in that store

As discussed in 1.3.2, we assume that even in (i), SI is a phonological matrix associated with the main subject. The latter subject will thus be associated with two phonological matrices: "I regali di Natale" and "SI". We assume differently for the main subject in (ii) ((62b) above) which will have only one phonological matrix associated with it, namely "Giovanni". "lui" being an independent phonological matrix.

- (ii) \*Giovanni pareva [<sub>S</sub>lui leggere molto]  
 (see (62b))

14 The view that ep's can be inserted into phonologically null NP's would lead us to expect that they could be inserted into "PRO" position also. We may unproblematically assume that this is true. The fact that ep's do not occur in such position (cf. "\*Giovanni sperava di lui andare in vacanza/ Giovanni hoped himself to go on vacation") will then be accounted for by the assumption of the Government-Binding theory,

which we adopt, that PRO positions unlike trace positions, are never governed by the verb. An ep in PRO position would thus systematically fail to receive nominative Case, since it would fail to be governed by the subject.

15 We note that while the designated element in English can occur with non-nominative Case, as in "I expected there to be a riot", for the designated element in Italian, it may be necessary to stipulate that it be exclusively nominative. In fact, in the contexts (noted in fn. 3, chapter 1) in which non nominative Case can marginally be assigned to the subject, as in (i), a non nominative pronominal functioning as a designated element in (69) appears impossible, as in (ii).

(i) ?Lo ritengo aver speso troppo  
 ((I) believe him to have spent too much)

(ii) \*Lo ritengo intervenire Giovanni  
 ((I) believe there to intervene Giovanni)

Such impossibility for non nominative Case affects not only what we regard as the analogue of English there, as in (ii), but also the analogue of English pleonastic it, to be discussed in 2.6 below, as in (iii), as well as the analogue of it of "It rains", as in (iv).

(iii) \*Lo ritengo bisognare che Giovanni interrompa gli studi  
 ((I) believe it to be necessary that Giovanni discontinue his studies)

(iv) \*Lo ritengo piovere  
 ((I) believe it to rain)

(Some of these facts have been brought to my attention by N. Chomsky).

16 Notice that pro of inversion never appears as a resumptive pronoun, as in (i).

- (i) \*Il ragazzo che non credo alla voce che  
     The guy that I do not believe the rumor that

pro<sub>i</sub> esce [<sub>i</sub>Giovanni] con Maria studia legge  
     goes out Giovanni<sub>s</sub> with Maria studies law

This fact will be naturally accounted for by disjoint reference,  
     obtaining between the head of the relative ("Il ragazzo"), and the  
     i-subject ("Giovanni").

17 While reasons were produced as to why ep's will not be clitics,  
     no reason is at hand as to why the designated element should be a clitic  
     and not a stressed pronominal, as in (i)

- (i) \*lui viene Giovanni  
     he comes Giovanni<sub>s</sub>

The accidental character of this fact might be alleviated by some "functional considerations: if (i) was possible, the same element (lui) would occur both as an antecedent and as an anaphor (e.p.), making interpretation difficult.

Notice that one might suggest that in configurations with i-subjects it is not the pronominal that is the antecedent, but rather the i-subject. The pronominal would then have to be a clitic so that the i-subject could C-command it. However, quite aside from the fact that such a theory of inversion would not extend, for example, to English, we note that it would also not work both in the Raising case and in the restructured case, (16b) and (5b) above respectively, where this kind of C-command would not obtain.

18 Notice that a form analogous to (73a) with singular verb agreement exists marginally, as in (i).

- (i) ??Fu parlato alle ragazze  
     (It) was talked to the girls

We assume (i) to be a case of "impersonal" passive, derived by insertion in subject position of an element equivalent to English it, bearing no relation with the material in post verbal position. This case, to be briefly discussed in 2.6 below, will thus be irrelevant to our discussion here.

19 Technically, the claim that the configuration "[<sub>NP</sub>e] [<sub>VP</sub>[<sub>VP</sub>V...]<sub>NP</sub>]" can only arise as a result of rightward movement, would be false. In fact we are assuming that insertion of ep's can give rise to VP adjoined positions also. If we then consider a structure with a base generated empty subject position, as for example with a Raising verb, we can imagine the insertion with adjunction to VP of an ep of random features. A mechanical application of (69) could then insert a pro, binding the ep and matching its features, thus giving rise for example to (i).

- (i) \*pro<sub>i</sub> [<sub>VP</sub>[<sub>VP</sub>sembrano [<sub>S</sub>che Giovanni studi] loro<sub>i</sub>]  
They seem that Giovanni is studying themselves

We can rule out cases like (i) by requiring that one of the positions affected by (69) (i.e. either the subject position or the position of the post verbal nominative) be a thematic position (an argument position): a condition not fulfilled in (i). Alternatively we could adopt the suggestion of fn. 8 that in order to create a VP adjoined position for an ep, the subject must be moved to the right and back. In this case there would be no subject to move.

20 For the ungrammaticality of cases like (37b) above, repeated here below, which was attributed to the fact that the i-subject fails to C-command the ep, we must now assume that pro can bind only the i-subject, and not also the ep.

- (i) \*pro<sub>1</sub> [VP[VP verranno [<sub>1</sub> alcuni miei amici]] anche loro]  
 Will come a few friends of mine<sub>s</sub> also themselves

21 We will naturally exclude application of Wh-movement to the subject's double by assuming that there are no "pronominal" Wh-phrases.

22 This is so for all reflexive clitics: ergative (see 1.4.3); inherent (see 1.8); non-inherent reflexives.

23 A different view will be required for reflexive agreement in French, given the uninflected character of the designated element (il) in that language. On this see 5.7 below.

24 Concerning the possibility for reflexive agreement with the preposed object, we note that an interpretation congruent with it, is independently impossible. In fact, as has been noted in Kayne (1975) with regard to French passives, clitic reflexives will not co-refer with a derived subject (although they will only refer to subjects). E.g.:

- (i) \*Ces filles se seront présentées par Paul  
 These girls to one another will be introduced by Paul  
 (Kayne (1975, p. 376))

The same is true of Italian passives. The SI-construction after O.P. will also reflect the same property:

- (ii) \*I ragazzi ci si presentarono  
 The kids to each other SI introduced  
 (We introduced the kids to each other)

This effect is derived in Kayne (1975, p. 377) by extrinsic ordering of rules (Reflexivization, NP-movement -i.e. Passive-). A different approach will be suggested in 5.7 below.

25 O.P. in the SI-construction contrasts with passive in such cases

(i.e. with verbs of subject Control). In fact the latter turns out impossible:

- (i) \*Gli operai furono informati di voler chiudere la fabbrica  
The workers were informed to want to close down the plant

Further discussion in chapter 6.

26 As Kayne notes in his fn. 26, there is a slight degree of variation internal to the ungrammaticality of Ne-Cl from i-subjects with verbs like telefonare, as with "?Ne telefoneranno tre/ Of them will phone three" where the verb is in the future tense, which is slightly better than some of the other examples we have discussed. While the reasons for this variation are not clear, this fact will pose no threat to our account, both because of its limited character, and because no explanation would seem forthcoming by rejecting our account (cf. Kayne's fn. 26).

We must note incidentally that the contrasts relative to Ne-Cl from i-subjects that we have discussed are in any case less than overwhelming in general, although it seems appropriate for the purposes of our discussion, to have given them in the form "ok/\*".

27 In fact, corresponding to (122a), (122b), (123) we find the following, respectively.

- (i) \*L'idea di sembrarmi di rispettare i tuoi diritti  
(The idea of (it) seeming to me to respect your rights  
viene dal fatto che non ti lamenti mai  
comes from the fact that you never complain)
- (ii) \*Ho la sensazione di bisognare che Giovanni intervenga  
(I have the feeling of (it) being necessary that  
Giovanni should intervene)
- (iii) \*Il pensiero di non essergli stato suggerito  
(The thought of (it) not having been suggested to him  
di fare domanda lo infastidiva  
to apply bothered him)

28 Furthermore, the fact that all of these verbs take auxiliary E, will suggest a binding relation between the subject and the complement, given our system of auxiliary assignment of 1.5 above.

We must note in connection with impersonal passives like the one in (i), that they do not represent a problem for our system of auxiliary assignment if some of our forthcoming discussion is correct.

- (i) pro gli era stato detto del pericolo  
 (It) to him had (E) been told of the danger

In fact we will suggest in chapters 3 and 6, that the be of passives is a raising verb. The analysis of (i) would thus essentially be "pro<sub>i</sub> gli era stato t<sub>i</sub> detto del pericolo", and the relation pro<sub>i</sub>-t<sub>i</sub> will correctly determine auxiliary E.

29 We will not conclude, for those Control verbs which do not allow accusative S-pronominalization (e.g. "\*(Di finire la tesi) Giovanni lo cerca/ (To finish the thesis) Giovanni it seeks"), that they are not accusative assigners. Such conclusion would be unwarranted since, as discussed in 1.7.2, the nature of S-pronominalization is not adequately understood. We do assume however, that if accusative S-pronominalization succeeds, the verb is an accusative assigner. The discussion of (134) was based on the latter assumption.

### 3. EXTENSIONS

#### 3.0 Introduction

In this chapter we will attempt to extend the discussion of chapters 1 and 2, relative to Italian, to some other languages, and in particular to Piedmontese: a dialect spoken in the Turin area, French and English.

With respect to the discussion in chapter 1, we will claim that in those languages too, some constructions with i-subjects are base-generated. With respect to the discussion in chapter 2, we will claim that the inversion strategy formulated in that chapter, is implemented in those languages as well.

Throughout the discussion we will use the designation "i-subject: both in the pre-theoretical sense of chapter 1, and in the theoretical sense of chapter 2. The two notions are essentially coextensive as discussed in chapter 2, and we hope that this ambiguous use will not be the source of confusion. However, for the discussion in this chapter, the pretheoretical notion of i-subject will have to be defined slightly differently than it was defined in chapter 1, given the different agreement facts which we will discuss. Thus in: The NP' in a form "...V' ...NP'..." such that (the verb V' appears to agree with it, and such that) there is a near synonymous form "NP' V'...", the parenthesized portion will have to be dropped (for the not entirely satisfactory character of such a definition, cf. fn. 1, ch. 1). The theoretical notion of i-subject will be: The post verbal NP bound by a designated element in subject position.

In the glosses, the subscript "s" will continue to be used for those i-subjects with which the verb appears to agree. When there is no apparent agreement, the i-subject will simply be underscored.

### 3.1 Piedmontese

#### 3.1.0 Introduction

I will claim in this section that the theory of inversion presented above naturally extends to Piedmontese, where the clitic ye (otherwise locative, meaning "there") performs as a designated element, but only with respect to base-generated i-subjects (not i-subjects adjoined to VP). A few words on Piedmontese morphology and on notation will be required.

In Piedmontese subject clitics exist, independent of the subject NP. These conform with the paradigm in (1b), given with the one in (1a) relative to personal pronouns.

(1a) Personal pronouns  
(no Case inflection)

Singular	1	mi	e
	2	ti	t
	3	chiel/chila	a
Plural	1	nui (autri)	e
	2	vui autri	(e)
	3	lur	a

Subject clitics occur always and only in tensed clauses and regardless of inversion or subject pronoun drop (spd). For the purposes at hand they can therefore be regarded as part of verb inflection (notice that this makes it seem independently plausible to have treated verb inflection in Italian as having the properties of clitics). They will henceforth be repeated parenthesized and unchanged in the transliterations.

We will assume that a phonological rule inserts l between a subject clitic and a vowel-initial auxiliary (see (2) below). The latter will

be ignored in the transliterations. Like Italian, Piedmontese has two aspectual auxiliaries: Ese (E) and Avei (A). These will be pointed out in the transliterations where relevant. As in Italian, in Piedmontese clitics precede a tensed verb (proclitics) and follow an infinitive (enclitics), when there is no auxiliary. However when there is an auxiliary, while in Italian clitics precede the auxiliary, in Piedmontese clitics other than those in (1b) above, will follow the past participle (as in (2) below).

### 3.1.1 Base Generation

Piedmontese exhibits a bifurcation among verbs with respect to occurrence as in (2), with pleonastic ye (there).

- (2a) A-1-e rivaye i american  
 (A) has arrived there the Americans (E)  
 (There arrived the Americans)
- (2b) \*A-1-a telefunaye i american  
 (A) has telephoned there the Americans (A)  
 (There phoned the Americans)

We will claim that the bifurcation in (2) is of the same nature as the one noted in 1.1 for Italian. Our claim is supported by the following observations:

-Transitive verbs and intransitives with transitive counterparts in the manner of English eat, namely verbs which in terms of our discussion are systematically expected not to be ergative (cf. fn. 14, ch. 1), never appear as in (2a). Following is a sample.

- (3) mange', fume', lese, scrive, studie', scute', rispunde,  
 eat smoke read write study listen answer  
 pesche', scave', dismentie', saute'. ruse', risparmie'  
 fish dig forget jump scold save

-Ergatives in the sense of English sink, namely "BV" members of

AVB/BV S-structure pairs (cf. 1.4.1), can systematically appear as in (2a), although the type corresponding to the si-ergatives of 1.4.3 will require some additional comments as we shall see below. Following is a sample of such verbs.

- (4) gele', funde, cherse, diminui', sprufunde', cunsüme'  
 freeze melt increase diminish sink in wear out  
 cambie', sufuche', ncamine', fini', gunfie'  
 change choke begin end swell

-The correlation between auxiliary E and the possibility for a verb to occur as in (2a) is exact. (Accordingly we will assume that auxiliary assignment in Piedmontese works essentially as in Italian; see also below).

-The verbs that yield the results in (2a) systematically have cognates and/or synonyms in Italian, which are ergative in the sense of chapter 1. The ones that yield the results in (2b) correspondingly have cognates and/or synonyms which are non ergative in the sense of chapter 1.

-Cliticization of ne (Ne-Cl) is possible with respect to (2a), as in (5) (were we assume ye ne → yne), and the general distribution of Ne-Cl in Piedmontese analogous to that of Italian (i.e. from direct objects only).

- (5) A-1-e rivayne dui  
 (A) has arrived there of them two

The verbs which are excluded from appearing in the "ye" construction we just described, can still appear with i-subjects, as in (6a). In this case however, differently than with the ye cases, the verb will exhibit apparent agreement with the i-subject, as shown by the contrast with (6b), and Ne-Cl will be impossible, as shown by (6c).

- (6a) A-1-an telefuna' i american  
 (A) have telephoned the Americans<sub>s</sub>

- (6b) \*A-1-a telefuna' i american  
 (A) has telephoned the Americans
- (6c) \*A-1-an telefunane dui  
 (A) have telephoned of them two

We will assume that cases like (6a) are derived via rightward NP movement with adjunction to VP, and insertion of pro in subject position, just like the corresponding Italian cases. Failure of Ne-Cl will thus be accounted for.

We will then assume that Piedmontese has two types of inversion. One featuring the clitic ye as a designated element, and only affecting base-generated configurations. The other affecting only configurations derived by rightward NP-movement, and featuring clitic pro as a designated element. As we did for Italian, we will assume that the phonological content of the clitic pro is non-distinct from verb inflection. For the case of Piedmontese in particular, pro will be non-distinct from the appropriate form in (1b), which we consider part of verb inflection. We will see below how this distribution of the two designated elements is obtained. The bifurcation of chapter 1, between ergative and intransitive verbs is thus observable in Piedmontese even more clearly than in Italian, given the overt presence of ye.

We now note that the clitic ye cannot coexist with certain other clitics, as in (7) (where we assume me ne → mne, and me ye → mye).

- (7a) A-1-e rivaye dui regai  
 (A) has arrived there two presents  
 (There arrived two presents)
- (7b) A-1-e      } \*rivamye      } dui regai  
               } rivame      }  
 (A) has arrived      } to me there      } two presents  
                   } to me      }
- (7c) A-1-e rivamne dui  
 (A) has arrived to me of them two

Noting that in spite of the absence of ye in (7b), (7c), verb agreement and Ne-Cl, pattern as in (2a), and (5) respectively (ye-inversion), and not as in (6) (pro-inversion), we will naturally assume that ye is present in (7) at syntactic levels, and that it is deleted in the presence of some other (though not all, cf. (5)) clitics by a phonological rule.

We now consider the equivalent of the si-ergatives of 1.4.3 above, with which ye is not found, as in (8), (where we assume se ne → sne).<sup>1</sup>

- (8a) L cit a-l-a rumpü' due fnestre  
The kid (a) has broken two windows (A)
- (8b) A-l-e rumpüse due fnestre  
(A) has broken themselves two windows (E)  
(Two windows broke)
- (8c) A-l-e rumpüsne due  
(A) has broken themselves of them two

Noting that verb-agreement and Ne-Cl in (8) pattern again as in (7) and not as in (6), we will assume that "se" ergatives are just like other ergatives in the relevant respects, and that presence of the reflexive clitic se will cause ye to delete, as noted for (7). The auxiliaries in (8) will thus conform with the distribution we expect.<sup>2</sup>

### 3.1.2 The Syntax of ye

We thus assume that ye is analogous to pro in that, like pro, it is both a designated element entering into inversion, and a clitic. However, while we assume that pro is cliticized by movement, as discussed for Italian in 2.2.3 (cf. fn. 10, ch. 2), we will assume that ye is base-generated as a clitic, for the reasons which we will discuss. Before coming to those reasons, we will review some evidence which confirms our view that ye is indeed a designated element in the inversion strategy of chapter 2.

Ye only occurs in conjunction with i-subjects, as shown by the contrasts in (9) and (10) (note that (9a) would be grammatical for a locative reading of ye, i.e. "...have arrived there": a fact irrelevant to our discussion; analogously (10a) would be grammatical for a dative reading of ye, i.e. "it seems to him ...", also irrelevant).

- (9a) \*I american a sun rivaye  
(see (9b))

- (9b) I american a sun riva'  
The Americans (a) have arrived (E)

- (10a) \*A ye smia che Giuanin a sia a ca  
(A) there seems that Giuanin is home

- (10b) A smia che Giuanin a sia a ca  
(A) seems that Giuanin is home

We will assume that in (10), rather than ye, invariant pro must be inserted into subject position, analogously to the Italian cases discussed in 2.6 above, whence the grammaticality of (10b). We must note for (9a), that with the subject clitic ye, there appears to be no counterpart to the preposing of the object found with subject clitic SI in Italian (and analogously with impersonal SE in Piedmontese; cf. some of fn. 2). We will attribute this fact to a well-formedness condition on ye. Namely we will stipulate that when the subject position is bound by ye, it cannot be occupied by other material (see also 3.1.3 below).<sup>3</sup> (9b) will be correctly derived from the ergative base-form, by movement of the phrase "I american" into subject position.

We note now that with ye inversion, while the verb will remain third person singular as long as the i-subject is third person, when the latter is a first or second person pronoun, the verb will appear to agree with the i-subject, as in the following paradigm.

(11) mi e-sun riva'	/	e-sun <u>rivaye</u> mi
I (e) have arrived		(e) have arrived there <u>I</u> <sub>s</sub>
ti t-ses riva'	/	t-ses <u>rivaye</u> ti
you (t) have arrived		(t) have arrived there <u>you</u> <sub>s</sub>
nui e-suma riva'	/	e-suma <u>rivaye</u> nui
We (e) have arrived		
vui autri seve riva'	/	seve <u>rivaye</u> vui autri
you-pl. have arrived		

Concerning the facts in (11), we will assume that the binding relation between the designated element ye (or, rather, the subject position related to ye) and the i-subject can sometimes transmit the features of the i-subject to the subject position. As mentioned in 2.3.1 above, we assume that this possibility is controlled by language specific idiosyncrasies, whence (11) versus (2a).

The invariance of the auxiliary within inverted/non-inverted pairs as for example in (2a) versus (9b) above, will further confirm the existence of a binding relation between ye and the i-subject, along the lines of the discussion in 2.4.3 above, relative to Italian.<sup>4</sup>

On the question of how ye inversion is to be confined to base generated forms, two different accounts would seem available in principle. One would be to suggest a condition to the effect that the element ye can only be related to direct object positions, and not to positions adjoined to VP. The other, to suggest that ye is inserted only in D-structure and not in the course of the derivation. We will argue below, that the latter is the correct view. Our argument will be based on the assumption that Piedmontese ye-construction is quite parallel to the Italian ci-construction of locational sentences.

### 3.1.3 Locationals in Italian

Consider the following sentences, where "%" indicates a substandard

option (assume ci e' etc. → c'e' etc., as in (12b)).

- (12a) Ci sono due ragazzi in cima  
There are two kids<sub>s</sub> at the top
- (12b) %C'e due ragazzi in cima  
There is two kids at the top
- (12c) Ce ne sono due in cima  
There of them are two<sub>s</sub> at the top
- (12d) Due ragazzi sono in cima  
Two kids are at the top
- (12e) \*Due ragazzi ci sono (/c'e') in cima  
Two kids there are (/there is) at the top

We will assume that the locative clitic ci (synonymous to Piedmontese ye) is a designated element related to the subject position in a, b, c above. This view is confirmed by the fact that ci cannot occur when there is an overt subject, as in (12e). Notice that cases superficially analogous to (12e), such as "Giovanni non c'e' / Giovanni isn't there" are grammatical. This is clearly irrelevant to our discussion, since in the latter cases ci is a locative and is not related to the subject position at all.

We thus assume for ci a well formedness condition analogous to the one we suggested for Piedmontese ye above, requiring that a subject position bound by ci cannot contain other material. This view is further confirmed by the fact that verb agreement varies idiolectally as in (12a) versus (12b), as we expect when the designated element is invariant. We will note that for the substandard option in (12b), agreement patterns exactly as with Piedmontese ye, where lack of agreement does not extend to first and second person (e.g. Ci sono io in cima/ \*C'e' io in cima "There am/\*is I at the top").

We will further assume that the system in (12) is essentially identical

to the one discussed above for Piedmontese and in particular that (12a), (12b) are in their base configuration, as confirmed by the fact that Ne-Cl is possible, as in (12c). We then assume that (12d) is derived from the same base-configuration via NP-movement.<sup>5</sup> This will mean that essere, at least in locational constructions, is essentially an ergative verb. A very analogous view will be presented for English be in 3.4 below.

The cases in (12a), (12b) will enable us to settle an issue concerning the correct formulation of past participle agreement. In 1.6 above, we noted that it could not be determined from the general case, such as for example (13), whether a past participle agrees with the antecedent to the direct object as we assumed, or with the direct object itself when the latter has an antecedent.

- (13a) [<sub>i</sub>I ragazzi] sono andati t<sub>i</sub>  
The kids have gone (pl)

- (13b) pro<sub>i</sub> sono andati [<sub>i</sub>i ragazzi]  
Have gone (pl) the kids<sub>s</sub>

It is easy to see in fact that either view would account for plural agreement in either of (13) (assume the trace to contain the relevant features). However, if we now consider the substandard option of (12b), we will note the following.

- (14a) %C'era stato due ragazzi in cima  
There had (sing) been (sing) two kids at the top

- (14b) \*C'era stati due ragazzi in cima  
There had (sing) been (pl) two kids at the top

The ungrammaticality of (14b) shows that the pp agrees with the same position that triggers verb agreement, namely the subject position, and not with the direct object position.<sup>6</sup> The standard version of (14a)

will be "C'erano stati due ragazzi in cima", with both verb and pp in the plural. Our formulation of pp agreement in 1.6 was therefore correct. The cases in (12) will also enable us to settle another issue, namely to determine that nominative cliticization (i.e. subject pronoun drop) only affects preverbal nominatives. Consider in fact (15), (16) here below, where io is a nominative phrase (these facts were briefly noted in fn. 11, ch. 2).<sup>7,8</sup>

- (15a) Ci sono io in cima  
There is (am) I at the top

- (15b) \*Ci sono in cima  
There is (am) at the top

- (16a) Io sono in cima  
I am at the top

- (16b) Sono in cima  
Am at the top

This will support our assumption of 2.2.3, that pro cliticizes only from subject positions, like SI.

Locational sentences in Piedmontese will be strictly analogous to the substandard option in (12b). Italian will thus differ from Piedmontese essentially for the more restrictive use of the element ci/ye, confined to locational sentences. We will note that the ungrammaticality of (12e) above will persist should either rightward NP-movement (inversion) or leftward NP-movement (Raising) apply, as in (17a), (17b) respectively.

- (17a) \*Ci sono in cima due ragazzi  
There are at the top two kidss

- (17b) \*Due ragazzi sembrano esserci in cima  
Two kids seem to be there at the top

In (17a) the subject position will presumably be occupied by pro, since we will assume that ci, like ye, only operates with respect to base-generated i-subjects. (17a) will thus be ruled out by the well-formedness

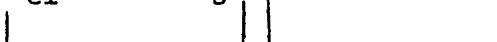
condition assumed, requiring that the subject position related to ci should not contain other material. (17a) will thus be evidence for the existence of pro. In (17b), the subject position related to ci, namely the embedded subject position, will be occupied by the trace of the phrase "Due ragazzi". (17b) will be also ruled out by the same well formedness condition, if we assume that a trace is in relevant respects non distinct from its antecedent: a view that was suggested in 2.3.1 above, and which will be further discussed in chapter 4.

We now consider the following cases of Raising.

- (18a) Parevano esserci due ragazzi in cima  
Seemed to be there two kids at the top
- (18b) \*Ci parevano essere due ragazzi in cima  
There seemed to be two kids at the top
- (18c) %Pareva esserci due ragazzi in cima  
Seemed to be there two kids at the top

From (18a) and (18b) we conclude that Raising cannot affect ci. We will accomodate this fact by suggesting that, at whichever derivational stage ci appears, it does so directly in clitic form. I.e., that unlike SI of 1.3 which, as will be recalled, can be raised, ci is never in NP position. We will thus assume that there is a subject system "NP<sub>ci</sub>-ci", where NP<sub>ci</sub> is a null NP in subject position to which clitic ci is syntactically related: let us say that ci binds NP<sub>ci</sub>. This subject system will be analogous to the system associated with SI (and represented as "[<sub>i</sub>e] si<sub>i</sub>" in some of the previous discussion. Cf. 1.3.1), even though the two will differ for their respective derivations, since we assume that ci originates as a clitic, while SI originates in NP position and then cliticizes by movement. We now assume that, much like the corresponding system involving SI, the system NP<sub>ci</sub>-ci is subject to Case requirements. In particular we assume that NP<sub>ci</sub> must be in a Case-marking position.

This view will account for the substandard status of (18c). In fact, if  $NP_{ci}$  did not require Case, given the configuration "[<sub>NP</sub>e] parere [<sub>S</sub> $NP_{ci}$  esserci due ragazzi in cima]" we would expect that invariant pro (i.e. the "it" analogue) could be inserted in matrix subject position, thus giving rise to singular verb inflection with no substandard effect. On the other hand if  $NP_{ci}$  requires Case, given the same configuration, the latter will have to be Raised obligatorily, thus giving rise to a binding relation between the matrix subject position and the phrase "due ragazzi" via the trace, as in (19).

- (19)  $NP_{ci}$  parere [<sub>S</sub> t esserci due ragazzi in cima]  


Such binding relation will then allow transmission of the feature "plural" to the matrix subject position in the standard, though not in the sub-standard dialects, exactly as in (12a) versus (12b). As with the case of SI discussed in 1.3.1, there will therefore be a dissociation between the Case marked NP (here " $NP_{ci}$ ") and the phonological matrix (here "ci") relative to that NP.

Our view that  $NP_{ci}$  requires Case will furthermore account for the general failure of locational sentences to occur as infinitivals, as in (20) here below.

- (20a) Lo spettacolo ha avuto luogo  
 The show took place
- } senza che ci fosse molta gente  
 } \*senza esserci molta gente
- } without that there were too many people  
 } without there to be too many people  
 } (... without there being too many people)

- (20b) \*Giovanni sperava di esserci Maria  
 Giovanni hoped to be there Maria  
 (...there to be Maria)

- (20c) \*Speravano di esserci due ragazzi in cima  
 Hoped to be there two kidss at the top  
 (Two kids hoped that there would be them at the top)

As shown by the contrast between (20c) and the superficially similar (18a), locational constructions will thus discriminate between Raising and Control predicates. We must note that the case in (20c) will be ruled out, not only by lack of Case on the embedded subject (i.e. NP<sub>ci</sub>) like (20a) and (20b), but also by the thematic well formedness criterion (i.e. (38) of chapter 1), since there is no thematic subject for the matrix verb "sperare".

The results of this subsection, namely the observation that ci is never Raised, as well as the conclusion that ci is associated with Case requirements, can straightforwardly be extended to Piedmontese ye. Our discussion here has been limited to Italian since we are aiming to test the interaction between the construction in question and the restructuring process, the existence of which in Piedmontese is not well-established.<sup>9</sup>

Quite analogous to locational constructions, is the idiom voler ci ("there want") of the following few examples. We note in particular, that while volare ("want") is not an ergative verb and takes auxiliary A in general, the idiom voler ci has the relevant properties of ergative verbs.<sup>10</sup>

- (21a) Ci vogliono due dollari  
 There want two dollarss  
 (It takes two dollars)
- (21b) Ce ne sono voluti due  
 There of them has (E) wanted twos
- (21c) %Ci vuole due dollari  
 There wants two dollars
- (21d) \*Due dollari ci vogliono  
 Two dollars there want

- (21e) \*Giovanni temeva di volerci piu' di due dollari  
 Giovanni feared there to want more than two dollars  
 (...that it would take more than...)

Note in fact auxiliary E and Ne-Cl in (21b), the substandard option analogous to that of locationals in (21c), the impossibility to prepose the i-subject (notice that only the theoretical notion of i-subject will hold here since there is no form "\*Due dollari vogliono"), as in (21d), and the impossibility to occur in infinitivals as in (21d), also typical of locationals.

### 3.1.4 Ci under Restructuring

Assuming thus that ci and Piedmontese ye are quite analogous, we will now turn to the question of how both are to be prevented from occurring with VP-adjoined i-subjects. We recall that essentially there are two conceivable alternatives: to allow insertion of ci/ye in D-structure only; and to require that ci/ye should only bind i-subjects in direct object position (by means of some syntactic condition). We will now further recall that while an i-subject in direct object position is usually base-generated in that position there is at least one case where this is not true. In fact, as we discussed in 2.1.1 above, with some cases of restructuring, the matrix subject can be moved into embedded direct object position in the course of the derivation. Our two alternatives will thus make different empirical predictions with respect to those cases as we shall see, enabling us to decide.

Consider inversion with pro as a designated element in a configuration which has been affected by restructuring, as in (i) of the following derivation. Consider further the corresponding derivation involving ci as a designated element of (ii). The latter ought to be equally possible as the former if ci, like pro, could be inserted in the course of the

derivation. (In (22) "cp" will be a complex predicate, as was discussed in 2.1.1, and volere will be a Control verb, not to be confused with the idiom voler ci of (21) above).

(22a) Well-formed, prior to restructuring:

- i) Giovanni voleva [<sub>S</sub><sub>PRO<sub>i</sub></sub> essere <sub>t<sub>i</sub></sub> in cima]  
Giovanni wanted to be at the top
- ii) Giovanni voleva [<sub>S</sub><sub>PRO<sub>i</sub></sub> intervenire <sub>t<sub>i</sub></sub>]  
Giovanni wanted to intervene

(22b) After restructuring:

- i) Giovanni [<sub>cp</sub> voleva essere <sub>t<sub>i</sub></sub> in cima]
- ii) Giovanni [<sub>cp</sub> voleva intervenire <sub>t<sub>i</sub></sub>]

(22c) NP-movement:

- i) [<sub>NP<sup>e</sup></sub>] [<sub>cp</sub> voleva essere [Giovanni] in cima]
- ii) [<sub>NP<sup>e</sup></sub>] [<sub>cp</sub> voleva intervenire [Giovanni]]

(22d) Insertion of designated element:

- i) NP<sub>ci</sub> <sub>ci<sub>i</sub></sub> voleva essere [<sub>i</sub> Giovanni] in cima
- ii) pro<sub>i</sub> voleva intervenire [<sub>i</sub> Giovanni]

While there is a grammatical sentence corresponding to ii) in (22d), there appears to be no grammatical sentence corresponding to i), as in (23) (where the complement to the right of "Giovanni" in (23b) has the purpose of ensuring that the latter phrase is in direct object position, as was discussed in 2.1.1 above).

(23a) \*Ci voleva essere Giovanni in cima  
There wanted to be Giovannis at the top

(23b) Voleva intervenire Giovanni a risolvere il problema  
Wanted to intervene Giovannis to solve the problem

The ungrammaticality of (23a) will thus discount one of our alternatives. In fact, a constraint to the effect that ci could only be related to i-subjects in direct object position, would be fulfilled in (23a), given

our analysis. On the other hand, a constraint requiring that ci be only inserted in D-structure, would correctly predict the ungrammaticality of (23a). In fact, we can rather naturally assume that ci cannot be inserted unless the relevant subject position is empty. We thus assume that the syntax of ci is such as to require adjacency to a null NP " $NP_{ci}$ " (or its trace, as in (19)), both in D-structure and in S-structure. Since volere will not have an empty subject in D-structure, ci will never be inserted with the latter verb (aside from the idiom in (21), irrelevant here).

We will therefore assume that ci/ye are inserted only in D-structure. This will ensure that they only appear in conjunction with base-generated i-subjects. We further assume that they are inserted directly in clitic form. This will ensure that they will not undergo NP movement (Raising). We will assume that presence of ci, ye in D-structure will not violate the criterion of thematic well-formedness ((38) of chapter 1), since the latter elements, which will be associated with non-thematic positions (subject of essere and of ergative verbs), can be naturally regarded as non-referential expressions.

The Control case in (23a) will contrast with the superficially analogous Raising case, which is grammatical, as in (24).

- (24) Ci potrebbe essere Giovanni in cima  
 There could be Giovanni<sub>s</sub> at the top

For the case in (24) we will assume the derivation in (25), where ci will "climb" on to the main verb, as we assume for all clitics under restructuring (but see ch. 6 for further details).<sup>11</sup>

- (25a) After Raising, analogous to (19):

$NP_{ci}$  potere [<sub>S<sup>t</sup></sub> esserci Giovanni in cima]

(25b) After restructuring and ci-climbing:

$NP_{ci} [cp^{ci-potere} essere\ Giovanni\ in\ cima]$

Given our analysis, ci will in fact have to "climb" obligatorily after restructuring, as in (25b), so as to be adjacent to  $NP_{ci}$ , as we assume is generally required. It is easy to see that no parallel derivation via ci-climbing would be available in the Control case, to give rise to (23a).<sup>12</sup>

Therefore while pro-inversion and ci-inversion discriminate in equal fashion between Raising and Control predicates in the absence of restructuring (cf. (16), ch. 2; (18a), (20c) above), only ci-inversion continues to discriminate if restructuring occurs. Ci-inversion will thus have no possibilities at all for embedding under Control contexts. The following table summarizes the distributions of the two types of inversion.

(26)	no Rest	Rest
Raising	pro/ci	pro/ci
Control		pro

We must note that since the different distributions of ci and pro have been accounted for by assuming insertion before restructuring for ci, and insertion after restructuring for pro, our view that restructured complexes are derived from orthodox base structures rather than -say- base-generated, is confirmed. In particular, the Raising/Control contrasts with respect to ci-inversion found with restructured complexes, would indeed be very difficult to account for, if the latter complexes were base-generated. These matters will be further discussed in chapter 6.

Having thus accounted for the fact that ci, ye occur with base-generated i-subjects only, we will note that they always occur with such i-subjects, as in the following.

- (27a) Ci sono due lettere nella busta  
There are two letters in the envelope
- (27b) Due lettere sono nella busta  
Two letters are in the envelope
- (27c) ??Ne sono due nella busta  
Of them are two in the envelope
- (28a) A-l-e rivaye dui american  
(A) has arrived there two Americans
- (28b) Dui american a sun riva'  
Two Americans (a) have arrived
- (28c) ??A sun rivane dui  
(A) have arrived of them two

Given the b cases above, which we assume are derived via NP movement from base forms analogous to those of the a cases, insertion of ci/ye must clearly not be intrinsically obligatory. Given further that pro insertion is generally available both in Italian and in Piedmontese, we may expect the cases in c to be possible, where pro rather than ci/ye would be inserted. Insertion of pro in these cases appears problematic -we must note-, not only if the i-subject is in its D-structure position, but also (at least under normal intonation) if it is adjoined to VP. This would be the case if rightward NP-movement applied to the b cases above, to derive the cases in (29) respectively.

- (29a) ??Sono nella busta due lettere  
Are in the envelope two letters
- (29b) ??A sun riva' dui american  
(A) have arrived two Americans

While we see no formal device that could naturally account for these facts, we will suggest informally that there exists a hierarchy of options with the effect that inversion by ci/ye will have priority where applicable.

### 3.1.5 Wh-movement

Since inversion will be overtly marked by the presence of ci/ye in

the cases discussed, the latter cases provide a direct test for the view in Rizzi (1979) (briefly mentioned in 2.5.2 above), that extraction by Wh-movement of the subject (in Italian) is systematically impossible, and that only i-subjects can be extracted. The results confirm the latter theory and further indicate that Piedmontese works just like Italian with respect to Wh-movement. Consider in fact the results of Wh-movement in the following, corresponding to the a and b cases in (27) and (28) above respectively (the judgements in (30), (31), like those in (29), will be relative to normal intonation).

(30a) Quante lettere hai detto che ci sono nella busta?  
How many letters (you) said that there are in the envelope?

(30b) ??Quante lettere hai detto che sono nella busta?  
How many letters (you) said that are in the envelope?

(31a) Vaire american t-l-as dit che a-l-e rivaye?  
How many Americans (t) (you) said that (a) arrived there?

(31b) ??Vaire american t-l-as dit che a sun riva'?<sup>13</sup>  
How many Americans (t) (you) said that (a) arrived?

The above contrasts will indeed suggest that there is no possibility to extract the subject, and that only an i-subject can be extracted. In fact the grammatical cases in (30a) (31a) are clearly derived from inverted forms, given ci/ye, and the less than fully ungrammatical status of (30b), (31b) can be naturally taken to reflect the marginal possibility to have inversion without ci/ye (i.e. with pro) in these cases, as in (29), or (27c), (28c).

### 3.2 French

#### 3.2.0 Introduction

Occurrence of pleonastic il in French appears to discriminate among "intransitive" verbs, as with the cases in (33) from Kayne (1981), roughly synonymous with those in (32) respectively.

- (32a) Trois amis sont arrivés  
Three friends have arrived
- (32b) Trois amis ont téléphoné  
Three friends have phoned
- (33a) Il est arrivé trois amis  
It arrived three friends
- (33b) ??Il a téléphoné trois amis  
It phoned three friends

In this section I will claim that the il-construction of (33) is essentially analogous to the ye-construction of Piedmontese discussed in 3.1 above, at least for the core cases. Namely I will claim that il, like Piedmontese ye is inserted in D-structure and thus occurs only with base-generated i-subjects, and not with i-subjects derived by rightward movement. The contrast in (33) will thus be accounted for by assuming that arriver is an ergative verb, while téléphoner is intransitive. Derivation of (32a) would then involve leftward NP movement, as with its Italian counterpart.

### 3.2.1 The General Distribution

The base-generation hypothesis for the il-construction, which has been independently advanced in Herschensohn (1979), appears rather plausible in the light of our previous discussion, given the following observations:

-The il-construction is (with rare exceptions; see below) impossible with transitive verbs.

-As in Italian, apparent intransitives break down into two classes with respect to selection of the aspectual auxiliary. Some, like arriver in (32a), (33a) take être ("be"), others, like téléphoner in (32b), (33b), take avoir ("have"). (However the "être" class appears more restricted than the "essere" class in Italian). The il-construction appears

generally possible with E verbs while fairly generally impossible with A verbs (cf. (33)), as noted, for example, in Obenauer (1976).

-The il-construction will allow cliticization of en (En-C1), counterpart to Italian ne, from the i-subject, thus analogously to the base-generated type of inversion in Italian.

At a closer scrutiny however, the situation appears more complex: Cases involving A verbs are also found, as in (34) (from Obenauer (1976)).

- (34a) Il a manqué trois élèves  
It was missing three pupils
- (34b) Il a disparu plus de sept cents sucettes  
It disappeared more than seven hundred lollipops
- (34c) Il a surgi d'autres correspondances ...  
It arose some other correspondences ...

We could accomodate cases like (34) without relinquishing the base-generation hypothesis, by assuming that auxiliary assignment in French is only partly analogous to auxiliary assignment in Italian. In particular we could assume that the verbs in (34) select auxiliary A even though they are ergative. The latter suggestion may seem plausible since the corresponding Italian verbs (mancare, sparire, sorgere respectively) take E.<sup>14</sup> The view that some ergative verbs (in our syntactic sense) select avoir may be further supported by the fact that while the si-ergatives of 1.4.3 will have an exact counterpart taking E in French, as in (35b) related to (35a), the counterpart to the ergatives of 1.4.1 will take A, the same auxiliary as the corresponding transitive, as in (36b).

- (35a) Jean a cassé la fenêtre  
Jean broke the window (A)
- (35b) La fenêtre s'est cassée  
The window (itself) broke (E)

- (36a) Jean a coulé le bateau  
 Jean sank the boat (A)

- (36b) Le bateau a coulé  
 The boat sank (A)

We may thus assume that auxiliary assignment in French is a hybrid system: partly syntactic like the Italian one, but also partly lexical. In particular we may assume that a binding relation between the subject and the direct object could fail to induce E, subject to lexical factors.<sup>15</sup>

We note that the, at-least-partly, syntactic character of E assignment in French is attested by the uniformity of E over some syntactically well defined sets. Consider in fact the following alternations, which are quite systematic, involving the "Se-moyen" construction to be discussed below, and the reflexive construction respectively (on French passives, which differ from Italian passives for selection of the aspectual auxiliary, see some of chapter 6).

- (37a) Jean a vendu beaucoup de livres  
 Jean has sold many books (A)

- (37b) Se-moyen:

- Il s'est vendu beaucoup de livres  
 (One has sold many books) (E)

- (38a) Jean a regardé Pierre  
 Jean has looked at Pierre (A)

- (38b) Reflexive:

- Jean s'est regardé  
 Jean himself has looked at (E)

However, even under these assumptions, the predictions ensuing from our view do not seem to be borne out in great detail. In fact we would now expect that all the verbs that enter into pairs either like (35) or (36) should allow the il-construction. This appears rather generally true of the type in (35) but not as generally true of the type in

(36).<sup>16</sup> E.g.:

- (39a) Le chaud a étouffé plusieurs personnes  
The heat choked several people
- (39b) Plusieurs personnes ont étouffé  
Several people choked
- (39c) ??Il a étouffé plusieurs personnes  
It (there) choked several people

Furthermore, examples have appeared in the literature with verbs that would not be ergative in any (reasonable) sense, e.g. (40) (from Grimshaw (1980), attributed to Pollock (1978)); examples with transitive verbs have also appeared, e.g. (41) (from Kayne (1979, p. 715)).

- (40) Il mange beaucoup de linguistes dans ce restaurant  
It eats many linguists in this restaurant
- (41) Il prend corps dans ce pays une grande espérance  
It is taking shape in this country a great hope

Rather than attempting an accurate review of the facts, we will consider some theoretical reasons which would make the base-generation analysis seem desirable.

### 3.2.2 Passives and Se-Moyen

We will first note that structures which are commonly and independently assumed to be ergative in the relevant sense (i.e. structures in which the S-structure subject is the D-structure object) participate freely in the il-construction. In particular, this is true of passives, as in (42b), and "se-moyen" as in (43b) (both from Kayne (1975), p. 330)), near synonymous with the corresponding a cases.

- (42a) Plusieurs tartes ont été mangées  
Several pies have been eaten
- (42b) Il a été mangé plusieurs tartes  
It has been eaten several pies

- (43a) Beaucoup d'immeubles se construisent dans cette ville  
 Many buildings "se" build in this town
- (43b) Il se construit beaucoup d'immeubles dans cette ville  
 It "se" builds many buildings in this town

Discussions to the effect that *se-moyen* constructions like (43a) are derived by leftward movement of the direct object like passives, have appeared in Ruwet (1972, ch. 3); Kayne (1975, sect. 5.9). I will assume the latter discussions quite correct. This will make *se-moyen* (henceforth "SE", in the glosses also) rather similar to Italian SI of 1.3 above. A "lexical", rather than syntactic (via NP movement) derivation of cases like (43a), has been proposed in Grimshaw (1980). The latter proposal will be reviewed in 5.7.5 below. We return to SE and SI in the next subsection.

We may note that the ergative character of passives is not incidental to their participation in the *il*-construction. In fact as noted in Kayne (1975, p. 246 and fn. 52) and references he cites, "unpassives", which (under our assumptions) differ from passives exactly in not being ergative, behave quite differently, as shown by the contrast here below.

- (44a) Plusieurs sauvages ont été civilisés  
 Several savages have been civilized
- (44b) Il a été civilisé plusieurs sauvages  
 It has been civilized several savages
- (45a) Plusieurs sauvages sont incivilisés  
 Several savages are uncivilized
- (45b) \*Il est incivilisé plusieurs sauvages  
 It is uncivilized several savages

It will be recalled that a rather analogous point was made for Italian in 1.2 above (cf. (9)-(11), ch. 1).

If we assume the syntax of French en essentially analogous to that of Italian ne as would seem independently plausible, namely if we assume

that, like ne, en cliticizes only from direct object positions, then the i-subjects in (46) here below must be in such a position, just like the direct objects in the respective transitive counterparts in (47).

- (46a) Il en a été mangé plusieurs  
It of them has been eaten several
- (46b) Il s'en construit beaucoup  
It SE of them builds many  
(SE builds many of them)
- (47a) Jean en a mangé plusieurs  
Jean of them has eaten several
- (47b) Jean en a construit beaucoup  
Jean of them has built many

If this view is correct, then a derivation of the cases in (42b), (43b) via rightward NP movement (from the corresponding a cases) would have the rather curious property of moving the i-subject exactly into the position it already occupied in D-structure.<sup>17</sup>

We thus assume that the il-construction is indeed base-generated. We then expect the latter to be possible exactly with passives, with SE cases and with ergative verbs. We will see in 5.7 below how we can correctly account for the fact that the il-construction can also appear with reflexives in some cases. Our discussion in 5.7 will in fact provide further support for the base-generation analysis. Evidence for the ergative analysis of verbs like arriver, independent of the facts presented in this section, will be discussed in 3.6, in connection with "reduced" relatives, and in 5.5 in our discussion of causative constructions. Given our discussion of ci/ye in the previous section, the most natural way to constrain occurrence of il to base-generated forms, will be to assume that like ci/ye, the latter is inserted in D-structure only.

We will attribute facts which would seemingly diverge from our predictions, to additional and partly idiosyncratic factors, interacting with the core system which we are proposing. We may thus assume that under special and perhaps stylistically controlled conditions, il can be inserted in the course of the derivation also, to account, for example, for (40), (41). We may further assume some constraints on the choice of verb, to rule out cases like (39c) (cf. also fn. 16).

The base-generation analysis will be further confirmed by Raising/Control contrasts like the one in (48), parallel to some of the contrasts discussed for Italian (cf. (16), ch. 2).

- (48a) Il semblait venir beaucoup de monde  
It seemed to come many people

- (48b) \*Il voulait venir beaucoup de monde  
It wanted to come many people

Under our view that il is inserted only in D-structure, the contrast in (48) will follow rather straightforwardly. In fact (48a) will be derived by applying Raising to il of "... il venir beaucoup de monde", and no analogous derivation will be available with Control verbs. However, under the view that il-constructions are derived via rightward NP movement of the subject, nothing obvious would prevent derivation of (48b) from the well formed "Beaucoup de monde voulait venir" (although one might attempt to relate the impossibility of the il-construction with a sentential complement, as in (48b), to the seemingly analogous impossibility when there is a direct object).<sup>18</sup>

### 3.2.3 The Syntax of il

Our view that il of the construction in question enters as a designated element in the inversion strategy of chapter 2, namely our

assumption that il binds the i-subject, will account for a significant difference between French SE (*moyen*) and Italian SI. In particular it will account for the fact, noted for example in Rizzi (1976b), that unlike SI, SE occurs only with transitive verbs. Before we come to that difference, we will first note that SE and SI are in many respects analogous.

We assume that SE, like SI, plays a thematic role. In particular we assume that SE can play the thematic role of subject. We thus expect that SE can be introduced at the level of lexical insertion, namely D-structure, with respect to any subject which has a thematic role. This will account for the fact that occurrence of SE is fully productive (within transitive verbs, as we shall see below), contrasting with the less than fully productive occurrence for example, of ergative se (as in (35b)). We assume that this difference, which has been noted and discussed in Ruwet (1972), is due to the fact that there are lexical processes associated with occurrence of ergative se, as discussed for Italian ergative si in 1.4.3, while only syntactic processes are associated with occurrence of SE. Confirming the view that SE plays a thematic role is the fact, also noted in Ruwet (1972), that the latter can be related to phrases which generally require a human antecedent, as in (49) (from Ruwet (1972, pp. 115, 118)).

- (49a) Cela se dit facilement de soi-même  
That SE says easily of oneself

- (49b) Les vitres, ça se brise avec enthousiasme  
The windows, that SE breaks with enthusiasm

SE will again differ here from ergative se. In fact, although ergative se briser (break) exists, the case in (49b) is unambiguous, allowing only the "SE" reading as noted by Ruwet. Analogous facts hold for

Italian SI versus ergative si. (On the role of SI as an antecedent, see the discussion in 6.4.1 below).

We further assume that SE, like SI, is associated with Case requirements. This assumption is supported by the fact that SE, like SI, does not in general occur in infinitivals, as shown by the following examples.

- (50a) Il serait intéressant de voir ce film  
It would be interesting to see that movie

- (50b) \*Il serait intéressant de se voir ce film  
It would be interesting (for) SE to see that movie

- (51a) Cette histoire a été racontée à Pierre  
That story has been told to Pierre

sans être racontée à Marie  
without having been told to Marie

- (51b) Cette histoire se racontera à Pierre  
That story SE will tell Pierre

\*sans se raconter à Marie  
without SE telling (it) to Marie

The facts in (50), (51) correspond essentially to those noted for Italian SI in (18), (25) of chapter 1, respectively. We will thus assume that Case marking for SE works identically as for Italian SI, and as was discussed for the latter in 1.3 above. In particular we assume that the subject position to which SE is related, must be Case-marked (on Raising cases and Case-assignment "at a distance", see below). The infinitival cases in (50b), (51b) are thus ruled out. SE will again differ here from ergative or inherent reflexive se, which occur in infinitivals freely as in (52) (cf. (46), ch. 1, for the corresponding observation for Italian).

- (52a) Jean a passé la nuit sans s'endormir  
Jean spent the night without falling asleep

- (52b) Le verre est tombé sans se casser  
The glass fell without breaking

Alongside of these analogies between SE and SI, we now note the following difference, pointed out in Rizzi (1976b).

- (53a) \*(Il) se mange bien dans ce restaurant  
(see 53b))

- (53b) Si mangia bene in questo ristorante  
SI eats well in this restaurant

We will now suggest that the difference in (53) follows from independent considerations, and in particular from some appropriate interpretation of the so called "pro drop" parameter and the assumption that insertion of pleonastic elements in French is constrained along the lines of the discussion in 2.6 above, relative to Italian. We thus assume that Italian but not French allows the subject of tensed clauses to be phonologically null (and related to a clitic element: either SI or verb inflection (pro)). Given the clitic status of SI/SE, French, though not Italian, will require either preposing of the object, or insertion of a pleonastic. We now assume that il is a designated element in the inversion strategy of chapter 2, and must therefore bind a nominative phrase. Intransitive verbs are thus ruled out altogether from the SE construction, since the latter verbs would neither provide an object which could be preposed, nor a nominative phrase which could be bound by il (such nominative phrase would have to be a direct object also, since we assume that there is no adjunction to VP here, and in any case since the subject is SE, there would be nothing to adjoin to VP).<sup>19</sup> Our view that il must be associated with (i.e. must bind) a NP will not only rule out SE with intransitive verbs, but also with passives and ergatives in a rather analogous fashion, whence the contrasts here below.

- (54a) \*(Il) s'a été invité  
(see (54b))

(54b) Si e' stati invitati  
 SI has been invited

(55a) \*(Il) s'est arrivé  
 (see (55b))

(55b) Si e' arrivati  
 SI has arrived

(54a) and (55a) will be ruled out once again by the fact that there is no NP to which il could be related (assuming that the latter could not be related to the trace of SE). This will account for the fact that while SI can be thematically an object (i.e. a D-structure object), as in (54b), (55b), SE is always a thematic subject.

So far, no intrinsic difference between SI and SE has been postulated. We now assume that there is one difference, consisting of the fact that, while SI is inserted under any NP node and eventually cliticized by movement from subject position (cf. 1.3), SE is inserted directly in clitic form in the base. We assume that this is the only difference between the two. On the motivation for this analysis of SE, we note first that insertion of SE under NP nodes would in a sense be "unnecessary", since the latter could not in any case undergo NP-movement as in (54b), (55b) for the reasons discussed. We further note that such insertion of SE under an NP node would be impossible to maintain, in view of cases like (43b). In fact, if we assume that il is inserted in D-structure, SE could not be in subject position at any level of derivation. We thus assume the existence in D-structure of a system "[<sub>i</sub>e] SE<sub>i</sub>" fulfilling the subject thematic role and requiring Case, quite analogous to the system "[<sub>i</sub>e] SI<sub>i</sub>" of Italian, produced by movement. We further assume that il (a non-referential expression, thus not interfering with thematic well-formedness) can be inserted into

the empty subject position, also in D-structure. If il is not inserted, Object Preposing will have to apply.

While we assume that the movement analysis of SI versus the base-generation analysis of SE represents an intrinsic difference between the two, we must note that if our discussion is correct, the latter difference is in some reasonable sense predictable from independent factors, essentially from the difference between French and Italian with respect to null subjects (spd), and from the syntax of il.

Our view that SE is base-generated, will now predict that the latter should fail to undergo Raising, again differing from SI. This is correct, as shown by the following contrasts.

- (56a) \*(I.I) se semblait construire beaucoup d'immeubles  
SE seemed to build many buildings
- (56b) Si sembrava costruire molte case  
SI seemed to build many houses
- (57a) Il semblait se construire beaucoup d'immeubles  
It seemed SE to build many buildings
- (57b) ?Sembrava costruirsi molte case  
(It) seemed SI to build many houses

The ungrammaticality of (56a) will indeed follow from our assumptions, since SE could not originate on the matrix verb due to thematic well-formedness (construire, not sembler assigns thematic role to the subject). On the other hand SE could not be Raised since it is never in NP position. Thus only (56b) would be derivable, by applying Raising to il. The existence of both of the Italian variants will be due to the possibility for Raising and SI-Cl to apply in either order, as was discussed in 1.3. Both SI and SE will receive Case "at a distance" from the matrix subject position in (57), as was discussed for Italian in 1.3 above.

Further evidence for the existence of a binding relation between il

and the i-subject is provided by the invariance of the auxiliary in cases like (58), under the assumption that auxiliary E is determined (at least in part) syntactically, as in Italian.<sup>20</sup>

- (58a) [<sub>i</sub>Trois filles] sont arrivées <sub>i</sub>t<sub>i</sub>  
Three girs have arrived (E)

- (58b) Il<sub>i</sub> est arrivé [<sub>i</sub>trois filles]  
It has arrived three girls (E)

### 3.3 Small Clauses

#### 3.3.0 Introduction

In this section we will argue, following Williams (1975), that so called "reduced relatives" are not derived by a process of Wh-be deletion, but rather are base generated "small clauses". We will claim that relativization in the latter cases is due to Control and not to Wh-movement. In later sections (cf. 3.6), these results will be extended to Italian and to the other languages we are discussing.

#### 3.3.1 To be Deletion

Past participles can occur internal to NP as in (59a), and in complements of verbs like consider, as in (59b).

- (59a) A student admired for his wit was accepted into the department

- (59b) I consider his application rejected

We will provisionally refer to participial phrases such as the one in (59a), as "reduced relatives". We will note that with past participles as in either of (59), interpretation with respect to the subject argument, is systematically impossible, whence the ungrammaticality of (60).

- (60a) \*Some fellow studied in my department was admired for his wit

- (60b) \*I consider his application failed

That is, while an interpretation analogous to "A student who was admired..."

is possible in (59a), an interpretation analogous to "Some fellow who had studied ..." is impossible in (60a), and similarly with the consider cases, where "... his application to have been rejected" is possible for (59b), while "... his application to have failed" is impossible for (60b). Such past participles thus appear to allow only a passive, never an active interpretation. At close scrutiny, the parallelism with passives seems indeed rather thorough. Consider in fact the different types of passives here below: involving preposition stranding, as in (61a); movement of the embedded subject, as in (62a); and different Control structures as in (63a), (64a), given together with the corresponding "reduced relatives" and consider cases.

- (61a) [<sub>i</sub> My rights] were infringed upon <sub>t<sub>i</sub></sub>
- (61b) The rights infringed upon were mine
- (61c) I consider my rights infringed upon
- (62a) [<sub>i</sub> John] was expected [<sub>S<sub>t<sub>i</sub></sub></sub> to be witty]
- (62b) A student expected to be witty was accepted in the program
- (62c) I consider John (too often) expected to be witty
- (63a) Object Control
  - [<sub>i</sub> John] was persuaded <sub>t<sub>i</sub></sub> [<sub>S<sub>PRO<sub>i</sub></sub></sub> to leave]
- (63b) A student just persuaded to leave had never read SPE
- (63c) I consider John (finally) persuaded to leave
- (64a) "Arbitrary" Control
  - [<sub>i</sub> The instructor] was asked <sub>t<sub>i</sub></sub> what [<sub>S<sub>PRO<sub>arb</sub></sub></sub> to do]
- (64b) Any instructor asked what to do must provide assistance
- (64c) I consider John seldom asked what to do

On the similarity with passives we will also note that while passives are generally impossible with subject-Control verbs, as in (65a), so

are "reduced relatives" and past participial complements of consider, as in (65b), (65c).

### Subject Control

(65a) \*[<sub>i</sub> John] was promised <sub>i</sub> [S<sub>PRO</sub> to apply for a grant]

(65b) \*A student promised (me) to apply for a grant had never read SPE

(65c) \*I consider John promised (me) to apply for a grant

As will be discussed more in detail in some of 5.7 below, we will assume that the ungrammaticality of (65a) is due to the lack of a subject in D-structure, partially following the discussion in Chomsky (1980). We note further, that just as passives of subject-Control verbs improve when the complement is itself passivized, as noted in Hust and Brame (1976), and Solan (1977), as in (66a) versus (65a), so do the corresponding "reduced relatives" and complements of consider, as in (66b), (66c).

(66a) ?John was promised to be accepted

(66b) ?A student promised to be accepted had never read SPE

(66c) ?I consider John promised to be accepted

It will also be relevant to note that in spite of the syntactic parallelism between (62a), namely "John<sub>i</sub> was expected <sub>i</sub> to be witty" and corresponding Raising cases, for example "John<sub>i</sub> seemed <sub>i</sub> to be witty", there will be no past participial forms corresponding to the latter, as in (67a), (67b), as we saw there were, corresponding to the former (cf. (62b), (62c)).

(67a) \*A student      } turned out    }    to be witty was accepted in  
                       } seemed            }  
                       } appeared          }

the program

(67b) \*I consider John      } turned out    }    to be witty  
                       } seemed            }  
                       } appeared          }

It is easy to see that all of the facts so far discussed would follow if "reduced relatives" and past participial complement of consider were derived from passive forms, by deleting the sequence Wh-be in one case (reduced relatives), and be in the other (with consider). In particular, the lack of the forms in (67) would follow from the lack of passive forms for Raising verbs, e.g. "\*John was seemed to be witty". We now note however, that several arguments exist against such (Wh-) be deletion, in particular:

I. It is not obvious that a single formulation could cover the two different operations involved: Wh-be deletion for the "reduced relative" case and be deletion for the complement of consider.

II. A large amount of information would have to be built into these operations, to the effect of essentially duplicating other parts of the grammar. In fact Wh-be deletion must be so constrained as to only affect Wh-phrases that are related to a subject, to avoid deriving (68b) from (68a).

(68a) The girl who John was seen with is Mary

(68b) \*The girl John seen with is Mary

Note that this "subject only" effect is an independent property of Control (i.e. only subjects can be Controlled). Also, Wh-be deletion would have to distinguish "semi-modal" be and be of "be going" from other instances of be: a distinction which is already and independently expressed by D-structures (on this see 3.4.2 below), so as to avoid deriving (69b) from (69a).

(69a) A student who was (going) to apply to the program was reciting Aspects aloud

(69b) \*A student (going) to apply to the program was reciting Aspects aloud

Furthermore Wh-be deletion will have to be constrained so as not to derive (70b) from (70a) in the manner that "free deletion in comp" (of Chomsky and Lasnik (1977)) would derive (70c).

(70a) A student [comp that who] was accepted in the program ...

(70b) \*A student that accepted in the program ...

(70c) A student that was accepted in the program ...

Depending on whether complements of consider are in general analyzed as cases of object-Control or of Exceptional Case Marking (on this issue, see 3.3.2 below), be deletion in the derivation of (71a) would have to operate either in the context (71b) or in (71c).

(71a) I consider him accepted in the program

(71b) ... him [S<sup>PRO</sup> to be accepted in the program]

(71c) ... [S<sup>him</sup> to be accepted in the program]

If left unconstrained the rule of be deletion would now in one case derive (72b) and in the other (73b) below respectively, from the corresponding a cases.

(72a) John promised him [S<sup>PRO</sup> to be accepted]

(72b) \*John promised him accepted

(73a) Bill expected [S<sup>him</sup> to be accepted]

(73b) \*Bill expected him accepted

Therefore the rule would have to be allowed to resort to lexical information relative to the predicate dominating be.

III. As noted in Williams (1975) Wh-be deletion would have to be further conditioned so as to fail in indirect questions, as in (74), in free relatives, as in (75), and in extraposed relatives, as in (76).

(74a) I wonder who was accepted

(74b) \*I wonder accepted

(75a) I saw who was accepted

(75b) \*I saw accepted

(76a) A student was reading SPE who was accepted in the program

(76b) \*A student was reading SPE accepted in the program

IV. Consider now the following examples.

(77a) John was the first one who reached that island

(77b) John was the first one to reach that island

It appears that (77a) and (77b) have different properties with respect to Wh-movement, as indicated by the contrast in (78).

(78a) \*The island that John was the first one who reached

(78b) The island that John was the first one to reach

Although we will not offer a thorough understanding of the alternation in (78), we will draw some conclusions given the theory of Wh-movement presented in Chomsky (1977), based on subjacency. We will take the contrast in (78) to indicate: i), that the NP boundary relative to a nominal which is a complement of be (predicate nominal) does not count for subjacency, and ii), that relativization in "the first one to reach ..." of (78b) is not due to Wh-movement, as in "the first one who reached ..." of (78a), but rather to Control. In fact we will suggest that subject relativization in English infinitivals in general, is not due to Wh-movement, as assumed in Chomsky (1980), but to Control: a conclusion independently reached in Williams (1980) (Corresponding to Chomsky's example (57) "A man to fix the sink", we find, relative to our discussion here, the contrast "\*The sink that John is the one who fixes/ The sink that John is the one to fix". See discussion here below).<sup>21</sup> Under these assumptions, (78a) will involve a violation of subjacency (on S) as indicated in (79a), whence its ungrammaticality,

while no violation will be involved in (78b) since Wh-movement can occur in two steps as indicated in (79b) (the parenthesized NP is the one which does not count for subjacency).<sup>22</sup>

(79a) ... that [S John was [NP the first one [S who<sub>i</sub> [S<sub>i</sub> reached \_]]]]

(79b) ... that [S John was [NP the first one [S [S PRO to reach \_]]]]

The violation in (79a), will thus be a "Wh-island" violation (cf. Ross (1967)), analogous to the one in (80).

(80) \*The island that [S John wonders [S who<sub>i</sub> [S<sub>i</sub> reached \_]]]

The case in (78b), analyzed as in (79b), will contrast with the one in (81b) derived from (81a), where we assume that the NP boundary does play a role with respect to subjacency (the nominal involved is here a direct object rather than a predicate nominal).

(81a) John met the first one to reach that island

(81b) \*The island that [S John met [NP the first one [S [S PRO to reach \_]]]]

The case in (81b) will involve a violation of subjacency on either S or  $\bar{S}$ , and NP (on S versus  $\bar{S}$  with respect to subjacency, cf., in particular, Rizzi (1978b)).

We now consider the alternation in (82) parallel to the one in (77).

(82a) \*The girl that John was the last one who was seen with

(82b) The girl that John was the last one to be seen with

We now note that the "reduced relative" case in (83b) related to (83a), behaves like the infinitival, and not like the tensed case in (82).

(83a) John was the last one seen with Mary

(83b) The girl that John was the last one seen with

This behavior would be quite unexpected under a derivation of (83b) from (82a) via Wh-be deletion, but will follow rather straightforwardly from the Control analysis of (83b) which we will propose in the next subsection.

More arguments against (Wh-)be deletion can be provided by adapting the similar discussion of present participles in Williams (1975), to which the reader is referred (on present participles, see also below). Evidence against (Wh-)be deletion also appears in Wasow (1977, sect. 4). Further arguments will be given in our discussion in 3.6, 5.7.3, and 6.4.4 below.

### 3.3.2 Base Generation

We will assume that past participial "reduced relatives" and complements of consider, are not derived from passive forms, but rather base-generated independently. For the cases in (59) above, we will assume the analyses in (84) here below respectively.

(84a) [A student [PRO<sub>i</sub> admired t<sub>i</sub> for his wit]]

(84b) I consider [his application<sub>i</sub> rejected t<sub>i</sub>]

In particular, we will assume that past participles can appear in essentially clausal structures like those in (84) which, following Williams (1975), we will refer to as "small clauses" (sc's). We will thus replace the designation "reduced relative" for cases like (84a), with "small clause (sc) relative". We will assume that past participles have the property of not assigning a thematic role to the subject position, as we assumed above for passives and for ergative verbs. This will mean (given thematic well-formedness, cf. (38) of ch. 1) that past participial

small clauses, like passives and sentences with ergative verbs will have an empty (or "non-referential") subject in D-structure. The D-structure forms for the cases in (59) will thus be as in (85), whence the S-structure forms in (84).

(85a) ...[<sub>sc</sub>[e] admired PRO ...]

(85b) ...[<sub>sc</sub>[e] rejected [<sub>NP</sub>his application]]

We will assume that in (84b), the phrase "his application" is assigned Case across the sc boundary by the verb "consider". On this we note the Italian contrast in (86), suggesting that in fact, sc-boundaries do not block Case assignment (Case-government, cf. 2.2.4 above) in general, while the same is not true of S-boundaries.<sup>23</sup>

(86a) Considero [<sub>sc</sub>la sua richiesta<sub>i</sub> accettata t<sub>i</sub>]  
I consider his request accepted

(86b) (?)?Considero [<sub>S</sub>la sua richiesta<sub>i</sub> esser stata accettata t<sub>i</sub>]  
I consider his request to have been accepted

However, in later discussion, we will find cases where sc boundaries do appear to prevent Case assignment and government (cf. in particular the discussion of passives in 3.4.2, the discussion of passives under causative verbs and under restructuring verbs, in 5.5.3 and in some of chapter 6 respectively). We will thus assume that Case assignment across sc-boundaries in Italian is possible only in some cases, with verbs like considerare, leaving the question partially open (but see fn. 23 for the possibility of a Control analysis of (86a)).

The analyses in (84) will account for the fact that only a "passive" interpretation is ever possible with these past participles, namely for the fact that only a thematic (D-structure) object, never a thematic subject, can enter into the interpretation (cf. "\*Some fellow studied

in my department .../ \*I consider his application failed" of (60) above). Furthermore, given that the derivation we are suggesting is quite parallel to that of passives, our analysis will account for the noted parallelisms between these cases and passives, without resorting to (Wh-)be deletion. An even closer parallelism with passives will be expected as a result of our discussion of passives in 3.4 below.

We are thus claiming that the past participles in question are essentially verbs, rather than -say- adjectives. Our view is supported by the fact that these past participles take the same structure of complements as the corresponding verbs, and in particular by the fact that they exhibit the same distribution of "gaps" (i.e. traces) as the corresponding passives, as we saw in (61)-(66) above (cf. for example preposition stranding in "The rights infringed upon were mine", i.e. (61b) above). The presence of traces will distinguish these past participles from adjectives since we do not expect adjectives to be followed by traces. On this recall the discussion of "unpassives" such as "\*Ne sono stati illimitati troppi/ Of them have been unlimited too many" and "\*Il est incivilisé plusieurs sauvages/ It is uncivilized several savages" discussed in 1.2 and 3.2.2 above respectively.

What remains to be accounted for is the lack of past participial forms for Raising verbs (i.e. "\*A student seemed to be witty ..."), noted above, cf. (67). On this we will assume that past participles are derived from the corresponding verb via a process of derivational morphology, which we may assume affixes some abstract past participial morpheme "-en" to the verb. We further assume that this operation involves the "loss" of the ability to assign a thematic role to the subject position, whence the empty subject positions of the D-structure

forms in (85) as discussed. We now suggest that such "loss" cannot be vacuous, namely that only verbs which do not independently fail to assign a thematic role to the subject can undergo such process, and -en affixation. Under this provision Raising and ergative verbs will be prevented from appearing in past participial form. The corresponding lack of passives like "\*John was seemed to be witty" will be given an analogous account in 3.6 below, where some of this discussion will be resumed. It must be made clear that our discussion here is intended to refer only to the "passive" participles under consideration, and must not be taken to extend to past participles of complex tenses, as in "John has admired Bill for his wit". From our standpoint the morphological parallelism between the two will be accidental.

The analysis we are proposing will not encounter any of the difficulties of the (Wh-)be deletion analysis. We will briefly review arguments I-IV of the previous subsection, working our way backwards.

On IV, and the fact that "... the last one seen with Mary" behaves like cases of relativization by Control, not by Wh-movement, there will obviously be no problem since we now assume that the latter is a case of Control, "seen with Mary" being a sc relative analogous to the one in (84a).

On III (Williams' argument), and "I wonder \*(who was) accepted" (the notation "\*(...)" will be used to mean "ungrammatical with the parenthesized portion omitted"), the facts will also follow straightforwardly from our analysis, since the sc relative "[PRO<sub>i</sub> accepted t<sub>i</sub>]" would have no "head" and would thus be ill-formed. Analogously for the free relative "I saw \*(who was) accepted". For the extraposed "A student was reading SPE \*(who was) accepted in the program", we will

simply assume that sc relatives do not extrapose.

On II. The case "The girl \*(who) John (was) seen with" (assume one parenthesized element to be present if and only if the other also is) of (68), will conform with our general prediction that only S-structure subjects, not objects, can be relativized, and will follow in particular from the fact that a sc relative "[John seen with PRO]" would be ill-formed in several respects: "John" is in a non-thematic position; PRO is inaccessible to Control (Opacity), and governed (we assume with the Government-Binding theory of Chomsky (forthcoming) that PRO must be ungoverned). The cases "A student \*(who was) going to apply ..." and "A student \*(who was) to apply ..." of (69), will follow from the fact that there are no sc relatives "going to apply" and "to apply" respectively (notice however that we would expect "to apply" to exist as an infinitival relative. The problem will therefore arise, though clearly independent of our discussion, of how to distinguish the latter from "to fix the sink" of the grammatical "A man to fix the sink"). The case "A student that \*(who was) accepted in the program" of (70) (also ungrammatical unless either that or who is deleted, cf. above), will follow from the fact that we do not expect that to occur in small clauses (or in infinitivals). On the cases "John promised him \*(to be) accepted" and "Bill expected him \*(to be) accepted" of (72), (73) we will straightforwardly assume that neither promise, nor expect are subcategorized for sc complements.<sup>24</sup>

Finally, on I, and on the difficulty of collapsing (Wh-)be deletion and be deletion into a single formulation, there will be no such difficulty since there are no such deletions.

### 3.3.3 Present Participles

Consider the present participles in (87).

(87a) Some fellow studying in my department was admired for his wit

(87b) I consider him doing his job

Essentially the same arguments presented above for past participles can be given against a (Wh-)be deletion derivation of the cases in (87) (i.e. from "... who was studying ..." and "... to be doing ..."). In fact the arguments in Williams (1975) deal exclusively with present participles. We will thus assume, again following Williams that the cases in (87) are also to be analyzed as small clauses, and in particular as in (88) respectively.<sup>25</sup>

(88a) ... [<sub>sc</sub> PRO studying in my department]

(88b) ... [<sub>sc</sub> him doing his job]

We will assume that present participles differ from past participles in that they do not fail to assign a thematic role to the subject. This will account for the fact that present participles, unlike past participles allow an "active" reading, "some fellow" and "him" in (87) being understood as the subject of "study" and "do" respectively (cf. the ungrammaticality of the corresponding past participle cases in (60)). The analyses in (88) will therefore be both D-structure and S-structure analyses. It will follow from the presence of a D-structure subject (cf. some of 5.7 below for more detailed discussion), that present participle forms of subject Control verbs will be possible, cf. "A student \*promised/ promising to apply for a grant ...". Since there is no "loss" of thematic role assignment, we will also correctly expect the existence of present participle forms for Raising verbs, as in "A student \*appeared/ appearing to be witty was accepted in the program".

While we will regard both past and present participles as derived from the corresponding verb by productive processes of derivational morphology, corresponding to -en and -ing affixation respectively, we will thus assume that only -en, not -ing affixation is associated with loss of thematic role assignment to the subject.

The view that past and present participles occur in identical structures, namely in sc's is confirmed by the fact that they can often appear in conjunctions, as in the following.<sup>26</sup>

- (89) Everyone currently studying SPE and invited to the reception  
must carry identification

The independent plausibility of the view that past and present participle phrases have identical constituency, stemming from the fact that the two have similar distributions and can be conjoined, will now confirm our hypothesis that past participle phrases have essentially clausal structures, rather than -in particular- VP type structures, i.e. that the correct analysis of (59a) is essentially "A student [NP<sub>i</sub> admired t<sub>i</sub> ...]" rather than "A student [VP<sub>i</sub> admired NP<sub>i</sub> ...]". In fact, the latter analysis, while it may superficially suggest an account of the fact that interpretation with respect to the subject is never possible with past participles, would not naturally extend to present participles, where such interpretation is in fact possible. Thus in "Some fellow [VP<sub>i</sub> studying in my department]" there would be no NP position which could be associated with the head. Furthermore, under a VP analysis of past participle phrases, since the head is systematically related to a post verbal argument, such as the object of "admire" in "A student admired for his wit ...", the latter relation would have to be expressed either by Control as in "A student [VP<sub>i</sub> admired PRO<sub>i</sub> ...]", or by movement, as in

"[<sub>i</sub>A student] [<sub>VP</sub>admired <sub>i</sub>t<sub>i</sub> ...]". The first alternative will be rejected by assuming the condition of the Government-Binding theory (Chomsky (forthcoming)) that PRO can never occur in governed positions. The second alternative, namely the "Raising into head" analysis seems suspicious with respect to the thematic well-formedness criterion since it would be reasonable to assume that the head and the relativized element play independent thematic roles. The latter alternative is further discredited by the result of the diagnostics relevant to distinguishing movement from Control. Consider in fact the cases in (90), to be further discussed in chapter 4, where each can be interpreted in association with the indirect object (i.e. "each of the visitors") in the Raising case in (90a), but not in the Control case in (90b).

(90a) (?)One interpreter [<sub>i</sub>each] seemed to be assigned to  
          [<sub>i</sub>the visitors]

(90b) \*One interpreter [<sub>i</sub>each] tried to be assigned to  
          [<sub>i</sub>the visitors]

We now note that the relative in (91) behaves like the Control, and not like the Raising case in (90).

(91)     \*One interpreter [<sub>i</sub>each] recently assigned to  
          [<sub>i</sub>those visitors] wanted a raise

We thus conclude that Control is involved in (91), and that the participial cases under discussion have indeed clausal structures.

Although we are assuming that past and present participles are not adjectives but essentially verbs, we must note that they alternate quite generally with adjectives, and also with prepositional phrases, as shown by the parallelism between some of the previous examples and the cases in (92).

- (92a) A student { fond of the EST  
          { proud of his wit  
          { on several committees  
          { in my class } was shown to the door
- (92b) I consider him { fond of the EST  
          { proud of his wit  
          { on several committees  
          { in my class }

We further note that adjectival and prepositional phrases occurring as in (92), can be often conjoined with participial phrases, as in (93) here below.

- (93a) Everyone proud to be in the department and invited to the party must bring his copy of SPE
- (93b) Everyone in the department and invited to the party must bring his copy of SPE

We will then assume that the cases in (92) also have sc analyses, such as for example "A student [<sub>sc</sub> PRO in my class]". We will assume in particular that the predicate of a sc can range over past or present participle, Adjectival Phrase (AP), Prepositional Phrase (PP).

We thus assume that there are three types of clauses: Tensed, containing Tense and Aspect; Infinitive, containing only Aspect; Small Clauses containing neither Tense nor Aspect. We will now note that Opacity appears to operate with respect to sc's, as shown by the following (analogous to some cases discussed in Chomsky (1980)).

- (94a) John considers [<sub>sc</sub> them<sub>i</sub> proud of [<sub>f</sub> each other]]
- (94b) \*They<sub>i</sub> consider [<sub>sc</sub> John proud of [<sub>i</sub> each other]]
- (95a) I consider [<sub>sc</sub> you guys introduced to each other]
- (95b) \*You guys considered [<sub>sc</sub> Bill introduced to each other]

We will assume that Opacity treats all clauses on a par, not distinguishing between sc's and other clauses, just as it does not distinguish

between infinitivals and tensed clauses.<sup>27</sup> The facts in (94), (95) will thus provide further evidence that the structure of these phrases is clausal.

### 3.4 There-be Construction

#### 3.4.0 Introduction

In this section we will argue, following Stowell (1978), that the there-construction with be reflects base generation, and will claim that be is quite generally a Raising verb taking small clause complements.

#### 3.4.1 Background

It has often been claimed that a transformational relation exists between the two forms in (96).

(96a) There be NP X (e.g. There is a man [<sub>X</sub>on the roof])

(96b) NP be Y (e.g. A man is [<sub>Y</sub>on the roof])

The fundamental observation underlying this claim is that the class of phrases that enters into X in (96a) overlaps significantly with the class of phrases that enters into Y in (96b). Convincing arguments for such transformational relation have been presented in Milsark (1974). Beside the parallelism between X and Y just mentioned, Milsark observes for example that (96a) and (96b) share the following seemingly idiosyncratic properties.

Some cases of (96b) (passives) require the progressive form as in (97), and so do the corresponding cases of (96a), as in (98).

(97a) \*John is shot outside

(97b) John is being shot outside

(98a) \*There is a man shot outside

(98b) There is a man being shot outside

Some cases of (96b) (involving epistemic verbs) do not allow the progressive form, and neither do the corresponding cases of (96a):

(99a) \*A man is knowing Bill

(99b) \*There is a man knowing Bill

"Just" is in general not possible with be as in (100a), with the exception of passives and progressives as in (100b), and the there counterparts in (100c) are an exception too.

(100a) \*This house has just been a wreck

(100b) A man has just been      } arrested  
                                      } shouting obscenities }

(100c) There has just been a man      } arrested  
                                      } shouting obscenities }

For a theory that claimed that (96a) and (96b) are completely independent forms these facts would be rather surprising. However, proposals for independent base-generation of the two forms in (96) have been presented, notably in Jenkins (1972), (1975). Any proposal of this sort will naturally make the most of the domain where the classes in X and in Y in (96) do not overlap, as in (101) (where X, but not Y can be null).

(101a) There is a Santa Claus

(101b) \*A Santa Claus is

Proposals featuring independent base-generation of the forms in (96) must typically not only regard the proposition "X equals Y" (X and Y in (96)) as either false or accidental, but will be claiming that NP X equals Y. In fact it would have to be the case under such approaches that both NP X and Y interchangeably satisfy the subcategorization specifications for be (we may assume for the sake of the discussion that contrasts like: \*There is drunk/ John is drunk are adequately accounted

for in Jenkins' theory). Under such an approach one would be claiming that the "coda" or NP X in (96) is essentially a nominal, i.e. a predicate nominal.

Milsark has convincingly shown that this claim is false. Consider for example the following.

- (102a) There are peasants constantly being murdered
- (102b) There was a live pig roasted (from Bresnan (1971))
- (102a) and (102b) are ambiguous between the nonsensical "reduced relative" reading of (103) (i.e. "Peasants who are constantly being murdered/ A live pig which was roasted") and the meaningful passive reading of (104).
- (103a) Peasants constantly being murdered are generally a bore
- (103b) A live pig roasted looked unhappy
- (104a) Peasants are constantly being murdered
- (104b) A live pig was roasted

However, only the nonsensical reading of (103) should be possible in (102) if NP X in (96) was a nominal.

We will assume following Milsark that (96a) and (96b) are indeed syntactically related. We will thus assume that essentially X equals Y in (96), and the existence of some special provision to rule out (101b) ("\*A Santa Claus is"). We will also follow Milsark in assuming that compounding of elementary transformations is not allowed. We will therefore assume that two separate operations are involved in the alternation in (96): one that moves NP, and another that inserts There. Considering now the NP-movement operation in isolation we must assume that it relates the two forms in (105).

- (105a) [<sub>NP</sub><sup>e</sup>] be NP X

(105b) NP be X

(105b) will correspond to (96b) (recall that X equals Y), and (105a) will give rise to (96a) when there is inserted. Milsark assumes (105b) to be the base form and (105a) the derived form. We will now consider the status of the other logical possibility.

### 3.4.2 The Alternative

First we must note that one argument for derivation of (105a) from (105b) presented in the early literature will not hold as Milsark has pointed out. It had been assumed that such derivation could account for the agreement facts, namely that by ordering verb-agreement before NP movement one could account for plural agreement in "There are several students angry". As Milsark discusses, quite apart from the implausibility of such ordering, this view will not do. In fact the same kind of agreement is found in cases like (106), where the relevant NP is never to the right of the verb which appears to agree with it, at any level of derivation.

(106) There<sub>i</sub> seem [S<sub>i</sub> to be several students angry]

We assume in fact with Milsark that there are good reasons to not assume that the phrase "several students" is moved into the embedded clause from matrix subject position (postcyclically) with there inserted into the latter position, but to assume, rather, that there is inserted into the lower clause and then Raised. Also, as Milsark has shown, the agreement in question appears rather different from the normal type. Consider in fact (107) involving a conjoined NP, where agreement can be singular when the NP follows the verb, but not when it precedes it.<sup>28</sup>

(107a) A chimp and a gorilla      } \*was      }    in the cage  
   } were      }

- (107b) There ??were } a chimp and a gorilla in the cage  
                   was   }

We will further note that agreement in the there cases, is subject to idiolectal variation, as in (108a) where "%" indicates substandard results, whereas agreement in the corresponding "subject"-be cases in (108b) is not subject to the same variation.

- (108a) %There was many people at the party

- (108b) \*Many people was at the party

It will be recalled that exactly analogous facts were noted for Italian locationals in 3.1.3 above.

We will note that Milsark's arguments against Jenkins' base-generation theory, (such as the one we reproduced above in connection with the ambiguity of the cases in (102)), are not really arguments against base generation of the form There be NP, per se, but only arguments against the view that the two forms in (96), and, correspondingly, those in (105) are base-generated independently. The latter arguments are thus essentially neutral as to which one of the forms in (105) is basic and which one is derived. As far as I can see, Milsark's conclusion that (105b) is the base form, and that (105a) is derived, rests exclusively on the two premises in (109) (our interpretation of Milsark's discussion).

- (109a) The configuration NP X in (105a) is not independently attested in the language.

- (109b) A syntactic rule deriving (105a) from (105b) would seem a very plausible transformation: applying mechanically, oblivious to the character of the be involved. For example it will treat passive, progressive and copular be in identical

fashion, cf. "There was a man arrested/ singing/ drunk/ on the roof".

Although Milsark's conclusion coherently follows from the premises, at close scrutiny both (109a) and (109b) appear false. On the first premise (109a), we note in fact that the configuration NP X where X ranges over: past participle, present participle, Adjectival Phrase, Prepositional Phrase, is independently attested. The latter is in fact an exact characterization of small clauses, as we discussed in 3.3 above. Stowell (1978) has further noted that the same configuration is found with circumstantial have, have got, like, keep, want, need, as in (110), (111), from Stowell (1978).

- (110) There was                    }  
       We have                    } a book painted green  
       The king needs            }
- (111)                          } likes                    } locked up  
       Sally                    } wanted              } in the barn  
                                 } kept                    } pecking at dirt

Considering now the second premise (109b), we note that the uniformity with respect to passive, progressive and copular be as in (112a), would not be surprising under a sc analysis of the "coda" as in (112b).

- (112a) There was a man            } arrested            }  
                                   } singing             }  
                                   } drunk                }  
                                   } on the roof       }
- (112b) There be [sc NP            } past            }        participle    } ]  
                                   } present }  
                                   } AP        }  
                                   } PP        }

However, the premise in (109b) and the view that a rule moving the subject to the right of be would seem to treat all instances of be analogously, appears systematically false whenever the material following be is not amenable to a small clause analysis. In particular it will

appear false in the following three cases, where the notation "[\*...]" will be used to mean "not a small clause".

A. Semi-modal be

(113a) A man is to leave at noon

(113b) \*There is [\*a man to leave at noon]

B. Be-going

(114a) A man is going to become a salesman

(114b) \*There is [\*a man going to become a salesman]

C. Being

(115a) A concert is being held

(115b) \*There is [\*being a concert held]

The peculiarities in (113b) and (114b) have been referred to in the literature as the "semi-modal" restriction; the one in (115b) as the "leftmost-be" restriction. (On the grammaticality of "There is a concert being held" cf. 3.4.3 below). We will now consider the cases in A, B, C, with respect to Milsark's theory, addressing them in the reverse order.

C. In Milsark's theory, the "leftmost be" restriction is built into the rule of there-interpretation: a rule of the semantic (let us say "L.F.") component of the grammar. That is, there is a rule formulated in such a way as to assign an interpretation only to cases in which the "subject" is contiguous to the leftmost instance of be. We will assume for the moment, neglecting the stipulatory character of the latter provision, that such an account is adequate. A different suggestion will be made in 3.4.3 below.

B. Milsark assumes that be-going is a Raising predicate, namely  
 } essentially a verb, and that in general NP postposing has no access to

the internal structure of lexical categories. We may assume that this account is also adequate.<sup>29</sup> We may note that be-going does indeed behave like a Raising verb. It is clear in fact that in (117b) it is not a progressive form like the one in (116b), since there is no corresponding non-progressive like (117a) parallel to the one in (116a).

(116a) John studies

(116b) John is studying

(117a) \*John goes to stay in bed

(117b) John is going to stay in bed

Be-going will furthermore behave like a Raising verb with respect to relevant syntactic tests, such as the one in (118a) distinguishing Raising seem from Control try (this test will be further discussed in chapter 5), as in (118b).

(118a) The winner       $\left\{ \begin{array}{l} \text{seems} \\ \text{*tries} \end{array} \right\}$  to be John

(118b) The winner is going to be John

Also, be-going does not appear to be a modal (such as must, will, can, etc.), given that: unlike modals, it can co-occur with modals, as in (119a); unlike modals, it can be interspersed with Raising predicates (such as be likely) as in (119b); and, unlike modals, it is found in infinitives, as in (119c).

(119a) John must       $\left\{ \begin{array}{l} \text{be going to} \\ \text{*will} \end{array} \right\}$  win this time

(119b) John is likely       $\left\{ \begin{array}{l} \text{to be going to} \\ \text{* (to) can} \end{array} \right\}$  win  
 John is going       $\left\{ \begin{array}{l} \text{to be likely to} \\ \text{* (to) can} \end{array} \right\}$  win

(119c) Mary promised John       $\left\{ \begin{array}{l} \text{to be going to} \\ \text{* (to) would} \end{array} \right\}$  study harder

(Under Milsark's Raising analysis of be going. the facts in (114b)

relative to the latter will no longer fall under the same descriptive characterization of "semi-modal" restriction employed for semi-modal be in (113b), as in earlier discussions).

A. In Milsark's formulation NP downgrading is prevented from applying to (113a) to derive (113b), i.e. "\*There is a man to leave at noon" by postulating a rule which reanalyzes semi-modal be and the following verb into a unit prior to NP downgrading. The following considerations will suggest that such a rule is rather implausible.

The rule seems intuitively to restate a property of the base, namely that be-to in (113a) is a modal and as such forms a unit with the main verb. That be-to is a modal here has been clearly shown by Emonds (1970). As Emonds notes, be-to alternates with modals, as in (120a); it does not co-occur with modals, as in (120b); and, like modals, it does not occur in infinitives, as in (120c).

(120a) John      } can      } leave  
              } is to      }

(120b) \*John      } is (to) can } leave  
              } can be to      }

(120c) \*Mary persuaded John      } (to) should } study harder  
                        } to be to      }

Notice also, that a reanalysis affecting semi-modal be and verb would not achieve any other purpose than preventing NP downgrading as in (113b). In fact, as Stowell (1978) has pointed out, such reanalysis must not prevent subject inversion in questions, which again treats be like a modal, as in (121).

(121) Am I to go? (cf.: Should I go?)

Milsark claims that such a reanalysis rule would be independently required to prevent application of Wh-be deletion in relative clauses to semi-modal

be to account for example, for "A student \*(who was) to apply to the program ...". However, from our standpoint such independent motivation is false since Wh-be deletion does not exist.<sup>30</sup> We thus conclude that the facts relative to semi-modal be falsify the assumption in (109b).

Thus if our discussion is correct, not only will there be no arguments against assuming that (105a) (i.e. "[<sub>NP</sub>e] be NP X") is the base form, but in fact there will be arguments in favor of such an assumption. In fact, as discussed in Stowell (1978), under the latter assumption a perfectly adequate account of the "semi-modal" be restriction will follow: since there is no rightward NP movement in these cases, no form like "\*There is a man to leave at noon" (i.e. (113b) above) could be derived from "A man is to leave at noon", and no "restriction" at all will have to be formulated.<sup>31</sup> We thus assume, essentially following Stowell (1978), that English be is generally a Raising predicate, namely a verb which does not assign a thematic role to the subject, subcategorized for small clause complements. The different possibilities for the internal constituency of small clauses, which we independently discussed above, will give rise to the range of cases in (122). In turn, depending on whether NP movement (to the left) or there insertion applies, the cases in (123) or those in (124) will be derived.

(122a) Passive: [NP<sup>e</sup>] be [<sub>sc</sub>a man<sub>i</sub> arrested t<sub>i</sub>]

(122b) Progressive: [NP<sup>e</sup>] be [<sub>sc</sub>a man singing]

(122c) "Copular": [NP<sup>e</sup>] be [<sub>sc</sub>a man drunk]

(122d) Locational: [NP<sup>e</sup>] be [<sub>sc</sub>a man on the roof]

(123a) A man<sub>i</sub> was [<sub>sc</sub>t<sub>i</sub> arrested t<sub>i</sub>]

(123b) A man<sub>i</sub> was [<sub>sc</sub>t<sub>i</sub> singing]

- (123c) A man<sub>i</sub> was [<sub>sc</sub><sup>t<sub>i</sub></sup> drunk]  
 (123d) A man<sub>i</sub> was [<sub>sc</sub><sup>t<sub>i</sub></sup> on the roof]

- (124a) There<sub>i</sub> was [<sub>sc</sub>a man<sub>i</sub> arrested <sub>t<sub>i</sub></sub>]  
 (124b) There<sub>i</sub> was [<sub>sc</sub>a man<sub>i</sub> singing]  
 (124c) There<sub>i</sub> was [<sub>sc</sub>a man<sub>i</sub> drunk]  
 (124d) There<sub>i</sub> was [<sub>sc</sub>a man<sub>i</sub> on the roof]

The systematic alternations between movement and insertion represented by the contrast between the cases in (123) and the corresponding cases in (124) will thus be analogous to the alternations discussed in chapter 2 for Italian. We will assume that the cases in (124) instantiate the inversion strategy of chapter 2. In particular we assume that the phrase a man in each of the latter cases is a nominative phrase bound by the designated element there.<sup>32</sup> On how such nominative Case is assigned, consider the following paradigm.

- (125a) [<sub>i</sub>Many people] seemed [<sub>S</sub><sup>t<sub>i</sub></sup> to leave]  
 (125b) \*There seemed [<sub>S</sub> many people to leave]  
 (126a) [<sub>i</sub>Many people] seemed [<sub>sc</sub><sup>t<sub>i</sub></sup> persuaded <sub>t<sub>i</sub></sub> [<sub>S</sub><sup>PRO</sup> to leave]]  
 (126b) \*There seemed [<sub>sc</sub> [<sub>i</sub>many people] persuaded <sub>t<sub>i</sub></sub> [<sub>S</sub><sup>PRO</sup> to leave]]  
 (127a) [<sub>i</sub>Many people] were [<sub>sc</sub><sup>t<sub>i</sub></sup> persuaded <sub>t<sub>i</sub></sub> [<sub>S</sub><sup>PRO</sup> to leave]]  
 (127b) There were [<sub>sc</sub> [<sub>i</sub>many people] persuaded <sub>t<sub>i</sub></sub> [<sub>S</sub><sup>PRO</sup> to leave]]

For (125b) related to (125a), we assume that nominative assignment fails due to the presence of the clause boundary, as with the corresponding Italian cases discussed in chapter 2 (cf. (74b), chapter 2). We thus assume that in English, even though accusative assignment is not blocked by S-boundaries, cf. "Bill expected [him to leave]" (only by  $\overline{S}$ -boundaries), nominative assignment is, just as in Italian. Accordingly, we will assume,

as was discussed in 2.2.4 above for Italian, that the notion of government which enters into nominative Case assignment is more restrictive than the notion of government which enters into the ECP (Empty Category Principle), namely the notion of government which pertains to the well-formedness condition on traces (which we referred to as "trace-government"). Given (126b) related to (126a) we will infer that sc-boundaries are also a barrier to government as it pertains to nominative assignment. The case in (127b) related to (127a) where nominative assignment must succeed, will therefore appear exceptional. We will thus assume some special provision relative to English be to the effect that the latter can assign nominative across sc-boundaries.

We will argue in 6.7 below that the "sc" analysis of passive morphologies that we are suggesting here for English, in fact extends also to Italian and Romance. If the latter view is correct, then further comment will be required by the lack of parallelism between the English and the Italian cases here below, given in the analyses we will assume.

(128a) There was [sc a man<sub>i</sub> arrested t<sub>i</sub>]

(128b) \*pro fu [sc un uomo<sub>i</sub> arrestato t<sub>i</sub>]  
          was       a man       arrested

(129a) ?\*There<sub>i</sub> was [sc t<sub>i</sub> arrested a man]

(129b) pro<sub>i</sub> fu [sc t<sub>i</sub> arrestato un uomo]  
          was       arrested      a man

For the ungrammaticality of (128b), we assume that the provision which allows nominative marking in (128a) is indeed exceptional as discussed, and that it does not extend to Italian. We may in fact suggest that the latter provision ought to be partly assimilated to Exceptional Case

Marking (ECM), namely accusative assignment across clause boundaries, which obtains in English, but not in Italian, as will be further discussed in 5.6 below. For the ungrammaticality of (129a), we will assume that there, differently than pro, cannot be inserted in small clauses, as will be discussed in the next subsection. In (129b) we assume that nominative is assigned correctly (in accordance with (66b), ch. 2), since "un uomo" is governed by the subject position, namely " $t_i$ ".

We will note that our analysis of English locationals, as in (124d), is now remarkably similar to the analysis of Italian locationals presented in 3.1.3 above. However, we will assume that the material following essere (be) in the latter Italian cases is not a small clause. This view will correctly predict that nominative marking, impossible in the passive in (128b), will be possible in a corresponding locational, such as "C'e un uomo sul tetto/ There is a man on the roof". Further evidence supporting this view, having to do with the fact that locationals, though not passives induce the "Change of Auxiliary" under restructuring, will be discussed in 6.7 below.

The agreement facts discussed above (cf. (106)-(108)), will be attributed to the existence of a binding relation between the designated element in subject position and the post verbal NP. As in some of the previous discussion, we will assume in fact that such relation can "transmit" the relevant features, depending at least in part, on language specific factors (cf. fn. 28).

The ambiguity of the forms in (102) ("There was a live pig roasted" etc.) will be accounted for very much as in Milsark's discussion. In particular, given the existence of "There was a live pig", etc., we must assume that at least in such cases be can occur with NP complements (a

special provision will rule out "\*A live pig was", cf. Milsark's discussion).<sup>33</sup> This will allow for the analysis in (130a) contrasting with (130b), where the complement of be is a sc.

- (130a) "Relative" reading (nonsensical):

There was [NP a live pig [sc PRO<sub>i</sub> roasted t<sub>i</sub>]]

- (130b) "Passive" reading

There was [sc a live pig<sub>i</sub> roasted t<sub>i</sub>]

We will correctly expect that the there-be construction should discriminate between Raising and Control predicates as in (131), just like the constructions with i-subjects discussed above for Italian and French (cf. (16) ch. 2; (48) above).

- (131a) There seemed to be many people at the party

- (131b) \*There wished to be many people at the party

We will further correctly expect the latter construction to discriminate between cases of Exceptional Case Marking (ECM) and cases of object-Control, as in the following.

- (132a) John expected there to be many people at the party

- (132b) \*John forced there to be many people at the party

We will note that if our discussion of Italian in 2.1.2 above is correct, we will be led to assume that the cases in (131b), (132b) are ruled out by Opacity and not by thematic well-formedness (notice the presence of "non-referential" there in an "argument" position). In fact in the latter discussion we suggested for the Italian counterparts, that a derivation of the following type is not intrinsically impossible: "Many people<sub>i</sub> wished [S PRO<sub>i</sub> to be [sc t<sub>i</sub> at the party]] → [NP e] wished [S PRO<sub>i</sub> to be [sc many people<sub>i</sub> at the party]] → \*There<sub>i</sub> wished [S PRO<sub>i</sub> to be [sc many people<sub>i</sub> at the party]]]", where the first stage of the derivation is

thematically well-formed, but where the last one violates Opacity with respect to the relation between there and many people (cf. example (81) ch. 2 and discussion). An additional reason for the impossibility of (131b) and (132b) would arise if there could only be inserted at D-structure level, like Italian ci or French il. We briefly discuss this issue in 3.5 below.

We will finally note that our analysis correctly predicts essentially the same parallelism between passives and "reduced relatives" as the Wh-be deletion analysis which we rejected. In fact the relation between the two has not been lost, but has simply been reversed: we rejected the view that small clauses are "reduced" passive forms, and we have claimed that passives are "augmented" small clauses (cf. for example (122a)).

The essence of our discussion in chapters 1,2, which was based on the traditional analysis of passive morphologies, will not be affected by the revision which we are proposing here. In fact we will continue to ignore the sc analysis of passives below, for ease of exposition, whenever the latter analysis is not essential to our point.

### 3.4.3 Participle Sequences

On the basis of our discussion of sc's we will predict that NP movement could iterate over sequences of past participles, as in (133b) derived from the base-form in (133a).

(133a) [e] be [<sub>sc</sub>[e] reported [<sub>sc</sub>[e] believed [<sub>sc</sub>[e] killed John]]]

(133b) John<sub>i</sub> was [<sub>sc</sub>t<sub>i</sub> reported [<sub>sc</sub>t<sub>i</sub> believed [<sub>sc</sub>t<sub>i</sub> killed t<sub>f</sub>]])

The base form in (133a) is well formed since all and only the empty positions are positions with no thematic role (non-thematic positions).

Each one of such positions is in fact either the subject of a Raising verb, like be, or the subject of a past participle. (133a) is furthermore well-formed because each sc appears as a complement of a verb which is subcategorized for a sc complement, such as be, report, believe (cf. fn. 24). (133b) can therefore be correctly derived. We will further predict that the past participles in (133b) could not be replaced by the corresponding present participles, since D-structure forms such as, for example the one in (134) would be ill-formed.

(134) ... [sc[e] believing [sc....]]

(134) will violate thematic well-formedness since present participle believing, unlike the corresponding past participle, will assign a thematic role to the subject position. The latter position will thus have to be occupied by a "referential" expression in D-structure. The contrast between (133b) and (135) here below will thus follow.

(135) \*John was reported believing killed

However, we will predict that iterative NP movement as in (133b) could involve a present participle provided that the latter was the present participle of a Raising verb (and of a verb taking sc complements).

Consider in fact the D-structure in (136).

(136) ... [sc[e] being [sc....]]

Unlike the one in (134), the D-structure in (136) is well formed since, although being is a present participle, it will not assign a thematic role to the subject, as be never does. In our discussion, the cases in (137) contrasting with the one in (135) will thus be essentially parallel to the one in (133b), whence their grammaticality.<sup>34</sup>

(137a) Several people were being reported killed

(137b) Several people were reported being killed

Consider now the past participle counterpart to (136), in (138).

- (138) ... [sc[e] been [sc....]]

(138) will be an impossible D-structure, since we assume that the past participle form been does not exist (recall that our discussion concerns "passive" participles, and therefore been as a predicate in a sc, not "active" been of has been). As discussed in 3.3.2 above, we assume in fact that the morphological process deriving "-en" forms must involve "non-vacuous" loss of thematic role assignment to the subject (we may assume that the morpheme -en must "absorb" a thematic role). Such process will thus be systematically impossible with Raising verbs, such as be, since the latter verbs independently fail to assign a thematic role to the subject, and no "non-vacuous" loss could therefore occur. The ungrammaticality of the cases in (139) contrasting with those in (137) will thus be correctly predicted.

- (139a) \*Several people were been reported killed

- (139b) \*Several people were reported been killed

The ungrammaticality of the cases in (139) will thus be analogous to that of the cases in (67) above, i.e. "A student seemed to be witty was accepted in the program" etc. Essentially we therefore predict that participles can occur in sequences only if they are past participles of non-Raising verbs, or present participles of Raising verbs (in practice only present participle being is found in such sequences; cf. fn. 34).

Additional comments will now be required by some of the following cases.

- (140a) John<sub>i</sub> was [sc<sub>i</sub><sup>t</sup> being [sc<sub>i</sub><sup>t</sup> questioned t<sub>i</sub>]]

- (140b) \*John<sub>i</sub> was [sc<sub>i</sub><sup>t</sup> being [sc<sub>i</sub><sup>t</sup> studying]]

- (141a) There was [<sub>sc</sub>a concert<sub>i</sub> being [<sub>sc</sub>t<sub>i</sub> held t<sub>i</sub>]]  
 (141b) \*There<sub>i</sub> was [<sub>sc</sub>t<sub>i</sub> being [<sub>sc</sub>a concert<sub>i</sub> held t<sub>i</sub>]]  
 (142a) There were [<sub>sc</sub>many people<sub>i</sub> questioned t<sub>i</sub>]  
 (142b) \*There<sub>i</sub> were [<sub>sc</sub>t<sub>i</sub> questioned many people]

On the ungrammaticality of (140b) contrasting with (140a), we will assume the existence of a general prohibition on sequences of present participles, as discussed in Ross (1967). Such prohibition appears to be required independently, for example, for cases like (143b) contrasting minimally with (143a).

- (143a) John began      } to work      }  
                         } working      }  
 (143b) John was beginning      } to work      }  
                         } \*working      }

In 6.2.2 below we will briefly discuss a somewhat analogous prohibition, brought to light in Longobardi (1979), holding of sequences of infinitives in Italian. For cases like (141b), (142b) contrasting with their respective a counterparts, we will assume that there cannot be inserted in sc's. The latter two cases will thus fail to be derived. As has been noted in Stowell (1979), such a condition on insertion of there would seem to be required independently, given for example the paradigm in (144).

- (144a) I want [<sub>S</sub>a man<sub>i</sub> to be [<sub>sc</sub>t<sub>i</sub> on guard]]  
 (144b) ?I want [<sub>sc</sub>a man<sub>i</sub> being [<sub>sc</sub>t<sub>i</sub> on guard]]]  
 (144c) I want [<sub>S</sub>there to be [<sub>sc</sub>a man on guard]]]  
 (144d) \*I want [<sub>sc</sub>there being [<sub>sc</sub>a man on guard]]]

In fact, given (144a), (144b) we will have to assume that want takes both infinitival and sc complements (cf. also "I want him on guard"). The contrast between (144c) and (144d) will then suggest that there

cannot be inserted in sc's as it can in infinitive clauses. We have thus provided an account of the so called "leftmost be condition", namely of the fact that an i-subject will appear only to the right of the leftmost instance of be as in (141a), and not as in (141b). We take this to replace the account of the same facts which we provisionally assumed above, based on the formulation of the rule of "There-interpretation", as had been suggested in Milsark (1974) (cf. discussion in 3.4.2 above). We note that, unlike our suggestion here, the latter account would not cover the ungrammaticality of (144d).

### 3.5 English Ergative Verbs

In this section we will argue that in English there is a class of ergative verbs syntactically distinct from intransitives, as we argued for Italian in chapter 1.

#### 3.5.1 Preliminaries

Consider the pair of sentences in (145), analogous to some of the Italian cases discussed in 1.4.1 above.

(145a) The Swiss navy sank the vessel

(145b) The vessel sank

Tracing back our steps for a moment, let us refer to any verb which appears in the "BV" member of a pair of S-structures "AVB/BV" (V: a verb), such as sink of (145b), as "ergative". By this definition, English has a class of ergative verbs. The relevant question will now concern the exact nature of the relation between the two verbs in (145).

Superficially, the verb in (145b) differs from the one in (145a), exactly in two respects: i), with the verb in (145b) there is no "argument" (thematic role) corresponding to the subject of the verb in

(145a). ii), the subject of the verb in (145b) corresponds to (i.e. "obeys the same selectional restrictions as") the object of the verb in (145a). As we did for Italian, we will assume that these two superficial differences are the reflex of a single difference between the lexical specifications of the two verbs. Namely we assume that the verb in (145b), unlike the one in (145a) fails to assign a thematic role to the subject position, whence the D-structure form in (146a), which will give rise to the S-structure form in (146b).

(146a) [NP<sub>e</sub>] sink the vessel

(146b) [<sub>i</sub>The vessel] sank t<sub>i</sub>

As discussed in 2.6, we also assume that verbs like the one in (146) fail to assign accusative Case. However we will not regard this second difference as independent, but rather as predictable from the first, in accordance with our discussion. (In fact we will suggest in 3.5.5 below that the essential difference between the two verbs in (145), is actually accusative assignment, and that thematic role assignment is a reflex of the latter. However, for the purposes of our discussion here, we may continue to assume that the difference is thematic-role assignment to the subject). We are thus assuming (as discussed in 1.4 with respect to Italian), that the relation between the two forms in (145) is partly lexical, and partly syntactic. The syntactic part of the relation will be the familiar rule of NP-movement, operating as in (146). In this section we will attempt to defend our view against an alternative, namely against the view that the relation in question is entirely lexical, and that the verb in (145b) is an intransitive verb. Such a view is held for example in Jackendoff (1972), Wasow (1977), Anderson (1977), as well as Ruwet (1972) for French se-ergatives. An

analogous view is also held in Grimshaw (1980), again for French se-ergatives (Grimshaw's "inchoatives"). On Grimshaw's discussion, see below, in particular 5.7.5. We will refer to the latter view in general, as "lexical theory of ergativity".

In essence, in order to capture the relation between the two verbs in (145), any variant of the lexical theory, will have to postulate the existence of a set of relations between noun phrases and the verb, distinct from the relations which are expressed by subcategorization frames, or by D-structure representations. A lexical theory would thus postulate, for example, the existence of a notion like "theme" or "patient" under which both the object of (145a), and the subject of (145b) would fall. Specifically, the relation between the two forms in (145) would be expressed by some "lexical redundancy rule" relating the two subcategorization frames in a way such that the "theme" or "patient" appears as the object of transitive sink, and as the subject of intransitive sink. Selectional restrictions would then be appropriately defined on such notion of "theme" or "patient".

We will note that the account we are proposing is clearly simpler than the one provided by a lexical theory. In particular, under our account the difference between pairs like the one in (145) is, as discussed, "minimal", consisting exactly of whether or not the verb assigns a thematic role to the subject position. No manipulation of subcategorization frames would be required: the two verbs would have identical subcategorization frames. The correspondence between the object in (145a) and the subject in (145b), will be expressed by the independently existing rule of NP movement, in a perfectly adequate fashion. We also note that expressing the relation between the object in (145a) and the

subject in (145b) as a relation between subcategorization frames has the implication that verbs must be subcategorized for subjects: an assumption which we regard as false. In fact (as has often been noted by N. Chomsky; various class lectures) subjects do not have the property of being obligatory, typical of objects that enter into subcategorization frames, cf. "John likes \*(pizza)", versus Italian "Giovanni fa riparare l'auto/ Giovanni makes repair the car (... has the car repaired)", where no subject of riparare is present. Cf. also the optionality of the subject in derived nominals, such as "The (enemy's) destruction of the city". We thus assume that subjects do not enter into subcategorization frames. Further relevant discussion will be presented in 5.2 below. We further note, as was discussed in 1.4.2 above, that the framework we are assuming makes no provision for the non existence of D-structure forms like (146a) either in Italian, or in English.

If this reasoning is correct, then rather strong arguments would be required to defend the lexical theory against our view. In 3.5.5 below we will discuss a few potential arguments against our view, some of which have appeared in the literature. Before coming to that point, we will discuss some empirical evidence which bears on the correctness of our analysis.

### 3.5.2 -Er Affixation

Some processes of derivational morphology appear to distinguish between ergative verbs and other verbs. Consider the process which forms nominals in "er" from the corresponding verb. This process appears to affect both transitive and intransitive verbs, as shown by the following.

(147a) Intransitive: walker, talker, worker

(147b) Transitive: killer, reformer, lover

Yet, not all apparent intransitives can undergo this process, as indicated by (148).

(148) \*arriver, \*faller, \*escaper

On the other hand, not all transitives undergo this process either, given the cases in (149).

(149) \*studier, \*bringer, \*exciter, \*obscurer, \*phoner, \*ruiner

One could therefore suggest that lexical idiosyncrasies play a role.

However, it appears that there is one domain over which the distribution of -er affixation is far too regular to be the result of lexical idiosyncrasies. This is the domain of ergative verbs (under our provisional definition of "ergative", namely the domain of verbs like sink in (145b)).

Over such domain, -er affixation appears systematically impossible.

Consider in fact the following paradigms.<sup>35</sup>

(150a) They developed that area industrially

(150b) That area developed industrially

(150c) They were good developers

(150d) \*That area was a good developer

(151a) He had been breeding horses

(151b) The horses has been breeding

(151c) He was a good breeder

(151d) \*The horses were good breeders

(152a) He had been feeding the cows carefully

(152b) The cows had been feeding voraciously

(152c) He was a careful feeder

(152d) \*The cows were voracious feeders

(153a) The saint healed several people

(153b) Several people healed

(153c) The saint was a healer

(153d) \*Several people were healers

In each of the above, while -er affixation succeeds as in c with respect to the transitive use of the verb in a, it fails with respect to the ergative use in b, as in d. We will now note that such impossibility for -er affixation with ergative verbs would follow quite straightforwardly from our analysis. In fact it is clear that nominals in er, quite generally identify the subject "argument" of the corresponding verb. Thus a "walker" is "one who walks" etc. Under our analysis, ergative verbs will lack a subject argument at the relevant levels of representation. -Er affixation would thus naturally be predicted to fail. In fact we assume that the lexical information relative to an ergative verb is such as to specify that the latter has no subject argument. A subject argument will be present at other levels of representation, in particular at S-structure. However, the latter level is clearly irrelevant here, since we assume -er affixation to be a lexical process, and we will most naturally assume that the lexicon has no foreknowledge of what configurations obtain at later levels (cf. the organization of the grammar as discussed in 0.2 above). Thus, in some reasonable sense, failure of -er affixation will be a virtually necessary consequence, given our view. It will not be an equally necessary consequence given the lexical theory.

In fact, under the latter theory, ergative verbs will have a subject

argument at the relevant levels of representation, just like intransitive verbs. One can thus imagine a lexical process, such as -er affixation, sensitive to the existence of such a subject argument, which would thus fail to distinguish ergatives from other verbs. This is not to say that the correct results cannot be obtained within the lexical theory. In fact, one could suggest (and not too unnaturally) that -er affixation is conditioned, not by the presence of a subject argument, but rather by whether or not the subject is a "theme" or "patient". In particular one could suggest that -er affixation should be possible only with respect to those verbs whose subject is, let us say, an "agent". Ergative verbs would thus be correctly excluded. Our point here is that the impossibility for -er affixation is not predicted uniquely within the lexical theory as it is within our theory. The lexical theory will thus appear weaker in explanatory power.

### 3.5.3 Expletive Objects

Many verbs in English can appear with expletive phrases such as those underscored in (154).

- (154a) John worked his ass off
- (154b) John talked my head off
- (154c) John smiled his head off
- (154d) I ran      { the shit out of      }    those shoes  
                      { the hell out of      }
- (154e) He cried his eyes out

Although the distribution of such expletives is no doubt governed by lexical idiosyncrasies, it is clear that the latter is entirely regular in one respect: such expletives are never possible in the presence of a direct object. Consider in fact the following, where we use the

notation "(...)" to mean "ungrammatical with the parenthesized portion included".

- (155a) He was humming (\*that tune) his head off
- (155b) I ran (\*races) the shit out of those shoes
- (155c) John was studying (\*English) his head off
- (155d) They charged (\*money) the hell out of you
- (155e) They cheered (\*the speaker) their heads off
- (155f) Noam argued (\*his point) the hell out of my theory

We further note that transitive verbs are not systematically excluded from appearing with such expletives. In fact sometimes they will so appear, provided that the direct object of the verb is reanalyzed as a complement of the expletive phrase, as in the b cases, contrasting with the a cases here below.

- (156a) His attitude irritated me
- (156b) His attitude irritated the hell out of me
- (157a) The immigration officers questioned us extensively
- (157b) The immigration officers questioned the hell out of us

Indirect objects can also be reanalyzed as complements of the expletive phrase, as in the following.

- (158a) They fished extensively in that lake
- (158b) They fished the hell out of that lake
- (159a) I drove extensively on/ with those tires
- (159b) I drove the hell out of those tires

We will now suggest that the regularity in the distribution of such expletives which we have just noted, follows from Case theory, and in particular from the requirement that such phrases must be assigned Case. Thus, in (154) the underscored phrases will be assigned Case by the

verb. We note incidentally that the facts in (154) will support our claim of 2.6 above that intransitive verbs can assign accusative Case even though they are not subcategorized for direct objects. Cooccurrence of the expletive phrase and the direct object in each of (155) will be impossible since we will naturally assume that if accusative Case is assigned to the direct object, it will not be assigned to the expletive phrase, and vice-versa.<sup>36</sup> The cases in (156)-(159) will be correctly allowed since the expletive phrase will again be assigned accusative by the verb, and the original object of the verb (under-scored in the examples), now incorporated into the expletive phrase, will be assigned Case by the preposition of.

We now note that expletive objects are quite systematically impossible with ergative verbs, as in the following.<sup>37</sup>

(160a) We used to      } convene      } people to that site in large numbers  
                         } gather      }

(160b) People      } convened      } to that site in large numbers  
                         } gathered      }

(160c) \*People      } convened      } their heads off (to that site)  
                         } gathered      }

(161a) We prepared the students for the test

(161b) The students were preparing for the test

(161c) \*The students were preparing their heads off (for the test)

(162a) We used to feed the cows from that field

(162b) The cows were feeding from that field

(162c) \*The cows were feeding      } their heads off (from that field)  
   } the hell out of that field

(163a) Bill was training the kids in their new shoes

(163b) The kids were training in their new shoes

(163c) \*The kids were training the shit out of their new shoes

(164a) They finally withdrew the troops from Vietnam

(164b) Troops were finally withdrawing from Vietnam

(164c) \*Troops were withdrawing } their heads off  
    } the hell out of Vietnam

We will note that the ungrammatical cases in the above will contrast with superficially very analogous cases involving non-ergative verbs, which turn out grammatical. Contrasting with (161c) we thus find "The students were studying their heads off". Contrasting with (162c) is "The cows were grazing their heads off/ the hell out of that field"; and with (163c) "The kids were running the shit out of their new shoes". Cf. also "? I withdrew the hell out my bank account", where withdraw would be intransitive, contrasting with (164c), where withdraw is ergative.

The impossibility for expletive objects to occur with ergative verbs, will follow directly from our view, and in particular from the fact discussed in 2.6 above, that ergative verbs fail to assign accusative Case. We then expect passives, which we assume also fail to assign accusative, to behave just like ergative verbs. This seems correct, as indicated by the following (analogous to some of the active cases in (155)).

(165a) \*Races were run the shit out of those shoes (by Bill)

(165b) \*Money was being charged the hell out of us (by everyone)

(165c) \*The point was being argued the hell out of me (by Noam)

In order to account for the behavior of ergative verbs in (160)-(164), proponents of the lexical theory would have to assume that the occurrence of expletive objects is determined by whether or not the

subject is a "theme" or "patient", and assume in particular that the subject must not be a "theme" or "patient" if such expletive objects are to occur. As far as we can see such a view would have no independent plausibility, and would provide no insight concerning the failure of such expletives to coexist with direct objects as in (155). We thus conclude that the distribution of expletive objects supports our view over the lexical theory of ergativity.

### 3.5.4 Verbal ES

We will now consider the cases involving occurrence of there with verbs other than be, referred to as "Verbal Existential Sentences" (Verbal ES) in Milsark (1974). In his discussion Milsark distinguishes two cases: One in which the subject appears to the immediate right of the verb and one in which it follows all constituents in the VP. Milsark refers to these as "Inside Verbals" (IV), and "Outside Verbals" respectively. The two are exemplified in (166a), (166b) respectively.<sup>38</sup>

(166a) There entered several unicorns into the room

(166b) There walked into the room several unicorns

Milsark notes that the two differ not only in that the IV type seems in general more natural than the other type, but also with respect to the so called "definiteness restriction", namely the possibility for the i-subject to be a definite NP, such as "John" or to have definite determiners. In fact the latter restriction appears to hold for IV's, as in (167a), but not for OV's, as in (167b).

(167a) There arose } a riot } in the state penitentiary  
                   } \*that huge riot }

(167b) There flew through the window } a pair of shoes }  
                   } that shoe of yours }

Neither Milsark's discussion nor ours will provide an exact account of this different response with respect to the definiteness restriction. However, it may seem reasonable to take this fact as an indication that IV's and OV's differ in some significant syntactic respects.<sup>39</sup> Milsark's account of the definiteness restriction with be will be briefly discussed in 4.3 below.

Although Milsark has no full-fledged theory of verbal ES to propose, he goes as far as suggesting that an analysis for the IV type could be readily integrated into the analysis of be ES, while the OV type would require a different analysis. We will suggest below that this view is in fact correct. Milsark observes that IV are possible with a relatively small class of verbs, and in particular with those in (168a). Further examples of IV involving the verbs in (168b) appear elsewhere in his discussion.

(168a) arise, emerge, develop, ensue, begin, exist, occur

(168b) follow, grow

We will now note that none of the verbs in (168) will, in the relevant use, allow either -er affixation or expletive objects. E.g.:

(169a) There developed many new ideas at the symposium

(169b) \*New ideas developed the hell out of the symposium

(169c) \*That idea of yours is a real developer

(170a) There followed/ began a rainstorm over the Texas coast

(170b) \*Rainstorms followed/ began the hell out of the Texas coast

(170c) \*That rainstorm was a follower/ beginner

We will assume as discussed above (cf. (150)), that the existence of the nominal developer is due to transitive develop. For the existence of follower, beginner, we will analogously assume that the verbs follow, begin appear not only as ergative verbs, but, as will be discussed below,

also as transitive/ intransitive verbs, cf. "John began (his job), John followed (Bill)". On the other hand the verbs assumed to enter in the OV construction do not systematically fail either test, as in the following.<sup>40</sup>

- (171a) There walked/ ambled into the room a unicorn
- (171b) That unicorn is a good walker/ ambler
- (171c) The unicorn was walking/ ambling itself silly
  
- (172a) There flew out of the window that shoe of yours
- (172b) ??That shoe is a good flier
- (172c) The bird was flying its head off

Our theory will immediately suggest an account of the difference between the IV and OV cases: We assume as we did in our discussion of Italian in 1.4 above, that the D-structure configuration "[<sub>NP</sub>e] V NP", is not limited to those verbs which have transitive counterparts, like sink of (145b). Accordingly we will extend the designation "ergative" to cover all verbs which appear in such D-structure configuration. We then assume that the verbs which enter into IV sentences, such as those in (168), are ergative. The failure of -er affixation, and the impossibility to occur with expletive objects is thus to be expected. Under this view there would indeed be a similarity between IV and be cases, as suggested by Milsark. In fact, both would be base-generated. For the cases of OV, we will assume that they are derived by rightward NP-movement and adjunction to VP. We will briefly return to OV cases below. If this is correct, then the IV/OV distinction noted by Milsark, will be a replica of the arrivare/ telefonare distinction discussed in chapter 1.

It is clear however, that the there-construction is far less productive

than inversion in Italian. On this we will assume that the English construction (unlike the Italian one) is subject to heavy "semantic" constraints of the type discussed in the literature (see Milsark (1974); Gueron (1978); Stowell (1978); Kayne (1979)) roughly limiting its use to verbs of "appearance" (where the latter notion is probably sensitive to discourse conditions as argued in Gueron (1978)), as in (173), from Kayne (1979).<sup>41</sup>

- (173) There has just } appeared } another book by Smith  
                       } ??disappeared }

The same type of constraint seems operative with OV, as in (174), thus confirming the view that its nature is not syntactic.

- (174) There walked   } into      } the room a strange looking man  
                       } ??out of }

We may further suggest that the lesser clarity of the judgements about the OV type in general and their more "marked" character, are due to the fact that insertion of there in derived, rather than base-generated structures, is outside of the "core" system of English, and possible only at some "cost".<sup>42</sup>

The assumption that IV involve ergative verbs is supported by the fact that some of the verbs which would be ergative by the "A V B / B V" criterion, allow the IV construction with relatively natural results:

- (175) He      } spilled large amounts of wine over the floor  
       (?)There }
- (176) He      } assembled a large number of people in the square  
       (?)There }
- (177) He      } circulated many crazy ideas at the conference  
       (?)There }
- (178) He      } rolled a big boulder into the lake  
       (?)There }

- (179) He } enrolled many black kids in his program  
 (?)There }

If there is such a correspondence as we are suggesting, it will represent a problem for the lexical theory. The correspondence in question is one between verbs which: do not allow -er affixation; do not occur with expletive objects; and sometimes appear in "BV" members of "AVB/BV" S-structure pairs (like those in (175)-(179)), on the one hand, and verbs which appear in IV cases on the other. In fact, in order to capture such correspondence, proponents of the lexical theory would have to claim that operative in deriving Verbal ES, is a rightward movement rule whose exact functioning is conditioned by whether or not the subject is a "theme" or "patient". In particular, it would have to be suggested that the subject can be placed to the immediate right of the verb, just in case such subject is a "theme" or "patient": a rather odd coincidence given that the latter is exactly the position where such "themes" or "patients" generally occur in D-structure. We may thus conclude that the distribution of the IV and the OV type of ES supports our view over the lexical theory.

We will assume that the distribution of the pleonastic elements it, there in English is constrained essentially as discussed in 2.6 above. In particular, we will assume that there is the designated element in the inversion strategy of chapter 2, thus occurring only in conjunction with a post-verbal NP, and that it occurs only in conjunction with post verbal clauses (neglecting it of "it rains"), whence the following.

- (180a) \*It      } arose several objections  
 There }
- (180b) It      } was obvious that John was there  
 \*There }

Returning to the OV cases, our suggestion that those are derived via rightward NP-movement and VP-adjunction, will not predict any difference between transitive and intransitive verbs. This prediction would seem at odds with Milsark's brief characterization of the verbs which can occur in OV's as in "they are intransitive and can occur with locative expressions." (Milsark, p. 247). On this we may first note that, given the marginality of many OV's, it is not too clear whether or not a systematic distinction between transitive and intransitive verbs exists, and we will note that OV's involving transitive verbs have been produced in the literature. Cf. the following, from Kayne (1979).

(181) ...there hit the embankment a shell from our own lines  
 Furthermore a prohibition on the presence of a direct object in OV's, would not seem likely to be of a syntactic nature. Consider the pair in (182), from Milsark's discussion.

(182a) There were many vile devices being developed in the laboratory  
 (182b) There were being developed in the laboratory many vile devices  
 If it was syntactic, such a prohibition would be expected to rule out (182b), where the direct object is a trace. We assume in fact with Milsark that the latter is a case of OV, derived from "Many vile devices were being developed in the laboratory" via rightward movement, while we assume that (182a) is a case of IV with the structure "There were [<sub>sc</sub>NP<sub>i</sub> being [<sub>sc</sub>t<sub>i</sub> developed t<sub>i</sub> ...]]". A condition of a "stylistic" character, sensitive only to the presence of phonologically realized constituents, would thus seem more likely. Such condition could conceivably be related to the one operative with the cases of PP extra-position discussed in Gueron (1978), and exemplified in the following.

- (183) A man spoke (\*English) from India

The hypothesis that English has ergative verbs, syntactically distinct from intransitives, and that there-constructions have "a preference" for the former, and in general for base-generated forms, not unlike French *il*-construction of 3.2 above, can provide plausible answers to some of the puzzles left over from Milsark's discussion, like the following paradigm:

- (184a) A rainstorm followed
- (184b) A taxicab followed
- (184c) There followed a rainstorm
- (184d) \*There followed a taxicab

We could say here that, associated with the two different meanings of follow pointed out by Milsark, i.e. "occur after" and "move in the same direction as, but behind" are two different subcategorizations: Ergative, and Transitive/ intransitive respectively. If this is true, then "follow" is essentially identical to the corresponding Italian "seguire", for which the different subcategorizations are clearly indicated by the different auxiliary selection, as in (185).<sup>43</sup>

- (185a) Alla bella giornata      } era      } seguito un temporale  
                                      } \*aveva      }  
                 To the nice day had followed a rainstorm      (E/\*A)
- (185b) L'auto si era mossa ed il tassi'      } aveva      } seguito  
                                      } \*era      }  
                 The auto had moved (itself) and the cab had followed      (\*E/A)

A likely analogous case is the one here below involving the pair "start/begin" (cf. Milsark, p. 16 and fn. 4, ch. 7).

- (186a) The riot began
- (186b) The riot started

(186c) There began a riot

(186d) \*There started a riot

In Italian only one verb exists corresponding to both begin and start:

"cominciare", but again featuring two different auxiliaries, as in (187).

(187a) Gli attori      } avevano appena cominciato      } (a recitare)  
                       } \*erano appena cominciati      }  
                      The actors had just started (to play)      (\*E/A)

(187b) Lo spettacolo      } \*?aveva      } appena cominciato  
                       } era      }  
                      The show had just begun      (E/\*A)

We may thus reasonably assume that the situation in English is analogous to that of Italian, and that begin is (at least) ergative, while start is (at most) transitive/ intransitive. The contrast in (186) would thus follow naturally.<sup>44</sup> Our discussion will also provide an account of the paradigm here below, from Milsark's fn. 2, chapter 7, also left unexplained.

(188a) There was a rainstorm

(188b) There began a rainstorm

(188c) A rock was rolling down the hill

(188d) A rock began rolling down the hill

(188e) There was a rock rolling down the hill

(188f) \*There began a rock rolling down the hill

The paradigm in (188) will follow from assuming that both be and begin do not assign thematic role to the subject, and take either NP or sc complements (but cf. the problem in (iv), fn. 26). The contrast between e and f will be due to the "exceptional" character of be with respect to nominative assignment across sc boundaries, assumed in 3.4 above. The case in f would thus be ruled out by failure of Case assignment to

the phrase "a rock".<sup>45</sup>

As a conclusion we will consider for a moment the two characterizations in (189), from Emonds (1970) and from Kayne (1979). (In our own paraphrase; and where by "There-insertion" we actually mean: "The derivation of there constructions").

(189a) There-insertion is structure-preserving (Emonds (1970)).

(189b) There-insertion is not (always) structure preserving  
(Kayne (1979)).

The problem with Emonds' assessment is that it appears false, as Kayne has shown (cf. (181) above). However, Kayne's reassessment has the disadvantage of not replacing Emonds' interesting constraint with anything. If my discussion in this section is correct, then a more appropriate characterization than either of the above, could be as in (190).

(190a) Unmarked there-insertion is structure preserving<sub>1</sub>.

(190b) Marked there-insertion is not structure preserving.

Where "structure preserving<sub>1</sub>" is a notion analogous to, but stronger than Emonds', and in particular while Emonds' aims to identify structures which are "base generable", ours will identify structures which are "base generated".

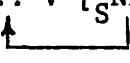
### 3.5.5 Non-vacuous Loss of Accusative

Arguments against the view that forms like "The navy sank the boat/The boat sank" are related via NP-movement have appeared in the literature. In this subsection we will review the most compelling of such arguments. In Wasow (1977), it is pointed out that syntactic processes are generally fully productive, while the relation between transitive forms and the corresponding ergative forms does not appear so productive.

For example, corresponding to transitive "John demolished the light bulb" there is no ergative "\*The light bulb demolished". An analogous point is made in Ruwet (1972) with respect to French se-ergatives (Ruwet's "neuters"). As was briefly noted in 1.4.2 above, the limited distribution of ergative forms pointed out by Wasow and Ruwet, will not be problematic for our view, since we assume that there is a lexical operation involved in relating transitives to the corresponding ergatives, namely the alteration of the lexical specification concerning thematic role assignment (or, as will be discussed below, accusative assignment). Wasow's discussion is a critique of Fiengo (1974). In the latter theory, no lexical operation is assumed (at least explicitly), and the derivation of ergatives is thus entirely syntactic. Wasow's point may therefore seem well taken with respect to the latter theory, but would not apply to our discussion.

Wasow also points out, that if the process which turns the object of the transitive verb into the subject of the ergative, such as schematically indicated in (181a) is a syntactic one, we would then expect that the latter process should extend to subjects of infinitival complements in the manner of (191b).

- (191a) ... V NP  

- (191b) ... V [S NP ....]  


In fact, from a syntactic point of view, there ought to be no difference between a direct object and an embedded subject, given for example the parallelism between the passives "John<sub>i</sub> was admired t<sub>i</sub>; John<sub>i</sub> was expected [S<sub>i</sub> to leave]". On the other hand if the process in question was lexical and was essentially performed on subcategorization frames,

we would not expect that it should extend to (191b). In fact we most naturally assume that the subject of a complement is not represented in the subcategorization frame of a verb, in the manner that a direct object is (The subcategorization frame for a verb taking a sentential complement would thus presumably be "  S", and not "  [<sub>S</sub>NP...]").

We will assume that Wasow's point on the different empirical predictions of the two approaches, is quite correct.

In support of the lexical approach, Wasow then produces the paradigm in (192).

(192a) John showed hostility

(192b) Hostility showed

(192c) John showed hostility to be the result of cold weather

(192d) \*Hostility showed to be the result of cold weather

He correctly observes that the lexical theory predicts that (192d) should be impossible, for the reasons we just discussed. We will note here that although our view does not predict that (192d) should be impossible, it does not predict that it should necessarily be possible either. In fact, we could imagine that the verb show has two distinct lexical frames: one relative to (192a), featuring subcategorization for NP complements; the other relative to (192c), and featuring subcategorization for S complements. The facts in (192) could then be taken to indicate that suspension of thematic role assignment to the subject (which we know is not a fully productive process) affects only the frame relative to (192a), thus giving rise to "[e] show hostility", whence (192b); but not the other frame, thus failing to produce "[e] show [<sub>S</sub>hostility to be the result of cold weather]", whence the lack of (192d). On the other hand the following alternation will falsify the lexical theory.

(193a) John proved [<sub>S</sub><sup>t</sup> the problem to be unsolvable]

(193b) [<sub>i</sub>The problem] proved [<sub>S<sup>t</sup></sub><sub>i</sub> to be unsolvable]

The alternation in (193) is in fact exactly analogous to the one between (192c) and (192d) above, predicted impossible by the lexical theory. Our theory will straightforwardly predict the existence of D-structure pairs "NP V S / [e] V S", analogous to the transitive/ ergative pairs "NP V NP / [e] V NP". In English we will particularly expect Exceptional Case Marking (ECM)/ Raising alternations. In fact we assume, with the Government-Binding theory that both ECM and Raising verbs, differently than Control verbs, trigger  $\bar{S}$  deletion. ECM/ Raising pairs would thus be "minimal" pairs, differing exactly by one lexical parameter: subject thematic-role assignment. (On related discussion see 5.6 below; cf. also fn. 13, ch. 1). That the cases in (193) are instances of ECM and Raising respectively, can be easily determined by means of the usual diagnostics. In particular, (194b) analogous to (193a) will behave like ECM expect, rather than object-Control force as in (194a), with respect to the form "There be NP ..." discussed in 3.4 above.

(194a) John      } expected    } there to be too many applicants  
                 } \*forced     }

(194b) John proved there to be too many applicants

Correspondingly (195b), (196b) will behave like Raising seem, and not like Control try in (195a), (196a) again with respect to "There be NP...", and with respect to "identificational" constructions like "The winner be John" (On the latter constructions, discussed in Longobardi (1980a), cf. (118) above, and some of 5.6 below).

(195a) There      } seemed    } to be too many applicants  
                 } \*tried     }

(195b) There proved to be too many applicants

(196a) The winner } seemed } to be John  
                   } \*tried    }

(196b) The winner proved to be John

Analogous to the case of English prove, are the Italian cases in the following.

(197a) Il governo ha    } dimostrato    }  
                   } rivelato    }  
      The government has    } demonstrated    }  
                   } revealed    }

che il blocco degli affitti non contribuisce alla  
 that rent control does not contribute to the

tendenza inflazionistica  
 inflationary trend

(197b) \*Il governo ha    } dimostrato    }  
                   } rivelato    }  
      The government has    } demonstrated    }  
                   } revealed    }

il blocco degli affitti non contribuire  
 rent control not to contribute

alla tendenza inflazionistica  
 to the inflationary trend

(197c) Il blocco degli affitti si e'    } dimostrato    }  
                   } rivelato    }  
      Rent control has (E) (itself)    } demonstrated    }  
                   } revealed    }

non contribuire alla tendenza inflazionistica  
 not to contribute to the inflationary trend

We will assume that (197a) is quite analogous to cases of English prove with tensed complements, such as "John proved that the problem was unsolvable". (197b) will be analogous to (193a). For the ungrammaticality of the Italian example we will assume that Italian has no ECM, as will be further discussed in 5.6 below. In particular we assume that "Case" government is always blocked by the presence of S boundaries in Italian, (cf. discussion in 2.2.4 above). The case in (197c) will

be analogous to the one in (193b). We will regard si of (197c) as an instance of ergative si which, as discussed in 1.4.3, we assume appears sometimes in connection with the loss of thematic role assignment to the subject, as in "Giovanni ha rotto il vetro; Il vetro si e' rotto/Giovanni has broken the glass; The glass (itself) broke". Tests analogous to those we employed for the English case, can be used to confirm the Raising analysis of the cases in (197c), as in the following.

- (198) Il vincitore si e'      { dimostrato      }    essere Giovanni  
  { rivelato      }  
         The winner has (E) (himself)      { demonstrated      }    to be Giovanni  
  { revealed      }

Before we turn to one more argument presented by Wasow, we will note that an apparently fairly strong argument against the syntactic derivation of "The boat sank" and the like (one which -to our knowledge- has not appeared in the literature), is represented by the fact that while derivation of passives in English results sometimes in preposition stranding, as in the a cases here below, the presumably parallel derivation of ergative forms never does. In fact, no case exists, analogous to those in b here below.

- (199a) My advisor was consulted with  
(199b) \*My advisor consults with easily enough  
(200a) The lock was tampered with  
(200b) \*These locks tamper with quite easily  
(201a) He was operated on  
(201b) \*Slim patients operate on very easily  
(202a) This equipment can be depended on for ever  
(202b) \*This kind of equipment depends on really well

The lexical theory could conceivably avoid deriving forms like the b cases in the above, if one assumed that the relevant process operates on direct objects exclusively, and never on objects of prepositions. Thus if direct objects generally fall under the notion of "theme" or "patient", it could be assumed that only such "theme" or "patient" can ever appear as the subject of an "intransitive" like sink of "The boat sank". Before commenting on the independent plausibility of such an assumption, we will propose some sharpening of our theory, which will bring it in line with the facts under consideration.

We assume, as discussed in 0.2 above (and essentially following Chomsky (1980)), that accusative Case in general is assigned automatically to NP's which are governed by the verb, unless the verb bears a specification to the contrary, namely our "-A" of 2.6 above. We will now suggest that with ergative verbs, the specification "-A" must obtain "non-vacuously", namely we will suggest that ergative verbs must have a direct object to which accusative Case fails to be assigned. Direct object will be defined here as "The NP which is governed by the verb at the level of lexical insertion, namely D-structure". This provision will rule out cases like (199b), etc. We return shortly below to some reasons for the existence of such a provision within the organization of the lexicon. For passive cases like (199a) etc., we will assume that although passives (i.e. past participles) also fail to assign accusative Case, as discussed in 2.6 above, they can do so "vacuously", and will not require the presence of a direct object in the same sense that ergative verbs do. We will now recall our discussion in 3.4 and the fact that past participles, including those entering in passive morphologies, fulfill the specification "-T" non-vacuously (cf. "\*John was seemed to be

witty"), as will be further discussed in 3.6 below. We may then suggest that "-T" is in fact the primary characterization for past participles, while "-A" is the primary characterization for ergative verbs. Although "-T" and "-A" are generally coextensive (cf. 2.6), we may assume that only the primary characterization must be fulfilled "non-vacuously" (but see 3.6 below for some exceptions to non-vacuous fulfilment of "-T" with past participles).<sup>46</sup>

In 2.3 above, we attributed the ungrammaticality of Italian passives like "\*Le ragazze furono parlate a/ The girls were talked to" to a violation of the Empty Category Principle (ECP) of Chomsky (forthcoming), namely to the fact that the trace following the preposition would fail to be governed by the verb. For the grammaticality of the corresponding English cases in (199)-(202), we will assume (along the lines of Hornstein and Weinberg (1981), although we take a slightly different view of preposition stranding here) that there is a rule of reanalysis, operating in the syntactic component of the grammar, which will allow the verb to govern the trace. Thus although, for example, the position following "with" in (199a) is not governed by the verb in D-structure, it will be so governed at the level of application of the ECP, namely L.F.

If this view of preposition stranding is correct, then the provision which we are postulating with respect to ergative verbs, to the effect that there must always be a direct object, namely a NP governed by the verb in D-structure, will have some independent justification. Consider in fact the type of D-structure that this provision excludes, namely the one in (203).

(203) [e] V [pp<sup>P</sup> NP] ....

The form in (203) could only result in a well formed S-structure if the mentioned syntactic rule of reanalysis applied. In fact, unless it did, the subject position could not be filled: movement of "NP" into such position would give rise to a violation of the ECP; analogously, insertion of a designated element into such a position would fail, since "NP" would not be governed by the subject and hence would not receive nominative (we are assuming that insertion of elements into subject position is constrained in the manner discussed in 2.6 above). Thus, by ruling out the form in (203), our provision will express the claim that the lexicon is organized in such a way as to disallow the existence of verbs which could only ever appear in the language, if some rather "marked" syntactic process (such as the reanalysis in question) was available. Since it seems rather plausible that the lexicon should be organized in such a way, our provision will have some independent justification.

It is doubtful that similar independent justification could be produced in connection with the parallel provision which would be necessary within the lexical theory. In fact in order to rule out cases like those here below, corresponding to the b cases in (199)-(202), one would have to assume that only "themes" or "patients" can ever appear as subjects of intransitives as in "The boat sank", but one sees little reason for this particular limitation.<sup>47</sup>

- (204a) \*My advisor consults easily enough
- (204b) \*These locks tamper quite easily
- (204c) \*Slim patients operate very easily
- (204d) \*This kind of equipment depends really well

Finally, Wasow points out the following facts.

- (205a) They dropped the rope 100 feet
- (205b) The rope dropped 100 feet
- (205c) They dropped John the rope
- (205d) \*John dropped the rope (For "John", not an agent)

He argues that if (205b) is syntactically related to (205a) via NP-movement of the phrase "the rope", then a case like (205d) ought to be possible, as derived from the double object case in (205c) via NP movement of "John". He then notes: "A lexical ...rule ...would, of course, exclude such a derivation..., since John is the indirect object, not the direct object....". We will note that the case in (205d) is not problematic for our view. In fact, assuming with Wasow that the phrase "the rope" is the "real" direct object in (205c), (205d), it will certainly fail to receive Case in (205d), given our discussion, whence the ungrammaticality. However, some aspects of the double-object construction will remain unclear. Consider the case in (206), contrasting with (205b).

- (206) \*The rope dropped (to) John

If we assume that "the rope" is the D-structure direct object, we may expect that only the latter would fail to receive accusative. In fact, nothing in our discussion so far predicts that the phrase "John" would also fail to receive Case. Notice however that this case is equally puzzling from the point of view of the lexical theory, since if "promotion to subject" is confined to "real" direct objects, (206) ought to be possible, just like (205b). Both (205d) and (206) will contrast with the corresponding passives, which are grammatical, as in (207).

- (207a) John was dropped the rope
- (207b) The rope was dropped to John

Although we will remain without a clear account for these facts, we note that our theory does not predict that passives and the corresponding ergatives should behave in all respects analogously. In fact we assume that ergative forms are the result of processes pertaining to the lexicon proper, and relating different lexical items, while passive forms (past participles) are the result of processes of derivational morphology. We may thus suggest that with ergative verbs, the specification "-A" will prevent Case assignment to both objects in the double-object construction, whereas with passives, the specification "-A" will prevent Case assignment only to either object. In 6.4.4 below, we will suggest that the sequences "accusative-dative" which obtain in causative constructions in Italian, are analogous to the English double-object construction in relevant respects.

### 3.6.1 Non-vacuous Loss of Thematic Role

Consider the past participial sc's in (208) here below, corresponding respectively to verbs like: admire, taking direct objects; expect, taking sentential complements; talk, taking neither direct objects nor sentential complements; wise, ergative.

- (208a) [sc[e] admired NP]
- (208b) [sc[e] expected S]
- (208c) [sc[e] talked too loud]
- (208d) [sc[e] arisen NP]

As discussed above, for the case in (208a) we will expect that it could appear both in sc relatives, as in (209), and in passives, as in (210).

- (209) A student [sc<sub>PRO</sub><sub>i</sub> admired t<sub>i</sub> for his wit]

- (210a) A student<sub>i</sub> was [sc<sub>t</sub><sub>i</sub> admired t<sub>i</sub> for his wit]

(210b) There was [<sub>sc</sub>a student<sub>i</sub> admired <sub>t</sub><sub>i</sub> for his wit]

For the case in (208b) we will predict rather analogous facts when the S complement is an infinitival, as in the following.

(211) A student [<sub>sc</sub><sup>PRO</sup><sub>i</sub> expected [<sub>S</sub><sub>i</sub> to leave]]

(212a) A student<sub>i</sub> was [<sub>sc</sub><sub>i</sub> expected [<sub>S</sub><sub>i</sub> to leave]]

(212b) There was [<sub>sc</sub>a student<sub>i</sub> expected [<sub>S</sub><sub>i</sub> to leave]]

When the S complement of expect is tensed, we predict that no case of relativization analogous to (211) ought to be possible, as in (213).

(213a) \*A student [<sub>sc</sub>[e] expected [<sub>S</sub>that John would leave]]

(213b) \*A student [<sub>sc</sub><sup>PRO</sup><sub>i</sub> expected [<sub>S</sub>that <sub>t</sub><sub>i</sub> would leave]]

(213a) is ruled out because there is no relativized element (i.e. no PRO); (213b) is ruled out by the NIC (cf. 0.2 above). Concerning the occurrence of (208b) in passives, we will find the case in (214).

(214) It<sub>i</sub> was [<sub>sc</sub><sub>i</sub> expected [<sub>S</sub>that John would leave]]

We assume that (214) is possible because the occurrence of it is legitimate, given the presence of the sentential complement (cf. 2.6 above).

We now consider (208c). The latter will systematically fail in sc relatives, since there is no NP to relativize, as in (215).

(215) \*A student [<sub>sc</sub>[e] talked too loud]

(215) will thus be analogous to (213a). As for occurrence in passives, (208) will also fail, as in (216).

(216) \*It<sub>i</sub> was [<sub>sc</sub><sub>i</sub> talked too loud]

We assume that (216) is ungrammatical because occurrence of it is illegitimate here, given that there is no sentential complement (we assume that the sc will not count, since it is inserted within the latter). (We assume that the distribution of it is as discussed in 2.6 with respect

to Italian). Finally we consider the case in (208d). We assume that this case does not exist at all, given the requirement that there should be a non-vacuous loss of "T" (assignment of thematic role to the subject), associated with morphological derivation of past participles. We thus assume that the morphology fails to give rise to the D-structure form in (208d), whence the ungrammaticality of both the sc relative and the passive here below.

(217a) \*The objections [<sub>sc</sub> PRO<sub>i</sub> arisen t<sub>i</sub> at the meeting]

(217b) \*Many objections<sub>i</sub> were [<sub>sc</sub> t<sub>i</sub> arisen t<sub>i</sub>]

We will now note that under our view, the cases relative to intransitive verbs, and those relative to ergative verbs will be ruled out by very different factors. The intransitive cases will be ruled out essentially by syntactic factors. In particular the one in (216) is ruled out by the syntax of pleonastic it. The ergative cases will be ruled out by morphological factors as discussed (requirement that loss of T should be non-vacuous). We will thus expect that a language with the same morphological conditions as English, but with a different syntax, may continue to exclude the ergative forms, allowing the intransitive ones. Conversely we will expect that a language with different morphological conditions may allow the ergative forms while still excluding the intransitive ones. In the remainder of this subsection and in 3.6.2 below, respectively we will see how both of these possibilities are in fact instantiated, at least in part.

As has been noted in Perlmutter (1978a), languages such as Dutch which allow impersonal passives, i.e. passives like (216) (cf. also discussion in 2.6 above), will distinguish between intransitive and ergative verbs, as in (218) (from Perlmutter (1978a)).

- (218a) Er wordt hier door de jonge lui veel gedanst  
       It is danced here a lot by the young people
- (218b) \*Er werd door vele kinderen in de rook gestikt  
       It was suffocated in the smoke by many children

We assume that the grammaticality of (218a) is due to the fact that insertion of a pleonastic element in Dutch is not subject to the same constraints as in English. The lack of the passive form in (218b) will be due (at least) to the morphological constraints we are assuming, disallowing past participle forms of ergative verbs.<sup>48</sup> Contrasts analogous to those noted by Perlmutter with respect to Dutch, have been noted in Kayne (1975) with respect to French, which allows impersonal passives to a limited degree (Kayne also notes similar contrasts in German, which allows impersonal passives much more freely). The following French contrast is from Kayne's fn. 56, p. 247.

- (219a) Il sera parle de vous par tout le monde  
       It will be talked about you by everyone
- (219b) \*Il sera venu chez vous par tout le monde  
       It will be come to your place by everyone

In Kayne's discussion, these facts are a problem awaiting explanation.

### 3.6.2 Italian sc relatives

Italian appears to differ from English with respect to the distribution of the form in (208d), namely "[<sub>sc</sub>[e] V' NP]", where V' is an ergative verb. The difference does not involve passive forms like (220b) contrasting with the transitive case in (220a), which are impossible just as in English.

- (220a) [<sub>i</sub>Un mio amico] fu [<sub>sc</sub><sup>t</sup><sub>i</sub> arrestato <sub>t</sub><sub>i</sub>]  
       A friend of mine was arrested
- (220b) \*[<sub>i</sub>Un mio amico] fu [<sub>sc</sub><sup>t</sup><sub>i</sub> arrivato <sub>t</sub><sub>i</sub>]  
       A friend of mine was arrived

As with the English case, we assume that the D-structure form "[<sub>sc</sub><sup>e</sup>] arrivato NP" fails to be derived here, since we assume that loss of T must be non-vacuous. Italian will differ from English however, with respect to the possibility for ergative verbs to enter into "reduced relatives" (i.e. sc relatives). Before we come to the facts we will note that arguments rather analogous to those presented for English in 3.3 above, can be given to discount a Wh-be deletion derivation of "reduced relatives" in Italian.<sup>49</sup> The following facts will then provide an additional argument against Wh-be deletion in Italian.

- (211a) Uno studente che gli era stato presentato di recente ...  
A student who to him had been introduced recently ...
- (211b) \*Uno studente che era stato presentatogli di recente ...  
A student who had been introduced to him recently ...
- (211c) Uno studente presentatogli di recente ...  
A student introduced to him recently ...

Given the unique possibility for the clitic gli in the "non reduced" case, as shown by a and b, derivation of c from a by Wh-be deletion would involve some undesirable complications. In particular, one would have to postulate the existence of some operation which "relocates" the clitics, in case Wh-be deletion applies.

We now come to the difference between English and Italian. In Italian, sc relativization does not exclude ergative verbs, as in (222b), for which we will assume the analysis indicated and the D-structure form in (222a).

- (222a) ... [<sub>sc</sub>[<sup>e</sup>] arrivato PRO poco fa] ...
- (222b) Un mio amico [<sub>sc</sub><sup>PRO</sup><sub>i</sub> arrivato <sub>t</sub><sub>i</sub> poco fa]  
A friend of mine arrived a while ago  
conosce Giovanni  
knows Giovanni

We will assume that in Italian, and in sc relatives, though not in passives, derivation of a past participle form may occur even if the loss of T is vacuous, as it would be with ergative verbs. We will in fact assume that the requirement that such loss be non-vacuous obeys language-specific and partly idiosyncratic factors, as we will further discuss below.<sup>50</sup> These facts, and the contrast between (222b) and (220b), will of course partly weaken our claim of 3.4 above, that passives and "reduced relatives" have entirely parallel analyses.

Thus while the ergative case in (223a) here below appears superficially analogous to the intransitive case in (223b), the corresponding sc relative forms in (224) will differ sharply.

- (223a) Arriva un mio amico  
 Arrives a friend of mine  
 (A friend of mine is coming)

- (223b) Telefona un mio amico  
 Telephones a friend of mine  
 (A friend of mine is calling)

- (224a) Un mio amico arrivato poco fa conosce Giovanni  
 (see (222b))

- (224b) \*Un mio amico telefonato poco fa conosce Giovanni  
 A friend of mine phoned a while ago knows Giovanni

(224b) will be ruled out as discussed for the analogous English case in (215) above ("\*A student talked too loud"). We will take the contrast in (224) to be rather strong evidence for the existence of ergative verbs, distinct from intransitives. Contrasts like the one in (224) have been noted in Perlmutter (1978b), where the construction in question is referred to as "Past Participle as Adjective".

We will note that a Wh-be deletion analysis of (224a) would be tenable only if Wh-be deletion was extended to auxiliary be (essere)

(since there is no corresponding passive form, cf. (220b)). In fact under the latter extension the contrast in (224) would reduce rather trivially to the difference in aspectual auxiliaries in (225).

- (225a) Un mio amico che e' arrivato poco fa ...  
 A friend of mine who has (E) arrived a while ago ...
- (225b) Un mio amico che ha telefonato poco fa ...  
 A friend of mine who has phoned a while ago

The arguments against Wh-be deletion which we gave above will therefore play a rather crucial role with respect to the status of the evidence in (224). Further arguments can be given, specifically against the extension of Wh-be deletion to auxiliary be. Consider the following.

- (226a) Gli individui che si erano presentati al direttore  
 The individuals that      } SI had introduced  
                               } had introduced themselves  
                               } to the manager  
 furono poi assunti  
 were later hired
- (226b) Gli individui presentatisi al direttore ...  
 The individuals      } self-introduced      } to the manager ...  
                           } \*SI-introduced      }

The case in (226a) is ambiguous between a reflexive and an impersonal reading of si, just like (227).

- (227) Giovanni si e' presentato al direttore  
 Giovanni      } introduced himself      } to the manager  
                   } SI introduced      }

In the reflexive reading, si is a reflexive clitic: a detailed analysis of reflexive clitics will be presented in 5.7 below. In the impersonal reading, si is the impersonal subject SI of 1.3 above, and the phrase "Giovanni" is moved into subject position via Object Preposing. The case in (226b) is not ambiguous: only the reflexive reading is possible. This is quite unexpected under a derivation of (226b) from (226a) via

Wh-be deletion (notice also that the clitic would have to be "relocated", as discussed for (221)). However, it is predicted under a sc analysis. In fact the sc relative with SI would have the D-structure in (228a) and the S-structure in (228b).

- (228a) [[<sub>NP</sub><sup>SI</sup>] presentato PRO ...]

- (228b) [PRO<sub>i</sub> presentatisi t<sub>i</sub> ...]

Both (228a) and (228b) are ill-formed: The former because SI fails to receive a thematic role; the latter because SI fails to receive Case (cf. the impossibility for SI to occur in infinitivals, discussed in 1.3 above). The possibility for reflexive si to occur in sc relatives will be discussed in 5.7 below.

A Wh-be deletion analysis extended to auxiliary be will also falsely predict the existence of the forms in (229b), (230b) involving Raising sembrare, and passive essere respectively, given the existence of the corresponding forms in (229a), (230a).

- (229a) Un ragazzo che era sembrato conoscere Giovanni ...  
A guy who had (E) seemed to know Giovanni

- (229b) \*Un ragazzo sembrato conoscere Giovanni ...  
A guy seemed to know Giovanni ...

- (230a) Un ragazzo che era stato arrestato ...  
A guy who had (E) been arrested ...

- (230b) \*Un ragazzo stato arrestato ...  
A guy been arrested ...

Within our analysis, the cases in (229b), (230b) will correctly fall together, since we assume that passive be is a Raising verb. However, nothing in our discussion will predict such difference between ergative and Raising verbs with respect to sc relativization (i.e. the contrast between (224a) and (229b)). We will assume that the requirement that the specification "-T" should obtain non vacuously, holds for Raising

verbs, thus ruling out (229b), (230b), though not for ergative verbs, as discussed. This difference will be stipulated.

We further note that a Wh-be deletion analysis of the cases in (224) would in any case fail to account for the analogous contrast between intransitive and ergatives with respect to the construction exemplified here below, noted in Williams (1975) where it is referred to as "Adverbial Participle", and in Perlmutter (1978b), (1979), where it is referred to as "Participial Absolute".

(231a) Transitive: Letto l'articolo, Giovanni telefono' a sua moglie  
Read the article, Giovanni phoned his wife

(231b) Ergative: Arrivato Piero, Giovanni telefono' a sua moglie  
Arrived Piero, Giovanni phoned his wife

(231c) Intransitive: \*Telefonato Piero, Giovanni lesse l'articolo  
Phoned Piero, Giovanni read the article

In (231), the ergative case behaves like the transitive and unlike the intransitive case. Although we have no exact analysis of such a construction, it is clear that there is no conceivable derivation of any of the cases in (231) via (Wh-)be deletion (as had been noted for the corresponding English present participles in Williams (1975); cf. "(\*Who was) driving down the street, John saw a jackrabbit"). Further arguments against Wh-be deletion with respect to auxiliary be will appear in 5.7, and in 6.4 below.<sup>51</sup>

However, in spite of all the arguments so far given against Wh-be deletion, the latter may still seem rather appealing if we note that the distribution of sc relatives in French is rather analogous to that of Italian, as in (232a), whereas Spanish patterns rather like English, as in (232b).

(232a) Un étudiant arrive hier soir  
A student arrived last night

- (232b) ??Un estudiante recientemente llegado de Francia  
A student recently arrived from France

Indeed what French and Italian have in common is auxiliary être/ essere for verbs like to arrive, versus auxiliary have/ haber of English and Spanish. This would suggest Wh-be deletion. Given our previous discussion however, we will maintain the essential correctness of our analysis, and will attempt to account for the cross linguistic distribution in question, by making the following suggestion. We assume that whether or not non-vacuous loss of T is required in the derivation of past participle forms (at least in sc's) is essentially a language specific idiosyncrasy (cf. also fn. 50). We now assume that Wh-be deletion plays some role in determining such idiosyncrasy. In particular we will assume that derivation with non-vacuous loss of T, as with Italian arrivato in (234b) is possible, or at least in general favored, when such derivation gives rise to the superficial parallelism between cases like those in (233), and those in (234).

- (233a) Uno studente che era ammirato ... (passive)  
A student who was admired ...

(233b) Uno studente ammirato ...  
A student admired ...

(234a) Uno studente che era arrivato ...  
A student who had (E) arrived ...

(234b) Uno studente arrivato ...  
A student arrived ...

Such superficial analogies will obtain only when the aspectual auxiliary as in (234a) is be, as in French and Italian, and not when it is have, as in English and Spanish. The view that we are proposing will have none of the pitfalls of the Wh-be deletion analysis.

It is easy to see how our analysis of sc relatives correctly accounts

for the agreement of the past participle, as for example in "Una mia  
amica [<sub>sc</sub><sup>PRO</sup><sub>i</sub> arrivata <sub>t<sub>i</sub></sub> poco fa]" (cf. (222b)), given the system of  
past participle agreement of 1.6 above, if we naturally assume agree-  
ment between the head of the relative and PRO. On auxiliary assignment  
and pp agreement in passives, see 6.7 below.

## Footnotes to Chapter 3

1 It must be noted that when ye is not overtly present, as in (7b), (7c) (or in (8b), (8c) below), third person plural agreement tends to be slightly less impossible than otherwise. E.g.:

- (i) ??A sun rivamne dui  
 (A) have arrived to me of them two<sub>s</sub>

I will assume that it is plausible to idealize away from this fact, possibly due to interference from Italian, in which virtually all Piedmontese speakers today have native or near-native fluency. The forms with ye would be more resilient to such interference since they differ more widely from the corresponding Italian forms (which have no ye or equivalent).

2 Concerning possible parallelisms with the rest of the evidence presented for Italian in ch. 1 we note that:

-Passive constructions have not been discussed because it is not clear whether passive in Piedmontese is authentic or simply borrowed from Italian. In so far as passives are possible in Piedmontese, they will have all the properties of their Italian counterparts.

-O.P. and the SI-construction appear to have counterparts in Piedmontese, but: given the lack of third person plural agreement with the base generated type of "inversion" and lack of ye in the presence of the (impersonal) clitic "SE" there will be no way to determine whether the phrase "tanti pum" in (i) is the i-subject, in the manner of (27c) in 1.3 above, i.e. "Si guardano le manifestazioni sportive con interesse", or just the direct object. (se → s, in some phonological environments).

- (i) A s mangia tanti pum a marendo  
 (a) SE eats many apples for a snack

-Concerning the equivalent of Italian pp agreement in the SI construction and the contrast "Si e' andati/ Si e' telefonato" (cf. 1.6 above), we note that pp agreement in Piedmontese is altogether rare and is found in cases like "vnüüt; vnüita/ come (masc; fem)" though not for example in "rubata'/ fallen (masc; fem). Furthermore pp agreement is always obliterated by the presence of clitics, which in Piedmontese are attached to the past participle, whence "A saria vnüse/ "SE" (one) would have come", "A saria telefunase/ SE would have phoned".

-The order "V, i-subject, S-complement" can be seen to discriminate between ergatives and others as in Italian (cf. 1.7.1)

- (ii) A-1-e vnüye Giuanin a mange' n bucun  
 (A) has come there Giuanin to eat a mouthful (E)  
 (...have a bite...)

??A-1-a vursu (anche) Giuanin mange' n bucun  
 (A) has wanted (also) Giuanin to eat a mouthful (A)

-Alternations involving stranded prepositions like those of 1.7.3 can also be found:

- (iii) A-1-e rubatame dui civic ados  
 (A) has fallen to me two policemen upon (E)  
 (Two policemen fell upon me)

??A-1-an sparsame dui civic ados  
 (A) have fired to me two policemens upon (A)  
 (Two policemen fired on me)

-The pattern involving benefactive datives of 1.7.4 is also reproduced:

- (iv) A-1-e brüsaye tüti i mobiy a Giuanin  
 (A) has burned to him all the furniture to Giuanin  
 (ye here is a clitic related to the benefactive object:  
 clitic doubling)

??Tüti i mobiy a sun brüsaye a Giuanin  
 All the (pieces of) furniture have burned to him to Giuanin

??A-1-e/ A sun brüsaye a Giuanin tüti i mobiy  
 (A) has/ (A) have burned to him to Giuanin all the furniture  
 (All of Giuanin's furniture burned)

-Accusative S pronominalization is impossible with ergative verbs,  
 as discussed for Italian in 1.7.2.

We will furthermore extend the ergative analysis to inherent reflexives, as was done for Italian in 1.8, given the lack of agreement (with the reservation of fn. 1) and Ne-Cl in (v).

(v) A-1-era nrabiasne tanti  
 (A) had (E; sing.) gotten themselves angry of them many

3 It may be more appropriate to regard SI, which allows such movement into subject position, as the exception, rather than the norm.

4 The discussion of the invariance of reflexive agreement across inverted/ non-inverted pairs of 2.4.1 relative to Italian, would not straightforwardly carry over to Piedmontese, given the non inflected nature of the subject element ye (versus the inflected nature of pro). Rather, it would seem more appropriate to extend to Piedmontese the suggestion which we will advance in 5.7 below for French: we will assume that in French, the reflexive clitic agrees, not with the subject, but with the object (cf. 5.7).

5 The theory of ep's of ch. 2 will thus make the prediction, borne out to a satisfactory degree, that ep's could be inserted as in (i).

(i) Giovanni era lui in cima  
 Giovanni was himself at the top

6 This point, namely the fact that verb-agreement, and pp agreement fail to be dissociated, is also clear from French, as in the following:

- (i) Trois filles sont arrivées  
 Three girls have arrived (vb ag't; pp ag't)
- Il est arrivé trois filles  
 It has arrived three girls (no vb ag't; no pp ag't)

7 We will determine that the i-subject is nominative here, with the usual two tests as in (i) and (ii) below. (cf. 2.2.4 above).

- (i) C'ero io/ \*me in cima  
 There was I/ \*me at the top
- (ii) \*Ce li erano in cima  
 There them was at the top

Since personal pronouns in Piedmontese are not inflected for Case, only the test in (ii) will be available in that language, as in (iii).

- (iii) \*A-l-e rivaylu  
 (A) has arrived there him

8 Therefore, differently than with cases like "E' arrivato lui", where lui is ambiguously either an ep or an i-subject, as discussed in 2.2.3 above, in cases like "C'e' lui in cima", lui is unambiguously an i-subject, given "\*(lui) c'e' in cima". Analogously for the ye cases in Piedmontese.

9 In the variety of Piedmontese that we are familiar with, correlates of restructuring such as clitic climbing, as in (i); and auxiliary change, as in (iib) (see chapter 6 for details) do not obtain clearly enough.

- (i) ?(?)e lu vureria lese  
 (I) (e) it would like to read
- (iia) A-l-avria pudū vniye fina Giuanin  
 (A) would have been able to come there even Giuanin (A)
- (iib) (?)A saria pudūye vni fina Giuanin  
 (A) would have been able there to come even Giuanin (E)

10 Idiom volerci is thus analogous to, as well as synonymous with, English it takes, of "It takes a lot of money". Like volere, take appears with a pleonastic subject in the idiom, while it is generally a transitive verb. (However, notice the lack of plural agreement as in "\*It takes two dollars", versus (21a) in the text).

11 We assume that an alternative derivation of (25b) from the base form in (i) is not possible.

- (i) NP<sub>ci</sub> ci-potere [<sub>S</sub>[e] essere Giovanni in cima]

In fact we will assume that (i), where ci has been inserted with respect to the matrix subject, will remain ill-formed given that the embedded subject is unfilled and unbound, even after the application of restructuring. In fact we will claim, in our more detailed discussion of restructuring in chapter 6, that the embedded subject is not deleted by the latter process.

We note in connection with (25c) that preposing of the i-subject continues to be impossible in the latter case, as in (ii), just as in the simplex case, i.e. (21d) above.

- (ii) \*Giovanni ci potrebbe essere in cima

12 This will be so because a Control case parallel to (25a) namely (i), is ill-formed.

- (i) NP<sub>ci</sub> volere [<sub>S</sub><sub>PRO</sub> esserci Giovanni in cima]

The case in (i) is at least thematically ill-formed since NP<sub>ci</sub> (essentially an empty NP), is a non-referential expression in an "argument" position.

13 We may note that Piedmontese Relative Clauses reverse the results in (31):

- (i) ?\*I american che t-l-as dit che a-l-e rivaye ...  
     The Americans that (t) (you) said that (a) arrived there
- (ii) I american che t-l-as dit che a sun riva' ...  
     The Americans that (t) (you) said that (a) arrived

This will follow from the fact that Relative Clauses in Piedmontese are not (at least generally) derived by movement, but rather involve a resumption strategy of the type discussed in 2.2.3 for Italian. Thus relativization of the subject will require spd (namely subject cliticization) and the latter will not occur with ci/ ye as discussed in connection with (15), (16) above. Cf. also Italian "Il ragazzo che non credo alla voce che era/ \*c'era già' in cima" (The kid that I don't believe the rumor that (he) was/ \*there-was (he) already at the top).

14 Other verbs taking A, while the corresponding Italian ones take E, are atterrir, amerrir, décoller, débarquer, exister, échapper (land, alight on water, take off, disembark, exist, escape).

15 The alternative view, that French has exactly the same system of E assignment, but a different distribution of ergative verbs, is clearly conceivable. Notice however that there are independent reasons to assume that French has a somewhat different system of E assignment, represented by the fact that passives select aspectual auxiliary A in French, but E in Italian, as in (i), (ii), and as will be further discussed in 6.7 below.

- (i) Jean a été admiré
- (ii) Giovanni e' stato ammirato  
       (J./ G. has been admired)

16 Notice that the difficulty in (39c) can be associated, at least in part with its ambiguity, namely with the fact that a transitive

reading in which il is interpreted as a pronoun ("he"), is also possible in principle. No corresponding ambiguity would exist when se is present, since the verb is then unambiguously ergative.

17 Our view that en-cliticization from the i-subject in the il-construction is due to the direct object position of the latter is confirmed by the fact that in cases of so called "Stylistic Inversion", such as

(i) (from Kayne (1981)), analogous en-cliticization fails, as in (ii).

(i) Une fille que détestent trois garçons  
A girl that hate three boys  
(... that three boys hate)

(ii) \*Une fille q'en détestent trois  
A girl that of them hate three

If we assume with Kayne that rightward NP-movement is involved in "stylistic inversion", we will expect the phrase "trois garçons" in (i) to be adjoined to VP, and en-cliticization to fail, as in (ii). This account of the difference between il-construction and "stylistic inversion" with respect to en, is therefore an alternative to the one in Kayne (1981), where it is suggested that ill-formedness in (ii) is due not to the configuration at S-structure level, but rather to the fact that a L.F. rule moves the i-subject ("trois trace<sub>en</sub>") to the left thus preventing the trace of en from being C-commanded (or governed) by en in L.F. The latter L.F. rule would be required by the existence of the empty subject position in (i), (ii) which would otherwise lack a proper antecedent. Under that view no analogous L.F. rule would be required in cases of il-construction, whence -allegedly- the grammaticality of (46) in the text. For extensive discussion of "Stylistic Inversion", cf. Kayne and Pollock (1978), Kayne (1981).

18 One argument against base-generation is implicit in some of the discussion in Kayne (1979). Noting the two forms in (i) and how they perform differently in the construction in (ii) Kayne attributes the difference to the fact that (ia) but not (ib) is base-generated.

- (ia) Il y a de l'eau (There is water)
- (ib) Il arrive des filles (Some girls are coming)
- (iia) Il pourrait y avoir du pain sans y avoir de l'eau  
It could there be some bread without there being water
- (iib) \*Il pourrait arriver des garçons sans arriver des filles  
It could arrive some boys without arriving some girls

On this we will note first that the contrast in (ii) will not distinguish French from Italian. In fact while inversion with pro, as in (iiib), is analogous to (iib), inversion with ci (locationals), as in (iiia) is analogous to (iia).

- (iiia) Potrebbe esserci del pane senza esserci dell'acqua  
(It could there be some bread without there being water)
- (iiib) \*Potrebbero arrivare dei ragazzi senza arrivare delle ragazze  
Could arrive some boys without arriving some girls

Secondly we note that the ungrammaticality of (iib), (iiib) is not a problem for our view. In fact the structure "[<sub>S</sub><sup>PRO</sup> arriver des filles]" does not satisfy the inversion provision of chapter 2, cf. examples (78)-(80) in 2.3.1 above. The problem will therefore be how to account for the grammaticality of (iia), (iiia). Although we have no answer to this problem, we may note that the view suggested by Kayne, i.e. "il y a is compatible with Control" does not seem tenable in general, given the following, where again French does not differ from Italian.

- (iv) \*Il y a toujours du pain sans y avoir de l'eau  
\*C'e sempre del pane senza esserci dell'acqua  
There is always bread without there being water

(v)	Il serait désirable	$\left\{ \begin{array}{l} \text{qu'il y avait de l'eau} \\ \text{aller a Paris} \\ \text{*y avoir de l'eau} \end{array} \right.$
	Sarebbe desiderabile	$\left\{ \begin{array}{l} \text{che ci fosse dell'acqua} \\ \text{andare a Parigi} \\ \text{*esserci dell'acqua} \end{array} \right.$
	It would be désirable	$\left\{ \begin{array}{l} \text{that there should be some water} \\ \text{to go to Paris} \\ \text{there to be water} \end{array} \right.$

Kayne's examples are based on some cases noted in Rouveret and Vergnaud (1980). We may note in passing that Rouveret and Vergnaud's cases can be handled in a reasonable fashion within our discussion. Consider in fact the Italian counterpart to Rouveret and Vergnaud's French cases, here below.

- (vi) (?) $\text{pro}_i$  non cade mai [ $i$  molta neve] senza [ $S^{\text{PRO}}_i$  piovere]  
never falls much snow without raining
- (vii) \* $\text{pro}_i$  non piove mai senza [ $S^{\text{PRO}}_i$  cadere [ $i$  un po' di neve]]  
(It) never rains without falling a little snow

In (vi) the matrix clause is well formed. Furthermore we may assume that subject pro can (marginally) act as a controller for PRO in the infinitival, due to the fact that the matrix verb is some sense a "weather" verb, cf. the perfect "Non nevica mai senza piovere un po' / It never snows without raining a little" versus the (near) impossible "\*Non cade mai Giovanni senza piovere/ Never falls Giovanni without raining". In (vii), the infinitival violates the inversion provision of chapter 2, just like the case in (iiib).

Examples partly based on Rouveret and Vergnaud's cases appear in various parts of our discussion.

19 Notice however that a certain amount of stipulation is likely to be required to avoid cases like (i), where il would be related to the

clause, as we assume it is in (ii).

- (i) \*Il se voudrait [<sub>S</sub> que Jean était là]  
SE would like that Jean should be there

- (ii) Il semblait que Jean était là  
It seemed that Jean would be there

Also, given that French has some limited possibility for impersonal passives, i.e. for passives of intransitive verbs, such as (iii) (from Kayne (1975, p. 247, fn. 56)), to be discussed further below in the text, one might expect some parallel possibility for SE-moyen.

- (iii) Il sera parlé de vous par tout le monde  
It will be talked about you by everyone

On this we note that while it is unclear whether their distribution is comparable to that of impersonal passives, some "impersonal" SE-moyen cases are attested, such as the one in (iv), from Kayne (1975, p. 397, fn. 64), attributed to Gross (1975).

- (iv) Il se réflechit à de drôles de choses ici  
SE thinks about funny things around here

20 More striking that (58) may be the reflexive case in (i), to be further discussed in 5.7 below, from Kayne (1975, p. 381).

- (i) Il s'est dénoncé trois mille hommes ce mois-ci  
It has denounced themselves three thousand men this month

In fact, while the syntactic character of E assignment in (58) could be disputed, with reflexives such assignment more clearly due to syntactic factors, since in a non reflexive construction the same verb will select A (e.g. "Jean a dénoncé Pierre").

21 Relativization by Wh-movement of the subject in infinitival relatives is also excluded by the Government-Binding theory (Chomsky (forthcoming)), since within the latter, traces of Wh-phrases ("variables")

are required to have Case.

22 Under the view in Rizzi (1979b), that subjacency operates differently in Italian, and in particular that  $\bar{S}$  rather than  $S$  is the relevant node, the prediction will ensue that some of the cases under discussion should differ in grammaticality from their Italian counterparts. Such predictions seem essentially correct. Thus corresponding to the ungrammatical case in (78a), we find (i).

- (i) (?)L'isola che Giovanni era il primo che avesse mai  
                  The island that Giovanni was the first one who had ever  
                  raggiunto a nuoto  
                  reached swimming

Corresponding to the ungrammatical (80), further below in the text, we find (ii).

- (ii) (?)L'isola che Giovanni non sapeva chi avesse già  
                  The island that Giovanni wondered who had already  
                  raggiunto ...  
                  reached

However (iii) will be correctly predicted as ungrammatical as the English counterpart in (81b) in the text.

- (iii) \*L'isola che Giovanni conosceva il primo che  
                  The island that Giovanni knew the first one who  
                  aveva raggiunto a nuoto  
                  had reached swimming

23 Notice that if this view is correct, on the basis of the Government-Binding theory (and the provision that PRO is ungoverned), one would never expect to find Control cases of sc complements. However, the regard/ impress cases here below, analogous to those discussed in Chomsky (1980), are likely to be cases of Control.

- (i)       John impresses me as accepted for his wit

(ii) I regard John as accepted for his wit

Note in fact that while in (i) the subject ("John") enters into the interpretation of the sc complement, in (ii) the object does, thus analogously to well established subject/ object Control alternations (e.g. of the promise/ persuade type). Furthermore relevant diagnostics suggest Control fairly clearly, as in the following (on this diagnostic for Control, cf. for example some of the discussion in 3.4.2 below).

(iii) ?\*The winner impresses me as (being) John

(iv) ?\*I regard the winner as (being) John

As will be discussed in 3.4.3 below, the presence of "being" in the above will not alter the "sc" status of these cases. One may suggest that PRO is allowed in these cases since government is blocked by the presence of the preposition as. In particular one may suggest an analysis as in (v).

(v) [<sub>PP</sub><sup>as</sup> [<sub>sc</sub> PRO ...]]

Notice also however, that it is not entirely clear that a Control analysis would not do even for the case of consider. In fact, given that we assume, as will be discussed in 5.6 below that ECM does not exist in Italian, if Control was impossible with Italian considerare, the case in (86b) in the text ought to be entirely impossible. Furthermore the relevant diagnostics do not clearly qualify consider cases as not being cases of Control, as in the following.

(vi) ?I consider there to be too many people

(vii) ?I consider the winner to be John

On the view, expressed shortly below in the text that, at least in Italian, Case assignment across sc boundaries is somewhat exceptional and limited to verbs like considerare (cf. also ritenere in "Ritengo

Giovanni intelligente/ I believe Giovanni intelligent") we note that alternations comparable to the English ones here below are altogether lacking (or at least extremely rare) in Italian.

- (viiia) I want him
- (viiib) I want him captured
- (ixa) He kicked the door
- (ixb) He kicked the door shut
- (xa) He pulled the curtains
- (xb) He pulled the curtains open
- (xia) He ordered a monument
- (xib) He ordered a monument erected

On such alternations it could be rather naturally suggested, that subcategorization for a direct object overlaps in part with subcategorization for a sc complement, i.e. that a certain number of verbs will take either NP or sc complements. On adjective open in (xb), see our claim in 3.3.4 below that adjectives can also be predicates of sc's. If we then assume that Case assignment across the sc boundary in the b cases above is somewhat related to English ECM, rather than being universally available, we will naturally account for the systematic lack of forms like the b cases above in Italian.

This view would lead one to further expect for Italian, that while sc's fail to alternate with NP's as complements of transitive verbs such as those in (viii)-(xi) above, they should not equally fail to alternate with NP's as complements of ergative verbs since the subject of the sc could in the latter cases move into a Case marking position. This might suggest an account of the contrast between ergative arrivare and intransitive lavorare, here below.

(xii) Giovanni e' arrivato solo  
Giovanni has arrived alone

(xiii) ??Giovanni ha lavorato solo  
Giovanni has worked alone

Our suggestion is that the D-structure for (xii) should be "[<sub>NP<sup>e</sup></sub> <sub>arrivare</sub> [<sub>sc</sub> Giovanni solo]]". There will be no analogous counterpart for (xiii), since lavorare is not ergative. No contrast is found with da solo (also "alone"), as in "Giovanni e' arrivato da solo; Giovanni ha lavorato da solo". We may suggest that the latter phrase is some kind of adverbial phrase, rather than an adjective phrase as solo.

24 This means of course that subcategorization specifications must distinguish between infinitival and small clause complements. On this we note that if there is no complete overlap between the two, there is some, as in the Raising cases in (i), and in the ECM cases in (ii).

(i) John      } appeared      } (to be) proud of his deed  
              } seemed          }

(ii) They     } believed     } him (to have been) captured  
              } assumed       }  
              } reported      }

25 Although not explicitly presented, a Control analysis of sc relatives is essentially implicit in Williams' discussion. In fact he suggests an NP deletion operation constrained by the "Specified Subject Condition", thus in effect limited to subjects: in our terms this is the phenomenon of Control, rather transparently.

26 On the overlap between present and past participles, we also note: the restrictive type of sc relatives as in (i), the with clauses, as in (ii), and the if/ when/ once clauses, as in (iii) (some of these facts are noted in Williams (1975)).

- (i) John,      } accepted for his wit ...      }
                 } accepting students for their wit ...      }
- (ii) With      } John arrested                         } Mary had to find
                 } John studying linguistics      }
- herself a job
- (iii) If/ when/ once      } caught, John would write to Bill      }
                         } addressing the audience, John would      }
                         feel more secure      }

The difference in (iv) however will remain unexplained, although it may perhaps be related to the sometimes nominal character of the -ing form.

- (iv) John began      } reading      }
                         } \*admired      }

27 This extension of Opacity would dispense with the L.F. rule proposed in Chomsky (1980) for the regard/ impress cases of fn. 23 above, which would make these cases sentential in L.F. by "building" some structure (inserting be and an S node).

28 The same phenomenon can be detected with the Italian locationals of 3.1.3:

- (i) %C'era      } due scimmie nella gabbia      (%: substandard)
                 C'erano      }
- There      %was/ were      two monkeys in the cage
- (ii) (?)C'era      }      una scimmia e un gorilla nella gabbia
                 \*?C'erano      }
- There      (?)was/ \*?were      a monkey and a gorilla in the cage

This fact seems to depend on the nature of the designated element: pro inversion is different:

- (iii) ??Dovrebbe      } arrivare un professore e sua moglie
                 Dovrebbero      }
- ??sing-Should/ pl-Should      arrive a professor and his wife

29 The sequence "Be-going" can be altered by subject-verb inversion in

questions:

- (i) Are you going to stay?

I assume following Emonds (1970) that this is due to the exceptional character of "root" operations.

30 Milsark further claims that semi-modal be is immune to "gapping".

This seems to me false. In any case the behavior of s.m. be under gapping appears close enough to that of modals:

- (i) John    { was to }    finish his thesis and Mary (to) help him  
              { must }

31 The solution thus given to the semi-modal be restriction is essentially identical to the one given in Emonds (1970). Our view only differs in that while Emonds claims that the NP in "There be NP ..." is in a base generable position, we are claiming that it is in a base generated position.

Milsark objects to the solution proposed in Emonds on account of the fact that the same solution would not apply to be-going, given the non-modal properties of the latter. Milsark's observation is correct but irrelevant given, among other things, his own analysis (later in the discussion) of be-going as a Raising predicate.

The discussion in the text, leaves out the so called "NP restriction", exemplified in (i), (ii) (based on Stowell (1979)).

- (i) A woman was a contestant on the show

- (ii) There was a woman    { from Peru              }    on the show  
                                  { \*a contestant }

Stowell (1979) notes that building the restriction into the rule of there interpretation as is done in Milsark (1974) would provide no account of the apparently analogous facts in (iii) and (iv) here below.

- (iii) I want Jim      } in my class      }  
                       } \*my waiter      }  
  
 (iv) Someone      } in my class      }      appeared on the show  
                       } \*a contestant      }

Stowell also notes that the ungrammatical case in (iv) provides evidence against Wh-be deletion, cf. "Someone who was a contestant..." Stowell then proposes a "Case" solution: be can assign Case to either nominal to its right, as in (i), (ii), but not to both. Analogously with want in (iii). Although a Case approach seems intuitively on the right track, it remains unclear how the proposal would work formally, given that in our discussion "a contestant" would be in the same structural position in both (i) and (ii). Also, it would remain unclear how cases like the following should be handled, especially if they are structurally parallel to the case in (iii).

- (v) I consider John a jerk  
 (vi) They nominated him the worst teacher of the year

On the "Predicate Restriction" and on the "Definiteness Restriction", exemplified here below respectively, we assume that the discussion in Milsark (1974) and the analogous discussion in Stowell (1978), (1979) are quite adequate.

- (viiia) A man was tall  
 (viiib) \*There was a man tall  
 (viiia) John's dog is in the room  
 (viiib) \*There is John's dog in the room

The definiteness restriction will be briefly discussed in 4.3 below.

32 We assume Nominative both because it seems natural given the discussion in chapter 2, and because the following would confirm:

- (i) \*Whom } is there in the room?  
 Who }

33 We assume that alternation between NP and sc complements is fairly general, as for example in "I like my steak/ my steak well done" (see also Stowell's discussion), and in some of the cases discussed in fn. 23.

34 Notice that while we are assuming that Raising verbs like seem, appear can take sc complements, as noted in fn. 24, and as in (i), and also that they can appear as present participles, as in (ii), some stipulation may be required to avoid (iii), contrasting with (iv).

- (i) ?Several people } seemed } persuaded to leave  
                       } appeared }
- (ii) A student    } seeming } to be witty ...  
                       } appearing }
- (iii) ?\*Several people were } seeming } persuaded to leave  
                       } appearing }
- (iv) Several people were being persuaded to leave

35 In Italian, the relation between ergative verbs and the lack of corresponding noun in -ore (counterpart to English -er) appears quite without exception. In English however there are some, though fairly rare, exceptions to this generalization:

- (i) The book sells well/ is a best-seller
- (ii) The chicken is for } broiling } / is a } broiler }  
                       } roasting }      } roaster }

In these cases -er suffixation seems to apply with respect to the ergative entry of the verb. The rarity of these cases and the fact that they are recognizably aberrant in people's intuitions will be enough to suggest that they do not threaten the generalization. Peculiarities of the lexicon can perhaps also be considered: latecomer, newcomer,

churchgoer for the likely ergative come, go. It must be noted however, that -er forms of ergative verbs, improve rather generally with adverbs, as in "The patient was healing fast; ?He was a fast healer". Although it is not clear what is involved here, it seems to us that such cases do not have the perfect status of walker, talker, etc. If this is correct, they would not seriously threaten our generalization.

36 Somewhat analogous to the expletives of the text, in the sense that it also serves as an intensifier, is the expression up a storm, of (i).

- (i) John was talking up a storm

However, the latter expression can (at least for some speakers) co-occur with direct objects, as in (ii).

- (ii) ?John was humming that tune up a storm

We will take this to follow from the formal properties of the latter expression, namely from the fact that it is essentially a prepositional phrase, and as such does not require Case, unlike "my head off/ the hell ... etc. of the text.

37 We will suggest that in spite of their idiomatic character, the cases in (i) are formed on the transitive (reflexive) rather than ergative entry.

- (i) The cows red themselves sick

John trained himself sick

More difficult to accomodate within the view of the text i.:

- (ii) John trained his ass off

We may assume that, given the anaphoric character of the expletive object, (ii) is possible due to its "analogy" with reflexives as in (i).

38 Corresponding to the linear order "V, i-subject, S-complement" noted for Italian ergative verbs in 1.7.1 above, we find the case in (i), where come is likely ergative.

- (i) There came a large group of people to see us

The latter case will contrast with (ii), (iii) here below involving non-ergative try

- (ii) \*There tried a large group of people to see us

- (iii) ??There tried to see us a large group of people

39 On the definiteness restriction we will note that the latter holds (as is known) for the il-construction in French, as in (i); does not affect pro inversion either in Italian or in Piedmontese, as in (ii); but it does seem present in the ci/ ye inversion in both Italian and Piedmontese although in a milder form than in English and French as in (iiib) versus (iiia).

- (i) \*Il est arrivé Jean  
It has arrived Jean

- (iia) Ha lavorato Giovanni / A-1-a travaya Giuanin  
Has worked Giovannis idem

- (iib) Hanno lavorato tutti / A-1-an travaya tüti  
Have worked alls idem

- (iiia) C'e Giovanni sulla barca / A-1-e rivaye Giuanin  
There is Giovannis (A) has arrived there Giuanin  
on the boat

- (iiib) ??Ci sono (\*c'e) tutti sulla barca /  
There are (is) all on the boat  
\*A-1-e rivaye tüti  
(A) has arrived there all

40 I will assume that the existence of "John walked the dog" is exceptional and that it will not make walk in "The dog walked" ergative.

One example of OV given by Milsark (p. 246) involves stand which (except for "bystander") does not take either -er or expletive objects. However, it would seem plausible to suggest that stand is ergative, given "There stood a lamp on the table" (IV) (and perhaps the transitive "John stood the lamp beside the bed"). Its occurrence in an OV context in Milsark's example is not a problem, cf. discussion of (182) below in the text.

41 Considerations complementary to those of the text can also be made. In fact, since Italian does not have a strategy comparable to deletion of that in English (as in "The girl that John believes (\*that) likes him") to bypass the general prohibition on extraction from subject position, it will require a fully productive inversion strategy. On these matters recall the brief discussion in 2.3.2 above, and cf. Rizzi (1980a), Chomsky (forthcoming).

42 The stylistically marked character of some ES can be evidenced by their difficult occurrence with recognizably colloquial expressions like (i), as in (ii) (cf. (181) below in the text).

(i) Let me tell you somethin' ...

(ii) \*?... there hit the embankment so many shells from our own lines that you wouldn't believe it.

This test does draw a distinction between cases like (ii) or OV in general and be ES, as in (iii).

(iii) Let me tell you somethin', there were so many people at the game that you wouldn't believe it

However, IV do not clearly fall with be ES:

(iv) ??Let me tell you somethin' ...

} there appeared/ arrived so many people      } ...  
   } there followed/ began so many rainstorms    }  
   } there developed/ ensued so many objections }  
    ... that you wouldn't believe it.

From our standpoint one would conclude that the stylistic character of ES does not exclusively depend on derivation via rightward movement versus base-generation.

43 For the other two cases presented by Milsark as analogous to follow, involving grow and develop respectively (see Milsark, p. 250) one could suggest analogous solutions. However, there will be no corresponding intransitive/ ergative pairs in Italian: only ergative crescere and ergative svilupparsi exist respectively.

44 If start is not ergative it will follow that the two verbs in "John started the car" and "The car started" respectively, are not related in the manner of the two sink of "John sank the boat; The boat sank".

45 Notice also that the assumption of 3.4.3 that there cannot be inserted in sc's will appropriately exclude (i) contrasting with (ii).

- (i) \*There<sub>i</sub> were [sc<sub>i</sub> t<sub>i</sub> appearing several students]
- (ii) There<sub>i</sub>    } seemed    } [s<sub>i</sub> t<sub>i</sub> to appear several students]  
                 } began      }

46 This discussion makes the designation "Unaccusative" used in Relational Grammar to characterize our ergative verbs, seem rather appropriate. Cf. Perlmutter (1978).

47 Two other relevant arguments appear in Ruwet (1972).

One: Unlike passives (e.g. (i)), neuters (equals our si-ergatives)

do not give rise to idiom chunks: (Ruwet, p. 106).

- (i) Justice a été rendue par le roi  
Justice has been made by the king
- (ii) \*Justice s'est rendue hier à huit heures du soir  
Justice made (itself) yesterday at eight p.m.

We must note that in order for this kind of argument to apply to our proposal it is not sufficient to produce cases where passive is possible and the neuter is not, since the lesser productivity of the latter construction is not a problem. Rather, one would have to produce a verb which can both have a neuter form and take a passivizable idiom, and show that the neuter form is impossible with the idiom. Opportunities to do this do not appear too abundant. However, should this problem arise, it would not be likely to distinguish French from Italian. See in fact:

- (iii) (?)Alla festa, il ghiaccio fu finalmente rotto  
At the party, the ice was finally broken

dall'arrivo di Giovanni  
by the arrival of Giovanni

- (iv) ??Alla festa, il ghiaccio si era poi finalmente rotto  
At the party, the ice had finally broken (itself)

dopo l'arrivo di Giovanni  
after the arrival of Giovanni

Thus, while we have no solution to suggest, this possible problem will be offset by all the arguments we are giving with respect to Italian.

Two: Passives and neuters appear to differ again in the following:

(Ruwet, p. 107; analysis ours)

- (v) L'équipe a osé      } \*[<sub>S</sub> PRO être réunie ...]  
                          } [ <sub>S</sub> PRO se réunir ... ]  
The team dared      \*to be convened/ to convene (itself)

On the premise that only D-structure subjects are available to Control

under oser, as the passive purports to show, Ruwet would conclude that PRO must be in subject position in the base, with the neuter form se reunir. This argument is weak however, since the premise is questionable. In fact the theory of Control which we assume, makes no provision for Control in D-structure, and would therefore require a different account of the passive in (v). Furthermore, these facts would again not distinguish French from Italian, which has an exact counterpart to (v).

48 Notice that within our framework, the particular form in (218b), as well as the parallel French one in (219b), would be ruled out by several other reasons beside the mentioned impossibility for the passive (past participial) morphology to obtain. As will be discussed in 5.2.1 below, we will assume that ergative verbs never appear with the agentive by-phrase, even when there is no passive morphology, as in complements of fare, cf. "Giovanni gli fa telefonare da Piero/ Giovanni to him makes phone by Piero (...has him called by Piero)" versus "\*Giovanni ci fa intervenire da Piero/ Giovanni in it makes intervene by Piero". Besides, we assume that ergative verbs must appear with the direct object that they are subcategorized for: a condition which is violated in (218b), (219b). In spite of these additional reasons, the cases in (218b), (219b) are to the point since they indicate that the verbs involved are not intransitive like those of (218a), (219a).

The reasons for the ungrammaticality of (218b) adduced in Perlmutter (1978a), are rather different from the ones we invoked. In particular in the latter it is assumed that derivation of (218b) would involve "advancing" some element to "1" (i.e. subject) twice, thus violating the "1-Advancement Exclusiveness Law", a provision, proposed within

Relational Grammar, that advancement to 1 can only occur once.

49 Italian differs from English in that it has a very limited distribution of present participles. We note that the progressive form exists, but with gerunds, as in (i), not with present participles as in (ii), at least in standard (non poetic) styles.

(i) Giovanni sta mangiando la minestra  
Giovanni stands (is) eating the soup

(ii) \*Giovanni e' mangiante la minestra  
Giovanni is eating the soup

Concerning sc relatives we note the rather rare and stylistically marked (iii), and the fairly natural (iv).

(iii) Un ragazzo amante la montagna  
A guy loving the mountains

(iv) Un ragazzo amante della montagna  
A guy loving of the mountains

We assume that in (iii), amante is a present participle, namely a verb, assigning Case to the direct object. In (iv) we assume that amante is an adjective, failing to assign Case, whence the presence of the preposition di (of).

50 We must note that at least for some speakers of English, there are noticeable contrasts between ergative and intransitive verbs in sc relatives, as for example in (i), (ii).

(i) (?)?A student recently arrived was shown a gorilla to work with

(ii) \*A student talked too much was asked to shut up

A sample of verbs which are likely to behave comparably to arrive in (i), is the following.

(iii) appear, collapse, fall, enter, mature, return,  
survive, depart, go, merge, arise, land

In so far as contrasts like the above exist, they will provide both an argument against Wh-be deletion, since the latter could not possibly account for them, and an argument for the existence of ergative verbs distinct from intransitives, just like the Italian contrasts.

51 Deletion of auxiliary in Italian would be additionally suspicious given that English semi-modal be must not be deleted, (see above).

#### 4. MOVEMENT AND RECOVERABILITY

##### 4.0 Introduction

In this chapter I will discuss the interaction between movement and interpretive rules. I will claim that the configuration prior to movement must be accessible to interpretive rules to a greater degree than the framework discussed in the general introduction and the current version of trace theory would allow.

##### 4.1 Each Interpretation

The element each/ Italian ciascuno in the type of construction exemplified here below, appears to require a plural antecedent.<sup>1</sup>

- (1a) \*Il ragazzo compro'      } un libro ciascuno  
          I ragazzi comprarono    }  
          (Gloss as (1b), respectively)
- (1b) \*The kid bought      } one book each  
          The kids bought      }

In Italian, the relation between ciascuno (which bears singular inflection) and such antecedent is evidenced by gender agreement (E.g. Masculine: (As in (1a)) "I ragazzi ... ciascuno; Feminine: "Le ragazze ... ciascuna"). In the following discussion I shall deal mostly with English data, but the reader may assume the discussion and the results to essentially carry over to Italian.

The following examples, where judgements are relative to the interpretation suggested by the indices, show that the relation in question responds to the C-command requirement.

- (2a) \*Two girls each<sub>i</sub> met [<sub>i</sub> the students]
- (2b) \*The professor talked to one mother each<sub>i</sub>  
          about [<sub>i</sub> the students]

- (2c) \*The professor asked one question each<sub>i</sub> about [<sub>i</sub> the students]
- (2d) The professor asked [<sub>i</sub> the students] one question each<sub>i</sub>
- (2e) The professor asked [<sub>i</sub> the students] about one incident each<sub>i</sub>

Expectedly, (3) turns out to be ambiguous between "k=i" and "k=j".

- (3) [<sub>i</sub> The professors] asked [<sub>j</sub> the students] one question each<sub>k</sub>

The contrast between (4) and (5) below, indicates that such a relation responds to Opacity; the contrast between (5) and (6) that it responds to the NIC.

- (4) \*[<sub>i</sub> The professors] expected John to read one book each<sub>i</sub>
- (5) ?[<sub>i</sub> The professors] expected one student each<sub>i</sub> to call up<sup>2</sup>
- (6) \*[<sub>i</sub> The professors] expected that one student each<sub>i</sub>  
would call up

We will conclude from this that there is a rule that assigns a plural antecedent to each, let us say by coindexing, and that the output of this rule is subject to the general binding conditions, i.e. C-command, Opacity and the NIC. We will call this rule "Each-interpretation" (E-int).<sup>3</sup>

We must now note that while in general the plural antecedent to each will not be inside a prepositional phrase, as for example in (2c) or (7a) here below, antecedents of the form "to NP" (and, correspondingly, "a NP" in Italian) can yield acceptability or near-acceptability, as in (7b), (7c), (7d).

- (7a) \*?John sent one interpreter each<sub>i</sub> with [<sub>i</sub> the visitors]
- (7b) (?)John assigned one interpreter each<sub>i</sub> to [<sub>i</sub> the visitors]
- (7c) ?John gave one present each<sub>i</sub> to [<sub>i</sub> the boys]
- (7d) ?John sent one letter each<sub>i</sub> to [<sub>i</sub> the students]

It is well known that a parallel exceptionality of "to NP" phrases

appears elsewhere: for example in the following case of Control.

- (8) John appealed to Bill<sub>i</sub> [<sub>S</sub><sup>PRO<sub>i</sub></sup> to leave]

Verbs of indirect-object ("a NP") Control are also found in Italian (e.g. "ordinare, suggerire, augurare, imporre, concedere, proibire, impedire/ order, suggest, wish, impose, allow, prohibit, forbid").

We may therefore suggest, that rather than complicating the E-int rule, we modify the general notion of C-command: We will assume that to NP phrases are exceptionally treated as NPs with respect to the notion of C-command or, more formally, that a PP node dominating "P, NP" is exceptionally considered non-branching with respect to the definition of C-command in the general introduction above, if the P it dominates is to (on this see also Chomsky and Lasnik (1977) fn. 106).<sup>4</sup> Assuming some such modification to be introduced in our grammar, we now call attention to the prediction, implicit in our discussion, that the phrase "numeral- $\bar{N}$ -each" will not occur as the subject of the sentence containing the plural antecedent. This prediction is fulfilled in general, as for example in (2a) above and (9) here below.

- (9) \*One interpreter each<sub>i</sub> talked to [<sub>i</sub> the visitors]

The passives in (10) however, depart noticeably from this prediction.

- (10a) ?One interpreter each<sub>i</sub> was assigned to [<sub>i</sub> the visitors]

- (10b) ?One present each<sub>i</sub> was given to [<sub>i</sub> the boys]

- (10c) ?One letter each<sub>i</sub> was sent to [<sub>i</sub> the students]

In fact such passives do not differ very significantly from the corresponding active forms in (7b), (7c), (7d) respectively, which will be well-formed according to the revised notion of C-command.

The contrast between (9) and (10), and the relative lack of contrast between (10) and the corresponding actives in (7) will suggest, that at

the point at which the C-command requirement applies, the phrase containing each is represented in direct object position in (10) just as it is in (7). While it is yet unclear how exactly this fact should be expressed in the grammar, we note here that the cases in (10) will provide a rather strong argument for a syntactic derivation of passives.<sup>5</sup>

Before we attempt to provide some account of the facts in (10), we will further establish that we are indeed dealing with the interaction between movement and E-int here. We thus note that other cases of movement produce analogous effects: For example, adding one more movement operation to the one presumably involved in (10) does not worsen significantly the judgements, as in the Raising case in (11a), which will contrast sharply with the parallel Control case in (11b).

(11a) ?One interpreter each was likely to be assigned  
to those visitors

(11b) \*One interpreter each was trying to be assigned  
to those visitors

(11) thus indicates that traces behave differently than PRO with respect to E-int. Traces appear also to behave differently than other anaphors, for example reflexives. Compare in fact (12a) (equals (10a)) with (12b). (For simplicity we will ignore in some of the following discussion the conclusion drawn in chapter 3 that the participial phrase following be in passives is a small clause. No consequence is attached to this decision.)

(12a) ?[<sub>i</sub> One interpreter each] was assigned <sub>i</sub> to the visitors

(12b) \*[<sub>i</sub> One interpreter each] assigned himself <sub>i</sub> to the visitors

The analogous behavior of PRO and reflexive pronouns here, will be congruous with the assumption of Chomsky (forthcoming) that PRO is a pronominal. Results analogous to the passive case are found as expected

with the case of O.P. in Italian:<sup>7</sup>

- (13) Due uomini di scorta ciascuno si assegneranno agli intervenuti  
 Two men of escort each SI will assign to those intervened  
 (Two men each will be assigned as an escort to those  
 (who) intervened)

The fact that (13) behaves analogously to other cases of movement will confirm the movement analysis adopted for this construction in chapter 1.<sup>8</sup>

We now return to the problem of how to account for this response of movement contexts to the E-int rule. In the framework adopted in the general introduction, it will not be possible to provide an account by allowing E-int to apply prior to movement<sup>9</sup> (on this see further discussion in 4.4). Assuming in fact E-int to be a rule of the L.F. component (like the rule of reciprocal interpretation assigning an antecedent to each other), it will have to apply after movement. Furthermore, in the framework in question, the general anaphora conditions (C-command; Opacity; NIC), which characterize the syntax of E-int, are expressed as output well-formedness conditions (on the L.F. branch), therefore they will apply after movement, irrespective of the point at which the indexing occurs.

An account compatible with the framework of the general introduction can be provided by assuming that, rather than lexically empty categories, traces are phonologically null copies of their antecedents. To make this explicit, we may assume movement to be replaced by two operations: Copying and Deletion, and assume that the latter operation takes place in the phonological component of the grammar.

The grammaticality of (10), and the other movement cases discussed, will now follow from the fact that E-int can "see" the element each in its D-structure position, thanks to the notion of trace just suggested,

as for example in (14) which will be the L.F. representation of (10a).

(14) [<sub>j</sub>One interpreter each]

was assigned [<sub>j</sub>one interpreter each<sub>i</sub>] to [<sub>i</sub>the visitors]

E-int will thus correctly distinguish trace from pronominal anaphors such as PRO and reflexives since only the former -we assume- will reproduce the internal structure of the antecedent.<sup>10</sup>

#### 4.2 Quantifier Scope

A situation parallel to the one discussed for each is found with "quantifier scope" phenomena. It has been noted in May (1977b) that if the interpretation of sentences containing quantifiers, such as every, a, some etc. is rendered in first order predicate calculus, the possible order of quantifiers in that notation is predictable from the distribution of clause boundaries. In particular, and to illustrate: Given two quantifiers within the same (minimal) clause, as in (15), either linear order will be possible in the relevant representation:

(15) Some politician will address every rally

(15) will thus be ambiguous between the two interpretations in (16).

(16a) ( $\exists x$ ,  $x$  a politician) ( $\forall y$ ,  $y$  a rally) ( $x$  will address  $y$ )

(There is at least one politician such that he will address every one of the rallies)

(16b) ( $\forall y$ ,  $y$  a rally) ( $\exists x$ ,  $x$  a politician) ( $x$  will address  $y$ )

(For each of the rallies there is at least one politician who will address it)

But if the two quantifiers are not within the same (minimal) clause, then only one interpretation will be possible, as for example in (17).

(17a) Some politician expected John to address every rally

(17b) ( $\exists x$ ,  $x$  a politician) ( $\forall y$ ,  $y$  a rally) ( $x$  expected John to address  $y$ )

(There is at least one politician such that he expected John to address every one of the rallies)

(17c) \*( $\forall y, y \text{ a rally}$ ) ( $\exists x, x \text{ a politician}$ ) ( $x \text{ expected John to address } y$ )

(For each of the rallies there is at least one politician who expected John to address it)

Following May, we will capture this fact as in the following statement:

(18) Quantifier scope is clause bounded

(18) will be taken as an observation meaning that, as illustrated above, quantifiers not within the same (minimal) clause will preserve their relative order when the interpretation is represented in predicate calculus-like notation.<sup>11</sup>

As May notes however, (18) has some apparent exceptions. Consider in fact the Raising case in (19) (May's (3.44), p. 201).

(19) Some politician is likely to address every rally in John's district

In spite of the fact that some and every do not appear in the same minimal clause, May finds (19) three ways ambiguous. He remarks: "[(19)] may be understood as asserting either (i) that there is a politician, e.g. Rockefeller, who will address all of the rallies in John's district; (ii) that it is likely that there is some politician (or other) who will address all of the rallies; or (iii) that it is likely that for each of the rallies there is some politician who will address it (i.e. there may be a different politician for each rally)." (May, p. 201).

It is easy to see that this apparent exceptionality is an exclusive peculiarity of movement: In fact it will be found always and only in the cases where NP movement extracts a quantifier from S, as in the

passive in (20), or in the O.P. case in (21). For our discussion it will be sufficient to consider the readings corresponding to May's readings (ii) and (iii) of (19) (as for May's reading (i) it seems to us unclear that such a reading can be established as distinct from reading (ii), but we will assume following May that such a reading exists).

(20) [<sub>i</sub> Some politician] is expected [<sub>S<sub>t</sub></sub><sub>i</sub> to address every rally in John's district]

- (i) It is expected that there will be at least one politician such that he will address all of the rallies ...
- (ii) It is expected that for each of the rallies there will be at least one politician to address it.

(21) [<sub>i</sub> Uno specialista] si fa generalmente assistere  
One specialist SI makes generally assist

tutti i nostri pazienti  
all our patients

- (i) SI will have one particular specialist assist all of our patients
- (ii) (?) SI will have everyone of our patients assisted by one (but not necessarily the same) specialist.<sup>12</sup>

The movement cases above, and the Raising case in (19) in particular will contrast with Control cases, for which, as noted by May, the clause boundedness of (18) holds without exception, as in the following unambiguous example (May's 3.45).

(22) Every musician wants to play in an orchestra

(\*There is an orchestra such that all musicians want to play in it)

Assuming that quantifier scope is somehow represented in our grammar, we will refer to the device that assigns scope to quantifiers as

"Q-rule", whatever the latter device turns out to be. We then note that the apparent exceptionality of movement contexts with respect to the statement in (18) would disappear if such Q-rule could operate not only with respect to the position in which the quantifier is phonologically represented, but also with respect to the position the quantifier had prior to movement. In particular, the exceptionality will disappear if we adopt the view that traces are full copies, as suggested above: under the latter view NP-moved quantifier will be represented, at the level of L.F. in both positions. The position prior to movement will then be responsible for the ambiguity between May's readings (ii) and (iii) of (19). The position after movement, for May's reading (i) (assuming with May that such a reading exists). Analogously for the cases in (20), (21). The exact nature of the Q-rule need not concern us here (on May's theory see below): we assume that it will be methodologically sound to attempt to preserve the integrity of (18) as an observation, independent of questions of execution. We will only assume, in conformity with the general framework adopted, that such a rule is in the L.F. component of the grammar, as was implicit in our discussion so far. The account in terms of "spelled out" traces we just suggested will now be defended against the alternative account of the same facts given by May.

The observation in (18) is implemented in May's theory by postulating a rule of "Quantifier Raising" (QR) that adjoins a quantifier to S. QR is therefore May's concrete realization of the Q-rule. Application of QR will yield predicate calculus-like expressions where "outer" quantifiers have wider scope than "inner" ones. The rule of QR is subject to subjacency, which -approximately- ensures that a quantifier

will be adjoined to its minimal S.<sup>13</sup> Furthermore, the output of QR is subject to the general binding conditions, applying between the quantifier and its trace. This ensures that in general a quantifier will be "raised" but not "lowered". The noted exceptionality of the movement cases is accommodated by defining the binding conditions as follows:

(May, p. 194)

(23) Condition on Proper Binding

Every variable in an argument position of a predicate  
must be properly bound

In May's discussion (as well as in ours, see 1.4.2) subjects of passives and of Raising verbs are non-argument positions (or "non-thematic", in our terms); furthermore all traces, including those left by QR, are variables. It will follow that, due to the qualification "in argument position" in (23), QR will be allowed to "lower" a quantifier exactly in the case of subjects of passives and of Raising verbs, namely exactly in the cases where a quantifier has been "raised" by NP-movement.

This view is theoretically suspicious on several counts: First, it is curious that "lowering" can occur exactly in the cases where "raising" has occurred. Second, since (23) is not merely a condition on QR but a general condition, it predicts that NP lowering operations ought to be possible in general from such non-argument positions as subjects of passives and of Raising verbs: an undesirable result, quite unsupported by the facts. Thirdly, it is at least not clear in May's discussion that the notion "argument position" is at all available to the L.F., and thus to the binding conditions (recall for example that in our discussion the latter notion is only well-defined in D-structure).

Furthermore this account appears false empirically. Consider in

fact the following:

(24a) [<sub>i</sub> Two kids] were expected [<sub>S</sub><sub>t</sub><sub>i</sub> to read every book]

(24b) [<sub>i</sub> Two kids] were persuaded <sub>t</sub><sub>i</sub> [<sub>S</sub><sub>PRO</sub><sub>i</sub> to read every book]

(24a) and (24b) differ in their ranges of interpretation: In particular we find "For each of the books there were two kids who were expected to read it" in (24a), but not the corresponding "For each of the books there were two kids who were persuaded to read it". This difference is predicted by our proposal: Assuming "<sub>t</sub><sub>i</sub>" in (24) to be a copy of its antecedent, two will be a clause-mate of every in (24a), thus yielding a reading where every has scope over two; but not in (24b), thus yielding no such reading. On the contrary, the view that quantifiers can be lowered on the basis of (23) will fail to predict the difference since the phrase "two kids" occupies a non-argument position in both cases, and it should thus be possible to adjoin the corresponding quantifier to the lower S in both cases. To the theoretical and empirical deficiencies just noted must be added the fact that such a "lowering" solution would be very unlikely to extend to the case of each, discussed in 4.1.<sup>14</sup>

We have thus reviewed two superficially quite different sets of phenomena. One concerning the distribution of the element each, and presumably involving a rule of coindexing, subject to general anaphora conditions; the other concerning the relative scope of quantifiers and clearly not involving anything of the sort, but rather -presumably- a rule sensitive to clause boundaries. We have noted how either set indicates that the position prior to movement must be available to an interpretive device, not only as an empty category, but complete with the details of the internal structure of the moved phrase. We will

. now review a third set of facts.

#### 4.3 There Interpretation

Consider the two passives in (25), discussed in Milsark (1974, 6.1.2), (given here in the 'sc' analysis which we argued for in 3.4 above).

(25a) There were [<sub>sc</sub>[<sub>i</sub>several ships] believed

[<sub>S</sub><sub>t</sub><sub>i</sub> to have been [<sub>sc</sub><sub>t</sub><sub>i</sub> sunk <sub>t</sub><sub>i</sub>]])

(25b) There<sub>j</sub> were [<sub>sc</sub><sub>t</sub><sub>j</sub> believed [<sub>S</sub><sub>t</sub><sub>j</sub> to have been

[<sub>sc</sub>[<sub>i</sub>several ships] sunk <sub>t</sub><sub>i</sub>]

We assume from the discussion in 3.4 that the two sentences above have identical base forms but different derivations, as reflected in the analyses indicated. In particular we assume, thus concurring with Milsark, that there is inserted in the matrix S in (25a), but in the lower S (and then Raised) in (25b), giving rise, in the latter example, to the intermediate structure ".... [<sub>S</sub>there to have been several ships sunk]".

Milsark has shown that (25a) and (25b) differ in their truth conditions. The existence of several ships is in fact implied by (25a) but not by (25b). That is, if no ships existed, (25b) would be a (possibly true) statement about an erroneous belief; but (25a) would be a false statement. We will assume with Milsark that There-be constructions in general, are associated with an existential assertion, expressed by a rule of the "semantic", or L.F. component: a rule which we will refer to as "There-interpretation" (There-int). Given for example the form "There are several ships", such a L.F. rule will produce an assertion of the type "Several ships exist", etc. We will further assume

following Milsark, that application of the latter rule is responsible for the so called "definiteness restriction", exemplified in (26).

- (26a) There is a dog on the couch
- (26b) There is \*John's dog on the couch

Milsark argues that only cardinality determiners, such as "a, one, two, some, several, many, etc., are semantically compatible with the existential quantification associated with There-int. He assumes in fact, following Chomsky (1974), that definite determiners such as John's, the, all, etc., are essentially universal quantifiers, i.e. that expressions like John's dog, the dog, all dogs, etc. refer exhaustively to classes of objects (with exactly one member, for singular NP's) within the universe of discourse: the ungrammaticality of (26b) would then be due to the semantic incompatibility of existential and universal quantification. In particular, while (26a) would give rise (in our paraphrase of Milsark's discussion) to the well-formed "Within the set of dogs (in the universe of discourse) there exists a subset of cardinality one, whose members have the property of being on the couch", while (26b) would give rise to the ill-formed "Within the class of objects "John's dog", there exists a subset of cardinality all (i.e., something like "a subset with all of its members"), whose members have the property of being on the couch."

Referring the reader to Milsark's section 6.2.2 for details, we will assume that such an account is essentially correct, and that the definiteness restriction is indeed a reflex of the rule of There-int. Given the following, it must then be the case that There-int applies in both cases in (25).

- (27a) \*There were the ships believed to have been sunk

(27b) \*There were believed to have been the ships sunk

In fact the "definiteness restriction" appears enforced here in both cases, distinguishing each of (27) from its counterpart in (25). If There-int applies in both cases in (25), we must assume, given the different truth conditions discussed, that what is relevant to the latter rule is the position in which there is first inserted. Thus, and as discussed by Milsark, since there is inserted into the lower S in (25b), the resulting existential assertion will be part of the semantic representation of that S and within the scope of the "non factive" verb believe. As such, this assertion will not affect the truth conditions for the matrix S. But in (25a), since insertion of there takes place outside the scope of believe, the existential assertion will enter into the truth conditions (On the properties of verbs like believe cf. for example Kiparsky and Kiparsky (1968), Partee (1973), Jackendoff (1975)). The fact that it is the position of insertion and not the final position of there that determines semantic representation, is expressed in Milsark's theory by assuming the rule of There-interpretation to be a cyclic rule (see Milsark, p. 177). As such it will apply in (25b) before there is moved. This account is no longer available once we assume that semantic interpretation is solely derived from S-structure, as discussed in the general introduction.

An obvious replacement for Milsark's solution is to assume that There-int can apply, not only with respect to there but also with respect to a trace of there. However, the notion "trace of there" (or, in general "trace of  $\alpha$ " where " $\alpha$ " is a lexical item) will be problematic unless traces reproduce the lexical content of their

antecedents as suggested. In fact, if a trace of there was simply an empty category coindexed with there by movement, an algorithm designed to establish whether in fact such a category was a trace of there, would have to include a systematic review of all the NP's coindexed with the latter, to determine whether one of them contained the lexical item there. Since movement can in principle affect a NP any number of times, a trace can in principle be indefinitely far away from its ultimate antecedent. Such algorithm would thus have to be allowed to span unbounded distances to the effect of -essentially- recapitulating the movement history. There-int would then have to incorporate such an algorithm.

Although perhaps less obvious, the problem here is thus analogous to those discussed above for E-int and the Q-rule respectively. It can be abstractly characterized by saying that, like E-int and the Q-rule, There-int must have access to the details of the configuration prior to movement. The solution proposed for the other two problems will now apply to this case as well. We thus continue to assume that There-int has a strictly local character, as in Milsark's formulation, although it will now be a rule of the L.F. component, following all movements. The results in (25) and (27) will follow from the fact that at the level of L.F., a trace of there will be indistinguishable from there itself.

Essentially the same problem described for There-int arises for the inversion provision of chapter 2. We will recall in fact how the latter states that an i-subject must be bound by a designated element in subject position (cf. (69), ch. 2). It will seem natural to assume that the binding condition thus prescribed between -for example-

Italian pro and the i-subject must be fulfilled at the output (L.F.), as binding conditions generally are. We then recall the contrast between Raising and Control structures as in (28).

- (28a)  $\text{pro}_i \text{ sembrano } [S^t_i \text{ intervenirne } [i^{\text{multi}} \_\_]]$   
           seem       to intervene of them many<sub>s</sub>
- (28b) \*( $\text{pro}_i$ )  $\text{pensano } [S^{\text{di PRO}}_i \text{ intervenirne } [i^{\text{multi}} \_\_]]$   
           think      to intervene of them many<sub>s</sub>

(where "\_\_\_\_" is the trace of ne)

In order to account for the contrast in (28), L.F. must be allowed to distinguish between a trace of pro and a PRO coindexed with pro.<sup>15</sup> In particular we must express the fact that pro or trace-of-pro and nothing else can enter into the binding condition discussed (thus binding "multi \_\_\_\_" in (28a)). But the notion "trace of pro" will now encounter the same problems discussed for the parallel notion "trace of there", unless again, traces are identical to their antecedents at the level of L.F.

#### 4.4 Conclusions

Some ramifications of the proposal that traces have internal structures will require further comment. It will be recalled from the discussion in the previous chapters, that insertion of lexical material in trace position was postulated in a number of cases, and in particular: In the case of ep's, as in (29a); in the case of insertion of pro after rightward movement of the subject, as in (29b); in the case of O.P. as in (29c); and in the case of rightward NP movement following restructuring, as in (29d).

- (29a) [<sub>i</sub>Giovanni] intervenne  $t_i$  a salvare la situazione

Ep insertion:

[<sub>i</sub> Giovanni] intervenne lui<sub>i</sub> a salvare la situazione  
 Giovanni intervened himself to save the situation

(29b) After NP-movement:

t<sub>i</sub> avrebbe lavorato volentieri [<sub>i</sub> Giovanni]

pro insertion:

pro<sub>i</sub> avrebbe lavorato volentieri [<sub>i</sub> Giovanni]  
 Would have worked keenly Giovanni<sub>s</sub>

(29c) After SI-cliticization:

t<sub>i</sub> si<sub>i</sub> guarda le manifestazioni sportive con interesse

NP-movement (O.P.):

Le manifestazioni sportive si guardano con interesse  
 Sporting events SI watches with interest

(29d) After NP-movement (cf. (10)-(12), ch. 2)

Molti studenti vogliono [<sub>S<sup>PRO</sup></sub><sub>i</sub> intervenire t<sub>i</sub>]

Rest:

Molti studenti vogliono [<sub>VP</sub> intervenire t<sub>i</sub>] ...

(Rightward) NP-movement: (pro insertion will follow)

t<sub>i</sub> vogliono intervenire [<sub>i</sub> molti studenti]

Want to intervene many students<sub>s</sub>

The notion that lexical material can be inserted in trace position derives intuitive plausibility from the view that traces are empty categories. Thus it is at least unclear that the view proposed above will be compatible with the cases of insertion just discussed. We will note however that, rather than on the abstract form of the conclusion reached in this chapter, this difficulty bears on the particular mode of execution chosen.<sup>16</sup> In fact other logical possibilities exist to implement the conclusion that interpretive rules must have access to the configuration existing prior to movement, which would -conceivably- not encounter the difficulty just noted.

One such possibility would be to assume that the extrinsic ordering between movement and interpretive rules given in the general introduction is false, and that, instead, E-int, the Q-rule, There-int respectively are unordered with respect to movement, and can thus apply before as well as after movement rules. This view would guarantee the correct results while traces would remain empty categories (For There-int, this alternative would essentially correspond to the theory proposed by Milsark and discussed above). Given that it would require some reorganization of the theoretical model discussed in the general introduction, a serious evaluation of the latter alternative would go well beyond the scope of our discussion, and will thus not be attempted here.

Another conceivable alternative would be to suggest that the internal structure of an antecedent is "reconstructed" in L.F.: a view which is sometimes suggested with respect to Wh-traces, to account for cases like the following (for some relevant discussion and references, cf. for example Hornstein (1981), Higginbotham (1980)).

- (30a) John<sub>i</sub> liked that picture of { \*him<sub>i</sub>  
                                  } himself<sub>i</sub>
- (30b) [<sub>wh</sub> Which picture of { \*him<sub>i</sub>      } ] did John like t<sub>wh</sub> ?  
                                  } himself<sub>i</sub>

The facts in (30a) are as expected, given that the phrase "John" C-commands "him/himself". Coreferential interpretation for the non-reflexive pronoun will thus be ruled out by disjoint reference. A rather natural way to account for the exactly parallel facts in (30b) will be to say that at the level of L.F., "him/himself" are represented in trace position, as they would be if the L.F. for (30b) was

"for which  $x$ ,  $x$  a picture, did John like  $x$  of him/himself". The similarity between this problem and the ones discussed above is rather obvious. Thus, the notion of internally structured trace would provide a solution to this case as well (as noted in Hornstein (1981)). Conversely, the view that not only Wh-traces, but NP-traces also, are "reconstructed" in L.F., would provide a solution for the other cases discussed. Under the "reconstruction" approach, traces would be empty categories at syntactic levels (prior to L.F.), and the facts in (29) might perhaps be accommodated naturally enough, although details would remain unclear.

In the forthcoming discussion, we will assume a theory of structured traces, mostly for concreteness, since the essence of the discussion will be relatively independent of the mode of execution chosen. We will thus keep in mind both the difficulties associated with the latter assumption, and the fact that alternatives exist.

We must now note, that enriching the notion of trace as we are suggesting (but analogously with the other modes of execution), will allow the grammar to generate a larger class of sentences. Consider in fact the configuration in (31a), where " $x_B$ " is an element anaphoric to "B", which now becomes represented as in (31b).

(31a) ... [<sub>A</sub>... $x_B$ ...] ... B... $t_A$ ...

(31b) ... [<sub>A</sub>... $x_B$ ...] ... B...[<sub>A</sub>... $x_B$ ...] ...

(Linear order paraphrases C-command)

If traces were empty categories, (31b) would be ill-formed since " $x_B$ " would not be C-commanded by its antecedent. But the purpose of our discussion here has been exactly to claim that (31a) is well-formed, in the manner of (31b), where the C-command relation between "B" and

"X<sub>B</sub>" appropriately obtains, a case in point being: "One interpreter each was assigned to the visitors", i.e. (10) above (Or "?Pictures of each other were given to the kids"; cf. fn. 5). The view that (31a) is a legitimate configuration will give rise to an apparent paradox with respect to some of the discussion in 1.5 above, concerning the contrast in (32).

(32a) ...ne<sub>i</sub> arrivano [NP<sup>molti</sup> t<sub>i</sub>]

(32b) \*[NP<sub>j</sub> Molti t<sub>i</sub>] ne<sub>i</sub> arrivano t<sub>j</sub>  
 (Many of them arrive)

In 1.5, we attributed the ungrammaticality of (32b), to the fact that the trace of "ne", is not C-commanded. However, it is easy to see that (32b) instantiates (31a) (for i=B; j=A), which we are now suggesting is well-formed. The apparent paradox will be avoided by making the claim that there are two types of relations: One type, as the one between each and its antecedent, that can interact with movement or, let us say, be "recovered" after movement; and another type, as the one between ne and its trace, which cannot be so recovered. Thus (31a) will be either well-formed or not, depending on the exact nature of "X". In particular we are assuming that it is well-formed if "X" is each, but not well-formed if "X" is a trace. The existence of such a distinction within the set of anaphoric relations will be further discussed in 5.4 below.

#### Footnotes to Chapter 4

1 We will not be concerned here with the near synonymous type "Each of the kids bought a book", but only with the type "numeral-N-each" (e.g. "one book each" of (1b)). (But see fn. 9).

2 The intermediate status of (5) might be due, as suggested to me by N. Chomsky, to the fact that the relation in question is probably also sensitive to clause boundaries, like the rule that assigns scope to quantifiers (On this see May (1977b), and 4.2 below).

3 A further characteristic of these constructions is the fact that the plural antecedent must be animate, as shown by the following.

(i) ??John gave [<sub>i</sub> the presents] to one kid each<sub>i</sub>

(ii) John gave [<sub>i</sub> the kids] one present each<sub>i</sub>

This fact will be of no particular relevance to our discussion.

4 The issue actually appears more complex. In particular, the following, involving reciprocal interpretation and disjoint reference respectively, would argue against such relaxation of C-command.

(i) \*John introduced each other to the kids

(ii) ?Bill introduced the girl that John<sub>i</sub> liked to him<sub>i</sub>

In fact, by the relaxed notion of C-command, (ii) should be as bad as: "\*Bill introduced him<sub>i</sub> to the girl that John<sub>i</sub> liked". Thus, rather than revising the notion of C-command, one might define a new notion of "loose C-command" while preserving the old one, which now becomes "strict C-command". Some cases, like (i) and (ii) will require the latter notion, while others, e.g. those in the text, will use the former. At the moment, no principled way seems at hand to predict

the distribution of the two notions. On this we will note that the issue appears further complicated by the fact that the degree of embeddedness of the anaphoric element seems to play a role. Compare in fact (i) with the following:

(iii) ?John gave pictures of each other to the kids

5 In fact passives will contrast with other copular constructions:

(i) \*One interpreter each was friendly to the visitors

We must note that the relation between each-other and its antecedent seems to behave analogously. Parallel to (10) we find:

(ii') ?Pictures of each other were given to the kids

Cf. also fn. 4 above.

6 The example in (11b) established that the configuration in (i) is not well-formed if "X" is PRO (though we know that it is well-formed (as (11a) shows) if "X" is trace).

(i) ...[<sub>A</sub>... each<sub>i</sub>...] ...NP<sub>i</sub>...X<sub>A</sub>...

(Linear order paraphrases C-command)

The same point is also established by the simpler example in (ii).

(ii) \*[<sub>j</sub>One girl each<sub>i</sub>] promised [<sub>i</sub>the men] [<sub>S</sub><sup>PRO</sup><sub>j</sub> to go]

7 Parallel to Raising and Control minimal pairs are pairs involving impersonal SI and reflexive si in Italian. Consider in fact the phonologically non-distinct (i) and (ii) below, for which we assume the analyses indicated. On the analysis of reflexives, see 5.7 and 6.6 below.

(i) ?[<sub>j</sub>Un evaso ciascuno<sub>i</sub>] si consegno' t<sub>j</sub> a [<sub>i</sub>i carabinieri]  
 One escapee each SI handed over to the policemen  
 (We handed over one escapee to each of the policemen)

- (ii) \*[<sub>j</sub> Un evaso ciascuno<sub>i</sub>] si<sub>j</sub> consegno' [<sub>NP<sub>j</sub></sub> e] a [<sub>i</sub> i carabinieri]  
 One escapee each turned himself in to the policemen

Assuming plausibly that some appropriate rule coindexes si and the null NP in (ii) as indicated and as will be discussed in 5.7.1, we can regard the system "si-[<sub>NP</sub> e]" as a pronominal coreferential with the subject. The ungrammaticality of (ii) will thus be reduced to that of the English case in (12b). The difference between (i) and (ii) will be reduced to the general one between traces and pronominal anaphors. See however fn. 73 chapter 5 for an unsolved problem.

8 We note that Wh-movement behaves analogously to NP-movement with respect to E-int:

- (i) [<sub>j</sub> How many books each<sub>i</sub>] did [<sub>i</sub> the kids] get <sub>t<sub>j</sub></sub> ?

The fact that each appears to "move along" both with Wh-movement and with NP-movement confirms the view, implicit in the text, that in "one book each" etc. each is part of the same NP as "one book" etc.

9 As pointed out by Chomsky (class, spring 1980), the logical possibility exists that the coindexing between each and the relevant NP is done by movement, roughly as in (i). Under this view, its occurrence prior to other movement operations would be unproblematic.

- (i) each (of) the kids bought one book

Each movement:

- [<sub>i</sub> The kids] bought one book each<sub>i</sub>

However, this possibility will not be considered here because such a solution will not carry over to the cases in 4.2 and 4.3 below respectively which we will regard as analogous to the case of each. We note further that such a movement of each would, curiously, have to be a

"lowering", and never a "raising" rule: exactly the opposite of other movement rules (given, for example,: One girl met each of the men/\*One girl each met the men).

10 We will now expect ergative verbs to behave like passives with respect to E-int. The relevant contrasts do not seem very strong, but -at least in Italian- they are not insignificant:

- (i)      ?Una lettera ciascuno arrivava ogni giorno ai prigionieri  
One letter each arrived every day to the prisoners  
  
\*Una lettera ciascuno confortava ogni giorno i prigionieri  
One letter each comforted every day the prisoners
- (ii)     ?Due uomini di scorta ciascuno spettavano ai ministri  
Two men of escort (as an escort) each were due to the ministers  
  
\*Due uomini di scorta ciascuno sorvegliavano i ministri  
Two men of escort each watched over the ministers
- (iii) (?)?Soltanto un film ciascuno e' piaciuto ai critici  
Only one film each pleased the critics  
  
\*Soltanto un film ciascuno ha interessato i critici  
Only one film each interested the critics

Parallel English cases are much less clear, but we may note the one in (iv).

- (iv)     ?One sumptuous palace each went to his heirs  
\*One sumptuous palace each appeased the heirs

11 We may note in passing how the occurrence of each, in a NP containing a numeral as in the construction discussed in 4.1 interacts with the general distribution of quantifier scope just noted. Consider the following:

- (i)    The men    }    lifted one weight  
        Four men    }

(i) has several readings, in particular: (a) There is one weight such

that each of the men lifted it; (b) Each of the (four) men lifted one weight or other; (c) Collectively, the men/ four men lifted one particular weight. (a), (b) will follow from assuming that numerals and plurality determiners may have scope over their S, like quantifiers. The collective reading (c) from assuming that they need not. We now note that the presence of each as in (ii) will reduce the range of interpretation to (b) above.

- (ii)    The men    }    lifted one weight each  
                 Four men    }

The behavior of each with respect to quantifier scope may thus be informally characterized by saying that a quantifier or a numeral in the antecedent to each must have scope over the numeral in "numeral- $\bar{N}$ -each".

Consider now the following fact. It has been noted (see May (1977b) and references cited) that quantifiers in adnominal PP complements will have scope over a quantifier in the head. Thus, for example, (iii) below will only mean: "For one particular student, all the people who were friends of his, came to the party", and not: "Everybody who was a friend of one or other student came to the party".

(iii) (All) the friends of one student came to the party  
 The latter fact, whatever its theoretical account, is likely to be the key to the ungrammaticality of (iv), unexplained otherwise:

(iv) \*Four friends of one student each came to the party  
 In fact we expect from the distribution of quantifier scope with adnominal PP complements that one should have scope over four. But from the interaction of each with quantifier scope we expect that four should have scope over one: a contradiction.

12 Although this reading is not entirely natural, for reasons which are unclear, the case in (21) appears to contrast significantly as predicted by our view, with the case here below involving direct object Control incaricare, in which a parallel reading appears impossible.

- (i) Uno specialista si incarica generalmente di assistere  
One specialist SI entrusts generally with assisting

tutti i nostri pazienti  
all our patients

(\*For each of our patients, SI generally entrusts one -but  
not necessarily the same- specialist with assisting  
that patient)

13 A "subjacency" account of quantifier scope will be at odds with a "subjacency" account of Wh-movement phenomena (as in Chomsky (1977)), in view of the results, appeared in the literature subsequent to May's thesis (see in particular Rizzi (1978b) indicating that the notion of subjacency is sensitive to language-specific parameters. In fact Italian differs from English with respect to Wh-movement facts, but plainly not with respect to quantifier-scope facts. As noted in the text, our discussion is independent of the exact account of quantifier scope.

14 A logical extension of May's account to the each facts would be to say that each need not be properly bound if it is in the subject position of a passive, Raising verb etc. But this would be clearly false: It is never the case that each can be bound in complete violation of general conditions; only that it may be bound with respect to the position it had prior to movement (cf. for example: "\*One girl each was seen with them"). As will be easy to see, May's solution would also have no extension to the case discussed in 4.3 below.

15 Recall that thematic well-formedness cannot be invoked to rule out (28b). In fact we assume that movement from matrix subject into embedded object position is possible, as in the restructured case in (i), discussed in 2.1.1 above.

- (i) Ne vogliono intervenire molti  
Of them want to intervene manys

16 One further difficulty seems to me inherent in this mode of execution. Consider in fact the hypothetical output configuration in (i), involving an anaphor  $X_B$  whose legitimate antecedent is B, allegedly well-formed.

- (i) ...  $[A \dots]^n \dots [A \dots]^{n-1} \dots B \dots [A \dots X_B \dots]^1$

The (multiple) movement of "A" has given rise to n copies of the anaphor " $X_B$ " only one of which is bound (i.e. the one to the right of "B"). It is at least unclear that the output conditions can adequately express this fact. In particular, any algorithm designed to determine well-formedness in (i) will have to have the capability to review all copies of " $X_B$ " to ensure that at least (and -presumably- at most) one of them is properly bound. Such mechanism will have to be able to distinguish a "copy of  $X_B$ " in the above sense from different occurrences of the same lexical item as " $X_B$ ". This means that the mechanism in question will have first to identify all the copies of "A" produced by movement, i.e. all the nodes A of the same index and then deal with each instance of " $X_B$ " contained in "A" (and related to the node A in the same fashion). Notice also that a "node A" in the above discussion is simply a "node that dominates  $X_B$ ". But in principle there will be any number of nodes dominating  $X_B$ , as in (ii).

- (ii) ...  $[A_m \dots \dots [A_2 \dots [A_1 \dots X_B \dots] \dots] \dots]$  ...

Any A in (ii) could in principle have been moved: thus an algorithm to determine whether the anaphoric element  $X_B$  in (ii) is properly bound will have to exhaustively search the structure for copies of  $A_1, A_2, \text{ etc. through } A_m$ .

If correct, this reasoning suggests that, under the "copying" hypothesis, the output conditions would "explode", casting serious doubts on the feasibility of the approach.

## 5. CAUSATIVE CONSTRUCTIONS

### 5.0 Introduction

In this chapter we will discuss some properties of infinitival constructions embedded under "causative" verbs, in Italian and French. The purpose of the discussion will be twofold: First, to provide further evidence for the existence of ergative verbs in the sense of chapter 1. Second, to provide the first term of a comparison between causative and "restructuring" constructions, which will be presented in chapter 6.

In the last section of the chapter (5.7) we will present a proposal for the syntax of reflexive clitics (in Italian and French).

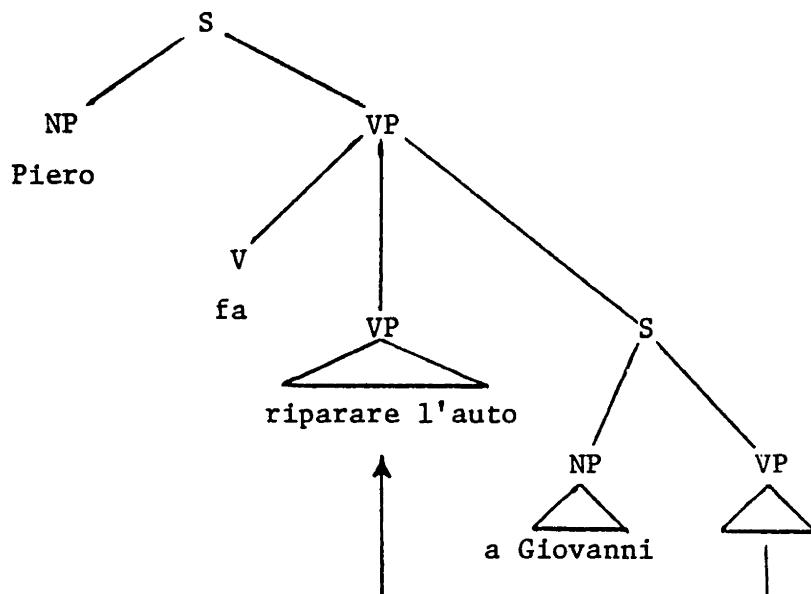
### 5.1 Faire-Infinitive

We will assume for the case in (1), involving the "causative" verb fare, the derivation indicated.

#### (1a) D-structure:

Piero fa [<sub>S</sub> Giovanni riparare l'auto]

#### (1b) S-structure:



(Piero makes Giovanni repair the car)

In particular we will assume, as discussed in Burzio (1978) that a rule can operate on the infinitival complement of fare, extracting the verb phrase (VP-movement), and that an empty VP category (VP-trace) is left behind. We will also assume that a rule inserts the preposition a before the embedded subject when a direct object precedes, along the lines of Kayne (1975), as will be discussed more in detail in 5.5.4 below. Several similar but not identical analyses have appeared in recent literature, concerning Italian and other Romance languages. Cf.: Aissen (1974), Kayne (1975), Quicoli (1976), Van Tiel-Di Maio (1978), Radford (1979), Rouveret and Vergnaud (1980), and, in the framework of Relational Grammar: Aissen and Perlmutter (1976). Our analysis owes particularly to Kayne's and Quicoli's work. The distinguishing characteristics of the analysis in (1) are the three assumptions in (2) here below.

- (2a) The whole VP is always moved (i.e. no option exists to move a smaller projection of V).
- (2b) The VP is extracted from  $\bar{S}$ .
- (2c) In derived structure, the causative verb and the infinitive do not form a single V, although they will form a single VP.

These assumptions will be justified in the course of the discussion below. Some evidence supporting them is also presented in Burzio (1978).<sup>1</sup> The example in (1) instantiates (for Italian) the construction "Faire-Infinitive" of Kayne (1975, chapter 3).

## 5.2 Faire-par

### 5.2.0 Introduction

Apparently very similar to (1b), is (3) below.

- (3) Piero fa riparare l'auto da Giovanni  
 Piero makes repair the car by Giovanni  
 (Piero has the car repaired by Giovanni)

A third variant also exists, in which the embedded "subject" is, at least apparently, not represented by any NP at all, like (4).

- (4) Piero fa riparare l'auto  
 (Piero has the car repaired)

(3) and (4) above instantiate (for Italian) the construction "Faire-par" of *Kayne* (1975, chapter 3). *Kayne* has shown that, their superficial similarity notwithstanding, (1) and (3) differ rather significantly, and in particular that there are a number of syntactic and "semantic" properties that (3) but not (1) shares with passives.

In this section we will argue that the most adequate analysis for (3) and (4) is the one in (5). A fairly similar proposal had been advanced in *Vergnaud* (1971).

- (5) Piero fa [<sub>VP</sub>riparare l'auto (da Giovanni)]

Specifically, I will claim that the causative verb fare takes either a sentential complement, which will be affected by VP-movement as in (1) (for the reasons discussed in 5.6 below), or a VP complement as in (5).

If this is correct, the "Faire-par" construction is base-generated and does not involve any movement at all, contrary to most analyses so far proposed.

### 5.2.1 Agent Phrase

The assumption, common in the literature of the ST, that the subject position in passives is vacated in the course of the derivation by a syntactic operation of "agent postposing" has been more or less abandoned though not too explicitly in recent literature: see, for example Chomsky and Lasnik (1977, example (8) and following discussion)

where it is assumed that the subject position of a passive is base-generated empty. The latter assumption was not made for example in Fiengo (1974), Jackendoff (1977), where a rule of "agent postponing" is assumed. Instead of assuming agent postponing, in some of the discussion in Emonds (1970), it is suggested that by-NP phrases are base-generated, and that subjects are generally derived by movement from the latter phrases, via a rule of "agent preposing". We will now take Chomsky and Lasnik's position explicitly, and assume that by (Italian da; French par) phrases are never derived by movement, as was implied by our discussion in 1.4.2 above in which we assumed that the D-structure subject of passives was empty. We will further assume that the relation between the latter phrase and a (configurational) subject is never a syntactic (i.e. movement) relation, thus differently than suggested in Emonds (1970). Our proposal will be as follows.

We assume that there is a notion "Thematic subject" (Th-subject), which is associated non-uniquely with the syntactic configuration at D-structure. In particular we will assume that the latter notion can be satisfied by an R-expression (cf. (38), ch. 1) either in subject position or in the by-phrase.<sup>2</sup> Before we discuss the notion "thematic subject" any further, we will review the various other notions of "subject" so far introduced, to avoid terminological confusion.

(Syntactic) subject is the configurational notion: "NP of [<sub>S</sub>NP VP]". D-structure/ S-structure subject etc. will refer to the subject in this configurational sense, with respect to a specific point in the derivation. I-subject is both a pretheoretical notion referring to a post-verbal NP for which a certain set of observations holds, as

discussed in 1.1 above, and a notion defined in terms of the inversion theory of chapter 2 (cf. 2.3.1).

Returning now to our discussion, the notion th-subject will be a non-configurational notion. We assume that it is well defined at levels of lexical representation, including the level of lexical insertion, i.e. D-structure. In particular, verbs will be specified as to whether or not they take a th-subject, as discussed below; selectional restrictions will be defined on the latter notion; and a general convention applying at D-structure level will state that either a subject or a by-phrase will satisfy the notion of th-subject, as mentioned above. The assumption that selectional restrictions are defined on the notion th-subject, will thus account for the identity between the subject of an active sentence and the by-phrase in the corresponding passive with respect to the latter restrictions, which was previously accounted for by assuming movement. The complementary distribution between D-structure subject and agentive by-phrase also previously regarded as a reflex of movement, will now follow from assuming that for any given verb, there is at most one th-subject role. The revision with respect to the ST which we are adopting may be characterized by saying that the relation between a subject and a by-phrase is no longer expressed syntactically in the form of a movement operation, but lexically. If our discussion in 5.2.2 is correct, this revision will be supported by the fact that it allows a more adequate account of the "Faire-par" construction.

The view that we are taking on the notion th-subject, and our assumption that the latter notion is not uniquely identified configurationally at D-structure, is thus quite parallel to the view we

we rejected for notions like "theme" or "patient" in some of our previous discussion (cf., in particular, 3.5.5). Recall in fact how we argued that in, for example "John sank the boat/ The boat sank", the under-scored phrase did not instantiate a notion "theme" associated with a D-structure direct object in one case, and with a D-structure subject in the other, but rather was a D-structure direct object in both cases. Our discussion of the notion th-subject here, will not be in contradiction with our previous discussion, but rather will reflect the view that we are taking, that the respective distributions of subjects and objects in D-structure are the result of two different systems. We assume in fact the presence of objects to be determined exclusively by the subcategorization specifications for the verb in question; while the presence of a subject will be determined by different factors as we are discussing here.

We must note that ergative verbs and past participles (as in passives) while they are both assumed to require their subjects to be empty (or, more precisely, "non-referential") in D-structure, will differ with respect to occurrence of the by-phrase, as in the following, as already noted in 1.4.2 above.

- (6a) The boat was sunk (by the Navy)
- (6b) The boat sank (\*by the Navy)

On this we will assume that ergative verbs (as well as Raising verbs) do not only not assign a thematic role to their subjects, as discussed above, cf. 1.4.2, but are specified in the lexicon as not taking a th-subject at all (i.e. as being, let us say "minus th-subject"). It will follow from this that, in D-structure, they will neither take a subject nor an agentive by-phrase. We thus assume that the specifica-

tion "minus th-subject" will imply failure to assign a thematic role to the subject position, though not the converse: this will allow for occurrence of the by-phrase with passives. So far, we have thus established that neither a referential D-structure subject nor an agentive by-phrase will be found with ergative and Raising verbs; and that, with other verbs, the two phrases will be in complementary distribution. We now proceed to note how the choice between the two options is governed with those verbs.

On the basis of our discussion thus far, we predict that with non-ergative verbs, a referential subject will be present in D-structure if and only if the conjunction of (7a) and (7b) below is true.

(7a) A subject position exists

(7b) The verb assigns a thematic role to the subject

That the truth of (7a) is necessary is obvious. The truth of (7b) will be necessary because of the criterion of thematic well formedness ((38) of ch. 1) requiring that only positions that play a thematic role contain referential expressions in D-structure.<sup>3</sup> The truth of the conjunction in (7) will not only be necessary for the presence of a "referential" D-structure subject, but sufficient, again given thematic well-formedness. Given the complementary distribution that we assume, the by-phrase will be predicted possible, though not necessary, as we will note below, when either (7a) or (7b) or both are false.

(7a) will be false when we are dealing with a VP complement, as we are claiming is the case in (3), (4), for the analysis in (5). (7b) will be false with past participle constructions, as in passives, "reduced relatives" etc. (as well as with ergative verbs; but this is irrelevant here since with those verbs the by-phrase will not occur,

as discussed). A case in which both (7a) and (7b) are false, would be represented by a past participle (no thematic role assignment) VP-complement (no subject position). No such case seems at hand. (As just noted, the case of ergative verbs will also make (7b) false but will be irrelevant here, given the impossibility of the by-phrase). On the optionality of the by-phrase reflected in (3) versus (4) and in analogous alternations with passives, we will simply say that the presence of a th-subject is not in general obligatory (only (7b) will have an obligatory character, i.e. if there is a subject position and if the verb assigns a thematic role to that position, then a "referential" subject is required). This optionality of th-subjects will support our view that lexical specifications concerning subjects are not part of the subcategorization frame (cf. 3.5.5 above), since objects that are specified in subcategorization frames appear obligatory (cf. "\*John likes").

The system so far outlined makes no reference to direct objects. We therefore do not predict a difference between transitive and intransitive verbs with respect to the occurrence of the by-phrase, while we do predict a difference between ergative and non-ergative verbs.

The following contrast will thus bear such prediction out:<sup>4</sup>

- (8a) Gli faro' telefonare da Piero  
 To him I will make phone by Piero  
 (I will have him called by Piero)

- (8b) \*Ci faro' venire da Piero  
 There I will make come by Piero  
 (I will have Piero come there)

Contrasts analogous to the one in (8) have been noted in Kayne (1975, fn. 56, p. 247). The difference in (8) will provide evidence for the existence of the class of ergative verbs, in a way analogous to the case

of impersonal passives discussed in 3.6. It was noted there that languages that allow insertion of a pleonastic element in subject position freely (as opposed to allowing it only under the 'binding' constraint discussed in 2.6), will allow passive morphologies with transitives and intransitives alike, but not with ergatives. (Kayne had also noted -in his fn. 56- that the distribution of impersonal passives and the distribution of the by-phrase in "Faire-par" were likely related.) In this case however, the evidence for ergative verbs will have a limited character, because of the fact that, although all ergatives are indeed excluded from appearing with a by-phrase as predicted, not all intransitives are allowed, as in (9): a fact which will remain unexplained.<sup>5</sup>

- (9) ?\*Faro' lavorare/ studiare/ camminare da Piero  
           I will make work/ study/ walk by Piero

Under the view thus proposed, the by-phrase of passives and the one of the "faire-par" construction (henceforth FP) are indeed one and the same. The two constructions will thus share the property of being syntactically "subjectless" in the sense that in either case the th-subject will not be a syntactic subject (i.e. a subject in the configurational sense) at any level. One might suggest that the intuitive notion of "passive meaning", sometimes used to characterize FP is to be related exactly to this formal property. The latter property will not be shared by the "faire-infinitive" construction (henceforth FI), under the analysis proposed. In fact in (1), the th-subject of the embedded verb is also a subject in the configurational sense (in D-structure, as well as in S-structure in relevant respects, as we will discuss).

In the following subsection we will review, essentially along the lines of Kayne (1975, 3.5) a number of respects in which FP differs from FI, while often being analogous to passives. The different behavior will be explained, at least in part, by the respective analyses proposed.

### 5.2.2 The "Fassive Meaning"

Verbs embedded in FP will appear with their full structure of complements, as for example in (10), where the complements are underscored.

- (10a) Ho fatto      } persuadere    } Piero a venire alla festa da Mario  
                       } invitare       }
- I made persuade./ invite Piero to come to the party by Mario  
 (I had Piero persuaded/ invited to come to the party by Mario)
- (10b) Ho fatto augurare a Piero di vincere il premio da tutti  
       I made wish Piero to win the prize by everybody  
 (I had everybody wish Piero ...)

We will take this to support the view that the complement of fare in this construction is a VP rather than, say, some smaller projection of V.

However, verbs of subject Control will never appear embedded in FP. E.g.:

- (11a) \*Feci promettere a Piero di invitarlo da Mario  
 (I had Piero promised to invite him by Mario)
- (11b) \*Feci informare Piero di avergli scritto da mia sorella  
 (I had Piero informed to have written to him by my sister)

On the contrary, FI will not exclude verbs of subject Control (on this cf. also the discussion in 5.5.4). Hence the contrasts here below. (Through the following discussion we will consider the behavior of all three of the variants introduced at the outset: the "a NP" variant of (1); the "da NP" variant of (3); and the variant in (4) which will be indicated with " $\emptyset$ ".)

- (12a) Feci affermare di averlo letto      } a Mario  
     } \*da Mario  
     } \* $\emptyset$   
 (I had Mario affirm that he had read it)

- (12b) Feci sperare di vincerlo    } ai ragazzi  
                                        } \*dai ragazzi  
                                       } \*Ø  
                                     (I had the kids hope to win it)

The ungrammaticality of the "da" cases in (12) will follow, under the analysis of FP in (5) as a straightforward extension of the account in Chomsky (1980) concerning the failure of passivization of subject Control verbs. Chomsky argues that, since the past participle in a passive morphology has no subject (by-phrase notwithstanding), if the verb in question is a subject Control verb, there will be no controller, hence an uncontrolled PRO (see however, our partial re-elaboration of this in 5.7.1 below). The same will apply here since we are assuming a VP structure for the complement in FP. The grammaticality of the "a" cases will follow, under the analysis of FI in (1), if we assume that Control is one of the relations that can be "recovered" after movement in the sense of chapter 4: assuming the theory of traces discussed, corresponding to (12a), (13a) will be well-formed since "PRO<sub>i</sub>" will be present within the trace "<sub>j</sub>t" of the moved VP, while (13b) will be ill-formed, since PRO lacks a proper antecedent.

- (13a) Feci [<sub>VP<sub>j</sub></sub> affermare [<sub>S</sub> di PRO<sub>i</sub> averlo letto]] [<sub>S</sub> a Mario<sub>i</sub> <sub>t<sub>j</sub></sub>]  
 (13b) \*Feci [<sub>VP</sub> affermare [<sub>S</sub> di PRO averlo letto] (da Mario)]

In accordance with some of the discussion in chapter 4, we will assume that the preposition a (of "a Mario" in (13a)) does not prevent C-command.

The distribution of the results in (12) (and in the forthcoming examples) will confirm the assumption that the "Ø" variant is a subcase of FP as assumed and not a subcase of FI.<sup>6</sup>

The situation just noted is not unique to Control but, as expected,

is common to other types of anaphora. In fact, parallel results are obtained with (non-clitic) reflexives, as in (14).

- (14) Con le minacce fecero accusare se stesso } (?)all'imputato  
   } \*dall'imputato  
   } \*Ø  
   (With threats they made the defendant accuse himself)

The results in (14) will be accounted for in a manner parallel to the case of Control. In particular, by assuming that, unlike the da-phrase of FP, the a-phrase of FI will be a proper antecedent for the reflexive pronoun se stesso, thanks to the movement analysis of the latter construction and the "recoverable" character of movement argued for in chapter 4. An important difference between FP and FI with respect to clitic reflexives, will be pointed out in 5.5.2 below.

In a parallel fashion, we will also account for the results in (15) and (16) involving ciascuno (each) in the construction of 4.1 above, and the reflexive adjective proprio, respectively.

- (15) Faro' invitare una ragazza ciascuno } ai miei amici  
   } \*dai miei amici  
   } \*Ø  
   (I will have my friends invite one girl each)

- (16) Faranno informare il proprio <sub>i</sub> avvocato  
       } ?a     } [ <sub>i</sub> tutti gli imputati ]  
       } \*da    }  
       } \*Ø    }  
   (They will have every defendant inform his own lawyer)

The passive cases corresponding to (14), (15), (16) respectively are of course also impossible:

- (17a) \*Se stesso fu accusato dall'imputato  
    Himself was accused by the defendant
- (17b) \*Una ragazza ciascuno fu invitata dai miei amici  
   One girl each was invited by my friends
- (17c) \*Il proprio avvocato fu informato da tutti gli imputati  
   His own lawyer was informed by every defendant

We note that the ungrammaticality of the cases in (17) could not be attributed to the fact that NP-movement has applied to the object. In fact, given the claim of chapter 4 on the recoverability of movement, we would not expect the latter to cause ungrammaticality (certainly not in the case of (17b): recall in fact the grammatical passives with each in (10), ch. 4). This view is confirmed by the fact that the corresponding passive forms where no movement has applied, are just as bad (E.g. "*\*Fu accusato se stesso dall'imputato*"; cf. (17a)). Rather, we will assume that the reason for the ungrammaticality of (17) is the same as the one attributed to the corresponding FP cases, namely the fact that the da-phrase is never a proper antecedent.

Some of the examples that follow, are adapted from the French ones presented in *Kayne (1975, 3.5)*, as indicated in each case (*Kayne's theory of FP* will be discussed in 5.2.3 below). Consider the idioms in (18) (analogous to *Kayne's (92)*).

(18) Cic' fara' fare	{ il furbo	{ a Giovanni
	{ il finto tonto	{ *da Giovanni
		*Ø
(This will make Giovanni { try to be smart } )		
{ play dumb }		

It seems reasonable to suggest that the idiomatic expressions "il furbo", "il finto tonto" in (18) have an anaphoric character. This view is supported by the fact that in general these will agree in gender and number with the subject (E.g., feminine singular: "*Maria fa la furba*" (Maria tries to be smart)). If so, then the alternations in (18) are again due to the fact that the a-phrase but not the da-phrase is a legitimate antecedent for the objects of the infinitive, as discussed.

An analogous account could then be suggested for cases involving

idiomatic possessives (cf. English "John lost his cool") like (19) (analogous to Kayne's (101)).

- (19a) Giovanni fa il suo mestiere  
Giovanni does his job

- (19b) Cio' fara' fare il suo mestiere } a Giovanni  
} \*da Giovanni  
} \* $\emptyset$   
(This will make Giovanni do his job)

It will also be plausible to further extend this view to the case of "inalienables" in (20) (analogous to Kayne's (98)), even though no overt possessive is present here.

- (20) Cio' fara' alzare } la mano } } a Giovanni  
} la testa } } \*da Giovanni  
} \* $\emptyset$   
(This will make Giovanni raise the (his) hand/ head)

As expected under our view, passives pattern like the cases of FP in (18), (19), (20), as Kayne has pointed out.

Stretching things a bit further we may suggest that, with verbs that take measure phrase complements, the subject is an antecedent to the measure phrase, thus accounting for the following:<sup>7</sup>

- (21) Il rigonfiamento fara' contenere dieci litri di piu'  
} alla botte  
} \*dalla botte  
} \* $\emptyset$

(The swelling will make the barrel hold ten liters more)

We must note here that if no movement of the object is involved in FP, as in our analysis (or, for that matter in Kayne's; see 5.2.3 below), then the often noted ungrammaticality of passives with such verbs will not depend on the movement of the object (nor will it depend on the passive morphology). Therefore suggestions (such as presented for example in Anderson (1977) to prevent derivation of "\*Two pounds was weighed by the meat" etc. by limiting promotion to subject to "direct

object" or "theme", where the latter are non-configurational notions,  
prove of no use.

8

Other analogies between FP and passives exist, the nature of which will remain unclear: as with the idiom in (22) (analogous to Kayne's (91)), and with the less than clearly idiomatic case in (23).

- (22a) Molta gente sbarcava il lunario in quel modo  
(Many people made ends meet that way)
- (22b) \*Il lunario era sbarcato in quel modo (da molta gente)  
(Ends were made to meet that way by many people)
- (22c) Cio' fara' sbarcare il lunario      } a molta gente  
    } \*da molta gente  
    } \*Ø  
(This will allow many people to make ends meet)
- (23a) Piero ha sbagliato treno  
(Piero mistook the train (took the wrong train))
- (23b) \*(Il) treno fu sbagliato da Piero  
(The train was mistaken by Piero)
- (23c) La fretta ha fatto sbagliare treno      } a Piero  
    } \*da Piero  
    } ??Ø  
(The hurry made Piero mistake the train)

The fact that FP is comparably impossible, will again suggest here that the ungrammaticality of the passives in (22b), (23b) is not caused by NP-movement. This view is confirmed by the fact that the passive forms that do not involve movement are equally bad (E.g. "\*Era sbarcato il lunario in quel modo (da molta gente); and, correspondingly the French case in Kayne's fn. 38, p. 235). Further confirmation of the view that NP-movement is not responsible here will come from some of the discussion in 5.3 below, where parallel examples will be given, that do involve movement and which are nevertheless grammatical. We will thus leave the ungrammaticality of (22b), (23b) unexplained.<sup>9</sup>

Also unexplained will be the ungrammaticality of the passives in

(24) and (25) (analogous to Kayne's (104) and (115) respectively), and that of the corresponding FP cases, contrasting with their respective FI counterparts.

- (24a) Il lavoro fu lasciato da Giovanni alle otto  
Work was left by Giovanni at eight

- (24b) Il pericolo d'inondazione fece lasciare il lavoro

} a molta gente  
} \*da molta gente  
{ \*Ø

(The flood danger made many people leave work)

- (25a) La quattro-per-cento sarà corsa } \*da Giovanni  
} da Giovanni, Piero,  
} Mario e Italo

The four-by-one hundred meter relay will be run

} by Giovanni  
} by Giovanni, Piero, Mario and Italo

- (25b) Farò correre la quattro-per-cento } a Giovanni  
} \*da Giovanni  
} \*Ø

(I will have Giovanni run the four-by-one hundred meter relay)

The same remarks made with regard to (22b), (23b) above to discount the view that NP-movement was the cause of the ungrammaticality will apply here. Furthermore we note that in this case there would scarcely be any initial plausibility even in holding that view, since the expression "correre la quattro-per-cento" does not seem to have any idiomatic character (unlike "sbarcare il lunario"), while the idiomatic character of "lasciare il lavoro" is perhaps debatable.

While awaiting further insight we will take these alternations to indicate that FP and FI differ significantly, and not merely as reflected in the different character of the preposition involved (a/ da), and thus support the different analyses proposed, albeit in a loose way.

Yet another set of differences between FP and FI, discussed by *Kayne*, will concern animacy constraints of various nature (see *Kayne* for a more precise discussion):

- (26a) Piero mi fece abbracciare } da Maria  
                                      } ??a Maria  
(Piero made Maria embrace me)

- (26b) La carestia fece mangiare topi } agli abitanti  
                                      } \*dagli abitanti  
(The famine made the inhabitants eat rats)

Again no exact account is at hand but we will take these facts to suggest significant differences between the two constructions.

Beside supporting the two different analyses for FP and FI, some of the evidence presented in this subsection will support the claim of chapter 4 as to the recoverability of movement, in conjunction with the movement analysis of FI.<sup>10</sup> We will return to a discussion of FI in 5.3 and 5.4 below. In the next subsection we will briefly review the analyses of FP in *Kayne* (1975) and *Rouveret* and *Vergnaud* (1980) respectively.

### 5.2.3 Alternatives

The analysis of FP I have proposed derives much of its plausibility from observations due to *Kayne*, which reveal its similarity with passives. Yet *Kayne's* own discussion reaches different conclusions. The reasons for this difference are not hard to find: Following the practice current at the time, *Kayne* assumes that agentive by-phrase are derived by movement. Indeed under such an assumption the infinitival complement in FP will necessarily have to have a sentential structure at D-structure, and the relevant derivation will include at least "Agent Postposing". In fact the latter operation essentially sums up

Kayne's analysis of FP (see *Kayne*, p. 248). As far as I can see nothing else in *Kayne's* discussion stands in the way of the base generation analysis we have proposed.

We will note that, given his convincing illustration of the differences between FI and FP, *Kayne's* conclusion is almost paradoxical. In fact, the two respective derivations, each involving rightward movement of the embedded subject, are similar to the point that they can be collapsed into a single formulation (see *Kayne*, p. 250).<sup>11</sup> The account proposed here will thus do better justice to the differences noted. Furthermore, it will not encounter the problem created by rightward movement (acknowledged in *Kayne's* fn. 60, p. 251) with respect to the proper binding of the trace of the subject.

Although he assumes that the par-phrase of FP and that of passives are the same, *Kayne* also assumes that there are two different agent-postposing operations: one triggered by the presence of faire, the other associated with the "passive-transformation". *Kayne* is forced to this complication by the fact that otherwise no account would be available in his framework, of the fact that the par-phrase occurs dissociated from passive morphology and from object-preposing only in FP (see *Kayne*, discussion following example 141, p. 251). This question can be answered here: we know in fact that the association of the by-phrase with the other two observed properties of common passives (i.e. passive morphology and object preposing) is the result of the interaction of different extrinsic principles, rather than an intrinsic characteristic of that particular construction. From our standpoint, a theory that stipulated just such an association, for a construction called "passive", would thus be an artifact.<sup>12</sup> Thus for

example (27) below (Kayne's 141, p. 251) will not violate the formulation of passivization as Kayne had to assume, but one of the extrinsic principles.

- (27) \*(Il) tuera Paul par Marie  
 (It) will kill Paul by Marie

In our framework (27) will violate thematic well-formedness since tuer is a subject-thematic role assigner in its non-past participial form; therefore its D-structure subject will have to be an R-expression.

The same factors will not intervene with the complement of FP since no subject position exists in that case.

In Rouveret and Vergnaud (1980) (henceforth R&V), FP is derived as in the following example (deduced from their (332), (333) and (336))<sup>13</sup> (where " $\bar{V}$ " stands for a projection of V, analogous to VP).

(28a) D-structure

Jean faire Pierre acheter ce livre par [NP<sub>e</sub>]

(28b) Agent Postposing

Jean faire NP<sub>i</sub> acheter ce livre par Pierre<sub>i</sub>

(28c) Object Preposing

Jean faire ce livre<sub>j</sub> acheter NP<sub>j</sub> par Pierre<sub>i</sub>

(28d) VP Preposing

Jean faire acheter NP<sub>j</sub> ce livre<sub>j</sub>  $\bar{V}$  par Pierre<sub>i</sub>

(28e) R&V's rule (336): "NP<sub>i</sub> NP<sub>i</sub> → NP<sub>i</sub>"

Jean faire acheter ce livre<sub>j</sub>  $\bar{V}$  par Pierre<sub>i</sub>

(Jean will have that book bought by Pierre)

We will first note that the problem that Kayne sought to avoid is not avoided here. In fact, if FP involved both agent-postposing and object-preposing just like passives, the lack of passive morphology here would indeed remain mysterious, and not only within Kayne's framework of assumptions, but within ours as well (cf. fn. 12).

Secondly, since the derivation involves object-preposing, this system -unlike Kayne's- falsely predicts that FP should be impossible with intransitive verbs (cf. (8a) above).

On the other hand, if we assume our analysis correct, it will not seem accidental that between (28b) and (28e) nothing has changed except for some "invisible" constituents (i.e. that the linear order of phonologically realized constituents has remained the same): the reason will be that there is no such derivation (or any derivation) at all. Also less than accidental will seem the fact that an entirely ad-hoc rule has to be set up to delete an empty NP (their rule (336), as in (28e) above)<sup>14</sup>: the reason will be that the structure in (28b) is essentially both the D-structure and the S-structure form with exactly one empty NP in excess (i.e. " $NP_i$ ").<sup>15</sup>

I conclude that the analysis of FP in 5.2.0 above is both the simplest and the one that achieves the most empirical adequacy so far.

### 5.3 Overlap between FP and FI

#### 5.3.0 Introduction

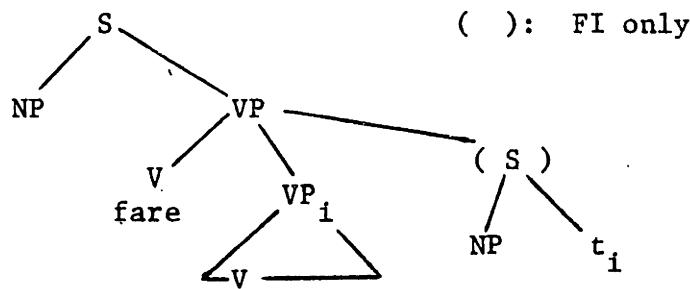
In 5.2.2 we attempted to support the respective analyses proposed for FP and FI, by pursuing differences in behavior between the two constructions. In this section we will pursue the similarities. I will argue that these also support the respective analyses.

#### 5.3.1 Cliticization

We are claiming that in both the FP and the FI case there is a VP complement to the causative verb in S-structure: In the case of FP this is base-generated; in the case of FI -we assume- such complement has been adjoined to the higher VP as a result of movement. The

respective S-structures will thus overlap as indicated in (29).

(29)



This parallelism is confirmed by a number of syntactic similarities.

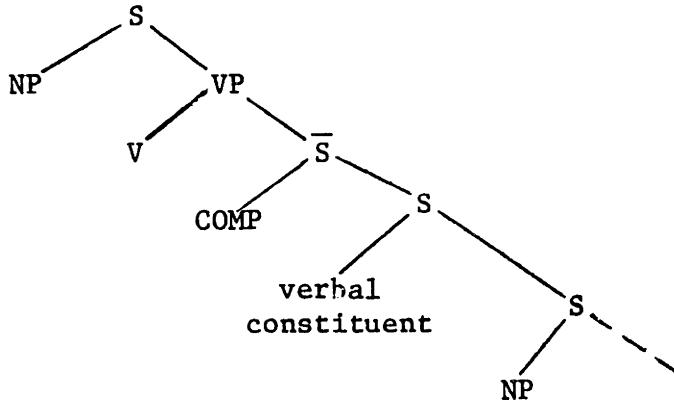
With some exceptions to be discussed in 5.5.1, objects of the lower verb cliticize to the matrix verb in both cases. E.g.:

- (30) Giovanni li ha fatti comprare      } a Piero  
     } da Piero  
          Giovanni them has made buy ...  
    (Giovanni had Piero buy them)

The possibility for embedded objects to appear cliticized on the matrix verb in these cases, (contrasting with the lack of such a possibility in bi-sentential structures, e.g. "\*Giovanni lo vide Piero leggere/ Giovanni it saw Piero read") will follow from the analysis and the natural assumption that the relation between a clitic and the relevant null NP falls under general conditions, for example under Opacity, as has been widely assumed in the literature (but other conditions, such as "government" might ultimately prove more adequate; cf. 6.6 below). On the (near) necessity for such embedded objects to appear cliticized on the matrix verb, see further discussion below.

In connection with the distribution of cliticization in FI we will compare the structure in (29) with the derived structure postulated in R&V and represented in (31) (R&V's (118)).

(31)



In R&V, the moved "verbal constituent" (in both FI and FP; cf. (28d)) is adjoined to the lower S and thus remains within the embedded  $\bar{S}$ , as in (31). This view has some apparent advantages. In particular it permits an account of the apparent obligatoriness of  $\bar{V}$  (VP) movement (with fare; on other "causative" verbs see 5.6 below) in terms of Case theory (or "government" in R&V's terms). In fact if one also assumes with R&V that  $\bar{V}$  movement can apply to any projection of V, then when "verbal constituent" in (31) equals "V", the embedded subject will be governed (but, transposing the discussion into our terms, we could say: "assigned Case") by the moved V (see R&V's (16) for their definition of "government").  $\bar{V}$  movement would thus be necessary to achieve well-formedness (with respect to government/ Case marking of the embedded subject). Nevertheless the latter view seems incorrect.

As mentioned, it appears (with some qualifications, discussed in 5.5.1) that objects of the lower verb will generally cliticize to the causative verb. The embedded subject will also generally cliticize to the causative verb. However, we must note that cliticization of an object and cliticization of the embedded subject to the lower verb differ widely in the respective degrees of ungrammaticality (as has also been noted in Longobardi (1980b)). In fact while the former is

even marginally acceptable, the latter is quite impossible, as in (32) (where the reader may assume analogous facts in French).

(32a) Faro' comprare il libro (a/ da Giovanni)

?\*Faro' comprarlo (a/ da Giovanni)

(I will make Giovanni buy the book/ it)

(32b) Faro' lavorare Giovanni

\*\*Faro' lavorarlo

(I will make Giovanni/ him work)

The contrast in (32) will follow from the analysis in (29) under the assumption that at work here is the usual syntax of accusative clitics plus a principle that reassigns clitics to the higher verb. We will refer to the latter principle, whose nature our discussion will fail to make entirely clear (cf. fn. 16 and 6.0 below), as "Clitic Climbing". For the syntax of clitics we will assume minimally, for the moment, that C-command is involved. Thus (32a) will violate only the Clitic Climbing principle, whereas (32b) will violate in addition, the syntax of clitics, i.e. the requirement that clitics C-command the relevant null NP. In fact the embedded verb does not C-command the embedded subject in (29).

However, under the analysis in (31), given that government (in our sense, as well as in R&V's; cf. their definitions (14) and (16)) is a subcase of C-command, if the embedded subject is governed by the lower verb as R&V claim for (32b), it will also be C-commanded by such verb, just like the direct object in (32a), and the contrast will go unexplained. The contrast in (32) will also be unexplained under the assumption (as in Van Tiel-Di Maio (1978)), that the two verbs form a single verbal constituent in derived structure (i.e. "[<sub>V</sub>V V]"). In fact, if this was the case, the lower verb would have to C-command the

embedded subject if the matrix verb does.

We must note that in R&V's discussion, some of the motivation for assuming that the moved verbal constituent remains within the embedded  $\bar{S}$  comes from the account they provide, in terms of the principle of the cycle, of the general case of cliticization onto the higher verb as in (30) (Clitic Climbing). I.e. in their account, Clitic Climbing is subsumed by the principle of the cycle. However, in the context of our discussion, such motivation will disappear. Consider in fact the following reasoning. R&V assume cliticization to be cyclic. They also argue that, should cliticization onto the lower verb occur at the lower cycle, the structure would be ill-formed, after application of  $\bar{V}$  movement. The latter result, which has to do with the details of their theory, need not be questioned. What is relevant here is their assumption that cliticization at the higher cycle but on the lower verb would be ruled out by strict cyclicity, since the lower verb is assumed within the lower  $\bar{S}$  (cf. (31)). We note however that if our account of FP (i.e. (5)) is correct, the principle of the cycle is not available in that case, since the complement is never sentential there. Yet, as (30), (32) show, the basic cliticization facts are the same in both constructions. This will suggest that the distribution of clitics must be derived from considerations other than the cycle, and thus provides no evidence for the existence of a clause boundary between the two verbs in S-structure.<sup>16</sup>

The view, as in R&V (but also as in Quicoli (1976)), that  $\bar{V}$  movement occurs within the embedded  $\bar{S}$  is further discredited by the results of Wh-movement. Consider in fact the following:

- (33a) ??Il brano che non so chi hai sentito leggere  
       The passage that I wonder who you heard read  
           e' "Addio monti"  
           is "Addio monti"
- (33b) Il brano che non so    } a chi    } hai fatto leggere  
                             } da chi    }  
       The passage that I wonder to whom/ by whom you made read  
       (... that I wonder who made read...)  
           e' "Addio monti"  
           is "Addio monti"

The results in (33a) will follow from a theory of Wh-movement as in Rizzi (1978b) and the rather natural assumption that the infinitival complement of sentire (hear) has a sentential structure. In fact, relativization of the object of the infinitive by Wh-movement out of the indirect question would involve crossing two  $\overline{S}$  boundaries thus violating subjacency. The results with FI (i.e. the variant with a) in (33b) will follow if the causative rule has extracted the embedded VP from the lower clause as in (29), so that Wh-movement will now cross only one  $\overline{S}$  boundary. The identical results with FP (i.e. the variant with da) will also follow given the partly common analysis in (29). But if the causative rule left the VP within the lower  $\overline{S}$  as in (31), application of the latter rule should have no effect on the possibilities for Wh-movement (assuming Rizzi's theory), and the contrast in (33) would remain unexplained.<sup>17</sup>

If the embedded VP is extracted from the lower clause, then a clause boundary will intervene between the lower verb and the embedded subject. This will further undermine the motivation for assuming government by the lower verb. I.e. since government would now have to obtain in some exceptional fashion across the clause boundary (as in (29)), it may as well be by the matrix verb. We will in fact

assume that accusative Case to the embedded subject (as in (32b)) is assigned by the matrix verb fare and not by the embedded verb. Namely, we assume, as will be further discussed in 5.6 below, that the matrix verb but not the embedded verb comes to govern the embedded subject position after application of VP-movement, whence the asymmetry in (32).

We have thus confirmed the assumptions (2b) and (2c) above that the embedded VP is extracted from its clause in FI, and that the two verbs will not form a single verb in derived structure, respectively. Furthermore we have claimed that the embedded verb will not C-command the embedded subject in derived structure.

So far we have seen that FI and FP behave similarly in two ways: with respect to cliticization as in (30), and with respect to Wh-movement as in (33). A third way is represented by past participle agreement. We will recall from 1.6 above the statement concerning the general distribution of past participle agreement as repeated here:

- (34) A past participle will agree (in gender and number)  
with an element binding its direct object.

We will also recall that such "elements" as may enter into (34) will be, for example, a derived subject (after NP-movement), or a clitic pronoun. We now notice that in (30) above, covering both FI and FP, the matrix past participle agrees with the clitic li (fatti/ li: masculine plural) which binds the embedded direct object. We will informally express this fact as in (35).

- (35) In the configuration " $V_1[V_P V_2 \dots]$ ", the direct object of  $V_2$  is also the direct object of  $V_1$ , with respect to past participle agreement.

Since we assume that the notion of "direct object" which enters into (34) is based on government, as discussed in 1.6, we will infer from cases like (30) that the matrix verb governs the material which is governed by the embedded verb.<sup>18</sup> This will follow from the analysis in (29) and from our view, independently put forth in the discussion of Nominative assignment in 2.2.4, that VP boundaries are not barriers to government. Discussion of pp agreement in these cases will be resumed in 6.5.1 below.

Our discussion has therefore established that the complex predicate (VP) found in both FI and FP constructions is asymmetrical with respect to the two verbs involved. In fact we have argued that the material governed by the rightmost verb is also governed by fare, while the converse is not true. This asymmetry will be of relevance for the discussion in chapter 6.

### 5.3.2 NP-movement

Both FI and FP will allow passivization with respect to an embedded direct object, as in (36) respectively.<sup>19</sup>

- (36a) [<sub>i</sub> Quei brani] furono fatti leggere t<sub>i</sub> a Giovanni  
 Those passages were made to read to Giovanni  
 (Giovanni was made to read those passages)

- (36b) [<sub>i</sub> Quei brani] furono fatti leggere t<sub>i</sub> (da Giovanni)  
 Those passages were made to read (by Giovanni)

We note here that, given the general account of past participle agreement in (34), the facts in (36) will again instantiate the extension in (35). Namely, while in the general case of passive the past participle will agree with the antecedent to its direct object, here it will agree with the antecedent to the object of the embedded verb.<sup>20</sup> Again

we will take the overall parallelism between the two constructions to support the overlapping analyses of (29). The da-phrase in (36b) will naturally be ambiguous between matrix agent and embedded agent (i.e. Giovanni is either the one that had the passages read, or the one who read them). We note that the distribution of passive morphology in (36) will fail to be explained under earlier accounts of passivization, where acquisition of passive morphology was linked to NP-movement: In fact NP-movement here spans over both verbs and yet only one acquires passive morphology. But the facts in (36) will follow from our discussion and from the analysis in (29). In fact, for NP-movement to be able to apply, it is the subject of fare, not of leggere that must be empty in D-structure: it is therefore necessary that only fare be a past participle. For leggere it will not only be unnecessary, but also impossible, to appear in a past participle form if we naturally assume that fare is subcategorized for an S complement in (36a) and for a VP complement in (36b), but not for a small clause, and not for a "small" (i.e. participial) VP respectively.

The analogous case of Object Preposing in the SI construction will also naturally be possible in both FI and FP:<sup>21</sup>

- (37a) [<sub>i</sub> Quei brani] si erano fatti leggere <sub>i</sub><sub>i</sub> a Giovanni  
 Those passages SI made read to Giovanni  
 (We made Giovanni read those passages)

- (37b) [<sub>i</sub> Quei brani] si erano fatti leggere <sub>i</sub><sub>i</sub> (da Giovanni)  
 Those passages SI made read (by Giovanni)

In some of the discussion in 5.2 it was suggested that FP and passives share the property of being syntactically subjectless in the sense that in both cases the th-subject is not instantiated as a subject in the configurational sense. However we also argued that,

differently than with the common case of passive, no NP-movement occurs in FP. Thus, of the two properties of passives in (i) of (38), FP allows us to isolate one, as in (ii) of (38).<sup>22</sup> We will argue that some cases of FI allow us to isolate the other property, as in (iii) of (38).

(38)	Lack of synt. subj.	Object mov't
(i) Passive	yes	yes
(ii) FP	yes	no
(iii) See below	no	yes

Consider the typical FI case in (39) ("---": the trace of the VP, henceforth).

- (39) ... fare [VP<sup>V</sup> NP<sub>i</sub>][S<sup>a</sup> NP---]

Given the assumption of 5.2.2 that (a) NP in FI will generally function as a syntactic subject, if we apply NP-movement to NP<sub>i</sub> in (39), as for example in (36a) (or in (37a)), we will obtain a form with the properties in (iii) of (38). This will enable us to further confirm that the ungrammaticality of some of the passives discussed in 5.2.2 in conjunction with the parallel cases of FP, was not due to object movement. Consider in fact the passives in the a cases here below, analogous to some of the FP cases discussed above, as indicated in each case, next to the passives in the b cases, which instantiate the case of FI under consideration, involving movement of NP<sub>i</sub> in (39).<sup>23</sup>

- (40a) cf. (18) \*Il finto tonto fu fatto \_\_ da Giovanni  
Dumb was played \_\_ by Giovanni

- (40b) (?) Il finto tonto fu fatto fare \_\_ a Giovanni  
Dumb was made to play \_\_ to Giovanni

- (41a) cf. (20) \*La mano fu alzata \_\_ da Giovanni  
The (his) hand was raised \_\_ by Giovanni

- (41b) (?) La mano fu fatta alzare \_\_ a Giovanni  
The (his) hand was made to raise \_\_ to Giovanni

- (42a) cf. (21) \*Dieci litri di piu' furono contenuti \_\_  
Ten liter more were contained \_\_  
                             da quella botte  
                             by that barrel
- (42b)                   ?Dieci litri di piu' furono fatti contenere \_\_  
Ten liters more were made to contain \_\_  
                             a quella botte  
                             to that barrel
- (43a) cf. (22) \*Il lunario era sbarcato \_\_ in quel modo  
(Ends were made to meet that way)  
                             da molta gente  
                             by many people)
- (43b)                   ?Il lunario era fatto sbarcare \_\_ in quel modo  
(Ends were made to make meet that way)  
                             a molta gente  
                             to many people)  
                             (i.e. "Many people were made to make ends meet  
                             that way")
- (44a) cf. (23) \*Il treno fu sbagliato \_\_ proprio da Piero  
The train was mistaken \_\_ exactly by Piero
- (44b)                   (?)?Il treno fu fatto sbagliare \_\_ proprio a Piero  
The train was made to mistake \_\_ exactly to Piero
- (45a) cf. (24) \*Il lavoro fu lasciato \_\_ da tutti  
Work was left \_\_ by everyone
- (45b)                   ?Il lavoro fu fatto lasciare \_\_ a tutti  
Work was made to leave \_\_ to everyone
- (46a) cf. (25) \*La 4 per 100 fu corsa \_\_ da Giovanni  
The 4 by 100 was run \_\_ by Giovanni
- (46b)                   ?La 4 per 100 fu fatta correre \_\_ a Giovanni  
The 4 by 100 was made to run \_\_ to Giovanni

The issue concerning the a cases above is whether their ungrammaticality ought to be expressed by placing conditions on NP-movement, or by attributing it to the lack of a syntactic subject in the sense we have discussed. In our discussion in 5.2.2, we argued for the latter view on the basis of the fact that analogous cases of FP, in which we assume no movement is involved, are equally ungrammatical. Our conclusion is

now confirmed by the fact that the b cases, in which NP-movement does occur, but in which a syntactic subject exists (due to the general recoverability of movement: here both NP-movement, and VP-movement), are (near) grammatical. It would thus be inappropriate to place any condition on NP-movement, if this discussion is correct. We also note that the generally recoverable character of movement, discussed in chapter 4, will be confirmed by the grammaticality of the b cases.

To conclude this section we may note that if the respective analyses of FI and FP overlap as indicated in (29) and as the evidence discussed suggests, we would have a syntactic process, i.e. the rule that derives FI, that is VP-movement, which reproduces in part an independently existing base form, namely the one found with FP. This conclusion is of some intuitive appeal because a parallel situation seems to be present elsewhere: One example is provided by the case of syntactic versus lexical passives (i.e. the "unpassives" of Siegel (1973); on lexical and syntactic passives see also Lightfoot (1979) (1980), Lieber (1979)). Another example is provided by Italian impersonal SI versus ergative si (and their respective counterparts in other Romance languages). Recall in fact how cliticization of SI gives rise to a syntactically ergative configuration (as well as near-ergative meaning, reflected in the narrow ambiguity of "Quella finestra si e' rotta ieri sera": "That window we (someone) broke last night").

#### 5.4 Proper Binding

##### 5.4.0 Introduction

In chapter 4 we pointed to the existence of two types of relations: one type that could be recovered or "reconstructed" after movement, like

the relation between a plural antecedent and each/ciascuno; and another type that could not be so recovered, like the relation between ne and its trace. In 5.2.2 we then reviewed several relations that can be recovered after VP-movement, like, again, the one between a plural antecedent and ciascuno, the Control relation etc. We may then expect to find some relations which cannot be recovered after VP-movement. In this section we will argue that this is the case.

#### 5.4.1 Privileged Relations

If fare is subcategorized for VP complements, then nothing will prevent ergative verbs, like intervenire, to occur under fare as in (47) (Recall that it was argued only that ergative verbs did not allow the (agentive) da-phrase).

- (47) Giovanni ha fatto [<sub>VP</sub> intervenire Piero]  
 Giovanni has made intervene Piero

We will argue that the analysis in (47) is correct and in fact the only one possible. In particular we will claim that the derivation from a sentential complement as indicated in (48) is not possible with ergative verbs since VP-movement would give rise to a violation of proper binding, analogous to the one discussed in 1.5 and 4.4 for the trace of ne.

- (48) Giovanni ha fatto [<sub>VP</sub> intervenire  $t_j$ ] [<sub>S</sub> [<sub>j</sub> Piero] ---]  
 (See (47))

If the analysis in (47) is correct, the designation "Faire-par" is no longer suited to identify the cases of VP-complements under fare (since there is no "par" phrase here). Therefore we will henceforth refer to such cases as "Fare-VP" (F-VP). For consistency we will refer to the cases of sentential complements under fare, no longer as FI, but as "Fare-S" (F-S).

The superficially very similar "Giovanni ha fatto intervenire Piero" as in (47) and "Giovanni ha fatto lavorare Piero/ Giovanni made Piero work", the latter involving a non ergative verb, are thus attributed different analyses: the former being a case of F-VP, the latter a case of F-S. This will lead one to expect differences in syntactic behavior between the two cases. We turn to such differences in the next section. In this one we will see that appealing to the notion that some relations between constituents must obtain in S-structure, without recourse to recoverability or reconstruction of the internal structure of traces, will enable us to rule out, not only (48) but a number of clearly undesirable derivations.

To start, if we assume the configuration in (48) to be ill-formed, we also rule out the parallel derivation involving embedded passives, i.e. the case in (49).

- (49) \*Giovanni ha fatto [<sub>VP</sub> essere accusato <sub>t<sub>j</sub></sub>][[<sub>S<sub>j</sub></sub> Piero] ---]  
 (Giovanni had Piero be accused)

This is a welcome result. In fact impossibility of embedded passives with fare is well-known and was (tentatively) accounted for in Kayne (1975, 3.6) by resorting to extrinsic ordering of rules (Passive after the causative rule, i.e. Kayne's FI). But since extrinsic ordering is not allowed in our theoretical framework, the latter impossibility would remain unexplained here.<sup>24</sup> We thus assume that proper binding conditions rule out embedded passives under the analysis in (49). Embedded passives under the analysis parallel to (48), e.g. "\*Giovanni ha fatto [<sub>VP</sub> essere accusato Piero]" will be ruled out by other considerations, having to do with the "small clause" analysis of passives of 3.4 above, as we will discuss in 5.5.3 below.

In the manner discussed for (48) and (49) we will also naturally rule out the case of Raising verbs embedded under fare, exemplified in (50).

- (50a) [<sub>i</sub>Giovanni] sembra [<sub>S<sup>t</sup></sub><sub>i</sub> non aver capito]  
          Giovanni seems       not to have understood

(50b) \*Il tuo tono fara' [<sub>VP</sub> sembrare [<sub>S<sup>t</sup></sub><sub>j</sub> non aver capito]]  
                                   [ [ <sub>S<sub>j</sub></sub>Giovanni] --- ]  
                                   S<sub>j</sub>  
                                   (Your tone will make Giovanni seem not to have understood)

As noted by Kayne (1975, 3.7) the impossibility of embedding Raising verbs under fare is rather general. In his discussion Kayne appeals again to extrinsic ordering of rules (although with some reservations; see his ex. (148) and following remarks).<sup>25</sup> We thus replace Kayne's account, not available to us, with an account in terms of proper binding. The occurrence of Raising verbs in F-VP as for example in (51) will naturally be prevented by Case requirements, since we assume that, due to the presence of the clause boundary, the phrase "Giovanni" will fail to be assigned Case (by fare; sembrare is not a Case assigner by the discussion in 2.6).

- (51) \*Il tuo tono farà' [vp sembrare [S Giovanni non aver capito]]  
 (See (50b))

Assuming now that the relation between a designated element in subject position and an i-subject (whether in direct object position or adjoined to VP) prescribed by the theory of chapter 2, acts just like the relation between a NP and its trace in inhibiting VP-movement, we will expect derivation of the b cases here below via application of VP-movement to the corresponding a cases, to be impossible.

- (52a) pro<sub>i</sub> [vp [vp guidera'] Piero<sub>i</sub>]  
           Will drive Piero.

(52b) (Gives rise to ungrammaticality, as in (54a))

Maria fece [vp [vp<sub>i</sub>guidare] Piero<sub>i</sub>] [S<sub>i</sub>pro<sub>i</sub>---]  
 (Maria made Piero drive)

(53a) pro<sub>i</sub> [vp<sub>i</sub>interverra' Piero<sub>i</sub>]  
 Will intervene Piero<sub>s</sub>

(53b) (Gives rise to ungrammaticality, as in (54b))

Maria fece [vp<sub>i</sub>intervenire Piero<sub>i</sub>] [S<sub>i</sub>pro<sub>i</sub>---]  
 (Maria made Piero intervene)

This one also seems to be a correct result since, if (52b) and (53b) were possible, we would expect the pronominal element pro to cliticize either as an accusative or as a dative depending on details (on this see 5.5.4 below) and thus give rise to either option in (54a) and (54b) respectively.<sup>26</sup>

(54a) \*Maria lo/ gli fece guidare Piero

(54b) \*Maria lo/ gli fece intervenire Piero

Within our discussion (cf. chs. 2, 3), the impossibility of (54) will be exactly parallel to the fact that the French il-construction of 3.2 above, exemplified in (55a) here below cannot be embedded under causatives. Consider in fact the following minimal pair, where il is a "referential" expression in (55b) but the designated element (i.e. non-referential) in (55a).

(55a) Il est arrivé trois filles  
 It arrived three girls

(55b) Il a invité trois filles  
 He invited three girls

(56a) \*Cela lui fera arriver trois filles  
 That to it will make arrive three girls  
 (That will make it arrive three girls)

(56b) Cela lui fera inviter trois filles  
 That to him will make invite three girls  
 (That will make him invite three girls)

We thus rule out (56a) in the same manner as (54b), namely by assuming that the relation between il and trois filles in (55a) is unrecoverable after VP-movement, just like the relation between pro and "Piero" in (53a). The account of (54) and (56a) just proposed may thus further confirm the existence of a binding relation between a designated element in subject position and an i-subject. (We must note however that if it should prove necessary to assume that the designated element in Italian is not only a pronominal, but a nominative pronominal, as suggested that it might be the case in fn. 15, chapter 2, the cases in (54) would be ruled out independent of proper binding considerations, namely by the fact that other than nominative Case is assigned. Analogously for the French case in (56a), since the observations of fn. 15, chapter 2, have counterparts for French).

We will further assume that the relation between the subject and an emphatic pronoun (ep) discussed in 2.2 above also falls under the same strictures, thus ruling out some other undesired cases. Consider in fact the following:

- (57a) Piero<sub>i</sub> [VP [VP<sub>guidera'</sub>] lui<sub>i</sub>]  
Piero will drive himself
- (57b) Piero<sub>i</sub> [VP<sub>interverra'</sub> lui<sub>i</sub>]  
Piero will intervene himself
- (58a) \*Maria fece [VP [VP<sub>guidare</sub>] lui<sub>i</sub>] [<sub>S</sub>(a) Piero<sub>i</sub>---]  
(Maria made Piero drive himself)
- (58b) \*Maria fece [VP<sub>intervenire</sub> lui<sub>i</sub>] [<sub>S</sub>(a) Piero<sub>i</sub>---]  
(Maria made Piero intervene himself)

We must note that the failure of ep's to occur in conjunction with the subject of the complement of fare, which seems rather general, will support our assumption of (2a) above that VP-movement applies only to

the maximal phrase. In fact, if the rule could apply, for example either to the inner VP in (57a), or to the verb alone in (57b), then either "\*Maria fece [<sub>VP</sub>guidare] [<sub>S</sub>Piero --- (a) lui]", or "\*Maria fece [<sub>V</sub>intervenire] [<sub>S</sub>Piero --- (a) lui]" ought to be possible. Analogously with the cases of inversion in (52), (53). In fact if movement could apply to less than maximal expansions of V, we might expect "Maria fece [<sub>VP</sub>guidare] [<sub>S</sub>pro --- (a) Piero]" and "Maria fece [<sub>V</sub>intervenire] [<sub>S</sub>pro --- (a) Piero]", respectively from (52a) and (53a) which (aside from the possibility of fn. 15, ch. 2 that pro may be Nominative only), ought to yield "\*Maria lo fece guidare (a) Piero" and "\*Maria lo fece intervenire (a) Piero" respectively.<sup>27</sup>

Our view here can perhaps be extended to account for the fact that VP-movement will never apply to tensed complements. Consider in fact the causative verb lasciare taking both infinitival and tensed S complements, as in (59) (fare does not take tensed complements too naturally) and the asymmetry in (60).<sup>28</sup>

- (59a) Maria lascio' Giovanni guidare l'auto  
Maria let Giovanni drive the car
- (59b) Maria lascio' che Giovanni guidasse l'auto  
Maria permitted that Giovanni drive the car
- (60a) Maria lascio' guidare l'auto a Giovanni  
(See (59a))
- (60b) \*Maria lascio' guidasse l'auto (che/a) Giovanni  
(See (59b))

Even though no binding is involved in this case (at least not in any obvious sense), we may suggest that the agreement relation between a subject and a tensed verb is also unrecoverable if altered by VP-movement (or any movement).<sup>29</sup>

We now consider the two variants of the SI-construction, in the

analysis discussed in 1.3 above, as in (61); and application of VP-movement in each case, as in (62).

(61a) [<sub>i</sub>e] [<sub>VP</sub>si <sub>i</sub> studia le lingue classiche al liceo]  
SI studies classical languages in high school

(61b) [<sub>i</sub>Le lingue classiche] [<sub>VP</sub>si studiano <sub>i</sub> al liceo]  
Classical languages SI studies in high school

(62a) \*Facevano

[<sub>VP</sub>studiarsi <sub>i</sub> le lingue classiche al liceo] ([<sub>S</sub>[<sub>i</sub>e]---])  
(They made you study classical languages in high school)

(62b) \*Facevano

[<sub>VP</sub>studiarsi <sub>i</sub> al liceo] [<sub>S</sub>[<sub>i</sub>le lingue classiche]---]  
(See (62a))

We note that the cases in (62) remain ungrammatical should Clitic Climbing apply to "si" (i.e. "\*Si facevano..."). The parentheses in (62a) express the disjunction of the two analyses possible here: F-S plus application of VP-movement as mentioned above; and F-VP.

The case in (62b) will be ruled out by improper binding of t<sub>i</sub>, in the manner of (48), (49) etc. Under the cliticization analysis of SI of 1.3 above, the F-VP variant of (62a) would simply have no source for SI, and is thus impossible. The F-S variant would have a source for SI (just as (61a) would), but the latter variant will be excluded by assuming that the binding relation between SI and the subject is unrecoverable if altered by movement, like the other binding relations so far discussed. This means that SI will never occur under fare at all. Under our quite parallel analyses of SI and French SE-moyen of 3.2 above, our discussion will thus account for the observation that SE-moyen never occurs under faire of Gross (1968), Ruwet (1972), Kayne (1975, p. 395). (Kayne suggests an "ordering" solution for these facts, see his p. 397).<sup>30</sup>

We now note that the reason adduced for the impossibility of SI/SE under fare (/faire), namely the existence of a "syntactic" relation between SI/SE and the subject position, will not carry over to ergative si/se since no such relation is claimed to exist in that case (see 1.4.3 above and discussion here below). Therefore the fact that French se (we return to Italian shortly below) can occur as in (63) (adapted from Ruwet (1972, p. 89)) will support our view and the different analyses of SI/SE and si/se

- (63a) Les nuages se sont dissipés  
The clouds (themselves) dissipated
- (63b) Le vent a fait se dissiper les nuages  
(The wind made the clouds dissipate)

We will analyze (63b) as a case of F-VP, like Italian (47), for the ergative verb se dissiper.

Our discussion so far thus predicts that SI/SE should be generally impossible under fare/ faire, while ergative si/se is predicted generally possible. We recall from our discussion in 1.4.3 however, that the function of ergative si/se is to signal that the verb differs from the corresponding transitive in not assigning a thematic role to the subject position. Under this view, it is fairly reasonable to expect that when there is no subject position, as with VP complements of fare/ faire, the presence of si/se ought to be unnecessary. The revised prediction is therefore that si/se ought to be possible but unnecessary under fare/ faire. The "unnecessary" part of the prediction is borne out by the fact that Italian si does not occur under fare, as in (64). The impossibility for si to occur as in (64a), not yet accounted for by our discussion will be addressed shortly below.

- (64a) Le nubi si sono dissipate  
The clouds (themselves) dissipated

- (64b) Il vento ha fatto  $\left\{ \begin{array}{l} *dissiparsi \\ dissipare \end{array} \right\}$  le nubi  
 (The wind made the clouds dissipate)

We note that the ungrammatical case in (64b) would not improve should "si" climb (i.e. "\*...si ha fatto..."). This part of the prediction will also be borne out by the fact, noted in Ruwet (1972, p. 108) and in the references he cites, that ergative se ("neuter" se in Ruwet's terms) is sometimes omitted, as in (65) (Ruwet's examples), in contrast with reflexive se, which never is (on reflexives, see 5.7 below).

- (65a) La victime s'est assise  
 The victim (herself) sat down
- (65b) Je les ai fait asseoir  
 I them made sit down  
 (I made them sit down)

This non-necessity of ergative si/se will thus support the view that, when embedded under fare/ faire, ergative verbs appear in VP and not in S structures. Given the non-necessity, it remains to be explained why si/se is possible in the French case in (63b) but not in its Italian counterpart in (64b). I will assume that this is due to a second order difference between the two languages. In particular I will assume that in Italian there is an obligatory agreement rule operating between any reflexive morpheme (including ergative and inherent reflexive si) and the NP in subject position, as was discussed in 2.4.1 above. Since there is no such NP in this case, si will not only be unnecessary but also impossible. For French I will assume that se obeys a different agreement mechanism, (cf. fn. 23, ch. 2) and in particular that se agrees with the NP in direct object position: les nuages in (63b) above, and a trace in (63a). We will attribute the fact that se does

not "climb" in (63b), cf. "\*Le vent s' a fait dissiper les nuages", to the local character of such agreement rule. This discussion will be resumed in 5.7.4 below.<sup>31</sup>

This view of ergative si/se will straightforwardly extend to inherent reflexive si/se. In fact all of the relevant observations carry over, as in Ruwet's discussion ergative se and inherent reflexive se are consistently characterized on a par, and as the results in (66) involving inherent reflexive arrabbiarsi are parallel to those in (64).

- (65a) Maria si e' arrabbiata  
Maria (herself) got angry

- (65b) Giovanni ha fatto { \*arrabbiarsi } Maria  
arrabbiare { }  
(Giovanni made Maria get angry)

The view of 1.8 above that inherent reflexive si/se is to be analyzed just like ergative si/se will thereby receive further support.

#### 5.4.2 Summary

To summarize, the relations that we have so far claimed cannot be recovered if affected by movement are, as listed respectively in (66) below: The one between ne and its trace, as discussed in 1.5 and 4.4 above; The one beteen NP and trace (cf. (48), (49), (50b), (62b) above); The one between pro and NP (cf. (52b) and (54a), (53b) and (54b) above); The one between NP and an ep (cf. (58) above); The one between a subject and a tensed predicate (cf. (60b)); The one between SI and an empty subject position (cf. (62a)). The relations that we have claimed can be recovered are, as indicated in (67) below, respectively: The Control relation (cf. (12) above); The one between a NP and a (non-clitic) reflexive pronoun (cf. (14) above); The one between a NP and ciascuno (cf. 4.1 and (15) above); The one between a

NP and the reflexive adjective proprio (cf. (16) above); The one between a NP and some idiomatic objects (cf. (18), (19b) above); The one between a NP and inalienable possessions (cf. (20) above; The one between a NP and a measure phrase (cf. (21) above).

- |                    |                                  |                             |
|--------------------|----------------------------------|-----------------------------|
| (66a) ne-t         | (66b) NP-t                       | (66c) <u>pro</u> -NP        |
| (66d) NP-ep        | (66e) subj.-VP <sub>tensed</sub> | (66f) [NP <sub>e</sub> ]-SI |
| (67a) NP-PRO       | (67b) NP-se stesso               | (67c) NP-ciascuno           |
| (67d) NP-proprio   | (67e) NP-idiom. obj.             | (67f) NP-inalienable        |
| (67g) NP-measure P |                                  |                             |

It will be recalled from 4.4 above that the existence of two classes of relations was motivated quite independent of the analysis of causative constructions. But we must note further that even the particular classification in (66)/(67) will not merely reflect factors specific to the analysis of causative constructions proposed. In fact there appears to be a rather close correlation between the class of anaphoric relations which appear unrecoverable if affected by movement: either NP-movement or VP-movement, and the class of relations that enter into the system of E assignment and pp agreement discussed in 1.6 above. In fact, with the exception of (66e), all the relations in (66) enter into the system of 1.6 while none of the relations in (67) does.

Thus in (68b) the relation between ne and its trace will trigger pp agreement, whence the contrast with (68a). But the relation between ciascuno and its antecedent in (68c) will not.

- |   |  |           |
|---|--|-----------|
| (68a) Giovanni ha letto [NP <sub>due</sub> romanzi]                         |  |           |
| Giovanni has <u>read</u> two novels   |  | (no ag't) |
| (68b) Giovanni ne <sub>i</sub> ha letti [NP <sub>due</sub> t <sub>i</sub> ] |  |           |
| Giovanni of them has <u>read</u> two  |  | (ag't)    |

- (68c) [<sub>i</sub>Le ragazze] hanno letto [<sub>NP</sub><sup>due romanzi ciascuna</sup><sub>i</sub>]  
 The girls have read two novels each (no ag't)

We noted in 1.6 above that pp agreement as in (68b) would be slightly at odds with an informal characterization as in (34) above, namely "A pp will agree with an element binding its direct object", since ne binds only a subpart of the direct object. However, if we replace "direct object" with the more formal "a phrase governed by the past participle", then the case in (68b) will correctly fall under our characterization of pp agreement, as long as we assume, as argued in Belletti and Rizzi (1980), that the trace of ne is in fact governed by the verb.<sup>32</sup>

Turning to some other of the relations in (66) we note that in (69), the relation between, respectively: a NP and trace, a NP and an ep, pro and NP, will trigger both pp agreement and E assignment.

- (69a) [<sub>i</sub>Maria] e' intervenuta <sub>i</sub>t<sub>i</sub>  
 Maria has intervened (E, pp ag't)

- (69b) [<sub>i</sub>Maria] e' intervenuta <sub>i</sub>lei<sub>i</sub>  
 Maria has intervened herself (E, pp ag't)

- (69c) pro<sub>i</sub> e' intervenuta [<sub>i</sub>Maria]  
has intervened Maria (E, pp ag't)

But in (70), the relation between, respectively: a NP and a (non-clitic) reflexive pronoun, a NP and the reflexive adjective proprio, a NP and an idiomatic object, a NP and an "inalienable" object, a NP and a measure phrase, all in (67), will not trigger either E or pp agreement.

- (70a) [<sub>i</sub>Maria] ha accusato se stessa<sub>i</sub>  
 Maria has accused herself (A, no pp ag't)

- (70b) [<sub>i</sub>Maria] ha informato [<sub>NP</sub><sup>il proprio</sup><sub>i</sub> avvocato]  
 Maria has informed her own lawyer (A, no pp ag't)

We now recall (from 1.6) how the relation of (66f) between SI and the subject position triggers E assignment, as in (71).

- (71) [i e] si i e' lavorato molto  
SI has worked much (E, no pp ag't)

The relation of agreement between a subject and a tensed verb phrase of (66e) does not enter into the system of E assignment/pp agreement. Thus its inclusion in (66) is perhaps accidental. But, alternatively, we might assume as we suggested in 2.4.3 above, that, although a different system, subject-verb agreement is one that shares some significant property with the system of E assignment/pp agreement, in which case its inclusion in (66) could be appropriate.

We note that the relation between NP and PRO of (67a), as in (72), will never give rise to E or pp agreement.

- (72) [Alcuni studenti] avevano sperato [di PRO uscire in fretta]  
A few students had hoped to get out soon  
(A, no pp ag't)

By this we mean to claim that no verb of subject Control exists which takes auxiliary E.<sup>33</sup> On the contrary, the parallel relation between NP and trace due to Raising will give rise to both E and pp agreement in (73).

- (73) [Alcuni studenti] erano sembrati [stesi uscire di corsa]  
A few students had seemed to get out in a hurry  
(E, pp ag't)

Thus Raising differs from Control in that it will trigger E and pp agreement although not in all cases, as will be discussed in 6.5.4 below.

On the nature of the two sets of relations under discussion, we will note that all of the cases in (67) represent relations between positions which have independent thematic roles (for the cases of ciascuno (in (68c)), and proprio (in (70b) we may assume that the relation actually involves the NP containing ciascuno/ proprio, which clearly has an independent thematic role, rather than the latter elements which, in themselves, are not arguments). This is not the case with any of the relations in (66). In fact it will be obvious on the basis of the respective discussions above that in all the cases in (66), only one of the two elements involved plays a thematic role (more precisely: only one of the positions involved contains an R-expression in D-structure), although the criterion does not seem applicable to (66e).

We may therefore assume as suggested in 1.6 that the correct characterization lies somewhere along these lines. We may thus refer to the relations in (66) as "thematically essential" in the sense that they play a role in recovering the thematic structure from S-structure. We will assume that subject-verb agreement in (66e) is also "thematically essential" in some parallel fashion, although we lack an exact characterization here.

## 5.5 Ergatives under Fare

### 5.5.0 Introduction

In this section we will review a number of differences in the behavior of ergative and intransitive verbs when embedded under fare.

Even though our discussion will leave some problems unsolved we will suggest in each case that the difference is related to the different analyses proposed, in particular to the fact that ergative verbs appear under fare only in VP structures (fare-VP) while intransitive verbs may appear in S structures (fare-S). To the extent that our discussion is convincing it will provide evidence for the existence of ergative verbs additional to that of chapter 1.

### 5.5.1 Dative Cliticization

Let us consider the case of an intransitive verb taking a dative object, embedded under fare as in (74), which would have the analysis indicated (recall that the embedded subject -here "Piero"- is only assigned a when preceded by a direct object).<sup>34</sup>

- (74) Feci [<sub>VP</sub>telefonare a Mario] [<sub>S</sub>Piero ---]  
 I made telephone to Mario Piero  
 (I made Piero phone Mario)

Cases like (74) are peculiar both in Italian and in French (as noted for Italian in Rizzi (1976a), (1978), Van Tiel-di Maio (1978), and for French, in Kayne (1975)) in that they do not have completely well-formed counterparts in which the dative object is cliticized, as in (75).

- (75) ?Gli feci telefonare Piero  
 (I made Piero phone him)

We will refer to this fact as the "dative-cliticization problem". As (79a) below will show, this difficulty is more severe in French, but cases exist in Italian also, for which the latter difficulty is quite noticeable. In particular we will consider the case in (76a) where the dative relates (in the manner indicated by "  ") to a prepositional "inalienable" phrase, and the case in (76b) where the dative is the

object of a preposition like addosso (on such prepositions cf. the discussion in 1.7.3 above).<sup>35</sup>



- (76b) ??Gli feci sparare addosso \_ un agente  
To him I made shoot upon an agent  
(I had an agent fire upon him)

We now note that the problem does not carry over to the cases of "Faire-par" in (77) partially analogous, respectively, to the cases in (75), (76a), (76b), and for which we assume the VP analysis indicated, as discussed in 5.2 above.<sup>36</sup>

- (77a) Gli feci [vp<sub>telefonare</sub> \_\_ da Piero]  
 To him I made phone by Piero (I had him called by Piero)

(77b) Gli feci [vp<sub>sparare</sub> { in faccia \_\_ } { tra i piedi \_\_ } da un agente]  
 To him I made shoot { in the face } { between the feet } by an agent

(77c) Gli feci [vp<sub>sparare addosso</sub> \_\_ da un agente]  
 To him I made shoot upon by an agent

Although we will not be in a position to offer a solution to the dative-cliticization problem, it will be reasonable to infer, given our assumptions, that the latter is related to the sentential structure of the complement, since it appears to affect only F-S and not F-VP. Contrasting with the intransitive cases in (75), (76a) respectively, we now note the cases involving ergative verbs in (78).

- (78a) Gli feci arrivare un libro  
To him I made a book arrive  
(I had a book arrive for him)

- (78b) Gli feci cadere un agente      } in testa \_\_\_\_\_  
    } tra i piedi \_\_\_\_\_  
  
To him I made fall an agent      } on the head  
    } between the feet  
  
(I made an agent fall on his head/ between his feet)  
  
(78c) Gli feci cadere un agente addosso \_\_\_\_\_  
  
To him I made fall an agent upon  
  
(I made an agent fall on him)

Contrasts analogous to the one due to embedding under fare of telefonare/arrivare which we have just noted (i.e. (75)/(78a)) have been noted for French in Kayne (1975), Herschensohn (1979), Rouveret and Vergnaud (1980) (R&V). Kayne's proposal on the matter will be discussed below. Herschensohn takes these contrasts to support something very much analogous to our ergative analysis of the relevant French verbs, but adopts Kayne's solution of the problem in (75) (i.e. the dative-cliticization problem), which we will reject below. R&V's account is somewhat analogous to Kayne's and will also be briefly discussed below.

On our assumption that the problem only affects F-S, the well-formedness of (78) will be evidence for the VP analysis of ergatives under fare, namely for the hypothesis that the material to the right of fare in (78) constitutes a base-generated VP.<sup>37</sup> In order to defend this view, I will now argue against the account of these facts in Kayne (1975, 4.7, 4.8), based on other than the distinction intransitive/ergatives I have proposed here.

Kayne notes the French contrast in (79) (Kayne's (36a), p. 283, and (95b), p. 309 respectively), parallel to the one between (75) and (78a) above, respectively.

- (79a) \*Je lui ferai écrire mon ami  
I to him will make write my friend

- (79b) On lui fera mourir son chien  
 We to him will make die his dog  
 (We'll make his dog die on him)

Kayne's account of (79a) rests on the analysis in (80), where the causative rule has moved the embedded verb "écrire" to the left.<sup>38</sup>

- (80) Je ferai écrire [<sub>S</sub>mon ami \_\_\_ lui]  
 I will make write my friend to him

Kayne claims that (80) represents the structure of (79a) prior to cliticization, and that cliticization cannot successfully take place since it would involve a violation of the Specified Subject Condition (SSC, equivalent to Opacity). We note that in Kayne's discussion, much of the motivation for assuming that the causative rule moves not the whole VP, but either V, as in (80), or the sequence V-NP (cf. Kayne's p. 327 and ff., for discussion), lies in fact in the ungrammaticality of cases like (79a). The well-formedness of (79b) is accounted for by resorting to the "Sister to Faire" analysis of the dative, namely to the view that "lui" in (79b) is not at all a complement of the lower verb, but a complement of the higher verb, as indicated in (81).

- (81) On fera mourir [<sub>S</sub>son chien \_\_\_] lui  
 We will make die his dog to him

Cliticization will be able to apply successfully to (81) to derive (79b) since no violation of the SSC would be involved there. The following brief critique of Kayne's solution will be based on the Italian facts, but we take it that there will be obvious implications for the analysis of French.

An account of the dative-cliticization problem in terms of the SSC appears incorrect. In fact, if the causative rule stranded embedded

datives in the manner of (80) and if these fell under the latter condition, other aspects of the syntax ought to provide parallel results. On this consider for example the distribution of coreference in (82), where the causative rule has applied in (a) but not in (b).

- (82a) \*[<sub>i</sub>Giovanni] fece scrivere Piero proprio a lui<sub>i</sub>  
Giovanni made write Piero exactly to him

- (82b) [<sub>i</sub>Giovanni] osservo' Piero scriverla proprio a lui<sub>i</sub>  
Giovanni watched Piero write it exactly to him

(82a) is parallel to (79a). Thus, if the SSC affected the dative, disjoint reference (DR) ought to not apply between matrix subject and the latter dative, and (82a) ought to be grammatical, just like (82b) where in fact DR does not apply, as predicted (on the exact analysis of complements of osservare, see 5.6 below).<sup>39</sup>

We must now note that if the SSC account of (79a) is not viable, much of the motivation for the sister-to-faire analysis in (81) disappears. In fact the latter analysis aims exactly to account for the fact that the dative in (79b) seems to "escape" the SSC. Furthermore, and in spite of the cogency of much of Kayne's discussion, we will note the following difficulties for the sister-to-faire analysis.

An obvious problem for the sister-to-faire analysis will arise when it comes to cases like (78b) and (78c). In fact in those cases the dative is clearly related to the phrases "in testa\_\_", "tra i piedi\_\_" and "addosso\_\_" respectively, and the latter phrases are rather obviously complements of the lower verb. Kayne maintains that the dative is even in those cases outside the lower S and a complement to faire, and that a rule will relate the latter dative to either the inalienable phrase or the preposition addosso (French dessus in his

discussion) within the lower clause (notice that addosso is now base-generated "stranded"). Of course this view does not in itself solve the problem, since if the sister-to-faire analysis of the dative is possible in (83a) (Kayne's (123)) here below, analogous to (78c), then it ought to be also possible in (83b) (Kayne's (121a)) analogous to (76b).

(83a) On lui fera tomber Jean dessus  
 (We will make Jean fall on him)

(83b) \*?On lui fera tirer les soldats dessus  
 (We will make the soldiers fire on him)

Kayne thus proceeds to suggest that the rule which relates the dative dessus in (83) (or equivalently to the "inalienable" phrase in the relevant cases) is sensitive to the SSC, thus ruling out (83b) (under the analysis "...lui tirer [<sub>S</sub>les soldats ... dessus \_\_]"). For (83a) (which would have a quite parallel analysis) he suggests that the SSC ought to be relaxed when the subject is not "agentive", as with tomber.

On this view we will note first that it further undermines the motivation for the sister-to-faire analysis (although some of Kayne's arguments remain. Cf. fn. 40). In fact such relaxation of the SSC would now be sufficient to account for the apparent exceptionality of all the cases in (78) (all involving non-agentive subjects) even if the dative originated within the embedded S. Second, we will note that this is an obvious weakness given, among other things Kayne's own remark that this sensitivity of the SSC to agentiveness is not attested in any other case.

A further difficulty for the sister-to-faire analysis of any of the cases in (78) comes from the following considerations. We will

recall from 5.3 above the contrast in (84).

- (84a) ?\*Faccio comprarlo (a Mario)  
(I make Mario buy it)

- (84b) \*\*Faccio lavorarlo  
(I make him work)

This contrast was attributed to the fact that while lo is a complement of comprare, it is not a complement of lavorare (but rather its subject).

We now note that the cases corresponding to (78) where the clitic appears on the lower verb have a degree of ungrammaticality comparable to that of (84a) and not to that of (84b).

- (85a) ?\*Feci arrivargli un libro  
(see (78a))

- (85b) ?\*Feci cadergli un agente      } in testa      }  
    } tra i piedi      }  
(see (78b))

- (85c) ?\*Feci cadergli un agente addosso  
(see (78c))

This will support the view, contrary to the sister-to-faire analysis, that the dative is indeed a complement of the lower verb in these cases. In fact the judgements in (85) are indistinguishable from the judgements obtained for the analogous cases of FP (cf. (77), e.g.: "?\*Feci telefonargli da Piero") where the dative is certainly a complement of the lower verb.

Our view that the difference with respect to dative cliticization between transitive and ergative verbs, is to be related to the VP structure of ergative complements, versus the S structure of (the relevant) intransitive complements, is therefore supported by the fact that a very serious attempt such as *Kayne's*, to relate the difference to other factors, encounters the difficulties noted.<sup>40</sup>

An expedient parallel to *Kayne's* "non-agentiveness" is used in

R&V. In fact the difference between their (274) and their (294) involving intransitive "parler" (talk) and ergative "tomber (fall) respectively, parallel to the one discussed above, is derived by resorting crucially to the notion "theme" (as in their (225), Rule I, Condition (ii)) where the latter notion identifies direct objects generally, but also the subject of "certain intransitive verbs" (e.g. of "tomber"). If our approach is correct, no recourse to such notions as "theme" will be necessary and the fact that verbs like "tomber" can also generally enter into the il-construction of 3.2 above will be explained.<sup>41</sup>

Likely related to the problem just discussed is the fact noted for Italian in Van Tiel-Di Maio (1978)), that the following will not be ambiguous, namely that gli will not be interpreted as a dative object, but only as an embedded subject.

- (86) Gli faro' comprare un libro a Mario  
 To him I will make buy a book to Mario  
 (I will have him buy Mario a book; \*I will have Mario  
 buy him a book)

Indeed the lack of ambiguity in (86) would follow if we simply assumed that dative objects in F-S cannot very well cliticize, in general as the above discussion indicated.<sup>42</sup> But the nature of such prohibition remains unclear.<sup>43</sup>

### 5.5.2 The "Reflexive" Problem

Consider the following cases, and the impossibility for a reflexive clitic related to the matrix subject to represent an object of the embedded verb.

- (87a) \*[<sub>i</sub>Giovanni] si<sub>i</sub> fece telefonare Mario  
 Giovanni himself made phone Mario  
 (Giovanni had himself called by Mario)

Assuming as would be reasonable, that reflexive si in (87) represents a dative object, (87a) and (87b) will be parallel to (75) and (76) above respectively, and one might therefore suggest that the problem here is the same as the one discussed above. However, although their respective domains intersect, these problems are not the same one. In the first place, the impossibility exemplified by (87) extends to accusatives, where non reflexive counterparts are grammatical, as shown in (88).

- (88a) \*[<sub>i</sub>Giovanni] si <sub>i</sub> fa accusare (a) Mario  
           Giovanni himself makes accuse (to) Mario  
           (Giovanni has himself accused by Mario)

(88b)     Giovanni lo fa accusare a Mario  
           Giovanni him makes accuse to Mario  
           (Giovanni has him accused by Mario)

Secondly, the ungrammaticality of the reflexive cases appears noticeably more severe than that of the corresponding non-reflexive datives. We will refer to the impossibility noted with respect to (87a), (88a) above as the "reflexive problem". A solution to this problem (to our knowledge so far unsolved), will be proposed in 6.6 below. However, since our point here is relatively independent of a solution, in this subsection we will assume no solution.

The examples in (87) and (88a) would remain ungrammatical, we may note, if si was construed with the embedded subject rather than the matrix subject. This alternative interpretation however would be naturally ruled out in our discussion at least by the reflexive agreement rule (cf. 5.4.1, 2.4.1 above) demanding contiguity in S-structure.

between si and the relevant NP.

We will note that, as in the previous case, the problem only seems to affect F-S, since the following (i.e. cases of FP) contrasting with (87a), (87b), (88a) respectively are grammatical.

- (89a) Giovanni si fece telefonare da Mario  
(see (87a))

- (89b) Giovanni si fece sparare } addosso      } da un agente  
                                } tra i piedi      }  
(See (87b))

- (89c) Giovanni si fa accusare da Mario  
(see (88a))

Even without an exact explanation, this very sharp difference between the a-NP and da-NP variants will further support the discussion in 5.2 above and the view that the two constructions differ significantly. We now note that cases superficially similar to those in (87) but involving ergative verbs, also turn out grammatical.<sup>45</sup>

- (90a) Giovanni si fa arrivare un libro  
Giovanni to himself makes arrive a book  
(Giovanni has a book arrive for himself)

- (90b) Giovanni si fece cadere un agente } addosso      }  
                                } tra i piedi      }  
Giovanni to himself made fall an agent      upon  
    between the feet  
(Giovanni made an agent fall upon himself/ between his  
own feet)

Since the reflexive problem is not subsumed by the dative-cliticization problem, as discussed, the observation that the cases in (90) are grammatical will not be redundant with the observation that the cases in (78) are. We will thus take (90) to further support the view that ergative complements of fare, have a VP structure, just like the complement of the "Faire-par" construction.

### 5.5.3 Cliticization and Case Assignment

We now consider the following intransitive-ergative pair in the respective analyses postulated.

- (91a) Faranno [<sub>VP</sub><sup>lavorare</sup>] [<sub>S</sub><sup>molti studenti---</sup>]  
 They will make work many students  
 (They will make many students work)

- (91b) Faranno [<sub>VP</sub><sup>intervenire</sup> molti studenti]  
 They will make intervene many students  
 (They will make many students intervene)

We then observe the results of Ne-Cl in (92) and (93).

- (92a) Ne faranno lavorare molti \_\_\_\_  
 Of them they will make work many  
 (They will make many of them work)

- (92b) Ne faranno intervenire molti \_\_\_\_  
 Of them they will make intervene many  
 (They will make many of them intervene)

- (93a) \*\*Faranno lavorarne molti \_\_\_\_  
 (see (92a))

- (93b) ?\*Faranno interverinrne molti \_\_\_\_  
 (see (92b))

As discussed in 5.3.1 above, we are assuming that in addition to the usual processes, clitics in these constructions are subject to a principle of Clitic Climbing (cf. also fn. 16). Recalling now how Ne-Cl requires at least C-command (cf. 1.5 above) we note that, given the analyses in (91), (93b) will violate only the Clitic Climbing principle, while (93a) will violate -in addition- the syntax of ne, since "lavorare" does not C-command "molti \_\_\_\_". But (92a) will be well-formed since the matrix verb does C-command "molti \_\_\_\_", and so will (92b) to which we assume Clitic Climbing to have applied. The difference in (93), will thus support the different analyses in (91), and in particular the VP analysis of ergative complements.

The alternation in (93) is parallel to the one in (32) above repeated

here below, and due to cliticization to the lower verb of the embedded subject and of an embedded object respectively, of which a parallel account was given.

- (94a) \*\*Faccio lavorarlo  
I make work him (I make him work)

- (94b) ?\*Faccio leggerlo (a/da Giovanni)  
I make read it (to/by Giovanni)

However, we will note that cliticization of the whole direct object phrase ("molti studenti") in (91) will pattern differently than Ne-Cl and will not give rise to any distinction between ergative and intransitive complements.

- (95a) Li faranno lavorare  
(They will make them work)

- (95b) Li faranno intervenire  
(They will make them intervene)

- (96a) \*\*Faranno lavorarli  
(see (95a))

- (96b) \*\*Faranno intervenirli  
(see (95b))

The apparent discrepancy between (96b) and (93b) will be accommodated by the following discussion of Case assignment.

It was argued in 2.6 that ergative verbs do not assign accusative. Yet the phrase "molti studenti" in both (91a) and (91b) is clearly accusative as the accusative clitic "li" in (95a) and (95b) respectively shows (cf. also (101) below). Given the analysis, accusative in (91a) must be assigned by the matrix verb since the lower one would not C-command (and hence govern) the relevant phrase. We will assume that accusative to the direct object of ergative "intervenire" in (91b) is also assigned by the matrix verb. On this we will recall the discussion in 5.3.1 above, where it was claimed that the direct object of the

lower verb was also the direct object of fare with respect to past participle agreement (as stated in (35) above), namely that the direct object of the embedded verb was also governed by fare. Since government obtains, and since fare is a Case assigner by the discussion in 2.6 (it assigns a thematic role to the subject), we naturally expect that in (91b) accusative Case could be assigned to the phrase "molti studenti" by fare. We will now claim that the following dependency exists between Case assignment and cliticization:

- (97) If a NP is assigned Case by a verb, it will only cliticize to that verb.

The syntax of accusative clitics is now the principle in (97).<sup>46</sup> In addition we will maintain the view that a principle of Clitic Climbing exists, over and above (97). The resulting overall prediction will be that the position of clitics in S-structure can be higher but not lower than the respective Case assigners.

This will account for the results of accusative cliticization in (94), (95), (96). In particular (96b) will now violate (97) unlike (94b) where accusative is assigned by the lower verb. Principle (97) will not affect Ne-Cl for which the previous discussion will remain valid. In fact, while the phrase "molti \_\_" is assigned Case by the higher verb in both (93a) and (93b), there is no reason to believe that ne (or "\_\_") is (cf. some of 1.3.2 above).

We thus assume that, as stated in (97), accusative cliticization is essentially a reflex of Case marking, rather than -say- subcategorization, namely that accusative clitics represent NP's which are Case marked by the verb, and not NP's which the verb is subcategorized for. In fact (96b) shows that subcategorization is not sufficient: if it

was, since intervenire is subcategorized for a direct object, just like leggere in (94b), there ought to be no contrast between the two latter examples. (95a) (and our conclusion that Clitic Climbing is not involved in the latter case) shows that subcategorization is unnecessary: in fact clitic li represents the embedded subject, and not a NP entering into the subcategorization frame of fare.

Since passives have been consistently treated on a par with ergative verbs in previous discussions (i.e. chapters 1,2), the following contrast will require further comment.

- (98a) Feci [<sub>VP</sub> intervenire Mario]  
 (I made Mario intervene)

- (98b) \*Feci [<sub>VP</sub> essere accettato Mario]  
 (I made Mario be accepted)

On the ungrammaticality of (98b) we will assume that Case assignment by the higher verb cannot "penetrate" into a passive morphology: a fact that will provide motivation for a small-clause analysis of passives in Italian (and French, given analogous facts there). Under such an analysis only two possibilities would exist, to fill the subject position in the sc: insertion of pro, as in (99a), and movement of the direct object, as in (99b).

- (99a) \*Feci [<sub>VP</sub> essere [<sub>sc</sub> pro<sub>i</sub> accettato Mario<sub>i</sub>]]]

- (99b) \*Feci [<sub>VP</sub> essere [<sub>sc</sub> Mario<sub>i</sub> accettato t<sub>i</sub>]]]

Both possibilities in (99) will be ruled out by lack of Case on the underscored phrase, in a manner analogous to the Raising case (51) above, repeated here.

- (100) \*Il tuo tono fara' [<sub>VP</sub> sembrare [<sub>S</sub> Giovanni non aver capito]]]  
 Your tone will make seem Giovanni not to have understood

Further evidence supporting this view of passive morphologies will be

discussed in 6.7 below (see also fn. 52).

We may finally note that when an ergative verb is embedded under fare as in (101b), there will be no possibility for its direct object to receive nominative Case, as there is when the verb is not so embedded, as in (101a).

(101a) pro<sub>i</sub> intervengo io<sub>i</sub>  
Intervene I<sub>s</sub>

(101b) Giovanni fara' intervenire } me  
} \*io  
Giovanni will make intervene } me  
} I }

The facts in (101b) will follow from our discussion, and in particular from our assumption of 2.3 above, that nominative Case assignment is possible when government by the subject obtains, and that when such nominative is assigned, a binding requirement ensues, namely that the nominative phrase must be coindexed with the subject, as in (101a). In fact, such coindexing between the nominative phrase "io", and the subject "Giovanni" in (101b) will be naturally prevented by disjoint reference.

#### 5.5.4 Dativization

In this paragraph I will discuss the rule which assigns dative Case to the subject of the complement of fare, as reflected either in the preposition a or in the dative morphology of a clitic pronoun. I will argue that the distribution of dativization further supports the view that ergative complements are VP's.

We recall that, while Raising verbs can never occur as complements of fare (cf. (50b) above and discussion), subject Control verbs will occur in F-S (though not in F-VP; cf. (12) above and discussion). The

following is an example:

- (102a) [<sub>i</sub>Molta gente] decidera' [<sub>S</sub>di PRO<sub>i</sub> cambiar mestiere]  
Many people will decide to change jobs
- (102b) La crisi fara'  
[<sub>VP</sub>decidere [<sub>S</sub>di PRO cambiar mestiere]] [<sub>S</sub>a molta gente ---]  
(The crisis will make many people decide to change jobs)

As briefly mentioned at the outset (5.1), and as discussed in Kayne (1975) and elsewhere, in general the embedded subject becomes a dative when it is preceded by a direct object, as the paradigm in (103) illustrates.

- (103a) Faro' [<sub>VP</sub>lavorare] [<sub>S</sub>Mario ---]  
(I will make Mario work)
- (103b) Faro' [<sub>VP</sub>leggere il libro] [<sub>S</sub>a Mario ---]  
(I will make Mario read the book)
- (103c) Faro' [<sub>VP</sub>telefonare a Piero] [<sub>S</sub>Mario ---]  
(I will make Mario phone (to) Piero)

However, given the results in (102b) it would appear that the dativization rule is sensitive, not only to direct objects, as in (103b), but also to sentential complements. We may therefore suggest the format in (104).<sup>47</sup>

(104) Dativization

In the context: { NP } —  
{ S }

We will now try to evaluate the "S" extension of the dativization rule, by reviewing a sample of verbs. In the examples, gli will indicate that dativization has applied, and (accusative) lo that it has not. The verbs in (105a) yield judgements roughly analogous to those in (105b)

- (105a) desiderare, dire, sostenere, cercare, tralasciare  
wish say claim try neglect

- (105b) Gli } feci affermare di aver letto l'articolo  
 ?\*Lo }  
 (I made him claim to have read the article)

The verbs in (106a) yield judgements roughly analogous to those in (106b).

- (106a) esitare, provare, contribuire, mirare, dubitare  
 hesitate try contribute aim doubt

- (106b) Gli } feci acconsentire a studiare la cosa  
 ?Lo }  
 (I made him consent to study the matter)

As suggested (personally) by L. Rizzi, the difference between (105b) and (106b) might be related to the fact that the complement of affermare, but not of acconsentire can pronominalize in the accusative, as in (107).

- (107a) (Di aver letto l'articolo)  
 To have read the article  
 Giovanni lo affermo' in mia presenza  
 Giovanni it claimed (claimed it) in my presence
- (107b) (A studiare la cosa)  
 To study the matter  
 \*Giovanni lo acconsenti' in mia presenza  
 Giovanni it consented (consented it) in my presence

From this, one could infer that the complement of affermare, but not the one of acconsentire, is dominated by a NP node: if so then dativization in (105b) will actually make use of the top disjunct in (104), namely "NP \_\_". The case in (106b) would indicate that the other disjunct, namely "S \_\_" exists only as a marginal extension of the grammar.

This view is partly compromised by the fact that some of the verbs in (105), at least tralasciare, do not allow complement pronominalization in the accusative:

- (108) (Di controllare la ricevuta  
 To check the receipt  
 \*Giovanni lo tralascio'  
 Giovanni it neglected (neglected it)

We are thus faced with two possibilities: That the variation between

(105b) and (106b) essentially reflects the difference between NP and S complements, or that it is internal to S complements.<sup>48</sup> Either account will leave a residue of idiosyncrasies.

We now note that ergative verbs taking sentential complements will pattern differently than either (105b) or (106b), and typically like (109).

- (109) \*Gli      } feci correre a riportare il libro  
               Lo      }  
               (I made him run to take the book back)

This will be evidence for the VP analysis of ergative complements in (110).<sup>49</sup>

- (110) Feci [VP correre Giovanni<sub>i</sub> [S<sup>PRO</sup><sub>i</sub> a riportare il libro]]  
          I made run Giovanni           to take back the book

In fact, it is easy to see that dativization as in (104) could never apply to the phrase "Giovanni" in (110) which will thus be assigned accusative (corresponding to "lo" in (109)).

It will be recalled from 1.7.2 that complements of ergative verbs do not pronominalize in the accusative. In this respect ergative verbs would thus behave analogously to those in (106) (cf. (107b)). However, since the distribution of dativization is not predictable from the S-pronominalization facts, i.e. since (109) differs not only from (105b) but also from (106b), the evidence just presented will be additional to the evidence derived from the discussion of S-pronominalization in 1.7.2, rather than subsumed by the latter.

Recalling that the ergative/(inherent) reflexive morpheme si will not appear under fare, we now note the cases in (111) where inherent reflexives vergognarsi, pentirsi will behave just like ergative verbs.

- (111a) Cio'      } \*gli      } fara' pentire di non essere andato a scuola  
               { lo      }  
               (That will make him repent for not having gone to school)

- (111b) Cio'  $\left\{ \begin{array}{c} * \underline{\text{gli}} \\ \underline{\text{lo}} \end{array} \right\}$  fara' vergognare di non aver studiato  
 (That will make him be ashamed for not having studied)

(111) will on the one hand confirm the ergative analysis of inherent reflexives of 1.8. On the other it will confirm the view implicit in the previous discussion that dativization is not predictable from the preposition preceding the lower infinitive. Compare in fact (111) with (105b) both involving di.<sup>50</sup> Some evidence supporting the analysis in (110) will also come from the linear order of constituents. Consider the following, analogous to (106b).

- (112a) ?Feci affermare di aver letto l'articolo (a) Giovanni  
 (112b) ?Feci affermare (a) Giovanni di aver letto l'articolo  
 (I made Giovanni claim to have read the article)

We will assume that (112b) is derived from (112a) via a "stylistic" rule of Complement Shift as discussed in 1.7.1 above (cf. also fn. 1). This seems rather natural since the latter rule, although probably controlled partly by discourse conditions, appears generally to place heavier phrases last. We would thus not expect with equal ease that (112a) could be derived from (112b) by the same rule. We now consider the ergative case.

- (113a) ??Feci correre a riportare il libro Giovanni  
 (113b) Feci correre Giovanni a riportare il libro  
 (I made Giovanni run to take back the book)

The asymmetry in (113) will appear natural given our discussion. In fact, given the analysis in (110), the linear order in (113a) would have to be derived from the one in (113b) by the rule of C-Shift placing the heavier phrase first. But if (113) and (112) had the same analysis there would be no reason why one linear order should be preferred in one

case and not in the other.

Some apparent counterexamples to the account of dativization just provided are found with ergative andare, venire, as for example in (114), where both dative and accusative appear possible.

- (114)      Gli    }    faccio andare a riportare il libro  
               Lo    }  
              (I will make him go to take back the book)

As will be clear from the discussion in 6.2.1 below, this apparent exceptionality will simply be due to the fact that the latter verbs allow restructuring. Thus the two possibilities in (114) will follow from the fact that the sentence is structurally ambiguous, depending on whether or not restructuring has applied to "andare" and its complement.

Some revisions to the dativization rule in (104), of no consequence for our discussion here, will be proposed in 6.4.4 below.

## 5.6 Subcategorization of Causative Verbs

It is well known that, while application of the causative rule appears possible not only with fare, but with a few other verbs (such as: lasciare, vedere, guardare, osservare, udire, ascoltare. "let, see, look, watch, hear, listen"), the rule appears obligatory only with fare. E.g.:

- (115a) \*Piero fece Giovanni riparare l'auto  
          Piero made Giovanni repair the car
- (115b) Piero fece riparare l'auto a Giovanni  
          Piero made repair the car to Giovanni
- (115c) Piero lascia Giovanni riparare l'auto  
          Piero lets Giovanni repair the car
- (115d) Piero lascia riparare l'auto a Giovanni  
          Piero lets repair the car to Giovanni

Although we have rejected the specifics of the proposal in Rouveret and Vergnaud (1980) (R&V) (cf. 5.3.1 above), we will assume that their basic insight is correct, and that in fact the apparent obligatoriness of the causative rule with fare ought to result from the workings of Case theory, namely that application of the causative rule as for example in (115b) is necessary for the assignment of Case to the embedded subject ("Giovanni"). An attempt to make this view more concrete will be presented later on in this section. We will first consider cases like (115c).

A Case-marking account of the obligatoriness of the causative rule will lead one to assume that where such obligatoriness is not found we are dealing either with Exceptional Case Marking or with Control, as in the alternative hypothetical analyses of (115c) in (116) respectively.

- (116a) Piero lascia [<sub>S</sub>Giovanni riparare l'auto] (ECM)
- (116b) Piero lascia Giovanni<sub>i</sub> [<sub>S<sup>PRO</sup></sub><sub>i</sub> riparare l'auto] (Control)  
(see 115c))

In this section I will argue that the correct analysis is (116b) and not (116a) as assumed in R&V, since the constructions in question consistently respond like cases of Control to the relevant tests.

We begin by noting that these cases are incompatible with complements involving the SI-construction exemplified in (117a), as in (117b) and just like well established cases of Control like (117c).

- (117a) (A causa delle slavine)  
Due to snowslides  
[<sub>i</sub>e] si<sub>i</sub> passa solo da Cesana  
SI passes only through Cesana  
(You can only go via Cesana)
- (117b) \*La polizia lascia passarsi solo da Cesana  
The police lets SI pass only through Cesana

- (117c) \*La polizia persuase a passarsi da Cesana  
The police persuaded SI to pass through Cesana

The ungrammaticality of (117c) will be due at least to the fact that the verb persuadere lacks the direct object it is subcategorized for, namely "NP<sub>?</sub>" in "... persuade NP<sub>?</sub> [S<sub>[NP]</sub>e] a passarsi ...]", but also to lack of Case relative to SI, as with some of the cases discussed in 1.3.1 (cf. (18), ch. 1). Under an object-Control analysis, (117b) will be explained in the same fashion, but a solution would be difficult to foresee under an ECM analysis.<sup>51</sup>

It will be recalled from 1.3.2 above, that the SI construction after O.P. exemplified in (118a) is incompatible with Control as in (118b), unlike the parallel case of passive in (118c).

- (118a) Mentre  
While

[<sub>i</sub> alcuni evasi] si inseguivano t<sub>i</sub> per le vie del centro  
some escapees SI chased through the streets of the center

altri venivano bloccati all'imbocco dell'autostrada  
others were stopped at the entrance of the highway

(118b) \*[<sub>i</sub> Gli evasi] preferivano [S<sub>PRO</sub> <sub>i</sub> non inseguirsi t<sub>i</sub>]  
The escapees preferred (for themselves) SI not to chase

(118c) [<sub>i</sub> Gli evasi] preferivano [S<sub>PRO</sub> <sub>i</sub> non essere inseguiti t<sub>i</sub>]  
The escapees preferred not to be chased

We now note the results in (119), relative to embedding the case in (118a) and the corresponding passive under the verbs in question, respectively.

- (119a) \*Vidi alcuni evasi inseguirsi per le vie del centro  
I saw a few escapees SI to chase through the streets  
of the center

(119b) Vidi alcuni evasi essere inseguiti per le vie del centro  
I saw a few escapees be chased through the streets  
of the center

Again, the alternation in (119) will follow from the existence of the

one in (118) under a Control analysis of the former, while no explanation would seem forthcoming under an ECM analysis. We may note here that cases superficially similar to (119a) but involving ergative or (inherent) reflexive si (on reflexive si see 5.7 below), will be grammatical, since si (unlike SI) is not predicted to be incompatible with Control, as we noted in 1.4.3 above.

- (120a) Vidi la barca capovolgersi (Erg.)  
I saw the boat turn (itself) over
- (120b) Vidi Giovanni arrabbiarsi (Inh. refl.)  
I saw Giovanni get (himself) angry
- (120c) Vidi i ragazzi sorridersi (Refl./ reciprocal)  
I saw the kids smile at themselves (each other)

This will support the different analyses of SI and si, which our discussion is providing.

As discussed in 3.4.2 above, sentences in which the inversion strategy of chapter 2 has applied, cannot be embedded into Control contexts, although they can be embedded into ECM contexts, whence the contrast in (121).

- (121a) \*I forced there to be more people
- (121b) I expected there to be more people

Consider now Italian (122a) and French (122b).

- (122a) pro ne arrivarono molti  
of them arrived many
- (122b) Il est arrivé trois filles  
It has arrived three girls

As noted (though not explained) for the French case, in Kayne (1975, p. 233, fn. 35), the structures in (122) cannot be embedded under the verbs in question, as in (123a), where we may expect pro, to cliticize as li, and as in either of (123b), respectively.

- (123a) \*Li vidi arrivarne molti  
 Them I saw arrive of them many  
 (parallel to a hypothetical "I saw there  
 arrive many of them")

- (123b) \*Je l'ai vu arriver trois filles  
 I it have seen arrive three girls
- \*J'ai vu il arriver trois filles  
 I have seen it arrive three girls

The facts in (123) will follow from the Control analysis of the complement of vedere/ voir. We must note however that the evidence they provide against the ECM analysis is not too strong because of the remarks in fn. 15, chapter 2, namely because of the possibility that the designated element in Italian (and analogously for French il) may be independently required to be nominative. The cases in (123) would in fact violate that requirement, even under the ECM analysis.

We now consider the "identificational" constructions of Longobardi (1980a), briefly discussed in fn. 50 above, and will recall that these cases also are compatible with ECM but not with Control, as in (124).

- (124a) I expected the winner to be John
- (124b) \*I forced the winner to be John

Since the verbs in question do not accept copular essere in their complements (for unclear -but we may assume "semantic"- reasons), we will resort to diventare (become), even though identificational with the latter appear slightly aberrant, as in (125).

- (125) ?Va a finire che il presidente della Fiat diventa Gianni  
 It will end up that the president of Fiat becomes Gianni

We now notice (126a), where the degree of ungrammaticality is clearly greater than that of (125) or of the tensed case in (126b) (where -of course- no Control could be involved) and analogous to that of (124b).

- (126a) \*Questo e' successo perche'  
 This happened because

avete lasciato il presidente della Fiat diventare Gianni  
 you let the president of Fiat become Gianni

- (126b) ?Avete lasciato che il presidente della Fiat diventasse Gianni  
 You let that the president of Fiat should become Gianni

This will support the view that Control and not ECM is involved.

Recalling now the discussion in chapter 4, we note that ECM and Control can be distinguished as in (127).

- (127a) ?I expected one interpreter each<sub>i</sub> to be assigned to them<sub>i</sub>

- (127b) \*I forced one interpreter each<sub>i</sub> to be assigned to them<sub>i</sub>

The "Control" effect of (127b) is now found with (128a) contrasting with the tensed case in (128b), as expected under our view.

- (128a) \*Lasciai un interprete ciascuno<sub>i</sub> essere assegnato loro<sub>i</sub>  
 I let one interpreter each be assigned to them

- (128b) ?Lasciai che un interprete ciascuno<sub>i</sub> fosse assegnato loro<sub>i</sub>  
 I let that one interpreter each should be assigned to them

Also from chapter 4 we will recall the generally clause bounded character of quantifier scope as has been noted in May (1977b). From that, we expect ECM cases, though not object Control cases to be generally ambiguous with respect to quantifier scope. In particular we expect (129a) to allow the interpretation indicated, while no analogous interpretation ought to be allowed for the Control case in (129b), as is in fact the case.

- (129a) They expected one customs official to check every passing car  
 They expected for each passing car, one custom official  
 (not necessarily the same one) to check it

- (129b) They forced one customs official to check every passing car  
 \*They forced for each passing car, one custom official  
 (not necessarily the same one) to check it

Although judgements are somewhat delicate, it seems fairly clear that while the tensed case in (130a) will be ambiguous as predicted, and in particular will allow an interpretation analogous to that of (129a), the case in (130b) will not be ambiguous and will thus be analogous to the Control case in (129b).

- (130a) Videro che una guardia di finanza controllava  
 They saw that a customs official checked  
 (ambiguous)

tutte le auto di passaggio  
 all passing cars

- (130b) Videro una guardia di finanza controllare  
 They saw a customs official check  
 (not ambiguous)

tutte le auto di passaggio  
 all passing cars

The facts are therefore as predicted by the Control analysis of (130b), and not by the ECM analysis.

The usual arguments concerning the impossibility of idiom chunks with Control will also apply. Consider in fact the following involving the idiom "portare aiuto" (bring help):

- (131a) Non lasciarono che neppure un minimo di aiuto  
 They did not let that even a minimum of help

fosse portato loro  
 should be brought to them

- (131b) ?\*Non lasciarono neppure un minimo di aiuto  
 They did not let even a minimum of help

essere portato loro  
 bo brought to them

The difference suggests that in (131b) the idiom chunk is not within the lower S, as it is in (131a), and in particular that (131b) is a case of Control. Analogous facts in French have been noted in Kayne (1975, p. 252, fn. 61, ex. (iv)).

We note one final point which will support our Control analysis.

Let us assume that the cases in (132) have an analysis under which VP-movement has not applied, as indicated.

- (132a) [I prigionieri] furono fatti [<sub>S<sub>i</sub></sub><sup>t<sub>i</sub></sup> lavorare nelle miniere]  
 The prisoners were made to work in the mines

- (132b) [I prigionieri] si facevano [<sub>S<sub>i</sub></sub><sup>t<sub>i</sub></sup> lavorare nelle miniere]  
 The prisoners SI made work in the mines

Namely, let us assume as may seem plausible, and as will be argued more in detail further below, that when the embedded subject moves into a Case marking position as in the passive, and O.P. cases in (132), application of the causative rule is not necessary. The i-subject counterparts to (132), namely the cases derived via pro insertion rather than NP-movement, will now be those in (133) respectively.

- (133a) \*pro<sub>i</sub> furono fatti [s<sub>i</sub> prigionieri<sub>i</sub> lavorare nelle miniere]

- (133b) \*pro<sub>i</sub> si fecero [s<sub>i</sub> prigionieri<sub>i</sub> lavorare nelle miniere]

The ungrammaticality of the cases in (133) will follow from our assumptions. In particular it will be analogous to the ungrammaticality of (74b) in ch. 2 repeated here below, and due to failure of nominative-Case assignment because of the presence of the S boundary.

- (134) \*pro<sub>i</sub> pareva [s<sub>i</sub> Giovanni<sub>i</sub> leggere molto]  
 Seemed Giovanni<sub>s</sub> to read a lot

We will now note that different results obtain with the other verbs, as for example in (135a), (135b), as expected under the Control analysis indicated and as with the well-established case of Control in (135c).

- (135a) pro furono uditi [<sub>i</sub> alcuni feriti] [<sub>S</sub><sup>PRO<sub>i</sub></sup> lamentarsi]  
 were heard a few wounded people moan

- (135b) pro<sub>i</sub> si udirono [<sub>i</sub> alcuni feriti] [<sub>S</sub><sup>PRO<sub>i</sub></sup> lamentarsi]  
 SI heard a few wounded people<sub>s</sub> moan

(135c) pro<sub>i</sub>    } furono persuasi    } [alcuni feriti] [S<sup>PRO</sup><sub>i</sub>]  
               } si persuasero    }

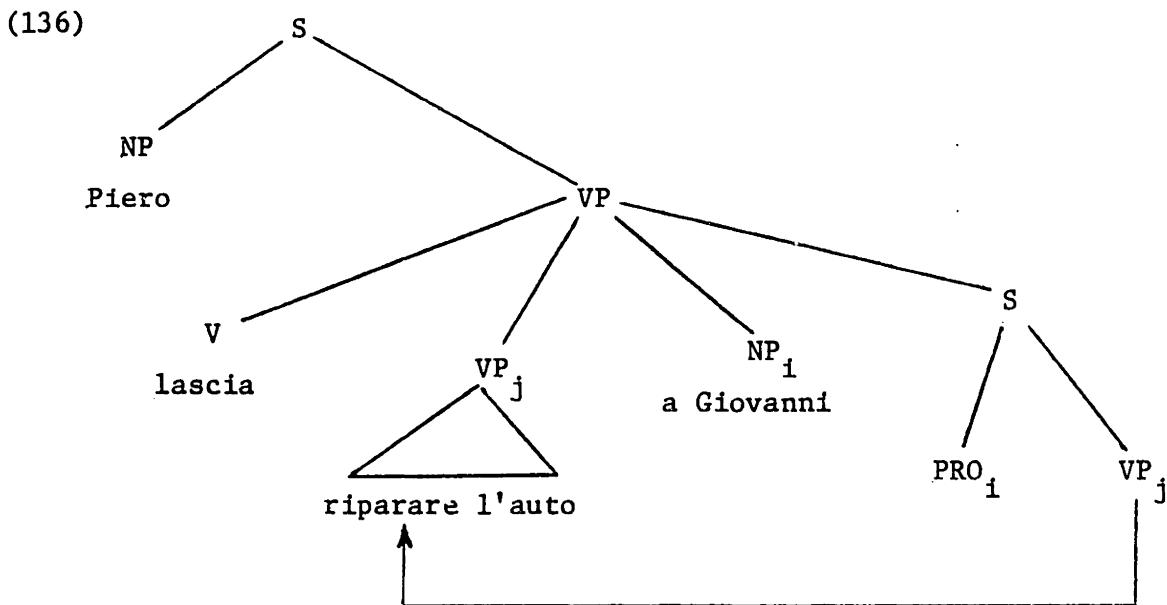
a non lamentarsi]

were persuaded    a few wounded people<sub>s</sub> not to moan  
 SI persuaded

The difference between (135) and (133) will thus support the Control analysis of the verbs in question<sup>53</sup> (and independent, notice, of whether the analysis in (132) is correct). It will also support the view that no Control is involved with fare, as assumed throughout this discussion.<sup>54</sup>

While perhaps some of the evidence presented could be reconciled with an ECM analysis, it is quite unlikely that all of it could. I will therefore conclude that the verbs with which the causative rule does not appear obligatory, as with lasciare in (115c) above, are verbs of object Control and neither cases of ECM as claimed in R&V nor, as (more or less) equivalently claimed in Radford (1979), cases of "Accusative plus Infinitive".<sup>55</sup>

We are therefore essentially concurring with Kayne (1975) in attributing to these verbs the subcategorization "NP S". Kayne however assumed that these verbs appeared also in the frame "S" (double subcategorization), and that the causative rule applied uniformly to the latter frame, as with faire. We would like to take a slightly different view, and suggest that VP-movement can apply, not only with respect to a bare sentential complement, as with fare (cf. (1) above), but also with respect to an object Control structure, as in (136) here below, which will represent our analysis of (115d) above.



This view will derive a certain amount of plausibility from our discussion of restructuring with ergative, object Control verbs andare, venire in 6.2.1 below, where we will argue that VP-movement applies in a similar Control structure. We also note that it would in any case be unclear how to prevent the causative rule from applying to the Control structure, given that we assume that these verbs trigger the rule. While -if our discussion was correct- there was abundant evidence to decide whether Control was involved in those cases in which the causative rule has not applied, as in (115c), it appears rather difficult to find empirical evidence to decide whether Control is involved as in (136), in cases in which the rule has applied. The analysis in (136) must therefore be considered somewhat tentative.<sup>56</sup> However, if the latter is correct, it may be unnecessary to assume that these verbs take a bare infinitival complement at all, although presumably the subcategorization "   S" would still be necessary, to account for the case of tensed complements, as in (131a), etc. We must further assume that like fare, these verbs take also VP complements, given that they can appear with the da phrase

("Faire-par") as in (137a), and with ergative verbs, as in (137b).

- (137a) Vidi fermare l'auto dalla guardia di finanza  
I saw stop the car by the customs official  
(I saw the car stopped by the customs official)

(137b) Vidi arrivare Giovanni  
I saw arrive Giovanni

Our discussion will thus account for the paradigm here below, noted in fn. 2, chapter 2.

- (138a) I ragazzi si video parlargli (no causative)  
The kids SI saw talk to him

(138b) Si video i ragazzi parlargli (no causative)  
SI saw the kids talk to him

(138c) I ragazzi gli si video parlare (causative)  
The kids to him SI saw talk

(138d) \*Gli si video i ragazzi parlare (causative)  
To him SI saw the kids talk

(All: We saw the kids talk to him)

In (138a), (138b) the causative rule has not applied, whence the lower position of the clitic. In (138a) O.P. has applied to the direct object of vedere. (138b) is entirely parallel to (135b) above, and involves insertion of pro in matrix subject position. The higher position of the clitic in (138c), (138d) implies that the causative rule must have applied. (138d) will be impossible because if the causative rule applies, the two verbs come to be adjacent, and there will thus be no NP position in between, as in (136), cf. the somewhat parallel facts with some restructuring cases noted in 2.2.1 and to be discussed in detail in 6.2.1 below. It is easy to see however, that the facts in (138), and the impossibility for (138b) would also follow if, when the causative rule applies, these verbs took a bare S complement, rather than a Control structure as in (136).<sup>57</sup> We now return to the case of fare.

Consider the passive here below, which we will claim is ambiguous between the two analyses in (139a) and (139b).

(139a) [<sub>i</sub> Giovanni] fu fatto [<sub>S</sub><sub>t</sub><sub>i</sub> [<sub>VP</sub> lavorare]]

(139b) [<sub>i</sub> Giovanni] fu fatto [<sub>VP</sub> lavorare] [<sub>S</sub><sub>t</sub><sub>i</sub> ---]

(both: Giovanni was made to work)

That the analysis in (139b) where the causative rule has applied, is available, is quite clear. In fact, if we replace lavorare with a verb that takes an indirect object, such as telefonare, the latter direct object will unproblematically appear cliticized to fare, as in (140). As usual, we take the higher position of clitics to imply that the causative rule has applied.

(140) Giovanni gli fu fatto telefonare  
 Giovanni to him was made to phone  
 (Giovanni was made to phone him)

Given then the analysis in (139b), if we assume with the Government-Binding theory that an embedded subject will be governed by the main verb only if  $\bar{S}$  deletion has applied, and that traces must be governed, i.e. the Empty Category Principle (ECP), it must be the case that  $\bar{S}$  deletion occurs in (139b). The empirical question at this point is whether  $\bar{S}$  deletion occurs only in conjunction with VP-movement, or with fare in general. The question is essentially whether or not the analysis in (139a) is also available, alongside of the one in (139b): if it is, then given again the ECP,  $\bar{S}$  deletion must apply independent of VP-movement, so as to allow government of the trace in (139a). Although a few facts will remain unclear, it seems to us that the analysis in (139a) is in fact available, as we assumed in some of the previous discussion, cf. (21), chapter 4, (132) above.

We first note that testing the possibility for clitics to occur

in the lower position as in (141), contrasting with (140), will fail to be too telling.

- (141) (?)?Giovanni fu fatto telefonargli  
 (see (140))

In fact, while under an analysis parallel to the one in (139a), (141) may be expected to be perfectly grammatical, if an analysis of the type of (139b) was the only one available, (141) would be expected to be worse, and comparable to other cases of failure of Clitic Climbing, such as those in (142).

- (142a) ?\*Mario fece telefonargli Giovanni  
 (Mario made Giovanni phone him)

- (142b) ?\*Mario fece leggerlo a Giovanni  
 (Mario made Giovanni read it)

In our view, what is significant is the contrast in (143).

- (143a) Giovanni fu fatto leggere il libro  
 Giovanni was made to read the book

- (143b) ??Giovanni lo fu fatto leggere  
 Giovanni it was made to read

In (143b), VP-movement must have applied given the higher position of the clitic lo. We attribute the near ungrammaticality of (143b) to the fact that the position from which the phrase "Giovanni" is moved, is subject to the dativization rule of 5.5.4 above, as in (144a), and that NP movement of dative NP's is generally impossible in Italian, as in (144b). In (144a), "NP<sub>Ø</sub>" is a null NP related to the clitic.

- (144a) Piero lo fece [VP leggere NP<sub>Ø</sub>] [<sub>S</sub><sup>a</sup> Giovanni ---]  
 Piero it made to read to Giovanni  
 (...made Giovanni read it)

- (144b) \*Giovanni fu telefonato (a)  
 Giovanni was phoned (to)

We will assume that the status of (143b) is thus related to that of (144b) even though the contrast between the two is rather sharp. On

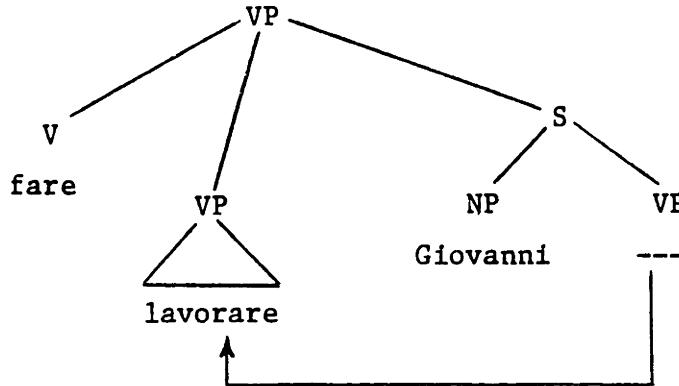
the latter contrast we will assume that the dative created by the dativization rule of 5.5.4 is somewhat different than the dative of indirect objects, and more akin to the second object of English double object constructions (e.g. "Mary" of "...give Mary a present"), as will be further discussed in some of 6.4.4. Thus the failure of (143b) may be only "analogically" related to the one of (144b). If this view is correct, the essentially grammatical status of (143a) will indicate that the trace related to the phrase "Giovanni" is not in a dativizing environment and therefore that the analysis is "Giovanni<sub>i</sub> fu fatto [<sub>S</sub><sub>i</sub> leggere il libro]", parallel to the one in (139a). We thus conclude that the analysis in (139a) is also available, alongside of the one in (139b), and that fare triggers  $\bar{S}$  deletion in general, independent of application of VP-movement. The intermediate status of (141) will be left unaccounted for.

On the ungrammaticality of (115a), namely "\*Piero fece [<sub>S</sub> Giovanni riparare l'auto]" we will assume as was discussed in 2.2.4 above that the notion of government which is required for Case assignment in Italian (Case government) is a more restrictive notion than the one which is required for well formedness of empty categories (ECP). In particular we assume that, in order for an embedded subject to be Case governed by the matrix verb,  $\bar{S}$  deletion, though necessary, is not sufficient, and that VP-movement is also necessary. Specifically we may assume that Case government can involve an S node only if it is not "lexically branching", where the latter notion is defined as "branching into phonologically realized material". Thus, given any S node, it will not be lexically branching just in case all lexical material in the VP has been moved, as for example in (145b), which is

a partial analysis of (145a).

- (145a) Piero fa lavorare Giovanni  
Piero makes work Giovanni

(145b)



In 6.4.4. below we will argue that dative assignment, as for example in (144a), is also due to government by fare, very much like accusative assignment, thus revising the dativization rule of 5.5.4.

The insufficiency of  $\bar{S}$  deletion for Case government was already implicit in some of the examples discussed above. In particular in (51), repeated here below as (146b) contrasting with (146a).

- (146a) [<sub>i</sub>Giovanni] sembrava [<sub>S<sub>i</sub></sub> non aver capito]  
Giovanni seemed not to have understood

- (146b) \*Il tuo tono  
Your tone  
fara' [<sub>VP</sub>sembrare [<sub>S</sub>Giovanni non aver capito]]  
will make seem Giovanni not to have understood

Given (146a), *sembrare* must trigger  $\bar{S}$  deletion. As discussed above (cf. (51)), we assume that the ungrammaticality of the F-VP case in (146b) is due to failure of Case assignment to the phrase "Giovanni". Since we are assuming that VP boundaries are not barriers to Case government (cf. 5.5.3), it must be that Case government is blocked by the S boundary.

Since we assume that  $\bar{S}$  deletion, though not sufficient as discussed,

is necessary for Case government of the embedded subject to obtain, we will predict that, should VP-movement apply to the complement of a verb which does not trigger  $\bar{S}$  deletion, namely a Control verb, assignment of Case to the embedded subject ought to remain impossible. In chapter 6, we will argue that this prediction is in fact correct.

We are thus assuming that Italian fare is of the same class as English Exceptional Case Marking (ECM) verbs, namely the class of verbs which are +T/+A, by the discussion in 2.6, and which trigger  $\bar{S}$  deletion. We assume that the difference between Italian and English is that English has a less restrictive notion of Case government, at least for accusative assignment (cf. the discussion of nominative assignment in 3.4.2 above, and ex. (125b), ch. 3 in particular). Therefore, under our assumptions, a verb like fare is a verb which, ignoring VP complements (i.e. F-VP) for the sake of discussion, can exist in the language only if a rule of VP-movement is available. Since it seems rather reasonable to expect that the lexicon is organized so as to guarantee maximum use, and not just use contingent on the existence of some rather marked syntactic process, we naturally expect the "fare" class to be rather small. The fact that such a class has exactly one member is thus not surprising.

The view that  $\bar{S}$  deletion in Italian is not sufficient for Case government may seem further confirmed by the paradigm in (197), chapter 3, repeated here below.

(147a) Il governo ha } dimostrato }  
                  } rivelato    }

The government has   } demonstrated   }  
                       } revealed      }

che il blocco degli affitti non contribuisce alla  
that rent control does not contribute to the  
tendenza inflazionistica  
inflationary trend

- (147b) \*Il governo ha      } dimostrato      }  
                                rivelato      }  
  
The government has      } demonstrated      }  
                                revealed      }  
  
il blocco degli affitti non contribuire  
rent control not to contribute  
  
alla tendenza inflazionistica  
to the inflationary trend

(147c) Il blocco degli affitti si e'      } dimostrato      }  
                                rivelato      }  
  
Rent control has (E) (itself)      } demonstrated      }  
                                revealed      }  
  
non contribuire alla tendenza inflazionistica  
not to contribute to the inflationary trend

Given our discussion in 1.4.2, the null hypothesis concerning the paradigm in (147) will be that the two verbs in (147a) and in (147c) are related minimally, and that they differ exactly by the value of the parameter "T": plus T, for the verb in (147a); minus T, for the verb in (147c), which will thus be a Raising verb. If so, given that the verb in (147c) must trigger  $\bar{S}$  deletion (to satisfy the ECP), we expect that the one in (147a) can also trigger  $\bar{S}$  deletion. The ungrammaticality of (147b) would thus support our view that  $\bar{S}$  deletion is not sufficient for Case government.

## 5.7 Reflexives

## 5.7.0 Introduction

In this section we will argue that the distribution of reflexive clitics is determined by the existence for the latter clitics of two different, though -as we will argue- related, D-structure analyses. Under the first analysis which we will propose, the reflexive clitic is associated with an object thematic role, namely it stands for an object argument, as with accusative or dative clitics in general, and

much as in the standard analysis of Kayne (1975). Under the second analysis, the reflexive clitic will be associated with subject rather than object thematic role. Our discussion will claim that, when they fall under the latter analysis, reflexive clitics occur in D-structures quite analogous to those of ergative verbs, thus suggesting an account of some important parallelisms between reflexives and ergative verbs.

Although some aspects of our proposal will not achieve complete empirical adequacy and will have to be left to further work, we will argue that our view differs significantly from alternatives, and much in the right direction.

Throughout the discussion we will take si to refer to reflexive morphemes in general. This must not obscure the fact that reflexives are inflected for person and number in accordance with the paradigm in (45), chapter 1 (unlike SI, which is uninflected). The existence of some minor phonological rules changing si to ci or se in the appropriate environment will be assumed and will not be pointed out in each of the relevant examples. For the discussion of the Piedmontese examples in this section, the reader is referred to 3.1.0 above for some relevant remarks on Piedmontese morphology. Differently than in chapter 3, Piedmontese subject clitics (of (1b), ch. 3), will not be given in the transliterations.

### 5.7.1 The Syntax of Reflexives

In the following, the phrase "Giovanni" is understood both as the subject and as the object.

- (148) Giovanni si guarda  
 (Giovanni looks at himself)

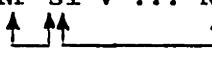
We will assume that a theory of reflexives will have to express the

fact that involved here are two "arguments" or thematic roles, one of which is of independent referential value, i.e. the phrase "Giovanni", the other which is not of independent referential value, but is rather referentially related to the first. Referring to such arguments as "antecedent" and "consequent" respectively, we may then abstractly characterize the function of si in (148), exactly as selecting such two arguments, as in (149).

(149a) Select an antecedent

(149b) Select a consequent

Our task now will be to provide a concrete characterization of these two functions of si. We will assume that corresponding to the two functions in (149), are two relations: one between si and a phonologically realized NP such as the phrase "Giovanni" in (148), the other between si and a phonologically null NP, such as the direct object position in (148). These two relations can be represented schematically as in (150), where "NP" is phonologically realized, and "NP<sub>Ø</sub>" is phonologically null.

(150) NP si V ... NP<sub>Ø</sub> ...  
  
 R<sub>1</sub>      R<sub>2</sub>

We assume that the two relations in (150) enter into L.F. representation in the form of coindexing. Let us briefly consider the relation R<sub>2</sub> first.

In assuming that the relevant object, namely NP<sub>Ø</sub> in (150) is syntactically represented (though phonologically null), we are taking a position contrary to the view, conceivable in principle, and in fact proposed for example in Grimshaw (1980), that the operation in (149b) is a lexical operation, involving the elimination of the relevant

argument from the subcategorization frame of the verb, in the presence of si. Under such a view, transitive verb guardare ("look at"), would yield intransitive guardarsi ("self-look at"), and no direct object position would be present syntactically in (148). We will note that the view that such an object NP<sub>Ø</sub> exists as in (150), would be shared under the movement analysis of reflexive clitics (Se-placement) in Kayne (1975), once the latter analysis was supplemented by trace-theory (not explicitly assumed by Kayne), namely under the minimal revision of Kayne's theory that our theoretical framework would imply. In that case, NP<sub>Ø</sub> of (150) would be the trace of si. We further note that the existence of such NP<sub>Ø</sub> will be confirmed if we assume the theory of Control current within the EST. Consider in fact a case like (151a), parallel to (151b) and (151c). Throughout the discussion we will assume that the syntax of reflexives and that of reciprocals are identical for all relevant aspects.

- (151a) Giovanni e Mario si persuasero (a vicenda)

NP<sub>Ø</sub> [<sub>S</sub><sup>PRO</sup> a iscriversi all'universita']

(Giovanni and Mario persuaded each other (reciprocally)  
to enroll at the university)

- (151b) Giovanni persuase Mario [<sub>S</sub><sup>PRO</sup> a iscriversi all'universita']

(Giovanni persuaded Mario to enroll at the university)

- (151c) [<sub>i</sub><sup>Mario</sup>] fu persuaso <sub>t<sub>i</sub></sub> [<sub>S</sub><sup>PRO</sup> a iscriversi all'universita']

(Mario was persuaded to enroll at the university)

If in (151a) NP<sub>Ø</sub> exists as indicated, it will function as a controller for PRO just as the phrase "Mario" does in (151b) or as the trace "<sub>t<sub>i</sub></sub>" does in (151c), for the object-Control verb persuadere. However, if NP<sub>Ø</sub> did not exist, some different theory of Control would have to be assumed. Further evidence for the existence of NP<sub>Ø</sub> in (150) and for

the syntactic character of (149b) will be presented below. We now turn to (149a), namely "Select an antecedent", and R<sub>1</sub> of (150).

With clitic reflexives, the range of possible antecedents is narrower than one might expect on the assumption that the relation between such antecedent and either si or NP<sub>Ø</sub> is simply constrained by the general binding conditions. In particular such antecedent will always and only be a subject (on i-subjects see 5.7.2 below), even though a direct object would also C-command both si and an NP<sub>Ø</sub> in VP. In this respect clitic reflexives differ from non clitic reflexives, such as se-stesso, etc. which do allow non-subject antecedents. These facts are well known and we will spare the reader the illustrating examples. Alone, this restriction could be expressed by assuming for si some configurational constraint analogous to the one we assumed for impersonal SI in 1.3 above, to the effect that it can only be related to a subject position.

However, slightly less well-known is the fact, well pointed out in Kayne (1975), that reflexive clitics will only be associated with non-derived (i.e. D-structure) subjects. Thus (152b), which, under the suggestion we just ventured, would be allowed as analogous to (152a), is in fact impossible.

- (152a) I ragazzi si presentarono le madri NP<sub>Ø</sub>  
(The kids<sub>i</sub> introduced the mothers to each other<sub>i</sub>)

- (152b) \*[<sub>i</sub>Le madri] si furono presentate t<sub>i</sub> NP<sub>Ø</sub>  
(The mothers were introduced to each other)

This restriction is further exemplified by the parallel case of O.P. in the SI-construction, also impossible:

- (153a) Ci si presenterà' le madri NP<sub>Ø</sub> domani  
(SI<sub>i</sub> will introduce the mothers to one another<sub>i</sub> tomorrow)

- (153b) \*[<sub>i</sub>Le madri] ci si presenteranno t<sub>i</sub> NP<sub>i</sub>  $\emptyset$  domani  
 (The mothers<sub>i</sub> SI will introduce to one another<sub>i</sub> tomorrow:  
 "We will introduce the mothers<sub>i</sub> to one another<sub>i</sub> ...")

The theory of reflexives in Kayne (1975, ch. 5) accounts for these facts by assuming that: (i), the syntax of reflexive si (French se) does indeed refer to the subject specifically (cf. in fact term 2 of Kayne's Se-P1(acement) rule, p. 375). And (ii), "reflexivization" (i.e. Se-P1) is extrinsically ordered before Passive (and, we might add, O.P.). Kayne's account is no longer available within our theoretical framework, since we assume that syntactic rules are never extrinsically ordered. We will now seek to provide an account compatible with the current theoretical framework. We will suggest that the distribution of antecedents for reflexive relations is related to the distribution of antecedents for Control relations.

Consider failure of Control in the following cases.

- (154a) \*John<sub>i</sub> was promised t<sub>i</sub> [S<sup>PRO</sup> to leave]  
 (154b) \*I want [<sub>sc</sub> John<sub>i</sub> promised t<sub>i</sub> [S<sup>PRO</sup> to leave]]

We will recall from some of the previous discussion (cf. 5.2.2) that the account of cases like (154a) as provided in Chomsky (1980) relies on the assumption that, while promise is a verb of subject-Control, in such cases "...the verb lacks a subject." (Chomsky, p. 35). The Control rule will thus fail to apply, and PRO will remain unbound. We note however, that if our discussion of small clauses in 3.3, 3.4 above was correct, the past participle in (154b) does have a subject in the configurational sense, as indicated: namely, the phrase "John". The same will also be true of the past participle in (154a), under the sc analysis of the passive morphology proposed in 3.4

above. In the latter case the subject will be " $t_i$ " in "John<sub>i</sub> was [<sub>sc</sub> $t_i$  promised ...]". Notice that it would not seem possible to account for (143) by assuming that the verb lacks a subject even though the past participle has one, because of the internal structure "[<sub>pp</sub>[<sub>v</sub>persuade]-ed]". In fact, we assume that present participles have quite parallel internal structures (involving affix "-ing", rather than "-ed"), and we would thus expect them to behave analogously. Yet, as we know, present participles behave differently in the respects relevant here. In particular, we will find "John was promising to leave" contrasting with (154a). Thus, if our discussion is correct, the "subjectless" character of past participles, which is quite plausibly considered responsible for the ungrammaticality of subject-Control cases, cannot be expressed configurationally at S-structure (or L.F.).

Let us assume that Control relations, like reflexive relations, can also be abstractly characterized as in (149) above. It is then rather obvious that lexical specifications for individual verbs play a role in (149a) for Control, i.e. in the selection of an antecedent. In fact, as is well known, in entirely parallel structures, with some verbs, such as persuade, the subject will be the controller, while with other verbs, such as promise, an object will be the controller. We will then suggest that for Control, the function in (149a) is carried out at the level at which lexical specifications are fulfilled, namely at the level of lexical insertion: D-structure. Consider then the D-structure relative to the sc in (154b) (or, for that matter, (154a)) in (155).

(155) [<sub>sc</sub> [<sub>NP</sub>e] promised John [<sub>S</sub>PRO to leave]

We assume that in (155), the referentially null phrase in subject position is selected as a controller, and that this selection will not be altered if lexical material, such as the phrase "John", as in (154b), is later inserted into that position.<sup>59</sup> For the selection of a consequent, we assume the usual rule of Control in L.F., subject to general conditions, coindexing the antecedent with the anaphoric element PRO. We will then attribute the ungrammaticality of cases like (154) to the existence of a general requirement that the two phrases that enter into the Control relation must have analogous referential values. The latter requirement will be violated in (154), since the antecedent, namely "[<sub>NP</sub>e]" is referentially null, while the consequent, namely PRO, must not be, given that leave assigns a thematic role to its subject, and given the criterion of thematic well-formedness ((38) of chapter 1).<sup>60</sup> The existence of such a requirement is well illustrated independently, by the case of verbs which take "semi-referential" subjects, such as weather verbs.

Consider in fact the paradigm here below related to some of the facts noted in fn. 18, chapter 3, where we take the subject of the without clause to be PRO (the consequent), controlled by the matrix subject (the antecedent). The table to the right summarizes the combinations with respect to referential (R), and semi-referential (SR) value.<sup>61</sup>

(156a) It never snows too long without raining	SR	SR
(156b) *One never goes out without raining	*R	SR
(156c) One never goes out without getting wet	R	R
(156d) *It never rains without getting wet	*SR	R

The case in (156a) will further contrast with cases like "\*It is impossible to get wet without raining", where the controller (it) is

"non-referential" rather than "semi-referential".

Returning now to reflexives, we will assume the selection of the antecedent to work analogously. In particular, we will assume that in the presence of si, the expression occupying the subject position in D-structure is selected as the antecedent in the reflexive relation. The ungrammaticality of the passive in (152b) will thus be parallel to that of the passive in (154b), and will be due to the fact that the phrase "Le madri" (just like the phrase "John" in (154b)), was not present in subject position in D-structure. The ungrammaticality of (153b) under the reading given in the gloss will be exactly analogous to that of (152b). Its ungrammaticality under the reading of (153a) (i.e. "...SI<sub>i</sub>...each other<sub>i</sub>...") was discussed in 2.4.1 above, and was attributed to the failure of the reflexive agreement rule to apply. Since we assume that selection of the antecedent (i.e. (149a)) is implemented by establishing the relation  $R_1$  of (150) between si and the subject position, we will assume that the latter relation is established in D-structure, let us say in the form of coindexing, and then carried over into L.F. through intermediate levels. We may note that our proposal here is conceptually analogous to Kayne's extrinsic ordering of rules. However, our overall proposal, and in particular our treatment of the relation  $R_2$  of (150) will have different empirical content than Kayne's system. This will be clear later on, especially in our discussion in 6.6 below. Implicit in the notion that  $R_1$  of (150) is established in D-structure is the view that si is base-generated in clitic position rather than cliticized by movement (as in Kayne's analysis). We now make this view explicit.

The assumption that a relation between si and the subject is

established in D-structure, does not imply necessarily that at that level of derivation si must be in clitic position as indicated in (150). Conceivably, si could be in object position, and only later cliticized by movement. However, it will seem much more natural to assume that si is in fact contiguous to the subject at the point in which R<sub>1</sub> is established, and we will assume that this is in fact correct, and that si is base generated as a clitic. (The view that reflexive si (actually French se) is base-generated as an affix on the verb, has also appeared in Vergnaud (1971), Rouveret and Vergnaud (1980), Grimshaw (1980) (on the latter see 5.7.5 below)). Further arguments for base-generation of reflexive si will be provided below, but will have to await the discussion of the interaction of reflexives with restructuring constructions in 6.6. For the moment we may note that the view that reflexive si is base-generated will make the latter rather parallel to ergative and inherent reflexive si of 1.4.3 and 1.8 above respectively. We are in fact assuming that both reflexive si on the one hand and ergative/inherent reflexive si on the other are base-generated in clitic position (notice that, at least for ergative si a movement analysis would seem rather inconceivable; cf. fn. 16 above), and that both are associated with the subject position in D-structure in some fashion: reflexive si in identifying the expression which occupies that position as the antecedent; ergative/inherent reflexive si in indicating that the latter position is deprived of a thematic role (cf. also fn. 74). This parallelism seems a rather welcome result, given the morphological identity of all si's (all si's follow the inflectional paradigm of (45), chapter 1, unlike SI which is unin-flected). We will also recall the analogy between all instances of

si in freely occurring in infinitivals, unlike SI, although this has no direct bearing on our point here. The following are relevant examples.

(157a) (Ergative)

Per indurirsi, la colla deve essere exposta all'aria  
In order to harden, the glue must be exposed to air

(157b) (Inherent reflexive)

Per addormentarsi, Giovanni legge  
In order to fall asleep, Giovanni reads

degli articoli di linguistica  
linguistics articles

(157c) (Reflexive/Reciprocal)

Per rivedersi, avevano atteso molti anni  
To see each other again, they had waited many years

(158a) (SI-construction)

\*Per mangiarsi bene, si deve andare in Italia  
In order for SI to eat well, SI must go to Italy

(158b) (SI-construction after O.P.)

\*Per accettarsi in quel circolo privato  
In order SI to accept (to be accepted) in that private club  
bisogna essere milionari  
it is necessary to be millionaires

It will be recalled from 1.3 above that the ungrammaticality of the cases in (158) follows from our assumption that SI can only be associated with a Case-marked subject, and thus not with the subject of the "per" clauses in the above, which we assume is PRO. No such requirement is (or will be) assumed for any instance of si, whence the contrasts.

Before we return to discussing the relation between si and the object position R<sub>2</sub> and make a proposal concerning its exact nature, we will note that a significant prediction ensues from the theory of ergative verbs of chapter 1, and our assumption in this section that only D-structure subjects can appear with reflexive clitics. We will in fact expect that reflexive clitics should never appear with ergative

verbs, since the latter lack a D-structure subject, just like passives.

On the whole this prediction seems to be correct, as shown by the following contrasts, where the verbs involved are ergative by virtue of the relevant tests, and in particular by the fact that they select auxiliary E.<sup>62</sup>

- (159a) Maria gli manca  
Maria to him lacks (He misses Maria)
- (159b) \*Maria e Giovanni si mancano  
(Maria and Giovanni miss each other)
- (160a) Giovanni gli e' scappato  
(Giovanni has escaped from him)
- (160b) \*I ragazzi si scappano  
(The kids escape from each other)
- (161a) Giovanni lotto' per non soccombergli  
(Giovanni fought so as not to succumb to him)
- (161b) \*I due lottavano per non soccombersi  
(The two were fighting so as not to succumb to each other)
- (162a) Giovanni continuava ad apparirle in sogno  
(Giovanni continued to appear to her in her dreams)
- (162b) \*I due continuavano ad apparirsi in sogno  
(The two continued to appear to each other in their dreams)
- (163a) Giovanni desiderava subentrargli  
(Giovanni wished to take over from him)
- (163b) \*I due desideravano subentrarsi  
(The two wished to take over from each other)

Analogous results are obtained with the cases in (164).

- (164) \* si sottostanno, si sopravvivono, si bastano,  
They... are submissive/ survive/ suffice ... to each other
- si vanno (spesso) assieme, si salgono sopra,  
they (often) go (together) with each other; they climb on  
each other
- si cadono addosso  
they fall upon each other

The ungrammaticality of these cases is particularly significant first,

because in the absence of the clitic they all have grammatical counterparts with reciprocal meaning, like (165) contrasting with (163b).

- (165) I due desideravano subentrare l'uno all'altro  
The two wished to take over one from the other

Secondly, because the distributions of reflexive and non-reflexive clitics are otherwise quite parallel, as noted in Kayne (1975, ch. 5), and as the parallel marginality of cases like the following also indicates.

- (166a) Giovanni reagi' al malvivente  
Giovanni reacted to the rogue
- (166b) ??Giovanni cerco' di reagirgli  
Giovanni tried to react to him
- (166c) ??I due cercavano di reagirsi  
The two tried to react to each other

We must note however the following apparent exceptions to the generalization proposed.

- (167a) Maria gli e' piaciuta  
Maria to him has pleased (E) (He liked Maria)
- (167b) ?I due si piacquero subito  
(The two liked each other immediately)
- (168a) Giovanni gli sarebbe assomigliato di piu' con i baffi  
Giovanni to him would have resembled more with a moustache  
(Giovanni would have resembled him ...) (E)
- (168b) I due si assomigliano molto  
(The two resemble each other very much)
- (169a) Giovanni gli sarebbe corso dietro  
Giovanni to him would have run after (E)  
(Giovanni would have run after him)
- (169b) ?I ragazzi si correvaro dietro  
(The kids were running after each other)

While the case in (167) involving piacere may be a true exception,<sup>63</sup> those in (168) and (169) involving assomigliare, correre respectively may be related at least partly to the fact that these verbs also

appear with auxiliary A and thus in non-ergative frames. Cf. "Giovanni ha corso; ?Giovanni gli ha corso dietro"; ?"Giovanni gli avrebbe assomigliato di piu' con i baffi". In spite of such possible - though rare- exceptions, we will take the facts to support rather strongly the ergative analysis of Italian "E" verbs, as well as our proposal for the syntax of reflexives. We now consider the relation between si and the null object.

We assume that the relation  $R_2$  of (150) is just one instance of the general relation between an object clitic and the relevant null phrase. We are thus suggesting an extension of the base-generation view to all object clitics. A base-generation analysis of object clitics has been proposed in Rivas (1977), and in Jaeggli (1980). In both references the central argument for such an analysis is based on the existence of clitic doubling. The argument goes essentially as follows. In languages (such as Spanish) in which a clitic can coexist with a phonologically realized phrase, there would be no source for the clitic under a movement analysis, but under a base-generation analysis one can naturally assume that languages differ in allowing clitics to be related not only to phonologically null phrases, but also to phonologically realized ones.

If the relation between a clitic and a corresponding null phrase is not established by movement, it may seem most natural to assume that it is established by an appropriate construal rule in L.F. Given our theoretical framework, the assumption that a relation between a clitic and a null object is established in L.F. has the consequences explicitly assumed in Jaeggli (1980). In particular, given the criterion of thematic well-formedness (in (38) of chapter 1), applying

in D-structure, one must assume that the null object is an R-expression, since it occurs in an argument position (thematic position), and therefore that it must be PRO rather than an empty category. Assuming further with Chomsky (forthcoming) that PRO is never governed, one will have to postulate that the clitic, here si, "retains" or "absorbs" government by the verb. This will leave the relevant position un-governed, thus allowing occurrence of PRO. Although Jaeggli's conclusions are coherent given the premises, we will draw different ones by adopting a different premise. In particular we will reject the view that the relation between a clitic and an object position is established in L.F. Instead we will suggest that the latter relation is established in D-structure. Notice that for the case of reflexive si, our discussion has already established independently the existence of a D-structure relation between the clitic and a NP, namely of the relation  $R_1$  of (150). We now assume that not only  $R_1$ , but  $R_2$  also, is established in D-structure (again in the form of coindexing), and carried over into L.F. through intermediate levels.

Under this view, it no longer follows that null phrases related to a clitic must be instances of PRO. They can now simply be empty categories. We can in fact assume a convention to the effect that an empty category related to a clitic is an R-expression with respect to thematic well-formedness, as stated in (170), where "cl" is a clitic.

(170) In "... cl ... [e] ...", "[e]" is an R-expression



The same would not be possible under an L.F. view, since at the point of application of the criterion of thematic well-formedness (D-structure),

the relation in question would not yet be established, whence the need to postulate PRO. We are thus suggesting that the relation between an object clitic and the relevant object position is established prior to or in conjunction with the thematic criterion. Empirical evidence exists which supports the D-structure over the L.F. character of  $R_2$  in (150). In particular our view, unlike the L.F. view, will provide a solution for the "reflexive problem" of 5.5.2 above. These facts will be discussed in 6.6 below, in conjunction with parallel facts relative to restructuring constructions.

Under our proposal here, object clitics become quite analogous to base-generated subject clitics such as Italian ci, Piedmontese ye, and French SE-moyen discussed above (cf. 3.1.3, 3.2.3), for which we assumed the analyses " $NP_{ci}-ci$ " (analogously for ye), " $[_i e]-SE_i$ " respectively. We will thus assume the representation in (170) to be neutral as to whether "cl" is to the right or to the left of the empty category. We note however, that (170) would have to be further qualified since we do not want the null NP's associated with ye and ci to be considered R-expressions for the thematic criterion. Rather, we want the R-character to be determined by the character of "cl". We will thus assume such -rather trivial- modification of (170). For other subject clitics, such as pro and SI we will continue to assume a movement analysis, on the grounds that (as discussed in 2.2.3 and 1.3 above respectively) these clitics can undergo NP-movement (cf. fn. 8, ch. 1; fn. 10, ch. 2). For partitive clitic ne, we might either suggest base-generation, more or less compatibly with the discussion in Belletti and Rizzi (forthcoming) (a base-generation analysis would not be compatible with the latter discussion, under

the view that null phrases related to clitics were instances of PRO), or maintain the movement analysis assumed so far. We leave the question open.

The view of cliticization that we are suggesting is thus compatible with the claim in Kayne (1975) that reflexive and non-reflexive clitics have analogous syntax, based on the observation that their distributions are parallel in significant respects. It will furthermore be essentially compatible with the arguments for base-generation based on clitic-doubling in Rivas (1977), Jaeggli (1980), without the need to postulate the rather theoretically-unattractive "government absorption" by the clitic. Furthermore it will make some desirable empirical predictions as we shall see in 6.6 below. A rather similar proposal for the analysis of clitics is argued for in Borer (1981).

We will assume that clitics are not only related to an empty category in terms of thematic role, in the sense that they enable the relevant position to play a thematic role, as implied by (170), but of course also in terms of Case-marking. In particular we will assume that empty categories related to clitics fall under the Case filter ((iv) of (6), in 0.2 above). That this is true is obvious from our discussion of subject clitics in 1.3 above, where we noted that such subject clitics (SI, ci) do not appear in infinitivals. Parallel to the convention in (170), we will thus need the convention in (171) (which was in fact already assumed in 1.3.1).

- (171) In "...cl... [e] ...", [e] has a phonological matrix
- 

Again we assume the convention neutral as to whether "cl" is to the right or to the left of the empty category. Whereas the convention in

(170) will apply prior to or in conjunction with, the thematic criterion, the one in (171) will apply prior to, or in conjunction with the Case filter. We can thus assume that it applies essentially in S-structure, thus irrespective of whether the clitic is base-generated or cliticized by movement.

In accordance with our discussion in 5.5.3 above, we assume that object clitics are essentially a "spelling out" of the Case marking features of the verb on which they appear prior to Clitic Climbing (namely D-structure, by the discussion in this section), cf. (97) above. For indirect object clitics we may assume that they essentially spell out the relevant preposition (a "to"). We will thus assume that an empty category related to a clitic, while it does fall under the scope of the Case filter as stated in (171), it will also not be blocked by the latter if the clitic has Case features. This would call for a third convention. All these conventions can be subsumed by introducing the notion "clitic-empty category chain". We can then simply say that such a chain has phonological content, as is obvious given the clitic, and that it has R-value (to the extent that the clitic does, as with lo, SI etc., but not with ci, ye etc.). We thus assume object clitics to have "Case" traits, and "R" traits. As such the chain will have to be in a Case-marking environment (given the Case filter), and involve an argument position (given the thematic criterion). We may then note that (to restate some of the discussion in 5.5.3) with object clitics (on subject clitics cf. fn. 64), it is the clitic which identifies the Case-marking environment, while the empty category identifies the argument position, as in (172) here below, given in our analyses.

(172a) Giovanni lo fa [VP <sup>intervenire</sup> NP  <sub>$\emptyset$</sub> ]  
 ↑                           ↑  
 (Giovanni makes him intervene)

(172b) Giovanni lo fa VP lavorare [S  <sub>$\emptyset$</sub>  ---]  
 ↑                           ↑  
 (Giovanni makes him work)

In fact we assume (cf. 5.5.3) that fare is the Case marker in both of (172). The chain is thus related to the matrix verb with respect to Case-marking, but to the embedded verb with respect to thematic role. In fact the empty category is assigned a thematic role by the embedded verb in either case.<sup>64</sup>

We will then say that the relation between a clitic and an object position enters into two different (and independent, as (172) illustrates) systems: The system of thematic roles (Theta system) and the system of Case-assignment (Case system). Returning to reflexives, we thus assume that si of "Giovanni si guarda" is related both to the subject position ( $R_1$  of (150)), and to the direct object position ( $R_2$ ), and that  $R_2$  enters into both the theta system, and in the Case-marking system, while  $R_1$  enters into neither one. Namely we assume that si is associated with direct object (rather than subject) thematic role, and contains the Case-features which would otherwise (i.e. if instead of a clitic there was a lexical NP) go to the direct object (not those that would go to the subject). This view will play a role in our discussion in the next subsection. We will further assume as discussed in 2.4.1 above that in Italian there is a rule of reflexive agreement operating between the subject position and si. We may view the latter rule as essentially following  $R_1$ .

We will now see how the analysis we are proposing interacts with

the system of *Essere* assignment/Past participle agreement of 1.6,  
repeated here below.

- (173a) *Essere* assignment: The auxiliary will be realized as  
*Essere* when a binding relation exists between the subject  
and a nominal constituent of the predicate.

(Where: an element is a constituent of the predicate if  
and only if it is either part of the verb morphology or  
it is governed by the verb)

- (173b) Past Participle agreement: A past participle will agree  
(in gender and number) with an element binding its direct  
object.

(Where: a direct object is the NP governed by the verb)

As briefly mentioned in 1.6 above, we assume that the relation between  
the subject and si, as in (150) above, induces E assignment, since we  
assume that clitics are part of the verb morphology with respect to  
(173a). We will thus assume that the latter relation is a "binding"  
relation in the sense of (173a). We further assume considering only  
direct objects for the moment, that the relation between si and an  
object, will trigger pp agreement as in (173b). This will account  
for the fact that reflexive constructions systematically exhibit both  
auxiliary E, and pp agreement, as for example in (174b), contrasting  
with the non-reflexive counterpart in (174a).

- (174a) Maria ha guardato Giovanni  
Maria has looked at Giovanni (A; no pp ag't)

- (174b) Maria si e' guardata  
Maria has looked at herself (E; pp ag't)

Auxiliary assignment and pp agreement, as in (174b) will thus support  
our analysis. In particular, pp agreement will support our assumption

that the reflexive clitic is related to a null object, just like other clitics.<sup>65</sup>

Our view that  $R_1$  and  $R_2$  of (170) enter into the system in (173), will be consistent with the claim in 1.6 and 5.4.2 above, that the relation which enter into the system of E assignment/ pp agreement, are only those between elements which do not have independent thematic roles. In fact, si in (170) is not in an "argument" position, and thus has no thematic role of its own (although the chain does), while both the subject and the direct object do have thematic roles.

We note that if government enters crucially into the system in (173) as we assume and as some of our discussion will imply (cf. especially 6.5.4 below, and the discussion of E assignment with Raising verbs), then in general pp agreement with clitics, as for example in (174b) will indicate that the null object NP is indeed governed and is therefore not an instance of PRO, but rather an empty category, as we are assuming.

The system in (173) is designed to limit pp agreement to the case of direct object clitics, as in (175a), excluding indirect object clitics as in (175b).

- (175a) Giovanni la ha guardata  
 Giovanni her looked at (ag't)

- (175b) Giovanni le ha comprato un libro  
 Giovanni to her bought a book (no ag't)

In particular, cases like (175b) will be excluded by assuming that the empty category related to the clitic is a PP (prepositional phrase) rather than a NP. The latter will thus not enter into the definition of direct object in (173b). We must note however, that with reflexives, pp agreement is extended to indirect object clitics, as in the following,

contrasting with (175b).<sup>66</sup>



This fact, likely related to the morphological non-distinctness of dative and accusative clitics, would seem to call for a revision of the system in (173). However we will note that such case of pp agreement as exemplified in (176) does not have the same status as the cases covered by the rule in (173b). Consider in fact the "restructured" case in (177) where, as will be clear from the discussion in chapter 6, the pp ought to agree with both the subject (*Maria*) and the clitic li by the rule in (173b).



The situation in (177) will now contrast with the following case where one might expect an analogous agreement-conflict given both the reflexive and the clitic *li*.

- (178) Maria se li e'      } \*comprata      }  
                               comprati      }  
                                Maria to herself them has bought      (\*ag't with herself)  
                                (ag't with them)

However, as the example shows, the conflict appears resolved here, with the dative (which had triggered agreement in (176)) yielding unproblematically to the accusative. Thus, if we were to extend the formulation of pp agreement to dative reflexives, we would have to build into the formulation an appropriate hierarchical condition to the effect that in the case of conflict, agreement with a dative can be overruled, while other agreements cannot. Rather than attempting to do so, we will leave (173b) as is and simply assume that it refers to

the cases of pp agreement at the top of the hierarchy, and will leave the (weaker) agreement with datives unexpressed.

The cases of "weaker" pp agreement just discussed, will further undermine the view, alternative to our formulation in (173) and rejected in 1.6 above, that pp agreement with the subject is simply a reflex of auxiliary E. In fact if pp agreement was determined by E, there would be no reason why it should be "weak" in the sense discussed, in cases like (178), since there is no sense in which E is "weaker" in (178) than in (177).<sup>67</sup>

### 5.7.2 Reanalysis

The grammar of reflexives so far developed will unproblematically allow cases involving a VP-adjoined i-subject as in (179b) under the analysis indicated and as derivative from (179a).

- (179a) (Anche) Giovanni  $\underset{i}{\text{si}}$  sarebbe comprato la macchina [ $\underset{i}{\text{e}}$ ]  
 (Also Giovanni himself would have bought the (a) car  
 (Giovanni (too) would have bought himself a car)

- (179b)  $\text{pro}_i$  [VP [ $\underset{\text{VP}}{\text{si}}$   $\underset{i}{\text{si}}$  sarebbe comprato la macchina [ $\underset{i}{\text{e}}$ ]]]  
 (anche) Giovanni $\underset{i}{\text{i}}$   
 (see (179a))

As discussed in 2.4.1, si will simply agree here with the element pro, itself agreeing with the i-subject.

However further discussion will be required by the fact that reflexive constructions with i-subjects appear in some instances to have the properties of ergative configurations in the sense of chapter 1. Consider the following alternation:

- (180a) Parecchi prigionieri si sono uccisi  
 (Several prisoners have killed themselves)

- (180b) Se ne sono uccisi parecchi  
Themselves of them have killed several  
 (Several of them have killed themselves)

We will recall from chapter 1 that an i-subject that allows Ne-C1 as in (180b) must be in direct object position, and is generally base-generated in that position. We will also recall from the discussion in 3.1 that Piedmontese appears to have two types of constructions involving i-subjects. In one type, the verb appears to agree with the i-subject, while in the other it does not. The first type was analyzed as derived by rightward movement and insertion of the element pro, thus analogously to corresponding Italian cases. The second type (possible in general only with ergative verbs), was analyzed as being base generated and involving insertion in D-structure of the subject clitic ye. We further assumed that the latter clitic was deleted by a late rule in the presence of certain other clitics (such as indirect object clitics, ergative se etc.). Consider now the Piedmontese cases in (181).

- (181a) Vaire persune' a-sun masase  
 Several prisoners have killed themselves (plural agreement)

- (181b) A-l-e masase vaire persune'  
 Has killed themselves several prisoners (singular agreement)

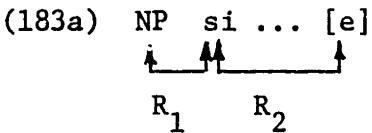
From the lack of verb agreement in (181b) we must assume, given our discussion in 3.1 above, that the latter case represents a base-generated structure. Recalling further our hypothesis of 3.2 above that French pleonastic il only occurs in base-generated structures (i.e. that, like Piedmontese ye it is only inserted in D-structure), we now note the French alternation in (182), from Kayne (1975, p. 381) (also discussed in Grimshaw (1980)).

- (182a) Trois mille hommes se sont dénoncés ce mois-ci  
 Three thousand men have denounced themselves this month  
 (plural agreement)

- (182b) Il s'est dénoncé trois mille hommes ce mois-ci  
 It has denounced themselves three thousand men this month  
 (singular agreement)

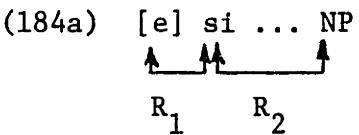
From the point of view of our discussion in chapters 1-3, the cases in (180b), (181b), (182b) are analogous. In fact they are all on the same side of the bifurcation within the class of i-subjects postulated in 1.0, namely the base-generated side.<sup>68,69</sup> We will now suggest that there exists, for reflexive constructions, an analysis alternative to the one proposed in the previous subsection, under which reflexives become quite analogous to inherent reflexives and si-ergatives (cf. 1.8, 1.4.3 above respectively), thus accounting for the facts just noted.

Recall the typical base form postulated in 5.7.1 above, as schematically represented in (183a), and relative for example, to (183b).



- (183b) Parecchi prigionieri si sono uccisi  
 (see (180a))

In 5.7.1 we assumed that the relation  $R_2$  of (183) entered into both the theta system and the Case system. In particular we assumed that the chain "si-empty object" played a thematic role and that si spelled out the Case traits that would otherwise (i.e. in its absence) go to the object. Let us now consider the possibility that  $R_1$  might enter into the theta system instead of  $R_2$ , everything else remaining the same. This would predict the base form in (184a), an instance of which would be (184b).



- (184b) [NP<sub>e</sub>] si sono uccisi [NP<sub>p</sub>parecchi prigionieri]  
 (see (180))

Under this hypothesis, the chain "empty subject-si" would come to play a thematic role, and si would continue to spell out the Case traits that would otherwise go to the object, much as before. This means that the object, namely "parecchi prigionieri" in (184b) would fail to receive accusative Case. Given the empty subject, and the failure of accusative marking, the configuration in (184a) is essentially the one instantiated by ergative verbs.<sup>70</sup>

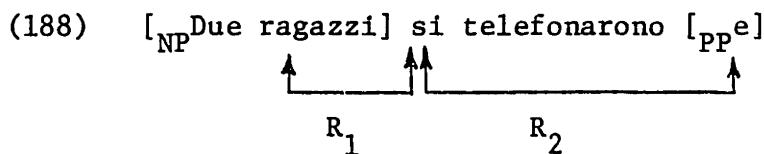
We will assume that this hypothesis is roughly correct, although some further comments will be presented below. We may note that this hypothesis involves minimal assumptions. For example, the relation R<sub>1</sub> between the subject and si is required independently for the analysis in (183a), and no changes in the subcategorization specification of the verb are ever required. In fact the same subcategorization specifications will be satisfied under the analysis in (183a), as under the alternative analysis in (184a), as in non reflexive constructions.

Given the parallelism with ergative verbs just noted it is easy to see that the facts in question would be accounted for. For example insertion of pro in (184b), would give rise to a form analogous to (180b) in which Ne-C1 would be possible. The i-subject would be assigned nominative under government by the subject position, as discussed in 2.2.4 above. Analogously with the Piedmontese and French cases, where insertion of ye and il respectively would occur. Cases like (180a) ("Parecchi prigionieri si sono uccisi") would therefore have two possible derivations: From a base form like (183a), and from one like (184a) via NP movement.<sup>71</sup>

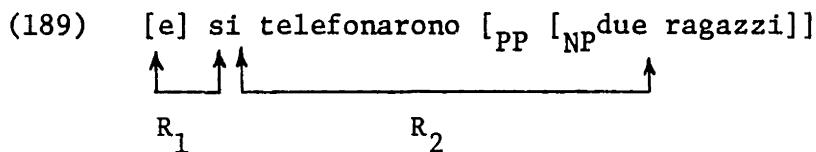
We now note that cases parallel to those in (180b), (181b), (182b) but involving indirect rather than direct objects, are on the whole impossible, as exemplified by the b cases here below, contrasting with the corresponding a cases.

- (185a) Due ragazzi si telefonarono  
(Two kids phoned each other)
- (185b) \*Se ne telefonarono due  
Each other of them telephoned twos
- (186a) Dui mei amis a-sun telefunase  
Two (of) my friends have telephoned each other
- (186b) ?\*A-1-e telefurase dui mei amis  
Has telephoned each other two (of) my friends
- (187a) Deux enfants se telephonaient  
(Two kids phoned each other)
- (187b) \*Il se telephonait deux enfants  
It has telephoned each other two kids

The impossibility for the b cases above will follow rather reasonably from our theory. Consider first our analysis of the a cases, as provided by our discussion in 5.7.1 above. Taking the Italian case to illustrate, the latter will have the analysis in (188).



We now assume that the alternative analysis we are developing here can give rise to the D-structure form in (189).



We may assume (189) to be well formed as a D-structure, analogously to the one in (184a). While accusative clitic si in (184a) retains the traits relative to accusative Case, dative clitic si in (189) will

retain the traits relative to dative Case, namely -we may assume- the preposition a, just as in (188). However, (189) will not result in a well-formed S-structure. We will claim in fact that while pro may be inserted in subject position, the phrase "due ragazzi" will fail to be assigned nominative by the subject (cf. 2.2.4 above) due to the fact that the presence of the PP boundary prevents government. Further problems might arise due to cliticization of ne from the PP, but these would only affect the Italian case, not those in (186b) (187b). (We thus assume that in the grammatical "Si telefonarono due ragazzi", the i-subject "due ragazzi" is adjoined to VP, analogously to (179b)). The ungrammaticality of the b cases in (185)-(187) would thus be related to that of the passive in (190b) here below, contrasting with (190a) (cf. discussion in 2.3.1 above).

- (190a)  $\text{pro}_i \text{ furono invitati } [\text{NP}_i^{\text{i ragazzi}}]$   
           Were invited the kids<sub>s</sub>

- (190b) \* $\text{pro}_i \text{ furono telefonati } [\text{PP}^{\text{a}} [\text{NP}_i^{\text{i ragazzi}}]]$   
           Were telephoned to the kids<sub>s</sub>

Correspondingly we assume that NP movement applied to (189) would give rise to a violation of the Empty Category Principle (ECP) (analogous to the one we invoked in 2.3.1 to account for failure of P stranding in Italian), since again government would be blocked by the presence of the PP boundary. We thus assume that the a cases in (185)-(187) have D-structure forms like (188) as the only source.

We must also note however, that the ungrammaticality of the b cases in (185)-(187) is significantly milder than that of cases like (190b). We attribute this to the fact, to be further discussed below, that the PP contains some lexical material not in the NP, only in

(190b), and not in the other cases, if the latter have analyses like (189). (The notion which we are appealing to here is that of "L-containment", cf. Chomsky (1973)). We assume that, due to this difference, government across the PP boundary fails to different degrees: weakly in (189), strongly in (190b). This will be reminiscent of our discussion in 2.6 where we suggested that Case-government of a subject across an S boundary succeeds, only if the S contains no other phonologically realized material.<sup>72</sup>

The account we have just proposed will contrast with the view, inherent in all major proposals which have appeared so far, that cases like (187b) are derived from the corresponding case like (187a) via rightward NP-movement. We now note that the latter view will fail to predict the difference between direct and indirect object reflexives which we just pointed out and, depending on assumptions, might predict quite the opposite difference. Anyone claiming for example that the il-construction is derivative (e.g. "il est arrivé trois filles" from "trois filles sont arrivées"), will have to assume that the presence of a direct object impedes the derivation while the presence of an indirect object does not (cf. in fact Kayne (1975, p. 379 and ff.), and "\*Il l'a frappe une idée: It struck him an idea" versus "Il lui est venu une idée: It came to him an idea"). Consider now the putative source, namely (187a). It will have to be the case either: (i), that no object position related to the reflexive exists, as in a theory such as Grimshaw's (on the latter see 5.7.5 below), or such as Kayne's if the latter is not supplemented by trace theory; or (ii), that the relevant object position is syntactically represented, as was argued above. In the first case, no difference

would be predicted between (182b) and (187b). In the second case (182b) will be predicted impossible given the presence of the direct object, while (187b) ought to be possible, given no such presence.

This discussion will thus confirm, not only the analysis of reflexives just proposed, but also the base generated character of French il-construction, and correspondingly that of its Italian and Piedmontese analogues.<sup>73</sup>

### 5.7.3 Reflexives in sc Relatives

It will be recalled from 3.6.2 above, that we assume that past participles in sc relatives do not assign a thematic role to the subject of the sc, and that as a result the latter subject will have to be empty in D-structure. This provision, conjoined with the impossibility for P-stranding in Italian, will predict that sc relatives ought to be possible with both transitive and ergative verbs, but not with intransitives, as in the following.

- (191a) Uno studente [sc<sub>i</sub> PRO<sub>i</sub> arrestato t<sub>i</sub> ieri sera] ...  
           A student               arrested last night ...

- (191b) Uno studente [sc<sub>i</sub> PRO<sub>i</sub> arrivato t<sub>i</sub> ieri sera] ...  
           A student (who has) arrived last night ...

- (191c) \*Uno studente [sc<sub>i</sub> PRO<sub>i</sub> telefonato (a) t<sub>i</sub> ieri sera] ...  
           A student       phoned (to)              last night ...

- (191d) \*Uno studente [sc<sub>i</sub> [e] telefonato a Piero ieri sera] ...  
           A student (who has) phoned to Piero last night

The variant of (191c) in which the preposition is present will be ruled out -we assume- by the ECP, since the analysis would be "...[PP<sup>a</sup> [NP<sup>t<sub>i</sub></sup>]]..." and the trace would fail to be governed, due to the presence of the PP boundary. The variant in which the preposition is not present will

have the analysis "...V [<sub>NP<sub>i</sub></sub><sup>t<sub>i</sub></sup>] ..." and will thus violate the subcategorization specifications for telefonare requiring that the latter verb appear with an indirect rather than a direct object. The ungrammaticality of (191d) will be due to the fact that nothing has filled the empty subject position, and to the lack of a relativized phrase. No analogous problems arise in either (191a) or (191b), which are thus well-formed. (On the difference between Italian and English with respect to sc relatives with verbs like arrive/ arrivare, see 3.6 above).

We will now note the possibility for the following cases, involving ergative capovolgersi and inherent reflexive accorgersi, respectively.

- (192a) L'auto capovoltasi nell'incidente era la Ferrari  
The car (which had) rolled over in the accident was the Ferrari
- (192b) Un pilota accortosi dell'incidente diede l'allarme  
A driver (who had) become aware of the accident gave the warning

The cases in (192) are unproblematically accounted for by our assumptions of 1.4.3 and 1.8 above respectively, that verbs like capovolgersi and accorgersi are essentially ergative verbs. These cases will thus be quite analogous to the case in (191b).

Next we note that some (non-inherent) reflexives are also possible in sc relatives, as in (193b) analogous to (193a).

- (193a) Un individuo si accuso' di aver assassinato il presidente  
(An individual accused himself of having assassinated the president)
- (193b) Un individuo accusatosi di aver assassinato il presidente  
(An individual (who had) accused himself (self accused)  
of having assassinated the president ..  
fu creduto pazzo  
was deemed insane)

The existence of sc relatives such as (193b) will represent rather

strong evidence in favor of our proposal in 5.7.2 above that reflexives can appear in D-structure configurations analogous to those of ergative verbs. We note in particular that the reflexive involved in (193b) could not be analogous to an intransitive verb, which would be the case if si eliminated the relevant object from the subcategorization frame of the verb (as claimed in Grimshaw (1980)). In fact, intransitive verbs do not appear in sc relatives, as illustrated in (191) above. The reflexive in (193b) could also not be analogous to a transitive verb whose direct object has been cliticized, as it would be under Kayne's (Se-placement) analysis, or under the analysis proposed in 5.7.1 above, since non reflexive clitics behave differently, as in (194).

- (194a) Un individuo lo accuso' di aver assassinato il presidente  
(An individual accused him of having assassinated  
the president)
- (194b) \*Un individuo accusatolo di aver assassinato il presidente  
(An individual (who had) accused him of having assassinated  
fu creduto pazzo  
the president was deemed insane)

Nor could one hold the view that si in (193b) is simply the clitic version of reflexive se-stesso, since the latter behaves quite differently too, as in (195).

- (195a) Un individuo accuso' se-stesso di aver assassinato  
An individual accused himself of having assassinated  
il presidente  
the president
- (195b) \*Un individuo accusato se-stesso di aver assassinato  
An individual (who had) accused himself of having assassinated  
il presidente fu creduto pazzo  
the president was deemed insane

The ungrammaticality of both (194b) and (195b) is of course straightforwardly accounted for within our discussion since we predict that

subjects could never be relativized in sc relatives. The latter cases will thus be analogous to the ungrammatical (191c).

We must now note that although our proposal of 5.7.2 comes close to providing an answer for the grammaticality of cases like (193b), it is not quite satisfactory. In fact, we assumed that the chain empty subject-si fulfilled a thematic role, the one assigned by the verb to the subject. However, when applied to (193b) this view will conflict with our assumption that past participles do not assign a thematic role to the subject. Instead of assuming that the chain plays a thematic role we will revise our view and assume that si itself "absorbs" the subject thematic role at the lexical level. Namely we will assume that, like ergative si, reflexive si (at least for the cases that require our second analysis), is affixed in the lexicon, and that the result of this operation is that the verb no longer assigns a thematic role to the subject, as with ergative si. Under this view, we can assume for (193b) that transitive verbs accusare gives rise to accusarsi, the latter having the specification "-T" in the sense of 2.6 above. Derivational morphology will then yield past participle accusatosi, also bearing the specification "-T". We will recall from 3.6.2 that the past participles which enter into sc relatives can be derived even when the specification "-T" obtains "vacuously" as with past participles of ergative verbs. The derivation must be possible in that order. In fact if one assumed that only the order "past participle derivation; si-affixation" was possible, one would have to assume that si can be affixed to verbal elements that do not assign thematic role to the subject (such as past participles), and would thus falsely predict that si could be affixed to ergative verbs

(cf. '\**Maria e Giovanni si mancano*/ Maria and Giovanni are lacking to (miss) each other" of (159b) above). Thus while reflexive si will not occur with ergative verbs under our analysis of 5.7.1 for the reasons therein discussed, it will continue to not occur even under the alternative analysis under discussion here, if we simply assume that si must absorb the subject thematic role. In fact with ergative verbs there will be no such thematic role to absorb.

In essence what we are thus suggesting is that, given a diadic predicate such as accuse, it can either appear in the frame NP-accuse-self, or undergo a lexical process which gives rise to the monadic predicate self-accuse, which is an ergative verb. This view follows Grimshaw (1980) partially, as will be discussed in 5.7.5 below.

We note that the revision from assuming that the chain plays a thematic role to assuming that si absorbs the subject thematic role, cannot be extended to clitics which are thematically related to objects for reasons which have already been discussed. In particular it will not be possible to suggest that object clitics "absorb" the thematic role which the verb would assign to the relevant object position, since object clitics can originate on a verb different than the one which assigns the relevant thematic role, as shown by the examples in (172) above and relevant discussion (analogous examples can be provided with reflexive clitics). On this interesting asymmetry between subjects and objects we have nothing enlightening to say.

The sc in (193b) will thus have the D-structure in (196a) and the S-structure in (196b) here below.

(196a) [sc[e] accusatosi PRO]

- (196b) [sc<sup>PRO</sup><sub>i</sub> accusatosi t<sub>i</sub>]

Given our assumptions and the discussion in the previous subsection, we will expect that there should be no case analogous to (193b) involving an indirect object. This appears correct:

- (197a) ?\*Due ragazzi telefonatisi di nascosto  
 Two kids (who had) phoned each other secretly  
 si comunicarono i risultati  
 exchanged results

- (197b) ?\*Due giovani sorrisisi passando  
 Two youths (who had) smiled at each other in passing  
 si erano gia' visti altrove  
 had seen each other before

- (197c) \*Un giovanotto appena compratosi l'auto  
 A young man (who had) just bought himself the car  
 fu pure coinvolto nell'incidente  
 was also involved in the accident

The ungrammaticality of these cases will be regarded as analogous to that of the b cases in (185)-(187). Thus we will assume for example that the sc in (197a) has the D-structure in (198a) and the S-structure in (198b).

- (198a) [sc[e] telefonatisi [PP<sup>PRO</sup>]]  
 (198b) [sc<sup>PRO</sup><sub>i</sub> telefonatisi [PP t<sub>i</sub>]]

We assume that the D-structure in (198a) is well formed as was analogously assumed for the one in (189) above. However we assume that the S-structure in (198b) involves a violation of the ECP, due to the fact that the PP boundary prevents the trace t<sub>i</sub> from being governed.

Though ungrammatical, at least the cases in (197a), (197b) will contrast very sharply with cases like (191c) above ("\*Uno studente telefonato a"), involving relativization of an indirect object in the absence of the reflexive clitic. We will assume this difference to be due to the fact that government of an NP across a PP boundary

fails to different degrees depending on whether or not the PP contains a lexical preposition, as was suggested in the previous subsection. We will attribute the relatively more ungrammatical status of (197c) to a violation of the Case filter. In fact, since we assume that past participles do not assign accusative, we will expect the phrase "l'auto" to fail to receive Case.

The contrast between direct and indirect object reflexives we just noted will provide further evidence against a Wh-be deletion analysis of sc relatives. As will be recalled from 3.6, the latter analysis could be reconciled with the fact that ergative verbs can appear in sc relatives only by extending Wh-be deletion to auxiliary be (E). If so extended, Wh-be deletion will then allow the case in (193b), but will fail to prevent the cases in (197). In fact, no contrast is found between the respective "non-reduced" counterparts:

(199a) (parallel to (193b))

Un individuo che si era accusato  
 (An individual who had accused himself  
 di aver assassinato il presidente fu creduto pazzo  
 to have assassinated the president was deemed insane)

(199b) (parallel to (197c))

Un giovanotto che si era appena  
 (A young man who had just  
 comprato l'auto fu pure coinvolto nell'incidente  
 bought the car was also involved in the accident)

This difficulty will be additional to the problem, noted in 3.6 above, that a derivation via Wh-be deletion here would involve "relocating" the clitics onto the past participle.

Concerning the extension of the scope of this subsection to Piedmontese and French, we note that while sc relatives are not very natural in Piedmontese, to the extent that they are possible they seem

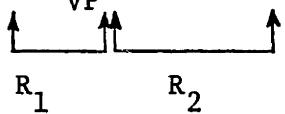
to essentially duplicate the Italian data. As for French, we note that, as the contrast in (200) indicates, cliticization in sc's does not seem possible. This will make the relevant data unavailable in French.

- (200a) La ragazza presentatagli ieri sera ...  
           The girl introduced to him last night ...
- (200b) \*La fille    lui presentee    hier soir ...  
           presentee lui  
           (see (200a))

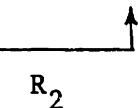
#### 5.7.4 Reflexives with Fare

In the previous subsections we have suggested that reflexives can appear in two possible D-structure forms, such as those schematically represented in (201) (where we mean si to stand both for Italian si and for French se; and "NP" to stand for an R-expression).

- (201a) NP [VP<sup>si</sup> V ... [e] ...]



- (201b) [e] [VP<sup>si</sup> V ... NP ...]



We assume that in both (201a), (201b), si is related to the object as indicated by  $R_2$  in terms of Case, and in particular that it absorbs the relevant Case that would otherwise go to the relevant object (accusative or dative). We further assume that in (201a), si is thematically related to the object position, also as indicated by  $R_2$ , in the sense that the chain si-empty object fulfills the object thematic role. In (201b), we assume that si is thematically related to the subject, but in the sense that it has absorbed the subject-thematic role at the lexical level. Under this view the relation  $R_1$  of (184a), (189) above, is no longer assumed to exist, at least not

in the same sense.<sup>74</sup>

Considering now (201a), we will naturally expect given previous discussion, that it could not be embedded under fare (French faire) at all. In fact given the general correspondence between the relations that enter into the system of E assignment/ pp agreement and those which are "unrecoverable" after movement, as assumed in 5.4.2 above, and given the fact that  $R_1$  triggers E assignment as we assumed in 5.7.1, we will expect that VP movement could not successfully apply to structures like (201a) (on E assignment under the analysis in (201b), cf. fns. 71, 74). Also, we would not expect that the VP in (201a) could be base-generated under fare much for the same reasons, namely because  $R_1$  would remain unfulfilled, and furthermore because the reflexive expression represented by the chain si-empty object would remain without an antecedent. Considering now (201b), we will predict, given its analogy with ergative D-structure configurations, that it should only be possible to embed it under fare, as a VP, by base-generation (cf. discussion relative to ergative verbs in 5.4 above). In this subsection we will argue that these predictions are in fact correct and that reflexives occur under fare, only as cases of F-VP, not F-S. For Italian however, the predictions will be further narrowed. Let us in fact consider the Italian case first, and then turn to French.<sup>75</sup>

Given the obligatory rule of reflexive agreement, operating in Italian between all instances of the morpheme si (i.e. ergative; inh. reflexive; reflexive) and an adjacent subject, as assumed in 2.4.1 and 5.4.1 above, we predict for Italian that reflexive si's originating on the embedded verb should never be possible. The

overall prediction for Italian causative constructions is therefore that embedded reflexives ought to be impossible altogether. This appears correct given for example (202a), and (202b) in the interpretation given.

- (202a) \*Maria fece [<sub>VP</sub>accusarsi Piero]  
 (Maria made Piero accuse himself)

- (202b) \*Maria si fece [<sub>VP</sub>accusare Piero]  
 (see (202a))

(202a) will be ruled out by the failure of reflexive-agreement, given the lack of a subject for accusare. (202b), conceivable as derivative of (202a) via Clitic-Climbing, will be ruled out by naturally assuming that the outcome of reflexive-agreement, operating here between si and Maria, must be consistent with the interpretation: a condition clearly violated here. Recall that we are only considering the interpretation "Maria made Piero accuse himself". Under the interpretation "Maria made herself accuse Piero", (202b) is in fact grammatical, but as we will argue below, it will then have a different analysis (cf. (208c) below).

For Italian we shall assume that, when a non-ergative verb is embedded in F-VP with no da (by) phrase present (as in (203)), thematic subjecthood will be freely construed, constrained only by pragmatic factors. In the general case, such construal will thus freely select a reflexive reading, whence the ambiguity of the following:<sup>76</sup>

- (203) La paura fece uccidere um prigioniero  
 (Fear made someone kill a prisoner/  
 Fear made a prisoner kill himself)

In other cases pragmatic factors will resolve the ambiguity, as in (204a) brought to my attention by A. Belletti, and in (204b).

- (204a) Maria fece guardare Giovanni allo specchio  
 (?\*Maria made someone look at Giovanni in the mirror/  
 Maria made Giovanni look at himself in the mirror)

- (204b) Maria fece riparare l'auto  
 (Maria made someone repair the car/  
 ?\*Maria made the car repair itself)

The factors at work in (204a) will be the speaker's knowledge of idioms, and in particular the knowledge that the expression guardare NP allo specchio is idiomatically associated with reflexive interpretation (as in "Maria si guarda allo specchio" versus "?\*Maria guarda Giovanni allo specchio"). At work in (204b) will be the relevant extralinguistic knowledge attributing near-nonsensical status to the reflexive interpretation.

This account seems to provide a satisfactory approximation to the empirical facts, and we will assume it is correct, at least as a "core" system. For a somewhat more detailed discussion of the facts, see Radford (1979) who points out the existence of some variation among speakers as to the general possibility for reflexive interpretation in these cases.

As briefly mentioned in 5.4.1 above, we are assuming that reflexive-agreement operates differently in French. This assumption is independently justified, given for example the contrast between (205) and (206).

- (205a) Molti terroristi si sono finalmente denunciati  
 (Many terrorists have finally denounced themselves)

- (205b) pro si sono finalmente denunciati molti terroristi  
 (see (205a))

- (206a) Beaucoup de terroristes se sont finalement dénoncés  
 (see (205a))

- (206b) Il s'est finalement dénoncé beaucoup de terroristes  
 (It has finally denounced themselves many terrorists)

In (205), we are attributing the invariance of both verb agreement and past participle agreement to the inflected character of pro, namely to the fact that the latter agrees in person, gender and number

with the i-subject. This view, discussed in 2.4 above, is supported by the fact that in (206), where the obviously-uninflected element il is involved, there is no parallel invariance either as to verb agreement or as to past participle agreement. We thus assume that both verb agreement and past participle agreement consistently refer to the element in subject position here, both in the French and in the Italian case. If we now assume that si/se bears the same person and number features as the phrase molti terroristi/ beaucoup de terroristes respectively throughout, the view that reflexive agreement consistently operates with respect to the NP in subject position will be tenable for Italian but not for French.<sup>77</sup> We will thus assume that for French se it is at least possible to agree with the relevant object NP, here "beaucoup de terroristes".

We now consider the French counterparts to (202a), (202b) respectively.

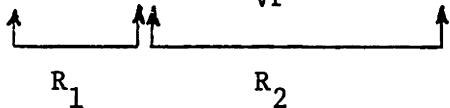
- (207a) Marie a fait [<sub>VP</sub><sup>s'accuser</sup> Pierre]  
(Marie made Pierre accuse himself)
- (207b) \*Marie s'a fait [<sub>VP</sub><sup>accuser</sup> Pierre]  
(see (207a))

The difference between (207a) and the ungrammatical Italian counterpart (202a) will now be attributed to the success of the reflexive agreement rule in French versus its failure in Italian, as with the case of ergative (and inherent reflexive) si/se discussed in 5.4.1 above. As with those cases, the failure of se to "climb" in (207b) will be attributed to the strictly local character of the agreement relation. We are again ignoring the interpretation "Marie made herself accuse Pierre".

This discussion has ruled out all possibilities that a si/se

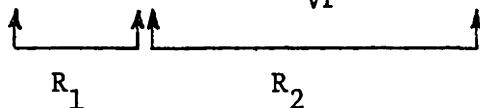
originating on the lower verb could appear on the matrix verb. This will mean that when si/se appears cliticized to fare/faire it must originate on that verb, as in the cases in (208) (given here in the analysis of (201a) rather than that of (201b)).

- (208a) Giovanni si fa [<sub>VP</sub>aiutare [e] da Maria]



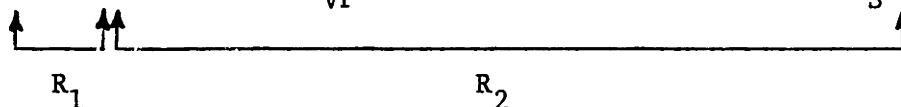
Giovanni makes help himself by Maria  
(Giovanni has Maria help him)

- (208b) I ragazzi si fanno [<sub>VP</sub>cadere [e] in acqua]



The kids make fall each other in the water  
(...make each other fall ...)

- (208c) Le donne si facevano [<sub>VP</sub>parlare dei rispettivi figli][<sub>S</sub>[e]---]



The women made talk about the respective children each other  
(...made each other talk ...)

We will note that cases like (208) will be evidence for the syntactic character of the relation  $R_2$ , and against the view that such relation is lexical, namely that reflexive si in general absorbs the object argument from the subcategorization frame of the verb. In fact the relation could not be lexical here since the argument involved is in each case not an argument of fare, but an argument of its complement. We return to the lexical alternative in the next subsection. The syntactic, but "D-structure" versus "L.F." character of  $R_2$  will be defended in 6.6 below in connection with the discussion of the "reflexive problem" of 5.5.2 above, namely of the type "\*Giovanni si<sub>i</sub> fa [<sub>VP</sub>aiutare [<sub>i</sub>e]] [<sub>S</sub>a Maria ---]/ (Giovanni makes Maria help

himself)" contrasting minimally with (208a). We have thus covered all cases involving matrix reflexives. With respect to the latter, French does not differ from Italian, and no difference is predicted by our discussion. We thus return to embedded reflexives in French.

As predicted by our hypothesis, namely by the quasi-ergative analysis of reflexive complements of fare/faire, reflexives generally pattern like si/se ergatives and inherent reflexives here. The only point on which they appear to differ is that, as noted in Ruwet (1972), and as mentioned in 5.4.1 above, while ergative and inherent reflexive se is sometimes omitted under faire, reflexive se never is, whence the difference between (209) and (210).

- (209a) La victime s'est assise  
The victim (herself) sat down
- (209b) Je les ai fait asseoir  
I them made sit down  
(I made them sit down)
- (210a) Pierre s'est accusé  
(Pierre accused himself)
- (210b) Marie a fait accuser Pierre  
(Marie made someone accuse Pierre/  
\*Marie made Pierre accuse himself)

We will tentatively attribute the impossibility to omit reflexive se, versus the possibility to omit (at least sometimes, cf. discussion in Ruwet (1972, 3.4)) ergative and inherent reflexive se, to the fact that the former though not the latter has a certain thematic content, by assuming that it plays the thematic role of subject. This view may seem supported by the fact that the complement of faire in (207a), i.e. "s'accuser Pierre" is not parallel in meaning to a corresponding ergative such as "s'asseoir la victime".<sup>78</sup> In fact, while the former will have the interpretation "Pierre accuse himself" or "Pierre self-

accuse", the latter will not have the interpretation "the victim sit herself down" or "the victim self-sit down", at least not in a parallel sense. The view that reflexive se of the analysis in (201b) (i.e. the "lexical" reanalysis), is the thematic subject in some respects, may seem further confirmed by the weak yet noticeable contrast between the Italian sc relatives in (211).

- (211a) \*Uno studente [<sub>sc</sub><sup>PRO</sup> <sub>i</sub> informato <sub>t</sub><sub>i</sub> [<sub>S</sub> di PRO aver letto  
A student                    informed                to have read  
un certo articolo]] mostro' grande interesse  
a certain article    showed great interest

- (211b) ??Due studenti [<sub>sc</sub><sup>PRO</sup> <sub>i</sub> informatisi <sub>t</sub><sub>i</sub> [<sub>S</sub> di PRO aver letto  
Two students            informed each other    to have read  
certi articoli]] decisero di lavorare assieme  
certain articles decided to work together

As a verb of subject-Control, informare will be predicted impossible in past participle constructions in general, for the usual reasons: lack of a D-structure subject and hence of a controller for the embedded PRO. This will account for (211a). The comparably more felicitous (211b) will then confirm our view since if si has become the thematic subject, we may assume that it can function (though -it would seem-marginally) as a controller .

The non-ambiguity of (210b) versus the ambiguity of the parallel Italian case in (203) may be reasonably attributed to the fact that in French but not in Italian there is a form uniquely associated with reflexive interpretation (i.e. (207a)). Analogous would therefore be the lack of ambiguity of the Italian "Le donne fanno sempre [<sub>VP</sub><sup>parlare</sup> dei figli]" which allows the interpretation "Women always make one talk about the children", but not very well "Women always make themselves/ each other talk about the children", the latter interpretation

being associated with a form of the type in (208c) above.

Our claim is that, contrary to all well-known proposals, (207a) (i.e. "Marie a fait s'accuser Pierre") is not derived via application of VP-movement (or its counterpart in relevant discussions) from "Marie a fait [S Pierre [VP<sub>s</sub>'accuser ...]]" but base generated in the analysis given. We are thus claiming that here the phrase "Pierre" is not the subject of the embedded verb as generally believed, but is in fact its direct object. This claim will be directly supported by the fact that the phrase in question appears in the accusative and not in the dative, namely by the contrast between (212a), where (i) represent the analysis we are adopting, (ii) the one which we are rejecting; and the case in (212b) involving a non reflexive clitic.

(212a) (i) Our analysis

Marie a fait [VP<sub>s</sub>'accuser Pierre]

(ii) Alternative analysis

Marie a fait [VP<sub>s</sub>'accuser NP<sub>Ø</sub>] { Pierre  
\*a Pierre

(Marie made Pierre accuse himself)

(212b) Marie l'a fait [VP'accuser NP<sub>Ø</sub>] { \*Pierre  
a Pierre

(Marie made Pierre accuse him)

(212a) will require no comment under our analysis. In fact, recalling how we assume that se absorbs the accusative associated with the lower verb accuser, we straightforwardly expect the phrase "Pierre" to be assigned accusative by faire, as with direct objects of ergative verbs (cf. 5.5.3 above). However, under alternative analyses, the problem of how to account for the accusative Case is rather severe, since clearly dativization does not in general ignore phonologically null

direct objects, as is shown by (212b), by the Italian passive case in (213a), by the French case of SE-moyen in (213b) (from Kayne (1975, p. 397)), and by analogous Italian examples with impersonal SI which we will omit.



Various attempts have appeared in the literature to account for the apparent anomaly. The system proposed in Kayne (1975) can be briefly summarized as in the following:

- (214) (i) Se-P1(acement) is cyclic. As such, when se originates as an embedded object, it will precede FI/A-ins(ertion) (the counterpart to VP-movement).

(ii) Cl(itic)-P1(acement) is post-cyclic. As such it will follow cyclic FI/A-ins.

(iii) The outcome of all cliticization (i.e. both Se-P1 and Cl-P1) is irrevocable (i.e. se does not "climb" because there is no "Clitic Climbing").

Kayne's system does indeed account for a wide range of facts under the appropriate assumptions. In particular, if one assumes no trace theory, dativization (A-ins) will fail in cases like (212a) because in Kayne's analysis there will be no "NP<sub>Ø</sub>" (in (ii) of (212a)). On the other hand, the same dativization will succeed in (212b), since there will be a

direct object present at the relevant stage of the derivation (i.e. higher cycle), due to the post-cyclicity of Cl-P1 (versus cyclicity of Se-P1 in (212a)). As for (213), the results will follow from the fact that NP-movement will not be allowed to apply prior to FI/A-ins, since this would violate Opacity (or its relevant predecessor), if one assumed with *Kayne* that the latter is a condition on rule application, rather than a condition of the output (L.F.), as currently assumed.

However, *Kayne's* system can be challenged empirically, for failing to extend to the cases of restructuring in Italian, which have been brought to light more recently (in particular in *Rizzi* (1976a), and *Aissen-Perlmutter* (1976)). On the rather uncontroversial assumption that restructuring must be cyclic if the causative rule is (cf. *Rizzi* (1976a), (1978a) for relevant discussion), the system in (214) will falsely predict (if anything; notice in fact that there would be no explanation why embedded si is impossible in Italian causatives) that embedded reflexive clitics should appear on the lower verb in restructured contexts also (cf. "Giovanni se lo potrebbe comprare/ Giovanni would be able to buy it to himself" and discussion in ch. 6). This difference between causative and restructuring contexts with respect to embedded reflexives, not explained by the system in (214), will be accounted for in terms of the rule of reflexive-agreement postulated here, as will be discussed in chapter 6.

Furthermore, as discussed in fn. 16 above, (iii) in (214) appears false given the existence of clitics for which it would be difficult even in *Kayne's* framework not to concede base-generation on the lower verb, and which nevertheless appear on the higher one either in causative or in restructuring cases (cf. "Te la faccio smettere di fare il

furbo/ I'll have you cut it out being smart" and "La finestra si potrebbe rompere/ The window might break", where la and si respectively never alternate with overt NP's). The existence of a principle that moves clitics as such (Clitic Climbing) will make the cyclicity of Se-Pl insufficient to explain the presence of se on the lower verb, and the post cyclicity of Cl-Pl unnecessary to explain the presence of other clitics on the higher verb. Once some of the motivation is thus removed, cyclicity of Se-Pl versus post cyclicity of Cl-Pl would reduce to a virtually ad-hoc device to account for the difference in dativization in (212).<sup>79</sup>

Kayne's system will furthermore be incompatible with the theoretical framework which we are assuming here. In fact no system analogous to the one in (214) seems conceivable within a framework that incorporates trace theory, has no conditions on rule application, and has no extrinsic ordering of rules.

The account of the failure of dativization in R&V features a rule (R&V's (149)) specifically deleting the object related to se (i.e. NP<sub>Ø</sub> in (212a)) prior to a-insertion. See R&V section 2.4 for details. As far as we can see such a rule is ad-hoc, and thus essentially states the problem.

In the "lexical" approach in Grimshaw (1980), reflexive verbs are intransitive, thus no direct object (NP<sub>Ø</sub>) will be present in (212a) and the failure of dativization will obviously follow. The latter approach will be discussed in the next subsection. We note that in addition to other difficulties, all three of the approaches just mentioned will be deficient with respect to the facts discussed here below.

Consider the three classes of transitive, intransitive, ergative

verbs, appearing in the D-structure configurations indicated in the a cases here below. Consider further the configurations in the b cases, resulting from embedding each one of the a cases under fare according to previous discussion.

- (215a) Transitive       $[S [NP_1 [VP^V NP_2 (S)]]]$
- (215b) ... fare  $[VP^V NP_2 (S)] [S^a NP_1 ---]$
- (216a) Intransitive       $[S [NP_1 [VP^V (S)]]]$
- (216b) ... fare  $[VP^V (S)] [S^a (a) NP_1 ---]$
- (217a) Ergative       $[S^e [VP^V NP_1 (S)]]$
- (217b) ... fare  $[VP^V NP_1 (S)]$

Given the context for dativization assumed in 5.5.4 above, namely " $\{ \begin{matrix} NP \\ S \end{matrix} \} \_\_\_$ ", we will expect the facts concerning dativization of the (apparent) embedded "subject" to break down into three sets. In particular we will expect that with the class of transitive verbs, as in (215), dativization should be triggered regardless of whether the embedded verb has a sentential complement. With the class of intransitives in (216) we will expect that dativization should be triggered if and only if a sentential complement is present (idiosyncrasies aside), as was discussed in 5.5.4. With ergative verbs we assume that whether or not a sentential complement exists, dativization of the (apparent) "subject" never occurs, for the reasons discussed in 5.5.4, and in particular given the analysis (217b).

We will now note that, with respect to dativization, reflexives will not only differ from transitives, as is well known, but in the presence of a sentential complement, will in fact also differ from intransitives, and behave just like ergative verbs, as in (218b) contrasting with (218a).

- (218a) Cela fera penser { \*Jean      } que Marie est belle  
                   a Jean      }  
                   (That will make Jean think that Marie is pretty)
- (218b) Cela fera se persuader { Jean      } que la terre est ronde  
                   \* a Jean      }  
                   (That will make Jean persuade himself that the earth  
                   is round)

The facts in (218) will straightforwardly follow from our discussion.

In fact we will assume for (218b) the analysis "Cela fera [<sub>VP</sub><sup>se</sup> persuader Jean que-S]", in which no dativization will be expected.

For (218a) we will assume that the stylistic rule of Complement Shift of 1.7.1 above has applied, moving the "que-S" complement to the right. At syntactic levels the analysis will therefore be "Cela fera [<sub>VP</sub><sup>penser que-S</sup>] [<sub>S</sub><sup>a Jean ---</sup>]", in which dativization is expected. However the contrast in (218) is bound to remain unaccounted for under any analysis in which "Jean" is the subject of "persuader".

In fact, given cases like (218a), any theory will have to express the fact that when the verb embedded under faire has a sentential complement, the subject of such embedded verb is dativized. On this we may note that when the sentential complement is tensed, as in (218a), such dativization is quite consistent, more so than with the cases of 5.5.4 above involving infinitival complements. One would then see no reasonable way to prevent dativization from applying to the phrase "Jean" in (218b) if the latter was the subject of the embedded verb. Each of the three theories under consideration seeks to account for the apparent peculiarity of reflexives with respect to dativization, by claiming that at the relevant level, there is no null object related to the reflexive, although this is accomplished in different ways in each case (Kayne assumes no trace theory; R&V

postulate a deletion rule; Grimshaw assumes that reflexives are intransitive verbs). However, for cases like (218b) it will be quite immaterial whether or not such null NP exists, since the S-complement ought to suffice to induce dativization as long as the phrase "Jean" is analyzed as the subject rather than the object of "persuader" (Notice that no reasonable theory will claim that embedded direct objects are dativized in the presence of a sentential complement, cf. "Je ferai persuader Jean que la terre est ronde ... / (I will make ... persuade Jean that the earth is round)").<sup>80</sup>

A further piece of evidence in favor of the embedded object status of the NP in question, is provided by some of the data discussed in Kayne (1975, 6.5) indicating that a clitic en originating from the latter NP can for some speakers marginally appear on the embedded verb. Consider the following paradigm (for the relevant speakers):  
 (219a), (219c) from Kayne p. 430 and ff.<sup>81</sup>

- (219a) ??Elle fera en manger trois a son fils  
 (She will make her son eat three of them)
- (219b) \*Elle fera en manger trois dans ce restaurant  
 (She will make three of them eat in this restaurant)
- (219c) ?Les mauvaises nouvelles ont fait s'en tuer une bonne dizaine  
 (The bad news made a good ten of them kill themselves)

The contrast between (219a) and (219b) will confirm our conclusion in 5.3.1 and in 5.5.3 that cliticization on the embedded verb of/from the embedded subject always yields more severe ungrammaticality than the parallel cliticization of/from an embedded object. The status of (219c) will thus support our view that "une bonne dizaine..." is the embedded object. We will attribute the difference in status between (219a) and (219c) to the fact, noted in Kayne (1975) and R&V that the presence of se on the embedded verb generally increases

the possibilities for the appearance of other clitics on the same verb: a fact intuitively characterizable as a clitic-clustering effect, but see R&V for extensive discussion.<sup>82</sup>

So far, our discussion in this subsection has dealt only with direct object reflexives, namely with transitive verbs. The case of intransitive verbs is in fact partially problematic for our theory. In 5.7.2 and 5.7.3 above, we noted that reflexives with transitive verbs had the properties of ergative verbs with respect to inversion and sc relativization. We further noted that in each case the same was not true of reflexives with intransitive verbs, which appeared excluded, although somewhat weakly, both from the relevant type of inversion and from sc relatives (cf. for example (186b), (197a)). In this subsection, we have claimed that reflexives can only be embedded under French faire, as VP complements, like ergative verbs. We might then expect that indirect object reflexives should not be possible here, just as in the two other contexts discussed. Yet this is not true, as shown by the following, given in the analyses we are assuming.<sup>83</sup>

- (220a) Cela fera [VP<sub>se</sub> téléphoner [PP<sub>les enfants</sub>]]  
(That will make the kids phone each other)
- (220b) Je voudrais bien faire [VP<sub>se</sub> laver les mains  
[PP<sup>a</sup> [NP<sub>mes enfants</sub>]]]  
(I would like to have my kids wash their hands)

Considering first (220a), we assume that the dative Case (preposition a) which would go to the phrase "les enfants" has been absorbed by the reflexive clitic se. We then assume that accusative Case is assigned to the latter phrase by faire. The problem will be that, given the presence of the PP boundary, we would expect government to fail, as

in the cases discussed in the previous subsection and thus Case assignment not to be possible. We note however, that the discrepancy is only partial since, as we noted, some of the failures discussed above were not very strong. As an alternative to our assumptions one might perhaps suggest that the null phrases related to dative clitics are not PP's but rather NP's (for some relevant discussion cf. Jaeggli (1980, chapter 1)), and that indirect objects are only PP's in the absence of the clitic, when the preposition appears. Under this view we would expect no PP boundaries around the phrase "les enfants" in (220a), and no problem to arise with respect to Case assignment by faire. Rather than due to lack of government of the relevant phrase, the failures of indirect object reflexives with respect to inversion and sc relativization, might then be assumed to be only "analogic", namely due to the fact that inversion and sc relativization do not generally operate with respect to indirect objects (cf. (190b), (191c)). If such revision were to be adopted, the system of pp agreement in (173b) above, which excludes indirect objects by referring to NP's, will have to be suitably modified. This question will be left open.

For the case in (220b) we assume that se withholds dative Case (preposition a), and that the same Case is then assigned by the dativization rule of 5.5.4, given the presence of the direct object "les mains".<sup>84</sup>

### 5.7.5 On a Lexical Theory of Reflexives

The discussion in Grimshaw (1980) is based on two major sets of observations. One: that the verbs or forms in (221) can appear in the French il-construction.

(221) Entering into il-construction

- (a) "Some intransitive verbs"
- (b) Inchoative verbs (se-ergatives)
- (c) Intrinsic Reflexives (Inherent Reflexives)
- (d) Reflexive/Reciprocal se
- (e) Passive
- (f) SE-moyen

Two: that when the following verbs or forms are embedded under faire, a is not assigned to their (apparent) subject.

(222) No a-insertion under faire

- (a) Intransitive verbs
- (b) Inchoative verbs (se-ergatives)
- (c) Intrinsic Reflexives (Inherent Reflexives)
- (d) Reflexive/Reciprocal se

It will be recalled that each one of the facts in (221), (222) has been dealt with and accounted for within our discussion. In particular, (a), (b), (c), (e), (f) of (221) were discussed in 3.2 above, taking (a) of (221) to refer to verbs like arriver, namely our ergative verbs; (d) of (221) was discussed in this section; (a), (b), (c) of (222) will essentially fall under the scope of 5.5.4 above; (d) of (222) was discussed in this section. The theory which Grimshaw proposes, to account for these facts, can be informally summarized as follows (our paraphrase).

(223a) Inchoativization (e.g. "Jean brise le verre/ Le verre se brise: Jean breaks the glass/ The glass breaks")

- (i) se absorbs the subject argument
- (ii) The object becomes a subject

(Intrinsic Reflexives, e.g. "Jean s'évanouit: Jean vanishes", will be analogous to inchoatives in so far as se will not represent any argument of the verb; but there will be no parallel derivation).

- (223b) Reflexivization (e.g. "Jean voit Marie/ Jean se voit: Jean sees Marie/ Jean sees himself"  
se absorbs the object argument (direct or indirect object)
- (223c) Middle Rule (SE-moyen) (e.g. "Jean dit cela/ Cela se dit:  
Jean says that/ That SE says)
  - (i) SE absorbs the subject argument
  - (ii) The object becomes a subject

All of the operations in (223) are assumed to be lexical. Furthermore, in the theory in question, passives are derived lexically, as in Bresnan (1978). This theory will predict homogeneity for both the set in (221) and the one in (222) (essentially a subset of the former under Grimshaw's assumptions). In fact all of the cases in question will now be intransitive constructions (i.e. lacking any syntactically represented direct object).

We may note that both Grimshaw's discussion and ours, point to an unsolved puzzle within the existing body of literature on Romance, namely: what do passives and verbs like arriver have in common which would justify their membership in (221)? Grimshaw's answer is that passives are just like those verbs, namely intransitive, and so are all the other cases in (221). Our answer here has been that those verbs are just like passives, namely ergative, and so are all the other cases in (221). In this subsection we will defend our view over Grimshaw's.

Our discussion so far can be seen as partially following Grimshaw in this fashion: If we replace (223b) with the rough empirical equivalent: "(i) se absorbs the subject argument; (ii) The object (direct or indirect) becomes a subject" then we will essentially concur with the lexical character of the operations in (i) of both (223a) and (223b), although we will not assume the same for (i) in (223c). In fact we assume that the chain "empty subject-SE" has thematic role, just like a subject NP. However, we will systematically differ on the character of the operations in (ii) throughout, which we have claimed are instances of NP-movement. We will further note that our discussion has not only had a systematic character in differing from the theory in (223), but has also been systematic in suggesting that only operations on subjects are ever lexical (never on objects); namely that there is no lexical manipulation of subcategorization frames. Recall in fact from 1.4 above how, in our discussion of ergative verbs which have corresponding transitives, i.e. of "AVB/BV" S-structure pairs, we maintained that the subcategorization frame is the same in both the transitive and the ergative case, and that only lexical specifications concerning the subject change. Something analogous we assume for passives. Also, in our discussion of reflexives in this section we maintained that the same subcategorization frame is involved when a verb enters into a reflexive construction, under either one of the analyses discussed, as when it enters into non-reflexive constructions, and that only the specifications concerning the subject are altered.

If, within a bipartite (transitive/ intransitive) classification of verbs it may seem reasonable to suggest that se-ergatives (and, let

us assume, inherent reflexives) are intransitive verbs since they are clearly not transitive, problems arise specifically from assuming that reflexives are intransitive verbs. Some of these problems come directly from the material discussed in *Kayne (1975)*.

As noted in 5.7.1 above, *Kayne* has pointed out that the distribution of reflexive and non-reflexive clitics are quite parallel. For a theory in which cliticization and reflexivization are radically different processes, this fact will be rather accidental. In the spirit of *Kayne's* discussion we will note here that stranding of prepositions like Italian addosso (but analogously with the French counterparts), is in general only possible as a result of cliticization or of Wh-movement, as in (224) respectively.

- (224a) I soldati gli sparano addosso  
The soldiers to him fire upon     (...fire on him)
- (224b) A chi sparano addosso?  
To whom (do they) fire upon?

In this respect reflexive clitics do not differ from other clitics:

- (225) I soldati si sparano addosso  
(The soldiers fire on each other)

In order to account for (225) within the lexical theory one would have to assume that sparare addosso is a verb. This seems a rather surprising result.

Another parallelism between reflexives and other clitics pointed out by *Kayne* has to do with past participle agreement. In particular, it appears that in general only direct object clitics trigger pp agreement. In French, reflexive clitics are no exception (cf. fns. 66, 67. On Italian, cf. the discussion in 5.7.1). Consider in fact the following, from *Kayne* (pp. 338, 339).

- (226a) Marie se serait prise pour une folle  
 Marie would have taken herself (direct object)  
 for a crazy woman (pp ag't)
- (226b) Marie se serait    } offert    } des cadeaux  
                        } \*offerte    }  
 Marie would have given herself (indirect object)  
 presents (no pp ag't)

Under a lexical theory of reflexives, past participle agreement in (226) could not be syntactic since the two cases would not bear any relevant syntactic difference. It would then be difficult to see how the difference between direct and indirect object reflexives, and the parallelism between reflexive and non-reflexive clitics is to be accounted for.

The lexical theory will be falsified by all cases in which the reflexive clitic represents an element that the verb is not subcategorized for, such as the cases in (208) above, repeated here.

- (227a) Giovanni si<sub>i</sub> fa [<sub>VP</sub>aiutare [<sub>i</sub>e] da Maria]  
 (227b) I ragazzi si<sub>i</sub> fanno [<sub>VP</sub>cadere [<sub>i</sub>e] in acqua]  
 (227c) Le donne si<sub>i</sub> facevano [<sub>VP</sub>parlare dei rispettivi figli]  
 [S [<sub>i</sub>e] ---]

It is clear, quite aside from our analysis, that si in each of (227) is related not to an argument of fare, but to an argument of the embedded verb, respectively aiutare, cadere, parlare. In order to maintain the lexical view, one will have to claim that the two verbs in each of (227) form a single lexical item at the level at which reflexivization applies.<sup>85</sup> This claim will run counter to our arguments in 5.3 above that the two verbs in both F-VP and F-S do not form a single verb. Furthermore under the claim that both constructions corresponding to our F-VP and F-S are lexically derived, it will be very difficult to

provide an account of any of the differences pointed out by Kayne and discussed in 5.2.2 above, with respect to which our discussion had at least some explanatory force. We note in particular that if the under-scored portion in (228) forms a single verb at all syntactic levels, there could be no syntactic sense in which the NP in "a Giovanni" is the subject of "sognare": a subject-Control verb.

- (228) Cio fara' sognare di vincere il premio } a Giovanni  
  } \*da Giovanni  
(That will make Giovanni dream to win the prize)

Therefore there will be no explanation, at least under the theory of Control assumed here, why "a Giovanni" -contrasting with "da Giovanni"- can successfully control the subject of "vincere".

The lexical theory will have implications for the theory of Control also in view of the cases of reflexivization with object-Control verbs discussed above (cf. (151a) and discussion) as well as for the parallel cases of passivization of object-Control verbs like (229).

- (229) John<sub>i</sub> was persuaded t<sub>i</sub> [S<sub>i</sub><sup>PRO</sup> to leave]

In fact, a theory of Control like the one assumed here, will account for the grammaticality of (229) only if there is a syntactically represented direct object (trace).

In the theory in (223), SE-moyen constructions on the one hand and reflexive and se-ergative constructions on the other will both be intransitive, and thus syntactically indistinguishable, all the relevant operations having applied in the lexicon. This consequence will be at odds with the fact, extensively discussed in Ruwet (1972, ch. 3), that the two behave differently in a number of syntactic respects. An extension of the theory in (223) to Italian SI and si respectively, the desirability of which seems fairly obvious, would analogously be

at odds with the differences between SI and si, many of which are discussed in Napoli (1973). We will recall in particular the impossibility for SE/SI, though not se/si to occur in infinitivals, as in the following, repeated from chapter 3.

(230a) \*Cette histoire se racontera à Pierre

That story SE will tell Pierre

sans se raconter à Marie  
without SE telling Marie

(230b) Le verre est tombé sans se casser

The glass fell without breaking

In our discussion, contrasts like the one on (230) have been accounted for in terms of Case theory, cf. the discussion of Italian in 1.3 and its extension to French in 3.2.3. On further differences between Italian SI and si, we will recall the impossibility for the former, though not for the latter, to occur in sc relatives (cf. (226), chapter 3), which was accounted for in our discussion in 3.6.2 above and in this section. We will also recall here that, under the (well-motivated) assumption that a Wh-(auxiliary)be deletion analysis is false, appearance of reflexives in sc relatives will directly falsify any intransitive analysis of reflexives, since intransitive verbs do not appear in sc relatives (and analogously for inherent reflexives and si-ergatives). Reflexives will also differ from intransitives in that they never appear with the da/par phrase as in (231a), contrasting with (231b) (the latter from Kayne (1975, p. 247, fn. 56)).

(231a) \*Cela fera se tuer par Jean

That will make kill himself by Jean

(231b) Je ferai parler de vous par tout le monde

I will make talk about you by everyone

The contrast in (231) is naturally accounted for within our discussion, under the assumption of this section that reflexives embedded under

faire are analogous to ergative verbs, given the discussion of the latter with respect to the da/par phrase in 5.2.1 above. In particular, if se in (231a) has absorbed the thematic subject of the verb, then there could be no par phrase since we assume that the latter in general fulfills exactly that role (i.e. it satisfies the notion "th-subject"). But no account is suggested by the theory in (223). (As noted in 5.2.1 above, our theory will not explain why occurrences of the da/par phrase as in (231b) is limited to some intransitive verbs. Cf. fn. 5 above. This will weaken the point we just made, but will not void it. In fact while the possibility in (231b) is unsystematic among intransitive verbs, the impossibility in (231a) is quite systematic among reflexives).

On further differences between SE and se, we recall the possibility to embed se, though not SE, under faire (acknowledged in Grimshaw's fn. 35). This difference, which was accounted for (in terms of proper binding) in our discussion in 5.4.1 above on the basis of our different analyses of SE and se, will remain obscure under the theory in (223), and in particular under the intransitive analysis of SE-moyen in (223c).

The system in (223) will furthermore share the problems inherent in any approach that makes use of a bipartite (as opposed to a tripartite) classification of verbs. For example, the lack of any independent characterization for "some" in (a) of (221), namely for the difference between arriver and téléphoner with respect to the il-construction. It will also share the problems associated with any view that "il-V-NP" is derivative from "NP-V". Recall for example the difference between direct and indirect object reflexives (i.e.

"Il s'est dénoncé... / \*Il s'est téléphone...") discussed in 5.7.2, unaccounted for under any such view, but predictable in some fairly reasonable sense, from our assumptions.

We finally recall the difference between passives and "unpassives" again with respect to the il-construction, as well as its relevant Italian counterpart, pointed out in 3.2.2 and 1.2 above, which would also be unaccounted for in the lexical theory, but which can be naturally attributed, within our view, to the fact that passives, unlike "unpassives", are syntactically derived (NP-movement).

## Footnotes to Chapter 5

1 Throughout this discussion we will take linear order of constituents to have virtually no bearing on the analysis, at least when "heavy" phrases follow less heavy ones. Thus for example given (i), the fact that the linear order in (ii) is preferred over the one in (iii), will not be taken to indicate that the causative rule applies (preferably) to the verb alone rather than to the VP, but simply that the rule of Complement shift of 1.7.1 above, has applied subsequent to VP movement, to place the heavier phrase "di vincere il premio" to the right of "a Giovanni".

- (i)     Giovanni spera di vincere il premio  
Giovanni hopes to win the prize
- (ii)    Cio' fara' sperare a Giovanni di vincere il premio  
That will make hope (to) Giovanni to win the prize  
(That will make Giovanni hope to win the prize)
- (iii) ?Cio' fara' sperare di vincere il premio a Giovanni  
That will make hope to win the prize (to) Giovanni

This view, confirmed by the fact that the presence of the S complement triggers a-insertion in either variant (cf. 5.5.4 below), will indicate that VP movement gives rise to possibilities for C-shift which would not exist otherwise. Compare in fact (ii) with (iv) here below, discussed in 1.7.1 above, where permutation between the complement and the phrase "Giovanni" appears more difficult.

- (iv)   ?Spera di vincere il premio Giovanni  
??Spera Giovanni di vincere il premio  
(see (i))

This would seemingly suggest that C-shift, generally sensitive to the distance from the verb (cf. discussion in 1.7.1), is sensitive here to the distance from the main verb, namely fare in (iii).

2 It might be suggested that beside a subject and a by-phrase, other phrases can also satisfy the notion "thematic subject", such as for example the to-phrase in (ii), contrasting with (i).

- (i) Everyone knew it
- (ii) It was known to everyone

3 Recall that we are assuming that (7b) does not imply (7a). Namely, we are assuming that lexical specifications for a given verb will never require the existence of a subject (in the manner that they require the existence of objects). We are assuming the latter specifications only to indicate whether or not a thematic role will be assigned to the subject position (should such position exist). I will further assume that the necessary existence of the subject position in sentential structures reflects a property of phrase-structure rules. Namely, I assume that the rule " $S \rightarrow VP$ " does not exist in Italian (see Borer (1980) for the view that such a rule exists in modern Hebrew).

Notice here that if our (VP) analysis of the "Faire-par" construction is correct, the peculiarities noted for it below (especially in 5.2.2) will implicitly argue for an S analysis of other syntactic types which do not share those peculiarities. For example the infinitival under the Control verb pensare will differ from the infinitival in "Faire-par" in allowing subject-control verbs, as in (i) and (ii) respectively.

- (i) Giovanni pensava [ <sub>$\alpha$</sub>  promettere all'allenatore di correre]  
Giovanni was thinking to promise the coach to run
- (ii) \*Mario fece [ <sub>$\beta$</sub>  promettere all'allenatore di correre (da Giovanni)]  
Mario made promise the coach to run (by Giovanni)

It will be argued below that the ungrammaticality of (ii) follows from a VP analysis of  $\beta$ . If this is correct, it will be evidence against a VP analysis of  $\alpha$ . (See also fn. 6).

4 The possibility for the occurrence of the by-phrase would also seem to distinguish ergative from non-ergative verbs in English nominals. Cf. for example "The suggestion by John" versus "\*The fall by John", for which it seems reasonable to assume that fall, but not suggest, is an ergative verb.

5 Notice that although one would like to have an explanation for this, the problem is not a liability for our proposal. On the contrary, the latter proposal provides a closer approximation to the facts than alternatives: It limits unexplained variation to the class of intransitive verbs, which would otherwise range over the larger class of non-transitives (i.e. our ergatives plus our intransitives).

In principle, a way would also exist to distinguish intransitives from ergatives, based on the claim (which we made above), that objects but not subjects are obligatory. Consider in fact the following contrast where the respective analyses are as indicated, as will be clearer from further discussion in the text.

- (i) Cio' fara' [<sub>VP</sub>lavorare] [<sub>S</sub>Giovanni ---]  
That will make work Giovanni
- (ii) Cio' fara' [<sub>VP</sub>intervenire Giovanni]  
That will make intervene Giovanni

Since "Giovanni" is a subject in (i) but an object in (ii), the prediction ensues that the latter phrase should be obligatory in (ii) (i.e. with ergative complements) but not in (i) (i.e. with intransitive complements).

This prediction seems to us fulfilled to an interesting extent as the contrasts in (iii) and (iv) indicate, even though some cases exist which would falsify this view: for example (v).

- (iii) In quella scuola fanno lavorare molto (intr.)  
(In that school they make you work a lot)
- ?\*In quei dibattiti fanno intervenire spesso (erg.)  
(In those debates they make you intervene rather often)
- (iv) Ogni volta che passa { Giovanni fa ridere } (intr.)  
{ \*Giovanni fa scappare }  
(Every time he goes by, { Giovanni makes (you) laugh } )  
{ Giovanni makes (you) run away }
- (v) Fate passare! (erg.)  
(Let (people) go by!)

At the moment, cases like (v) seem to us rather rare (though the case in Kayne (1975, p. 239, fn. 42, ex. (iv)) involving s'évanouir would be another exception, under an ergative analysis of the latter verb).

6 To suggest that the " $\emptyset$ " case is a subcase of FI, featuring  $\text{PRO}_{\text{arb}}$  (as would presumably have to be the case), would be theoretically undesirable, since PRO and lexical NPs would be alternating here in the same environment (on the undesirability of this, see Chomsky (forthcoming) and Kayne (1981)); as well as empirically inadequate.

In fact  $\text{PRO}_{\text{arb}}$  unproblematically acts as a controller elsewhere. E.g.:

- (i)  $\text{PRO}_{\text{arb}} \text{sperare } [S_{\text{di }} \text{PRO vincere}] \text{ sarebbe sciocco}$   
To hope to win would be silly

7 For other verbs taking measure-phrase complements, such as the ones here below, a different analysis would seem in order.

- (i) La dieta farà pesare dieci chili in meno { ??a Giovanni }  
{ \*da Giovanni }  
(The diet will make Giovanni weigh ten kilos less)

- (ii) La tassa fara' costare cento lire di piu'       $\left\{ \begin{array}{l} *?\text{allo zucchero} \\ *\text{dallo zucchero} \end{array} \right\}$

(The tax will make the sugar cost one hundred lira more)

- (iii) Il razionamento fara' durare due mesi di piu'

$\left\{ \begin{array}{l} *?\text{alle riserve di benzina} \\ *\text{dalle riserve di benzina} \end{array} \right\}$

(The rationing will make the gasoline reserve last  
two months longer)

Unlike contenere in the text, the above verbs take auxiliary E. A possibility for A with some of these verbs, appears roughly as marginal as the a option in the corresponding example (E.g. and cf. (i)):

Giovanni sarebbe/ ??avrebbe pesato dieci chili in meno, "Giovanni would have weighed ten kilos less; E/ ??A"). This will suggest that these verbs are essentially ergative, i.e. that they appear in the base form (iv), while some of them are also -but very marginally- intransitive, like contenere.

- (iv) [NP<sub>e</sub>] [VP<sub>V-NP-measure phrase</sub>]

The impossibility of the da option in (i)-(iii) would thus follow from the ergative status of the verb, in the manner discussed in the text.

The impossibility of the a option will follow from some of the forthcoming discussion in the text (5.5 below) to the effect that ergative complements of fare are always VPs. This will correctly predict the well-formedness of the following, corresponding to (i), (ii), (iii) respectively, where the underscored phrase is "NP" in (iv).

- (v) La dieta fara' pesare Giovanni dieci chili in meno

- (vi) La tassa fara' costare lo zucchero cento lire di piu'

- (vii) Il razionamento fara' durare le riserve di benzina due mesi di piu'

On some related matters see fn. 50 below.

8 On this type of approach cf. also Bresnan (1978), Grimshaw (1980). Passives involving no movement, such as (i) will also naturally support the view that movement is not the cause of the ungrammaticality.

- (i) \*Furono contenuti dieci litri di piu' da quella botte  
 Were contained ten liters more by that barrel

However, here someone advocating restrictions on movement in terms of "theme", "direct-object" or other, could suggest that the same restrictions should be extended to the inversion strategy of chapter 2. Crucial seems to us the case in (42b) below and discussion, where movement does occur and yet the sentence is (near) acceptable. See also fn. 50 below.

9 One might perhaps suggest that the thematic role of the (D-structure) subject is part of the idiom; or that such idiomatic objects have a semantically inalienable character (i.e. his (own) train; their (own) "lunario" -literally: calendar-).

10 There is an obvious alternative to invoking recoverability of movement in the sense of chapter 4 to account for the fact that the embedded subject (in FI) can generally perform as an antecedent to material within the embedded VP: One could suggest that the embedded subject ((a) NP) simply C-commands the embedded VP in derived structure directly, rather than C-commanding its trace as in (1). This view will be rejected on two counts. First we note the following. Disjoint reference appears to pattern differently depending on whether a phrase is C-commanded directly, or whether only its trace is C-commanded. In particular, in the latter case, the depth of embeddedness appears to play a role, (as noted by Chomsky (class, fall 1979)), as in:

- (i)    ?\*[<sub>j</sub> Which pictures of John<sub>i</sub>] did he<sub>i</sub> see t<sub>j</sub> ?  
       ?[<sub>j</sub> Which pictures that John<sub>i</sub> gave Mary] did he<sub>i</sub> sign t<sub>j</sub> ? .  
       [<sub>j</sub> Which pictures that Mary sent John<sub>i</sub>] did he<sub>i</sub> receive t<sub>j</sub> ?

But when C-command obtains directly, the depth of embeddedness plays no role:

- (ii)    \*He<sub>i</sub> saw [<sub>j</sub> pictures of John<sub>i</sub>]  
          \*He<sub>i</sub> signed [<sub>j</sub> some pictures that John<sub>i</sub> gave Mary]  
          \*He<sub>i</sub> received [<sub>j</sub> some pictures that Mary sent John<sub>i</sub>]

Parenthetically we will note that analogous facts seem to obtain with NP-movement as well, even though the latter case is slightly less clear. If we consider a case involving a dative phrase C-commanding (by the revised notion of C-command of ch. 4) a direct object, the latter direct object will become the analogue to the Wh-phrase in (i), if movement is applied to it. The following would be such a case:

- (iii)    Bill sent [a picture of John] to him

However, as noted in fn. 4, ch. 4, disjoint reference (between "John" and "him) obtains very weakly if at all here, thus making our test impossible. We will thus resort to the following Italian example, where disjoint reference seems to obtain strongly enough (probably because the dative is cliticized, thus C-commanding the direct object in the strict, rather than in the loose sense discussed in fn. 4, ch. 4).

- (iv)    \*Gli<sub>i</sub> si assegnerà l'ex-autista del ministro<sub>i</sub> quale guardia  
          To him SI will assign the ex-driver of the minister as a  
                     del corpo  
                     bodyguard

We will now consider the case where O.P. has applied to (iv), and the corresponding case of passive:

- (v) ??L'ex-autista del ministro i gli i si assegnerà  
              quale guardia del corpo  
              (see (iv))

(?)?L'ex autista del ministro i gli i sara' assegnato  
The ex-driver of the minister to him will be assigned  
quale guardia del corpo  
as a bodyguard

The following will then indicate that here too, the depth of embeddedness plays a role.

- (vi) L'agente che il ministro<sub>i</sub> conosce bene  
The agent that the minister knows well  
    } ?gli<sub>i</sub> si assegnera'      } quale guardia del corpo  
    } (?)gli<sub>i</sub> sara' assegnato    }  
                to him SI will assign/ will be assigned as a bodyguard

(vii) L'agente che conosce bene il ministro<sub>i</sub>  
The agent who knows well the minister  
    } (?)gli<sub>i</sub> si assegnera'      } quale guardia del corpo  
    } gli<sub>i</sub> sara' assegnato    }  
                to him SI will assign/ will be assigned as a bodyguard

As expected the near-ungrammaticality of (v) is preserved if subject raising applies. This will give rise to Raising/ Control minimal pairs of the following sort:

- (viii) Un ammiratore di Sophia<sub>i</sub> } (?) pareva  
An admirer of Sophia seemed/ dreamt  
esserele<sub>i</sub> stato assegnato quale guardia del corpo  
to have to her been assigned as a bodyguard

These facts will confirm the view in chapter 4, but will also call for further qualifications since it appears that, at least for purposes of disjoint reference, movement is "recoverable" (in the sense of ch. 4) only up to a certain level of embeddedness.

Returning now to our main point, we proceed to note that the depth of embeddedness seems to play a role with VP-moved cases.

(ix) \*Piero fece [<sub>j</sub> accusare Mario<sub>i</sub>] [<sub>S</sub><sup>proprio</sup> a lui<sub>i</sub> t<sub>j</sub>]  
Piero made accuse Mario exactly to him

(?)?Piero fece [<sub>j</sub> accusare l'amico di Mario<sub>i</sub>] [<sub>S</sub><sup>proprio</sup> a lui<sub>i</sub> t<sub>j</sub>]  
Piero made accuse the friend of Mario exactly to him

(?)Piero fece [<sub>j</sub> accusare un personaggio che conosceva Mario<sub>i</sub>]  
Piero made accuse a character who knew Mario  
[<sub>S</sub><sup>proprio</sup> a lui<sub>i</sub> t<sub>j</sub>]  
exactly to him

This will support the claim that the embedded subject C-commands only the trace of the moved VP. In fact, if the latter VP was C-commanded directly we would expect (ix) to pattern not like (i), as is approximately the case, but rather like (ii).

The second consideration has to do with our forthcoming claim in 5.4 that when the moved VP contains a trace of the subject, a violation of proper binding ensues. If the correct notion of proper binding is defined purely in terms of C-command and not of linear order, as would seem likely, then in so far as the discussion in 5.4 is correct, the embedded subject must not C-command the moved VP (but cf. fn. 56 below, which might partly compromise this view).

11 In Kayne's discussion there is no real attempt to account for the differences formally. While the kinship between FP and passives is to some extent formally expressed by the assumption that the by-phrase of passives and that of FP is the same, it remains unclear how the characteristics distinguishing passives and FP from FI would follow from the existence of the by-phrase in both of the former. Our discussion in 5.2.2 has thus attempted to go slightly beyond and account for the

syntactic behavior in terms of the formal properties of the by-phrase, even though some of the facts remain unaccounted for.

12 Recall what associations are now predicted among the three components of the common type of passive.

I. NP-movement (object preposing) will imply an empty subject position.

Aside from some special cases of clitic subjects (such as SI/SE) this will imply that the subject be empty in D-structure. This will only occur if the verb is not a thematic role assigner, as in either a) or b).

a) Ergative verb

b) Past participle form (e.g. passive)

II. By-phrase will imply the conjunction of a) and b).

a) A verb that takes a thematic subject (i.e. a non ergative verb)

b) Lack of a referential subject NP in D-structure, as with either non sentential structures (e.g. FP, but also presumably in nominalizations of the verbs in a), cf. "The destruction by the enemy"); or past participle forms.

III. Passive morphology will imply the conjunction of a) and b).

a) Same as a) in II (because of the requirement that loss of thematic role assignment be non-vacuous; cf. 3.6.1)

b) Either NP-movement as in I above, or insertion of lexical material in subject position. Since movement is generally constrained to direct objects, and since ergatives are excluded by a), the movement option will generally imply that the verb be transitive. The insertion option will bear the same implication except for the languages that have impersonal passives, where both transitives and intransitives will be possible (cf. 3.6).

13 In (28) we omit the details of R&V's formulation which are inessential to our discussion. For example (28d) gives rise, in their discussion, to two options, one of which would not lead to well-formedness: we only consider the one that would. We also omit their thematic indices.

14 In their fn. 59 R&V suggest that a similar rule is also required in infinitival relatives, assuming the framework of Chomsky and Lasnik (1977). However, in the framework assumed here it would seem quite unlikely that such a rule would be of any use (especially if "A man to do the job" is a Control structure, as suggested in 3.3.2 above).

15 This is actually overstated. Such deletion is required by some of the details of their theoretical apparatus (the thematic rewriting approach), which we have not endorsed here. Therefore from our point of view it is somewhat accidental that such a deletion should be required.

16 Notice that cases clearly exist, which grant the formulation of a principle of "Clitic Climbing", namely of a principle that moves clitics as such, independent of the principles that relate clitics to empty NPs in general (let us call the latter set of principles "cliticization" whether its concrete realization is movement as in Kayne (1975), or construal as in Rivas (1977), Jaeggli (1980)). Take for example the clitic si in (i).

- (i) La finestra potrebbe rompersi  
The window could break (itself)

As discussed in 1.4.3, ergative si is not the result of cliticization in any sense, but simply base-generated. However, under the restructuring

process to be discussed in chapter 6, si will appear on the higher verb, as in (ii).

- (ii) La finestra si potrebbe rompere  
(see (i))

In (ii), si is clearly related to rompere, just as it is in (i) (for example it will not occur cliticized to potere, independent of verbs like rompersi). Therefore a principle relating two clitic positions (Clitic Climbing) is called for. If such a principle is available to restructuring contexts, then even the most conservative assumptions as to the similarity between restructuring and causative constructions will lead us to assume that it should be available in the latter case as well.

Although one would like to have an explanation for the Clitic Climbing principle, its mere existence would make some of the discussion in R&V and in Kayne (1975) beside the point. In fact both of those discussions seek to explain the "higher" positions of clitics in causative constructions by elaborating on the formulation of the general cliticization process. Thus R&V ensure the "climbing" effect by assuming  $\bar{V}$  movement within  $\bar{S}$  and clitic placement cyclic; Kayne by assuming  $\bar{V}$  (actually V-NP) movement out of  $\bar{S}$  and clitic placement post-cyclic (The reader may verify that these two different systems achieve, given some appropriate assumptions (see text), analogous results). But if Clitic Climbing exists, these efforts are wasted since the desired results will be achieved by merely supplementing the ordinary syntax of clitics with the latter principle. Further relevant discussion will be presented in 6.6 below.

17 The same point will be made by the following French examples.

- (i) Le genre de lettre que je ne sais jamais  
 The kind of letter that I never know

à qui	} ?*le	} laisser écrire
?lui		
to whom	} him-acc.	} to let write
him-dat.		

In (i) the dative clitic will indicate that the causative rule has applied, the accusative clitic that it has not. (on dativization cf. 5.5.4 below). The slight difficulty in the dative case might be due to the presence of a second dative (*à qui*).

18 Since we are assuming that the embedded subject is assigned accusative by the matrix verb, for example in (i) below, we must be assuming that it is governed by such verb. This correctly predicts past participle agreement as in (ii).

- (i) Ho fatto lavorare i ragazzi  
I have made work the kids

(ii) Li ho fatti lavorare (li/ fatti: masc. pl.)  
Them I made work

Conversely, since we are assuming that the lower verb does not govern the embedded subject, we will expect that cliticization as in (ii) should not trigger past participle agreement on the lower verb as it does on the higher one. Unfortunately this is not clearly testable since aspectual auxiliaries never appear under causative verbs (cf. fn. 24; 6.7 below). However, the fact that (iv) seems noticeably more inconceivable than (iii) would seem to confirm our view.

- (iii) \*Li faro' aver lavorato molto prima di cena (no ag't)  
           (I will make them have worked a lot before dinner)

(iv) \*\*Li faro' aver lavorati molto prima di cena (ag't)  
           (see (iii))

19 As is well known, this is impossible in French. We have no explanation for this difference. Cf. fn. 21 on the parallel case of SE-moyen.

20 Recall from 1.6 above that we are rejecting an alternative view that with passives and with in general all the cases involving auxiliary E, the past participle simply agrees with the subject (without any reference to the direct object): a view which would trivialize the observation concerning pp agreement in (36). One of our arguments in 1.6 was that the latter view would be falsified by the cases of impersonal SI, where auxiliary E but no pp agreement is involved (cf. also 5.7.1 below for another case in point). Another argument was that our view allows us to collapse the two cases of pp agreement: the one found in conjunction with auxiliary E, and the one due to cliticization.

21 Corresponding French cases are given an intermediate status in Kayne (1975, p. 397, exs. (141)).

22 Passives where no movement occurs (as discussed in chs. 2, 3) would also separate the properties in the manner of (ii) in (38), but with the reservations of fn. 8.

23 Of course the FP cases analogous to the (b) cases, as for example (i) here below, are as bad as the passive cases in (a).

(i) (cf. (40b)) \*Il finto tonto fu fatto fare \_\_\_\_ da Giovanni  
Dumb was made to play \_\_\_\_ by Giovanni

Movement seems to contribute to ungrammaticality somewhat more significantly than in the other cases, when applied to the case in

(19), as in (ii).

- (ii) Il suo mestiere fu fatto fare \_\_ }??a Giovanni  
       His job was made to do \_\_ } to Giovanni  
                                     } by Giovanni

24 Assuming the lack of embedded passives related to the general lack of essere (or of auxiliary) under fare as in (i), does not seem a viable alternative to the view in the text (this is in partial disagreement with Kayne (1975, p. 252, fn. 61)).

- (i) \*Feci    }essere felice    } Giovanni  
       I made    }aver studiato    }  
                 { be happy        } Giovanni  
                 { have studied   }

In fact the other causative verbs, which allow non VP-moved infinitival complements (cf. 5.6 below), will in that configuration allow passives while disallowing copular and auxiliary essere.

- (ii) (?)Lasciai mio figlio essere accompagnato a scuola  
       I let my son be accompanied to school

?\*Lasciai mia moglie essere all'oscuro  
       I let my wife be in the dark (unaware)

\*Vidi Giovanni essere intervenuto  
       I saw Giovanni have intervened (E)

We also note that motion verbs, which will not allow auxiliaries in their complements, will freely allow passives.

- (iii) \*Andai ad aver comprato un libro  
       I went to have bought a book

Andai ad essergli presentato  
       (I went to be introduced to him)

25 Kayne's reservations come from the fact that, as he points out, cases of Raising verbs with tensed complements, where no subject-Raising occurs, are also not very good. However it seems to us plausible

to assume that the unacceptability of the latter cases is due to different factors. In fact (i) appears noticeably better than its counterpart in (50b) (as well as (51)).

(i) ? Il tuo tono fara' sembrare che Giovanni no abbia capito  
Your tone will make (it) seem that Giovanni did not understand

Our discussion would predict (i) possible as a case of F-VP analogous to (51). Its intermediate status will thus remain unexplained. That cases like (50b) are out for reasons specific to the subject-Raising operation is further confirmed by Kayne's own discussion pointing to significant contrasts within Raising/ Control minimal pairs.

26 Notice however that the inversion strategy of chapter 2 would fail here for reasons additional to those discussed in the text. In fact, assuming naturally that Case is assigned in S-structure, in for example (53b), the i-subject "Piero" would not be governed by pro, as it is in (53a), and would thus not receive nominative Case by virtue of government by pro (cf. the nominative assignment provision of 2.2.4 above). Nominative by virtue of government by the matrix subject "Maria" will also fail since we assume that Case assignment by a subject, implies binding by the same subject (cf. 2.3.1 above): binding between the phrases "Maria" and "Piero" will be clearly ruled out by disjoint reference. Thus essentially the cases in (54) would be ungrammatical not only for reasons of binding, but also for reasons of Case. Analogously for the parallel cases involving ep's in (58) below.

27 And analogously to (53a), for the French case in (55b). Also, if the verb alone could be moved we would have to give up the explanation for the impossibility of embedding Raising verbs since the fol-

lowing derivation would no longer violate proper binding.

- (i) Giovanni<sub>i</sub> sembra [<sub>S<sup>T</sup></sub><sub>i</sub> non aver capito]  
Giovanni seems not to have understood
- (ii) \*Cio' fara' sembrare [<sub>S<sup>T</sup></sub><sub>i</sub> ... [<sub>S<sup>T</sup></sub><sub>i</sub> non aver capito]]]  
That will make seem Giovanni not to have understood

And analogously for the impossibility of embedding ergatives and passives.

28 In 5.6 below, we will argue that (59a) is actually a case of object-Control. This will not affect our discussion here, the point simply being that VP-movement does not apply to tensed complements.

29 This will also rule out tensed cases of F-VP as in (i) in a seemingly trivial fashion.

- (i) \*Maria lascio' [<sub>VP</sub>guidasse l'auto da Giovanni]  
Maria let        would drive the car by Giovanni

Notice however that the assumption in 2.4.1 that a verb will not agree with an i-subject directly, not even when the latter is in direct object position, turns out to be useful here to rule out (ii) under the F-VP analysis indicated.

- (ii) \*Maria fece [<sub>VP</sub>venisse Piero]  
Maria made    would come Piero

30 In parallel fashion we will also rule out embedding under fare of the ci-construction of 3.1.3, by assuming a relation between ci and the subject as discussed, as in (i).

- (i) [e] c<sub>i</sub> 'era molta gente alla sfilata  
There were many people at the parade

This is a desirable result. In fact even though embedding of (i) cannot be tested due to the general lack of essere under fare noted in fn. 24, the idiom voler ci, also a case of the ci-construction (cf. 3.1.3) will

make the test possible:

- (ii) Ci vorra' piu' tempo del previsto  
There will want (It will take) more time than expected
  - (iii) ?\*Cio' { fara' volerci } { piu' tempo del previsto  
ci fara' volere }
- (That will make it take longer than expected)

31 Notice that we are assuming here that, given a relation between si/se and a NP that has to be expressed locally as in (i), the locality can be apparently violated as in (ii).

- (i) Le nuvole si dissipano  
The clouds (themselves) dissipate
- (ii) Le nuvole i sembrano t<sub>i</sub> dissiparsi  
The clouds seem (themselves) to dissipate

On this we simply assume (cf. 2.4.2 above) that si agrees with the trace, so that the violation will be only apparent. On the other hand we are assuming that the locality in (iii) cannot be violated as in (iv).

- (iii) Le vent a fait se dissiper les nuages  
(see (63b))
- (iv) \*Le vent s'a fait dissiper les nuages

On this we may naturally suggest that unlike NP movement, Clitic Climbing does not leave traces. Or that, even if it did, a trace of se would be unable to preserve the locality, since it is natural to assume that it is se that agrees with les nuages here, and not the converse. As expected under this view, movement of les nuages is unproblematic, as in (63a).

32 Notice that we do not mean to suggest here that the correlation between E assignment/ pp agreement and proper binding is a necessary or an absolute one. Our point is merely that a bifurcation within the

class of anaphoric relations seems to be recognized by two relatively independent aspects of the grammar. On the non absolute character of this correlation we note for example that French en does not enter into pp agreement, and yet appears to respond to the same binding conditions as Italian ne, as indicated by the following.

(i) \*[<sub>i</sub>Tre <sub>j</sub>t<sub>j</sub>] ne<sub>j</sub> sono stati trovati t<sub>i</sub>

(ii) \*[<sub>i</sub>Trois <sub>j</sub>t<sub>j</sub>] en<sub>j</sub> ont été trouvés t<sub>i</sub>

(Both: Three of them have been found)

33 Given a Control verb that takes E, like venire (come), and the fact that we analyze such a verb as ergative and object-Control, one might think that our claim (that no subject-Control verb exists which takes E) is vacuous. I.e. that given any Control verb taking E we will simply analyze it as an ergative, object-Control verb thus making evidence which would falsify the claim, unavailable in principle.

This is not true.

In our discussion, a subject-Control verb is distinguishable from an ergative object-Control verb independent of E. Consider in fact the respective structures in (i), (ii).

(i) NP<sub>i</sub> [<sub>v</sub>volere] [S<sup>PRO</sup><sub>i</sub> ...]

(ii) NP<sub>i</sub> [<sub>v</sub>venire] t<sub>i</sub> [S<sup>PRO</sup><sub>i</sub> ...]

It will be recalled from chapter 1 that while we find the form in (iii) corresponding to the case in (ii), while we do not find the form in (iv) corresponding to (i).

(iii) Ne vengono molti a studiare linguistica  
Of them come many<sub>s</sub> to study linguistics

(iv) \*Ne vogliono molti studiare linguistica  
Of them want many<sub>s</sub> to study linguistics

Our claim is therefore that no Control verb patterning like volere in (iv) will take E, and is thus a non vacuous claim.

In connection with the Raising/Control distinction with respect to auxiliary selection, we may note the following minimal pair, relative to those dialects which allow finire di as a Raising predicate.

- (i) Giovanni    {era    { poi finito di andare dal dentista  
                    }aveva }

Giovanni had (E/A) then finished to go to the dentist

In (i), auxiliary E is associated with a typical Raising reading, namely "Giovanni had ended up going to the dentist", while auxiliary A is associated with the Control reading "Giovanni had finally completed going to the dentist". In the dialects in which finire di is only a Control predicate, finire per must be used for the Raising interpretation. The latter also takes auxiliary E.

34 The linear order "Feci telefonare Piero a Maria" is slightly preferred. The latter linear order is in fact the one obtained by Kayne's (1975) formulation of the causative rule. Arguments against such formulation will appear below. I assume here that the preferred order is derived by stylistic reordering as discussed in fn. 1.

35 The order "Gli feci sparare un agente addosso" etc. might be slightly preferred, even though the difficulty noted will essentially persist. On this see fn. 34.

We also note here that cases like (76) are not very good even in the absence of cliticization. We assume that this is due to the fact, that objects of inalienables, as well as -though perhaps to a lesser extent- objects of prepositions like addosso, are preferably cliticized, as the following indicate.

- (i)      ?Piero sparò' tra i piedi a Mario  
           Piero gli sparò' tra i piedi  
           (Piero fired between the feet to Mario/ to him:  
           "...between Mario's/ his feet")
- (ii) (?) Piero' sparò' addosso a Mario  
          Piero gli sparò' addosso  
          (Piero fired upon to Mario/ to him: "...fired on Mario/him")

On this see also fn. 33 ch. 1.

36 The fact that cases like (77b), (77c) are not very good in the absence of cliticization (E.g. "?Feci sparare tra i piedi a Mario da un agente") will fall under the scope of fn. 35.

37 Given my analysis, the linear order in all cases in (78) will be basic and not derived by stylistic reordering. However the different linear order in (76) will not serve to support the difference between the respective analyses we are suggesting, because of the remarks in fn. 34.

38 This refers to the formulation of the rule as given in Kayne's 4.9, not to the formulation we alluded to in 5.2.3, which is given in the earlier part of Kayne's work and which involves rightward NP movement.

39 Other processes generally sensitive to Opacity will also concur:

- (i) (?) [<sub>i</sub>I professori] fecero telefonare la segretaria  
              ad uno studente ciascuno<sub>i</sub>  
           (The professors had one student each called by the  
              secretary)
- (ii) \*[<sub>i</sub>I professori] videro la segretaria telefonare  
              ad uno studente ciascuno<sub>i</sub>  
           (The professors saw the secretary call one student each)

(i) is in fact analogous to (82a) and will be expected as impossible as (ii) under the view that the embedded dative remains in an opaque domain after application of the causative rule.

40 Although our discussion in the text has provided some evidence against the sister-to-faire analysis, it has not disposed of all of the arguments for such an analysis presented by Kayne. Thus in particular Kayne notes that there appears to be a dependency between the datives in question and the matrix verb: with causative verbs other than faire such datives appear not (equally) possible (see Kayne's ex. (97), p. 310). On this consider the following Italian cases:

(i)	Gli	{ feci lasciai ?vidi ??osservai *udii *ascoltai }	{ cadere un agente un albero un peso }	{ addosso in testa su un piede }
(I)	made let saw watched heard listened to	{ an agent a tree a weight }	{ fall }	{ upon him on his head on his foot }

Assuming as would seem reasonable that at least some of the cases in (i) instantiate for Italian the variation noted by Kayne, we now note that a roughly analogous variation is found with the cases of FP in (ii).

(ii)	Gli	{ feci ?lasciai ?vidi ??osservai *udii *ascoltai }	{ sparare }	{ addosso in faccia tra i piedi }	{ da un agente }
	To him I	{ made let saw watched heard listened to }	{ shoot }	{ upon in the face between the feet }	{ by an agent }

Assuming further that analogous factors are at play in (i) and (ii), we might take the variation to suggest some dependency between matrix verb and dative, perhaps of a "semantic" kind, but not of a syntactic kind since a sister-to-faire analysis for (ii) would be rather implausible. In fact, even accepting Kayne's discussion, there would be no motivation for the latter analysis with FP since that construction appears immune to the dative-cliticization problem in general (cf. 77).

In support of his view, Kayne also points out that at least some of these datives will not appear when not in conjunction with faire as in (iii) (Kayne's (96b)) corresponding to (79b) above.

- (iii) \*Son chien lui mourra  
His dog to him will die

Since mourir would be ergative in our discussion, we might attempt to relate the ungrammaticality of (iii) to the difficulty in preposing the direct object when the latter is associated with a dative of interest (as in this case), noted for Italian in chapter 1 (cf. ex. (104a) in that chapter or the contrast: "?Il cane gli e' morto"/ "Gli e' morto il cane"). -The dog died on him-).

41 The verbs behaving like tomber which appear in Kayne's examples are the following:

- (i) Mourir, se rétrécir, tomber, monter  
Die shrink fall climb
- (ii) disparaître, adhérer, rougir, enfler, couler  
disappear adhere redden swell sink
- (iii) battre (as in "Le cœur lui battait"), tourner (as in beat turn  
"La tête lui tourne"), démanger  
itch

The verbs in (i) take auxiliary E, those in (ii) and (iii) A. The verbs

in (i) and -to a reasonable extent- those in (ii) can appear in the il-construction, though not very well those in (iii). We note however that all of the corresponding Italian verbs take E (though battere (battre) is slightly marginal with either auxiliary). It would therefore seem reasonable to regard all of these verbs as ergative, and the il-construction subject to some -as yet unclear- "semantic" constraints.

42 Again the FP counterpart will unproblematically allow the impossible reading of (86) as in (i), but will be unambiguous since da-NP does not cliticize in the dative.

- (i) Gli faro' comprare un libro da Mario  
 (I will have a book bought for him by Mario)

43 Kayne's solution to (75), (76) obviously carries over to this case, but so does the criticism. Consider in fact (i) in its alleged analysis where no disjoint reference would be expected between Maria and lei.

- (i) \*Maria<sub>i</sub> gli<sub>j</sub> fece comprare un libro [S<sub>j</sub> ... proprio a lei<sub>i</sub>]  
 (Maria had him buy a book exactly to her)

Solutions to these two problems are proposed in R&V. However, given the criticism in 5.3 above (cf. also fn. 44), it is not clear whether the essence of those solutions could be preserved here. It might be noted incidentally that the theory we are proposing here has different goals than the one in R&V. In particular R&V address a rather complex set of facts concerning the distribution of clitics in French, which we will not be concerned with here. Therefore our discussion will not pretend to be an alternative or a substitute for the latter theory, although the criticism will remain, if correct.

No solutions are proposed in Van Tiell-di Maio (1978) where these problems are noted for Italian.

44 The discussion in Kayne (1975) attempts to reduce the problem to some animacy requirement (briefly mentioned in connection with (26) above), cf. Kayne (p. 242, ex. (122) and discussion). This seems to us insufficient given the contrast in (88) where animacy cannot be the factor. Kayne also produces examples analogous to (88a) which are acceptable. Such examples are however admittedly rare in French (cf. Kayne p. 407, ex. (11) and fn. 4) and seem extremely rare in Italian. Cf. fn. 59, chapter 6.

R&V's discussion of these facts is as in the following quote (where their (162) is the result of  $\bar{V}$  movement as in (31) above applied to "embrasser [NP<sup>e</sup>]" within the embedded clause).

" (149) Empty NP Deletion

$[_{NP}^e] \rightarrow \emptyset$  when governed by se + V

.....

(162) Pierre se<sub>i</sub> faire [embrasser [NP<sup>e</sup>]<sub>i</sub> Marie]

Clearly, se + faire in (162) does not govern the empty NP, which prevents the deletion rule (149) from applying. As a consequence, the embedded subject Marie is not governed by [- N] and the resulting structure ... is ruled out by the \*NP filter."

As far as I can see this system would operate in identical fashion with tomber if the latter is intransitive, as it would be in their framework. The well-formedness of the following would thus remain unexplained.

- (i) Les enfants se faisait tomber des pierres dessus  
 (The kids were making stones fall on themselves/ each other)

45 The different status of (87b) and (90b) is clearly not due to the different linear order (...addosso un agente/ ...un agente addosso), as (87b) is ungrammatical in any linear order.

As expected, the case where si is construed with the direct-object of the ergative verb as in (i) (thus parallel to the transitive case of FP in (89c)) is also possible

- (i) I ragazzi si fanno [<sub>VP</sub><sup>cadere</sup> \_\_]  
 (The kids make themselves/ each other fall)

However, (i) will not distinguish ergatives from intransitives since cases where si is construed with the embedded subject as in (ii) are also possible.

- (ii) (?)I ragazzi si facevano spesso parlare delle proprie esperienze sentimentali

(The kids often made each other talk about their love experiences)

46 The principle in (97) will not be relevant to non accusative clitics, since we assume that oblique Case is assigned by a preposition, not by a verb. There is perhaps an exception to this, represented by the dative Case assignment (dativization) discussed in 5.5.4 below, which, as will be discussed in 6.4.4, we will consider due to Case assigning properties of fare.

47 On the appropriateness of extending dativization beyond the context "NP\_\_", see Kayne (1975, p. 210, fn. 9).

48 This classification of the facts is certainly an approximation and

possibly artificial. In fact there are finer variations internal to each group such that the judgements might conceivably form a continuum.

49 On the different positions of prepositions a and di in (110) and (102) respectively, recall that, as was mentioned in 1.7.1, we assume a to be in VP, while we assume di to be in complementizer position. This view is compatible with the discussion in Kayne (to appear c). Relevant discussion will be presented in 6.8 below.

50 The fact, often noted (see for example Kayne (1975, p. 208-209), Grimshaw (1980)) that with French devenir (Italian diventare, i.e. "become") dativization does not occur, would be amenable to an explanation under the ergative analysis in (i).

- (i) Giovanni<sub>i</sub> divento' t<sub>i</sub> un buon professore  
           Giovanni became       a good professor

Under this view, embedding under F-S would not be possible for the usual reasons, i.e. violation of proper binding as in (48). Embedding under F-VP as for example in (ii), would thus be the only possibility, hence the lack of dativization.

- (ii) Cio' fara' [vp diventare Giovanni un buon professore]  
           That will make become Giovanni a good professor

The ergative analysis of diventare/ become would be further supported by: The fact that it takes E; The fact that the da variant is impossible (as is passive): "\*Cio' fara' diventare un buon professore da Giovanni"; The fact that -er affixation in English does not apply, thus failing to yield "actor-becomer" etc., as noted in Kayne (1975, p. 209, fn. 7) and in the references he cites; And the fact that diventare (or divenire)/ devenir/ become is clearly related both

etymologically and semantically to ergative venire/ venir/ come (cf. also Piedmontese vni which has both meanings: "come" and "become").

This would make diventare analogous to the case of verbs like pesare, costare, durare (weigh, cost, last) involving measure-phrase complements, discussed in fn. 7. The same approach seems to me conceivable for the case of "Identificationals" (discussed in Longobardi (1980a), briefly noted in 3.5.5), e.g. "Il vincitore e' Giovanni/ The winner is Giovanni". One might suggest in fact that the single base form in (iii) should give rise to the two S-structure forms in (iv) and (v) respectively, by means of two different applications of NP-movement.

(iii) [NP<sup>e</sup>] essere Giovanni il vincitore  
to be Giovanni the winner

(iv) Giovanni<sub>i</sub> e' t<sub>i</sub> il vincitore

(v) Il vincitore<sub>i</sub> e' Giovanni t<sub>i</sub>

(vi) could then be derived from (iii) by insertion of pro; and (vii) from (iv) by insertion of an ep.

(vi) pro era Giovanni il vincitore  
Was Giovanni<sub>s</sub> the winner

(vii) Giovanni e' lui il vincitore  
Giovanni is himself the winner

No doubt problems would remain. For example some provision would have to be made to ensure that no derivation parallel to (v) obtains in the other two cases, to prevent (viii) and (ix) below.

(viii) \*[<sub>i</sub>Un buon professore] diventerebbe Giovanni t<sub>i</sub>  
A good professor would become Giovanni

(ix) \*[<sub>i</sub>Dieci lire] costavano lo zucchero t<sub>i</sub>  
Ten lira cost the sugar

However notice that, under the analysis in (iii) it would be less than

surprising that diventare/ become can also appear in identificationals (e.g. "?The president became John"), since (i) and (iv) would be essentially parallel.

It would remain unclear whether in each of these cases the material to the right of the verb should be analyzed as a sc. Also unclear would remain the mechanisms of Case assignment to the phrase which is to the right of the verb but not adjacent to it (i.e. "un buon professore"; "dieci lire"; "il vincitore", respectively) given in particular the related questions discussed in fn. 31, ch. 3.

Further comment would also be required by the fact that in Italian (differently than in English), verb agreement is as indicated in (x) below, i.e. apparently with the phrase loro, and thus potentially at an unbounded distance (if we imagine an indefinitely long sequence of Raising verbs).

- (x) La causa dello scandalo sembravano essere loro  
The cause of the scandal seemed to be theys

Given our claim in chapter 2 that verb agreement is strictly local, (x) would have to be accounted for by suggesting that the verb "appears" to agree with the post verbal phrase loro by virtue of the fact that the subject (i.e. "La causa...") is related to it (in some fashion). Agreement here would therefore be "transmitted" as with the cases involving subject "there" in English. This view is possibly supported by the fact that the agreement idiosyncrasy found with the latter cases (cf. (107b), ch. 3 and discussion) seems to appear here too, albeit in a very weak form (i.e. as in the contrast "?fu/ \*fu" here below).

- (xi) La causa dello scandalo { ??fu  
furono } quel professore e le sue  
The cause of the scandal { was  
were } that professor and his  
manie  
manias

(xii) Quel professore e le sue manie { \*fu  
furono } la causa  
That professor and his manias { was  
were } the cause  
dello scandalo  
of the scandal

The difference between Italian and English would then fall under the view of chapter 3 that, when it is indirect in the sense just described, NP-verb agreement is subject to language-specific idiosyncrasies.

As will be recalled, the property of identificationalis which is relevant to some of our discussion (cf. 3.5.5; 5.6 below) is the fact that they can be made discontinuous by movement but not by Control, as in:

- (xiii) The winner { \*tried  
                  seemed } to be John

This property will follow if we assume that the phrase "the winner", although syntactically a NP, is not a referential expression. As such, it could be moved, but not base-generated as a subject of a verb which would assign a thematic role to it (such as a subject Control verb). The latter assumption might seem natural under the analysis in (iii).

For a different view on identificationals see Longobardi (1980a),  
to whom some of these observations are due.

51 The case in (117b) will contrast, although rather weakly with the case in (i), noted in fn. 3, ch. 1.

- (i) ?(?)Ritengo passarsi solo da Cesana  
I believe SI to pass only through Cesana

Verbs like ritenere in (i), discussed in Rizzi (to appear) seem to us the closest to English ECM verbs, in providing some form of Case assignment to an embedded subject (without requiring application of VP-movement like fare). Sharper contrasts between ritenere and the verbs in question, such as vedere, are obtained with the clitic subject ci of locationals (cf. 3.1.3), as in the following.

- (ii) \*Ho visto esserci molta gente in spiaggia  
I have seen there to be many people on the beach
- (iii) Ritengo esserci molta gente in spiaggia  
I believe there to be many people on the beach

The case in (ii) will be ruled out under our Control analysis, since ci is in general impossible under Control as discussed in 1.3, 3.1.3 above. However we lack an explanation for the difference between SI and ci under ritenere.

52 Actually, passives under any of the verbs in question, as in (119b) appear slightly odd (on the parallel situation in French cf. Kayne (1975, p. 252, fn. 61)). These cases will improve to full acceptability if venire (come) replaces essere in the passive morphology (i.e. "...venire inseguiti..."). Although we have no explanation for this peculiarity, we will note that the use of venire instead of essere in passives becomes less than mysterious under a sc analysis of passives, and an ergative analysis of venire. As an ergative verb, venire is normally subcategorized for a NP complement (as in "viene Giovanni — Giovanni viene"). To account for its use in

passives it will now be sufficient to assume that its subcategorization is extended to sc's (i.e. "viene [sc Giovanni arrestato] — Giovanni viene arrestato). A parallel analysis might perhaps be suggested for forms like "La pizza va mangiata calda/ Pizza goes eaten hot (Pizza must be eaten hot)".

53 Somewhat related to the Italian cases of the text, would be the following cases.

- (i) John proved several problems to be unsolvable
- (ii) \*There proved several problems to be unsolvable

We assume that (ii), contrasting with "Several problems proved to be unsolvable", is ruled out by failure of nominative Case assignment across the S boundary in the manner of (126b), (188f), chapter 3. If this is correct, it will provide an argument against a "raising-to-object" analysis of (i) (as in Postal (1974)). In fact it will be natural to assume that the two verbs in (i), (ii) are related minimally, and thus that the phrase "several problems" is within the complement in (i) if it is in (ii). Of course this argument is rather weak however since it is not clear that there, which is compatible only with some verbs, would be compatible with prove.

54 This point is also made by the discussion of quantifier scope with respect to example (21) of ch. 4.

A Control (i.e. "Equi") analysis of fare has been proposed in Van Tiel-di Maio (1978). In her framework fare will be marked in the lexicon as undergoing the causative rule obligatorily.

55 However, some variant of the ECM (or Accusative plus Infinitive) analysis might be plausible for the marginal case in (i), where the

causative rule has not applied to the complement of fare, as accusative lo (rather than dative gli) shows.

- (i) (?)?Lo faro' leggere quel libro  
 Him I will make read that book  
 (I will make him read that book)

This variant, which is possible -if at all- only under cliticization (cf. "\*Faro' Giovanni..."), is classified (for French) as ungrammatical in Kayne (1975), but as grammatical in R&V. In our discussion we have subscribed to the former view. On this, see Radford (1979) who reviews a number of differing opinions on the matter. Our view is that if an approximation must be made, (i) ought to be considered out. However it might be desirable to express somewhere in the grammar, the fact that (i) is possible only under cliticization and with a degree of marginality subject to some dialectal variation. See 6.6 below.

56 Some empirical predictions might well ensue from the difference between (136) and (29), in particular from the fact that " $NP_i$ " in (136) C-commands the embedded VP. In fact if proper binding did not refer to the linear order but only to C-command (as assumed in the discussion of fn. 10), then we would expect that some of the violations of proper binding discussed in 5.4 above in connection with VP-movement under fare, should not occur with vedere etc. We would also expect that the pattern of disjoint reference between the embedded subject and the embedded direct object should differ from that given in (ix), fn. 10 and relative to fare. On the whole no such difference in behavior would seem clear enough to be detectable, except perhaps for the slight contrast in (i), which would thus bear such prediction out to some degree, for the analyses indicated (on venire with passives,

recall fn. 52).

- (i) \*Gli feci [vpvenir presentato  $t_i$  \_\_\_] [ $S_{Giovanni_i}$  ---]  
To him I made be introduced Giovanni
- (ii) ??Gli vidi [vpvenir presentato  $t_i$  \_\_\_] [ $S_{Giovanni_i}$  ---]  
To him I saw be introduced Giovanni

57 While the discussion in this section has essentially collected all the tests -to our knowledge- available to distinguish object-Control from ECM, we will list here below the cases that appear to distinguish subject-Control from subject-Raising.

### 1. Idiom chunks

- (i) Care    { seemed    { to be taken  
              } \*tried    }

### 2. Empty subjects of weather verbs/ Non pronominal "it"

- (ii) It    { seems    { to rain  
              } \*tries    }
- (iii) It    { seemed    { that John was there  
              } \*wished    }

### 3. Structures with i-subjects (cf. chs. 2, 3)

- (iv) There    { seemed    { to be many people  
              } \*tried    }
- (v) Il    { semblait    { arriver beaucoup de monde  
              } \*voulait    }
- It    { seemed    { to arrive many people  
              } wanted    }
- (vi) { Sembrano    { intervenirne molti  
              } \*Sperano di    }  
      { Seem    { to intervene of them many  
              } Hope    }
- (vii) { Sembrano    { esserci due ragazzi sul campo  
              } \*Sperano di    }  
      { Seem    { there to be two kids in the field  
              } Hope    }

- #### 4. Identificationals (cf. fn. 50 this ch.)

(viii) The winner } seemed } to be John  
                  } \*tried }

- ### 5. SI-construction/ SI-construction after O.P. (cf. 1.3)

(ix) { ?Sembrava      } mangiarsi molto bene  
       { \*Sperava di     }  
       (It)      { seemed    } SI to eat very well  
                 { hoped     }

(x) ([<sub>i</sub> Quei terroristi] si libereranno <sub>i</sub> presto)

Quei terroristi      } sembreranno      } liberarsi presto  
                       } \*spereranno di      }

Those terrorists    } will seem      } SI to free soon  
                       } \*will hope     }

- ## 6. Each (cf. 4.1)

(xi) One interpreter each { seemed } to be assigned  
                                  {\*tried} {  
                                  to the visitors}

7. Disjoint reference (weakly) (cf. fn. 10 this ch.)

(xii) Un ammiratore di Sophia } (?) pareva  
An admirer of Sophia } seemed  
essere stato assegnato quale guardia del cor-  
to have to her been assigned as a bodyguard

- #### 8. Embedding under "fare" (cf. 5.4; Kayne (1975, 3.7))

(xiii) Mario farà'      } \*sembrare      }      non aver capito a Giovanni  
                         } fingere di      }  
                         }                      }  
                         } seem              }      not to have  
                         } pretend        }  
                         }                      }  
                         understood)

- ## 9. Quantifier scope (cf. 4.2; May (1977b))

(xiv) Every musician } seems } to play in an orchestra  
                      } wants    }  
  
"There is one orchestra such that every musician  
                      } seems    } to play in it"  
                      } \*wants }

10. "Opaque" contexts (cf. some of 4.3 and references)

(xv) Some extraterrestrials { seemed } to be believed  
                                  { wished }

                                  to have landed

(The existence of "some extraterrestrials" is implied  
with "wished", but not with "seemed")

11. E assignment, pp agreement (cf. 5.4.2; ch. 6)

(xvi) Maria      } era sembrata      } conoscere il mio amico  
                   } aveva desiderato      }  
                   Maria    } had seemed      } (E; pp ag't) to know my friend  
                   } had wished      } (A; no pp ag't)  
                   (But not all Raising-verbs take E; cf. ch. 6)

12. S pronominalization (cf. 2.6)

(xvii) John } seemed } to win the prize/John } \*seemed } it  
           } expected   }                                   } expected } it

(xviii) It seemed } that John would quit school/\*It seemed it  
               I expected   }                                    } I expected it

The discussion in Rizzi (1980b) brings to light one further difference, represented by the behavior under clefting of 13.

13. Clefting (cf. Rizzi (1980b))

(xix) E' tornare a casa che Gianni      } \*sembra  
   } vuole  
    } seems  
    } wants

In Rizzi's discussion the contrast in (xix) is accounted for in terms of the ECP.

58 Notice however that our view may seem partly jeopardized by the fact that corresponding passives, as in (i), (ii) here below are essentially ungrammatical, although somewhat better than the corresponding actives in (147b).

- (i) ? \*Il blocco degli affitti e' stato dimostrato  
Rent control has been demonstrated  
non contribuire alla tendenza inflazionistica  
not to contribute to the inflationary trend

(ii) \*Il blocco degli affitti e' stato rivelato  
 Rent control has been revealed

non contribuire alla tendenza inflazionistica  
 not to contribute to the inflationary trend

If the verbs in (i), (ii) did trigger  $\bar{S}$  deletion, we would expect such passives to be well formed since the trace in embedded subject position would be properly (trace-) governed. We may attempt to preserve our view however, by suggesting that there is at least some tendency, for verbs not to take an infinitival complement at all unless this results in full productivity, and thus not when well formedness is contingent on passivization. This will not predict that (147c) should be impossible, since we assume that the verb involved in the latter case is a different verb than the one in (147a) (although the two are related).

59 We are assuming that selection of a subject-controller refers to the subject in the configurational sense, in D-structure. An alternative would be to suggest that it refers to the "thematic" subject, in which case an agentive by-phrase could be selected. The case "\*John was promised to leave by Bill" would then be ruled out by the fact that the phrase "Bill" fails to C-command the relevant PRO. It appears rather difficult to decide between these two alternatives on empirical grounds.

60 The situation would then be slightly different with the comparable failure of subject-Control verbs in FP noted in 5.2.2 above. In fact in the latter case there would be no antecedent at all for the Control relation, rather than a null antecedent.

61 We must note however, that these cases are peculiar in that they allow the "missing" argument of passives to be a controller for the

subject of the "without" clause, as in (i).

- (i) The car was sold without asking me

For further relevant discussion of these cases cf. fn. 35 chapter 6.

62 As N. Chomsky has pointed out to me, the fact that the "inverted" counterparts to (144b) etc., i.e. "\*Si mancano Giovanni e Maria" etc. are also ungrammatical, is likely to indicate that the subject element that enters into inversion, which we refer to as pro, cannot be inserted in D-structure. In fact, if it could, we might expect that it could be selected as the antecedent in the reflexive relation. Conceivably, the consequent would be represented, in the above example, by the phrase "Maria e Giovanni", and these cases might be expected to be grammatical. If pro must not be present in D-structure, then it will differ maximally from the Piedmontese and French elements ye and il respectively which, as discussed in chapter 3, must be present at that level.

63 Within the framework of our discussion, one could postulate the existence of inherent reflexive/ reciprocal piacersi. This would not be too implausible, since, as this is a verb of very common use, it would not be too surprising if it was an idiosyncrasy of the system.

64 Subject clitics such as SI and ci would seem to work differently than object clitics. In particular they do not seem to fall under the principle in (97) ("If a NP is assigned Case by a verb it will cliticize only to that verb"). In fact, in those cases in which Case would seem to be assigned by a higher verb, such as (i), (ii) here below, there will be no possibility for the clitic to appear on that verb, as shown

by (iii), (iv). (On related discussion cf. fn. 52 above; fn. 3, ch. 1, and see Rizzi (to appear)).

- (i) (?) Ritengo essersi speso troppo  
I believe SI to have spent too much
- (ii) Ritengo esserci troppa gente  
I believe there to be too many people
- (iii) \*Si ritengo esser speso troppo  
(see (i))
- (iv) \*Ci ritengo essere troppa gente  
(see (ii))

65    Kayne points out that, in French, the kind of pp agreement due to cliticization (i.e. the one which we assume is induced by a relation between a clitic and a direct object) and the kind generally associated with E (in our terms the one induced by a relation between subject and direct object) have different distributions, the first one being obligatory only in literary styles, while the second is obligatory in all styles. He then notes that with clitic reflexives one finds the distribution associated with the first kind rather than the second. This will support the object clitic status of reflexive se, hence his analysis, as well as the one we are proposing here. However he also notes that the same facts hold for inherent reflexive se. This will support his analysis of inherent reflexives (quite parallel to that of reflexives), but will require further comment for our (ergative) analysis of inherent reflexives. On this we will point out that as was noted in fn. 39, ch. 1, crucial for our discussion is only the assumption that inherent reflexives may have an ergative analysis, not that they must. The facts discussed by Kayne would indicate that inherent reflexives may be analyzed as non-ergative and (probably) not that they must.

One might therefore assume that all inherent reflexives (if Kayne's facts hold of all) are ambiguous between the two analyses. See fn. 74 for an alternative suggestion.

66 French has no such extension (as will be pointed out in 5.7.5 below). This fact, as well as the lack of pp agreement in the case of en cliticization, contrasting with pp agreement in the case of ne cliticization in Italian, seems to reflect the generally weaker agreement system of French.

67 The same point is made, and more strongly, by the fact noted in the previous fn. that French has no pp agreement at all with indirect object reflexives (see. 5.7.5 below for relevant examples). The cases that would falsify the view that past participles agree with the subject, just like adjectives, in cases of auxiliary E will therefore be: The SI-construction, as discussed in 1.6 above; indirect object reflexives, as noted here.

68 We will note here that not all verbs appear to allow these forms. Alongside of (180b) we find for example (ii) below.

- (i) Passando davanti allo specchio molte persone si osservano  
While passing in front of the mirror many people watch  
per un attimo  
themselves for a moment
- (ii) ??... se ne osservano molte ...  
... of them watch themselves many ...

We also note that the distribution of these facts varies among speakers, so that for some speakers (180b) is unacceptable under the reflexive interpretation (i.e. it is unambiguously impersonal: "SI killed several of them"). This situation appears paralleled in French. For example

some speakers will not accept (182b) in the reflexive interpretation (but only as a case of SE-moyen). These facts will on the whole support both the parallel analyses proposed for Italian and French and the view expressed further below in the text that a lexical reanalysis is involved. Sensitivity to the "semantic" content of the predicate and variation among speakers would then seem fairly natural consequences. However we must also note that the configuration in question seems particularly infelicitous with many reciprocals:

- (iii) \*Se ne odiano/ amano/ baciano/ cercano/ guardano molti  
Of them hate/ love/ kiss/ look for/ look at each other many

If there is a systematic difference between reflexives and reciprocals here, it will not follow from our discussion.

Also, given our claim in 5.7.4 below that reflexive complements of faire are all reanalyzed cases, we might expect parallel lack of uniformity there (difference among verbs; variation among speakers).

It remains unclear whether such is in fact the case.

69 Given the parallelism between Italian ne and Piedmontese ne, French en respectively, we of course predict correctly that the following (corresponding to (181b) and (182b) respectively) should also be possible.

- (i) A-1-e masasne vaire  
Has killed themselves of them several
  - (ii) Il s'en est dénoncé trois mille  
It of them has denounced themselves three thousand
- ((ii) from Kayne (p. 382)).

70 The system that we are proposing for reflexive si (i.e. absorption of subject thematic role and of accusative Case) is thus analogous to the one proposed for SI in Belletti (1980), and discussed in fn. 8, ch. 1.

We argued in chapter 1 that such system was empirically inadequate for SI since it fails to predict non occurrence of SI in infinitivals, but there is no such inadequacy with respect to reflexives si (which occurs in infinitivals). We further note that while (if we are correct) there are no a-priori reasons to expect accusative absorption by SI since the latter is not independently related to objects, there are a priori reasons to expect accusative absorption by reflexive si, since the latter is -within our discussion- independently related to objects, in the manner discussed in 5.7.1.

71 We correctly predict that in Italian the same auxiliary/ pp agreement facts should obtain under this analysis as under the one of 5.7.1 above. In fact on the basis of the D-structure analysis in (184b) we will expect the same auxiliary and pp agreement as with ergative verbs, but the latter do not differ from the reflexives of 5.7.1 in those respects.

Our discussion however, does not make entirely explicit predictions with respect to French, for which, as discussed in 3.2 above, we assume a rather similar -though possibly not identical- system of E assignment/ pp agreement. In, for example, "Il s'est dénoncé trois mille hommes", we will expect both E and singular pp agreement, on the assumption that il binds the phrase in direct object position. However since we also assume the relation R<sub>2</sub> to exist in (184a) as in (183a), and since we assume se to be plural, agreeing with "trois milles hommes" as will be discussed below, we might also incorrectly expect plural pp agreement, as induced by se. On related matters, cf. fns. 74, 77 below.

72 Analogous results will of course be found also with benefactive datives, as in the following.

- (i) Due miei amici si sono comprati la macchina  
(Two of my friends have bought themselves a car)

\*Se ne sono comprati la macchina due  
(Bought themselves a car two of them)

- (ii) Dui mei amis a sun fase la ca  
(Two of my friends have made themselves a house)

\*A-1-e fase la ca dui mei amis  
(Has made themselves a house two of them)

- (iii) Deux enfants se sont achetés des bonbons  
(Two kids bought themselves candies)

\*Il s'est acheté des bonbons deux enfants  
(It has bought themselves candies two kids)

On the whole, cases like the above, in which a direct object is also present in addition to the object that we consider related to the reflexive clitic, seem significantly worse. Aside from the likely violation of the syntax of ne in the Italian example, we may attribute the additional degree of ungrammaticality of these examples to lack of Case on the direct object. In the partial revision of our discussion in 5.7.3 below we will suggest in fact that the si eliminates the subject thematic role at the level of lexical specifications. If this is correct, then we will expect the verb to no longer assign accusative Case, given the discussion in 2.6 and the condition " $-T \rightarrow -A$ ".

73 We must note here the following difficulty for the discussion in 4.1 above. We will recall the Raising/Control contrast discussed in 4.1 (cf. (11) in 4.1 and discussion):

- (i) One interpreter each<sub>i</sub> } ?was likely } to be assigned to  
those visitors<sub>i</sub> } \*was trying }

This fact was attributed to the intrinsic difference between trace and the pronominal element and PRO. As briefly suggested in fn. 8, chapter 4, this view may naturally account for the non-ambiguity of the following:

- (ii) Un evaso ciascuno<sub>i</sub> si consegno' ai carabinieri<sub>i</sub>  
One escapee each SI turned in to the policemen  
\*One escapee each turned himself in to the policemen

In fact the impersonal reading will require the analysis "[<sub>i</sub>un evaso ciascuno] SI consegno t<sub>i</sub>...", while with the reflexive reading the analysis will be "[<sub>i</sub>un evaso ciascuno] si<sub>i</sub> consegno [<sub>i</sub>e]...", where we naturally regard the chain si-empty object as a pronominal.

The problem now arises from the fact that (iii) is virtually as unambiguous as (ii).

- (iii) Se ne consegno' uno ciascuno ai carabinieri  
Of them SI turned in one each to the policemen  
?\*Of them turned himself in one each to the policemen

The impersonal reading of (iii) is associated with a transitive analysis having clitic SI as a subject. The reflexive reading (unproblematic if ciascuno is omitted) is associated with a quasi-ergative analysis of the type of (184a), with pro inserted in subject position. Since in both cases the phrase containing ciascuno is in direct object position, a position that ought to be C-commanded by the dative as discussed in chapter 4, the distinction between trace and pronominals does not seem to be relevant here. We note that the problem does not arise from our analysis of reflexives in particular, but simply from the assumption, independently reasonable given Ne-Cl, that the phrase containing ciascuno is in direct object position under either interpretation.

This problem has a likely parallel in the restructuring case in (iv).

- (iv) Ne vorrebbero essere assegnati due (?\*ciascuno)  
 Of them would like to be assigned two (each)  
 a quei visitatori  
 to those visitors

Again (iv), where the matrix verb volere is a Control verb triggering restructuring is virtually as bad as the Control case in (i), in spite of the fact that the phrase containing ciascuno is in embedded direct object position, a position that ought to be C-commanded by the dative. On the dynamics of the derivation of cases like (iv), cf. (12), (82) chapter 2 and discussion. The counterpart to (iv) involving a Raising verb (e.g. potere "to be able to") is acceptable as expected.

74 There may be some indications that a binding or coindexing relation between si/se and the subject (i.e.  $R_1$ ) is present in cases in which there is no assignment of thematic role to the subject. This has to do with the fact, noted in 3.2, that in French, while selection of E does not appear systematic over the class of verbs which one might presume ergative, as with "Jean est arrivé" versus "Le bateau a coulé", se ergatives and inherent reflexives take E quite systematically. This difference would follow if there was in fact such a relation between se and the subject position and if the system of E assignment of French was such as to respond more strongly to such a relation than to a relation between the subject and the direct object position. For pp agreement with se-ergatives and inherent reflexives, one might postulate the existence of a relation like  $R_2$  of the text between se and the direct object position in those cases also. This would seem plausible under the assumption that se is in

fact what absorbs the accusative (as well as the subject thematic role). Under this view the second analysis which we are proposing for reflexives would be entirely analogous to that of inherent reflexives and se ergatives. By assuming that in general not the relation between the subject and the object, but the one between se and the object, is responsible for pp agreement in inherent reflexives, one would account for the observation in Kayne (1975), mentioned in fn. 65 above, that not only with reflexives, but with inherent reflexives too, pp agreement has the same character as pp agreement with clitics, not as pp agreement with verbs taking E, like venir.

The view that  $R_2$  enters into pp agreement would leave open the question of fn. 71, namely that of the lack of pp agreement in "Il s'est dénoncé trois mille hommes". The problem derives from our assumption that se in this case has plural features, i.e. that it agrees with "trois mille hommes", and not with il. The opposite view, i.e. that it agrees with il, is not untenable given fn. 77 below, but would jeopardize some of our discussion below in the text, where we claim that the different distributions of si, se under causatives are due to the fact that si agrees with the subject, while se agrees with the object. We thus leave the question open.

75 We find the corresponding Piedmontese data unreliable given the strong interference from Italian, expected with such infrequent constructions.

76 Notice that this account correctly predicts that the ambiguity if any, will only affect the subject and never the object, namely that the following will only mean "Fear made someone/self<sub>i</sub> kill a guard<sub>i</sub>"

and not "Fear made a guard<sub>i</sub> kill someone/self<sub>i</sub>".

- (i) La paura fece uccidere un secondino  
 (Fear made someone kill a guard/  
 Fear made a guard kill himself/  
 \*Fear made a guard kill someone)

The same correct prediction does not obviously ensue from alternative accounts, for example from the one in Radford (1979) in which (i) in the reflexive reading would be derived by embedding under fare "un secondino si-uccidere: a guard to kill himself", applying the causative rule (the relevant analogue to VP-movement) and a rule of "self-effacement" deleting si.

By claiming that "un secondino" in (i) (and "un prigioniero" in (203), etc.) is the embedded object rather than the embedded subject, we are making the same claim with respect to Italian, that we will make below in the text with respect to French.

77 The assumption that se in (191b) agrees with "beaucoup de terroristes" and not with il seems rather natural given the semantics, but cannot be checked by means of strict morphological tests since, while the il-construction only allows third person i-subjects, se is both third person singular and plural. (We assume il third person singular). Cf. fns. 71, 74 for related discussion.

78 Assuming that se can, at least marginally play a thematic role here, would suggest a partial violation of the thematic criterion, since there seems to be no argument position associated with it. A violation might perhaps also be represented by the case noted in fn. 61 above, i.e. "The car was sold without asking me", where the PRO subject of the "without" clause seems to be controlled by the thematic subject

of the main verb "sell". If such Control is syntactic, then the latter thematic subject is in some respects an argument, but there is no R-expression associated with it.

79 Actually, this assessment is not entirely accurate since within *Kayne's discussion* there is one other argument in support of the theory in (214), having to do with the following asymmetry (*Kayne*, p. 381).

- (i) Il s'est dénoncé trois mille hommes ...  
It themselves denounced three thousand men
- (ii) \*Il les a dénoncés trois mille hommes ...  
It them has denounced three thousand men

*Kayne* assumes (i) derived by NP-extraposition and the latter rule inhibited by the presence of a direct object. Assuming no trace-theory, it will follow that NP-extraposition must be allowed to apply after Se-P1 given (i) (and after "passive" given "Il a été dénoncé trois mille hommes"), but not after Cl-P1 given (ii). This supports cyclicity of Se-P1 versus post-cyclicity of Cl-P1, within *Kayne's* assumptions. We may note that such argument will be weakened by the lack of indirect object counterparts to (i), noted in 5.7.2, unpredicted within *Kayne's* system.

Within our system the contrast (i)/ (ii) above is due to the fact that while se is associated with subject thematic role, and "trois mille hommes" is the direct object of dénoncer, les is associated with direct object thematic role, and (ii) violates thematic well-formedness, since there are thus two direct objects.

80 Cases involving an indirect, rather than a direct object and a sentential complement (such as "promettre à NP que-S" versus "persuader

NP que-S"), also confirm our view. Notice in fact that dativization is at least a possibility in the non reflexive case in (ii) (dative lui versus accusative le), while it is not a possibility at all in the reflexive case in (i).

(i) Cela fera se promettre } ?les amants } que rien les separera  
                                  } \*aux amants }

(That will make the lovers promise each other that nothing will divide them)

(ii) Je    } lui } ferai promettre a sa femme qu'il prendra  
                          } (?)le  
                          des vacances

(I will make him promise to his wife that he will take some vacation)

Again, if "les amants" in (i) was the subject of "promettre", it ought to come out dative, just like "lui" in (ii). Under our analysis, in (i) se withholds the dative Case which "promettre" would otherwise assign to its object, namely "les amants", and accusative Case is assigned to the latter phrase by faire. However, see below in the text for some problematic aspects of this view. The possibility for accusative le in (ii) will remain unclear, but can be related at least in part to the marginal possibility for the causative rule to not apply at all, as long as the embedded subject is cliticized, as noted in fn. 55 above. The less than perfect status of the better variant in (i) will also be left unexplained.

81    Kayne's purpose in discussing these data will not be relevant here.

82    We are of course assuming that it would be implausible to attribute the difference between (219b) and (219c) to such clitic-clustering effect. If our discussion in 5.3.1 and 5.5.3 (cf. (93) above and discussion) is correct, (219b) involves a positive violation

of the syntax of en (trace of en not C-commanded) and it will indeed be difficult to see how the presence of se could rectify such a violation.

83 In not discriminating between transitive and intransitive verbs, reflexive complements of fare seem to parallel the "participial absolute" construction (noted in Perlmutter (1978b), (1979)) in Italian. The latter construction appears to quite generally discriminate between subject and objects in the following fashion.

- (i) Arrivato Piero,  
(Having Piero arrived)
  - (ii) Arrestato Piero,  
(Having Piero been arrested/  
having arrested Piero) Giovanni si senti sollevato  
(Giovanni felt relieved)
  - (iii) Parlato a Piero,  
(Having spoken to Piero)
  - (iv) \*Parlato Piero,  
(Having Piero spoken)

As has been pointed out to me (p.c.) by G. Cinque, reflexives seem to be possible in this construction (although with some marginality), but differently than with the sc relatives discussed in 5.7.3 there appears to be no break between transitives and intransitives here. E.g.:

- (v) ?Scusatosi Giovanni, la situazione era un po' meno imbarazzante  
Excused himself Giovanni, the situation was a little less embarrassing
  - (vi) ?Preparatosi Giovanni, non restava che partire  
Readied himself Giovanni, there was nothing left but to go
  - (vii) ?Telefonatisi i ragazzi, si seppe che Giovanni era partito  
Phoned to each other the kids, SI (we) knew that Giovanni had left
  - (viii)?Parlatisi gli organizzatori, una decisione sembrava ormai vicina  
Spoken to each other the organizers, a decision seemed by then near

Even without an exact analysis of this construction, these facts would seem to confirm our analysis given the similarity between the reflexive cases and the cases in (i)-(iii) rather than (iv).

84 We note that our discussion, and the view that se neutralizes the Case that would go to an indirect object thus allowing the latter to appear in the accusative, predicts a difference between Italian and French. In particular it correctly predicts accusative "les soldats" in (i) (since se neutralizes the dative which generally appears with complements of dessus), but dative "ai soldati" in (ii) since there is no si in the latter case. Unfortunately the reflexive interpretation in (ii) is marginal if possible at all, for idiosyncratic reasons, we assume.

(i) La crise d'hysterie a fait se tirer dessus } les soldats  
 } \*aux soldats

(The fit of hysteria made the soldiers fire upon each other)

(ii) La crisi isterica fece sparare addosso } \*i      } soldati  
 } ai

(The fit of hysteria made

} someone fire upon the soldiers      }  
 } ??the soldiers fire upon each other }

85 Analogously, the lexical view of passives will be falsified by the following under the respective analyses.

(i) Giovanni<sub>i</sub> fu fatto [VP aiutare t<sub>i</sub> da Maria]  
Giovanni was made to help by Maria

(ii) I ragazzi<sub>i</sub> furono fatti [VP cadere t<sub>i</sub> in acqua]  
The kids were made to fall in the water

(iii) Le donne<sub>i</sub> furono fatte [VP parlare dei rispettivi figli][S<sub>i</sub> ---]  
The women were made to talk about their respective children

Again the lexical view would be tenable given these facts, only if the above verb sequences (fare-aiutare, fare-cadere, fare-parlare) were lexical items, namely if both our F-VP and F-S had lexical derivations. On this we will recall the arguments of 5.3 above, against the view that such sequences, in either F-VP or F-S, may form a single verb.

If passives are derived lexically, not only causative constructions, but restructuring constructions as well, will have to be derived lexically, given cases like (iv) here below, where, as will be discussed in chapter 6, the restructuring process must have applied to the underscored sequence.

- (iv) ?[\_i Quel libro] fu fatto voler leggere t<sub>i</sub> a tutti  
That book was made to want to read to everyone  
(Everyone was made to wish to read that book)

Arguments against lexical derivation of restructured complexes will be presented in chapter 6.

## 6. RESTRUCTURING CONSTRUCTIONS

### 6.0 Introduction

In this chapter we will attempt to provide a theory for the restructuring process briefly introduced in 2.1.1 above. We will see how our proposal interacts with the various subsystems of the grammar of Italian that we have discussed in the previous chapters. Of special concern will be the interaction between our formulation of restructuring and the system of E assignment and pp agreement of 1.6 above.

As is now well-known (cf. references cited in the course of this chapter), the restructuring process is found in Italian and Spanish, though not in modern French. We will have no insight to offer on this, and on the fact that in general restructuring seems to affect only "subject pronoun-drop" languages (Italian, Spanish, Old French; on the latter cf., for example, Kayne (to appear b, fn. 5)). We will thus leave the matter to further research. Although Spanish is parallel to Italian in some of the relevant facts, we will not find in that language any of the auxiliary alternations we are about to discuss for Italian, since Spanish features only one aspectual auxiliary: haber (have).

Our discussion in this chapter will be concerned almost exclusively with Italian. Our primary source throughout, will be Rizzi's article "A Restructuring Rule in Italian Syntax" (Rizzi (1978a)). (When making reference to Rizzi's discussion, the latter article will be meant, unless otherwise specified). We will accept Rizzi's view in part, and propose some revisions, aiming to answer some of the questions that the latter study left open. In particular we will propose for restructuring the same rule of VP-movement that we proposed

for causative constructions in chapter 5. It will be our view that the ergative analysis of E verbs, which we attempted to motivate independently in previous chapters, is the key to solving some of the outstanding problems.

A few brief comments will be required to avoid possible confusion. In some of chapter 5, we discussed the phenomenon and the process of "Clitic Climbing" with respect to causative constructions (cf. 5.3.1 above). The same designation will be used in this chapter to refer to the similar phenomenon found with restructuring constructions. In some of his discussion (cf. his fns. 12, 21) Rizzi argues against the existence of a "Clitic Climbing" rule (as has been proposed in some of the literature on Spanish). It may be useful to point out that those arguments will not be relevant to our discussion. In fact Rizzi argues for the view that the exceptional position of clitics, generally reflects deeper syntactic peculiarities, and would not be adequately characterized by a rule that simply moved the clitics. This view we entirely share, therefore this issue will not be in dispute. Our view on the Clitic Climbing phenomenon will differ from Rizzi's, but not in a particularly consequential manner: We assume that clitics are base-generated on the verb with which they are most naturally associated (cf. 5.7 and fn. 16, ch. 5), and that they can be moved on to a higher position when general conditions allow it (on the nature of these conditions, see below). Rizzi assumes that clitics originate in NP position, and can then be "placed" on to a verb as far to the left as general conditions allow it (Kayne's model). In many respects, and for most of our discussion, these views are equivalent. As will be pointed out below, our account is deficient in that it does not express the fact

that when the higher position of the clitic is possible, it also appears near-necessary. But the same is true of Rizzi's discussion, since no independent principle is available within the latter, that would force cliticization to select the leftmost verb.

In the course of our discussion, we will argue against the specifics of Rizzi's formulation, referring to the latter as the "subject-deletion" formulation, while in his 6.2, Rizzi argues against a "Specified Subject Deletion" approach. We must note that these are two different things: Rizzi defends the existence of a restructuring process specific to a small (and syntactically non-homogeneous) class of verbs, against the view (of Quicoli (1976)), that the phenomena in question can be reduced to some "Equi-NP" deletion operation quite general over a certain syntactic class. We assume Rizzi's position on this to be correct. We will simply call into question the specifics of his restructuring rule: a rather different matter.

We will continue to assume from 2.1.1 above and, without discussion till 6.8 below, that of the prepositions that may precede an infinitive, di is in complementizer position (as argued in Kayne (to appear c)), while a is part of the VP (like English to). In our theory, per of the Raising predicate "stare per" will also have to be part of the embedded VP.

Finally, as in some of chapter 5, we will indicate the result of extraction of the VP by VP-movement, as "[<sub>S</sub>NP---]", where "NP" could be instantiated by "PRO", "t", "Giovanni" etc., and where "[<sub>S</sub>" will be ambiguously used to indicate either an  $\bar{S}$ -boundary or an S-boundary (in cases of  $\bar{S}$  deletion) as has been the case throughout our discussion.

## 6.1 Background

We will begin by briefly summarizing the essence of Rizzi's discussion and thus present the major properties of restructuring contexts. Rizzi notes the existence in Italian of three apparently exceptional phenomena:

I) In some cases embedded objects can be cliticized to the main verb, as in (1a) contrasting with (1b).

(1a) Lo voglio leggere  
It I want to read

(1b) \*Lo odio leggere  
It I hate to read

II) In some cases, O.P. (NP-movement) in the SI-construction (cf. 1.3 above) will successfully place an embedded direct object into matrix subject position, as in (2a) contrasting with (2b).

(2a) Quei libri si volevano proprio leggere  
Those books SI wanted really to read  
(We really wanted to read those books)

(2b) \*Quei libri si odiavano proprio leggere  
Those books SI hated really to read

III) In some cases a main verb generally taking auxiliary A (avere) will have the option to take auxiliary E (essere) if the embedded verb is an "E" verb, as in (3a) contrasting with (3b).

(3a) Mario    } sarebbe    } già voluto venire  
              } avrebbe    }  
        Mario would have already wanted to come      (E/A)

(3b) Mario    } \*sarebbe    } proprio odiato venire  
              } avrebbe    }  
        Mario would have really hated to come      (\*E/A)

Rizzi then makes three major observations concerning the relative distribution of I), II), III) above. These are:

- 1) The three phenomena involve the same class of main verbs (given

(1), (2), (3) above, volere, but not odiare, will be a member of the class).

2) In the presence of each one of the phenomena in question (i.e. I), II), or III)), some allegedly syntactic processes possible in general, appear no longer possible. The processes Rizzi discusses are: Wh-movement with "pied-piping" of the embedded infinitive; "Clefting" of the embedded infinitive; "Right Node Raising" with respect to the embedded infinitive; "Complex NP Shift" also with respect to the embedded infinitive. The following example (Rizzi's (81)), is a typical case, and will illustrate the general situation. The reader is referred to Rizzi's work for an exhaustive discussion of these cases.



(4b) will show that if the phenomenon of II) above, henceforth referred to as "Change of Auxiliary" (CA), has occurred, as in the bottom variant of (4a), then clefting of the embedded infinitive, otherwise possible, becomes impossible.

3) The three phenomena (i.e. I), II), III) above) appear to interact directly. For example II), henceforth referred to as "Long O.P.", will not occur if I), henceforth "Clitic Climbing", fails to occur, as in (5).

- (5a) \*Questi libri si vorrebbero proprio dargli  
These books SI would really like to give to him

(5b) Questi libri gli si vorrebbero proprio dare  
These books to him SI would really like to give

Similarly, Clitic Climbing (i.e. I)) will not occur if the Change of Auxiliary (i.e. III)) fails, as in (6).

- (6a) \*Mario ci avrebbe già voluto venire  
       Mario there would have already wanted to come      (A)
- (6b) Mario ci sarebbe già voluto venire  
       ... there would have ...                                  (E)

Extrinsic factors make discussion of the other logically possible combinations slightly more complex. We will deal with those below.

Rizzi's discussion will therefore essentially have the structure of (7), where each box represents one relevant observation.

(7) 1) Same class of verbs	I) Cl.Cl.	II) Long O.P.	III) CA
2a) Pied piping of infinitive	*	*	*
2b) Clefting	*	*	*
2c) R.N.R.	*	*	*
2d) CNP Shift	*	*	*
3a) Interaction with CA	see below	see below	
3b) Interaction with Long O.P.	see below		

For example, the observation relative to (4) above will have coordinates "2b); III)" in (7).

On the basis of the discussion we have thus briefly characterized, Rizzi suggests that there is one single syntactic operation involved, triggered by a certain class of verbs, from which all of the facts in question, namely those summarized in (7), follow.<sup>1</sup> Informally, he characterizes this process as "...creating a unique verbal complex consisting of the main and embedded verb..." (Rizzi, p. 114). Although we will differ with Rizzi on the particulars, we assume that, at this

level of generality, Rizzi's conclusion is quite correct. In particular, we assume that the contrasts in (1), (2), (3) above, do not reflect either base-generated differences, as suggested for example in Strozer (1980), or operations in L.F., as proposed in Zubizarreta (1979).<sup>2</sup> Relevant arguments will appear below. As we have done prior to this point we will refer to the operation in question as "restructuring" whatever the latter is, and in particular without assuming the details of Rizzi's formulation. Other designations will be used for specific formulations.

Let us now see how the view we have adopted could account for the facts in (7), even in its so-far-informal characterization. If the phenomena of I), II), III) are a reflex of restructuring, it will be obvious that they should appear with the same class of verbs: they will appear with those verbs which trigger restructuring. We will assume that the verbs in (8) are restructuring verbs. The particular classification in (8), which is ours, will come into play later on.<sup>3</sup>

- (8a) andare, venire  
go come
- (8b) volere, sapere, cominciare a, continuare a  
want know begin continue
- (8c) dovere, potere, stare per, sembrare  
have to be able to be about to seem

We will note that any adequate formulation of restructuring within the EST must account for the fact that the embedded predicate no longer seems to be in an "opaque domain". In fact, cases involving clear violations of Opacity, such as those in (1b) and (2b), will have grammatical counterparts, such as (1a) and (2a), in which restructuring has applied. It is not too difficult to see that our view that the two

verbs come to form a single verbal complex, could well achieve this result. Let us provisionally assume that in fact it does. It will then follow that, upon application of restructuring, Clitic Climbing and Long O.P. become possible. Since O.P. is in general an optional process (in the slightly idealized dialect that we assume here, cf. 1.3 above), Long O.P. will never be necessary, only possible. We return shortly below to the obligatoriness of Clitic Climbing which (5) above would seem to suggest. As for the CA, we assume thus concurring with Rizzi, that the latter must follow from restructuring obligatorily. This result will be achieved in 6.5 below, and will now be taken for granted. Concerning the cases in (7) 2), we assume that once the complex predicate is formed, the syntactic processes in question will no longer have access to the individual parts of that predicate. We will be slightly more specific on this matter in 6.2 below. Turning now to (7) 3), namely to the interaction among the phenomena, we first consider the conjunction of Clitic Climbing and CA. If Clitic Climbing signals restructuring unequivocally and if CA is obligatory under restructuring, as we are assuming, then the contrast in (6) will follow. However, the following case (Rizzi's (i), fn. 26) will be slightly puzzling.

- (9) Maria e' dovuta venirci molte volte  
 Maria has had to come here many times (E)

Assuming that the CA also signals restructuring unequivocally, we would have to conclude from (9) that Clitic Climbing is optional under restructuring, not obligatory. However, from (5a) where Long O.P. has occurred we would conclude exactly the opposite, namely that it is obligatory. Rizzi notes this apparent contradiction, but offers no

solution (cf. his fn. 26). Our discussion will not fare much better. We must note however, that in spite of this difficulty, the facts will not grant any alternative conclusion. In particular it will not be possible to claim that the CA can occur in the absence of restructuring: a situation which (9) would presumably instantiate. This view would first be rather unappealing given that CA must in any case be obligatory under restructuring as shown by (6), and secondly it would appear false given the facts we summarized in (7). CA contexts do in fact exhibit those syntactic correlates of restructuring listed in 2) of (7) as we discussed, contrary to the latter hypothetical view. For example, in such contexts, clefting of the infinitival complement will be impossible, as illustrated in (4b). Thus we would have to accept the fact that in restructured contexts, Clitic Climbing appears sometimes obligatory, sometimes optional, for reasons as yet unclear. This fact may not seem too worrisome from our point of view since we so far lack a precise understanding of the Clitic Climbing process in general. Recall in fact how our discussion in 5.3.1 and our analysis of causative constructions, provided an adequate account of the fact that in those constructions clitics related to objects of the embedded verb may appear on the higher one, essentially for any reasonable assumption concerning the syntax of clitics, namely whether we assumed that the relation between a clitic and an empty object is generally conditioned by Opacity as has been widely assumed in the literature, or whether we assumed that the latter relation is a relation of government, as we will suggest in 6.6 below (and as is argued in Borer (1981)). Our discussion however did not provide any account of why appearance of such clitics on the higher verb is near obligatory, cf. (32a), chapter 5. (An exception

to this is the case where the object in question is the object of an ergative verb, where the higher position of the clitic was attributed to the fact that the higher verb is the Case assigner, cf. principle (97), chapter 5, and discussion). Our discussion of restructuring constructions in this chapter, will have a parallel shortcoming (but with the exception of the case of reflexive clitics discussed in 6.6 below, for which Clitic Climbing will follow from the rule of reflexive agreement of 2.4.1 above).

Longobardi (1980b) has claimed that Clitic Climbing must be regarded as weakly obligatory in general, with only slight internal variations and with essentially no distinction between causative and restructuring constructions. The cases where cliticization on the matrix verb appears strongly obligatory, such as (5) above would be the result of extrinsic factors which he discusses.<sup>4</sup> As for cases like (9) where such cliticization appears quite optional, he suggests that their significance is not too great since they are rather atypical and infrequent, a fact also noted by Rizzi (fn. 26).<sup>5</sup> If the latter discussion is correct, the range of unexplained variation within Clitic Climbing phenomena will be considerably reduced: a welcome result. As discussed, we will assume however that the course of our discussion will remain essentially the same whether or not the apparent discrepancy between (5a) and (9) is explained. To conclude: On the interaction between Clitic Climbing and CA we assume that restructuring induces CA obligatorily (a result to be achieved in 6.5 below), and that it induces Clitic Climbing in near-obligatory fashion, with the possible residue of some unexplained variation. We now turn to the other cases in 3) of (7).

On the interaction between Clitic Climbing and Long O.P., given the noted optionality of O.P. in general we straightforwardly predict the existence of (10) here below, alongside of (5b) above.

- (10) Gli si vorrebbe proprio dare questi libri  
To him SI would really like to give these books

As Rizzi notes, it will be systematically impossible to test the conjunction of Long O.P. and CA since all environments for O.P., namely the SI-construction, take E independently as was discussed in 1.6, and as in (11).

- (11a) Si sarebbe potuto regalare quei libri a Piero  
SI could have given those books to Piero (E)
- (11b) Quei libri si sarebbero potuti regalare a Piero  
Those books SI could have given to Piero (E)

Furthermore, no embedded verb will be such as to both allow O.P., namely transitive, as regalare in (11) and be relevant for the CA, namely an "E" verb (in fact all transitive verbs take A, as discussed in 1.6 above).<sup>6</sup> For these reasons no relevant interaction between Long O.P. and CA would seem observable. If our forthcoming discussion is correct however, a strict correlate of the CA can in fact be observed in (11). This is the change in pp-agreement "potuto/ potuti" (cf. 6.5.5 below).

This completes the discussion of 3) in (7) and the interaction among the three major correlates of restructuring. It will also conclude this preliminary review of the results in (7) on the basis of the informal characterization of restructuring that we have considered in this section.

## 6.2 VP-movement

### 6.2.0 Introduction

The previous section will essentially exhaust the range of conclusions on which we concur with Rizzi's discussion. We now move on to the exact formulation of restructuring, on which we differ. We will proceed to claim that restructuring is the same rule of VP-movement that was proposed for causatives constructions. In this section we will seek to provide some preliminary motivation for VP-movement. In the next one we turn to Rizzi's different formulation. In later sections we will present additional motivation for the VP-movement analysis.

### 6.2.1 Restructuring with andare, venire

In this section we will discuss two major pieces of evidence bearing on the formulation of restructuring. In either case the evidence is contingent on the claim that restructuring andare, venire ("go, come"), i.e. the verbs of (8a) above, are ergative in the sense of chapter 1. (On the status of the same evidence under the view that these were simply intransitive verbs, see fn. 13).

We will recall from previous discussion (cf. for example 1.7.1, 2.1, 2.2) that ergative verbs taking a sentential complement can appear in the configurations in (12a), (12b) respectively, where the NP to the immediate left of the complement will be the direct object in the usual structural sense.

(12a)  $\text{pro}_i \ e' \ \text{andato} \ [\text{NP}_i \text{Giovanni}] \ [S^{\text{PRO}_i} \ a \ \text{prendere} \ il \ \text{libro}]$   
           has gone Giovanni                  to fetch the book

(12b)  $\text{Giovanni}_i \ e' \ \text{andato} \ [\text{NP}_i \text{lui}] \ [S^{\text{PRO}_i} \ a \ \text{prendere} \ il \ \text{libro}]$   
           Giovanni has gone himself          to fetch the book

The cases in (12) will thus contrast with cases involving non-ergative verbs, such as pensare (think): "\*Ha pensato Giovanni di prendere il libro; ??Giovanni ha pensato lui di prendere il libro". However, as noted in 2.1 above, if restructuring applies, there will no longer exist a direct object position between the matrix verb and the complement. This is shown by (13), contrasting with (14), where we take the position of clitic lo (a pronominal counterpart to, for example "il libro" in (12)) as a manifestation of restructuring. (Although either verb will be used in the forthcoming examples, the reader may assume all results to hold for both andare and venire).

- (13a) \*Lo e' andato Giovanni a prendere  
it has gone Giovanni to fetch
- (13b) \*Giovanni lo e' andato lui a prendere  
Giovanni it has gone himself to fetch
- (14a) Lo e' andato a prendere Giovanni  
it has gone to fetch Giovanni<sub>s</sub>
- (14b) Giovanni lo e' andato a prendere lui  
Giovanni it has gone to fetch himself

We will now suggest that these facts ought to be accounted for by assuming that restructuring is VP-movement, and that application of the latter to (12) produces (15).

- (15a) pro<sub>i</sub> e' andato [<sub>VP</sub>a prendere il libro] [NP<sub>i</sub> Giovanni] [S<sub>i</sub><sup>PRO ---</sup>]  
has gone to fetch the book Giovanni
- (15b) Giovanni<sub>i</sub> e' andato [<sub>VP</sub>a prendere il libro] [NP<sub>i</sub> lui] [S<sub>i</sub><sup>PRO ---</sup>]  
Giovanni has gone to fetch the book himself

Under this view the cases in (14) will be derived (by cliticization of "il libro" as "lo"), while those in (13) will not.<sup>7</sup>

This will predict that (14) should differ structurally from the superficially similar cases in (16) respectively, involving the restruc-

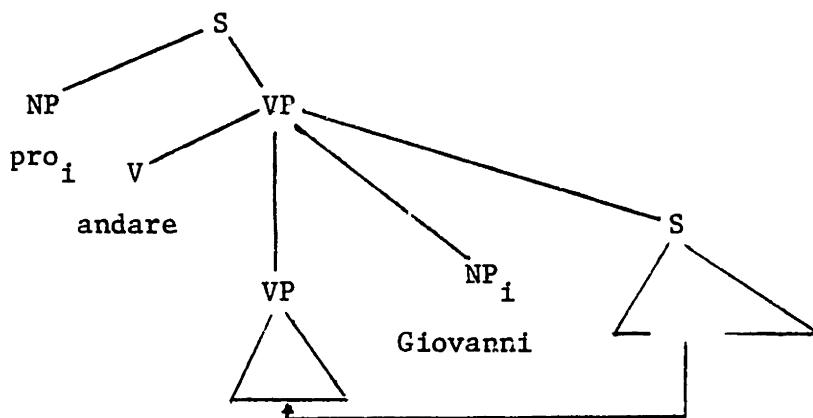
turing but non-ergative verb volere.

- (16a) Gli avrebbe voluto parlare Giovanni  
 to him would have like to talk Giovanni<sub>s</sub>

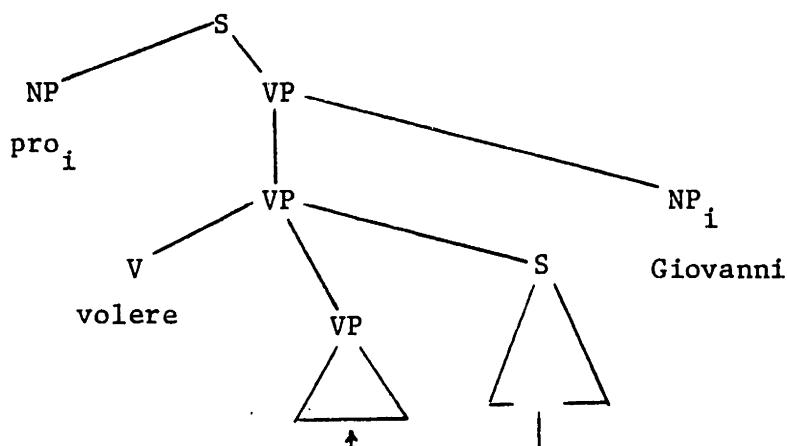
- (16b) Giovanni gli avrebbe voluto parlare lui  
 Giovanni to him would have like to talk himself

In fact, while we are assuming that the phrases "Giovanni", "lui" in (14), respectively fill the direct object position for andare: a base-generated position, just as in (12), we assume that the same phrases in (16), respectively, will fill a position resulting from adjunction to VP, i.e. we assume for example, that (16a) is derived from "Giovanni gli avrebbe voluto parlare" via rightward movement. The structural difference we are thus assuming between (14a) and the superficially similar (16a) is as represented in (17), where restructuring has extracted the VP from the complement in either case, as indicated. An analogous structural difference will exist between (14b) and (16b).

(17a)



(17b)



The correctness of our claim that the phrase "Giovanni" is a direct object of the main verb in (14a) (cf. (17a)), but not in (16a) (cf. (17b)), can now be tested by means of operations which we independently know apply to direct object only. Recalling (from chapter 1) that Ne-Cl is in fact one such operation, we will note the following contrast.

- (18a) Gliene sono andati a parlare molti  
To him of them have gone to talk manys

- (18b) (?) Gliene hanno voluto parlare molti  
To him of them have wanted to talk manys

(18a) will be the relevant analogue to (14a): The position of the embedded indirect object "gli" will indicate that restructuring has applied, as with "lo" in (14a).<sup>8</sup> The phrase "Giovanni" is replaced here by a NP containing a partitive phrase, which will cliticize as ne. In similar fashion, (18b) will be the analogue to (16a). The contrast in (18) will support our claim, which predicts grammaticality for (18a) and ungrammaticality for (18b). On the weakness of the contrast, and the less than ungrammatical status of (18b), although we have no precise account to offer, we will suggest that it may not be too problematic for our view. In fact, since the contrasts relative to Ne-Cl from VP-adjoined/ base-generated i-subjects are less than overwhelming in general (as was pointed out in fn. 26, ch. 2), we may assume that the complexity of the structure involved in these cases, will make the distinction even less sharp.<sup>9</sup>

Some other facts provide further and clear evidence for the structural distinction in question. Recalling (cf. 3.6.2; 5.7.3) how only direct objects can be relativized in "small clause" relatives, we note the contrast in (19).

- (19a) Un vicino venutomi a chiedere un favore mi trovo' occupato  
 A neighbor come me to ask a favor found me busy  
 (A neighbor (who had) come to ask me a favor ...)

- (19b) \*Un vicino volutomi chiedere un favore non mi trovo' in casa  
 A neighbor wanted me to ask a favor did not find me at home  
 (A neighbor (who had) wanted to ask me a favor ...)

As will be clearer from the discussion of sc relativization in restructured contexts in 6.4.4 below, the cases in (19) are the relevant counterparts to (14a) and (16a) respectively (with the phrase corresponding to "Giovanni" being relativized here, and the position of the indirect object "mi" indicating that restructuring has occurred). The results in (19) will thus be as predicted by our claim. We will further recall (cf. 1.6) how the system of E-assignment/ pp agreement refers to direct objects, i.e. NP's which are governed by the verb, but not to NP's which are adjoined to VP. We now note the contrast in (20).

- (20a) Gli { e' andata } a parlare Maria  
 to him has gone to talk Maria<sub>s</sub> (E; pp ag't)  
 \*{ ha andato }
- (20b) Gli { \*e' voluta } parlare Maria  
 to him has gone to talk Maria<sub>s</sub> (A; no pp ag't)  
 { ha voluto }

There are good reasons to believe that E-assignment/ pp-agreement operates subsequent to restructuring (see discussion in 6.5 below).

It must then be the case under our assumptions that in (20a) analogous to (14a), the phrase "Maria" is in direct object position with respect to the matrix verb "andare" even after restructuring. The results in (20b) analogous to (16a) will follow from our view that the phrase "Maria" is there adjoined to VP. A detailed discussion of the interaction between E-assignment/ pp-agreement and restructuring will be

our concern in 6.5 below.

The "(a)" cases in (18), (19) and (20) and their respective contrasts with the corresponding "(b)" cases, will thus indicate that matrix ergative verbs will not "lose" their direct object when restructuring applies. But we must then infer from (13) contrasting with (14) that restructuring permutes the direct object and the infinitival in their linear order: a result which can only be achieved if restructuring is formulated as some kind of movement. We now turn to the second piece of evidence.

As was discussed in 5.5.4 above, ergative verbs taking sentential complements, will appear under fare as in (21) (where "NP<sub>Ø</sub>" is the position related to the clitic).

- (21) Faccio [VP venire Giovanni [S<sub>PRO</sub> a prenderlo NP<sub>Ø</sub>]]  
 I made come Giovanni to fetch it  
 (I will have Giovanni come to fetch it)

(21), which is a case of F-VP, will contrast with cases involving subject-Control verbs, which will always be instances of F-S (as discussed in 5.2.2), like (22).

- (22) Cio' fara' [VP pensare [S<sub>di</sub> PRO prenderlo NP<sub>Ø</sub>]] [S<sub>a</sub> Giovanni---]  
 This will make think to fetch it to Giovanni  
 (This will make Giovanni think he should fetch it)

As discussed, (21) and (22) differ, more significantly than with regard to the different linear order of constituents (cf. fn. 1, ch. 5), in the fact that the phrase "Giovanni" is dativized in one case but not in the other: a fact that our analysis sought to account for. We note now that application of restructuring to "venire" and its complement, as will be indicated by the appearance of "lo" on the matrix verb, will yield (23) as the only possibility.

- (23) Lo faccio venire a prendere a Giovanni  
 (see (21))

The effects of restructuring here, will therefore be: i) the linear order in (21) is no longer possible (cf. \*"Lo faccio venire (a) Giovanni a prendere"); ii) the phrase "Giovanni" is now dativized (cf. \*"Lo faccio venire a prendere Giovanni"). While i) is essentially subsumed by our discussion of (13) above and by our conclusion that restructuring permutes the linear order of direct object and complement, ii) will lead to additional evidence on the nature of restructuring. We note in fact that dativization here is strictly contingent on the presence of a direct object in the complement, as shown by the contrast between (23) and the cases in (24).

- (24a) Gli faccio andare a parlare      }      Giovanni  
     } \*a Giovanni

To him I make go to talk Giovanni  
 (I will make Giovanni go talk to him)

- (24b) Faccio venire a lavorare      }      Giovanni  
     } \*a Giovanni

I make come to work Giovanni

This will clearly suggest that once restructuring has applied, the structure of the complement ("prendere..." in (23), "parlare..." in (24)) is no longer sentential. In fact sentential complements generally trigger dativization regardless of their internal structure, as for example in (25).<sup>10</sup>

- (25) Cio' fara' sognare      } di vincere      } a Giovanni  
                                       } di vincere il premio }  
 (This will make Giovanni dream      } of winning      )  
                                       } of winning the prize }

The permutation in linear order "NP, complement → complement, NP" (as between (12) and (15); (21) and (23)) could have been accounted for

in (at least) three different ways: a) NP movement to the right; b) S movement to the left; c) VP movement to the left. However the dativization facts noted in connection with (23) will narrow down the range of options, essentially forcing us to c). Also forcing us to c) would be the general desideratum discussed in 6.1 that as a result of restructuring, the embedded predicate no longer be in the domain of the subject (i.e. that it be free from Opacity).

Although further evidence for a VP-movement analysis will be presented below, we conclude even on the bases of the evidence thus far discussed, that restructuring is exactly VP-movement. (23) above will thus have the structure in (26).<sup>11</sup>

(26) Lo faccio [VP<sup>v</sup>enire [VP<sup>a</sup>a prendere NP<sub>Ø</sub>] a Giovanni [S<sub>PRO---</sub>]]  
 (cf. (21))

We will straightforwardly assume that the dative "a Giovanni" in (26) is the result of the dativization rule of 5.5.4 (operating in the context " $\left\{ \begin{matrix} \text{NP} \\ \text{S} \end{matrix} \right\} \_\_$ "). This will account for the response to the presence of a direct object in the moved VP. A more general discussion of restructured constructions embedded under fare will appear in 6.4.5 below.

### 6.2.2 Similarities between Restructuring and Causatives

In this subsection we will point out a number of respects in which causative and restructuring constructions behave analogously. On the assumption that the rule operating on causative constructions is VP-movement, this kind of evidence will make a VP-movement analysis of restructuring seem rather plausible. In itself however, this evidence would fall short of making such analysis necessary.

Some very conspicuous similarities have already been touched on. One of these is Clitic Climbing. As was implicit in our discussion we assume that we are dealing with the same phenomenon in both cases (On some possible objections to this view, cf. fn. 5). A related similarity, having to do with past participle agreement under cliticization, will be discussed in 6.5.1 below. Another similarity already discussed is NP-movement out of the complement (cf. 5.3.2 and 6.1 above respectively for relevant discussion, in particular exs. (37) ch. 5, and (2) above; the impossibility for matrix passives in restructuring cases will be discussed in 6.4.3 below).

We will note some further similarities. As Rizzi has pointed out (cf. fn. 1), restructured cases behave exceptionally with respect to "Tough Movement", as in the contrast here below (Rizzi's (107) b.; (108) b. respectively), where potere, but not promettere, is a restructuring predicate.

- (27a) \*Questo lavoro e' facile da promettere di finire per domani  
This job is easy to promise to finish by tomorrow
- (27b) ?Mario e' difficile da poter convincere  
Mario is difficult to be able to convince

Analogous behavior can be observed with causatives:

- (28) ?Mario e' difficile da far convincere (a sua moglie)  
Mario is difficult to make convince (to his wife)  
(Mario is difficult to have convinced -by his wife-)

The exact analysis of "Tough Movement" constructions is essentially irrelevant to our point here since our proposal is bound to predict such causative/ restructuring analogy regardless. However see Rizzi's discussion (in his sect. 5) for the view that Italian "Tough Movement" constructions are constrained by subjacency. If the latter view is correct, then the evidence will indicate that after application of

restructuring/ causative-rule, the infinitival is no longer within a sentential structure: a conclusion which we reached independently in either case (cf. 5.3.1 and 6.2.1 above). As we may recall, in the causative case the latter conclusion was partly based on the results of Wh-movement. We then note that results parallel to those, can be observed in the restructuring case. Consider in fact (29), where andare, but not riuscire, is a restructuring verb.

- (29a) ??La persona a cui sai quando ero poi riuscito a telefonare  
           The person to whom you know when I had finally managed to phone  
                   non era disponibile  
                   was not available
- (29b)    La persona a cui sai quando ero poi andato a telefonare  
           The person to whom you know when I had finally gone to phone  
                   non era disponibile  
                   was not available

In both cases in (29) the relativized element is the object of the complement "telefonare". If relativization is constrained by the number of clause boundaries involved (subjacency), then it must be the case that fewer clause boundaries are involved in (29b) than in (29a): an indication that the infinitival is no longer within a sentential structure in (29b). The evidence is thus parallel to the one discussed for the causative case in 5.3.1 (cf. ex. (33), ch. 5).

Longobardi (1979) has noted the existence in Italian of a prohibition against sequences of infinitives, a manifestation of which is, for example (30) (Longobardi's (1)a.).

- (30) ?\*Giorgio comincia ad amare studiare  
           Giorgio begins to love to study

This prohibition seems to hold in general for infinitives taking a prepositionless infinitival complement (see Longobardi for details). However, the prohibition appears suspended exactly with restructuring

and with causative constructions, in analogous fashion. Thus the cases in (31) (Longobardi's (14)c.; (26)a.) involving restructuring potere and causative fare respectively will each contrast with (30).

- (31a) Mi auguro di non dover partire cosi' in fretta  
I hope to not have to leave in such a hurry
- (31b) Artu' dovra' far partire Lancillotto  
Arthur will have to make leave Lancelot (... Lancelot leave)

Longobardi formulates the prohibition as a filter (operating on the phonology branch of the grammar). The structural description of the filter is then designed so as not to be met by either causative or restructuring constructions. Although Longobardi obtains the correct results by assuming two different processes (he assumes Rouveret-Vergnaud's theory of causatives and Rizzi's theory of restructuring), it is reasonable to suggest that our common analysis would facilitate the task of formulating the multiple-infinitive prohibition (On the complexity of the task, cf. Longobardi's discussion).

We now recall that, as Rizzi noted, restructuring constructions respond negatively to a number of syntactic processes which appear possible generally: those listed in 2) of (7) above (namely: pied piping (Wh-movement); clefting; R.N.R.; CNP Shift, all with respect to the infinitival complement). In Burzio (1978) it was argued that causative construction do likewise. While the reader is referred to that article for the full range of facts, the following will be a typical case.

- (32a) Lo } ho sentito dire molte cose imbecilli  
Gli }  
(I heard him say many stupid things)
- (32b) E' a dire molte cose imbecilli che } lo } ho sentito  
} \*gli }  
(It is to say many stupid things that I heard him)

As discussed in 5.6 above, the predicate sentire appears to trigger the causative process optionally. As usual, dative "gli" in (32) will indicate that the latter process has applied, while accusative "lo" will indicate that it has not applied. The paradigm in (32) will thus be the exact counterpart to that involving the restructuring case in (4) above, and will indicate that the infinitive can no longer be "clefted" once the causative rule has applied. Assuming then that the view in Burzio (1978) is correct, and assuming that at least the causative rule is VP-movement, we would have to infer from these facts that in the configuration "...[<sub>VP</sub><sup>V</sup> [<sub>VP</sub>...] ..]", the syntactic processes in question have no access to the lower VP (an instantiation perhaps of some "A-over-A" principle. Cf. Chomsky (1973)).<sup>12</sup>

Beside all these similarities, several important differences can be observed between causative and restructuring constructions, as Rizzi has noted. For example, the "change of auxiliary" is never found with causatives. We will address the differences in 6.5 below. If our forthcoming discussion is correct, these differences will be quite compatible with our analysis, and will mostly follow from independent considerations.

### 6.3 Subject Deletion

We now turn to Rizzi's formulation, which is essentially as illustrated by the derivation in (33) (cf. Rizzi's (16) and discussion, and his sect. 7.1).

- (33a) Giovanni [<sub>VP</sub><sup>vuole</sup> [<sub>S</sub><sup>PRO</sup> leggere il libro]]  
(Giovanni wants to read the book)

- (33b) Giovanni [<sub>VP</sub> [<sub>V</sub><sup>vuole</sup> leggere] il libro]

Under this formulation, restructuring eliminates the embedded-clause

boundaries as well as the embedded subject, and gives rise to a single complex verb by sister-adjoining the two individual verbs. We will henceforth refer to this formulation, as the "(subject-) deletion" formulation.

The structure in (33b) will contrast with the structure in (34): the one which would be derived by VP-movement.

- (34) Giovanni [<sub>VP</sub><sup>vuole</sup> [<sub>VP</sub><sup>leggere il libro</sup>] [<sub>S</sub><sup>PRO---</sup>]]

The two formulations have several properties in common. For example in both cases all lexical material in the complement becomes no longer either in the domain of the (relevant) subject or surrounded by (the relevant) clause boundaries. More in general we are assuming that both formulations, as well as some other conceivable ones (cf. for ex. fn. 2), will achieve in roughly comparable fashion the results of 6.1 (summarized in (7)), with the exception of the CA, which will be the subject of special attention in 6.5 below. We will then proceed to review results on which the two formulations may differ. The evidence discussed in 6.2.1 has already provided one such case: If we were correct in pointing out that restructuring causes the permutation of some constituents in their linear order, then it will be rather obvious that neither the deletion formulation nor any natural extension of it could account for those facts. As we mentioned, the latter evidence was contingent on the ergative rather than intransitive analysis of verbs like andare, venire.<sup>13</sup> For the most part, the evidence to be presented in the next section will not be so contingent.

#### 6.4 Non-distinctness

##### 6.4.0 Introduction

We will take the two most salient features distinguishing the VP-

movement analysis from the (deletion) analysis in (33) to be: i) The claim that in derived structure the embedded subject is still present. ii) The claim that the derived complex predicate is asymmetrical, the main verb C-commanding the embedded verb, but not the converse. These two aspects are relatively independent of one another (we can easily imagine a formulation having either one without the other). It will thus be appropriate to address them separately.

In this section we will argue that restructured configurations are non-distinct from their non-restructured counterparts in a number of respects, and that this reflects the presence of the embedded subject in both cases, thus supporting our first claim.

Before we begin, we will note that some considerations which, superficially, would appear to argue against the deletion analysis, actually fail to do so. Consider the following cases.

- (35a) Giovanni vuole [S<sub>PRO<sub>i</sub></sub><sub>i</sub> [VP<sub>i</sub> essere presentato t<sub>i</sub> a Piero]]]  
Giovanni wants to be introduced to Piero
- (35b) Giovanni vorrebbe [S<sub>PRO<sub>i</sub></sub><sub>i</sub> [VP<sub>i</sub> andare t<sub>i</sub> in vacanza]]]  
Giovanni would like to go on vacation
- (35c) Giovanni vorrebbe [S<sub>PRO<sub>i</sub></sub><sub>i</sub> [VP<sub>i</sub> stare [S<sub>t<sub>i</sub></sub><sub>i</sub> per andare t<sub>i</sub> in vacanza]]]]  
Giovanni would like to be about to go on vacation
- (35d) Giovanni vorrebbe [S<sub>PRO<sub>i</sub></sub><sub>i</sub> [VP<sub>i</sub> cercare [S<sub>di PRO<sub>i</sub></sub><sub>i</sub> andare t<sub>i</sub>]]]]  
Giovanni would like to try to go

As will be clear from some of the discussion below, there is every reason to believe that each of the cases in (35) would result in a well-formed sentence should restructuring apply to the matrix verb and its complement. One could then point out that if the underscored NP were to be deleted as prescribed by the deletion analysis, then in each case the first "t<sub>i</sub>" or "PRO<sub>i</sub>" to its right would remain without

an antecedent: a violation of general well-formedness conditions. However, a parallel form of argument would apply to our discussion and the VP-movement formulation. Recall in fact how we concluded in 5.4.2 that, while PRO need not have a C-commanding antecedent, trace must (cf. (66)/(67) in ch. 5 and discussion). This would seemingly predict ill-formedness, at least for (35a)-(35c), should VP-movement apply. We note however, that in constructions that may undergo restructuring, the matrix subject will always be coindexed with the embedded one, whether by movement (Raising verb), or by construal (Control). We will suggest below that due to this fact, the matrix subject can function as an antecedent in lieu of the embedded subject. The phrase "Giovanni" would thus become the relevant antecedent in each case in (35). If correct, this view will clear all problems for the VP-movement analysis, but of course it will do so for the deletion analysis as well. Thus at least within the framework of our discussion, the considerations presented in connection with (35) will not serve as argument against the deletion analysis. However, other considerations will.

#### 6.4.1 Semantic Recoverability

Our first argument has to do with the fact that deletion of the embedded subject would suppress crucial semantic information, and is thus incompatible with our assumption that semantic representation is derived from S-structure alone. This argument would disappear however under different assumptions. In fact, given that this argument is rather obvious one must simply assume that implicit in Rizzi's discussion is an organization of the grammar in which semantic

representation has access to D-structure.

Consider the restructured case in (36a), given in the VP-movement analysis, and the case of F-VP in (36b).

- (36a) Giovanni li vuole [VP<sup>premiare NP<sub>Ø</sub></sup>] [S<sup>PRO---</sup>]  
Giovanni them wants to reward

- (36b) Giovanni li fara' [VP<sup>premiare NP<sub>Ø</sub></sup>]  
Giovanni them will make reward

These two examples are not at all parallel in interpretation. In fact while (36b) means unambiguously "Giovanni will make someone-unspecified reward them" and not "Giovanni will make himself reward them" (cf. some of the remarks following ex. (211), ch. 5), (36a) means unambiguously "Giovanni wants for himself to reward them", and not "Giovanni wants for someone-unspecified to reward them". If in cases like (36a) there was no embedded subject at the level at which semantic interpretation applies, (36a) and (36b) ought to have parallel rather than complementary interpretations.. If semantic representation is derived from S-structure alone, we must then conclude that PRO exists in a case like (36a), just as it does in its non-restructured counterpart. The VP-movement analysis will thus correctly predict that (36a) should be parallel, not to a case of F-VP but to a case of F-S, e.g. "Giovanni li fara' premiare a Piero", except for the independent fact that the embedded subject will be coreferential with the matrix subject (i.e. PRO will take the place of "a Piero").

From the contrast between (36a) and (36b) we will also conclude that volere and the restructuring verbs, are not subcategorized for VP complements like causative verbs, but only for S complements. (On this matter see also fn. 27 and 6.4.7 below).

Within our view that restructuring does not erase the embedded

subject, further discussion will be required by the cases of O.P. in the SI-construction. Consider (37a), and (37b), the latter derived from the former as we are assuming, via application of restructuring (i.e. VP-movement) and O.P.

- (37a) [<sub>i</sub> e] si<sub>i</sub> vorrebbe [<sub>S<sup>PRO</sup></sub><sub>i</sub> [VP<sup>premiare</sup> gli atleti]]]  
SI would like to reward the athletes

- (37b) [<sub>j</sub> Gli atleti] si<sub>i</sub> vorrebbero [VP<sup>premiare</sup> t<sub>j</sub>] [<sub>S<sup>PRO</sup></sub><sub>i</sub> ---]  
The athletes SI would like to reward

The examples in (37) are -for all aspects relevant here- synonymous. In particular, in (37b) the understood subject of the embedded verb "premiare" is SI, just as in (37a), and not for example "gli atleti" or "someone" unspecified and disjoint form SI.<sup>14</sup> Thus while for (37a) it might seem more natural to assume that the matrix subject position (a trace) rather than the clitic SI, is the antecedent for PRO, for (37b) we will essentially have to assume that SI is itself the immediate antecedent for PRO, since the subject position has been occupied by a different NP. (The latter assumption will then do for (37a) as well). We will now see how this conclusion seems plausible independently.

The first consideration supporting the role of antecedent for SI in (37b) has to do with the fact that the parallel passive case is ungrammatical (i.e.: \*"Gli atleti sono voluti premiare"), a fact that will be discussed in detail in 6.4.3 below, and which will be attributed exactly to the lack of an antecedent for the embedded subject (PRO).

A second consideration concerns the fact that SI can be the antecedent for the reflexive pronoun in (38) (from Rizzi (1976b)).

- (38) Queste cose si dicono solo di se stessi  
These things SI says only about SI-self  
(We say these things only about ourselves)

(38) is in the relevant respects parallel to (37b). In fact O.P. has applied in (38) also (to "queste cose"). While the existence of the anaphoric element PRO in (37b) is internal to our claim, the existence of se stessi in (38) is not in question. It will then seem entirely reasonable to assume that if SI can be the antecedent for the reflexive in (38), it can also be the antecedent for PRO in (37b).<sup>15</sup> The role of antecedent for SI in (38) is confirmed by the fact that the corresponding passive in (39) is, again, ungrammatical, a fact which we will attribute precisely to the lack of an antecedent for se stessi.

(39) ?\*Queste cose sono (generalmente) dette solo di se stessi  
These things are (generally) said only about oneself

Consider now the cases in (40).

(40a) [<sub>i</sub> Giovanni] va [<sub>VP</sub>a premiare gli atleti] <sub>t<sub>i</sub></sub> [<sub>S<sup>PRO<sub>i</sub></sup></sub>---]  
Giovanni goes to reward the athletes

(40b) [<sub>i</sub> e] si [<sub>i</sub> va [<sub>VP</sub>a premiare gli atleti] <sub>t<sub>i</sub></sub> [<sub>S<sup>PRO<sub>i</sub></sup></sub>---]  
SI goes to reward the athletes

(40c) [<sub>j</sub> Gli atleti] si [<sub>i</sub> vanno [<sub>VP</sub>a premiare <sub>t<sub>j</sub></sub>] <sub>t<sub>i</sub></sub> [<sub>S<sup>PRO<sub>i</sub></sup></sub>---]  
The athletes SI go to reward

(40a) will be quite analogous to some of the cases discussed above (e.g. (15b)). It will be recalled how we argued that in such cases the matrix direct object position, here occupied by the trace " $t_i$ ", is still present after restructuring applies (although some of the discussion had a preliminary character, and will be resumed below). If such a trace is present in (40a), it will also be present in (40b), where the subject is the clitic SI, and there will then be little reason to believe that it is not also present in (40c), which we assume differs minimally from (40b) by application of O.P.<sup>16</sup> If the trace " $t_i$ " exists in (40c) then, given general conditions, it will have to be bound, and given

semantic considerations, the antecedent will have to be SI. In our discussion, restructuring verbs fall into three classes: Ergative, Control and Raising verbs. This classification is in fact the one given in (8) above. Consider now the Raising cases in (41).

- (41a) [<sub>i</sub>e] si<sub>i</sub> potrebbe [<sub>Si</sub><sub>i</sub> premiare gli atleti]  
SI would be able to reward the athletes

- (41b) [<sub>j</sub>Gli atleti] si<sub>i</sub> potrebbero [<sub>VP</sub>premiare <sub>t<sub>j</sub></sub>] [<sub>S<sub>i</sub></sub><sub>---</sub>]  
The athletes SI would be able to reward

The Raising cases in (41) are entirely parallel to the Control cases in (37).<sup>17</sup> Having assumed that SI can bind the trace "<sub>t<sub>i</sub></sub>" in (40c), there could be no objection to assuming that SI can bind the trace "<sub>t<sub>i</sub></sub>" in (41b), given the analogous configuration of the two cases. Correspondingly we will then freely assume that SI can bind PRO in (37b). The remainder of this section will be devoted to providing other arguments to the effect that, quite generally, the embedded subject is still present after application of restructuring. If those arguments are sound, then we will expect that for example in (37b) and (41b) the embedded subject PRO<sub>i</sub> and "<sub>t<sub>i</sub></sub>" respectively should be present. If this is true, then the only antecedent compatible with the semantics will be SI.

Our view that in (37b) SI can unproblematically perform as an antecedent for PRO after O.P. will, however, seem at odds with some of the facts discussed in 2.4.2 above, and in particular with cases like (42b), derived from (42a) via O.P.

- (42a) [<sub>i</sub>e] si<sub>i</sub> informo' gli operai [<sub>S</sub><sub>i</sub> PRO<sub>i</sub> voler chiudere]  
SI informed the workers to want to close down  
la fabbrica  
the plant

- (42b) ??[<sub>j</sub> Gli operai] si <sub>i</sub> informarono t<sub>j</sub> [<sub>S</sub> di PRO<sub>i</sub> voler chiudere]  
 The workers SI informed to want to close down  
 la fabbrica  
 the plant

In (42b) the direct object "gli operai" has been moved into subject position. We might therefore expect that, under the interpretation suggested by the indices, this case should be grammatical, just like (37b). We must point out here that in spite of the marginal results, it would be mistaken to assume that in (42b) SI plays no role at all as an antecedent for PRO. The latter view would in fact predict complete parallelism between (42b) and the corresponding passive, which is clearly not the case. The contrast between (42b) and (43) here below is in fact significant, the passive case being completely ungrammatical.

- (43) \*[<sub>i</sub> Gli operai] furono informati t<sub>i</sub> [<sub>S</sub> di PRO voler chiudere]  
 The workers were informed to want to close down  
 la fabbrica  
 the plant

We regard informare as a subject Control verb, or at least as having a tendency for subject Control, cf. in fact "Mario informo' Piero di aver superato l'esame/ Mario informed Piero to have passed the exam", where the interpretation in which "Piero" is the controller is at least not favored (cf. ex. (96b), ch. 1). The ungrammaticality of (43) will be due to the lack of a Controller for PRO, perhaps only in part because of the subject-Control status of this verb (on the failure of passivization of subject-Control verbs, recall some of 5.7.1), in a part because of the lack of a controller compatible with the meaning (cf. (44a) below). We then take the contrast between (43) and (42b) to indicate that SI can, although marginally, function as a controller. The apparent discrepancy between (37b) and (42b) will thus be only partial.

The asymmetry between passives and O.P. cases which we just noted, appears reversed if the derived subject, rather than the D-structure subject, is interpreted as the controller, as in the following.

- (44a)      ?Quegli operai furono informati di aver superato l'esame  
                Those workers were informed to have passed the test
- (44b)      (?)Quegli operai furono informati di essere stati licenziati  
                Those workers were informed to have been fired
- (44c)      (?)?Quegli operai si informarono di essere stati licenziati  
                Those workers SI informed to have been fired  
                (...that they (the workers) had been fired)
- (44d)      (?)?Quegli operai si informarono di aver superato l'esame  
                Those workers SI informed to have passed the test  
                (...that they (the workers) had passed the test)

The passive cases in (44a), (44b) are in fact near perfect, especially the case in (44a) in which the complement has been passivized (the fact that passives of subject-Control verbs improve when the complement is passivized, is noted in Hust and Brame (1976), Solan (1977), Chomsky (1980). The reasons for this fact remain not too clear). However, the O.P. cases in (44c), (44d) are still rather problematic (and show no improvement if the complement is passivized). We will again take the contrast between the passives and the O.P. cases to be due to the presence of SI, and to the fact that the latter can act as a controller. In particular we will attribute the difficulty in (44c), (44d), versus the relative lack of difficulty in (44a), (44b) to the presence in the former, though not in the latter cases, of two possible antecedents for PRO: SI and "quegli operai". The difficulty in (42b) may then be seen as being of the same nature. We now note that this view may suggest an account for the discrepancy between (42b) and (37b), namely "Gli atleti, si<sub>i</sub> vorrebbero [vp<sub>j</sub> premiare t<sub>j</sub>] [S<sub>i</sub><sup>PRO</sup> ---]". In fact in the latter case the phrase "Gli atleti" could not bind the embedded

subject PRO, since it is already binding the embedded direct object " $t_j$ "; the possibility that it could bind both phrases will be ruled out at least by disjoint reference, in the manner of the causative "I nostri atleti si faranno premiare a loro" (SI will make them reward our athletes", where "a loro" is the equivalent of PRO in (37b), and where the two underscored phrases are disjoint in reference; notice also that SI could not bind " $t_j$ " since the latter never cliticizes from object position, as discussed in 1.3 above. The only possible antecedent for PRO in (37b) would therefore be SI.<sup>18</sup>

Assuming then that some account along these lines could be provided for the partial discrepancy between (42b) and (37b), our claim is that the VP-movement formulation is compatible with a framework in which semantic representation is derived from S-structure, such as the one we are adopting here, while the deletion formulation is not.

#### 6.4.2 Control Verbs

The arguments to which we now turn will no longer require the assumption that semantic representation is derived from S-structure. Consider the following cases, and again the SI-construction.

(45a) \*[<sub>i</sub> I nostri atleti] si vorrebbero [<sub>S</sub><sup>t<sub>i</sub></sup> vincere]  
our athletes SI would like to win

(45b) [<sub>i</sub> I nostri atleti] potrebbero [<sub>S</sub><sup>t<sub>i</sub></sup> vincere]  
our athletes would be able to win

(45a) is derived from a well-formed D-structure (of the form "SI-would like-our athletes -to win") via a straightforward application of NP-movement analogous to the one involved in the cases of O.P. of 1.3.2 above, in a manner quite parallel to the Raising Case in (45b). The exact nature of the violation in (45a) will depend somewhat on framework-

specific assumptions. The theoretical framework of On Binding (Chomsky (1980)) assumes an obligatory L.F. rule, which assigns a controller for "[<sub>NP</sub>e]" in "...V... [<sub>S</sub><sup>COMP</sup> ... [<sub>NP</sub>e]...]" where "V" is a Control verb (see Chomsky's (93), (94), (95) and discussion for details). In the latter discussion, the designation "[<sub>NP</sub>e]" is used to cover both "trace" and "PRO" of our discussion here. Within that framework, (45a) would be ill-formed because, while it satisfies the structural description for the L.F. rule of Control, the latter rule (which is obligatory) will fail to apply since the category "[<sub>NP</sub>e]", namely our "<sub>i</sub>t" of (45a), has already been indexed by movement (this case would thus be parallel in the relevant respects to the cases in Chomsky's (100)). (45a) would not be equally ruled out since it would not satisfy the structural description of the L.F. rule, due to the fact that potere is not a Control verb. In the more recent framework of the Government-Binding theory (Chomsky (forthcoming)), (45a) would violate the ECP (Empty Category Principle), requiring that all empty categories (traces) be governed. In that framework the distinguishing characteristic of Control verbs would be their failure to induce deletion of the S in their complement. The embedded subject in (45a) would thus remain ungoverned, leaving PRO (not an "empty" category in that framework) as the only option.<sup>19</sup> What is relevant to our point here is the assumption that (45a) is ruled out by some condition on derived structure, rather than by some condition on the derivation: an assumption which is granted by either one of the theories in question. We now note that there will be no reason to believe that restructuring could not apply in (45a) just as it applies in (45b). When restructuring applies, the VP-movement analysis will predict the

structures in (46) respectively.

(46a) \*[<sub>i</sub>I nostri atleti] si vorrebbero [VP<sup>vincere</sup>] [<sub>S</sub><sup>t<sub>i</sub></sup> ---]  
 (cf. (45a))

(46b) [<sub>i</sub>I nostri atleti] potrebbero [VP<sup>vincere</sup>] [<sub>S</sub><sup>t<sub>i</sub></sup> ---]  
 (cf. (45b))

Under this analysis, whichever reason we choose for the ungrammaticality of (45a), it will essentially carry over to (46a). Thus, if the position "<sub>i</sub>t<sub>i</sub>" was not governed in (45a), it will continue not to be in (46a), hence the ungrammaticality. Correspondingly, in the On Binding framework the structural description of Chomsky's rule (93) will continue to be met (cf. Chomsky's discussion for details). However if restructuring deleted the embedded subject, we would expect (46a) to be grammatical in either framework (i.e. either there would be no "empty category", or the structural description of the On Binding rule would not be met).

The deletion formulation would thus not only be incompatible with the assumption that semantic representation is derived from S-structure, as discussed in the previous subsection, but also with the view that the distribution of Raising and Control phenomena is determined by conditions on derived structure. Under the latter formulation, cases like (46a) could in fact only be ruled out by requiring that some conditions imposing a "Control" frame for verbs like volere apply at intermediate stages of the derivation, and prior to restructuring. We will neglect to pursue the latter possibility here, since the task would take us too far afield, and simply assume that there are good reasons to prefer an organization as in Chomsky (1980), or Chomsky (forthcoming). Cases like (46a) thus provide an argument for the existence of the embedded subject in derived structure,

internal to certain theoretical assumptions. While our argument here was based on the observation that Control verbs maintain a "Control" frame under restructuring, and never allow a Raising-type derivation, in 6.4.5 below we will present an argument based on the complementary observation, namely the fact that Raising verbs maintain a "Raising" frame under restructuring, and never allow a Control one.

The point we made in connection with the parallelism between (45a) and (46a) could have been made on the basis of the corresponding passives in (47) just as well.

(47a) \*[<sub>i</sub>I nostri atleti] sono voluti [<sub>S<sup>t</sup></sub><sub>i</sub> vincere]  
our athletes are wanted to win

(47b) \*[<sub>i</sub>I nostri atleti] sono voluti [<sub>VP</sub>vincere] [<sub>S<sup>t</sup></sub><sub>i</sub> ---]  
(cf. (47a))

The considerations we invoked for (45a), (46a) will of course rule out (47a) and its restructured counterpart (47b) in identical fashion. The SI-construction cases are more striking however (at least superficially), because the latter construction is not in general impossible with restructuring, while passive is: a fact to be discussed in the next subsection.

We may note that the view we adopted in this subsection, namely that the distribution of Raising and Control phenomena is determined by conditions on derived structure, will support the view of the previous subsection that semantic interpretation is derived from S-structure alone. In fact the presence in S-structure of the information relevant to semantic interpretation, represented by the "null" elements trace and PRO, is now assumed independently.

### 6.4.3 Passive

With the exception of the "aspectual" predicates cominciare, continuare which will be discussed in 6.4.6 below, restructured constructions can never be passivized. Consider in fact the ergative, the Control, and the Raising cases respectively here below.

- (48a) [<sub>i</sub>Tutti] andranno [VP<sup>a</sup> vedere quel film] <sub>i</sub>t<sub>i</sub> [S<sup>PRO<sub>i</sub></sup> ---]  
Everyone will go to see that movie

- (48b) \*[<sub>j</sub> Quel film] sara' andato [VP<sup>a</sup> vedere <sub>j</sub>t<sub>j</sub>] t<sub>??</sub> [S<sup>PRO<sub>?</sub></sup> ---]  
That movie will be gone to see  
(da tutti)  
(by everyone)

- (49a) [<sub>i</sub>Tutti] vorranno [VP<sup>vedere</sup> quel film] [S<sup>PRO<sub>i</sub></sup> ---]  
Everyone will want to see that movie

- (49b) \*[<sub>j</sub> Quel film] sara' voluto [VP<sup>vedere</sup> <sub>j</sub>t<sub>j</sub>] [S<sup>PRO<sub>?</sub></sup> ---]  
That movie will be wanted to see  
(da tutti)  
(by everyone)

- (50a) [<sub>i</sub>Tutti] potranno [VP<sup>vedere</sup> quel film] [S<sup>t<sub>i</sub></sup> ---]  
Everyone will be able to see that movie

- (50b) \*[<sub>j</sub> Quel film] sara' potuto [VP<sup>vedere</sup> <sub>j</sub>t<sub>j</sub>] [S<sup>t<sub>?</sub></sup> ---]  
That movie will be been able to see  
(da tutti)  
(by everyone)

As may be recalled, we are assuming that there are general morphological reasons preventing the occurrence of passive forms with ergative and Raising verbs. As discussed in 3.6 we assume in fact that passive morphologies will not obtain for those verbs that do not assign a thematic role to their subject (such as ergative and Raising verbs), since the morphological derivation would involve "non-vacuous" loss of subject thematic-role (cf. 3.6 above). On this assumption, the passive

in (48b) involving ergative andare, and the one in (50b) involving Raising potere will be ruled out, independently of the formulation of restructuring.<sup>20</sup> However, in our discussion there will be no parallel morphological reasons preventing the passive in (49b) involving Control verb volere (notice that if passives of subject-Control verbs were impossible for some morphological reason, then the cases in (44a), (44b) above, or "?John was promised to be hired", ought to be as bad as (49b)). The ungrammaticality of the latter case will thus not fail to bear on the formulation of restructuring.<sup>21</sup> As briefly mentioned in connection with (37b) above, we will attribute the impossibility to derive (49b) to the fact that PRO would remain without an antecedent. The account of the failure of passivization of subject-Control verbs in general as given in Chomsky (1980) and as discussed in 5.7.1 above, will thus naturally extend to this case. Analogous reasons will rule out, although redundantly, the cases in (48b) and (50b) (i.e. in each case the position "t<sub>j</sub>" will have no antecedent; on the ergative case in (48b) cf. also the discussion of the analogous sc relative in 6.4.4 below). The ungrammatical passive in (49b) will therefore contrast with the parallel SI-case and with the passive in the causative case, respectively exemplified here below (discussed in 6.4.1 and 5.3.2 above respectively), both of which are grammatical.

- (51a) [<sub>j</sub> Quel film] si<sub>i</sub> vorra' [<sub>VP</sub>vedere t<sub>j</sub> presto] [<sub>S</sub><sup>PRO</sup><sub>i</sub> ---]  
That movie SI will want to see soon

- (51b) [<sub>j</sub> Quel film] sara' fatto [<sub>VP</sub>vedere t<sub>j</sub>] [<sub>S</sub><sup>a</sup> tutti ---]  
That movie will be made to see to everyone

For the grammaticality of these cases we assume as discussed that SI functions as an antecedent for the embedded subject in (51a), while

no antecedent will be required in (51b). (The contrast between (51a) and (49b) will thus be parallel to the one between (38) and (39) above involving reflexive se stessi).

Since the account we have just provided relies crucially on the existence of the embedded subject in derived structure, it would not be available under the subject deletion analysis. As far as I can see, under the latter analysis, the ungrammaticality of (49b) would remain essentially unaccounted for. On this we will note that even allowing extrinsic ordering of rules: a device which we assume is not part of the grammar, will not provide an adequate solution. In fact if we assume, as we do, that both passivization and O.P. (as in (51a)) make use of the same rule of NP-movement, we could hardly rule out (49b) by suggesting the order "Passive, Restructuring", without ruling out (51a) also.

In the next subsection we will consider the "small clause" relative counterparts to the passives we have dealt with here.

#### 6.4.4 Sc Relatives

The sc relative counterparts to the ungrammatical passives in (48b), (49b), (50b) respectively, are equally ungrammatical. These are given here below respectively, in the structure that our discussion predicts.

- (52a) \*Il film  
the movie

[<sub>sc</sub><sup>PRO</sup><sub>i</sub> andato [<sub>VP</sub><sup>a</sup> vedere <sub>t</sub><sub>i</sub>] [?<sub>e</sub>] [<sub>S</sub><sup>PRO</sup> ---] (da tutti)]  
gone to see (by everyone)

e' quello con John Travolta  
is the one with John Travolta

- (52b) \*Il film  
the movie

[<sub>sc</sub><sup>PRO</sup><sub>i</sub> voluto [VP<sup>vedere t<sub>i</sub></sup>] [<sub>S</sub><sup>PRO?</sup> ---] (da tutti)] ...  
wanted to see (by everyone)

- (52c) \*Il film  
the movie

[<sub>sc</sub><sup>PRO</sup><sub>i</sub> potuto [VP<sup>vedere t<sub>i</sub></sup>] [<sub>S</sub> [?e] ---] (da tutti)]  
been able to see (by everyone)

As will be recalled from 3.4 and 3.6 above, roughly speaking a sc relative will differ from the corresponding passive for the lack of be, and for the fact that NP-movement applies not to a lexical NP but to PRO, which is then controlled by the head of the relative. Hence the close parallelism in structure between the cases in (52) and the corresponding passives above.

As with the passives, we assume here that there is no morphological reason to rule out the Control case in (52b), while there will be morphological reasons to rule out the Raising case in (52c). However, we cannot assume that the past participial form in the ergative case (52a) is morphologically impossible as we did for the corresponding passive. In fact ergative verbs do appear in sc's freely as was discussed, e.g. "Uno studioso intervenuto al dibattito.../ A scholar intervened in the debate..." (See discussion in 3.6.2. The reasons for the different behavior of Raising verbs, e.g. "\*Un ragazzo sembrato conoscere Giovanni.../ A guy seemed to know Giovanni...", will remain unclear). Therefore in this case not only the Control example, but the ergative one as well, will be relevant to the theory of restructuring.

On the Control case in (52b), we assume that it is ungrammatical,

again because the embedded subject "PRO<sub>i</sub>" lacks an antecedent, as in the corresponding passive case.<sup>22</sup> Cases like (52b) will then contrast with causative cases like (53).

(53) ?Il paziente  
The patient

[sc<sub>i</sub> PRO<sub>i</sub> fatto [vp<sup>curare t<sub>i</sub></sup>] [<sub>s</sub>a quello specialista---]]  
made to treat to that specialist  
soffriva di un raro disordine  
suffered from a rare ailment

Although our discussion does not predict the less than perfect status of (53), which we will leave unexplained, it will predict the difference between the structurally parallel (53) and (52b). In fact the embedded subject in (53) ("quello specialista") will not require a controller. (Notice that there will be no SI-counterpart to the sc relatives in (52) as there was for the passive cases. In fact SI constructions never occur either as sc's or in infinitivals, cf. ex. (226b) ch. 3 and discussion).

Parallel considerations will rule out, although redundantly, the Raising case in (52c), since there too the embedded subject will not be bound. The ergative case in (52a) will also be ruled out for similar reasons, in particular by the fact that the matrix direct object ("[<sub>i</sub>e]") is unfilled and unbound. ((52a) will thus contrast with (40c) above where the same position was bound by SI). Furthermore, the variant featuring the da-NP phrase in both (52a) and (52c) will be ruled out by our assumption of 5.2.1 that only verbs which take thematic subjects (i.e. not ergative verbs, and not Raising verbs) will appear with an agentive by-NP phrase.

We must now note that cases like (52a) remain ungrammatical even

if the matrix direct object is lexically filled, as in (54).

- (54) \*Il film  
the movie

[<sub>sc</sub><sup>PRO<sub>i</sub></sup> andato [<sub>VP</sub><sup>a</sup> vedere <sub>t<sub>i</sub></sub>] [<sub>NP<sub>j</sub></sub><sup>Giovanni</sup>] [<sub>S<sub>PRO<sub>j</sub></sub></sub>---]]  
gone to see Giovanni  
e' quello con John Travolta  
is the one with John Travolta

We will attribute the ungrammaticality of (54) to the failure of Case assignment to the phrase "Giovanni". This follows from our view that neither ergative verbs nor past participles assign accusative (cf. 2.6, 3.6 above). As for nominative Case under the provisions discussed in chapter 2, the latter will be impossible since the subject which governs the phrase "Giovanni", namely "<sub>PRO<sub>i</sub></sub>" cannot be coindexed with it given disjoint reference (recall that we assume that if a subject assigns nominative to a phrase, it must be coindexed with it, cf. discussion on p. 139).

The ungrammaticality of (54) would persist, should <sub>NP<sub>j</sub></sub> be in the dative (i.e. "a Giovanni"). We will take this to be evidence that the dativization rule of 5.5.4 applies not generally, but only in the context of verbs like fare. (54) will thus contrast with the parallel (55) where the dativization rule will operate, as expected, under fare.

- (55) ?[<sub>f</sub> Il libro] fu fatto  
the book was made

[<sub>VP</sub><sup>andare</sup> [<sub>VP</sub><sup>a</sup> prendere <sub>t<sub>i</sub></sub>] a [<sub>NP<sub>j</sub></sub><sup>Giovanni</sup>] [<sub>S<sub>PRO<sub>j</sub></sub></sub>---]]  
to go to fetch to Giovanni

(Giovanni was made to go fetch the book)

The case of F-VP in (55) is analogous to the case discussed in 6.2.1, i.e. (26), where dativization was also seen to apply. We will tentatively

attribute the less than perfect status of (55) to its structural complexity.

We will assume that the success of dative Case-assignment in (55), contrasting with its failure in (54), reflects the fact that fare can assign accusative, while andare cannot. Assuming now the specifics of the Government-Binding theory, we will suggest the following reformulation of the dativization rule of 5.5.4.

$$(56) \quad NP \rightarrow a \ NP / V \ [+A] - \left\{ \begin{array}{c} NP \\ S \end{array} \right\} - \underline{\quad}$$

1            2            3

We assume the linear orders 1-2, 1-3 to stand for "government", namely we assume 1 to govern both 2 and 3. We further assume 2 to precede 3, although we will no longer assume contiguity to be required as the formulation in 5.5.4 indicated (on this see some of fn. 28). We assume that all verbs qualify as "V [+A]" unless lexical specifications impose otherwise. In accordance with our discussion of 2.6 we then assume that ergative and Raising verbs and only those, are lexically specified as being "-A", i.e. non Case-assigners, and that this is related to the fact that they do not assign subject-thematic roles (i.e. "-T"). (56) will thus account for the lack of dative in (54), since andare is "-A". It will also account for the lack of parallelism between (57a) and (57b), (57c) here below respectively.

- (57a) Mario fa [<sub>VP</sub>leggere il libro] [<sub>S</sub>a Giovanni ---]  
 Mario makes    read the book        to Giovanni  
 (Mario makes Giovanni read the book)

- (57b) \*Mario vuole [<sub>VP</sub>prendere un caffè'] [<sub>S</sub>a Giovanni ---]  
 Mario wants    have some coffee        to Giovanni  
 (Mario wants Giovanni to have some coffee)

- (57c) \*[<sub>i</sub> Il libro] potrebbe [VP leggere <sub>i</sub>t<sub>i</sub>] [<sub>S</sub>a Giovanni ---]  
          The book     could read                      to Giovanni  
                      (It would be possible for Giovanni to read the book)

As was discussed in 5.6 we assume that two prerequisites must be fulfilled if "Case-government" is to obtain across a clause boundary:

That  $\bar{S}$  deletion occur, and that the VP be extracted from the clause.

Both conditions are fulfilled in (57a), since we assume that fare trigger  $\bar{S}$  deletion, therefore the embedded subject will be Case-governed. Furthermore, since fare qualifies as "V[+A]", the environment for dativization of (56) will obtain, whence the grammaticality of (57a). In (57b) the environment for dativization will not obtain, since, although we assume that volere is an accusative assigner, we also assume that it does not trigger  $\bar{S}$  deletion. The embedded subject will thus fail to be governed, whence the ungrammaticality. Failure of accusative assignment in (58) here below, contrasting with "Mario farà' partecipare Giovanni", will be quite analogous.

- (58) \*Mario vuole [VP partecipare] [<sub>S</sub>Giovanni ---]  
          Mario wants to participate   Giovanni  
                      (Mario wants Giovanni to participate)

As for (57c), although we assume that Raising verb potere does govern the embedded subject, even in the sense of Case-government, given VP-movement, dative will not be assigned because, as with all Raising verbs, potere is "-A". (See also fn. 46).

We must note however, the difference between (57c) and (59) here below (or, for that matter, the passive in (55) above).

- (59) [<sub>i</sub> Il libro] fu fatto [VP leggere <sub>i</sub>t<sub>i</sub>] [<sub>S</sub>a Mario ---]  
          The book   was made   to read              to Mario

Given our assumptions as to the general parallelism between passives

and Raising/ergative verbs (cf. for example 2.6 above), the fact that dativization succeeds in (59) while it fails in (57c), might seem problematic for our view here. Yet a distinction between Raising/ergative verbs and passives on this point seems to be required independently. Recall in fact some of the cases discussed in 3.5.5 above and involving the "double object" construction in English, and the analogous ones here below.

- (60a) I dropped him the rope
- (60b) The rope was dropped to him
- (60c) The rope dropped (\*him)

The cases in (60) would seem to indicate that while the passive form can assign Case to at least one of the objects, the corresponding ergative cannot. Our claim would thus be that the complex predicate derived by VP-movement in Italian is essentially analogous to the English double object construction (aside from the fact that dativization of the second object is systematic in Italian). With respect to the formalism in (50), our view would imply that, while a Raising verb will not qualify as term 1, a passive form will. The latter will simply not assign accusative to term 2. Our claim that the dative created by the dativization rule operative in causative constructions is analogous to the second object of English double-object constructions, may seem supported by the fact noted in 5.6 above, that the phrase which is affected by dativization can undergo NP-movement with results which differ sharply from those relative to indirect object datives, as illustrated by the following.

- (61a) Giovanni lo fece leggere a Mario  
(Giovanni made Mario read it)

- (61b) ??Mario lo fu fatto leggere  
           (Mario was made to read it)
- (62a) Giovanni telefono' a Mario  
           (Giovanni phoned (to) Mario)
- (62b) \*Mario fu telefonato (a)  
           (Mario was phoned (to))

Indeed the alternation between (59) and (61b) is reminiscent of English "The book was given to Mary; Mary was given the book", etc.

If this view of dativization is correct, we will then predict that a case with the structure of (52a) will be well-formed only if the matrix direct object (the one which cannot receive Case), rather than the embedded direct object, is relativized.<sup>23</sup> This possibility is instantiated in (63), where DP<sub>Ø</sub> ("Dative Phrase") will be the null phrase related to the clitic.

- (63) Un vicino  
       a neighbor

[<sub>sc</sub> PRO<sub>i</sub> venutomi [VP<sup>a</sup> chiedere un favore DP<sub>Ø</sub>] t<sub>i</sub> [S<sup>PRO<sub>i</sub></sup> ---]]  
       come to me      to ask a favor

(..(who had) come to ask me a favor ...)

mi trovo' occupato  
       found me busy

The case in (63) will not encounter the difficulties of (54) above.

In fact, unlike the matrix direct object "Giovanni" in (54), the embedded direct object "un favore" in (63) will unproblematically be assigned Case (by the transitive verb "chiedere").<sup>24</sup> From (63) and the position of the clitic "mi", we will infer: first, that restructuring can apply in sc's, just like the causative rule (cf. (53)); a view which we implicitly held all along;<sup>25</sup> second, that after restructuring, the direct object of ergative matrix verb "venire" is still present, since it can be relativized: a conclusion which was

anticipated in 6.2.1. (63) is in fact (19a) above. As for the ungrammaticality of its counterpart (19b), i.e. "Un vicino volutomi chiedere un favore...", the latter would require relativization of the subject of volere, which is impossible. The latter subject must in fact be empty (not "PRO") in D-structure, as with all past participials (no thematic role), cf. 3.6.2. The two cases in (19) above will therefore differ in the same manner as the two cases in (224), chapter 3 (and the similarity between (14a) and (16a) above will be only apparent, just like the similarity between the two cases in (223), chapter 3).

This discussion of restructuring in sc relatives will thus confirm on the one hand the conclusion of 6.4.3 that in the Control case the embedded subject is still present after restructuring, and on the other the view of 6.2.1 that in the ergative case the matrix object is still present. As we discussed, while these points follow from the VP-movement analysis, they would both be problematic under the deletion analysis.

#### 6.4.5 Restructuring under Fare

In 6.2.1 above we discussed the effects of restructuring on ergative complements of fare. We saw how restructuring affects the linear order of constituents and the distribution of dativization. We take that discussion to essentially exhaust the ergative case. We will now deal with the Raising and Control cases. As we saw in chapter 5 (cf. 5.4.1 and 5.2.2 respectively), neither Raising nor subject-Control complements will be found in the F-VP construction. Consider now the following, involving Raising verb finire (per) and Control verb decidere respectively.

- (64a) \*Il suo atteggiamento farà  
his attitude will make

[<sub>Vp</sub>finire [<sub>S</sub>PRO [<sub>Vp</sub>per criticarlo NP<sub>Ø</sub>]]]  
end up (someone) criticizing him

- (64b) \*Il suo atteggiamento farà'  
 his attitude will make

[<sub>VP</sub><sup>decidere</sup> [<sub>S</sub><sup>di PRO</sup> [<sub>VP</sub><sup>criticarlo</sup> NP<sub>Ø</sub>] (da tutti)]]  
 decide to criticize him (by everybody)

We assume that the ungrammaticality of (64a) is a reflex of the general fact that Raising and Control environments never overlap, namely of the illegitimate occurrence of PRO under the Raising predicate finire (per). Assuming in particular the framework of the Government-Binding theory, (64a) will be ungrammatical because finire (per) triggers  $\bar{S}$  deletion, thus causing PRO to be governed, in violation of general principles. While we assume the Government-Binding theory for concreteness, we must note that, as was the case for some of our previous discussion, what is strictly relevant to our point is not the details of how the general distribution of PRO and traces is accounted for, but rather the assumption that the latter distribution results from conditions on derived structure, as opposed to conditions on intermediate levels.

While PRO would thus be excluded from occurring as in (64a), it is easy to see that a trace would also be excluded from occurring in the same position, since there would be no source for it. Furthermore, a lexical NP will also be excluded, thus correctly ruling out "?\*... farà' finire Giovanni per criticarlo/ ...will make Giovanni end up criticizing him". As discussed in 5.4.1 we assume in fact that Case assignment (the only Case assigner here would be fare) is blocked by the presence of the clause boundary.<sup>26</sup>

The ungrammaticality of (64b) will be attributed to the lack of a controller for PRO in accordance with our discussion in 5.2.2 (cf. ex. (12), ch. 5). We must note here that with subject-Control verbs, such

as decidere in (64b), we must assume that the embedded subject "PRO" can never be interpreted as "arbitrary". This will be required independently, to account for the failure of passivization of such verbs in general (cf. Chomsky (1980); 5.7.1 above). However there will be no parallel reason to assume that PRO in (64a) could not be so interpreted (if its occurrence was allowed).

If restructuring is VP movement, we will predict that the ungrammaticality of these cases will persist, should the latter apply to the most embedded VP. The PRO in (64a) will in fact continue to be governed, the one in (64b) will continue to lack an antecedent. We thus correctly predict the cases in (65).

(65a) ?*Il suo atteggiamento <u>lo</u> fara'	{ poter dover sembrar }	{ criticare
his attitude <u>him</u> will make (someone)	{ be able have seem }	{ to criticize
(...will make someone be able/etc. to criticize him)		

(65b) ?\*Il suo atteggiamento lo fara' voler criticare (da tutti)  
his attitude him will make want to criticize (by everybody)

Given the position of clitic lo, (65a) involving Raising verbs potere, dovere, sembrare, will be the restructured counterpart to (64a). Different predicates have been selected for this example because finire (per) in (64a) will not allow restructuring, while the predicates in (65a) will not very well appear in sequences of infinitives due to the multiple-infinitive prohibition of Longobardi (1979) discussed in 6.2.2 above, which, as will be recalled, is not operative if restructuring applies, as -we assume- in (65). The latter prohibition is avoided in (64a) by the presence of per. (The variant with sembrare in (65a) will be relevant only to those speakers for whom the latter

is a restructuring verb, cf. fn. 3). Analogous considerations have determined the choice of Control verbs pensare (*di*) in (64b) and volere in its restructured counterpart in (65b).

The account we are giving of (65b) is thus essentially identical to that given for the ungrammatical passive in (49b) and for the sc relative in (52b) (i.e. lack of a controller for the relevant PRO). We note however that while we discounted the possibility that the latter two cases could be imputed to morphological factors, the issue will not even arise here since in (65b) "volere" bears no special morphology. Analogously, the Raising cases, which were excluded independently by morphological considerations in 6.4.3 and 6.4.4, will become relevant here.<sup>27</sup>

If restructuring deleted the embedded subject, we would predict that the violations in (64) will disappear should the latter apply. Thus, the deletion formulation could not account for the cases in (65) if the relevant well-formedness conditions hold of derived structure as discussed. Rather, the latter formulation would require the existence of some appropriate conditions (i.e. such as to rule out PRO in (64a) and require an antecedent for PRO in (64b)) holding at intermediate levels of derivation and prior to restructuring: a possibility which will not be entertained within our framework.

Our point concerning (64a) is thus the exact complement of the point we made in connection with the Control cases in (45a) and (46a), and the fact that Control verbs never appear to allow a Raising-type derivation, whether restructuring applies or not. In sum we are noting that Raising and Control verbs maintain their respective frames under restructuring: a fact predicted by the VP-movement formulation,

though not by the deletion formulation.

Let us now consider the cases of F-S in (66) (where the larger VP containing a sentential complement has been extracted from the sentential complement of fare).

- (66a) \*Cio' fara'  
This will make

[<sub>VP</sub><sup>finire</sup> [<sub>S</sub><sup>t<sub>i</sub></sup> [<sub>VP</sub><sup>per vincere</sup> lo <sub>NP</sub><sup>Ø</sup>]]] [<sub>S</sub><sup>a</sup> [<sub>NP</sub><sub>i</sub><sup>i</sup> ragazzi]---]  
end up            winning it                    (to) the kids  
(...the kids end up winning it)

- (66b) Cio' fara'  
This will make

[<sub>VP</sub><sup>sperare</sup> [<sub>S</sub><sup>di</sup> <sub>PRO</sub><sub>i</sub> [<sub>VP</sub><sup>vincere</sup> lo <sub>NP</sub><sup>Ø</sup>]]] [<sub>S</sub><sup>a</sup> [<sub>NP</sub><sub>i</sub><sup>i</sup> ragazzi]---]  
hope            to win it                    to the kids  
(...the kids hope to win it)

From our discussion in 5.4 (cf. (66)/(67) and discussion, ch. 5), we assume that proper binding conditions operate differently on traces than they do on PRO's. Thus the trace in (66a) will not be properly bound, while the phrase "ai ragazzi" in (66b) will be a valid antecedent to <sub>PRO</sub><sub>i</sub>, hence the contrast. Supposing now that VP-movement applied to the innermost VP in either case, we will expect that the status of neither example should change. In fact neither "t<sub>i</sub>" in (66a) nor "PRO<sub>i</sub>" in (66b) would be affected should the latter operation apply.<sup>28</sup> Although the relevant judgements are not very sharp, we will take the status of the restructured cases in (67) to be essentially parallel to that of the corresponding non-restructured cases in (66), and thus as predicted by our analysis (but cf. fn. 26 for some reservations).

(67a) ??Cio' lo fara'    { potere    }    vincere (a)i ragazzi  
                         dovere    }  
                         } (sembrare)

This it will make    { be able    } to win (to) the kids  
                         have    }  
                         seem    }  
                         (...the kids be able/etc. to win it)

(67b) ?Cio' lo fara' voler vincere ai ragazzi  
        This it will make want to win to the kids  
        (...the kids want to win it)

The different choice of predicates between (66) and (67) will again be due to the multiple-infinitive prohibition and the factors we just discussed. The slight difficulty in (67b) will remain unexplained.

Again the deletion analysis would make different predictions. In particular it would predict that the presumed source for the ungrammaticality of (66a), i.e. " $t_i$ ", should be eliminated, thus leaving (67a) unaccounted for. We note here that even resorting to conditions on intermediate levels of derivation would not suffice to relate the ill-formedness of (67a) to that of (66a). In fact only if the causative rule associated with fare applied (obligatorily) prior to the restructuring rule associated with potere etc., (i.e. if -surprisingly- rules applied "countercyclically") would there ever be a stage where the relevant trace is improperly bound: a stage essentially corresponding to (66a). Short of this, the structure prior to restructuring would be well-formed, and essentially "...fare [ $S_{NP_i}$  potere [ $S_{t_i}$  vincere..]]" (The order of application of rules will be generally irrelevant within our framework, since we rely mostly on output conditions. Cf. fn. 11). The deletion analysis would not be associated with any undesirable prediction, for Control cases like (67a).

In conclusion, even though the relevant judgements are not always

very clear, we take it to be a correct assessment of the facts, that the distribution of restructured Raising and Control cases under fare is essentially the same as that of their non-restructured counterparts. Given some general and independent assumptions, this fact will be correctly predicted only under the view that restructuring does not delete the embedded subject.

#### 6.4.6 Aspectuals

Facts somewhat different from the ones we reviewed above, will hold for the aspectual predicates cominciare, continuare. Consider in fact the following.

- (68a) ?Il palazzo fu      { cominciato }      a costruire  
                               { continuato }  
     The palace was      { begun }      to build  
                               { continued }  
                               per ordine del principe  
                               at the order of the prince
- (68b) ?Il palazzo      { cominciato }      a costruire per ordine  
                               { continuato }  
     The palace      { begun }      to build at the order  
                               { continued }  
                               del principe non fu terminato che sotto il suo successore  
                               of the prince was not completed till under his successor
- (68c) Il principe fece      { cominciare }      a costruire il palazzo  
                               { continuare }  
     The prince made      { begin }      to build the palace  
                               { continue }  
                               (dall' architetto di corte)  
                               (by the court architect)

These verbs appear, not only in Control frames as was indicated in the classification in (8) above, but as Rizzi points out (cf. his fn. 7), they appear also in Raising frames (as has been argued for the corresponding English verbs; cf. fn. 13, ch. 1). This can be determined

by means of the usual diagnostics (cf. fn. 57, ch. 5). For example we will find: "Continua a /\*vorrebbe) piovere/ It continues /\*would like) to rain; "Fra le persone sospettate di complicita' cominciavano a /\*temevano di) esserci troppi membri del governo/ Among the persons suspected of complicity there began /\*feared) to be too many members of government". The cases in (68) will be clearly related to the Control and not to the Raising entry of these verbs. In fact, unlike the verbs in (68a), (68b), Raising verbs never appear with passive morphology, as was discussed above (cf. 3.6). Cases corresponding to (68a), (68b) and lacking passive morphology will be impossible, as will be noted below, cf. (73b). Assuming as would seem reasonable that the exceptionality of all the cases in (68) is essentially analogous, we will then take not only (68a), and (68b), but also (68c) to instantiate the Control entry, even though no passive morphology is involved in the latter case. The results in (68) will therefore differ from those relative to the Control cases discussed above. In particular, the passive in (68a) will contrast with the ungrammatical passive in (49b); the sc relative in (68b) with the ungrammatical case in (52b); the case of F-VP in (68c) with the (near-)ungrammatical case in (65b).

We must note here that (as pointed out in Rizzi (1976a, fn. 22)) passives like (68a) are not fully productive, rather they seem confined to near idiomatic expressions and to a particular stylistic level. In this sense they will differ from the corresponding cases involving fare, for which there are no comparable limitations. E.g.:

- (69a) I licenziati saranno fatti riassumere  
Those fired will be made to re-hire

- (69b) ?\*I licenziati saranno    { cominciati }    a riassumere  
                                     { continuati }
- Those fired will be    { begun }    to re-hire  
                             { continued }

Parallel limitations are found with the analogous sc relatives, and, to a somewhat lesser extent, with the F-VP cases as in the following, respectively.

- (70a) ?\*Gli operai    { cominciati }    a riassumere  
                             { continuati }
- The workers    { begun }    to re-hire  
                             { continued }
- erano stati licenziati ingiustamente  
       had been fired unjustly
- (70b) ?Il sindacato fece    { cominciare }    a riassumere quegli operai  
                             { continuare }
- The union made    { begin }    to re-hire those workers  
                             { continue }
- (dalla direzione)  
       (by the management)

This limited productivity will suggest that it is appropriate to regard the cases in (68) as the exception rather than the norm.<sup>29</sup> Our account of the impossibility of the previous Control examples will therefore stand, constituting the general case. The cases in (68) will in fact confirm some aspects of our previous discussion. We will recall that the impossibility for the Control case of restructuring to appear in passives, in sc relatives, and in F-VP was attributed essentially to the same reason, namely to the existence in each case of an unbound PRO as the subject of the complement. The fact that it is now the same class of verbs (i.e. exactly these two) which appears exceptional in each of the three cases, points to the correctness of our view and of the common account given.

Given our general assumptions, there will be essentially only two

possibilities for an analysis of passives like (68a). These are given in (71).

(71a) [<sub>i</sub> Il palazzo] fu cominciato [<sub>Vp</sub><sup>a</sup> costruire <sub>i</sub>]

(71b) [<sub>i</sub> Il palazzo] fu cominciato [<sub>Vp</sub><sup>a</sup> costruire <sub>i</sub>] [<sub>S</sub><sup>PRO ---</sup>]

In fact, given that we assume that the transitive verb costruire assigns a thematic role to its subject, it could not be the case that the latter verb has an empty subject in D-structure (thematic well-formedness, cf. 1.4.2 above). This will imply that either there is no such subject, as in (71a); or that the latter subject is PRO. (On the inadequacy of a subject-deletion analysis even in these cases, see below). Thus for the analysis in (71a), the exceptionality of these verbs would essentially consist of the fact that they take base-generated VP complements, like fare. For the analysis in (71b), the exceptionality would presumably be due to some possibility for the embedded subject PRO to receive an interpretation, even in the absence of an antecedent (in the relevant syntactic sense; but cf. fn. 35).

We will assume the latter view, and the analysis in (71b), to be the correct one. We will suggest that the exceptionality of passives like (68a) is to be related to an independent peculiarity of these verbs. Unlike most Control verbs in Italian, the two verbs in question (and a few others<sup>30</sup>) will not take tensed complements, hence the asymmetry between (72a) and (72b) below.

(72a) Giovanni { comincio' a } scrivere a Maria  
           { voleva }

Giovanni { began      } to write to Maria  
           { wanted }

(72b) Giovanni { \*comincio' } che Maria gli scrivesse  
           { voleva }

Giovanni { began      } that Maria should write to him  
           { wanted }

Furthermore we must note that in cases like (68a) there is no possibility to interpret the subject of the embedded verb as disjoint from the matrix agent. For example with "Il palazzo fu cominciato a costruire dall'architetto/ The palace was begun to build by the architect" it will never be the case that someone, namely the architect, did the "beginning", while someone else did the "building". It will then seem reasonable to suggest that the "semantics" of these verbs is such as to require obligatorily that the embedded subject be coreferential with the understood matrix agent. Under this view, the bad case in (72b), as well as tensed complements in general would be ruled out. In fact coreferentiality between the two subjects when the complement is tensed is independently impossible in general, as in "?\*(Io) vorrei che io andassi/ I would like that I should go", for whatever reasons (likely because of the existence of the infinitival form). We may now assume that it is this special "semantic" provision which makes the PRO of (71b) interpretable, though apparently only for some stylistic levels (but cf. fn. 35 for an alternative).<sup>31</sup> Of course such a vaguely defined semantic mechanism will not force us to choose (71b) over (71a). It is conceivable in fact that the latter could operate even if the embedded subject was not syntactically represented, as in (71a). We will now review some considerations which will motivate a choice of (71b) over (71a).

To start we note that the VP-complement subcategorization implied by (71a) would have to be limited, rather artificially -one would think-, to the Control entry of these verbs, given the impossible Raising case in (73b), contrasting with (73a).

- (73a) [<sub>i</sub> Il palazzo] comincia [<sub>S<sub>i</sub></sub> ad essere costruito <sub>t<sub>i</sub></sub>]  
           The palace begins                 to be built

- (73b) \*[<sub>i</sub> Il palazzo] comincia [VP<sup>a</sup> costruire t<sub>i</sub>]  
          The palace begins         to build

If, instead of the analysis in which it is given, (73b) had the analysis of (71b) as we are assuming, its ungrammaticality would follow from the fact that, while costruire requires a PRO rather than an empty subject in D-structure (thematic well-formedness), PRO would be incompatible with the Raising entry of cominciare (as with all Raising verbs: PRO would be governed) cf. exs. (iii), (iv), fn. 27.

Secondly, we will note the lack of parallelism with the fare case in (74).

- (74a) [<sub>i</sub> Giovanni] fu fatto [VP<sup>intervenire</sup> t<sub>i</sub>]  
          Giovanni was made         to intervene

- (74b) \*Giovanni fu cominciato a intervenire  
          Giovanni was begun to intervene

Within our discussion, the direct object of ergative verbs (like intervenire in (74)) is indistinguishable in all relevant respects from the direct object of transitive verbs (like costruire in (68a)). The ungrammaticality of (74b) is therefore unexpected under the analysis in (71b), since the two cases in (74) as well as (68a) would then be entirely parallel.<sup>32</sup> On the other hand (74b) will be ruled out correctly by the analysis in (71b) since ergative "intervenire" would have PRO as a subject (rather than a null subject) in D-structure: a violation of thematic well-formedness. Notice that we are no longer ruling out occurrence of PRO as an embedded subject as we did in our discussion of (73b), since we are now dealing with the Control entry of these verbs (no  $\bar{S}$  deletion). We assume that the passive case in (75) below is ruled out analogously to the ergative case in (74b).<sup>33</sup>

- (75) ?\*Il palazzo fu cominciato ad essere costruito  
          The palace was begun to be built

If cominciare does not take VP complements, then the only D-structure that would yield (75) (via restructuring and NP-movement) would be: "[<sub>NP<sup>e</sup></sub> fu cominciato [<sub>S</sub> PRO ad essere costruito il palazzo]". But, the latter is ill-formed since the embedded passive has a PRO (rather than a null) subject. On the other hand, since we have no independent reason to assume that passive morphologies could not occur in VP complements, we would expect (75) to be possible under the type of analysis in (71a). We also note that any semantic condition requiring coreferentiality between the two subjects, such as we discussed above, is unlikely to play any role in (75) since the matrix and the complement are entirely parallel in structure (cf. also fn. 32). Recall finally that a Raising-type derivation for (75), i.e. " $NP_i$  fu cominciato [<sub>S<sup>t<sub>i</sub></sup></sub> ad essere costruito <sub>t<sub>i</sub></sub>]" (and the analogous derivation for (74b)) would be impossible given the usual considerations ruling out trace in "PRO" environments. These considerations will continue to hold under restructuring provided that the embedded subject is not deleted. The subject deletion formulation of restructuring would thus run into problems even with this class of predicates, given (75) (and (74b)).<sup>34</sup>

Some indications for the existence of the embedded subject in these cases, can also be derived from the ungrammaticality of (76a), contrasting with (76b).

- (76a) \*Le ragazze furono cominciate a guardare allo specchio  
The girls were begun to look (at themselves) in the mirror
- (76b) Le ragazze furono fatte guardare allo specchio  
The girls were made to look (at themselves) in the mirror

As was discussed in 5.7.4 (and as pointed out to us by A. Belletti), the expression guardare NP allo specchio is idiomatically associated with reflexive interpretation (as shown by "Giovanni si guarda allo

specchio", "Giovanni guarda se stesso allo specchio", "\*Giovanni guarda Maria allo specchio"). To the extent that this association holds, (76a) will be impossible. Namely (76a) will allow no interpretation where "le ragazze" is both the subject and the object of "guardare", while the latter type of interpretation is unproblematic with (76b). We will take this difference to reflect the fact that in (76a), the subject of "guardare" is PRO, while in (76b): a case of F-VP, "guardare" has no subject at all. We thus assume (76a) to have the structure " $NP_i$  furono cominciate [ $VP^a$  guardare  $t_i$  allo specchio] [ $S^{PRO---}$ ]". The impossibility for the reflexive interpretation will be attributed to the effect of disjoint reference between " $t_i$ " and PRO. This case would thus be parallel to the causative "[ $i$  La ragazza] fu fatta [ $VP$  guardare  $t_i$ ] [ $S_a$  lei ---] / The girl was made to look at to (by) her", where "la ragazza" and "lei" are necessarily disjoint (on disjoint reference in these configurations recall the discussion in 5.2.2 and fn. 10, ch. 5). One further piece of evidence indicating that the complement of cominciare, continuare is not a base-generated VP will be provided by the distribution of reflexives as will be discussed in 6.6 below.

On the basis of such evidence we will conclude that in cases like (68a) the subject of the complement verb is indeed represented in derived structure, and that the correct relevant analysis is (71b). This view will straightforwardly extend to the sc relative and the F-VP cases in (68b) and (68c) respectively, which will have the analyses in (77) respectively.

- (77a) [ $i$  Il palazzo] [ $sc^{PRO_i}$  cominciato [ $VP^a$  costruire  $t_i$ ] [ $S^{PRO---}$ ]...]
- (77b) Il principe fece  
[ $VP$  cominciare [ $VP^a$  costruire il palazzo] [ $S^{PRO---}$ ] (da NP)]

The exceptionality of these verbs would therefore be represented by a somewhat marginal and stylistically controlled possibility to assign an interpretation to the embedded subject PRO even in the absence of a syntactic antecedent: a possibility which we attempted to relate to independent properties of these verbs.<sup>35</sup>

#### 6.4.7 Conclusion

In this section we have attempted to support our claim that in restructuring constructions the embedded subject is present in derived structure. Our major arguments were based on the following observations: i) Restructured and non-restructured cases are non-distinct with respect to semantic interpretation (6.4.1). ii) Even under restructuring, Control verbs do not appear in Raising frames (6.4.2), and Raising verbs do not appear in Control frames (6.4.5). iii) Restructured complexes do not generally passivize (6.4.3). iv) Restructured complexes involving Control verbs appear under fare with the same distribution as their non restructured counterparts, and analogously for restructured complexes involving Raising verbs (6.4.5). Our claim is that only in some cases the evidence presented could be accommodated within a "subject deletion" formulation of restructuring by making different -though often questionable- theoretical assumptions.

If the discussion in this section discounts a "subject-deletion" formulation, it will also naturally discount most conceivable base-generation analyses. In fact, if the embedded verb has a syntactically represented subject (different than the matrix subject), it could not be the case at least under natural assumptions, either that the two verbs are part of a base-generated verbal complex, or that the embedded

verb is part of a base-generated VP complement (a view which has been proposed in Strozer (1980)).<sup>36</sup> A further type of argument against base-generation of restructured complexes comes from the observation that some of the differences generally present between Raising and Control contexts are still detectable even under restructuring. In particular we will note the contrast in (78).

- (78a) ?[<sub>i</sub> Un interprete ciascuno] potrebbe [VP <sub>i</sub> essere assegnato <sub>i</sub>  
One interpreter each could be assigned  
a quei visitatori] [<sub>S</sub><sup>t</sup><sub>i</sub> ---]  
to those visitors

- (78b) \*[<sub>i</sub> Un interprete ciascuno] vorrebbe [VP <sub>i</sub> essere assegnato <sub>i</sub>  
One interpreter each would like to be assigned  
a quei visitatori] [<sub>S</sub><sup>PRO</sup> ---]  
to those visitors

The cases in (78) will be the restructured counterparts to some of the examples discussed in chapter 4.<sup>37</sup> Under the terms of our discussion, the difference between (78a) and (78b) is expressed by the assumption that the trace in "essere assegnato <sub>i</sub>" is the trace of the matrix subject in (78a), while it is the trace of the pronominal element PRO in (78b). This being the case, the element ciascuno will be "recoverable" in a position contiguous to its antecedent "quei visitatori" only in (78a) and not in (78b). See however fn. 73, ch. 5 for a problem associated with these cases. If "potere essere assegnato" and "volere essere assegnato" in (78) were base-generated complexes, it would be most unlikely that any appropriate distinction could be drawn, and that the contrast could be unexplained.<sup>38</sup>

A similar case is represented by the "locational" constructions of 3.1.3 above. Consider the contrasts in (79).

(79a) [<sub>i</sub>e] parevano [<sub>S<sub>i</sub></sub> esserci<sub>i</sub> molte ragazze<sub>i</sub> alla festa]  
 Seemed to be there many girls at the party  
 (There seemed to be many girls at the party)

(79b) \*... pensavano [<sub>S<sub>di</sub></sub> [<sub>i</sub>e] esserci<sub>i</sub> molte ragazze<sub>i</sub> alla festa]  
 Thought to be there many girls at the party  
 (There thought to be many girls at the party)

No restructuring could have applied in either of (79) since parere, pensare are not restructuring verbs. We assume that in locational constructions there is a subject system represented by a base-generated "chain" "[<sub>i</sub>e]-ci" ("NP<sub>ci</sub>-ci" in some of the previous discussion, cf. 3.1.3; cf. also some of 5.7.1 on base-generated clitics), which enters into the inversion strategy of chapter 2, just like the synonymous English there, and which requires Case-marking, again like there. The case in (79a) will be well-formed because the chain relative to ci does involve a Case-marked position, namely the matrix subject, and because an appropriate binding relation obtains between an element in the chain namely the trace "<sub>t<sub>i</sub></sub>" and the i-subject "molte ragazze". This is essentially our discussion of 3.1.3 above, in slightly different terms. The Control case in (79b) will be ruled out at least by the fact that the chain relative to ci does not analogously extend into a Case-marking position, since there is no Raising. Also, problems arise with respect to the status of the matrix subject position. In particular if the latter position is empty in D-structure, thematic well-formedness will be violated since pensare assigns a thematic role to its subject. If the latter position is vacated by rightward movement of the phrase "molte ragazze" then at least thematic well formedness with respect to the complement will be violated since the NP position following essere, clearly an argument position, will have to be empty in D-structure.

We now consider the restructured counterparts in (80), in our analysis.

- (80a)  $[_i e] \text{ ci}_i \text{ potrebbero } [_v p \text{ essere } \underline{\text{molte ragazze}}_i \text{ alla festa}] [S^t_i \text{ ---}]$

(There would be able to be many girls at the party)

- (80b)  $*[_i e] \text{ ci}_i \text{ vorrebbero } [_v p \text{ essere } \underline{\text{molte ragazze}}_i \text{ alla festa}] [S^{PRO}_i \text{ ---}]$

(There would want to be many girls at the party)

On the Raising case in (80a) we assume a derivation from a structure like the one in (79a), in which VP-movement has applied, and in which ci has been moved onto the higher verb via Clitic Climbing. Notice incidentally that if we assume that ci must be locally related to a null NP coindexed with it in derived structure, then we have an explanation for the phenomenon of Clitic Climbing at least in this particular subcase (another subcase in which Clitic Climbing will follow from independent considerations will be that of reflexives, as will be discussed in 6.6 below).

We further assume that the matrix subject, thus locally related to ci, now plays the role of designated element binding the i-subject "molte ragazze". The fact that the matrix subject thus replaces the embedded subject as an antecedent (in (80a), for the i-subject) is quite general under restructuring, as will be discussed in 6.5.2 below. The case in (80a) will thus be well-formed. On the Control case in (80b), we assume that since volere assigns a thematic role to its subject, an R-expression must be present in that position in D-structure. Although we assume that the phrase "molte ragazze" as in (80b) could have undergone rightward NP-movement from matrix subject position (cf. the structurally parallel and grammatical "Vorrebbero venire molte ragazze alla festa" and discussion in 3.1.3), we assume that " $[_i e]$ -ci" is only inserted in D-structure (like Piedmontese ye and French il), and therefore that it could not be inserted in the position it has in (80b),

whence the ungrammaticality of the latter case.

However if "potere essere" and "volere essere" were base generated complexes, it would be very difficult to see how they could bear any relevant distinction which would account for the behavior in (80).<sup>39</sup> One further argument against base-generation of restructured complexes will be provided by the distribution of reflexive clitics, to be discussed in 6.6 below.

These arguments against base-generation must be added to those presented by Rizzi (sect. 6.3), to which the reader is referred.

## 6.5 The Change of Auxiliary

### 6.5.0 Introduction

In this section we will see how the interaction between the VP-movement analysis of restructuring and the system of *Essere*-assignment/*Past participle-agreement* of 1.6 above, repeated here below, makes correct empirical predictions.

(81a) *Essere assignment*: The auxiliary will be realized as *Essere* when a binding relation exists between the subject and a nominal constituent of the predicate.

(Where: an element is a constituent of the predicate if and only if it is either part of the verb morphology or it is governed by the verb)

(81b) *Past Participle agreement*: A past participle will agree (in gender and number) with an element binding its direct object.

(Where: a direct object is the NP governed by the verb)

In particular we will see how our theory provides an adequate account for the "Change of Auxiliary" phenomenon discussed by Rizzi. Some of

the facts discussed will provide specific evidence for the second point on which the VP-movement hypothesis differs from the subject deletion formulation of (33) above, namely the asymmetry of the derived complex predicate.

Furthermore our discussion will suggest that the several important differences in behavior between restructuring and causative constructions, reduce to the independent fact that with the former but not with the latter there exists a coreferentiality (coindexing) relation between the matrix and the embedded subject.

The reader must be alerted to the fact that examples in which aspectual auxiliaries appear on both the matrix and the embedded verbs at the same time are generally impossible. This impossibility, brought to light by Rizzi, will be briefly discussed in 6.7 below. In order to illustrate auxiliary assignment and pp agreement on each verb, our discussion will therefore have to resort to separate examples.

#### 6.5.1 Pp Agreement with Cliticization

We begin by noting that, as with the causative case in (82a), pp agreement in the case of direct object clitics appears to "move on" to the higher verb with the restructuring case in (82b) as well.

- (82a) Giovanni li ha fatti leggere      (a/da Mario)  
          Giovanni them has made to read      (to/by Mario)

- (82b) Giovanni li ha { voluti } leggere  
                                   { potuti }  
          Giovanni them has { wanted } to read  
                                   { been able }

In both cases in (82), the clitic "li" is obviously related to the direct object of the embedded verb "leggere". These cases will thus contrast with the simplex "Giovanni li ha letti/ Giovanni them has read".

As we did for the facts in (82a) (cf. 5.3.1 above), we will characterize those in (82b) by saying that, with respect to the system in (81), objects of the embedded verb become objects of the matrix verb also. More formally, if we express the notion of direct object in terms of government we will say that government obtains between the matrix verb and the direct object of leggere, in both cases in (82), cf. 5.3.1 above.

It may be worth recalling that we have rejected the view, alternative to (81b), that in an "auxiliary-past participle" morphology, the pp will simply agree with a clitic adjoined to the same morphology. The latter view, which would of course trivialize the observation relative to pp agreement in (82) by reducing these facts to Clitic Climbing, is unsatisfactory because it does not allow the two types of pp agreement, namely the type found with clitics and the type found with ergative configurations, to be collapsed. Furthermore, the latter view would be problematic given cases like (83), where the clitic appears on a verb different than the one which exhibits pp agreement.<sup>40</sup>

(83) Giovanni li { vorrebbe } aver già' letti  
               { potrebbe }  
          Giovanni them would    { like      } to have already read  
                                 { be able }

The case in (83) will be appropriately accounted for by our framework since we are assuming that the phrase to which clitic "li" is related is in fact a direct object for both matrix and embedded verb (i.e. it is "governed" by both verbs).

Analogous effects as we have just noted for the Raising and the Control cases (volere, potere respectively in the above examples), can

be observed with the ergative case. Consider in fact (84).

- (84a) [<sub>i</sub> Maria] e' andata <sub>t<sub>i</sub></sub> [<sub>S<sup>PRO</sup></sub> a leggerli NP<sub>Ø</sub>]  
           Maria has (E) gone      to read them
- (84b) [<sub>i</sub> Maria] li e'    { ?andata }    { <sub>V<sup>P</sup></sub> a leggere NP<sub>Ø</sub> } <sub>t<sub>i</sub></sub> [<sub>S<sup>PRO</sup></sub> ---]  
           Maria them has (E) gone      to read

In the non-restructured case (84a), the pp "andata" will simply agree with the subject "Maria" as with all ergative verbs, and as prescribed by (81b). However if restructuring applies and if the embedded verb is transitive, as in (84b), the matrix verb will come to have two direct objects given both NP<sub>Ø</sub> related to clitic "li" and "<sub>t<sub>i</sub></sub>" related to "Maria". We naturally assume that, given the system in (81b), this will give rise to agreement conflict, thus accounting for the facts in (84b) (on some related cases cf. fn. 16 above).<sup>41</sup> (84b) will thus contrast with the unproblematic "Maria li andra' a leggere/ Maria them will go to read" where there is no past participle, and with the case in (85), where the embedded verb is intransitive and no conflict will arise.

- (85) Maria gli e' andata a parlare  
       Maria to him has (E) gone to talk

As may be expected, results are much better when the two phrases which induce pp agreement bear the same gender and number features. It is questionable however whether such cases are perfect, cf. "(?)I ragazzi li sarebbero andati a prendere/ The kids them would have gone (masc. pl.) to fetch". We may perhaps assume that the difficulty in (84b) is due in part to the conflict between two different sets of features, and in part to the fact that the pp agreement rule does not have a unique application. The presence of pp agreement in (85) ("andata" agreeing

with "Maria"), as well as the conflict in (84) will thus support our view that under restructuring, a matrix ergative verb will preserve its direct object, as was discussed in 6.2.1.

#### 6.5.2 Pp Agreement with SI

We will now recall that, as discussed in 1.6 above, with the SI construction one finds auxiliary E always, while pp agreement appears in general only with ergative verbs, as in (86).

- (86a) [<sub>i</sub>e] ci si<sub>i</sub> sarebbe andati t<sub>i</sub> volentieri  
           There SI would have gone willingly               (E; pp ag't)
- (86b) [<sub>i</sub>e] gli si<sub>i</sub> sarebbe telefonato volentieri  
           To him SI would have phoned willingly       (E; no pp ag't)

Under our assumptions, pp agreement in (86a) is determined by the relation between subject and object as usual with ergative verbs; in this case by the relation "[<sub>i</sub>e] -t<sub>i</sub>" (here "[<sub>i</sub>e]" will have plural features since it is related to SI, as was discussed in 1.6. The lack of pp agreement in (86b) is therefore predicted. Auxiliary E will follow in either case from the relation "[<sub>i</sub>e] -si<sub>i</sub>". In (86a), E will redundantly be determined by the subject-object relation also.

We now note the contrast between the following two restructured cases (the reader may assume each of the grammatical examples given in this subsection to be the only possibility for pp agreement).

- (87a) Ci si sarebbe proprio voluti andare  
           There SI would have (E) really wanted to go       (ag't)
- (87b) Gli si sarebbe proprio voluto telefonare  
           To him SI would have (E) really wanted to phone   (no ag't)

Indeed the contrast in (87) is quite parallel to the one in (86). The pp agreement of (86) simply seems to "move on" to the higher verb in (87).

An account will present itself rather obviously here: If pp agreement in (86a) is due to the direct object of andare "t<sub>i</sub>", and if embedded objects become matrix object under restructuring as we just suggested, then given ergative andare, in (87a) there will be an analogous "t<sub>i</sub>" which will become a direct object of volere, whence the agreement. But although this case may seem a rather innocuous extension of the agreement-with-clitics case of 6.5.1, at closer scrutiny it will call for further comment, and will in fact raise a rather crucial point within our discussion.

The case in (87a) involves a derivation which we will abstractly represent as in (88), where VP-movement changes (88a) into (88b).

$$(88a) \quad NP^1 \ V [S^2_i [VP^V t_i \dots]]$$

$$(88b) \quad NP^1 \ V [VP^V t_i \dots] [S^2 ---]$$

In (87a), NP<sup>1</sup> will be either SI or its trace depending on the order of application of rules (the latter order being irrelevant to our discussion). NP<sup>2</sup> will be PRO, given Control verb volere. As will be recalled from 5.4.1, we are assuming that a derivation as in (88) is generally illegitimate, since it would result in the improper binding of the trace "t<sub>i</sub>". Restructured contexts will therefore appear exceptional if they allow such a derivation. We will proceed to attribute this apparent exceptionality to the fact that with the latter contexts, the matrix and the embedded subjects, i.e. NP<sup>1</sup> and NP<sup>2</sup> in (88), are coreferential or, more properly, coindexed in L.F.<sup>42</sup> We will in fact assume that the distinction between causative and restructuring cases essentially reduces to whether or not such a property is instantiated.<sup>43</sup> In particular we will assume that, due to this coreferentiality, the matrix subject NP<sup>1</sup> in (88b) is a proper antecedent for the trace "t<sub>i</sub>",

thus making the derivation in (88) possible. These considerations will apply not only to the Control case of restructuring, in which  $NP^2$  of (88) is PRO, but naturally also to the Raising case, in which both  $NP^2$  and " $t_i$ " are traces of  $NP^1$ . This view will furthermore extend rather straightforwardly to the ergative case, for which, analogous to (88) we would have the derivation in (89).

$$(89a) \quad NP^0 \ V \ NP^1 [S^{NP^2_i} [VP^V t_i]]$$

$$(89b) \quad NP^0 \ V [VP^V t_i] NP^1 [S^{NP^2} ---]$$

We will assume that in this case  $NP^0$  can be a proper antecedent for " $t_i$ ", given that it is independently coindexed with the latter. In fact while  $NP^1$  and  $NP^2$  will be coindexed as a result of Control,  $NP^0$  and  $NP^1$  will be coindexed either by movement, as in "[<sub>i</sub>Giovanni] viene <sub>i</sub>t [sentential complement]", or by the insertion strategy of chapter 2, as in "pro <sub>i</sub> viene [<sub>i</sub>Giovanni] [sentential complement]".<sup>44</sup> Coindexing between matrix and embedded subjects will thus obtain in the ergative case as well, and will therefore be quite systematic within restructuring constructions.

Restructuring will thus not only induce a "change" of pp agreement in the Control case, with (87a) contrasting with the non-restructured "Si sarebbe proprio pensato di andarci/ SI would have (E) really thought (no ag't) to go there", but also in the Raising case in strictly analogous fashion, hence "Ci si sarebbe proprio potuti andare/ There SI could have (E) really been able (ag't) to go" involving Raising verb potere. As for the ergative case we note first that no "change" would be expected, since in the latter plural agreement obtains independent of restructuring, as in (86a) (cf. the presence of  $NP^1$  in both cases in (89)). Secondly ergative verbs rarely appear with ergative

complements, although they do appear with passive complements. We return to the latter point shortly below.

The correctness of our account and of the view that cases like (87a) reflect a difference between restructuring and causative constructions, is confirmed by the fact that there is no corresponding plural agreement with fare when the embedded verb is ergative, as in (83).

- (90) [<sub>i</sub> e] si <sub>i</sub> sarebbe fatto [<sub>VP</sub> intervenire Giovanni]  
 SI would have (E) made intervene Giovanni                    (no ag't)  
     (...Giovanni intervene)

The lack of agreement in (90) will of course be expected, given the analysis, and the system in (81).<sup>45</sup>

In the next subsection we will see how our account accommodates several more differences between causative and restructuring cases.

### 6.5.3 Differences between Restructuring and Causatives

In 6.4.3, we discussed one major difference, namely the fact that restructured complexes do not generally passivize, while their causative counterparts do. If our account was correct, then that difference will essentially follow from the property we have just discussed. We assume in fact that matrix and embedded subjects will be generally coreferential with restructuring verbs, because with these verbs, as with all Control and Raising verbs in general, an anaphoric element is selected as the subject of the infinitival complement.<sup>46</sup> In our account, the failure of passivization was due exactly to such anaphoric character of the embedded subject. Recall in fact how we claimed (e.g. for (49b) above) that the embedded subject PRO (an anaphor) would remain unbound should the matrix verb passivize.

If we assume that the derivation in (88) is possible in the restructuring but not in the causative case, then on the basis of the claim of chapter 2 that traces can sometimes be realized as emphatic pronouns, we will correctly predict the contrast in (91), where  $LP_\emptyset$  (Locative Phrase) is the null phrase related to the clitic.

- (91a) Giovanni ci vorrebbe [<sub>VP</sub><sup>andare</sup> lui  $LP_\emptyset$ ] [<sub>S</sub><sup>PRO</sup> ---]  
Giovanni there would like to go himself

- (91b) \*Maria ci farà' [<sub>VP</sub><sup>andare</sup> lui  $LP_\emptyset$ ] [<sub>S</sub><sup>(a)</sup> Giovanni ---]  
Maria there will make go himself (to) Giovanni  
(... will make Giovanni go himself there)

A more extensive discussion of the ungrammaticality of cases like (91a) was presented in 5.4.1 above.

The difference with respect to embedded passives in (92) will also be straightforwardly predicted ( $DP_\emptyset$  related to dative gli).

- (92a) [<sub>i</sub> Giovanni] gli vorrebbe [<sub>VP</sub><sup>essere presentato</sup> <sub>i</sub>  $DP_\emptyset$ ] [<sub>S</sub><sup>PRO<sub>i</sub></sup> ---]  
Giovanni to him would like to be introduced

- (92b) \*Maria gli farebbe [<sub>VP</sub><sup>essere presentato</sup> <sub>i</sub>  $DP_\emptyset$ ] [<sub>S</sub><sup>(a)</sup> Giovanni<sub>i</sub> ---]  
Maria to him would make be introduced (to) Giovanni  
(...would make Giovanni be introduced to him)

Causative and restructuring constructions will therefore appear essentially complementary with respect to passive forms, matrix passives being possible only with causatives, as in (49b)/(51b) above, embedded passives only with restructuring, as in (92).<sup>47</sup>

Corresponding to the Control case in (92a) we find the Raising (dovere) and the ergative (andare) cases in (93).

- (93a) Giovanni gli dovrebbe essere presentato  
Giovanni to him should be introduced

- (93b) (?)Giovanni gli andrà ad essere presentato  
Giovanni to him will go to be introduced

The structure of (93a) will be parallel to that of (92a) (with a trace replacing "PRO<sub>i</sub>"). The structure of (93b) will be slightly more complex and essentially as in (89b). For the difficulty in (93b) we have no precise account, but we may tentatively relate it to the complexity of the structure and of the network of anaphoric relations involved.

Corresponding to the case in (91a) we will unproblematically find the Raising counterpart "Giovanni ci potrebbe andare lui/ Giovanni there would be able to go himself". As for the ergative counterpart, we must note that embedding of ergative complements under ergative verbs appears in general highly constrained, plausibly for semantic reasons, cf. for example "?Il principe andra' a salire sul trono/ The prince will go to rise to the throne". A form parallel to (93a) will therefore be available only to the extent that such extrinsic factors allow it. Cf."?Giovanni ci va a salire lui/ Giovanni there goes to rise (climb) himself".

Another important difference between causative and restructuring cases, which will also follow from our theory, concerns the distribution of auxiliaries. The latter will be the subject of our discussion in the next subsection.

In our discussion of causative constructions, in 5.4.1 we noted that VP-movement was impossible with tensed complements. We now note that there is no difference on this point between causative and restructuring verbs, as shown by the parallelism between (94) and (95).

- (94a) Maria lascio' che Giovanni gli telefonasse  
 Maria let that Giovanni to him phone  
 (...let Giovanni phone him)

- (94b) \*Maria gli lascio' telefonasse (che) Giovanni  
 (see (94a))

- (95a) Maria voleva che Giovanni gli telefonasse  
 Maria wanted that Giovanni to him phone  
 (...wanted Giovanni to him phone)

- (95b) \*Maria gli voleva telefonasse (che) Giovanni  
 (see (95a))

The above parallelism is expected. In fact, differently than with infinitival complements (for which we have taken the anaphoric or non-anaphoric character of the embedded subject to be the crucial factor), with tensed complements, restructuring and causative verbs will appear in entirely parallel structures. It will be recalled (cf. (60) of ch. 5 and discussion), that we attributed the ungrammaticality of (94b) to the requirement that the agreement relation between the subject and a tensed verb be local in the strict sense (like the binding relation between a NP and a trace, i.e. no "reconstruction" allowed). The same considerations will rule out (95b).

#### 6.5.4 Auxiliaries

Our view that with restructuring, a trace in the moved VP will come to be bound by the matrix subject is directly supported by the fact that such binding relation determines auxiliary E in (96b) contrasting with non-restructured (96a).

- (96a) [<sub>i</sub>Maria] avrebbe voluto [S<sup>PRO</sup><sub>i</sub> venire t<sub>i</sub>]  
 Maria would have wanted to come (A; no pp ag't)

- (96b) [<sub>i</sub>Maria] sarebbe voluta [VP<sup>venire t<sub>i</sub></sup>] [S<sup>PRO</sup><sub>i</sub> ---]  
  
 Maria would have wanted to come (E; pp ag't)

(96) is an instance of the "Change of Auxiliary" phenomenon we reported in 6.1 above. It will be recalled (from 6.1) how our classification of the facts indicated that the CA took place obligatorily under the

restructuring process. It is easy to see that our theory accounts for this obligatoriness. In fact we assume that the relation of (96b) must obtain in order to satisfy binding requirements for the trace " $t_i$ ". Auxiliary E will then follow obligatorily from (81a). The "change" in pp agreement in (96) is also straightforwardly accounted for: If in these cases an embedded object is also a matrix object, as we claim, then the trace " $t_i$ " in (96b) is the direct object of volere, and the past participle will have to agree with the antecedent of such trace, namely "Maria". Pp agreement in (96b) is thus essentially the same as in the SI-construction case of (87a). In fact (96b) and (87a) are altogether parallel. No "change" of auxiliary was observable with respect to the latter case however since, as we assume, the properties of the SI-construction require E independently.

The corresponding Raising case will be quite analogous to the Control case in (96), "PRO<sub>i</sub>" of (96) simply being replaced by a trace. Corresponding to (96a) and (96b) we thus find, respectively "Maria avrebbe potuto venire; Maria sarebbe potuta venire/ Maria would have been able to come". No "changes" will occur when the matrix verb is ergative since both E and pp agreement are assigned independent of restructuring in that case, cf. the discussion of pp agreement in 6.5.2 above (recall also the difficulty in embedding ergative complements under ergative verbs, noted in 6.5.3).

The distribution of auxiliaries when the complement is a passive form rather than an ergative verb as in (96) will require further discussion. The matter will be addressed in 6.7 below.

It will be obvious from our standpoint that there could be nothing analogous to the "change" of auxiliary of (96) in the causative case.

In fact we are assuming that a necessary condition for the establishment of the relation indicated in (96b) is the coreferentiality between matrix and embedded subjects ("Maria" and PRO in (96)): a condition which is never fulfilled in the causative case. (96b) will thus contrast with (97) here below.<sup>48</sup>

- (97) Maria { ha fatto } [VP<sub>intervenire Giovanni</sub>]  
           { \*e' fatta }  
       Maria has made      intervene Giovanni      (A; no ag't)  
                           (...Giovanni intervene)

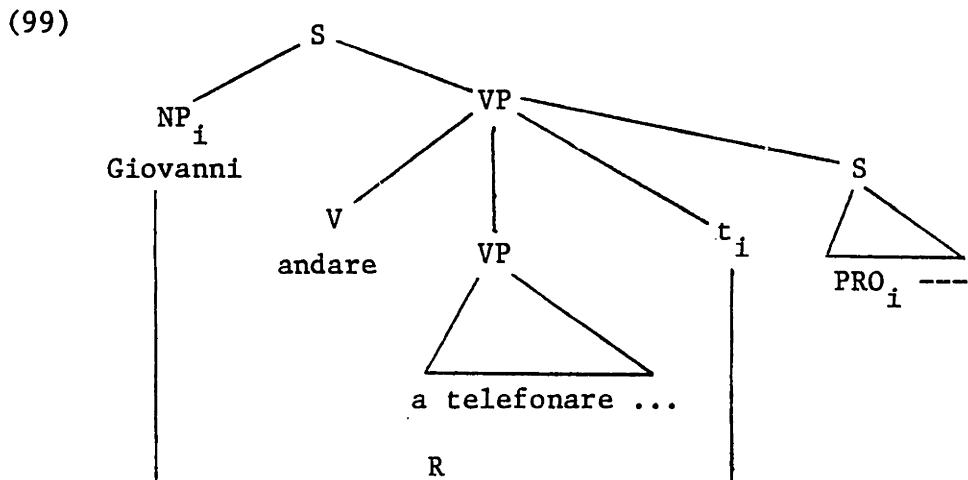
The facts in (97) are thus essentially the same as those in (90), the latter case differing only for the presence of auxiliary E as determined by the SI-construction.

Under the view which we are seeking to dismiss, that verbs like andare are intransitive, just like lavorare or telefonare, the only way which one would foresee, to account for the "Change of Auxiliary" phenomenon, would be to suggest that for some reason auxiliary selecting properties (which would then in general have to be expressed in the lexicon) must be homogeneous within a complex predicate. This would have to be required of complex predicates of the restructuring type, though not of the "fare" type, and some crucial difference between the two sets of structures would thus have to be assumed. In the restructuring case, one might then attribute to the structural contiguity of the two verbs the fact that their individual tendencies towards either auxiliary appear to have merged into a single tendency. Such an intuitive characterization, which as we shall see in 6.5.5 lies behind Rizzi's proposal, will essentially be neutral with respect to the four logical possibilities in (98), where V<sub>E/A</sub> represents a verb taking E/A.

- (98a)  $V_A \ V_E \rightarrow V_E \ V_E$
- (98b)  $V_E \ V_A \rightarrow V_E \ V_E \quad (*)$
- (98c)  $V_A \ V_E \rightarrow V_A \ V_A \quad (*)$
- (98d)  $V_E \ V_A \rightarrow V_A \ V_A \quad (*)$

The empirical facts however are that only the possibility in (98a) appears to exist (as indicated by the parenthesized asterisks), as for example in (96b) where volere ( $V_A$ ) comes to take E by virtue of its complement venire ( $V_E$ ). We will now see how within our hypothesis, the distribution of the facts in (98) follows naturally. To the extent that this discussion is convincing, our theory will have explanatory power with respect to these facts.

Let us consider the case of an ergative matrix verb with a non-ergative complement after restructuring, as in (99)



The case in (99) will instantiate the left-hand side of both (98b) and (98d), namely " $V_E \ V_A$ ". Our prediction is that no change should affect such configuration. In particular we expect ergative andare to continue to take E given the relation R of (99), as in fact in (100).

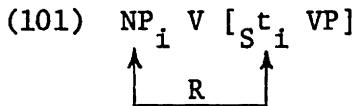
- (100) Giovanni gli     $\left\{ \begin{array}{c} *ha \\ e' \end{array} \right\}$  andato a telefonare  
                        Giovanni to him has (E) gone to phone

Like pp agreement (cf. (85)), auxiliary selection will thus also confirm our view of 6.2.1 above that ergative verbs preserve their direct object under restructuring. This accounts for the impossibility of (98d), involving a change from E to A for the matrix verb (but see also the Raising case shortly below).

We will also predict that in (99) the embedded verb will not come to take E as a result of restructuring. In fact there will be no element entering into a binding relation with the subject (i.e. "Giovanni"), which is either part of the lower verb morphology (i.e. a clitic) or governed by the lower verb. However, auxiliary selection cannot be tested in this case, due to an independent prohibition disallowing aspectual auxiliaries in the complement of andare, venire, as in the English "\*John went to have finished the job (before supper)". We may assume the latter prohibition to be of a "semantic" nature. Our prediction will remain testable however, for some matrix Raising verbs which also take E, and for which no analogous prohibition holds. This will require a brief digression.

As was briefly mentioned in 5.4.2, some Raising verbs, such as stare (per), sembrare, risultare ("be about, seem, turn out"), normally take E. Others, such as potere, dovere, cominciare ("be able to, have to, begin"), normally take A. We will take this variation to be the result of lexical idiosyncrasies. However, we will assume that selection of E even in these cases, falls under the system in (81). Considering then the typical Raising configuration in (101), we will assume that when E is selected, the relation R is the triggering

factor.



In particular we are assuming that, due to the intervening clause boundary, the relation R in (101) may or may not trigger the system in (81), depending on lexical idiosyncrasies. This will be the only role that the lexicon will be allowed to play in auxiliary selection, within our theory. On the correctness of our view that auxiliary E with Raising verbs is determined by the relation between the subject and the trace in the complement, we will recall the fact noted in 5.4.2 above that there is no parallel case of subject Control which appears with auxiliary E (recall that we are independently assuming that only relations between elements of not-independent thematic role, thus NP/trace but not NP/PRO relations, enter into E assignment; cf. 1.6). On our view that the clause boundary plays some role in (101), we may note the following minimal pair involving ergative and Raising cominciare.

- (102a) Lo spettacolo<sub>i</sub> e' cominciato  $t_i$   
The show has (E) begun

- (102b) Lo spettacolo<sub>i</sub> ha cominciato [ $S_i^t$  ad interessare il pubblico]  
The show has (A) begun to interest the public

We noted above that cominciare enters not only into Control but also into Raising frames. We assume that (102b) is a case of Raising, and that auxiliary A, contrasting with auxiliary E of the ergative case in (102a), is due to the presence of the clause boundary between the phrase "Lo spettacolo" and its trace (notice that what is relevant to our observation here is not whether in fact a Raising analysis of (102b)

is correct, but only that cominciare enters into Raising frames -for which there are good arguments-, and that when it takes a sentential complement the latter verb never takes auxiliary E, which is a fact).

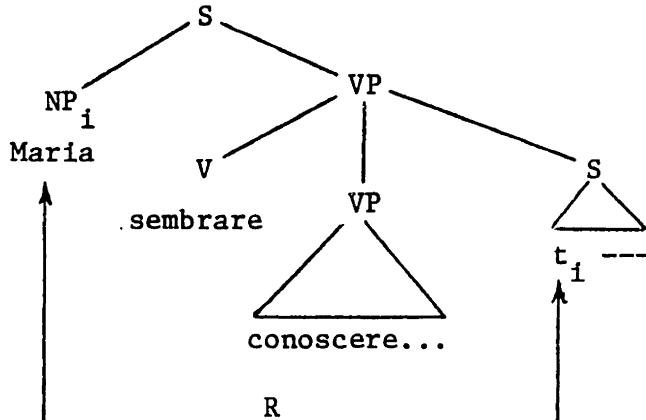
A related auxiliary alternation with cominciare had been noted in 3.5.4 above. Analogous facts hold for continuare. Our assumption that Raising contexts are "borderline" cases with respect to the system in (81) will be supported by the fact that in French, for which we assume (informally) that a somewhat similar, though clearly more constrained system of E-assignment exists, all Raising verbs take auxiliary A; cf. "Maria era sembrata gradire il regalo (E); Maria avait semblé aimer le cadeau (A)/ M. had seemed to like the present".

When E is assigned due to the relation R of (101), pp agreement also obtains, cf. "Maria era sembrata gradire il regalo". The correlation between E and pp agreement is very strict here: there is no Raising verb exhibiting one without the other, and indeed a dissociation between the two runs quite counter to intuitions. This fact is captured in our system by the assumption that a common notion of government enters into both E assignment as defined in (81a) and into pp agreement as defined in (81b). Thus if and only if the trace in (101) is governed by V, will both (81a) and (81b) above be triggered, given their respective definitions. Under this view what is idiosyncratic in the Raising cases is whether or not government under the relevant notion obtains across the clause boundary. The notion of government that enters into the system in (81) would thus be intermediate between the notion of government that pertains to the ECP, and which we assume is never blocked by the presence of an S boundary (without the  $\bar{S}$ ), and the notion of government which we assume enters into Case assignment in

Italian (Case-government for Italian), which is always blocked by the presence of an S boundary. On related discussion cf. 2.2.4, 3.4.2, 5.6 above.

Returning now to our discussion of the configuration " $V_E V_A$ ", we consider the restructuring case in (103), where the matrix " $V_E$ " is a Raising verb rather than an ergative verb as in (99).

(103)



We note that in this case also, the matrix verb will continue to take E, as in (104) thus analogous to (100).<sup>49</sup>

- (104) Maria ne { era sembrata { conoscere l'autore  
                   \*aveva sembrato } }  
 Maria of it had seemed to know the author                   (E; pp ag't)  
    (... to know the author of it)

Auxiliary selection and pp agreement in (104) will be due to the presence of the relation R of (103) and will thus provide evidence, additional to the evidence discussed in 6.4, for the existence of the embedded subject in derived structure. In essence, the failure for a matrix verb to "change" its auxiliary from E to A as in both (100) and (104), will follow from our assumption that there is no "loss" of structure associated with restructuring: an assumption which we motivated independently in some of the previous discussion.

In (103), transitive conoscere will also maintain its auxiliary, namely A, as in (105).

- (105) Maria ne sembrerebbe    { aver conosciuto    } l'autore  
                                    { \*esser conosciuta }  
Maria of it would seem to have known the author (A; no ag'te)

The facts in (105) will follow specifically from the lack of any relevant relation (analogous to R) between the subject and the lower predicate in (103). This will account for the impossibility of (98b) (i.e. " $V_E V_A \rightarrow V_E V_E$ "). Thus, while we are assuming that under restructuring embedded objects become matrix objects, cases like (105) will indicate that the converse is not true. In fact, while we regard " $t_i$ " in (103) as being -for relevant purposes- the direct object of "sembrare", we must assume given (105) that the latter is not also the direct object of "conoscere".

Within our theory, the fact that auxiliary E appears to be "transmitted" to the left but not to the right, will thus be a result of the configurational asymmetry of the derived complex, where the left-most verb C-commands (and governs) the other but is not C-commanded by it. We have thus supported the second major aspect of our analysis on which it differs from the "deletion" formulation of 6.3 above: the asymmetry of the complex predicate.

Having thus accounted for the impossibility of (98d) and (98b), we now turn to the structure in (106), relevant to the case in (98c).

- (106) [i Maria] vorrebbe [VP essere venuta t<sub>i</sub>] [S<sub>PRO</sub><sub>i</sub> ---]  
  
 Maria would want to have come (E; pp ag't)

(106) represents the same structural configuration as (96b). The relation R will thus obtain here in identical fashion. In the case

of (96b) the latter relation was assumed to determine E and pp agreement on the matrix verb. We now naturally assume that it will have the same effects on the embedded verb, in accordance with the system in (81).<sup>50</sup> Given the obligatoriness of R as discussed for (96b), there will be no option for ergative verb "venire" to not select E as in "\**Maria vorrebbe aver venuto*". Therefore, given a matrix verb normally taking A, like volere, and an embedded verb normally taking E, like venire, the embedded verb will never "inherit" the matrix auxiliary A. We have thus accounted also for the impossibility of (98c).

The discussion in this subsection has therefore indicated that our theory correctly predicts that out of the four a-priori conceivable "changes" in (98), only one should exist.

#### 6.5.5 The Alternative

Rizzi attempts to account for the "Change of Auxiliary" phenomenon by postulating the existence of the rule in (107).

(107) *Avere* → *Essere*      in the context:

$[_{V_1} \text{vbl } \dots \text{vbl } V_k]$  ,

where  $V_k$  is a verb basically requiring essere

(107) will operate on the output of restructuring as Rizzi assumes it, namely on " $[_{V_1} V V]$ " (cf. (33b) above). The variables ("vbl") in (107) are included so as to make the structural description general enough to cover complexes involving any number of individual verbs. Sequences of more than two verbs, which have not appeared in our discussion so far, will be addressed in 6.9 below.

Although (107) is probably as reasonable an account as can be formulated under the relevant assumptions, namely within an intransitive

(rather than ergative) analysis of E verbs, the latter appears deficient in a number of respects. In the first place a special rule is required while, as Rizzi admits "...it would be highly desirable not to have a specific rule at all for these cases, with the paradigms discussed ... being predicted by some general principle of auxiliary assignment interacting with Restructuring..." (Rizzi, p. 138). Secondly, while being a syntactic rule (it applies following restructuring), (107) makes reference to lexical properties of verbs, such as -presumably, in that framework- auxiliary selection. Such hybrid devices are in general rather suspicious: well-understood grammatical processes appear consistently true to the "modular" conception of grammar. For example well-established syntactic rules are generally blind to the lexical or semantic properties of the items involved (although exactly the restructuring rule may seem an exception).

Furthermore, the distribution of the results in (98), i.e. the prediction that only the change in (98a) will obtain, is achieved essentially by stipulation. In fact, no independent motivation is provided either for the direction of the arrow in (107), or for the fact that  $V_k$  is on the right-hand side of the context rather than on the left. It is easy to show that if these two parameters were allowed to range freely, the full paradigm in (98) would be obtained.<sup>51</sup>

As Rizzi points out (cf. his fn. 28), from his standpoint the rightmost verb will have to be regarded as the dominant one, or the "head of the verbal complex" in some sense, so as to account for the fact that its auxiliary is imposed on the rest of the complex. It

will be recalled how we drew essentially the opposite conclusion. In particular, as was discussed, we will assume that the derived structure is asymmetrical with the rightmost verb in the lowest position, hence being most "dominated" in some structural sense. Beside lacking independent motivation, Rizzi's view that the rightmost verb is the head of the complex would run into difficulties with respect to some facts noted in Rizzi (1976b, fn. 4): facts which are correctly predicted by our discussion. Consider the SI-construction in (108).

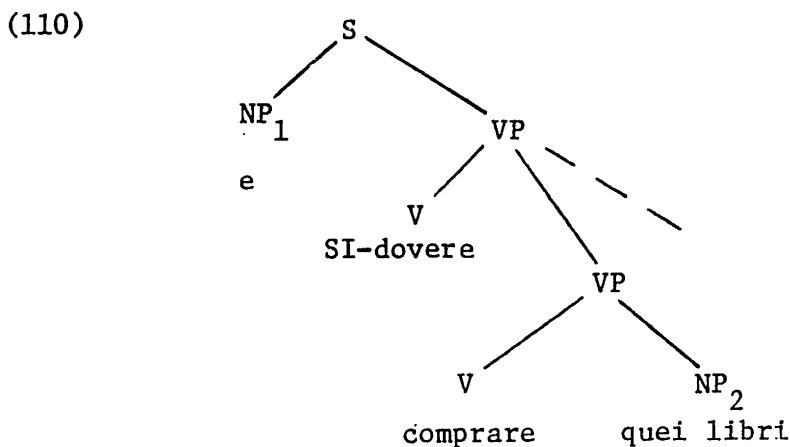
- (108) Si dovrebbe comprare quei libri  
SI would have to buy those books

If restructuring has not applied to (108), we will expect E on the matrix verb (as always, with SI), and A on the embedded verb (transitive). (109) is thus quite unproblematic.

- (109a) Si sarebbe gia dovuto comprare quei libri  
SI would have already had to buy those books (E)

- (109b) Si dovrebbe aver gia comprato quei libri  
SI would have to have already bought those books (A)

Supposing now that restructuring applied, we will expect the structure in (110).



On the basis of (110), we predict no auxiliary change. This is correct, as shown by (111) where cliticization of the embedded object (NP<sub>2</sub> of

(110)) on the main verb will be taken to reflect restructuring.

- (111a) Li si sarebbe già dovuti comprare  
Them SI would have already had to buy (E)

- (111b) Li si dovrebbe aver già comprati  
Them SI would have to have already bought (A)

However if, instead of cliticization, O.P. (NP-movement) applies to NP<sub>2</sub> of (110), then we will indeed expect some change: the relation between NP<sub>1</sub> and NP<sub>2</sub> created by movement of "quei libri" into matrix subject position should in fact trigger E on both verbs (in the same fashion as was discussed for (96b) and (106) above respectively).

This view is quite correct:

- (112a) Quei libri si sarebbero già dovuti comprare  
Those books SI would have already had to buy (E)

- (112b) Quei libri si dovrebbero { \*aver } { essere } già comprati  
Those books SI would have to have already bought (E)

The change of auxiliary observable between (109b), (111b) and (112b) is essentially "backwards" with respect to the case discussed in 6.5.4. In fact, while in the latter case the matrix verb seemed to "inherit" the auxiliary of the lower verb, in (112b) the embedded verb appears to take the auxiliary of the matrix verb, namely E, as selected here by the SI-construction. Thus if the view that the rightmost verb is the "head" may have been of some intuitive appeal for the case in 6.5.4, the same view will virtually appear false here.

(Note however, that the view that the leftmost verb is the "head" in these cases, would fail to explain why there is no auxiliary change between (109b) and (111b)). The plural agreement of "dovuti" in both (111a) and (112a) will also be correctly predicted. The contrast between "dovuto" in (109a) and "dovuti" in (112a), which is essentially

the one which had been noted for (11) above, will be due to the fact that a relation between NP<sub>1</sub> and NP<sub>2</sub> of (110) will only exist in (112a), not in (109a).

The facts in (112b) will provide unmistakable support for the view that auxiliary selection is syntactically conditioned. In fact (111b) and (112b) where different auxiliaries are selected are related minimally by application of NP-movement: clearly a syntactic operation, if anything is.<sup>52</sup>

Thus, while this account of the distribution of auxiliaries under restructuring seems rather straightforward and of some explanatory power, a review of Rizzi's discussion makes it seem unlikely that a comparable account could be provided under an intransitive, rather than ergative analysis of E verbs.

#### 6.5.6 Conclusion

The view that the same process operating with causative constructions is also responsible for restructuring is not novel. It has appeared for example in Van Tiel-Di Maio (1975), (1978), for Italian, and in Rivas (1974), Aissen and Perlmutter (1976) for Spanish (the latter within a Relational framework). Rizzi (1976a), (1978a) has pointed out what appeared to be a number of obstacles to holding that view, represented by the significant syntactic difference between the two sets of constructions. We will now briefly review Rizzi's points.

I. The "Change of Auxiliary" is found with restructuring but not with causative constructions. Cf. Rizzi (1978a, 6.1, point A), and the contrast between (96b) and (97) above. Within our account, this will follow from independent considerations, as was discussed.

II. Embedded passives are possible with restructuring constructions but not with causatives. Cf. Rizzi's point B) and the contrast in (92) above. This difference was also accounted for.

III. Cliticization of an embedded dative is problematic with causatives, but not with restructuring. Cf. Rizzi's point C) and the contrast here below (Rizzi's (118), (119c) respectively).

- (113a) \*?Mario gli farà' scrivere Piero  
           Mario to him will make write Piero  
           (...will make Piero write to him)

- (113b)    Mario gli vuole scrivere  
           Mario to him wants to write

(113a) will be an instance of the "dative cliticization" problem of 5.5.1 above. Rizzi assumes the solution proposed for this in Kayne (1975). Within the latter solution, which was discussed in 5.5.1 (cf. (80), ch. 5 and discussion), the causative rule "strands" indirect objects in the embedded clause, and dative cliticization would thus violate Opacity. Rizzi then takes the contrast in (113) to indicate that restructuring must not analogously "strand" indirect objects and must therefore have a different formulation. As will be recalled, in 5.5.1 we argued that the view that indirect objects remain thus subject to Opacity is not tenable, since it appears falsified by syntactic processes other than cliticization. Furthermore, we concluded that, at least for Italian, the causative rule must be formulated as moving the whole VP (cf., for example, some of the discussion in 5.4.1). Thus, within our discussion of causatives, cases like (113a) (which we find ungrammatical to a slightly lesser degree than indicated by Rizzi; cf. our (75), ch. 5), will remain unsolved. As far as we can see, assuming that restructuring is also VP-movement

will not alter the nature of the problem.

A few other differences are pointed out in the earlier version of Rizzi's article (Rizzi (1976a)), such as:

IV. Matrix passives are possible with causative but not with restructuring constructions. Cf. Rizzi (1976a, 5.1, point b); and the contrast between (49b) and (51b) above. An account for this difference was provided in 6.4.3.

V. The causative rule is obligatory (with fare), while restructuring appears optional. Cf. Rizzi's point f). In the discussion in 5.6 above, we suggested that the apparent obligatoriness of the causative rule with fare, must be related to Case requirements relative to the embedded subject. If that view is correct, then the lack of corresponding obligatoriness in the restructuring case is expected. In fact, with the latter the embedded subject will never require Case (cf. fn. 46 above). Notice in any case that we are assuming that syntactic rules are never intrinsically obligatory.<sup>53</sup>

Thus, although the differences Rizzi points out might have been a difficulty for some of our predecessors in maintaining a common analysis, if our discussion is correct, essentially there will be no argument for distinguishing the two rules.<sup>54</sup> On the other hand there will be several arguments for assuming that restructuring is VP-movement. On this we must note that the distribution of auxiliaries and pp agreement, will not only indicate that the derived complex predicate is asymmetrical as we discussed, therefore just like the complex predicate of the causative case (cf. 5.3), but will in fact provide full motivation for a VP-movement analysis. Consider in fact the abstract representation in (114).

- (114)  $NP_1 V_1 [S NP_2 V_2 (NP_3)]$

Let us assume R to be a relation that induces E by the system in (81).

If  $V_1$  in (114) is a Raising verb like dovere which normally takes A, we assume that although  $NP_2$  is the trace of  $NP_1$ , such R will not obtain between  $NP_1$  and  $NP_2$  (because of the clause-boundary; cf. (101) above and discussion). We know however that if  $NP_3$  is a trace, namely if  $V_2$  is ergative, R will obtain between  $NP_1$  and  $NP_3$  if restructuring applies, as in (115) (recall (96b) above and discussion).

- (115) Maria sarebbe dovuta venire  
 Maria would have had to come (E; pp ag't)

Yet restructuring will never bring about R between  $NP_1$  and  $NP_2$ . If it did, a verb like dovere ought to change its auxiliary to E as long as restructuring applied and regardless of the embedded verb. This does not happen, as (116) shows.

- (116) Maria gli } avrebbe dovuto } telefonare  
               } \*sarebbe dovuta }  
               Maria to him would have had to phone (A; no pp ag't)

Thus if we simply take seriously the system of E assignment/ pp agreement (which was arrived at on quite independent grounds in ch. 1), we will infer that, when applying to (114), restructuring causes  $NP_3$  to be reanalyzed as an object of  $V_1$ , but that no analogous reanalysis will affect  $NP_2$ . In other words we will infer that there is a reanalysis of the arguments of the complement into matrix arguments, which displays a discontinuity exactly around the embedded subject. Such discontinuity, we may notice, while expected under VP-movement would not be expected under the view that restructuring consisted of a process of reanalysis in L.F. involving no configurational alterations, as in the "Thematic Rewriting" formulation in Zubizarreta (1979). Under the latter view

we would clearly expect NP<sub>2</sub> of (114) to be reanalyzed, whenever NP<sub>3</sub> is. We return to the L.F. approach shortly below.

To the discontinuity we just noted, must be added the other partial conclusions also drawn from the distribution of auxiliaries and pp agreement. I.e. the conclusions that the embedded subject (NP<sub>2</sub> in (114)) is not deleted (cf. (103) above and discussion), and that the derived predicate is asymmetrical (cf. (105) above and discussion). This will provide a package of observations which points to VP-movement rather strongly, making alternatives altogether difficult to imagine.

Our discussion of auxiliaries and pp agreement under restructuring will also confirm the conclusion of 5.4.2, that those relations that enter into E assignment/ pp agreement, have a special "local" character, namely that they cannot be "reconstructed" should movement alter them. The "Change of Auxiliary" discussed above shows in fact that if VP-movement applies as in (117), NP<sub>3</sub> can no longer hold an E-assigning relation with NP<sub>2</sub>, as is indicated by the fact that another antecedent (NP<sub>1</sub>) is sought.

$$(117a) \quad NP_1 \ V \ [S^{NP_2} [VP^V NP_3]]$$

$$(117b) \quad NP_1 \ V \ [VP^V NP_3] \ [S^{NP_2} ---]$$

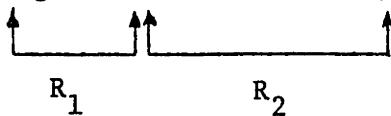
Returning now briefly to the L.F. approach in Zubizarreta (1979) (cf. discussion of the latter in fn. 2), while some of the evidence we have so far discussed will be compatible with the latter, some other will not. It will be fairly straightforward to separate one from the other. Most of the evidence discussed under "Non-distinctness" (section 6.4),

pointing primarily to the existence of the embedded subject, will be compatible with the latter approach. Not compatible will be any evidence indicating changes in the linear order of constituents. Such kind of evidence was presented in 6.2 and in this section. Also incompatible with the latter approach would be any indication that, after restructuring, the complement is no longer within sentential boundaries. On this we recall the dativization facts of 6.2.1 and the Wh-movement facts of 6.2.2 (ex. (29)) (cf. also Rizzi's discussion of "Tough"-movement as mentioned in 6.2.2). Furthermore, the latter approach would be incompatible with Longobardi's specific formulation of the multiple-infinitive prohibition (cf. 6.2.2), to which restructured complexes are immune. In fact, if that prohibition operates in the phonology as Longobardi has claimed, restructuring must take place in a section of the grammar that feeds into the phonology, therefore not in L.F. Thus, within the L.F. approach, it would have to be shown that the multiple-infinitive prohibition can be equally formulated in L.F. terms.

## 6.6 Reflexives under Restructuring

In this section we will discuss the interaction between the theory of reflexives of 5.7 above, and the theory of restructuring proposed earlier in this chapter. We consider the typical reflexive case in (118), under the first of the analyses discussed in 5.7 (i.e. the one of 5.7.1).

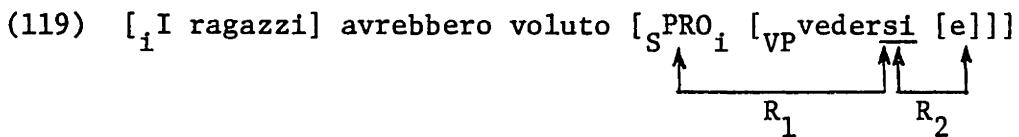
- (118) I ragazzi si sono visti [e]



(The kids have seen each other; E, ag't)

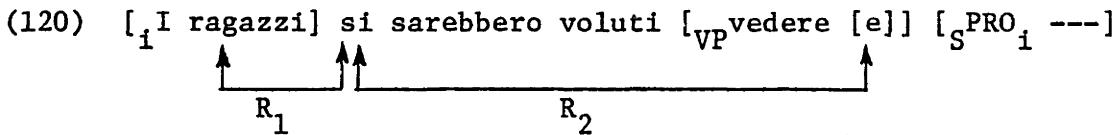
We recall how we assume that auxiliary E in (118) is determined by the relation  $R_1$  between the subject and si, and that pp agreement is determined by the relation between si and the null object, as with non-reflexive clitics. We further recall that we assume the existence of a rule of reflexive agreement operating also between the subject position and all instances of si (i.e. with ergative and inherent reflexive si also).

Exactly the same considerations will hold for infinitival counterparts to (118), such as the complement of volere in (119). In the discussion below we will consider application of VP-movement to such complement.



(The kids would have wanted to see each other; A, no ag't)

When restructuring applies to a case like (119), the result is as in (120), for which we assume the analysis indicated.



(The kids would have wanted to see each other; E, ag't)

We recall from our discussion in 5.4.2 and in 5.7.4 how we expect that the relation  $R_1$  of (119), since it enters into the system of E assignment, should be among those which must obtain in derived structure, and are not "reconstructible" in L.F. in the sense of chapter 4, just like a NP/trace relation. We assume that this is in fact correct, but we also assume from the discussion in the previous sections that relations involving the embedded subject can be re-established with respect to the

matrix subject, subsequent to application of VP-movement (recall the Change of Auxiliary of 6.5.4 above). Our claim is then that the relation  $R_1$  of (119) is re-established as in (120) after VP-movement has applied, and after Clitic Climbing has moved si onto the higher verb. The mechanics of the derivation are thus parallel to those involved in the Change of Auxiliary cases. As in those cases, the main verb comes to take auxiliary E previously associated with the embedded verb. In this case, the latter auxiliary is determined by the new relation  $R_1$  indicated in (120). Given previous discussion, and our assumption that objects of the embedded verb come to be objects of the matrix verb also, pp agreement on the main verb in (120) will be rather straightforward and will be triggered by  $R_2$  which we assume is maintained when si undergoes Clitic Climbing.<sup>55</sup>

Let us now briefly consider the analogous derivation involving an inherent reflexive, such as sedersi in the following.

- (121a) [<sub>i</sub>I ragazzi] avrebbero voluto [<sub>S<sup>PRO</sup><sub>i</sub></sub> sedersi <sub>t<sub>i</sub></sub>]  
 (The kids would have wanted to sit down; A, no ag't)

- (121b) Restructuring:

- [<sub>i</sub>I ragazzi] si sarebbero voluti [<sub>VP</sub> sedere <sub>t<sub>i</sub></sub>] [<sub>S<sup>PRO</sup><sub>i</sub></sub> ---]  
 (The kids would have wanted to sit down; E, ag't)

From our discussion in 1.8 we assume that inherent reflexives are essentially ergative verbs, whence the analysis of the complement in (121a). As in the cases discussed in 6.5.4, restructuring will bring about a relation between the matrix subject and the trace " $t_i$ ", which will induce auxiliary E and pp agreement on the matrix verb. Furthermore, si will undergo Clitic Climbing, much as in (120) above. The facts in the inherent reflexive case are thus entirely analogous to

those in the reflexive case, namely the change of auxiliary and climbing of si will occur in both cases. Reflexives under the quasi-ergative analysis of 5.7.2 will be essentially identical to the inherent reflexive case, and will again be characterized by the same basic facts.<sup>56</sup>

We are assuming that the rule of reflexive agreement, operating between si and the subject in the previous examples, has a "local" character, namely that it cannot operate at a distance. If this is correct, then it follows that Clitic Climbing must apply to si (all instances of si) after restructuring.<sup>57</sup> From this point of view, the reason why si climbs under restructuring is strictly related to the reason why French se does not climb under faire, as in (122), and why Italian si does not appear at all under fare, as in (123).

- (122a) Marie a fait s'accuser Pierre  
(Marie made Pierre accuse himself)

- (122b) \*Marie s'a fait accuser Pierre  
(see (122a))

- (123a) \*Maria ha fatto accusarsi Piero  
(Maria made Piero accuse himself)

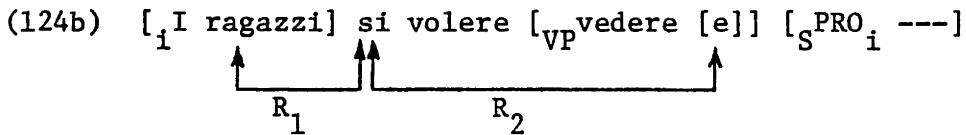
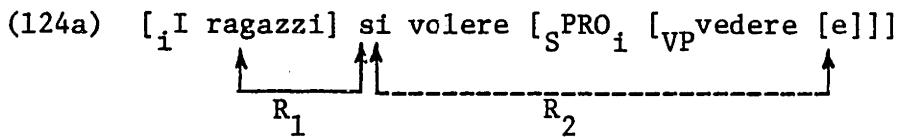
- (123b) Maria ha fatto accusare Piero  
(see (123a))

In fact, as discussed in 5.7.4, we are assuming that French se can agree with the relevant object position (with "Pierre" in (122)), and that the latter relation must be local. In the Italian case in (123), we assume that si will not appear since there is no subject NP (subject of the complement) with which it could agree.

This approach is rather different from the theory in Kayne (1975) briefly discussed in 5.7.4 above (cf. (214), ch. 5), which sought to account for the facts in (122) in terms of reflexivization (Se-P1) at

the lower cycle. As we discussed in 5.7.4, the latter system seems to have no natural extension that would cover the facts in (123), and those in (120), (121).

We will now argue that the derivation we discussed for (120) is the only possible one, and in particular that the following alternative derivation, involving base-generation of si on the higher verb is not possible.



We will note first, that within the view that the null phrase related to the clitic is an empty category (rather than PRO), and under one reasonable additional assumption, the D-structure in (124a) violates the thematic criterion. The additional assumption we have in mind is that a relation between a clitic and the null phrase must have a bounded character and cannot for example cross clause boundaries (our discussion could easily resort to cases where more than one clause boundary is involved). If this assumption is indeed reasonable, then in the D-structure in (124a), the relation  $R_2$  will not exist. But then there will be no chain "clitic-[e]", only an empty category with no pronominal features associated with it and hence not an R-expression. Since the latter is in an argument position, a violation of the thematic criterion will ensue (cf. (38), ch. 1).

Secondly, the derivation in (124) would dispense with the Clitic Climbing principle, and this seems a step in the wrong direction since

the Clitic Climbing principle is very likely required independently. In fact, as noted in fn. 16, chapter 5, there are clear cases in which the clitic must originate on the lower verb and nevertheless appears on the higher one. Consider the cases in (125) and the corresponding restructuring cases in (126).

- (125a) La finestra si e' rotta  
The window (itself) has broken
- (125b) Giovanni non la smette mai di parlare di linguistica  
Giovanni never cuts it out (stops) to talk about linguistics
- (126a) La finestra si potrebbe rompere  
The window (itself) could break
- (126b) Giovanni non la vuole proprio smettere di parlare  
Giovanni doesn't really want to cut it out (stop) to talk  
di linguistica  
about linguistics

Si and la in (125) do not alternate with lexical NP's (si is a case of ergative si), nor do they appear freely with other verbs (analogously with inherent reflexive si of (121)). Thus it must be a specific lexical property of rompere and smettere that they appear with si and la respectively. Assuming as discussed in 0.2 above, that representations at D-structure level are essentially projections of the lexicon, we will expect that at that level clitics si and la of (126) appear on rompere and smettere respectively, rather than on the matrix verb. This motivates the existence of a Clitic Climbing principle.

Thirdly, the view that a derivation like the one in (124) is possible will make undesirable empirical predictions, unlike the view that derivation via Clitic Climbing is the only one possible. As we argued, (126a) represents a case in which si can only originate on the lower verb (analogously for (121b)). Imagine now the complementary case, namely a case in which si cannot originate on the lower verb. Such

a case ought to turn out possible by the derivation in (124) via generation of the clitic on the higher verb, but impossible by the Clitic Climbing derivation. We will now recall that there are in fact cases in which clitic reflexives cannot occur: these are passives and ergative verbs, as in (127) below respectively.

- (127a) \*Le madri si furono presentate  
 (The mothers were introduced to each other)

- (127b) \*I due si andavano spesso assieme  
 (The two went often together with each other)

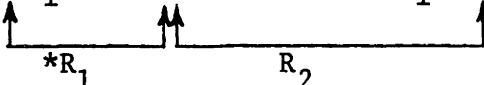
We assume as discussed in 5.7.1 above that these cases are impossible because the relation  $R_1$  of (118) above is established in D-structure, at which level the subject of both passives and ergative verbs is null. These cases will thus contrast with the non-reflexive counterparts which are grammatical: "le madri gli furono presentate/ (The mothers were introduced to him)", "I due gli andavano spesso assieme/ (The two went often together with him)". We now note that when cases like those in (127) are embedded into a restructuring context, an exactly parallel distribution of facts will obtain, as in (128).

- (128a) \*Le madri si volevano essere presentate  
 (The mothers wanted to be introduced to each other)

- (128b) \*I due si volevano andare assieme  
 (The two wanted to go together with each other)

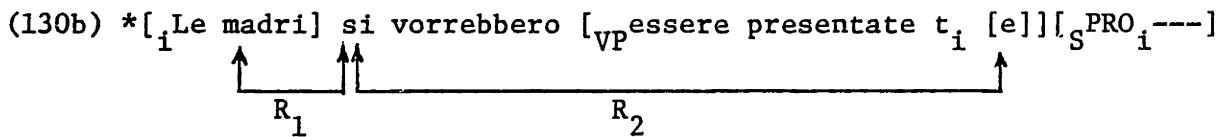
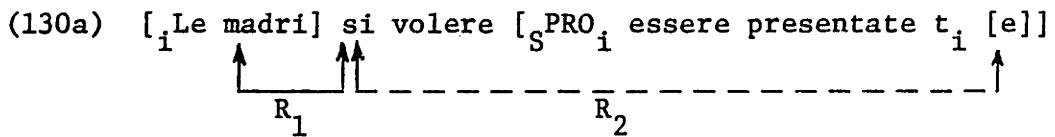
Indeed the facts in (128) will follow if the only possible derivation involves Clitic Climbing, since then the cases in (128) would have no source. The putative sources would in fact involve embedding under volare the impossible cases in (127), as for example in (129).

- (129) \*[<sub>i</sub>Le madri] volevano [S<sub>i</sub><sup>PRO</sup> essersi presentate t<sub>i</sub> [e]]



(see (128a))

The relation  $R_1$  between the embedded subject and si in (129) is ill-formed as discussed (si has been coindexed with the empty category, prior to movement of PRO; cf. 5.7.1). Application of restructuring will not amend it, just as movement of PRO into subject position does not amend it. But under a derivation such as (124), these cases ought to be possible. Consider in fact (130).



In (130), the relation  $R_1$  is clearly well-formed given the proper antecedent.<sup>58</sup>  $R_2$  ought to be also well-formed in (130) if it is in (124).

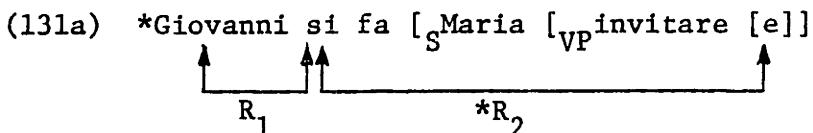
Notice that these facts discriminate between our proposal and two major alternatives in equal fashion. In fact, cases like (128), (130b) ought to turn out grammatical both under the view that clitics are base-generated and related to a null phrase in L.F., as in Jaeggli (1980), and under the view that clitics are moved from object position, as in Kayne (1975). The difference in empirical predictions in fact arises from whether the boundedness condition on the relation between the clitic and the relevant object position is expressed at a level which precedes VP-movement (D-structure) or which follows it. There is no relevant difference deriving from whether the relation in question is associated with movement or with a L.F. operation.

We therefore assume that the relation  $R_2$  in the above examples, and in general the relation between a clitic and the relevant object position,

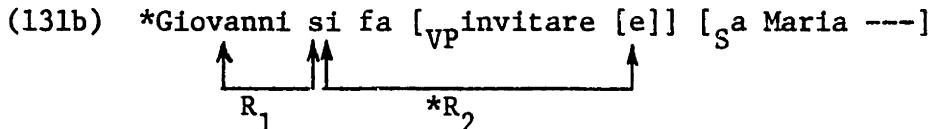
is established in D-structure, as we had claimed in 5.7.1 above, and we assume that the boundedness conditions which constrain such relations apply at least at that level. But we may assume that they apply at other levels too and in fact at all levels. The most likely candidate to appropriately express such bounded character of the relation, would seem to be some notion of "government". We may thus assume that clitics must govern the relevant object position at all levels of derivation. This will allow for Clitic Climbing exactly in those cases in which VP-movement has applied. For extensive discussion of the view that a government relation exists between a clitic and the relevant null phrase, see Borer (1981).

On the basis of the discussion in 5.5.3 we further assume that prior to Clitic Climbing, clitics appear on the verb of which they spell out the Case-assigning features (cf. (97), chapter 5). Namely an accusative clitic will appear on the verb which is assigning accusative Case (for other object clitics we may assume that they appear on the verb with which that particular object is associated in terms of subcategorization; cf. fn. 46, ch. 5).

We now note that our view that the relation  $R_2$  of reflexives is established in D-structure under government, straightforwardly solves the "reflexive problem" of 5.5.2 above, namely it accounts for the ungrammaticality of (131b) here below which we assume is derived from (131a) as indicated.

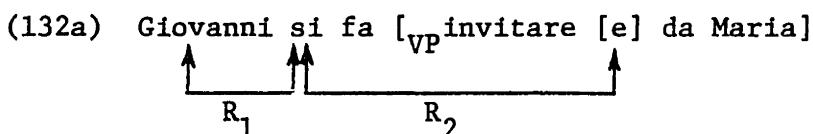


(Giovanni makes Maria invite himself)

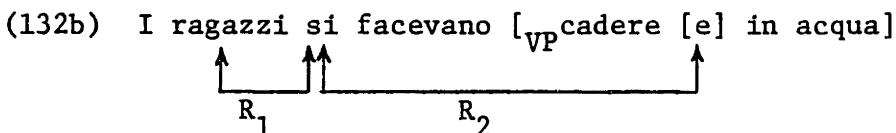


(see (131a))

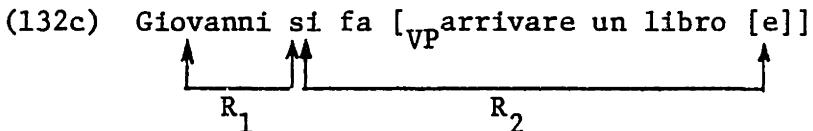
In fact the relation  $R_2$  cannot be established in the D-structure in (131a) since government does not obtain (cf. fn. 60). From our stand-point the ungrammaticality of (131b) is thus quite analogous to that of the cases in (128). We then correctly predict that the cases of F-VP in (132) ought to be grammatical and contrast with (131b).<sup>59</sup>



Giovanni makes invite himself by Maria



The kids made fall each other in the water



Giovanni makes arrive a book to (for) himself

The distribution of reflexives will therefore provide strong evidence in favor of our base-generation analysis of the "Faire-par" construction, as well as that of ergative complements of fare. Correspondingly, it will provide strong evidence for the derived, not base-generated character of the F-S construction (Kayne's FI) and of restructuring constructions. We also note that, within our discussion, the ungrammaticality of cases like (128) and (131b) will provide a strong argument for base-generation of clitics, since if the relation between a clitic and the null object is established in D-structure, then the

clitic must obviously be base-generated.

We note that the distribution of reflexives with the aspectual predicates cominicare and continuare discussed in 6.4.6, is entirely parallel to that of the other restructuring cases, as in (133a), and not at all parallel to that of the cases of F-VP in (132), as in (133b).

- (133a) \*I ragazzi si continuavano ad andare assieme  
The kids continued to go together with each other

- (133b) \*I ragazzi si cominciarono a cadere in acqua  
The kids began for each other to fall in the water

We take this to indicate that the complement of these verbs is sentential, as was in fact argued in 6.4.6 above, just like the complement of volere in (128), and unlike the complement of fare in (132). The case in (133a) will thus be ruled out just like the one in (128b). For (133b) we predict that the only thematically well-formed D-structure for the complement should be "[<sub>S</sub>[e] si cadere PRO in acqua]" (cadere is an ergative verb, thus it will take a direct object), but, in the latter, si can neither be related to a referential antecedent since there is none, nor to an empty object which it governs, since there is none, hence the ungrammaticality. However, under a VP analysis of the complement, (133b) ought to be possible as entirely parallel to (132b).

Our view that clitics are related to empty categories under government in D-structure requires further comment for the case of subjects of infinitivals embedded under fare. Consider the following paradigm.

- (134a) \*Giovanni fece [<sub>S</sub> Piero leggere il libro]  
Giovanni made Piero read the book

- (134b) ??Giovanni lo<sub>i</sub> fece [<sub>S</sub>[<sub>i</sub>e] leggere il libro]  
Giovanni made him read the book

(134c) Giovanni fece [<sub>VP</sub>telefonare] [<sub>S</sub>Piero ---]  
 Giovanni made Piero phone)

(134d) Giovanni lo<sub>i</sub> fece [<sub>VP</sub>telefonare] [<sub>S<sub>i</sub></sub>e] ---]  
 (Giovanni made him phone)

From the discussion in 5.6 above, we assume that the contrast between (134a) and (134c) is due to the fact that Case-government never obtains across a clause boundary unless the VP is extracted. If we now assume that the status of (134b) is essentially analogous to that of (134a), we may naturally account for the contrast between (134b) and (134d), by assuming that the notion of government which must obtain between a clitic and an empty category is in fact the notion of Case-government which we just mentioned. (134b) would thus be ruled out in the same manner as (134a), and (134d) would be well-formed. However, an apparent paradox ensues from our view that whatever adjacency conditions are required between a clitic and the relevant empty category, these must obtain in D-structure. In fact we are now assuming for (134d) that the relevant adjacency condition is Case-government, and we know that the latter only obtains after VP-movement, hence not in D-structure. We will now attempt to solve the apparent paradox.

In 5.7.1 above we assumed that a chain "clitic-empty category" functioned like a lexical NP at least in three different respects:

- i) The chain is an R-expression (in so far as the clitic has pronominal traits) with respect to the thematic criterion; ii) The chain has phonological content, with respect to the Case filter; iii) The chain has Case, instantiated by the Case-traits of the clitic, also with respect to the Case-filter. We may now suggest that two different notions of government enter into the definition of "chain" in i), ii),

iii) above. In particular we may assume that "chain" in i) and ii) is a clitic-empty category sequence such that the clitic governs the empty category in the less restrictive sense of "trace government", namely the kind of government which is required by the ECP; while a "chain" in iii) is a sequence such that the clitic "Case-governs" the empty category. Thus the D-structure relation between the clitic and the empty category which we are assuming is required to satisfy the thematic criterion will obtain in both D-structures for (134b) and (134d). However the relation between the clitic and the empty category pertaining to the Case-filter will obtain only in (134d) and not in (134b) (no Case-government). The latter would thus violate the Case-filter since although the embedded subject position is associated with a phonological matrix, it is not associated with any Case. Hence the contrast with (134d).<sup>60</sup>

While we regard cases like (134b) as essentially ungrammatical, we must also note however that they contrast with the corresponding cases like (134a) rather significantly. On this contrast we may assume that there is in fact some tendency (apparently subject to some cross dialectal/ idiolectal variation; cf. fn. 55 chapter 5, and references cited) to reduce the two notions of government which enter into the different characterizations of "chain" in i), ii), iii) above, to the less restrictive one. At the extreme, this tendency would predict that (134b) should be grammatical, and in complete contrast with (134a). Facts quite analogous to those in (134) hold for reflexive clitics.

### 6.7.1 Passive essere

In this subsection we will argue that the past participial phrase of passive morphologies in Italian and French is a "small clause" complement of be, as was argued for English (essentially following Stowell (1978)) in 3.4 above. The evidence will be provided mostly by the distribution of auxiliaries and past participle agreement.

Although passives in Italian take E as an aspectual auxiliary, as Rizzi has noted, they will not trigger the change of auxiliary under restructuring, as in (135) here below (Rizzi's (i), fn. 27), contrasting with the case involving ergative verb venire in (136).

- (135a) Mario gli e' stato presentato da Gianni  
Mario to him has been introduced by Gianni (E)
- (135b) Mario gli { ha } voluto esser presentato da Gianni  
\*e'  
Mario to him has wanted to be introduced by Gianni (A/\*E)
- (136a) Mario ci e' intervenuto  
Mario there has intervened (E)
- (136b) Mario ci e' voluto intervenire  
Mario there has wanted to intervene (E)

We will assume that this difference between passives and ergative verbs with respect to the change of auxiliary, is due to the difference between the two analyses in (137) below.

- (137a) [<sub>i</sub>Mario] volere [VP<sub>i</sub> essere [<sub>sc</sub>t<sub>i</sub> presentato t<sub>i</sub>]] [S<sub>PRO</sub><sub>i</sub> ---]  
Mario want to be introduced
- (137b) [<sub>i</sub>Mario] volere [VP<sub>i</sub> venire t<sub>i</sub>] [S<sub>PRO</sub><sub>i</sub> ---]  
Mario want to come

In particular we assume that the relation between the phrase "Mario" and the leftmost trace in (137a) does not induce E, therefore unlike the one between the phrase "Mario" and the trace in (137b), due to the presence of the clause boundary. Recall in fact from 6.5.4 above

how we assume that the form of government which obtains across clause boundaries, as in the case of Raising verbs, does not trigger E assignment consistently, but only when lexical idiosyncrasies allow it.<sup>61</sup> We are thus taking the contrast between (135b) and (136b) to be analogous to the one between the F-VP cases in (138) and (139) here below, discussed in 5.5.3 above.

- (138a) \*Mario farà' [<sub>VP</sub>essere [<sub>sc</sub>Piero<sub>i</sub> invitato <sub>i</sub>]]

Mario will make to be Piero invited

- (138b) \*Mario farà' [<sub>VP</sub>essere [<sub>sc</sub>[e] invitato Piero]]

Mario will make to be invited Piero

- (139) Mario farà' [<sub>VP</sub>intervenire Piero]

Mario will make intervene Piero

We assume in fact that Case assignment by fare succeeds in (139), but not in (138a), due to the presence of the sc boundary. As for (138b) we assume that the empty NP position has to be filled, and that while pro could be inserted, the latter would fail to receive Case, just like the phrase "Piero" in (138a). We are thus taking the view that passive essere is essentially a Raising verb, and that it takes auxiliary E as a lexical idiosyncrasy, just like some other Raising verb, such as sembrare, stare (per), discussed in 6.5.4 above. This view is supported by the fact that in French, which, as noted in 6.5.4, differs from Italian in that all Raising verbs take A, passive être also takes auxiliary avoir, as in (140), contrasting with (135a).

- (140) Jean lui a été présenté  
Jean to him has been introduced

Auxiliary avoir in French passives will in fact provide one further piece of evidence in favor of the sc analysis, as discussed here below.

We assume that the system of auxiliary assignment and pp agreement in French, although subject to stricter constraints, is essentially similar to that of Italian. In particular we assume that both auxiliary être and pp agreement, when they occur, are due to the existence of binding relations involving either the subject or the direct object as discussed for Italian. Consider now the passive in (141) in the analysis that we are attempting to reject.

(141) Plusieurs filles<sub>i</sub> ont été invitées  $t_i$

Several girls have been invited (A)

If the one in (141) was the correct analysis and if "été" and "invitées" were part of the same verb complex, then passives like (141) would represent a case in which the same relation which induces pp agreement, as with "invitées", fails to induce E (cf. "ont"). This situation would be quite unique. In fact while we may assume that, in French, E is selected with some ergative verbs (such as arriver, "arrive") and not with others (such as ergative couler, "sink") there is no instance in which E and pp agreement appear dissociated. Namely there is no case in which E is assigned and pp agreement fails or vice-versa. Analogously, in Italian, while some Raising verbs select E and some do not, there is no case of dissociation between E and pp agreement. While under the analysis in (141) French passives are thus puzzling, they are not at all puzzling under the sc analysis in (142).

(142) Plusieurs filles<sub>i</sub> ont été [sc  $t_i$  invitées  $t_i$ ]

(see (141))

In fact there would now be two relations: one relative to the direct object of the past participle, not involving a clause boundary, and

thus expected to induce pp agreement without fail (there will be no E assigned since sc's do not take auxiliaries); the other involving a clause boundary and thus not expected to induce either E or pp agreement (notice the lack of pp agreement with "été"), as with all Raising verbs in French.

There is one more respect in which passive essere appears to behave analogously to Raising verbs which may be worth noting, even though the argument it provides is internal to a certain theory. As has been noted in Rizzi (1980b) and as was pointed out in fn. 57, chapter 5, Raising complements differ from Control complements with respect to Clefting, as in the following (Rizzi's example).

- (143) E' tornare a casa che Gianni      } \*sembra  
    } vuole  
It is to come back home that Gianni      } seems  
    } wants

The same behavior of Raising sembrare in (143) has been noted for passive essere in Zubizarreta (1979). The passive case in (144a) will in fact contrast with the "essere-adjective" case in (144b).

- (144a) \*E' rapito dalle Brigate Rosse che Giovanni teme di essere  
It is kidnapped by the Red Brigades that Giovanni fears to be  
(144b) E innamorato di Maria che Giovanni teme di essere  
It is in love with Maria that Giovanni fears to be

Rizzi's account of (143) in terms of lack of government for the trace in "[<sub>sc</sub><sup>t</sup> tornare ...]" would indeed carry over to (144a) under the analysis "[<sub>sc</sub><sup>t<sub>i</sub></sup> rapito <sub>t<sub>i</sub></sub> ...]". This provides an argument for the existence of the trace in front of the past participle, but only internally to Rizzi's view that the ungrammaticality of the "sembrare" case in (143) is due to failure of government as opposed to failure of proper binding of the trace. In fact, if proper binding could be

appealed to, the case in (144a) would be ruled out even under the traditional analysis of passives, since the trace to the right of the past participle would not be bound. (Notice that the contrast in (144) will in any event be evidence for syntactic derivation of passives). On another fact which also argues for the sc analysis, cf. fn. 28, chapter 2.

The failure of passive essere to trigger the change of auxiliary under restructuring, will contrast with the success of essere of the locational constructions discussed in 3.1.3. Consider the two cases in (145), which we assume are derived from analogous base forms as was discussed in 3.1.3.

- (145a) [<sub>i</sub>e] ci<sub>i</sub> sono già alcuni passeggeri<sub>i</sub> sull'aereo

There are already a few passengers on the plane

- (145b) Alcuni passeggeri<sub>i</sub> sono già t<sub>i</sub> sull'aereo

A few passengers are already on the plane

As we discussed in 3.1.3 and in 6.4.7, cases like (145a) cannot be embedded under Control verbs, whether restructuring applies or not. When embedded under a Raising verb, a case like (145a) will give rise to the configuration in (146a). Application of restructuring will then produce (146b). Cf. 6.4.7 above for relevant discussion.

- (146a) [<sub>i</sub>e] avrebbero già potuto [S<sub>i</sub> esserci<sub>i</sub> alcuni passeggeri<sub>i</sub> sull' aereo]

(There would have been able to be a few passengers  
on the plane; A)

- (146b) [<sub>i</sub>e] ci<sub>i</sub> sarebbero già potuti [V<sub>P</sub>essere alcuni passeggeri<sub>i</sub> sull'aereo] [S<sub>i</sub> ---]

(There would have been able to be a few passengers  
on the plane; E)

Within our discussion auxiliary E on the main verb potere in (146b), contrasting with A in (146a), will be determined by the relation between the material in subject position ("[e]-ci") and the i-subject "alcuni passeggeri". We then assume that no clause boundary is present between those two positions (this assumption was independently required to account for the fact that nominative assignment succeeds; cf. 3.4.2 above).

For the case in (145b) we will not predict any problem with respect to embedding under either Raising or Control verbs. We then consider the Control case. The Raising case will be quite parallel. Prior to restructuring we will have the structure in (147), where "ci" now cliticizes the locative phrase (LP) "sull'aereo", and is not a pleonastic subject as in (145a).

- (147a) Alcuni passeggeri<sub>i</sub> vorrebbero già [S<sup>PRO</sup><sub>i</sub> essere t<sub>i</sub> sull'aereo]

A few passengers would already want to be on the plane

- (147b) Alcuni passeggeri<sub>i</sub> avrebbero già voluto [S<sup>PRO</sup><sub>i</sub> esserci t<sub>i</sub> LP<sub>Ø</sub>]

A few passengers would have already wanted to be there (A)

Subsequent to restructuring the structure will be as in (148).

- (148a) Alcuni passeggeri<sub>i</sub> vorrebbero già [VP essere t<sub>i</sub> sull'aereo]

[S<sup>PRO</sup><sub>i</sub> ---]

(see (147a))

- (148b) Alcuni passeggeri<sub>i</sub>.ci sarebbero già voluti [VP essere t<sub>i</sub> LP<sub>Ø</sub>]

[S<sup>PRO</sup><sub>i</sub> ---]

A few passengers there would have already wanted to be (E)

Again we attribute the change of auxiliary in (148b) to the non-existence of clause boundaries between essere and the locative phrase.

The distribution of auxiliaries under restructuring has thus confirmed

our analysis of locational constructions of 3.1.3 above.

Other cases of essere appear to yield intermediate results with respect to the phenomenon of the change of auxiliary. Specifically, we note the case of copular essere in (149a) (cf. also Rizzi's (ii), fn. 27), and the "identificational" case in (149b).

- (149a) Giovanni ne      } avrebbe      } dovuto essere entusiasta  
                         } ?sarebbe      }  
                        Giovanni of it should have been enthusiastic    (A/?E)

(149b) Il vincitore      } avrebbe      } dovuto essere Giovanni  
                         } ?sarebbe      }  
                        The winner should have been Giovanni                (A/?E)

We will leave the analyses of the latter cases open. On "identificational" constructions, cf. Longobardi (1980a), fn. 50, chapter 5.

### 6.7.2 Lack of Auxiliary

As is well known, and as was noted in fn. 24, chapter 5, verbs embedded under fare will never take an aspectual auxiliary, both in F-S, and in F-VP cases, as in (150).



Constraints on occurrence of auxiliaries exist in restructuring constructions also. In fact, as has been noted by Rizzi and as was mentioned in 6.0 above, restructured complexes will only allow one auxiliary per complex (regardless of the number of verbs involved), as in the following paradigm.<sup>62</sup>

(151a) Giovanni lo dovrebbe aver già comprato  
Giovanni it would have to have already bought

- (151b) Giovanni lo avrebbe già dovuto comprare  
 Giovanni it would have already had to buy
- (151c) \*Giovanni lo avrebbe già dovuto aver comprato  
 Giovanni it would have already had to have bought
- (151d) Giovanni avrebbe già dovuto averlo comprato  
 Giovanni would have already had to have it bought

Thus, while either verb can take an auxiliary as in (151a), (151b), it is impossible for both verbs to have auxiliaries, as in (151c).

The latter case will contrast with (151d) in which restructuring has not applied (cf. position of clitic lo) and in which both auxiliaries occur unproblematically.

We will now suggest, although at a rather informal level of discussion, that the two constraints we just noted are related, and that our previous discussion of auxiliary assignment in fact foreshadows a solution. To begin with, our theory predicts the impossibility for auxiliary essere in (150b). In fact, given the VP analysis of the ergative complement, there will be no relation between the subject and an element appropriately related to "intervenire" as prescribed by (81a) above, since there is no subject of the latter verb. However, nothing in our discussion so far would predict the lack of "\*...aver intervenuto..." in (150b) (which in fact is even worse). Let us then assume that the presence of a subject is essential for auxiliary assignment in general, and not only for E assignment. Then, if the subject is related to an element within the predicate as specified in (81a) above, E will be assigned; if it is not so related, A will be assigned. It is clear from our discussion of the restructuring cases, that the notion of "subject" that enters into E assignment is a strictly configurational, S-structure notion, with no recourse to the "reconstruction" of chapter 4. In fact we have argued that the relations which

enter into E assignment, quite generally cannot be reconstructed.

Let us then assume that the notion of subject that enters into auxiliary assignment in general, is such a strictly configurational notion. To avoid ambiguity we may refer to subject in the latter sense, as "Subject" (with a capital S). It will then be the case that a verb embedded under fare will always lack a Subject, since it will either lack a subject altogether, as in cases of F-VP, or will only have a subject under reconstruction, an instance of which is the phrase "a Mario" in (150a), as in cases of F-S.

As for restructured complexes, we know that in the latter there is only one Subject. Thus in a restructured pair, the matrix subject will be the Subject of both verbs (cf. discussion of (106) above, and fn. 50). Since we are assuming that an auxiliary can only appear if there is a Subject, it may seem natural to suggest that only one auxiliary can appear when there is only one Subject, as with restructured complexes. This would predict the facts in (151).

#### 6.8 Di-complements

Some of the restructuring verbs given in (8) above require prepositions in their infinitival complements. In particular andare, venire, cominciare, continuare select a, and per occurs with stare (per). It is rather crucial to the correctness of the VP-movement formulation that such prepositions be not in complementizer (Comp) position, but rather within the VP, like English to. In fact, if they were in Comp position, under the VP-movement analysis, one would expect stranding of the preposition as in "\*Giovanni lo continua leggere a/ Giovanni it continues to read to". Any evidence which may indicate that these

prepositions are in fact in Comp, would be evidence favoring other formulations of restructuring, such as Rizzi's deletion formulation, or Zubizarreta's L.F. approach. Base-generation analyses of restructured complexes, such as the VP-complement analysis of Strozer (1980), would essentially fare like the VP-movement analysis, since the preposition would then be falsely predicted not to appear.

Kayne (to appear c) has argued rather convincingly that preposition di is generally in Comp position. As far as we can see, the arguments he provides do not carry over to any other preposition. In fact, Kayne's discussion suggests arguments to the effect that other prepositions cannot be in Comp. For example, Kayne notes that in Italian, di is incompatible with Raising, as stressed by the fact that sembrare appears in a Raising frame only without di, and in an indirect object Control frame with di, as in the following.

- (152a) Giovanni sembra } essere partito  
                          } \*di essere partito  
(Giovanni seems to have left)

- (152b) Mi sembra di aver capito  
(It seems to me to have understood)

As Kayne argues, on the assumption that di is generally in Comp position, the facts in (152) will simply be an instance of the rather general fact that Raising is never possible across a filled complementizer (within the Government-Building theory, one will assume that a filled Comp inhibits  $\bar{S}$  deletion; Raising will thus give rise to a violation of the ECP). But if this reasoning is correct, then a of cominciare, continuare, which as argued in 6.4.6, can appear in Raising frames, cannot be in Comp. Analogously for per of Raising predicate stare per.

Everything we said so far is thus quite compatible with the VP-

movement formulation of restructuring, provided that we assume that only di is in Comp position as argued by Kayne, and that other prepositions are in VP. However, there are some cases of di which appear in conjunction with phenomena which are characteristic of restructuring. An example is Clitic Climbing with matrix verb finire (di) in (153).

- (153) Li ho finiti di leggere ieri  
 (I finished to read them yesterday)

Long O.P. in the SI-construction is also possible with this predicate, although with intermediate results, as in (154a), and passive is also possible as with aspectuals cominciare, continuare of 6.4.6 above, as in (154b).

- (154a) ?Quei libri si finiranno di leggere appena possibile  
 Those books SI will finish to read as soon as possible

- (154b) ?La chiesa fu finita di costruire prima della guerra  
 The church was finished to build before the war

This may suggest a problem for our discussion. However, it seems to us very significant that, as noted in Van Tiel-Di Maio (1978), with this predicate the change of auxiliary is not possible, as in (155a), contrasting with (155b).<sup>63</sup>

- (155a) Appena comincera' a scrivere la tesi,  
 As soon as he starts to write the thesis,  
 Giovanni } avra' } finito di andare a sciare tutte  
 } \*sara' } le domeniche  
 Giovanni will have (A/\*E) finished to go skiing every Sunday

- (155b) Non appena avesse finito di scrivere la tesi,  
 As soon as he should have finished to write his thesis,  
 Giovanni } avrebbe } cominciato ad andare a sciare tutte  
 } sarebbe } le domeniche  
 Giovanni would have (A/E) begun to go skiing every Sunday

This fact seems quite systematic with verbs taking di. In fact, while

at least Clitic Climbing is possible -though marginally and subject to variation among speakers- also with other verbs taking di (as noted in Rizzi's fn. 6), the change of auxiliary with any of those verbs seems quite impossible, as in the contrast between (156a) and (156b).<sup>64</sup>

(156a)	Mario lo	{	?cercava	{	di leggere
		{	?tentava	{	
		{	?*cesso'	{	
		{	?spetava	{	
		{	?decise	{	

Mario it tried/attempted/stopped/hoped/decided to read

(156b)	Mario	{	avrebbe	{	proprio	{	cercato	{	di andare a sciare
		{	*sarebbe	{		{	tentato	{	
		{		{		{	cessato	{	
		{		{		{	sperato	{	
		{		{		{	deciso	{	

Mario would have (A/\*E) really tried/.../decided to go skiing

Although we have no theory to propose for the cases in (153), (154),

(156), which will remain an unsolved problem, it seems reasonable to assume from the lack of change of auxiliary that a process different from the one we have discussed above, is involved with these verbs.

If so, our formulation will not be threatened. Awaiting a more precise account, we will take the difference with respect to the change of auxiliary noted, to indicate that in fact preposition di is in Comp, while other prepositions are not.

## 6.9 Residual Questions

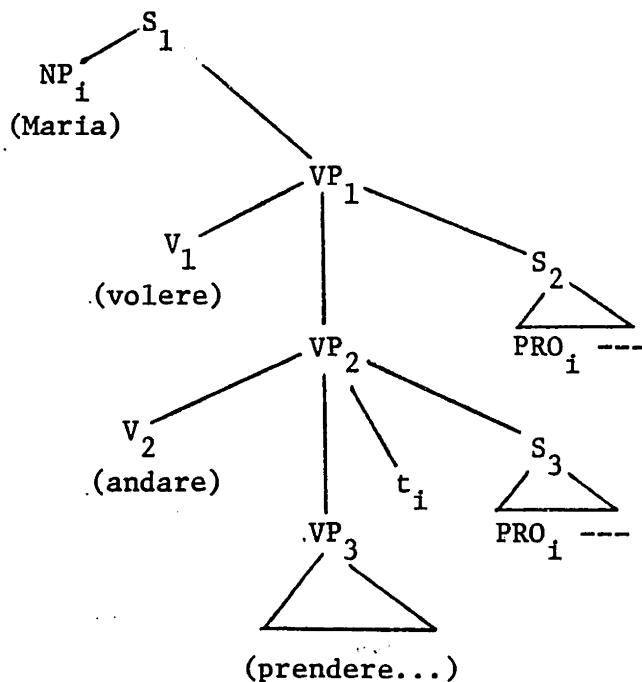
There are two sets of facts with respect to which the theory developed in this chapter falls short of complete empirical adequacy. The first set of facts has to do with the change of auxiliary with sequences of more than two restructured verbs, and in particular in the configuration " $V_A V_E V_A$ ", where " $V_{A/E}$ " is a verb taking A/E.

In such a configuration, our theory clearly predicts that the leftmost verb should take auxiliary E, just as in the configuration "V<sub>A</sub> V<sub>E</sub>" discussed in 6.5.4 above. The relevant structure is in fact the one in (157b), derived from the one in (157a) via application of VP-movement to both VP<sub>2</sub> and VP<sub>3</sub> (NP<sub>Ø</sub>: a null NP related to the clitic).

- (157a) Maria<sub>1</sub> [VP<sub>1</sub> ha voluto [S<sub>2</sub> PRO<sub>i</sub> [VP<sub>2</sub> andare t<sub>i</sub> [S<sub>3</sub> PRO<sub>i</sub> [VP<sub>3</sub> a prenderli NP<sub>Ø</sub>]]]]]

Maria has (A) wanted to go to fetch them

(157b)



In (157b) we expect that the relation between the matrix subject and the trace "t<sub>i</sub>" in VP<sub>2</sub> should induce E with respect to both V<sub>1</sub> and V<sub>2</sub>. The following example (Rizzi's (88)), where the position of the clitic li ensures that restructuring has affected both the higher and the lower complement, might thus seem contrary to our expectations.

- (158) Maria li { avrebbe voluti } andare a prendere lei stessa  
 \*sarebbe voluti }

Maria them would have (A/\*E) wanted to go to fetch herself

While in the configuration " $V_A V_E$ " the leftmost verb comes to take E as discussed in 6.5.4, the case in (158) would seemingly suggest that in the configuration " $V_A V_E V_A$ ", the leftmost verb takes A. However, we will claim that the correct classification of the facts is actually somewhat different than (158) would suggest and than assumed in Rizzi's discussion. Consider in fact the following examples.

(159a) Maria gli  $\left\{ \begin{array}{l} \text{avrebbe voluto} \\ \text{sarebbe voluta} \end{array} \right\}$  andare a parlare

Maria to him would have (A/E) wanted to talk

(159b) Maria vi  $\left\{ \begin{array}{l} \text{avrebbe voluto} \\ \text{sarebbe voluta} \end{array} \right\}$  andare a partecipare

Maria in it would have (A/E) wanted to participate

The cases in (159) instantiate the same configuration " $V_A V_E V_A$ " as the case in (158) since both parlare and partecipare normally take A, and yet either auxiliary is possible here. The difference between (159) and (158), can plausibly be attributed to past participle agreement conflict. In fact, if E is assigned in (158) as under the predictions of the analysis in (157b), we expect that the pp of volere should agree with "Maria". However, such pp must also agree with clitic li. We are thus suggesting that selection of E in (158) would essentially give rise to the problem of (160) here below, discussed in 6.5.1 above.<sup>65</sup>

(160) Maria li e'  $\left\{ \begin{array}{l} ?\text{andata} \\ ??\text{andati} \end{array} \right\}$  a leggere

Maria them has (E) gone to read

No conflict in pp agreement will arise in (159), since, as we know, indirect object clitics do not trigger pp agreement. The "A" option in both (158) and (159) will remain unaccounted for within our discussion.

However, we will take the correct classification of the facts to be that both the A and the E options are in general available, and that additional factors play a role in (158) as discussed. If this is correct, then although our theory does not predict the full range of facts, it will not be falsified. We also note that a theory of higher empirical adequacy here would have to have the rather unusual property of making non-unique predictions, so as to allow for both options. On the seemingly worse status of the "E" option in (158) than of either variant of (160) we point out that, while the E variant is ungrammatical relative to the other one, it is unclear whether in absolute terms it differs significantly from the cases in (160). In any event, a possible difference could still be related to the existence of a grammatical option in (158), though not in (160). Our analysis will correctly predict that only the "E" option should be available, with respect to the lower verb *andare*, as in the following.

- (161) Maria gli vorrebbe    } esser già andata    } a parlare  
                                } \*aver già andato    }  
                            Maria to him would like to have (E/\*A) already gone to talk

The second set of facts which do not fall within the predictions of our analysis is represented by some cases of embedding of restructuring verbs under fare, which were not discussed in 6.4.5 above. We recall from 5.4 and 6.5.3 above, that our claim is that in the causative case, a VP containing a trace, or -equivalently- an ep, coindexed with the subject, will fail to undergo VP-movement since a violation of proper binding would ensue. Typical cases are those in (162) (we again ignore the sc analysis of passives, to simplify exposition).

- (162a) \*Maria farà' [vp essere invitato <sub>i</sub>] [<sub>S</sub>(a) Giovanni ---]  
(Maria will make Giovanni be invited)

- (162b) \*Maria fara' [VP<sub>i</sub> andare lui<sub>i</sub>] [S<sub>i</sub> (a) Giovanni ---]  
 (Maria will make Giovanni go himself)

We also recall from 6.5.3 above, that analogous derivations are possible in the restructuring case, since the matrix subject will act as a proper antecedent for the trace or -equivalently- the ep. Typical examples will be the following, where LP<sub>Ø</sub> is a null locative phrase related to clitic ci.

- (163a) Giovanni<sub>i</sub> ci voleva [VP<sub>i</sub> essere invitato t<sub>i</sub> LP<sub>Ø</sub>] [S<sub>i</sub> PRO<sub>i</sub> ---]  
 (Giovanni wanted to be invited there)
- (163b) Giovanni<sub>i</sub> ci voleva [VP<sub>i</sub> andare lui<sub>i</sub> LP<sub>Ø</sub>] [S<sub>i</sub> PRO<sub>i</sub> ---]  
 (Giovanni wanted to go himself there)

We now note that our discussion predicts that, should the cases in (163) be embedded under fare and VP-movement apply to the larger VP (the one containing volere), the trace of (163a) and the ep of (163b) would lack proper antecedents again, and that the result should thus be ungrammatical. Recall from 6.4.5 that in general only cases of Control and not of Raising are predicted to be possible under fare, independently of whether restructuring has applied or not. We are now sharpening the prediction to the effect that even Control cases ought to be impossible under fare, if they have been affected by restructuring, and if the complement is ergative or passive. This further prediction seems correct, given the cases in (164), in which we simplify the analysis of the larger VP (the one containing volere in (163)) for ease of exposition.

- (164a) \*Cio' ci fara'  
 [VP<sub>i</sub> voler [VP<sub>i</sub> essere invitato t<sub>i</sub> LP<sub>Ø</sub>] ...] [S<sub>i</sub> (a) Giovanni<sub>i</sub> ---]  
 (This will make Giovanni want to be invited there)

(164b) \*Cio' ci fara'

[<sub>VP</sub><sup>voler</sup> [<sub>VP</sub><sup>andare lui<sub>i</sub> LP<sub>Ø</sub></sup>] ...] [<sub>S</sub><sup>(a)</sup> Giovanni<sub>i</sub> ---]

(This will make Giovanni want to go himself)

We may note here that this evidence and the cases in (164) in particular, will favor a theoretical framework constrained in terms of configurational output conditions, such as the one we are adopting, over conceivable alternatives featuring conditions on rules or extrinsic ordering of rules. For example if one suggested (as is done in Rizzi's discussion) that the contrast between (162) and (163) is due to the difference between the inherent formulations of the causative and restructuring rules, one would then expect the cases in (164) to be grammatical, since restructuring verbs unproblematically appear with passive and ergative complements as in (163), and fara in the F-S construction unproblematically appears with Control complements, as was discussed in 5.2 and 6.4.5 above. Also, if the difference between (162) and (163) was expressed by extrinsic ordering of rules, say by ordering passivization of the complement before restructuring, but after the causative rule (an ordering suggestion for (162a) is in fact made in Kayne (1975, 3.6), as was noted in 5.4 above), then the passive in (164a) ought to be possible since presumably the order "passive in the lowest clause; restructuring in the intermediate one; causative rule" would not violate the constraints.<sup>66</sup>

The cases in (164) will contrast with cases in which restructuring has not applied, such as the marginal cases in (165), and the essentially grammatical cases in (166).

(165a) (?)?Cio' fara'

[<sub>VP</sub><sup>voler</sup> [<sub>S<sup>PRO</sup></sub><sub>i</sub> esserci invitato <sub>t<sub>i</sub></sub> LP<sub>Ø</sub>]] [<sub>S<sup>a</sup></sub> Giovanni<sub>i</sub> ---]  
(see (164a))

(165b) (?)?Cio' fara'

[VP voler [S<sub>PRO<sub>i</sub></sub> andarci lui<sub>i</sub>]] [S a Giovanni<sub>i</sub>---]  
(see (164b))

(166a) Cio' fara' sperare di esserci invitato a Giovanni  
(This will make Giovanni hope to be invited there)

(166b) Cio' fara' sperare di andarci lui a Giovanni  
(This will make Giovanni hope to go there himself)

The marginality of the cases in (165) contrasting with those in (166) will be attributed (at least in part; cf. (67b) above for a slight independent difficulty) to the prohibition on sequences of infinitives of Longobardi (1979), briefly discussed in 6.2.2 above. As will be recalled, the latter is not operative in restructured contexts, thus it will not contribute to the ungrammaticality of the cases in (164). The prohibition is avoided in (166) by the presence of the preposition di (the analysis of the cases in (166) is identical to that of the cases in (165)).

All the facts reviewed so far are thus compatible with our discussion, and as predicted. However, consider the cases in (167).

(167a) (?)Il governo vi fara' cominciare ad intervenire la magistratura  
(The government will make the judiciary begin to intervene  
in it)

(167b) (?)?Cio' ne fara voler intervenire molti  
(This will make many of them want to intervene)

The position of the clitics, vi, ne in the above respectively, would suggest that restructuring must have applied between cominciare, volare and their respective complements. We would then expect the cases in (167) to pattern like the restructured ones in (164), rather than the non-restructured ones in (165), (166), and therefore to be ungrammatical. We assume that the analysis of the cases in (167) does not feature a trace adjacent to "intervenire" (in the same structural position as

"t<sub>i</sub>" in (164a) and "lui" in (164b)) since the latter would not be properly bound and there would then be no way to distinguish these cases from those in (164). We would then also expect the passive counterparts in (168) to be grammatical.

(168a) \*Cio' ne fara' continuare ad essere ritrovati molti  
 (This will make many of them continue to be found)

(168b) \*Cio' ne fara' voler essere invitati molti  
 (This will make many of them want to be invited)

Rather, we assume that in the cases in (167) the phrases "la magistratura", "molti" are adjacent to "intervenire", in direct object position, and that the latter cases are somewhat analogous to (169a) here below. Correspondingly, the cases in (168) will then be analogous to the ungrammatical (169b).

(169a) Cio' ne fara' [<sub>VP</sub><sup>intervenire molti</sup>]  
 (This will make many of them intervene)

(169b) \*Cio' ne fara' [<sub>VP</sub><sup>essere ritrovati molti</sup>]  
 This will make many of them be found

As will be recalled from previous discussion, we assume that the difference between passives and ergative verbs in (169) is due to the internal structure of passive morphologies (sc), ignored here to simplify discussion (cf. for example discussion of (138) above). Essentially we assume that the cases in (167) reflect some so far unaccounted for possibility to either analyze sequences like "cominciare ad intervenire" as ergative verbs, or to allow cominciare, volere to take VP-complements.<sup>67</sup> We note that under either hypothesis these facts will appear rather idiosyncratic. In fact if "cominciare ad intervenire" was an ergative verb, we would expect the sc relative in (170b) to be possible, as analogous to the one in (170a). If "cominciare" could take VP-complements

in general, we would also expect the sc relative in (170b) to be possible, as analogous to the one in (170c).

- (170a) Le persone [sc PRO<sub>i</sub> intervenute t<sub>i</sub> di recente]

The persons (who have) intervened recently

- (170b) \*Le persone cominciate a intervenire di recente volute

The persons (who have) begun/wanted to intervene recently

- (170c) ?Le persone [sc PRO<sub>i</sub> fatte [VP intervenire t<sub>i</sub> di recente]]

The persons (who have been) made to intervene recently

We further note that the reflexive in (171a) which ought to be possible analogously to the one in (171b), if either the sequence "cominciare ad arrivare" was analyzed as an ergative verb, or if "cominciare" had a VP complement, is in fact very marginal.

- (171a) ?\*I ragazzi si faranno cominciare ad arrivare dei libri  
(The kids will have some books begin to arrive for themselves)

- (171b) I ragazzi<sub>i</sub> si<sub>i</sub> faranno [VP arrivare un libro [i e]]  
The kids will have arrive a book to (for) themselves

We will thus regard cases like (167) as idiosyncrasies specific to complements of fare. Another apparent idiosyncrasy is represented by cases like the following (which seem to us to have a rather colloquial character).

- (172) Maria si fa venire a { prendere } { aiutare } da suo fratello

Maria has herself come to pick up/ help by her brother  
(Maria has her brother come to pick her up/help her)

Such cases are expected to be ill-formed within our discussion since there is no phrase corresponding to the direct object of ergative venire. We in fact assume from 5.2.1 above that the NP argument of an ergative verb can never be expressed by a "da" phrase, cf. "\*Maria fara' venire da suo fratello/ Maria will make come by her brother". We

thus assume that "da suo fratello" in (172) is the thematic subject of "prendere/ aiutare". We will note that the possibility in (172) is contingent on "venire" being a restructuring verb. Cf. in fact "\*Maria si fara' scendere ad aiutare da suo fratello/ Maria will have herself come down to help by her brother". We further note that since the reflexive is related to the object of the lowest verb, these structures must be base-generated by our discussion in 6.6 above. It would thus seem that in cases like (172), the sequence "venire a prendere/ aiutare" has been reanalyzed as a transitive verb. Here too the hypothesis fails to be confirmed by the behavior within other syntactic domains. In particular the latter sequence fails to behave like a transitive verb under passivization, as in (173a) and under sc relativization, as in (173b).

(173a) \*Maria fu venuta ad aiutare da suo fratello  
           Maria was come to help by her brother

(173b) \*La ragazza venuta a prendere da suo fratello  
           The girl come to pick up her brother

We may then conclude that there are some tendencies, of rather limited scope and idiosyncratically distributed, affecting in fact only complements of fare, to lexicalize the output of restructuring, namely to treat sequences of restructured verbs as if they were lexical items. We will assume that such tendencies are expressed outside of the core system of grammar.

#### 6.10 Conclusion

In this chapter we have argued that the restructuring process in Italian must be formulated as VP-movement, just like the process operative with causative verbs. If our discussion is correct, essentially all of

the superficial differences between causative and restructuring constructions noted, and mostly collected in 6.5.3, follow from independent considerations, and can thus not be taken to reflect intrinsic differences between the two processes.

The conclusion that the restructuring process consists of VP-movement is suggested by three different and relatively independent sets of considerations. The first such set of considerations is represented by the assumption of 6.1 above that subsequent to restructuring, the material in the embedded VP is no longer within the domain of (i.e. C-commanded by) the embedded subject, since it appears to no longer fall under Opacity; in conjunction with the assumption of 6.4, supported by the relevant arguments, that subsequent to restructuring the embedded subject is still syntactically represented. The second set of considerations has been provided by the discussion in 6.2.1 of restructuring with andare and venire, in which we concluded: i) that if the matrix verb has a direct object, restructuring will place the infinitival complement adjacent to the matrix verb and to the left of the direct object; ii) that after restructuring the infinitival complement is no longer sentential, i.e. it is no longer within clause boundaries. The third set of considerations is relative to the distribution of auxiliaries, and was presented in 6.5.6.

We take our discussion in this chapter and in general, to have provided good evidence for trace theory and for the existence of empty categories in derived structure. We note in particular that while some of the evidence concerning the distribution of auxiliaries could be accommodated, though perhaps not too naturally, within a framework which did not make use of traces, some of it could not. Consider in

fact our assumption, amply supported by the discussion, that auxiliary E in general is determined by syntactic factors, and in particular that in "Giovanni e' arrivato" it is related to the fact that NP-movement has applied. A framework not making use of traces, will have to regard application of NP-movement, rather than the relation between the NP and its trace, as the triggering factor for auxiliary E. Namely, within such a framework, one would have to say that the auxiliary becomes E every time a phrase is moved into subject position, or something equivalent. Ignoring for the sake of the discussion the likely problem coming from cases like "E' arrivato Giovanni" where no movement occurs and other relevant considerations, the latter view would account for the general case of E assignment. However, significantly, the same view would fail to predict the "Change of Auxiliary". In fact, in the case "Maria<sub>i</sub> e' voluta [VP<sup>andare</sup> t<sub>i</sub>] [S<sub>i</sub> PRO<sub>i</sub> ---]", while there is a configurational relation between the subject and a trace, there is no movement into matrix subject position, only movement into the embedded subject position.

## Footnotes to Chapter 6

1 In his discussion, Rizzi actually makes two further observations, concerning the exceptionality of these cases with respect to "Tough Movement" and clitic loro ((to) them), respectively. The case of "Tough Movement" will be briefly touched on in 6.2.2 below. As for loro, as Rizzi points out, the latter appears subject to a cliticization process different than the one involved with other clitics. However, the evidence it provides runs essentially parallel to that provided by the general case of cliticization (i.e. in our terminology there will be some "loro-Climbing" parallel to "Clitic Climbing"). Cf. Rizzi's sect. 4.

2 Under the approach in Zubizarreta (1979), restructuring would consist of "thematic re-writing" of the arguments of the complement as arguments of the main verb, and no syntactic operation would be involved ("Thematic re-writing rules have been introduced in Rouveret and Vergnaud (1980) (R&V)). By employing a notion of Opacity (Specified Subject Condition) sensitive to "thematic" indices (as in R&V), the "re-writing" will have the overall effect of freeing the embedded predicate from the strictures of Opacity. We may assume that Clitic Climbing and Lang O.P. follow from such "lifting" of Opacity. However, under the latter approach, all of the noted differences between restructured and non-restructured cases will have to follow from L.F. (rather than syntactic) considerations, and in particular the peculiar responses to Clefting, Wh-movement etc. of 2) of (7).

For the ungrammatical results due to Wh-movement (with pied-piping) and Clefting with respect to structures which exhibit Clitic

Climbing, Zubizarreta in fact points out that they might simply follow from proper binding requirements. Consider (i) (Zubizarreta's 15)).

- (i) \*E' proprio a riportare i soldi t<sub>i</sub>  
 It is really to take back the money  
 che gli<sub>i</sub> sto andando  
 that I to him am going

In (i), where Clefting has moved the underscored portion, the position "t<sub>i</sub>", related to clitic "gli" (to him) fails to be C-commanded by that clitic. Parallel considerations would apply, if the infinitive was moved by Wh-movement rather than by Clefting. As far as I can see, Zubizarreta's view on this matter might well be correct, in which case the two observations relative to 2a) and 2b) in I) of (7) would not provide evidence that some syntactic change has occurred, contrary to Rizzi's view. The following few remarks however, might have some bearing on the issue.

As was pointed out in 5.4, it appears that neither NP-movement nor VP-movement, can apply to a phrase containing a trace as in (ii), involving the trace of ne (t<sub>ne</sub>).

- (ii) Ne vengono [<sub>NP</sub><sup>molti t<sub>ne</sub></sup>] → \*Molti ne vengono  
Of them come many<sub>s</sub>                                  Many of them come

However (as noted in fn. 18, ch. 1), Wh-movement seems to behave differently, given "Quanti ne vengono?/ How many of them come?" (Notice that the view that Wh-movement may apply to the quantifier alone, is not generally tenable, given, as noted in Rizzi's fn. 10, "Vengono molti ragazzi — \*Quanti vengono ragazzi?"). If Wh-movement can thus successfully apply to a phrase containing a trace, then Zubizarreta's account, at least for 2a) in I), would be in doubt.

As discussed in fn. 16, chapter 5, we assume that some clitics, such as ergative and inherent reflexive si, are not related to any NP position at all. We now note that the facts observed by Rizzi for clitics in general, hold here as well. Thus corresponding to (i), we find (iii) here below (the non-clefted counterpart, as well as the case with no Clitic Climbing, being grammatical).

(iii) \*E' proprio divertire un po'  
It is really to enjoy a little

che Giovanni si vorrebbe  
that Giovanni himself would like

If our view on these clitics is correct, then it will be doubtful that a violation of proper binding parallel to the one invoked by Zubizarreta for (i), could be involved in (iii).

Zubizarreta's account in terms of proper binding, would straightforwardly extend to the cases of Long O.P., where the "improperly bound" element would be the trace of a NP, rather than the trace of (or, a null NP related to) a clitic. The considerations involved would in fact be entirely parallel (see Zubizarreta's discussion). This would bring the total number of points (in Rizzi's discussion) being questioned, to four, namely 2a), 2b) in I) and II) of (7). As for the remaining two "structural" tests, namely R.N.R. and CNP Shift, Zubizarreta also suggests alternative explanations. These however, are somewhat internal to the theory she proposes and seem to us to threaten Rizzi's conclusions much less directly.

In our view, the important point is the "Change of Auxiliary" and column III of (7). In fact, Change of Auxiliary cases will allow no recourse to proper binding, and yet they exhibit the same responses as cases of Clitic Climbing and cases of Long O.P., with respect to the

relevant tests. On this we note that once our "ergative" analysis of E verbs is adopted, then application of, say Clefting to CA contexts may well give rise to proper binding violations, but only if restructuring involves some structural changes. Consider in fact (iv) and (v) below.

(iv)  $NP_i$  cominciare [S<sup>PRO<sub>i</sub></sup> ad arretrare  $t_i$ ]  
 (Clefting: ok) ←

(v)  $NP_i$  cominciare [VP<sup>ad arretrare  $t_i$</sup> ]  
 (Clefting: \*) ←

(iv) represents the analysis of the non-restructured case in (4) above.

(v) represents our (partial) analysis of the corresponding restructured case: a case relevant to the "change" of auxiliary, and in which the matrix subject has become the antecedent of the trace " $t_i$ ", as will be made clear in 6.5 below. Application of Clefting to the latter would indeed cause " $t_i$ " to no longer be C-commanded by its antecedent, but -crucially- only under this particular analysis, and not under the view that the restructured case was syntactically non-distinct from (iv). The conclusion that the facts in III) of (7) indicate structural changes will thus stand unchallenged. Notice that suggesting, as Zubizarreta does, that the CA can occur independent of restructuring, will not make matters any better for the L.F. approach. In fact this would still leave the facts in III) of (7) unaccounted for.

We will therefore assume that, although Zubizarreta's criticism may be correct on some individual points, Rizzi's conclusions (as we have characterized them so far) will essentially stand.

Some parts of our forthcoming discussion will have further bearing on the syntactic versus L.F. character of restructuring. These will

be pointed out in 6.5.6 below.

3 As Rizzi points out, there is a significant degree of variation among speakers, as to the extension of the class. Reflecting this fact is the difference between the class we give in (8) and the class Rizzi assumes. In the dialect we assume here, the motion verb tornare (return) which Rizzi includes, is somewhat unnatural as a restructuring verb. On the other hand sembrare (seem) which Rizzi excludes, is fairly natural. As for finire (di) (finish) which Rizzi also includes, but more or less analogously with other verbs taking di, our view is that these verbs systematically fail to exhibit the "Change of Auxiliary". We are thus excluding them from our discussion here, and will discuss them separately in 6.8 below.

4 However, the particular account suggested for (5a) will not be compatible with our discussion. Longobardi suggests that in cases like (5a) SI absorbs accusative Case and that thus becomes analogous to an object clitic. The ungrammaticality of (5a) would then be due to whatever principle, at work in (i), requires that object clitics in general cluster.

- (i) Non glielo dare/ Non darglielo/ \*Non gli darlo/ \*Non lo dargli  
All: (Do not give it to him)

As may be recalled, the view that SI absorbs accusative Case was rejected in our discussion in 1.3.2 above. Cf. also fn. 8, chapter 1. We may thus still assume that (5a) is ruled out by some clitic clustering principle, but that the latter refers to both subject and object clitics.

5 If Longobardi is correct here (and note for example the parallelism

between his "?Sono potuto uscirne vivo/ I have (E) been able to come out of it alive; ?Giorgio fa portarne due a Mario/ Giorgio makes bring of them two to (by) Mario), then Rizzi (1976a) will have no point in suggesting that the cliticization facts support the view that the restructuring rule is different from the causative rule. Notice also that the latter point was never too strong in any case since: first, the differences between the two relevant sets of facts never seemed too striking or systematic; second, because it is difficult to see how two different rules could account for such differences.

6 Notice that O.P. (intended as movement of a direct object into the subject position vacated by SI) will be impossible here, regardless of our claim that E verbs have direct objects. In fact, typical relevant structures prior to restructuring (and -let us assume- SI-cliticization), will be as in (i).

(i) SI<sub>i</sub> potrebbe [S<sub>i</sub> t<sub>i</sub> andare t<sub>i</sub> al mare]

SI would be able to go to the sea

SI<sub>i</sub> vorrebbe [S<sup>PRO</sup><sub>i</sub> andare t<sub>i</sub> al mare]

SI would want to go to the sea

It is obvious that in (i) there is no object that could be preposed after restructuring.

7 At the moment we see no reason to assume that the moved VP could not end up to the right rather than to the left of the direct object. However, the point of our discussion here is that, unlike alternatives, our formulation makes it possible to express the permutation in linear order.

VP-movement with matrix ergative verbs (which involve object-Control)

would thus be analogous to VP-movement in the case of lasciare and the perception verbs (also involving object-Control), if our analysis in 5.6 was correct (cf. (136), ch. 5).

8 We are avoiding clitic lo in these examples, since ne is independently impossible in sequences with accusative clitics (as pointed out to me by L. Rizzi -p.c.-). Cf. for example:

- (i) Ne informai Giovanni  
Of it I informed Giovanni
- (ii) Lo informai di quel fatto  
Him I informed of that fact
- (iii) \*Ne lo } informai  
      Lo ne }

9 The contrasts are perhaps even weaker if there is no auxiliary, e.g. "Gliene andrebbero a parlare molti; (?) Gliene vorrebbero parlare molti". Notice incidentally that while we are tacitly assuming in the text that the i-subject could only be adjoined to the matrix VP, and not to the embedded one (i.e. the one which is moved), it is less than clear that this assumption would be granted (we might perhaps imagine the higher VP to be selected on the basis of some A-over-A principle). If the i-subject can be adjoined to the embedded VP, then whether or not ne can cliticize on the matrix verb, will depend on the specifics of the syntax of ne, which we left somewhat undefined (cf. 1.6 above). In particular, in the latter case, C-command by the matrix verb would obtain, and we might then expect Ne-Cl to be possible or marginally possible. The relative lack of contrast in (18) would then be subject to a rather different interpretation.

10 Ignored in the text, both here and in our discussion in 5.5.4, is

the fact that there might be some weak response to the presence of a direct object even when this is within a sentential complement, as in

- (i) which is complementary with respect to (25).

(i) would show that dativization can more easily fail if the complement does not contain a direct object. The point in the test will clearly stand however, in spite of this. This can only strengthen our point in 5.5.4, since there is no parallel response with ergative verbs, as in (ii).

The facts in (i) will not be expressed by our reformulation of the dativization rule in 6.4.4 below.

11 The assumption that there is no S node associated with venire in  
 (26), will imply that if VP-movement is cyclic it will apply on the  
 matrix cycle here. We see no problem associated with this consequence.  
 In fact a parallel conclusion is independently implied by any case of  
 F-VP with an F-S complement, as for example (i).

(i) Non ho mai visto [vp<sub>far</sub> [vp<sub>ripetere l'esame</sub>] [S<sub>a nessuno---</sub>]]  
I have never seen make repeat the exam to anyone  
(For the reading: I have never seen (NP) make anyone repeat  
the exam/ ...anyone being made to repeat the exam)

Under the relevant reading, movement of the innermost VP in (i) is clearly triggered by fare, and yet -we assume- there is no S associated with the latter verb. On the issue of cyclicity, I assume that if the principle of the cycle exists, VP-movement is cyclic. Arguments for

this view, would be supplied by some of the discussion in Kayne (1975), and Rizzi (1978a), showing that the causative rule, and the restructuring rule respectively, operate in between cyclic rules. However, the existence of the principle of the cycle in syntax has recently been called into question (cf. Freidin (1978)). Our discussion here is essentially neutral on the issue, unlike for example the discussion in Kayne (1975), which relies on the latter principle rather crucially. Many of the results which followed from cyclicity in the latter theory, will follow from output (L.F.) well-formedness conditions here.

12 Rizzi's conclusion from this kind of evidence that the embedded verb and its objects no longer form a constituent after application of restructuring, would thus have to be relinquished. In fact for the parallel causative case this view would be false, not only in our own analysis, but in much of the recent work on the subject.

13 Under the view that andare, venire were simply subject-Control verbs (like volere) rather than ergative, some of the evidence presented in 6.2.1 would fail to be too surprising, if taken in isolation. Considering first our point on linear order, (i) will indeed seem parallel to (ii).

- (i) \*Lo e' andato Giovanni a prendere  
It has gone Giovannis to fetch
- (ii) \*Lo voleva Giovanni prendere  
It wanted Giovannis to fetch

Under a non-ergative analysis of andare, both (i) and (ii) would presumably have to be derived via movement of the underscored infinitive to the right from forms like (iii) and (iv) respectively, which would themselves be derived by rightward NP movement of the matrix subject.

(iii) Lo e' andato a prendere Giovanni

(iv) Lo voleva prendere Giovanni

Under the latter view, the ungrammaticality of (i) and (ii) could be naturally accounted for by the fact that such movement of the infinitive to the right appears independently impossible after restructuring, as the following (from Rizzi's (42), (45)) illustrates.

(v) Ho cominciato a discuterne con Mario da Gianni

Ho cominciato da Gianni a discuterne con Mario

(I have begun to discuss (of) it with Mario at Gianni's)

(vi) Ne ho cominciato a discutere con Mario da Gianni

\*Ne ho cominciato da Gianni a discutere con Mario

(see (v))

The position of the clitic ne will reveal that restructuring has occurred in (vi), though not in (v). The case in (vi) will in fact represent the failure of "Complex NP Shift" typical of restructured cases, which we reported from Rizzi's work in 2d) of (7) above. Our criticism of this account of (i), (ii) would be that it will say nothing about the asymmetry of the corresponding non-restructured forms in (vii).

(vii) E' andato Giovanni a prenderlo

?\*Voleva Giovanni prenderlo

This is essentially the point we made in 1.7.1 above.

Considering now the dativization facts of 6.2.1, the case involving andare in (viii) will again appear fairly similar to the case involving subject-Control volere, namely (ix).

(viii) Lo faro' andare a prendere a Giovanni  
(I will make Giovanni go to fetch it)

Gli faro' andare a parlare Giovanni  
(I will make Giovanni go to talk to him)

(ix) (?)Cio' lo far' voler comprare a tutti  
 (This will make everybody want to buy it)

(?)Cio' vi fara' voler partecipare tutti  
 (This will make everybody participate in it)

Putting aside the question of how the distribution of dativization in (ix) is to be accounted for in our theory, a question that we will briefly address in fn. 28 below, we note that the facts in (viii) could be fairly naturally accounted for under a non-ergative analysis of andare, and assuming for example Rizzi's theory of restructuring. Consider in fact the following derivation (Rizzi's (142) with irrelevant minor adaptations).

(x) Piero fara' [S Mario andare [S<sub>1</sub> PRO a prendere NP]  
 Piero will make Mario go to fetch NP

Restructuring:

Piero fara' [S Mario [andare a prendere NP]  
 Complex pred.

Causative rule:

Piero fara' [andare a prendere NP] [S<sub>1</sub> a Mario ...]  
 Complex pred.

It is clear that this kind of derivation will produce the correct linear order and will correctly account for dativization in the presence of a direct object with the most embedded verb, thus for the facts in (viii). The facts in (ix) would then follow in analogous fashion since both andare and volere would be subject-Control verbs. Our criticism here would be, again, that while the facts relative to the restructured cases would follow, those relative to the non-restructured counter-parts, i.e. the asymmetry in (xi), would remain unaccounted for.

(xi) \*Piero fara' correre a prenderlo a Mario  
 (Piero will make Mario run to fetch it)

Cio' fara' sperare di vincerlo a Mario  
 (This will make Mario hope to win it)

(In (xi) we used the verb correre (instead of andare) to foreclose any possibility for restructuring, and sperare (instead of volere), to avoid Longobardi's prohibition on multiple infinitives. The point we are making in connection with (xi) is thus the one we made in 5.5.4.

14 Notice that the view that the embedded subject in (37b) is interpreted as "PRO-arbitrary" rather than as related to SI, does not seem tenable, and in spite of the fact that SI and PRO-arbitrary are semantically rather similar. Consider in fact the following pair.

- (i) Si crede che aumentare il bilancio militare sara'  
SI believes that to increase the military budget will be  
  
il primo compito della nuova amministrazione  
the first task of the new administration
  - (ii) Il bilancio militare si vorrebbe aumentare del venti per cento  
The military budget SI would like to increase by twenty per cent

In (i) where we have good reasons to believe that the subject of "aumentare" is PRO-arbitrary, a reading where the latter is disjoint from SI, is clearly possible and in fact preferred. The same is not true in (ii), where the subject of "aumentare" is understood as obligatorily coreferential with the (semantic) subject of "volere".

15 Analogous though somewhat weaker contrasts are obtained with ciascuno, and with the reflexive adjective proprio:

- (i) ?L'esame si fara' con un professore ciascuno  
The exam SI will take with one professor each

\*L'esame sara' fatto con un professore ciascuno  
The exam will be taken with one professor each

(ii) Queste cose non si dicono mai dei propri genitori  
These things SI never says about the (SI's) own parents

?\*Queste cose non sono mai dette dei propri genitori  
These things are never said about the (one's) own parents

Some of the other examples in Rizzi (1976b) (beside (38)), such as (iii), do not seem relevant for our purposes since the contrast with the corresponding passives, such as (iv) is hardly noticeable.

- (iii) Queste case si costruiscono rapidamente per battere  
These houses SI builds rapidly to beat  
la concorrenza  
the competition

- (iv) (?) Queste case furono costruite rapidamente per battere  
These houses were built rapidly to beat  
la concorrenza  
the competition

On cases like (iv) cf. fn. 61, ch. 5, and fn. 35 below.

16 Combinations of ergative matrix verb and transitive embedded verb  
will in general raise the possibility for conflicts in past participle  
agreement, as in (i).



In (i) the pp ought to agree with both "I ragazzi" and clitic "le" by our system of pp agreement. As will be discussed in 6.5.1, we take these facts to support the existence in derived structure of the matrix direct object (related to "I ragazzi"). Analogous facts hold when SI is the matrix subject:

- (ii)    Le si era    } ?andate    } a comprare  
                        } ??andati    }  
Them SI had (E) gone to buy

However, if rather than direct object cliticization, O.P. applies, the results are slightly different.

We will not take the virtually null effect of SI on pp agreement in (iii), to indicate that the matrix direct object (related to SI) no longer exists. This would involve postulating that the latter be erased exactly when O.P. applies, which seems a rather unenlightening result. Rather, we will suggest that O.P. somehow weakens the role of SI for pp agreement, although we have no formal characterization of this. On related questions recall from some of the discussion in 2.4.2, how SI will no longer be the antecedent for an ep, or function as a resumptive pronoun once O.P. applies, although apparently -as we are discussing in the text- it can still be an antecedent with respect to se stessi and PRO. (Cf. also fn. 18 below).

17 Actually, cases like (41b) are not only parallel to the Control case, namely derivative (via restructuring) of (i), but could in principle be derived from (ii) which, as we noted in 1.3.2, has no Control counterpart. (Cf. fn. 9 ch. 1).

- (i)  $S_i \text{ potrebbe } [S_i^t \text{ premiare quegli atleti}]$
- (ii)  $\text{Quegli atleti}_i \text{ potrebbero } [S_i^t \text{ premiarsi } t_i]$

It might be assumed in fact that (ii) (which is derived via O.P. in the lower clause, plus Raising), could undergo restructuring, after which SI would "climb" like other clitics, to yield (41b).

18 The following facts, though somewhat delicate and dialect-internal, would seem to provide a further and more direct argument for the existence of the embedded subject in cases like (37b). As we discussed in 2.4.2 (cf. also fn. 16 above), SI can no longer function as an antecedent for an ep after O.P. has applied, hence the following contrast, relative to the dialects in which second person plural

noi can function as an ep related to SI.

(i) Si premiera' gli atleti noi  
SI (we) will reward the athletes ourselves

(ii) ?\*Gli atleti si premieranno noi  
The athletes SI (we) will reward ourselves

We now note that (iii), structurally analogous to (37b) (and again relative to those dialects), will be closer to (i) than to (ii).

(iii) (?)Quegli atleti si vorrebbero premiare noi  
Those athletes SI (we) would like to reward ourselves

We will take the results in (iii) to indicate that "noi" is not related to SI in that case, but rather to the embedded subject PRO. This view is confirmed by the fact that in a case superficially similar to (iii) but where there could be no embedded subject, such as the case of F-VP in (iv), the results are again ungrammatical.

(iv) ?\*Quegli atleti si faranno premiare noi  
Those athletes SI (we) will make reward ourselves  
(We will have those athletes rewarded ourselves)

19 The case in (45a) will thus contrast with the causative case in (i) here below.

(i) [<sub>i</sub>I nostri atleti] si faranno [<sub>S<sub>i</sub></sub>tvincere con le minacce]  
Our athletes SI will make win with threats

As discussed in 5.6, we are assuming that, in the framework of the Government-Binding theory, fare is one of the verbs that trigger  $\bar{S}$  deletion, although the latter will not be a sufficient condition for Case assignment into the complement, in Italian.

20 However, outside of the assumption that restructuring is syntactic, these passives are still relevant. For example they will be evidence against the view that restructuring might be lexical. In fact, if andare a vedere in (48b) and potere vedere in (50b) were lexical items,

they would certainly be transitive verbs, and the passive forms would be expected.

21 I assume that it would be unsatisfactory to simply relate the ungrammaticality of (49b) to any difficulty one may find with the passive form for transitive verb volere. The following contrast seems in fact significant, although we have no account for the difficulty in a).

- (i) Travolta era improvvisamente  
Travolta was suddenly
  - a) ?voluto da tutte le case cinematografiche  
wanted by all movie producers
  - b) \*voluto vedere da tutti  
wanted to see by everyone

22 In our discussion, the evidence provided by sc relatives will be at least partly independent of the evidence provided by passives, since we assume that, although parallel to passives, sc relatives are independent forms, not derived from passives via Wh-be deletion. On this we may note that restructuring contexts supply additional evidence to reject a Wh-be deletion analysis. In 3.6.2 above we noted that Wh-be deletion was in any case only conceivable for Italian if it could be extended to auxiliary be (E). We now note that the latter extension would be falsified by the case in (i), which has no corresponding "reduced" form in (ii).

- (i) Un ragazzo che era voluto venire con noi  
A guy who had (E) wanted to come with us
  - conosceva la strada molto bene  
knew the road very well
- (ii) \*Un ragazzo voluto venire con noi ...  
A guy wanted to come with us ...

The relative clause in (i) is a case of the "Change of Auxiliary" to be discussed in 6.5 below (cf. (3a) above). In so far as we have no reason to assume that Wh-be deletion could not apply after restructuring and the CA, (ii) will be expected under Wh-be deletion. From our standpoint the ungrammaticality of (ii) will be essentially analogous, though not identical, to that of (52b). In fact, given our assumptions on the syntax of sc relatives, the only well-formed D-structure that could lead to (ii), will be (iii).

(iii) [sc [NP<sub>1</sub> e] voluto [S [NP<sub>2</sub> e] [VP venire PRO]]]

In (iii) both NP<sub>1</sub> and NP<sub>2</sub> are null since neither pp "voluto", nor ergative "venire" will assign a thematic role to their subject.

Supposing now that restructuring applied, and that PRO moved into NP<sub>1</sub> in one step, the outcome would be ruled out by the fact that NP<sub>2</sub> would be unfilled and unbound: a violation of general principles.

(ii) thus provides one further piece of evidence for the existence of the embedded subject after restructuring. On the other hand if PRO moved first into NP<sub>2</sub> and then into NP<sub>1</sub>, the derivation would be ruled out in the manner discussed for (45a) and (46a) by whatever principles prevent Raising-type derivations with Control verbs (say, failure of the relevant trace, in this case in NP<sub>2</sub>, to be governed). This will be so whether or not restructuring applies, as was discussed for (45a) and (46a).

23 In fact example (54) becomes grammatical under a nonsensical reading in which "Giovanni" was the object of "vedere", i.e. "The movie (which has) gone to see Giovanni". Under the latter reading, the example will be neutral as to whether or not restructuring has applied.

24 Notice that if the embedded direct object is in a Case-marking position in (63), it would then be natural to assume that it is in (53) also, as well as in the passive in (55). This would falsify the suggestion in Chomsky (1979) (Pisa lectures) that NP-traces never occur in Case-marking positions. On related discussion, cf. 2.6 above.

25 The fact that restructuring appears to apply within them, confirms the view that the constructions which we are referring to as "sc relatives" are not essentially adjectives, but essentially clauses, as we argued in 3.3.2 above.

26 In fact the type "?\*Maria fara' [<sub>VP</sub><sup>finire</sup> [<sub>S</sub><sup>Giovanni per criticarlo</sup>]]", contrasting with "Giovanni<sub>i</sub> finira' [<sub>S<sup>t</sup></sub><sub>i</sub> per criticarlo]" was presented as evidence that  $\bar{S}$  deletion, though sufficient for the ECP, is not sufficient for Case assignment in Italian, cf. ex. (146), chapter 5. The following cases (where "LP <sub>$\emptyset$</sub> " is the Locative Phrase related to the clitic), may seem problematic however.

- (i) ??Cio' vi fara' [<sub>VP</sub><sup>poter</sup> [<sub>VP</sub><sup>partecipare</sup> LP <sub>$\emptyset$</sub> ][<sub>S</sub><sup>molta gente ---</sup>]]  
This in it will make participate many people
- (ii) ??Cio' lo fara' [<sub>VP</sub><sup>dover</sup> [<sub>VP</sub><sup>risolvere</sup> NP <sub>$\emptyset$</sub> ][<sub>S</sub><sup>a Mario ---</sup>]]  
This it will make have to solve to Mario  
(...will make Mario have to solve it)

In (i) and (ii), which are cases of F-VP in which restructuring (VP-movement) has affected Raising verbs potere, dovere and their respective complements, we would expect government by potere/ dovere to obtain with respect to "molta gente/ Mario" respectively since the latter verbs trigger  $\bar{S}$  deletion (Raising). Although these verbs will not assign Case, we expect this kind of government to count for Case-

assignment (Case-government), given that VP-movement has applied (cf. 5.6). But then we might expect fare to assign Case, and these examples to be grammatical. In order to exclude (i) and (ii) above, we would have to suggest that Case-government cannot cross both VP and S, although we know it can cross S, if the VP has been extracted (cf. 5.6), as with "Cio' vi fara' [VP partecipare] [S molta gente ---]" and we know it can cross VP, as with "Maria fara' [VP intervenire Giovanni]".

However, it is not clear here what the correct classification of the facts should be. Indeed there is considerable contrast between the cases in (i) and (ii) and the corresponding non-restructured cases in (iii), (iv) for which we predict that Case-government should not obtain.

(iii) \*Cio' fara' [VP potere [S molta gente parteciparvi]]

This will make be able many people to participate in it

(iv) \*Cio' fara' [VP dovere [S Mario risolverlo]]

This will make have Mario to solve it

This may suggest that no further comment is required. However, shortly below in the text, we will assume that cases like (i), (ii) (cf. (67a)) are essentially ungrammatical, and non distinct from the non-restructured cases in (v), (vi), to which we will attribute the F-S analyses indicated, and which are ungrammatical by lack of proper binding for the trace " $t_i$ ".

(v) \*Cio' fara' [VP finire [S  $t_i$  per parteciparvi]] [S (a) molta gente  $i$  ---]

This will make end up participating in it many people

(vi) \*Cio' fara' [VP finire [S  $t_i$  per risolverlo]] [S (a) Mario  $i$  ---]

This will make end up solving it to Mario

Thus, depending on a rather delicate classification of the facts, we will either have to make further provisions here, or forego the relevant

argument in the text. We leave this question open.

27 An example of the same type as (65a) is (ii) which one might expect on the basis of its analogy with the F-VP case in (i).

- (i) Giovanni fece riparare l'auto in fretta  
 Giovanni made (NP) repair the (his) car in a hurry  
 (...had his car repaired in a hurry)

- (ii) ?\*Lo sciopero dei tranvieri farà dover riparare l'auto  
 The strike of streetcar personnel will make (NP) have  
 to repair the car  
 in fretta  
 in a hurry

The same considerations we are appealing to, to rule out (65a) and (ii), will rule out the derivation of (iv) from (iii).

- (iii) [<sub>NP<sup>e</sup></sub> dovere [<sub>S</sub> PRO riparare l'auto]]

Restructuring and NP-movement:

- (iv) \*L'auto dovrebbe riparare facilmente  
 The car should repair easily

If restructuring is VP-movement, then the violation in (iii), namely: PRO under a Raising verb, will persist. Not so if restructuring deleted the embedded subject.

It is easy to see that the contrast between (i) and (ii) provides an argument against the view -to be briefly discussed in 6.4.7- that dovere and the restructuring verbs take VP-complements. In fact, under that view (ii) ought to have the analysis "...fare [<sub>VP</sub> dovere [<sub>VP</sub> riparare l'auto...]]" and hence be unproblematic. Under the latter view, restructuring dovere must not at all be a Raising verb (i.e. a verb taking an empty D-structure subject) or else (iv) would be derived, and correspondingly "Giovanni deve riparare l'auto" would have no source. Since there would thus be no Raising (or Control), dovere (or potere and volere) would be predicted to be entirely parallel under restructuring:

a false prediction given the discussion in 6.4.7. It would furthermore be hard to see how, under a VP analysis of the complement, "Giovanni gli dovrebbe essere presentato/ Giovanni to him ought to be introduced" could be derived: if there is no embedded subject, NP-movement must be performed in one step. We would then expect passive morphology on the matrix rather than the embedded verb, as in "Giovanni gli fu fatto presentare" (cf. 5.3.2).

28 The facts relative to dativization in Control cases like (67b) will require a few comments. Consider the structure in (i) and its counterpart in (ii), where restructuring has affected V<sub>1</sub> and its complement.

- (i) ...fare [VP<sub>1</sub> V<sub>1</sub> [S<sub>2</sub> PRO [VP<sub>2</sub> ...]]] [S<sub>1</sub> NP<sub>1</sub> ---]  
(ii) ...fare [VP<sub>1</sub> V<sub>1</sub> [VP<sub>2</sub> ...] [S<sub>2</sub> PRO ---]] [S<sub>1</sub> NP<sub>1</sub> ---]

If we assume that in (i),  $S_2$  triggers dativization on  $NP_1$  regardless of the presence of a direct object in  $VP_2$ , we may then expect the same to hold in (ii). The contrast between (iii) and (iv), where dativization does respond to the presence of a direct object, might thus seem surprising.



It would thus seem that in order to account for the facts in (iii) and (iv), where restructuring must have applied given the position of the clitic in each case, we would have to assume that a sentential complement no longer triggers dativization, if it contains no lexical

material, like  $S_2$  in (ii). It is not too clear how plausible this view would be, on general grounds. We will note however that several factors mitigate the severity of the problem here. Consider the data relative to the non restructured cases, in (v) and (vi) below.

- |  |   |
|--|---|
| (v) Piero farà' cominciare a copiarlo<br>(see (iii))     | $\left. \begin{matrix} ??\text{Mario} \\ ?\text{a Mario} \end{matrix} \right\}$ |
| (vi) Piero farà' cominciare a parteciparvi<br>(see (iv)) | $\left. \begin{matrix} ?\text{Mario} \\ ??\text{a Mario} \end{matrix} \right\}$ |

We can accomodate these data within some of the preceding discussion, by assuming that dativization as induced by the sentential complement of cominciare is generally rather weak, as with some of the verbs reviewed in 5.5.4 above. At best, it will be as in (v). To this we must add the fact, noted in fn. 10, that dativization partially responds to the presence of a direct object even when the latter is within a sentential complement. This will account for the asymmetry between (v) and (vi). The contrast which is relevant to our purposes is now the one between restructured (iv) and non-restructured (vi): a rather weak one if indeed it exists. We may assume it will not provide sufficient ground for concern. The case in (iii) would not be problematic from our standpoint since we would expect the direct object NP related to "lo" (which would be in  $VP_2$  of (ii)) to trigger dativization if nothing else does (Notice that the formulation of the dativization rule in (56) will allow for the presence of  $S_2$  in (ii) above). Essentially analogous results are found with the other "Control" members of the restructuring class, namely continuare, volere.

29 While we thus agree with the classification of the facts that Rizzi gives (cf. Rizzi (1976a, fn. 22), a different position is taken

by Van Tiel-Di Maio (1978), who claims that matrix passivization will fail to distinguish causative from restructuring cases, since some restructuring cases also allow it. This seems to us incorrect for the reasons given in the text, namely the fact that matrix passives with restructuring are at best unsystematic. This fact alone would grant the distinction.

30 Such as, for example: tentare, esitare, tralasciare (attempt, hesitate, neglect).

31 One might attempt to relate the existence of such passives as (69a), to their analogy with the corresponding form in (i), where the passive morphology affects the embedded rather than the matrix verb.

- (i) Il palazzo comincio' ad essere costruito...  
The palace began to be built...

(i) is derived unproblematically for the Raising entry of cominciare. However, this view would not cover in analogous fashion the cases in (69b) and (69c) (the sc relative, and the F-VP cases), whereas the suggestion in the text will.

32 We would not expect the "semantic" considerations discussed above to play any role here. The requirement that the embedded subject be coreferential with the matrix agent could not apply here since, under the view that (74b) had an analysis parallel to that of (74a), there would be no embedded subject, in any sense of "subject". On the other hand if one took the requirement to demand the presence of an embedded subject, it could not be a "thematic" (i.e. D-structure) subject which is required, given "Giovanni continuo' ad intervenire/ Giovanni continued

to intervene" where intervenire is ergative and therefore has no thematic subject. If it was a syntactic, S-structure, subject which was required, then the requirement would simply converge with our claim that (71b) and not (71a) is the correct analysis.

33 Under the view that intervenire was intransitive, (74b) would be analogous to (i) involving intransitive lavorare.

- (i) \*[<sub>i</sub>Giovanni] fu cominciato [<sub>S</sub><sup>t</sup><sub>i</sub> [<sub>VP</sub><sup>a</sup> lavorare]]  
 Giovanni was begun to work

We assume the derivation indicated in (i) to be ruled out by the fact that a trace occurs in a PRO environment and is thus ungoverned, violating the ECP (recall that we are assuming that cominciare here is a Control verb, hence no  $\bar{S}$  deletion) (cf. the analogous case in (47a)). The ungrammaticality of "\*Giovanni fu cominciato a lavorare" will not decide between the two hypotheses in (71). In fact, if the embedded subject did not exist (as in (71a)), there would be no source for the phrase "Giovanni". If the embedded subject had to be PRO (as in (71b)), the considerations ruling out (i) would be effective.

34 The contrast between (68a) and (75) thus essentially reverses the situation one finds with passives of subject-Control verbs like promise where passivization of the complement generally improves the degree of acceptability (cf. some of the discussion in 6.4.1). It might still be however, that related to the latter improvement is the weak contrast between (74b) and (75), although we lack a precise understanding.

35 We must notice that it would appear incorrect to assume that the embedded PRO in these cases is interpreted as "PRO-arbitrary". Consider

in fact (i) here below contrasting with the well-established case of PRO-arbitrary in (ii) with respect to the possibility of taking the anaphoric element se-stessi.

- (i) .?Tra poco questo sara' cominciato a dire anche } di noi  
Soon enough this will be begun to say even } ?\*di se stessi  
about us }  
?\*about ourselves

- (ii) Dire questo di se stessi sarebbe indice di vanita'  
To say this about ourselves would be an indication of vanity

The fact that the PRO in question would not C-command se-stessi directly in (i) (i.e. "... [VP...se stessi] [S<sup>PRO ---</sup>]") will be essentially immaterial since we are assuming from 5.2.2 above that se-stessi is one of those elements with which the "reconstruction" of chapter 4 can apply. Although it would be lengthy to provide relevant examples, as well as rather tricky given the general marginality of cases like (i), it seems to us that the results in (i) essentially carry over to all the other anaphoric elements of 5.2.2, which allow reconstruction (e.g. adjective proprio, idiomatic objects, ciascuno, inalienables). The contrast between (i) and (ii), will not be taken to indicate that, contrary to our claim in the text, there is no subject of "dire" in (i). We will note in fact that other, independently established cases of PRO, behave quite analogously. Take the purpose ("per") clause in (iii).

- (iii) Il direttore ha aumentato le assunzioni  
The director has stepped up hiring  
per fare un favore al sindacato  
to do a favor to the union

It is fairly clear that, as was assumed at various points through previous discussion, per-clauses like the one in (iii), have a PRO subject. For example, the latter can be an antecedent to an ep, to

a reflexive, and to a subject-controlled PRO, as in the following respectively.

- (iv) Il direttore ha aumentato le assunzioni
  - a) per non dover intervenire lui  
to not have to intervene himself
  - b) per fare un favore a se stesso  
to do a favor to himself
  - c) per rassicurare il governo [<sub>S</sub>di PRO avere intenzioni serie]  
to reassure the government of having serious intentions

If such a PRO exists, the controller is certainly the matrix subject ("Il direttore"). Our view is supported by the fact that in the absence of such an animate subject, per-clauses are impossible, as in (v).

- (v) \*?Le assunzioni aumentano per fare un favore al sindacato  
Hiring is on the increase to do a favor to the union

However, as was noted in fn. 61, chapter 5, passives have a peculiar property in that they will allow such purpose clauses, even though there is no overt animate antecedent, as in (vi).

- (vi) Le assunzioni sono state aumentate per fare un favore  
Hiring has been stepped up to do a favor
  - al sindacato  
to the union

Contrasts like the one between (v) and (vi) have been noted in Ruwet (1972). We will then assume that passives allow an interpretation of the subject of the per-clause. This would clearly seem related to the fact that passives generally imply (in some "semantic" sense), the existence of a human agent, unlike the corresponding ergatives (cf. (v)). We must note however, that the type of Control that obtains with these passives, differs both from the Control which obtains in (iii) and (iv) above, and from the "arbitrary" Control of (ii). Consider in fact (vii).

- (vii) Le assunzioni sono state aumentate  
 Hiring has been stepped up
- a) \*per non dover intervenire noi  
     to not have to intervene ourselves
  - b) \*per fare un favore a se stessi  
     to do a favor to ourselves
  - c)?\*per rassicurare il governo [<sub>S</sub> di PRO avere intenzioni serie]  
     to reassure the government of having serious intentions

The results in (vii) (which also carry over to other anaphoric elements) are essentially analogous to those in (i). Therefore (i) would not be a problem for our view that PRO is involved, since PRO in (vii) yields the same results. Entirely parallel to per-clauses are senza-clauses as in the following, corresponding respectively to (iii)/(iv), (v), (vi), (vii) above.

- (viii) Il direttore ha diminuito le assunzioni  
 The director reduced hiring
- a) senza pensare al sindacato  
     without thinking about the union
  - b) senza pensare a se stesso  
     without thinking about himself
- (ix) \*Le assunzioni diminuiscono senza pensare al sindacato  
 Hiring is diminishing without thinking about the union
- (x) Le assunzioni sono state diminuite senza pensare al sindacato  
 Hiring has been diminished without thinking about the union
- (xi) \*Le assunzioni sono state diminuite senza pensare a se stessi  
 Hiring has been diminished without thinking about ourselves

One may suggest here, that the D-structure subject of the passive form: a lexically null phrase, is indeed a legitimate controller in such cases (as (vi), (x)) (although the case of F-VP in (68c) would remain somewhat unclear). Of course stricter constraints would have to hold for infinitival complements which the verb is subcategorized for, given "\*John was promised to leave", although the noted acceptability

of these corresponding cases with embedded passives might be related.

We may then assume that, rather than "non-referential" as we have been suggesting so far, the D-structure subject of passives, is "referentially indeterminate", and that this indeterminacy, inherited by the PRO subject of the per/senza-clause, is responsible for the failure of PRO to serve as an antecedent for *se-stessi*, etc. We note incidentally that the contrast between (xi) and (xii) here below, will indeed be congruous with our assumption of 6.4.1 that SI can be a controller even after O.P.

- (xii) ?Le assunzioni si sono diminuite senza pensare a se stessi  
Hiring SI (we) has diminished without thinking about ourselves

We also note that these facts, and in particular contrasts like the one in (xiii), support our theory of passives (cf. 5.2.1) over a theory featuring subject postposing (and optional by-NP deletion).

- (xiii) a) Piero invento' la scusa per non dover intervenire lui  
Piero invented the excuse to not have to intervene himself
- b)?\*La scusa fu inventata da Piero per non dover intervenire  
The excuse was invented by Piero to not have to intervene  
lui  
himself

In fact the latter theory would most naturally claim that in (vi), (x) the antecedent to PRO is the since-demoted subject, but would then fail to predict (vii), (xi) and the contrast in (xiii). The view that PRO inherits the referential properties of its antecedent is confirmed by the fact noted in 5.7.1 above that a "quasi-referential" subject of a weather verb, can only control, or be controlled by, an analogous subject (with some partial and marginal exceptions noted by Rouveret and Vergnaud (1980), and discussed in fn. 18, ch. 3), as illustrated by the following.

- (xiv) a) Non nevica mai a lungo senza piovere  
It never snows too long without raining

b) \*Giovanni non esce mai senza piovere  
Giovanni never goes out without raining

c) Qui non si esce mai senza bagnarsi un po'  
Here SI (we) never goes out without getting ourselves wet  
a bit

d) \*Qui non piove mai senza bagnarsi un po'  
Here it never rains without getting ourselves wet a bit

Given that per/senza-clauses are probably not complements of the verb (they are not part of the subcategorization frame of the verb) but rather located higher up in the structure, one might perhaps suggest, given the analogous behavior, that the infinitivals following cominciare, continuare are also at some distance from the verb. One could then relate the possibility for Control with the passives under discussion to some such notion of distance. This view would seem to receive some independent support from the fact that these verbs are also peculiar in allowing the forms "Giovanni comincia lui.../ Comincia Giovanni..." for which it was suggested in 1.7.1 that some distance principle might be involved. But we will not pursue this possibility here.

36 Put as in the text, the argument against base-generated VP-complements is actually partly circular. In fact the case in (i) here below ((46a) above), was one of the pieces of evidence presented to support the existence of the embedded subject.

- (i) \*[<sub>i</sub> nostri atleti] si vorrebbero [<sub>VP</sub> vincere] [<sub>S<sup>t</sup></sub> <sub>i</sub> ---]  
(SI would like our athletes to win)

We claimed that (i) is ungrammatical for the same reason that its non-restructured counterpart is, namely because the trace " $t_i$ " is ungoverned (no  $\bar{S}$  deletion with Control verbs). This claim implies that the embedded

subject must exist in derived structure. From the assumption that the embedded subject exists we now conclude that the infinitival complement cannot be a base-generated VP. This is obviously circular since if complements of restructuring verbs were base-generated VP's, cases like (i) could never be produced in the first place (no source for the phrase "i nostri atleti"). However, all of the other arguments for the existence of the embedded subject, will correctly apply.

37 Although they are given in a restructured analysis, the examples in (78) are ambiguously restructured or not. It will be sufficient to our point that they may be restructured. In any case, a restructured analysis may be ensured by cliticizing the dative phrase "a quei visitatori" as loro ("...vorrebbe loro..."; "...potrebbe loro..."), or as the slightly substandard gli ("...gli vorrebbe..."; "...gli potrebbe..."). Under these conditions, the contrast in (78) remains.

38 Notice that whether or not the contrast in (78) also counts as an argument against the subject-deletion analysis, will be strictly dependent on the account we choose for the phenomena in chapter 4. For example, if we assume that traces are exact duplicates of their antecedents at all levels, then (78a) and (78b) would be appropriately distinguishable whether or not restructuring deletes the embedded subject. However, if traces are "reconstructed" as reproductions of their antecedents only in L.F., then (78) would indeed provide an argument against subject-deletion. In fact the latter analysis would then predict no distinction between (78a) and (78b) in L.F.

39 Within our assumptions, the contrast in (80) will not provide an argument against the deletion formulation. In fact we are not

relying on the distinction between trace and PRO to account for the latter contrast, but rather on D-structure conditions, and specifically on the fact that the D-structure in (i), relative to Raising verbs, has no counterpart relative to Control verbs, because of thematic well-formedness.

- (i) [e] parere [<sub>S</sub> [<sub>I</sub> e] esserci<sub>I</sub>] molte ragazze alla festa]  
Seem there to be many girls at the party

The same considerations would hold under a subject deletion analysis.

40 Notice however that the "climbing" effect observed with pp agreement here, is unquestionably related to "Clitic Climbing". In fact within the noted marginal possibility to avoid Clitic Climbing as in (i), there will be no possibility at all to have pp agreement on the matrix verb as in (ii).

- (i) ??Mario farà leggerli a Piero  
(Mario will make Piero read them)

(ii) \*Mario ha fatti leggerli a Piero  
(Mario has made Piero read them)

Our claim here is not that pp agreement is not related to the position of the clitic. Simply that one is not the reflex of the other. Our point here is thus parallel to the one we are making (cf. 1.6) for pp agreement with E cases. For the latter we are claiming that pp agreement is not the reflex of E, and we then explain the conspicuous overlap between the two by suggesting that the two rules involved make use of identical notions, in particular "government" (though they are different rules). Given facts like (ii), it is clearly to be hoped that an analogous connection could be established between pp agreement and Clitic Climbing. One could suggest for example, that in general failure

of Clitic Climbing is the manifestation of a (marginal) possibility for the matrix verb to fail to govern the material in the embedded VP. The indication provided by (ii), that pp agreement on the matrix must also fail in such cases, would then be expected.

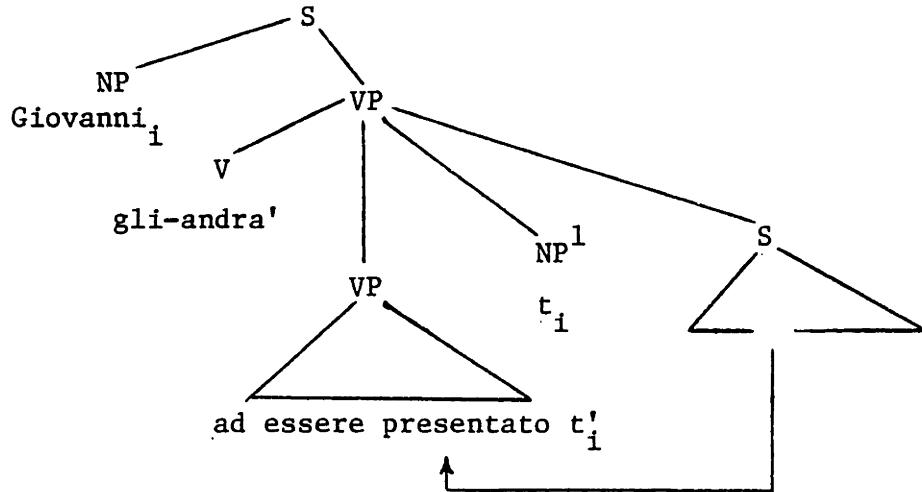
41 Pp agreement on the lower verb, is not testable here in the manner of (83) since, as will be noted below in the text, complements of andare, venire, do not take aspectual auxiliaries.

42 Notice that questions of how exactly the mechanics of indexing may work in these cases is essentially irrelevant to our discussion. In fact, we take the indexing to be rather unquestionably as we are indicating, given the relevant semantic considerations.

43 In fact, if our discussion in 6.4.4 is correct, this difference will simply be the reflex of the possibility to assign Case to the embedded subject. Cf. also fn. 46 below. The fact that fare and the causative verbs, but not restructuring verbs, can take base-generated VP's may seem an independent difference, which would weaken our claim in the text. However notice that this difference can also be related at least in part to independent considerations. In fact, if our discussion is correct, subcategorization for VP complements in the case of fare can be regarded as necessary to ensure that the class of ergative verbs is not excluded from appearing under fare (cf. 5.5 above). No such necessity exists for restructuring verbs, since with those verbs, given the coindexing between the two subjects, VP-movement can apply to ergative VP's as discussed in the text.

44 In the ergative case in (88b), NP<sup>1</sup> is perhaps also an antecedent for "t<sub>i</sub>", given that C-command would obtain, as in (i).

(i)



On matters related to this issue, not too crucial for our discussion, cf. fn. 56, ch. 5.

45 Notice however, that we do get agreement as predicted, in (i): a passive, cf. also fn. 48.

(i) [<sub>i</sub>e] si<sub>i</sub> e' fatti [VP intervenire t<sub>i</sub> spesso]

SI is made to intervene often

The parallelism between (i) and the restructuring case in (87a) is of course entirely superficial. Cf. "Si e' stati {fatti  
\*voluti}"  
intervenire/ SI has been {made  
\*wanted} {to intervene}; "Si {\*farebbe  
vorrebbe}"  
intervenire/ SI {\*would make  
would want} {to intervene}.

46 In accordance with some of our previous discussion (in particular 2.6 and 5.6 above), and following the Government-Binding theory, we will assume that the spectrum of infinitival-complement types is the reflex of the interaction of two parameters: The ability to assign Case, and

the ability to govern the subject of the complement across the clause boundary (say, by  $\bar{S}$  deletion). The two parameters give rise to the four possibilities in (i).

(i)	Case assigner	Government
a)	+	+
b)	+	-
c)	-	+
d)	-	-

The type in a) is instantiated by ECM verbs in English, and -we assume- by fare in Italian (cf. 5.6 above). All three of the remaining cases will fail to assign Case to the subject of their complements (either not a Case assigner, or no government, or both). The latter subject will therefore have to be either trace or PRO, since the inventory of elements which do not require Case consists exactly of those two. Assuming then government to be a requirement for trace and non-government a requirement for PRO, c) will be the Raising case, and b) the general Control case. As for d), if we assume that the failure to be a Case assigner is generally associated with failure to assign a thematic role to the subject, the latter will represent object-Control verbs, taking no D-structure subject. The latter type seems rare, but in Italian it would be instantiated at least by indirect-object Control sembrare as in (ii), and by "arbitrary" Control bisognare as in (iii), both noted in 2.6 above.

(ii) Mi sembra di sognare  
(It) seems to me to dream

(iii) Bisogna fare attenzione  
(It) is necessary to pay attention

We may note that while VP-movement is attested with the first three classes

in (i) (fare, Control, Raising), it is not attested with the class in d) of (i). In particular while restructuring affects Raising sembrare (cf. fn. 3 above), it will not affect Control sembrare of (ii) above. As has been suggested to me by Rizzi (p.c.), one may attempt to account for this gap by assuming that restructuring interferes with the relation postulated in 2.6 above, between the pleonastic subject (i.e. the analogue to English it; cf. 2.6) and the sentential complement. Such an account would be straightforward under the view that restructuring caused the loss of the S node, but will require further elaborations under our formulation.

47 This leaves out discussing the behavior under restructuring of the two configurations in (i) and (ii) to which we also claimed VP-movement could not apply in the causative case (cf. (66c), (66f), ch. 5).

(i)  $\text{pro}_i [_{\text{VP}}^{\text{V}} \text{NP}_i \dots]$

(ii)  $[_i^{\text{e}}] [_{\text{VP}}^{\text{SI-V}} \dots]$

For the case in (i), we know that it cannot be embedded under Control verbs in general, as in "\*Maria sperava [<sub>S</sub>di pro intervenire Giovanni]/ (Maria was hoping for Giovanni to intervene)". We are attributing this to the fact that pro would fail to receive Case (cf. 2.3.1). Our discussion will predict that these conditions should persist under VP-movement. (In fact the violations involved in the causative case and due to the fact that pro no longer C-commands the i-subject, are also expected). This is correct given "\*Maria voleva intervenire Giovanni", involving restructuring verb volere (want). We also know that (i) can be embedded under Raising verbs in general, as in "pro<sub>i</sub> finirono [<sub>S</sub><sup>t</sup><sub>i</sub> per intervenirne

molti]/ (Many of them ended up intervening)". We assume that this is due to the fact that in this case pro is Raised into a Case marking position (cf. 2.3.1), Again we will predict that the same will be true under restructuring. This is correct given "Ne potrebbero intervenire molti" involving restructuring verb potere (be able).

As for the case in (ii), we know it cannot be embedded under Control verbs in general, as in "\*Giovanni sperava di trovarsi la soluzione/ Giovanni was hoping (for) SI to find the solution". From 1.3 we assume this to be due to the lack of Case on the NP related to SI (embedded subject). We then predict this to hold under restructuring as well, as in "\*Giovanni si voleva trovare la soluzione/ Giovanni wanted SI to find the solution", where presumably Clitic Climbing would apply to SI. We assume that (ii) can be embedded under Raising verbs, as in "[<sub>i</sub> e] risulta [<sub>S<sub>i</sub></sub> mangiarsi bene]/ (It) turns out SI to eat well", even though the latter is somewhat marginal, Raising of SI being generally preferred, as in "[<sub>i</sub> e] si<sub>i</sub> e' risultati [<sub>S<sub>i</sub></sub> mangiare bene]/ SI turned out to eat well". We are attributing this to the fact that in either case, the NP related to SI ends up in a Case marking position (cf. 1.3). We then predict these results to carry over to restructuring cases. This is correct, given "Si dovrebbe mangiar bene", which could be derived from either one of the former two structures.

48 Of course we will get both E and pp agreement in the passive case in (i) as predicted (cf. fn. 45).

- (i) [<sub>i</sub> Maria] e' stata fatta [<sub>VP</sub> intervenire <sub>t<sub>i</sub></sub>]  
Maria has been made      to intervene      (E; pp ag't)

49 For the dialects in which sembrare is not a restructuring verb (cf. fn. 3), the same point can be made with stare (per), as in the following, even though, with the latter, aspectual auxiliary in the complement: is never entirely natural.

(i) Giovanni lo stava per { (?)aver } terminato  
                                   \*esser      }  
          Giovanni it was about to have finished                         (A)

50 We must notice that in "... a binding relation ... between the subject and a nominal constituent of the predicate..." of (81a), it is unclear whether we are referring to the subject of some  $p_i$ , and to the same predicate  $p_i$ . It would certainly seem natural to assume that we are, and that the subject mentioned is the subject of the same predicate which is also mentioned. In that case we must assume that in (106), the phrase "Maria" is -for relevant purposes- the subject of both predicates. This is hardly a surprising conclusion given the fact that the latter phrase has in fact replaced the embedded subject as an antecedent for the trace " $t_i$ ". The reanalysis involved will therefore appear symmetrical: embedded objects become objects of both verbs; the matrix subject becomes the subject of both verbs.

51 If we grant some intuitive plausibility to the view that restructuring makes auxiliary selecting properties homogeneous within the complex predicate, there will be an independent reason why, in (107), the same auxiliary is both: in the direction of the arrow; and in the characterization of  $V_k$ . However, we can reverse the direction of the arrow and still maintain the latter view, provided that we change the characterization of  $V_k$  accordingly. We would then obtain (i).

(i) Essere → Avere in the context:

$[V \text{vbl} \_\_ vbl V_k]$ ,  $V_k$ : a verb requiring Avere

While (107) produces the change of (98a), (i) would give rise to (98d).

For an attempt to partially mitigate the stipulatory character of the direction of the arrow in (107), cf. Rizzi's fn. 22. If we now place  $V_k$  on the other side of the context, we will obtain (ii) and (iii) respectively.

(ii) Avere → Essere in the context:

$[V_k V \text{vbl} \_\_ vbl]$ ,  $V_k$ : a verb requiring Essere

(iii) Essere → Avere in the context:

$[V_k V \text{vbl} \_\_ vbl]$ ,  $V_k$ : a verb requiring Avere

(ii) and (iii) correspond essentially to (98b) and (98c) above respectively. The view that  $V_k$  is on the right rather than on the left of the context, corresponds to Rizzi's notion that the right-most verb is "the head of the complex" (cf. Rizzi's fn. 28, and below in the text).

52 In Rizzi (1976b, fn. 4), the difference in auxiliary between (111b) and (112b) is pointed out as problematic for the proposal (being presented in that article) that the two cases are simply related by the syntactic rule of object preposing (NP-movement).

From our standpoint these facts will not only not be problematic, but will in fact support Rizzi's NP-movement analysis of "NP SI-V.." cases.

53 This leaves out two of the points Rizzi makes in the earlier version: his a) "Restructuring applies vacuously; the causative

rule, non-vacuously". The only notion of vacuousness that would apply here is a phonological notion, i.e. unlike the causative rule, restructuring produces no phonological change. But at least within the framework of our discussion here, this consideration will have no bearing on the formulation of either rule. Rizzi's point d) "Restructuring and causative constructions differ in the degree of obligatoriness with which they induce Clitic Climbing". On this cf. fn. 5 above. (The above are not exact quotes).

54 A-priori, it might have seemed reasonable to take those differences as an indication that two different processes were involved. However, if the discussion in Burzio (1978) is correct, those differences always failed to provide a strong argument for distinguishing the two processes. In fact it was never too clear, how postulating different processes could account for those differences, but cf. Rizzi's fn. 32.

55 In cases like (120), auxiliary E is assigned not only to the matrix verb, but to the embedded one as well, as in (i) here below, contrasting with the parallel case involving a non-reflexive clitic in (ii).

- (i) I ragazzi si i vorrebbero essere gia visti [i e]  
The kids would like to have (E) already seen each other
- (ii) I ragazzi li i vorrebbero aver gia visti [i e]  
The kids would like to have (A) already seen them

This will require a minor extension of our system of E assignment of (81a) above, consisting of the underscored portion in "The auxiliary will be realized as E, when a binding relation exists between the subject, or an element coindexed with it, and a nominal constituent

of the predicate". (We would prefer not to assume that E in (i) is due to a direct relation between the subject and the object position, since relations between positions of independent thematic roles do not generally enter into the system in (81), as was noted in 1.6, 5.4.2). The proposed extension will correctly allow E in (i) and not in (ii).

56 Recall the possibility, considered in fn. 74, chapter 5, that relations like  $R_1$  and  $R_2$  of the reflexive case in (118), may be involved with si-ergatives and inherent reflexives as well. Under the latter view, the various subcases of si become even more similar, than under the assumptions of the text, and the parallel behavior under restructuring is expected even more straightforwardly.

57 We thus predict that climbing of si ought to be more strongly obligatory than climbing of other clitics (cf. discussion in 6.1 above). This seems to us correct, given for example the contrast between (i) and (ii).

(ia) (?)Maria sarebbe dovuta venirci

(ib) Maria ci sarebbe dovuta venire  
(Maria should have come there)

(iia) ?\*La macchina da scrivere non sarebbe dovuta rompersi  
proprio adesso

(iib) La macchina da scrivere non si sarebbe dovuta rompere  
proprio adesso

(The typewriter should not have broken down right now)

Both (i) and (ii) are restructured in either variant, given the change of auxiliary (i.e. E on the main verb), which is due to the ergative status of the complement venire, rompersi respectively.

58 This would not be so with a Raising rather than a Control verb, since we assume that  $R_1$  can be established only with respect to subjects which are not null in D-structure. Thus, unlike its Control counterpart in (130b), the Raising case in (i) would not decide between the two alternative derivations, since it would be ruled out independent of considerations relative to the relation  $R_2$ .

- (i) \*Le madri si potrebbero essere presentate  
 (The mothers could be introduced to each other)

59 There is an apparent exception to the general ungrammaticality of cases like (131b) (the only one to our knowledge) represented by the case in (i), given in Kayne (1975, p. 407), and by its Italian counterpart in (ii).

- (i) Jean se fera connaître à Marie  
 (Jean will make himself known to Marie)
- (ii) ?Giovanni si fara' conoscere a Maria  
 (Giovanni will make himself known to Maria)

We would like to consider the possibility that this exception is in fact only apparent, and that the dative phrase in (i), (ii) is not the embedded subject, but rather a dative object of connaître/ conoscere, as is suggested by the glosses, and like the dative of the English "It was known to everyone". Under this view, cases like (i) and (ii) would not be cases of F-S as assumed by Kayne, but rather cases of F-VP, with the analysis "Giovanni<sub>i</sub> si<sub>i</sub> fara' [VP<sub>i</sub> conoscere [e] a Maria]", and hence would not be exceptional. Unfortunately, this account has its own problems, due to the fact that in Italian (and analogously in French), there appears to be no counterpart to the dative we just noted for English, as in (iii).

- (iii) Era conosciuto } ?\*a tutti  
                       } da tutti  
                       It was known   } to everyone  
                                     } by everyone

However, the dative is possible with derivatives of the verb, as in "Era sconosciuto a tutti/ It was unknown to everyone" and with related items, as in "Era noto a tutti/ It was known (adjective) to everyone".

60 Notice that we are now allowing clitics to govern (trace-government) empty categories across clause boundaries, as in the D-structure form for (134d), but we do not want them to govern empty categories across a clause boundary and in the embedded VP. Intuitively it is rather reasonable to expect that a clitic on the matrix verb should govern at most the embedded subject, and not objects in the complement.

However, from the formal point of view, this result is not achieved within our discussion, since we assume that government is simply C-command without major category boundaries intervening, and we assume that VP boundaries do not block government. We leave this formal problem unsolved.

61 We rather obviously expect at this point that those Raising verbs that take E should also fail to trigger the change of auxiliary, just like passive essere and unlike ergative verbs. Judgements here are not too clear, but they seem to us to roughly go in the direction we expect, as with the contrast here below, where partire is an ergative verb, and stare per is a Raising verb taking E.

- (i) Giovanni sarebbe già voluto partire  
Giovanni would have (E) already wanted to leave

(ii) ??Giovanni sarebbe già voluto stare per terminare la tesi  
Giovanni would have (E) already wanted to be about to  
finish his thesis

62 Rizzi suggests that this constraint on restructured complexes is essentially the same as the constraint which holds of base-generated verbal complexes and which permits only one auxiliary with the latter. This seems unsatisfactory, because (as discussed in Burzio (1978)) for example with a restructured pair there are clearly two different auxiliaries possible, giving rise to two non-synonymous forms. The two auxiliaries are just not allowed to cooccur.

63 The case in (155a) is marginally possible under a Raising interpretation of finire di (i.e. "Giovanni will end up going skiing..."), in those dialects which allow finire di (instead of finire per) as a Raising predicate. In fact (as noted in fn. 33, chapter 5), as a Raising verb, finire di selects E. The existence of finire di in some dialects will represent a partial exception to Kayne's generalization, which remains otherwise unchallenged.

64 Notice that since we assume that the change of auxiliary with reflexives is somewhat different than the change of auxiliary with ergative verbs, and is in fact due to climbing of the reflexive clitic (cf. discussion of (120) above), we may expect that E should be possible with finire di in the presence of a reflexive clitic which has undergone climbing. The case in point is the one in (i), which in fact seems better than the one in (155a), although judgements are not too sharp.

- (i) ??Appena mi saro' finito di fare la casa  
 As soon as I will have (E) finished to build a house for myself  
 al mare, pensero' a comprare uno yacht  
 at the sea, I will think about buying a yacht

65 The ungrammaticality remains, although it appears somewhat diminished, if the two phrases with which the pp must agree have the same person and

number features, as in (i).

- (i) (?)?Giovanni lo sarebbe già voluto andare a prendere  
Giovanni it would have (E) already wanted to go to fetch

As discussed in 6.5.1 above, we may assume that the problem relative to pp agreement derives at least in part from the fact that the pp agreement rule does not have a unique application, and not just from the conflict between the two sets of features.

66 Notice that some predictions also ensue here with respect to our suggestion of 6.7.2 on the lack of auxiliary with complements of fare.

In fact in a sequence "fare, V<sub>1</sub>, V<sub>2</sub>" where restructuring has applied to V<sub>1</sub> and V<sub>2</sub>, we would now expect that not only V<sub>1</sub>, but V<sub>2</sub> also should fail to appear with an auxiliary, since both V<sub>1</sub> and V<sub>2</sub> lack a Subject. Although facts tend to be less than crystal clear with such complex examples, they seem to go in the expected direction, as in the following, where (i) will contrast with (ii) in which there is no auxiliary, and with (iii) in which restructuring has not applied (note position of "lo").



We attribute the marginality of the variant with volere in (iii), at least in part, to the multiple infinitive prohibition.

67 Notice that the view that what is involved here is that volere, cominciare can appear with VP complements, would not extend to transitive VP's, given "?\*Cio' lo fara' voler leggere/ This will make want to read it",

or "\**Mario la fara' voler riparare/* (*Mario will have it wanted to repair*)". Therefore the view that sequences like cominciare ad intervenire are reanalyzed as ergative verbs may seem more likely. Analogous cases with cominciare such as "?*Mario la fara' cominciare a riparare/* (*Mario will have it begun to repair*)" turn out near grammatical, but this will not be surprising given our discussion in 6.4.6 above and our view that an embedded subject PRO under cominciare can be interpreted even in the absence of an antecedent. The analysis for the latter case will therefore be "*Mario la fara' [VP<sup>cominciare</sup> [VP<sup>a</sup> riparare NP<sub>Ø</sub>] [S<sup>PRO ---]]</sup>*" (cf. example (77b) above and discussion).

## BIBLIOGRAPHY

- Aissen, J., and D. Perlmutter (1976) "Clause Reduction in Spanish," Berkeley Linguistic Society II, 1-30.
- Anderson, S. (1977) "Comments on the Paper by Wasow," in P. Culicover, T. Wasow and A. Akmajian, eds., Formal Syntax, Academic Press, N.Y.
- Belletti, A. (1980) "'Morphological' Passive and Pro-Drop. A Note on the Impersonal Construction in Italian," unpublished ms., MIT.
- Belletti, A. and L. Rizzi (1980) "The Syntax of 'ne': Some Theoretical Implications," paper presented at the GLOW Conference, Nijmegen, unpublished ms., MIT and Scuola Normale Superiore.
- Belletti, A. and L. Rizzi (forthcoming) "The Syntax of 'ne': Some Theoretical Implications", The Linguistic Review.
- Borer, H. (1980) "Empty Subjects in Modern Hebrew and Constraints on Thematic Relations," NELS X.
- Borer, H. (1981) Parametric Variation in Clitic Configurations, MIT PhD dissertation.
- Bowers, J. (1973) Grammatical Relations, MIT PhD dissertation.
- Bresnan, J. (1971) "Sentence Stress and Syntactic Transformations," Language 47.2.
- Bresnan, J. (1972) Theory of Complementation in English Syntax, MIT PhD dissertation.
- Bresnan, J. (1978) "A Realistic Transformation Grammar," in M. Halle, J. Bresnan, and G. Miller, eds., Linguistic Theory and Psychological Reality, MIT Press.
- Burzio, L. (1978) "Italian Causative Constructions," Journal of Italian Linguistics 3.2.
- Chomsky, N. (1965) Aspects of the Theory of Syntax, MIT Press.
- Chomsky, N. (1970) "Remarks on Nominalizations," in R. Jacobs and P. Rosenbaum, eds., Readings in English Transformational Grammar, Ginn & Co.
- Chomsky, N. (1973) "Conditions on Transformations," in S.R. Anderson and P. Kiparsky, eds., A Festschrift for Morris Halle, Holt, Rinehart and Winston.
- Chomsky, N. (1974) Questions of Form and Interpretation, paper read at Linguistic Society of America Golden Anniversary Symposium, University of Massachusetts.

- Chomsky, N. (1975) Reflections on Language, Pantheon.
- Chomsky, N. (1977) "On Wh-Movement," in P.W. Culicover, T. Wasow, and A. Akmajian, eds., Formal Syntax, Academic Press.
- Chomsky, N. (1979) The Pisa Lectures, unpublished lectures, Scuola Normale Superiore.
- Chomsky, N. (1980) "On Binding," Linguistic Inquiry 11, 1-46.
- Chomsky, N. (forthcoming) Lectures on Binding and Government, Foris.
- Chomsky, N. and H. Lasnik (1977) "Filters and Control," Linguistic Inquiry 8, 425-504.
- Cinque, G. (1976) "Appropriateness Conditions for the Use of Passives and Impersonals in Italian," Italian Linguistics 1, 11-31.
- Cinque, G. (1979) "On Extraction from NP in Italian," unpublished ms., Padua and MIT; to appear in Journal of Italian Linguistics.
- D'Annunzio, Gabriele (1898) "Il Fuoco," in Prose di Romanzi, II. Milano: Mondadori, 1968.
- Dresher, B.E. and Hornstein, N. (1979) "Trace Theory and NP Movement Rules," Linguistic Inquiry 10, 65-82.
- Emonds, J. (1970) Root and Structure-Preserving Transformations, MIT PhD dissertation.
- Emonds, J. (1976) A Transformation Approach to English Syntax, Academic Press.
- Fiengo, R. (1974) Semantic Conditions on Surface Structure, MIT PhD dissertation.
- Freidin, R. (1978) "Cyclicity and the Theory of Grammar," Linguistic Inquiry 9.4.
- Freidin, R. and H. Lasnik (1981) "Disjoint Reference and Wh-Trace," Linguistic Inquiry 12.1.
- Grimshaw, J. (1979) "On the Lexical Representation of Romance Reflexive Clitics," Center for Cognitive Science, MIT, Occasional Paper #5.
- Gross, M. (1968) Grammaire Transformationnelle du Français: Syntaxe du Verbe, Larousse.
- Gross, M. (1975) Méthodes en Syntaxe, Hermann.
- Gueron, J. (1978) "The Grammar of PP Extrapolation," unpublished ms., Université de Paris VIII; to appear in Linguistic Inquiry 11.4.

- Herschensohn, J. (1979) The French Presentative As a Base Generated Structure, paper read at LSA winter meeting.
- Higginbotham, J. (1980) "Pronouns and Bound Variables," Linguistic Inquiry 11.4.
- Hornstein, N. (1981) "What's In a Trace?" unpublished ms., Columbia.
- Hornstein, N. and A. Weinberg (1981) "Case Theory and Preposition Stranding," Linguistic Inquiry 12.1.
- Hust, J. and M. Brame (1976) "Jackendoff on Interpretive Semantics," Linguistic Analysis 2, 243-277.
- Jackendoff, R. (1972) Semantic Interpretation in Generative Grammar, MIT Press.
- Jackendoff, R. (1975) "On Belief-Contents," Linguistic Inquiry 6.1.
- Jackendoff, R. (1977) X-Syntax: A Study of Phrase Structure, Linguistic Inquiry Monograph 2, MIT Press.
- Jaeggli, O. (1978) "Spanish Infinitival Complements," unpublished ms., MIT.
- Jaeggli, O. (1980) On Some Phonologically-Null Elements in Syntax, MIT PhD dissertation.
- Jenkins, L. (1972) Modality in English Syntax, MIT PhD dissertation.
- Jenkins, L. (1975) The English Existential, Niemeyer.
- Kayne, R.S. (1975) French Syntax, MIT Press.
- Kayne, R.S. (1979) "Rightward NP Movement in French and English," Linguistic Inquiry 10, 710-719.
- Kayne, R.S. (1980) "Extensions of Binding and Case-Marking," Linguistic Inquiry 11, 75-96.
- Kayne, R. (1981) "ECP Extensions," Linguistic Inquiry 12.1.
- Kayne R.S. (to appear a) "Two Notes on the NIC," in A. Belletti, L. Brandi, G. Nencioni, and L. Rizzi, eds. (to appear) Theory of Markedness in Generative Grammar-Proceedings of the III GLOW Conference.
- Kayne, R.S. (to appear b) "Binding, Quantifiers, Clitics and Control," in F. Heny, ed., Binding and Filtering, Croom Helm.
- Kayne, R.S. (to appear c) "On Certain Differences between French and English," Linguistic Inquiry 12.3 (French trans. to appear in Langages, 1980).

- Kayne, R.S. and J.Y. Pollock (1978) "Stylistic Inversion, Successive Cyclicity, and Move NP in French," Linguistic Inquiry 9, 595-621.
- Kiparsky, P. and C. Kiparsky (1968) "Fact," in D. Steinberg and L. Jakobovits, Semantics: An Interdisciplinary Reader in Philosophy, Linguistics, and Psychology, Cambridge University Press.
- Lieber, R. (1979) "The English Passive: An Argument for Historical Rule Stability," Linguistic Inquiry 10.4.
- Lightfoot, D. (1979) Principles of Diachronic Syntax, Cambridge University Press.
- Lightfoot, D. (1980) "The History of NP Movement," in T. Hoekstra, H. van der Hulst and M. Moortgat, eds., Lexical Grammar, Foris.
- Longobardi, G. (1979) "Remarks on Infinitives: A Case for A Filter," unpublished ms., Scuola Normale Superiore; to appear in Journal of Italian Linguistics.
- Longobardi, G. (1980a) "Modularity: From a Single Rule to Several Conditions Without Loss of Generalization: Evidence from 'Identificational Predicates,'" paper presented at the GLOW Conference, Nijmegen.
- Longobardi, G. (1980b) "Postille Alla Regola Di Ristrutturazione," unpublished ms., Scuola Normale Superiore.
- May, R. (1977a) "Logical Form and Conditions on Rules," in J.A. Kegl, D. Nash and A. Zaenen, eds., Proceedings of the Seventh Annual Meeting of the North Eastern Linguistic Society, MIT.
- May, R. (1977b) The Grammar of Quantification, MIT PhD dissertation.
- Milsark, G. (1974) Existential Sentences in English, MIT PhD dissertation.
- Napoli, D.J. (1973) The Two Si's of Italian, Harvard PhD dissertation.
- Obenauer, H.-G. (1976) Etudes de Syntaxe Interrogative du Français, Niemeyer.
- Partee, B.H. (1973) "The Semantics of Belief-Sentences," in J. Hintikka, J. Moravcsik, and B. Suppes, eds., Approaches to Natural Language, Reidel.
- Perlmutter, D. (1970) "The Two Verbs Begin," in R. Jacobs and P.S. Rosenbaum, eds., Readings in English Transformational Grammar, Ginn-Blaisdell.
- Perlmutter, D. (1978a) "Impersonal Passives and the Unaccusative Hypothesis," Proceedings of the Fourth Annual Meeting of the Berkeley Linguistics Society, UCLA.

- Perlmutter, D. (1978b) "The Unaccusative Hypothesis and Multiattachment: Italian Evidence," handout.
- Perlmutter, D. (1979) "Working l's and Inversion in Italian, Japanese, and Quechua," Proceedings of the Fifth Annual Meeting of the Berkeley Linguistics Society, UCLA.
- Pesetsky, D. (1978) "Complementizer-Trace Phenomena and the Nominative Island Condition," unpublished ms., MIT; to appear in Linguistic Review.
- Pollock, J.-Y. (1976) "Trace Theory and French Syntax: Some Problems," in H.C. van Riemsdijk, ed., Green Ideas Blown Up, University of Amsterdam, Publikaties van het Instituut voor Algemene Taalwetenschap, No. 13.
- Postal, P.M. (1974) On Raising, MIT Press.
- Quicoli, C. (1976) "Conditions on Clitic-Movement in Portuguese," Linguistic Analysis 2, 199-223.
- Radford, A. (1976) "Italian Syntax--Bidirectionality in Raising," unpublished ms., University of East Anglia.
- Radford, A. (1979) "Clitics Under Causatives in Romance," Journal of Italian Linguistics 4.1.
- Riemsdijk, H. van (1978) A Case Study in Syntactic Markedness, Peter de Ridder Press.
- Rivas, A. (1974) "Impersonal Sentences and Their Interaction With Clitic Movement in Spanish," unpublished ms., MIT
- Rivas, A. (1977) A Theory of Clitics, MIT PhD dissertation.
- Rizzi, L. (1976a) "Ristrutturazione," Rivista di Grammatica Generativa 1, 1-54.
- Rizzi, L. (1976b) "La MONTEE DU SUJET, le si impersonnel et une regle de restructuration dans la syntaxe italienne," Recherches Linguistiques 4, 158-184.
- Rizzi, L. (1978a) "A Restructuring Rule in Italian Syntax," in Recent Transformational Studies in European Languages, S.J. Keyser, ed., Linguistic Inquiry Monograph Three, MIT Press.
- Rizzi, L. (1978b) "Violations of the wh-island constraint in Italian and the subjacency condition," in Montreal Working Papers in Linguistics, 10.
- Rizzi, L. (1979) "The PRO-Drop Parameter," paper read at MIT.
- Rizzi, L. (1980a) "Negation, WH-Movement and the PRO-Drop Parameter," paper given at the IV GLOW Conference, Nijmegen.

- Rizzi, L. (1980b) "Comments on Chomsky's Paper 'A Rationalist Approach to Language and Cognition,'" unpublished ms., Universita della Calabria.
- Rizzi, L. (forthcoming) "Negation, WH-Movement and the Null-Subject Parameter," Universita della Calabria.
- Rizzi, L. (To Appear) "Nominative Marking in Italian Infinitives and the Nominative Island Constraint," in F. Heny, ed., Proceedings of the 1978 GLOW Conference, Amsterdam.
- Ross, J.R. (1967) Constraints on Variables in Syntax, MIT PhD dissertation.
- Ross, J.R. (1972) "More on 'begin'," Foundations on Language 8.4.
- Rouveret, A. and J.-R. Vergnaud (1980) "Specifying Reference to the Subject: French Causatives and Conditions on Representations," Linguistic Inquiry 11, 97-202.
- Ruwet, N. (1972) Théorie Syntaxique et Syntaxe du Francais, Editions du Seuil.
- Siegel, D. (1973) "Nonsources of Unpassives," in J. Kimball, ed., Syntax and Semantics, 2, Seminar Press.
- Solan, L. (1977) "On the Interpretation of Missing Complement NPs," unpublished ms., University of Massachusetts, Amherst.
- Strozer, J. (1980) "An Alternative to Restructuring in Romance Syntax," paper read at the Tenth Anniversary Linguistic Symposium on Romance Languages, Univ. of Wash.
- Stowell, T. (1978) "What Was There Before There Was There," unpublished ms., MIT.
- Stowell, T. (1979) "Stylistic Movement Rules," unpublished ms., MIT.
- Taraldsen, K.T. (1978) "On the NIC, Vacuous Application and the That-Trace Filter," ms., MIT, Indiana Linguistics Club, 1980.
- Valesio, P. (1976) "Between Italian and French: The Fine Semantics of Active Versus Passive," Italian Linguistics 1976/1.
- Van Tiel-Di Maio, M.F. (1975) "Una proposta per la sintassi dell' italiano: V-Raising," to be published in Atti del IX Congresso annuale della Società di Linguistica Italiana - Roma, 1975.
- Van Tiel-Di Maio, M.F. (1978) "Sur le Phénomène Dit du Déplacement 'Long' des Clitiques et, en Particulier, sur les Constructions Causatives," Journal of Italian Linguistics 3.2.
- Vergnaud, J.-R. (1971) "The Faire-Construction," unpublished ms., MIT.

- Wasow, T. (1977) "Transformations and the Lexicon," in P. Culicover, T. Wasow, and A. Akmajian, eds., Formal Syntax, Academic Press.
- Williams, E. (1975) "Small Clauses in English," in J. Kimball, ed., Syntax and Semantics, vol. 4, Academic Press.
- Williams, E. (1980) "Predication," Linguistic Inquiry 11.1.
- Zubizarreta, M.L. (1979) "Pour une Restructuration Thematique," Recherches Linguistiques, Universite Paris VIII-Vincennes, 9, 141-187.

#### BIOGRAPHICAL NOTE

The author was born in Cafasse, near Turin, Italy, April 1, 1943. He had the opportunity, not too common in the environment in which he grew up, to go to high school, where he studied science and technology, graduating in 1962 with a diploma in telecommunications (electrical engineering).

From 1962 to 1973, and with a brief interval for military obligations, he was employed by Fiat, Turin, in the capacity of electronics technician. In 1964-65 he served in the Italian army, where he achieved the rank of second-lieutenant.

In 1970 he enrolled at the University of Turin, to study English and American literature. In 1973 he was awarded a scholarship by Brandeis University, Waltham, Mass., under a program of cultural exchanges, and moved to the U.S.

In 1975 he graduated from Brandeis University with a B.A. degree magna cum laude, and was awarded Phi Beta Kappa. He was a graduate student at M.I.T., department of Linguistics and Philosophy from 1975 to 1981.

At various times between 1974 and 1979 he worked as an electronics technician at Brandeis University and at the Analogic Corporation, Wakefield, Mass.

He has published "Italian Causative Constructions" in Journal of Italian Linguistics 1978, 3.2.

His favorite hobbies include practical tasks such as building and repairing various gadgetry. He is a dedicated skier.