

LICENSING AND INTERPRETATION OF INVERTED
SUBJECTS IN ITALIAN

Manuela Pinto

LED, Utrecht

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Table of Contents

Acknowledgements		vii
Introduction		1
1	Subject Inversion	1
1.2	Free Inversion	2
2	Possible Approaches	4
2.1	Syntactic Views	6
2.2	The Role of Interpretation	8
3	This Study	9
Chapter 1	The Distribution of Subject Inversion	11
Introduction		11
1	Word Order and Focus	12
1.1	Free Word Order	12
1.2	Information Packaging	13
1.3	Some Assumptions on Focus	15
1.4	Wide Focus and Narrow Focus	16
2	Inversion and Argument Structure	19
2.1	Unaccusativity	20
2.2	Extra Arguments	23
2.2.1	The Properties of LOC	25
3	Non-Inversion Verbs	26
3.1	Non-Inversion Verbs and Focus	27
4	Overt Arguments and Inversion	30
5	The Projection of Extra Arguments in Syntax	33
6	A Few Conclusions	35

Chapter 2	The Interpretation of Subject Inversion	37
Introduction		37
1	Definite Subjects	37
1.1	Interpretive Factors	38
1.2	Definiteness Effects	40
1.3	The Definiteness Effect in Italian	41
1.3.1	DE as a Syntactic Phenomenon	42
1.3.2	Partitive Case and Partitive Interpretation	44
1.4	The Interpretive properties of the DE	46
1.4.1	Unambiguous Reference	50
1.5	The Role of Focus	55
1.6	Definiteness at a Comparative Level: <i>There</i> -sentences	59
1.7	Definite Subjects with Non-Inversion Verbs	62
2	Indefinite Subjects	64
2.1	Indefinite Subjects of Inversion Verbs	67
2.1.1	The Interpretation of the Postverbal Indefinite Subject	67
2.1.2	The Interpretation of the Preverbal Indefinite Subject	69
2.2	Strong and Weak Interpretation	72
2.2.1	Specificity vs. Partitivity	72
2.2.2	Indefinite Subjects in Dutch	76
2.2.3	The Referential Reading	78
2.2.4	VP-internal Subjects in Dutch	81
2.2.5	Problems with Referentiality	83
2.3	A More Precise Generalization for Italian Indefinites	84
2.3.1	A Problematic Case	89
2.4	Indefinite Subjects of Non-Inversion Verbs	95
2.4.1	Non-Inversion Unergatives	95
2.4.2	Non-Inversion Unaccusatives	97
2.4.3	Non-Inversion Transitives	98
2.5	A Generalization for Indefinite Subjects	

	of Non-Inversion Verbs	99
2.6	An Apparent Exception	100
Chapter 3	A Minimalist View of the Syntax of Inversion	105
	Introduction	105
1	Theoretical Background	105
1.1	The Core System	106
1.2	Subject Features	107
1.3	D-features	109
1.4	Considerations of Economy	111
	1.4.1 The Minimal Link Condition	112
	1.4.2 Equidistance	113
	1.4.3 Phonological Heaviness	113
1.5	Summary	115
2	Preverbal and Postverbal Subjects	115
2.1	Facts to Be Explained	115
2.2	The Hypothesis	119
2.3	Focus	120
3	Syntactic Constraints on Inversion	127
3.1	Evidence for a Covert Argument	128
3.2	The Role of the Covert Argument	131
3.3	The Position of the Subject	132
	3.3.1 V-raising and Object Raising	135
3.4	Checking of the Strong D-feature of INFL in Inversion Contexts	136
	3.4.1 The Status of LOC and its Features	137
	3.4.2 The EPP and Economy	140
	3.4.2.1 Option 1: LOC is a <i>pro</i>	143
	3.4.2.2 Option 2: LOC is a Covert Clitic	150
3.5	Case and Phi-Features	152
3.6	Some Predictions	152
4	Overt Arguments and Inversion	154
4.1	Locative Inversion in Italian	156
4.2	The Syntax of Locative Inversion	158

4.2.1	Interface Economy	160
4.2.2	Same Numeration	161
4.2.3	Different Numeration	162
4.2.3.1	PP-raising	162
4.2.3.2	PP-merging	165
4.2.3.3	Overt PP and LOC	165
4.3	Deixis	169
4.4	The Comparative Aspect	170
4.5	Summary and a Few Conclusions	173
5	When the Loco/Temporal Argument Is Missing	175
5.1	Non-Inversion Verbs	175
5.2	Postverbal Indefinite Subjects	178
5.3	Alternative Strategies for Satisfaction of the EPP	182
Chapter 4	Subject Inversion at the Interpretive Interface	185
	Introduction	185
1	The Strong/Weak Distinction of Indefinites	186
1.1	The Generalization in Italian	188
1.2	The Strong/Weak Distinction across Languages	191
1.3	Diesing's Hypothesis	194
2	An Evaluation of the Mapping Hypothesis	198
2.1	The Strong/Weak Distinction with Inversion Verbs	198
2.2	The Strong/Weak Distinction with Non-Inversion Verbs	202
3	A Possible Explanation of the Italian Facts	205
3.1	The Syntax of Indefinites	207
3.2	Existential Indefinites	209
4	The Effects of Focus on the Distribution of Subjects	213
4.1	Obligatory Preverbal Subjects: Anaphoric Definites	213
4.1.1	Anaphoric Destressing	215
4.1.2	Anaphoric Destressing and Syntax	216
4.1.3	Other Related Interpretive Facts	221

4.1.4	Summary	223
4.2	Obligatory Postverbal Subjects	223
4.2.1	Narrow Focus in English and Dutch	226
4.2.2	The Limits of Syntax	229
4.2.3	Narrow Focus in Italian	231
4.2.4	Conclusions	236
4.3	Contrastive Focus	236
 Appendix to Chapter 3		
	Clitics	241
1	Clitics and the EPP	241
1.1	One Clitic Complement	241
1.2	Two Clitic Complement	244
 References		247
 Samenvatting (Summary in Dutch)		253
 Riassunto (Summary in Italian)		257
 Curriculum Vitae		261

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Introduction

1 Subject Inversion

The term *subject inversion* refers to the relative linear word order of subject and verb at surface structure. Assuming that the standard subject position is in front of the finite verb, we speak of subject inversion when the subject shows up postverbally. In languages such as Spanish, Catalan and Italian this phenomenon is very common.

Spanish: VOS or VSO

- 1 a Ayer resolvió el problema Juan.
yesterday solved the problem John
- b Ayer resolvió Juan el problema.
yesterday solved John the problem

Catalan: VOS

- 2 Ahir va rentar la roba el Pere.
yesterday washed the clothes Pere

Italian: V(O)S

- 3 Ha telefonato Beatrice.
has called Beatrice

Subject inversion has been argued to correlate with another property of these languages, i.e. the possibility of omitting the subject pronoun (Burzio 1981,1986, Rizzi 1982). Consider (4), which illustrates this phenomenon for Italian:

- 4 Ho telefonato alle tre.
pro have called at three
I called at three

In constructions like (4) the null subject *pro* is licenced and interpreted by an Inflection which has pronominal properties. The availability of such properties on INFL was argued to license the expletive *pro*, which is assumed to occupy the preverbal subject position in inversion constructions.

However, subject inversion, does not seem to be limited to pro-drop languages. Although in a different fashion and with a limited degree of freedom, this phenomenon shows up in a variety of non-pro-drop languages too, as is illustrated in the examples below.

French: Stylistic Inversion (Kayne & Pollock, 1978) and ‘*il*’-sentences.

- 5 a Quand partira ton ami?
 when will leave your friend
 b Je me demande quand partira ton ami.
 I wonder when will leave your friend
 c Il est arrivé une fille.
 it is arrived a girl

English: Locative Inversion (Emonds, 1976) and ‘*there*’-sentences.

- 6 a Down the hill rolled the baby carriage.
 b There came a man into the room.

1.2 Free Inversion

Subject inversion in languages like Spanish, Catalan, Italian has been claimed to be free. The term *free* normally refers to the absence of particular syntactic conditions that may block the occurrence of inversion. So, for instance, the fact that a language like French does not have free inversion is due to a language-specific condition that only allows a postverbal subject in a *wh*-context (Kayne & Pollock, 1978):

- 7 a Quand partira Pierre?
 when will leave Pierre
 b *Demain partira Pierre.
 tomorrow will leave Pierre

English *there*-sentences too (and ‘*il*’-sentences in French) appear to have constraints of a syntactic nature. The following examples require an overt expletive in subject position. If the expletive is missing, inversion is not possible.

- 8 a There arrived a student.
 b *Arrived a student.

By contrast, subject inversion in Spanish, Catalan and Italian, does not seem to be restricted by syntactic factors. Compare (7b) and (8b) with the correspondent Italian examples below:

- 9 a Domani arriva Dante.
 tomorrow arrives Dante
 b E’ arrivato uno studente.
 is arrived a student

The fact that subject inversion is assumed to be free also reflects the tendency, especially in the past decades, to abstract away from intonational patterns and interpretive differences and to concentrate solely on the structural properties of a clause. However, as we will see in more detail in the next chapters, (10a) and (10b) differ in an important respect:

- 10 a E’ arrivata Beatrice.
 is arrived Beatrice
 b L’ha scritto Dante.
 it-has written Dante

(10a) has neutral intonation and is a felicitous answer to the out-of-the-blue question *cosa è successo?* ‘what happened?’. In contrast, (10b) has a narrow focus interpretation of the postverbal subject and can only be interpreted as the answer to the question *chi ha scritto questo?* ‘who wrote this?’. (10b) is not a felicitous answer to an out-of-the-blue question. So, from an interpretive point of view, subject inversion in Italian may be free from syntactic constraints, but appears to be subject to factors of an interpretive/pragmatic nature.

2 Possible Approaches

The standard Principles and Parameters analysis of inversion in Italian dates back to Burzio (1981, 1986) and Rizzi (1982), and is based on Chomsky's (1981) theoretical framework. Burzio and Rizzi faced the problem of providing an account for the licensing and interpretation of a subject which does not show up in the canonical subject position and which cannot be assigned nominative case by INFL according to the standard procedure. The solutions proposed by Burzio and Rizzi capitalized on the analogy between subject inversion in Italian and 'there'- and 'il'-sentences in English and French, respectively. Consider (11):

- 11 a There came a man.
 b Il est arrivé trois filles.
 it is arrived three girls
 c Hanno telefonato tre ragazze.
 have called three girls

Although each of these constructions requires language-specific well-formedness conditions (see Kayne & Pollock 1978 for French, and Emonds 1976 for English), it is possible to envisage a unified analysis that reduces these constructions to a structure with an expletive (a *dummy* element) in subject position and the subject adjoined to the right of VP, as in (12):

- 12 dummy_i INFL_i [_{VP}[_{VP} verb] subject_i]

Since the subject cannot be assigned Case by INFL, a special device is assumed that transmits Case to the postverbal subject. Rizzi (1982) defines this mechanism in the following way:

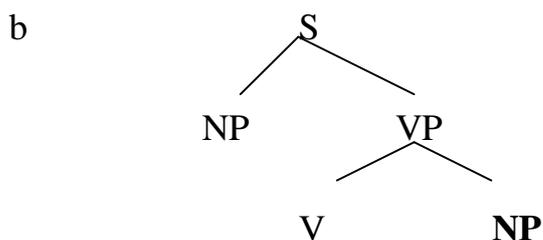
- 13 in the structure
 ... dummy_i...NP_i...
 where NP_i is coindexed with and in the domain of dummy_i, copy
 the case of dummy_i on NP_i.

The dummy element, an expletive inserted at D-structure, is assigned Nominative Case by INFL, and transmits it to the postverbal subject via conven-

tion (13). Whereas in English and French the dummy element is overtly realized in the form of the expletives *there* and *il*, the Italian counterpart is a phonologically null category, referred to as *pro*. The fact that inversion in Italian does not require the presence of an overt subject is ascribed to the pro-drop nature of this language, i.e. to the possibility of omitting the subject pronoun in standard subject position (see (4) above). Rizzi proposes that the availability of a null subject *pro* in constructions like (4), is made possible by the pronominal nature of inflection, which can license and identify the null category. That the standard subject position in a sentence with inversion is occupied by a null expletive is analyzed as a natural consequence of the pronominal properties of INFL.

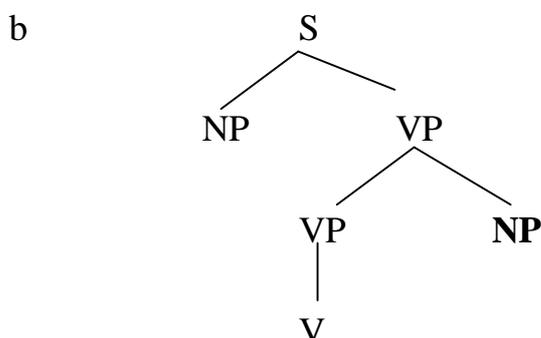
Burzio (1981, 1986) further refines this account of inversion. By developing Perlmutter's (1978) idea that certain subjects are underlying objects, he shows that the position occupied by an inverted subject in a sentence with a transitive or unergative verb differs from the position occupied by the inverted subject of an unaccusative verb. Whereas postverbal subjects of transitive and unergative verbs are adjoined to the right of VP, postverbal subjects of unaccusative verbs just occupy their base position, which is the node where the direct object is generated. This is illustrated in (14) and (15):

- 14 a Arriveranno molti esperti.
will arrive many experts



the postverbal subject is base-generated

- 15 a Telefoneranno molti esperti.
will call many experts



the postverbal subject is adjoined to VP

2.1 Syntactic Views

There are two main features that characterize this early approach and that directly concern this study: 1) the optionality attributed to the process of inversion and 2) the assumption of a transmission convention for Case assignment.

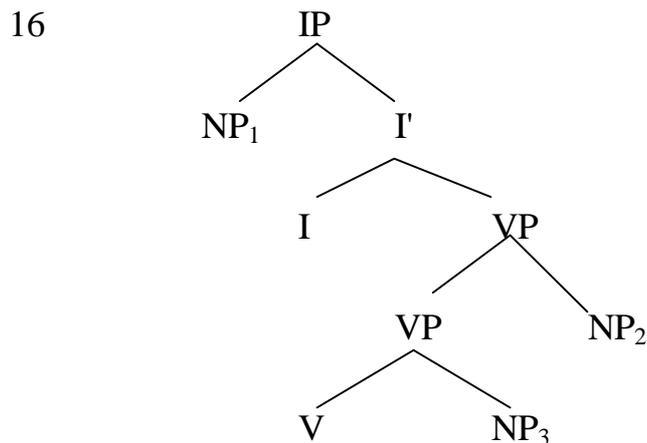
As was pointed out above, Rizzi and Burzio restrict their analyses to the *distribution* of subject inversion, i.e. to the occurrence of the inverted word order V(O)S, neglecting possible intonational or interpretive differences. From this perspective, inversion appears to be an optional operation since a language may choose between two (and in the case of unaccusatives, three) subject positions, i.e. the standard preverbal position, the position adjoined to the right of the VP, and, for subjects of unaccusatives, the complement position in which they are generated.

The availability of different positions for the subject obviously raises the question of how to satisfy general principles of well-formedness, first of all the requirement that nominal phrases must have *Case*. Independently of the exact position in which the postverbal subject shows up, the fact that it shows up to the right of the verb represents a problem, since it does not occupy the canonical subject position and Case cannot be assigned by INFL under government according to the standard procedure. In the last decade, the study of subject inversion was mainly concerned with finding a solution for this problem.

For *there*- and *il*-sentences in English and French, respectively, it was assumed that the preverbal expletive and the postverbal subject were coindexed and that nominative case and theta-role were assigned to the exple-

tive by INFL and then transmitted to the associate in postverbal position. Given the analogy between these constructions and subject inversion, it was a natural move to extend this procedure of case assignment to the Italian data. The assumption of a transmission procedure, however, is not independently motivated and at best it is only an adequate description of the phenomenon. In addition, such a mechanism is extremely powerful.

This approach is critically discussed in Belletti (1988) who rejects the Case transmission procedure and instead proposes an alternative based on Case. Following Sportiche (1988), Belletti assumes that nominative Case in Italian can be assigned in two ways: via Spec-Head agreement and via direct government. Then, in the structure in (16), the preverbal subject NP₁ and the postverbal subject NP₂, adjoined to the right of VP, are assigned nominative by INFL under direct government (on the assumption that government of NP₂ is not blocked by the intervening VP node, see Chomsky 1986a).



However, NP₃ in object position is not governed by the higher INFL since two VP nodes intervene. NP₃ can thus only be assigned inherent Case by the adjacent unaccusative verb. Belletti argues that this Case is *partitive* Case. Since partitive Case is assumed to impose an indefiniteness requirement on the nature of the selected NP, it follows that only indefinite subjects can occupy the NP₃-position.

Belletti's analysis thus makes an important prediction. Subject inversion in Italian is free, with one exception: the object position of unaccusative verbs requires an indefinite DP. This approach represents a first step towards a more constrained account of subject inversion.

Pinto (1991) and Delfitto & Pinto (1992) further explore the role of Case theory as a possible constraint on subject inversion. On the basis of empirical evidence, they argue that what distinguishes inversion verbs from non-inversion verbs is the presence, in the argument structure of the former class of verbs, of a covert loco/temporal argument. Crucially, this loco/temporal argument makes possible Nominative Case assignment to the postverbal subject. Verbs that do not allow subject inversion (with the same neutral interpretation) seem to lack a locative argument (Benincà, 1988). Pinto and D&P's attempt is that of proposing a principled explanation for subject inversion. However, the real innovative aspect of this analysis consists in showing that certain interpretive aspects of inversion (like, for instance, differences in argument structure and the presence of *pro*) can be embedded in a syntactic analysis.

2.2 The Role of Interpretation

The study of subject inversion up to the late eighties was mainly focused on the strictly syntactic properties of this phenomenon. As far as I know, it was Calabrese (1991) who first paid attention to the interpretive and informational properties of inversion sentences and who showed that non-syntactic factors may determine the distribution of subjects in the clause. Every sentence is associated with a particular logical form and a particular informational structure. The former provides instructions about how to interpret an utterance at LF. The second organizes the informational content of an utterance (focus) in terms of old/new material with respect to the discourse.

According to Calabrese, it is the combination of these two factors that determines the distribution of subjects in Italian. So, a *presentation* sentence, which is used either to introduce the referent of an argument or a new topic into the discourse, must have the subject in postverbal position so that it can be marked with focus. On the other hand, a *predication* sentence, consisting of a subject of predication and of a predicate, normally assigns focus to the VP or to the whole sentence (see also Guéron 1980). This entails that the subject has to occur in preverbal position. The option for the predication structure or for the presentation structure is thus determined on the basis of the interpretation. Therefore, from a strictly syntactic point of view, subject inversion is always possible. However, the appropriateness of inversion in a

particular context is determined by considerations of an interpretive and informational nature.

3 This Study

By now, it is well-established that the distribution of subject inversion in Italian is determined by two sorts of factors: syntactic principles that determine the wellformedness of the relevant sentences, and conditions of an interpretive nature that determine their appropriateness on a pragmatic level. A felicitous sentence is thus determined by the matching of a wellformed derivation with the correct interpretation.

The present study challenges this view. The acceptability of a clause is indeed determined by its structural wellformedness combined with its interpretive adequacy. However, the interaction between syntax and interpretation is not trivial. On the one hand, we will see that certain interpretive effects, in fact, derive from the structural properties of the element or of the construction involved. On the other hand, certain syntactic operations will appear to be triggered by conditions of an interpretive nature.

The theoretical framework I will adopt is that of the Minimalist Program developed in Chomsky (1995), integrated with Reinhart's (1995, 1996) ideas on economy. Chomsky's Minimalist view of grammar will permit us to maintain the autonomy of syntax, without losing empirical adequacy. On the other hand, Reinhart's attention to the interpretive aspect of language combined with her rigorously formal approach will provide the appropriate tools for a clear analysis of the interpretive factors involved and of their interaction with the computational system.

This study consists of two parts: chapter 1 and chapter 2 present the relevant facts concerning the distribution and the interpretation of subjects in Italian. Chapter 3 and chapter 4 offer a formal account of the facts observed.

Chapter 1 shows that inversion with the wide focus interpretation of the clause is limited to a certain class of verbs. By developing Pinto's (1991) and Delfitto and Pinto's (1992) main idea, it is argued that this class of verbs is characterized by a peculiar lexical property, i.e. by the presence of an additional loco/temporal argument, LOC. Verbs without LOC appear to allow inversion only with the narrow focus reading of the subject.

Chapter 2 discusses certain interpretive effects that seem to be related to the structural position of the subject. This chapter simply aims at giving a precise description of the interpretive notions involved in these constructions and of their real or alleged correlation with the position of the subject.

Chapter 3 proposes an analysis of the Italian facts along the lines of Chomsky (1995). From this minimalist perspective, subject inversion is analyzed as an epiphenomenon deriving from the interaction of three factors: a syntactic principle, the Extended Projection Principle, lexical and structural properties of the constituents involved, and conditions on economy.

Finally, Chapter 4 is concerned with the possible explanation of a number of facts that, *prima facie*, seem to elude a principled account: the strong/weak distinction of indefinites, the narrow focus reading of the subject, and some minor interpretive facts. I will show that a plausible account of these problematic cases may rely on Reinhart's (1995, 1996) notion of *interface economy*.

Chapter 1

The Distribution of Subject Inversion

Introduction

Few people will deny that subject inversion is affected by factors of interpretation and use. Roughly speaking, syntax allows the subject to occur either in preverbal or in postverbal position and it is to pragmatics to decide whether a certain word order corresponds to the required interpretation.

The present study departs from this view by presenting a unified account of both the syntactic and the interpretive aspect of inversion. I will maintain that the wellformedness of inversion constructions is determined by syntax. The distribution of arguments in the clause is determined by the interaction of particular properties of the verbs at the level of argument structure with core principles of the computational system. I will also show that (at least some of) the interpretive aspects correlating with inversion naturally derive from the adopted syntactic system.

The next pages aim at giving a detailed description of the characteristics of inversion constructions in Italian. In the first section I will present some data that seem to confirm the idea that the distribution of subjects is determined by interpretive factors (in this case, by focus). In section 2 I will emphasize the fact that focus must just be seen as a diagnostic for inversion, not as the trigger for it. Unexpected, but consistent differences in the meaning of the predicates support the hypothesis that inversion correlates with the presence of an additional loco/temporal argument in the thematic structure of inversion verbs. The rest of the chapter provides additional evidence for this hypothesis. In section 3 I examine the distribution of subjects in non-inversion verb contexts. The unavailability of inversion with the wide focus interpretation appears to correlate with the absence of the loco/temporal argument. Section 4 contains a brief discussion of another form of subject inversion, i.e. locative inversion. Despite the obligatory presence of an overt PP in clause-initial position, this construction turns out to share a number of properties with standard instances of subject inversion. In section 5 I view the

presence of the loco/temporal argument from the perspective of Hale & Keyser's (1993) approach to lexical structure.

Before we turn to the discussion of the facts, a terminological clarification is due. The data I will examine below will be evaluated on the basis of two criteria: their structural wellformedness on the syntactic level, and their acceptability on the discourse level. For the latter notion I will alternatively use the terms *acceptable/unacceptable* or *felicitous/infelicitous*. Illformedness will be marked with *, infelicity with #.

1 Word Order and Focus

We start by examining the syntactic distribution of subjects and their possible interpretations in terms of focus. As will become clear in the course of the discussion, the encoding of focus in language appears to be sensitive to syntactic factors. In chapter 3 I will provide a formal account for this intuition. As for this first section, we will discuss the hypothesis that certain properties on the level of argument structure may determine the occurrence of the subject in preverbal or postverbal position and may indirectly affect its focus interpretation.

1.1 Free Word Order

In Italian virtually every verb can show up with a preverbal or a postverbal subject. This is illustrated in (1)-(3), where examples are given for each of the three main verb classes:

- | | | |
|---|---|---|
| 1 | a | Dante è arrivato.
<i>Dante is arrived</i> |
| | b | E' arrivato Dante.
<i>is arrived Dante</i> |
| | c | Due navi sono affondate.
<i>two ships are sunk</i> |
| | d | Sono affondate due navi.
<i>are sunk two ships</i> |

- 2 a Beatrice ha pianto.
 Beatrice has cried
- b Ha pianto Beatrice.
 has cried Beatrice
- c Molti studenti hanno parlato.
 many students have talked
- d Hanno parlato molti studenti.
 have talked many students
- 3 a Beatrice ha scritto una lettera d'amore.
 Beatrice has written a love letter
- b Ha scritto una lettera d'amore Beatrice.
 has written a love letter Beatrice
- c Un linguista famoso ha recensito questo articolo.
 a famous linguist has reviewed this article
- d Ha recensito questo articolo un linguista famoso.
 has reviewed this article a famous linguist

Unaccusative (1), unergative (2, 8) and transitive (3) verbs besides the standard SV(O) order also allow the V(O)S order. All these instances of postverbal subjects are grammatical. This set of data provides the *prima facie* evidence for the claim that subject inversion in Italian is free (Chomsky 1981, Rizzi 1982, Burzio 1986, Belletti 1988). Strictly speaking, (1), (2, 8) and (3) show the same word order. However, at an interpretive level, the examples in (1) radically differ from those in (2, 8) and (3). Before proceeding, however, let us introduce a few terminological terms that will make the discussion clearer.

1.2 Information Packaging

From a pragmatic point of view, the aim of communication is to transmit information. Hence, every sentence we utter should contain an informative part which I will refer to as the *assertion* of the sentence.

The size of the assertion can vary from one single word to the whole clause, depending on the amount of information the speaker wants to commu-

nicate. Crosslinguistically, the assertion can be determined in different ways. Languages with a rather fixed word order make use of a prosodic mechanism, which marks the informationally new part of the sentence with a heavier accent. As illustrated in (4), this is the option chosen by English. The constituent bearing the heavier accent is in upper case. Whereas the word order remains unchanged, the intonational contour varies according to which constituent represents the assertion:

- 4 a I met a man with a red SHIRT.
 b I met a man with a RED shirt.
 c I met a MAN with a red shirt.
 d I MET a man with the red shirt.

Other languages encode information directly in syntax, by establishing a correlation between a certain position and the informational status of the element occupying it. Italian appears to opt for this strategy. New information has a clear preference for a sentence final position. This is illustrated in (5). The glosses give the equivalent in English, where, as we just saw, a prosodic strategy is used.

- 5 a L'ha scritta Dante.
 it-has written Dante
 b Beatrice ha telefonato, (non ha scritto).
 Beatrice has called not written

In the linguistic literature, the notion which deals with the informational status of an utterance or of part of it, is normally referred to as *focus*. As we just saw, focus can be encoded in the structure or realized by means of a particular prosodic pattern. This is possible since focus is a complex phenomenon: it has relevance at the syntactic level, at least in languages like Italian. It correlates with certain prosodic properties like stress and intonational contour. And it affects interpretation, by signalling the new informational status of a given discourse entity. Given this plurality of aspects, focus has been approached from different theoretical perspectives, and has perhaps therefore led to some terminological confusion.

In this study I will refer to an analysis of focus that combines Vallduví's (1990, 1993) insights on information packaging with Cinque's (1993) ideas about the correlation between nuclear stress and focus marking and with its implementation in a minimalist framework as in Reinhart (1995). From Zubizarreta (1994) I will adopt *prosodic movement*, a marked rule that must be assumed in order to account for certain word orders that cannot be generated by the computational system but that are pragmatically necessary. Finally, I will distinguish between *informational* focus and *contrastive* focus. Following Vallduví (1990, 1993) and Lambrecht (1994) I will assume that contrastive focus is not a notion that can be defined in formal terms, but rather the result of conversational mechanisms at the pragmatic level. We will return to the issue of contrastive focus in chapter 4. The relevant theoretical notions I am assuming, will be introduced in the course of the discussion.

1.3 Some Assumptions on Focus

In Italian focus is realized in syntax: informationally new material must occupy a sentence final position. However, a syntactic realization of focus does not exclude variation in the intonational contour of the relevant utterance. Interestingly, focus marking in Italian appears to correlate with stress. As observed by Cinque (1993), a focused constituent either bears main stress or contains a word that bears main stress.

Cinque proposes a unified account of these facts. He assumes the existence of a universal stress rule that assigns an intonational contour to each sentence. At the interface with the interpretive component, the constituent containing the word with main stress gets a focused reading. The details of Cinque's analysis will be discussed in chapter 3, in the light of the minimalist interpretation that Reinhart (1995) gives of it.

Along with prosody and syntax, we saw that focus involves interpretation, as well. What is the *meaning* of focus? Following Vallduví (1990, 1992), I will assume that focus indicates the informationally new status of a given element. Vallduví's account emphasizes the purely informative role of focus. Focus marking is information packaging. The mechanism chosen for focus marking varies crosslinguistically, but the final result is unique, i.e. a clear distinction between the informative part of an utterance, the assertion (in focus), and the rest of the clause that he distinguishes into *link* and *tail*

and which contain instructions for further processing of the newly acquired information.

Given this brief introductory background, we turn again to subject inversion in Italian.

1.4 Wide Focus and Narrow Focus

Although the examples in (1) to (3) support an analysis of subject inversion in Italian as a free process, I advanced the hypothesis that this is not the correct generalization. My claim is based on empirical evidence provided by the interpretive and intonational properties of the relevant constructions. In other words, I suggest that the inversion constructions in (1) to (3) are only superficially uniform. Although they show the same word order, their informational status, their prosodic properties and, crucially, their syntactic structures are essentially different.

A useful device in order to detect the structure of informational packaging of a given utterance consists in constructing question/answer pairs. The function of a question is that of isolating that part of the answer which is supposed to be informationally new, i.e. the assertion. Consider (6):

- 6 Che cosa è successo?
 what happened
- a E' arrivato Dante.
 is arrived Dante
- b #Ha pianto Beatrice.
 has cried Beatrice
- c #Ha scritto una lettera d'amore Beatrice.
 has written a love letter Beatrice

Whereas (6a) is perfectly correct, (6b) and (6c) are not felicitous answers in this context. In fact, although (6b) and (6c) are syntactically well-formed, their interpretation is not adequate to the situation. In other words, although syntactically unrestricted, subject inversion in Italian appears to be constrained at an interpretive level. Let us closely consider the interpretive and intonational properties of the sentences in (6).

The question in (6) is what I will call an *out-of-the-blue* question, i.e. a question that does not presuppose any previous information about the context of the conversation. Therefore, a felicitous answer to (6) must be *all* informative, i.e. the whole clause is the assertion. While (6a) appears to be such an answer, (6b) and (6c) do not. As discussed above, information packaging is associated with specific prosodic properties.

This is observed also by Zubizarreta (1994) who distinguishes between two main focus patterns: the neutral pattern, or *wide focus* and the marked pattern or *narrow focus*. Both types of focus have distinct interpretive and prosodic properties. In the case of wide focus, the assertion consists of the whole sentence, such as in (6a). The intonational contour associated with it is neutral, i.e. it is the normal stress assigned to the utterance by Cinque's (1993) nuclear stress rule. Conversely, in the case of narrow focus, the assertion consists of a single constituent, as in (6b) and (6c). In this case the neutral pattern (obtained by the nuclear stress rule) is often modified, as we will see, by special (language specific) mechanisms. These mechanisms have the effect of modifying the informational packaging of the utterance, hence, the intonational contour associated with narrow focus is said to be marked.

In what follows, I will essentially adopt Zubizarreta's terminology. However, differently from Zubizarreta, I will refer to narrow focus not only in the case of marked stress (as the result of specific mechanisms), but also in the case of neutral focus involving a unique constituent. A detailed discussion of the encoding of marked focus is postponed till chapter 4.

For ease of exposition I will refer throughout this study to wide focus and narrow focus *interpretations*, implicitly presupposing the combination of interpretive and prosodic properties we have just seen.

Let us turn now to the problematic sentences in (6). (6a) is felicitous since its wide focus interpretation is compatible with that of the question. The infelicity of (6b) and (6c) can be now explained by the fact that they have narrow focus and, therefore, their interpretation is not compatible with a wide focus question. The following examples show that (6b) and (6c) indeed have a narrow focus pattern.

- 7 a Chi è arrivato?
 who arrived
- b E' arrivato Dante.
 is arrived Dante

- 8 a Chi ha pianto?
 who cried
- b Ha pianto Beatrice.
 has cried Beatrice
- 9 a Chi ha scritto lettere d'amore?
 who wrote love letters
- b Ha scritto lettere d'amore Beatrice.
 has written love letters Beatrice

(7a), (2, 8a) and (9a) inquire about the identity of the subject of the relevant clause. Therefore, we predict that a felicitous answer will have a narrow focus pattern, i.e. the subject will represent the assertion and it will be marked with a higher pitch accent. This prediction is confirmed by (7b), (2, 8b) and (9b). They are all felicitous answers since they all have narrow focus. Notice also that the clause with the unaccusative *arrivare* is at the same time a felicitous answer to both a wide and a narrow focus question. Below I will show how this can be naturally accounted for by an analysis that takes into consideration the argument structure properties of the verbs involved.

Let us turn again to the examples in (6). Given the discussion so far, the infelicity of (6b) and (6c) can be captured by the following descriptive generalization:

DESCRIPTIVE GENERALIZATION: the interpretive/intonational properties of a question must be compatible with the interpretive/intonational properties of its answer.

The narrow focus readings of (6b) and (6c) are not compatible with the wide focus question in (6). Notice, however, that this does not mean that (6b) and (6c) cannot have wide focus. Interestingly, the wide focus interpretation of these sentences correlates with the SVO word order. Consider (10):

- 10 Che cosa è successo?
 what happened
- a Beatrice ha pianto.

- Beatrice cried*
- b Beatrice ha scritto lettere d'amore.
 Beatrice wrote love letters

(10a) and (10b) are the preverbal subject counterparts of (6b) and (6c). These sentences are perfect answers to the wide focus question in (8). Hence, (10a) and (10b) have a wide focus interpretation.

Let us try to sum up the main points of the discussion so far. Given instances of subject inversion with the three main verb classes illustrated in (11), we observed that, superficially, subject inversion seems to be a free process.

- 11 a E' arrivato Dante.
 is arrived Dante
- b Ha pianto Beatrice.
 has cried Beatrice
- c Ha recensito questo articolo un linguista famoso.
 has reviewed this article a famous linguist

However, the analysis of the focus properties of these constructions revealed that (11a) crucially differs from (11b) and (11c) at an interpretive level. (11a) can have either a wide or a narrow focus interpretation. By contrast, (11b) and (11c) can only have a narrow focus interpretation, since the wide focus reading is only available when the subject shows up preverbally.

2 **Inversion and Argument Structure**

It is standardly assumed that VS is the most natural word order in sentences containing an unaccusative verb (see Burzio 1981, 1986, Rizzi 1982). The fact that the subject of an unaccusative verb originates in postverbal position might reflect a correlation between inversion with wide focus interpretation and unaccusativity. As a matter of fact, postverbal subjects of unaccusative verbs can either occur in the complement position or in adjoined position to the right of VP, while transitive and unergative verbs must necessarily opt for the latter position. (see Burzio 1986, Rizzi 1982, Belletti 1988).

Although the naturalness with which unaccusative verbs allow inversion could be related to the position in which their subjects are projected in syntax, I will show that unaccusativity itself does not provide a basis for explaining inversion in Italian. As we will see in a moment, certain unaccusatives are unacceptable with inversion. On the other hand, there are instances of unergative verbs that are unexpectedly fine with the VS word order.

On the basis of these facts, I do maintain that the distribution of subject inversion depends on properties of the argument structure of the relevant verb, i.e. on the presence of a covert loco/temporal argument. However, I will argue that the presence of this argument does not necessarily correlate with unaccusativity.

2.1 Unaccusativity

We now turn to the examination of the data. The examples reported below show that the distribution of subject inversion cuts across verb classes. The verbs in (12) are unaccusative. (12a) is a wide focus question and (12b)-(12e) are felicitous answers to it. As expected, a sentence with an unaccusative verb and a postverbal subject gets a wide focus interpretation:

- 12 a Che cosa è successo?
what happened
- b E' entrata Beatrice.
is entered Beatrice
- c E' affondata la Attilio Regolo.
is sunk the Attilio Regolo
- d E' morto Fellini.
is died Fellini
- e Si è sciolta la neve.
SI-is melted the snow

However, not all unaccusatives pattern in this way. Consider the examples in (13):

- 13 a Che cosa è successo?
what happened

- b #E' impallidito Berlusconi.
is turned pale Berlusconi
- c #Si è stufata Penelope.
SI-is got fed up Penelope

Although the verbs in (13) are unaccusative, they are not felicitous with a wide focus interpretation. (13b) and (13c) only allow a narrow focus reading on the subject, in other words, they are felicitous only as answers to the questions inquiring about the subject of turning pale and of getting fed up. This is illustrated in (14):

- 14 a Chi è impallidito?
who turned pale
- b E' impallidito Berlusconi.
is turned pale Berlusconi
- c Chi si è stufata?
who got fed up
- d Si è stufata Penelope.
SI-is got fed up Penelope

These examples show that subject inversion is not always possible with unaccusative verbs. The opposite, however, holds as well. It is true that transitives and the majority of unergative verbs allow subject inversion only with a narrow focus reading of the subject, as is illustrated in (15), (16) and (17):

- 15 a Chi ha urlato?
who shouted
- b Hanno urlato due terroristi.
have shouted two terrorists
- 16 a Chi ha scritto lettere d'amore?
who wrote love letters
- b Ha scritto lettere d'amore Beatrice.
has written love letters Beatrice
- 17 a Che cosa è successo?

- what happened*
- b #Hanno urlato due terroristi.
have shouted two terrorists
- c #Ha scritto lettere d'amore Beatrice.
has written love letters Beatrice

However, some unergative verbs are fully acceptable with the wide focus interpretation¹:

- 18 a Che cosa è successo?
what happened
- b Ha telefonato Dante.
has called Dante
- c In questa casa ha abitato Giacomo Leopardi.
in this house has lived/resided Giacomo Leopardi

(18b) and (18c) show that we can distinguish two types of unergatives allowing subject inversion with wide focus interpretation: unergatives like *telefonare* 'phone' in (18b) which pattern like most unaccusatives in preferring the postverbal subject as the most natural word order. And unaccusatives like *abitare* 'live/reside' in (18c), which require the presence of an overt locative in preverbal position in order to allow subject inversion with wide focus.

This brief overview of the distribution of wide focus inversion in sentences with different verb types shows that the parallelism with unaccusativity is not absolute. Any correlation between these two notions is at most indirect. In the next section I will present the hypothesis that rather it is the presence of an extra argument that seems to create the suitable environment for subject inversion with a wide focus interpretation.

¹ Transitives are quite rare with wide focus inversion. The few acceptable cases we have found seem to involve expressions of an idiomatic nature:

- i In questo ufficio hanno dato le dimissioni molti ministri.
In this office have given resignations many ministers.
Many ministers resigned in this office.

On the other hand, inversion with a wide focus reading is perfectly fine if the direct object is a clitic. These cases will be examined in the Appendix.

2.2 Extra Arguments

The hypothesis I want to explore is based on the assumption that it is the presence of an additional argument in the thematic grid of the relevant verbs that makes subject inversion with a wide focus interpretation possible. This idea is linked with Hale & Keyser's (1993) analysis of unergatives as diadic predicates. I will further argue that this extra argument plays a crucial role in providing the syntactic prerequisites for the occurrence of subject inversion with the wide focus interpretation.

What kind of evidence do we have for the presence of an additional argument in inversion constructions? Inversion verbs appear to show a subtle difference in meaning depending on whether the subject occurs preverbally or postverbally. Consider the following minimal pairs:

- 19 a E' entrato Dante.
 is entered Dante
 '*Dante entered (here/into this place)*'
- b Dante è entrato.
 Dante is entered
 '*Dante entered (into some place)*'
- 20 a E' morto Fellini.
 is died Fellini
 '*Fellini has (just) died*'
 '*(I just heard that Fellini died)*'
- b Fellini è morto.
 Fellini is died
 '*Fellini died (sometime)*'
- 21 a Ha telefonato Beatrice.
 has called Beatrice
 '*Beatrice called (to this place)*'
- b Beatrice ha telefonato.
 Beatrice has called
 '*Beatrice called (somewhere/has made telephone calls)*'

The glosses give a free translation in order to express as precisely as possible the subtle differences in meaning between the sentences reported above. The

most peculiar property of these verbs is that their meanings seem to correlate with a particular word order. For instance, in (19), the (a)-sentence has only one meaning, i.e. that *Dante* has entered here, this place. Although this sentence does not show any overtly realized locative, the meaning of the verb is such that it refers to a speaker-oriented location. (19b) can have this meaning too but, in addition, the predicate can have a more general meaning, i.e. that Dante entered some place, where the interpretation of the locative remains undetermined or is context-dependent. In (20), the only possible meaning of the (a)-sentence is that the death of Fellini just took place or that this news just reached me, thus implying a temporal proximity to the speaker. The (b)-sentence can have this meaning as well, but the most natural reading involves, like above, an indefinite interpretation of the Goal/location.

The sentences in (21) contain the unergative verb *telefonare* ‘phone’. The behaviour of this verb follows the pattern we have just observed for unaccusatives. The postverbal position of the subject correlates with a speaker-oriented interpretation of the implicit locative or temporal complement. On the other hand, when the subject is in the preverbal position, the context-dependent meaning becomes available. The verb *telefonare* in (21b) has the more general meaning of ‘making telephone calls’.

These differences in meaning provide empirical evidence for an interesting correlation: when the subject shows up postverbally (with a wide focus interpretation of the sentence), the verb selects an additional locative or temporal argument. This argument appears to have two peculiar properties: it is covert and its interpretation is deictic (it involves proximity of the speaker).

The choice of this argument does not seem to be random. The locative or temporal complement must be a possible argument of the verb involved. For instance, the verb in (16) is a motion verb and its most natural complement is an *into*-PP. Obviously, a verb can be followed by many different PPs, but they are all optional and not inherent to the meaning of the verb itself. This is illustrated in (22):

- 22 Dante è entrato con una grossa valigia/ dalla finestra/ in
 punta di piedi.
 *Dante entered with a big suitcase/ from the window/ on
 tiptoes*

The possible PPs in (22) are all adjuncts and they can be omitted without affecting the meaning of the verb. Interestingly, when the argument is covert, like in the examples above, it can never be interpreted as an optional adjunct. The interpretation faultlessly picks out that very one meaning that matches the argumental structure of the verb (that is, it corresponds to the argument selected by the verb).

On the basis of these facts I suggest that the inversion sentences in (19)-(21) should be analyzed as containing a verb selecting an extra locative or temporal argument, which is projected in syntax but not overtly realized. For ease of exposition, I will call this covert argument *LOC*. The exact nature of *LOC* and its role in the syntax of inversion will be analyzed in chapter 3.

We now turn to a detailed examination of the properties and behaviour of *LOC*.

2.2.1 The Properties of *LOC*

In (19)-(21) *LOC* is covert. Given the correlation between the presence of an extra argument and inversion, we might wonder whether the covert nature of *LOC* is a necessary condition for a subject to show up postverbally. Consider the examples in (23), where the argument is lexically realized as a PP and shows up in postverbal position:

- 23 a Che cosa è successo?
what happened
- b ??E' partito Dante da Firenze.
is left Dante from Florence
- c ??Ha telefonato Beatrice ai vigili del fuoco.
has called Beatrice to the fire brigade

The ungrammaticality of (23b) and (23c) may be explained in two ways. If subject inversion correlates with the obligatory presence of a covert additional argument, (23b) and (23c) violate some form of the Projection principle, as the *loco/temporal* argument is realized twice, i.e. as an overt PP and as *LOC*. On the other hand, *LOC* may be absent given that the locative argument selected by the verb is overtly realized. As will become clear in chapter 3, in this case the ungrammaticality of (23b) and (23c) is due to the violation of the Extended Projection principle. These facts thus support the hypothesis that inversion correlates with the presence of an additional argument *LOC*.

The account of the ungrammaticality of (23b) and (23c) is crucially based on the assumption that LOC must be an argument of the relevant verb, not just a modifier. The facts below provide additional support for this claim. Compare (23b) and (23c) to (24):

- 24 a Che cosa è successo?
 what happened
- b E' arrivato Dante da Firenze.
 is arrived Dante from Florence
- c Ha telefonato Beatrice da Milano.
 has called Beatrice from Milan

The presence of an overt PP does not seem to affect the grammaticality of these inversion constructions. The contrast between (23b) and (23c), on the one hand, and (24) on the other, is due to the nature of the overt PP. The PPs in (24) are not lexically selected by *arrivare* and *telefonare* and should rather be analyzed as true adjuncts. *Arrivare* normally selects an *at/in* complement whereas *telefonare* selects an *to* complement. If *da Firenze* 'from Florence' and *da Milano* 'from Milan' are adjuncts, the relevant clause may still contain a LOC. Hence, the simultaneous presence of LOC and of the overt PP in (24) is not problematic as the two elements have a different nature.

3 Non-Inversion Verbs

In the previous paragraphs we examined the behaviour and the properties of constructions that allow subject inversion with a wide focus interpretation. I will refer to the verbs involved in this type of constructions as *inversion verbs* in order to distinguish them from *non-inversion verbs* that allow inversion only in a very restricted fashion.

As discussed in section 2, the possibility of having subject inversion with wide focus interpretation does not correlate with unaccusativity. Among the group of inversion verbs we have found unergatives and transitives that are perfectly fine with a postverbal subject. On the other hand, we have found instances of unaccusatives that do not allow inversion with the wide focus interpretation.

On the basis of the observations in the previous sections, we can characterize the group of inversion verbs in the following way:

- 25 Inversion Verbs (first version):
- a) they select an additional internal argument: LOC
 - b) LOC can be either locative or temporal
 - c) LOC must be covert
 - d) LOC gets a speaker-oriented deictic interpretation

This generalization will be revised below, as not all inversion verbs pattern alike. However, let us first see in which sense non-inversion verbs differ from the pattern in (25).

3.1 Non-Inversion Verbs and Focus

Consider the sentences in (14), repeated in (26):

- 26 Che cosa è successo?
what happened
- a #E' impallidito Berlusconi.
is turned pale Berlusconi
 - b #Si è stufata Penelope.
SI-is got fed up Penelope

Although the verbs in (26) belong to the unaccusative class, they do not allow inversion with wide focus. Remember that (26a) and (26b) are felicitous only as answers to a narrow focus question like in (12), repeated in (27):

- 27
- a Chi è impallidito?
who turned pale
 - b E' impallidito Berlusconi.
is turned pale Berlusconi
 - c Chi si è stufata?
who got fed up
 - d Si è stufata Penelope.
SI-got fed up Penelope

Above I argued that subject inversion with wide focus interpretation depends on the presence of an additional argument in the thematic grid of the relevant verb. If this is the correct generalization, we predict that verbs that do not select LOC, do not allow subject inversion with the wide focus interpretation. The unaccusative verbs in (27) seem to corroborate this hypothesis. *Impallidire* ‘turn pale’ and *stufarsi* ‘get fed up’ do not select any locative or temporal argument:

- 28 Che cosa è successo?
 what happened
- a #Berlusconi è impallidito in corridoio.
 Berlusconi turned pale in the corridor
- b #Penelope si è stufata sabato scorso.
 Penelope got fed up last Saturday

As we will see directly, the absence of LOC in constructions with this type of verbs may have a lexical explanation (see Hale & Keyser 1993).

The distribution of inversion in contexts with unergative and transitive verbs is not uniform either. Consider (29):

- 29 Che cosa è successo?
 what happened
- a #Ha pianto Beatrice.
 has cried Beatrice
- b #Ha protestato un disoccupato.
 has protested an unemployed person
- c #Ha pubblicato un nuovo libro Dante.
 has published a new book Dante
- d #Ha riparato il mio computer Warmolt.
 has fixed my computer Warmolt

The unergatives and transitives in (29) cannot have inversion with a wide focus interpretation. On the other hand, these sentences are felicitous answers to a narrow focus question, i.e. to a question inquiring about the identity of the subjects of these verbs. Like in the case of the unaccusatives in (26), the infelicity of (29a-d) may correlate with the impossibility of selecting a LOC.

So far, we have distinguished between two types of verbs: inversion verbs, allowing subject inversion with a wide focus interpretation; and non-inversion verbs allowing inversion only with a narrow focus reading of the subject. Now we might wonder whether non-inversion verbs ever allow a wide focus interpretation. Consider (30):

- 30 *Che cosa è successo?*
 what happened
- a *Berlusconi è impallidito.*
 Berlusconi turned pale
- b *Beatrice ha pianto.*
 Beatrice cried
- c *Warmolt ha riparato il mio computer.*
 Warmolt fixed my computer

(30a-c) are perfectly fine with the wide focus interpretation. Non-inversion verbs, i.e. verbs that do not select an additional argument, associate the wide focus interpretation with the SV(O) word order and the narrow focus interpretation of the subject with the V(O)S word order. By contrast, inversion verbs associate both the wide focus interpretation of the clause and the narrow focus reading of the subject with the VOS word order.

31		inversion v.	non-inversion v.
	wide focus	V(O)S	SV(O)
	narrow focus	V(O)S	V(O)S

The data we have discussed so far naturally fall into two distinct patterns, characterized by different choices with respect to focus interpretation and word order. This distinction appears to be determined by the presence or absence of LOC, an additional loco/temporal argument selected by the relevant verb.

The effects that the presence of LOC has on the word order of the clause may indicate that this argument plays a crucial role in the computational system. In chapter 3 I will present and develop the hypothesis that LOC

may take over the role of the subject satisfying the Extended Projection principle.

4 Overt Arguments and Inversion

Generalization (25) is centred around the presence of LOC, a covert loco/temporal argument. However, the class of inversion verbs also appears to include verbs that select an *overt* loco/temporal argument. These constructions are particularly common with unergative verbs.² Consider the examples in (32):

- 32 Che cosa è successo?
 what happened
- a In questa casa ha abitato Beatrice.
 in this house has lived/resided Beatrice
- b In questo secolo hanno vissuto molti poeti famosi.
 in this century have lived many poets famous

The inversion sentences in (32) are perfectly fine with a wide focus reading. The availability of inversion with a wide focus interpretation and the presence of a loco/temporal PP makes these constructions very similar to the cases we discussed in the previous section. Can the data in (32) be assimilated to those described by generalization (25)? In other words, how crucial is the presence of the locative for the occurrence of subject inversion in (32a) and (32b)?

(33) shows the same sentences as (32), but without the overt locative:

- 33 a *Ha abitato Beatrice.
 has lived/resided Beatrice
- b *Hanno vissuto molti poeti famosi.
 have lived many poets famous

(33a) and (33b) are ungrammatical. Note that it is not just a question of focus interpretation. Clearly, omission of the loco/temporal argument renders these

² Transitives are quite rare and seem mainly to involve idiomatic expressions (cf. note 1).

sentence uninterpretable. This fact may be explained as a violation of the Projection Principle (Chomsky, 1981). In fact, the ungrammaticality of (33) is independent of subject inversion, as is shown by the following examples with preverbal subjects:

- 34 a *Beatrice ha abitato.
Beatrice has lived/resided
 b *Molti poeti famosi hanno vissuto.
many famous poets have lived

Consider now some examples with the unergative verb *lavorare* ‘work’:

- 35 Che cosa è successo?
what happened
 a Molte donne straniere hanno lavorato.
many foreign women worked
 b In questo albergo hanno lavorato molte donne straniere.
in this hotel have worked many foreign women
 c #Hanno lavorato molte donne straniere.
have worked many foreign women

(35a) shows that *lavorare* differs from *abitare* ‘reside’ and *vivere* ‘live’. The latter verbs require the obligatory presence of an overt loco/temporal argument, while *lavorare* can either occur with or without it.

However, things change when the subject occurs in postverbal position. (35b), with the overt PP, is perfectly fine. By contrast, (35c) without the overt PP is not felicitous with a wide focus interpretation. Unergative verbs like *studiare* ‘study’, *dormire* ‘sleep’, *giocare* ‘play’, *camminare* ‘walk’ pattern like *lavorare*. What all these verbs seem to have in common is the fact that they quite naturally select a loco/temporal argument.

Summing up. Apart from certain lexical differences in the selection of the internal argument, the data in (32) and (35) consistently show that there is a class of unergative verbs that allow subject inversion with the wide focus interpretation only if the loco/temporal argument is overtly realized. In other words, the presence of this overt PP seems to be the necessary condition for subject inversion with wide focus interpretation to occur. If the PP is absent, the VS word order can only be interpreted with narrow focus on the subject.

So far, the inversion constructions presented in (32) and (35) show a striking similarity with the cases of inversion discussed in the previous section. On the basis of these facts we may hypothesize that subject inversion with the covert LOC and subject inversion with an overt loco/temporal argument are in fact two possible instantiations of the same construction.

That this may be the right way to look at this matter is supported by an additional interesting fact. One of the most peculiar properties of LOC was its speaker-oriented deictic interpretation. Now, inversion with an overt PP appears to involve deixis too. Consider the following minimal pair:

- 36 Perché mi porti qui?
 why do you take me here
- a In questo albergo ha vissuto Maria Callas.
 in this hotel has lived Maria Callas
- b #In albergo ha vissuto Maria Callas.
 in hotels lived Maria Callas

The only difference between (36a) and (36) is the presence of the demonstrative *questo*, which yields a speaker oriented, deictic interpretation. Whereas (36a) is perfect with a wide focus interpretation, (36b) is acceptable only with narrow focus on the subject, i.e. as an answer to *chi ha vissuto in albergo* ‘who lived in hotels?’. (37) shows that the deictic interpretation is relevant only in an inversion construction. The non-deictic PP is perfectly fine if the sentence has the standard SV PP word order:

- 37 Maria Callas ha vissuto in albergo.
 Maria Callas lived in hotels

The data we discussed seem to show that deixis plays a crucial role in licensing subject inversion, and that the deictical feature has to be overtly realized whenever it is not directly selected by the verb. Therefore, I propose to consider subject inversion with LOC and subject inversion with an overt loco/temporal argument as two different instances of the same basic phenomenon. Generalization (25), repeated in (38), is slightly modified in order to account for both types of construction:

- 38 Inversion Verbs (revised version):
- a) they select an additional internal argument: LOC or a PP,
 - b) LOC or PP can either be locative or temporal,
 - c) LOC is covert, PP is overt,
 - d) both LOC and PP get a speaker-oriented, deictic interpretation.

(38) summarizes the properties of verbs that allow subject inversion with a wide focus interpretation. Non-inversion verbs do not have these properties and only allow inversion with the narrow focus reading of the subject.

Given (38), we predict the following patterns:

- 39 a Inversion verbs:
- | wide focus | narrow focus |
|------------|--------------|
| SVO | SVO |
| VS | V(O)S |
| SVPP | SVPP |
| PPVS | PPVS |
| *VOS | |
- b Non-inversion verbs:
- | wide focus | narrow focus |
|------------|--------------|
| SV(O) | SV(O) |
| *V(O)S | V(O)S |
| SVPP | SVPP |
| *PPVS | PPVS |

In chapter 3 I will show how (39) follows from the interaction of differences on the level of argument structure with conditions of economy applying on the syntactic level.

5 The Projection of Extra Arguments in Syntax

In the previous pages I presented the hypothesis that the licensing of subject inversion with a wide focus interpretation is strictly related to the argument structure of the relevant verb, in the sense that the presence of an additional

locative or temporal argument somehow satisfies certain syntactic conditions that enable the subject to occur in postverbal position.

The idea that verbs may select an extra argument is suggested by the fact that certain verbs, like for example the unaccusative *arrivare* ‘arrive’ or the unergative *telefonare* ‘phone’, have different meanings depending on whether the subject occupies the preverbal or the postverbal position. However, predicates appear to differ in their properties on the level of argument structure. We isolated three main patterns:

- 40 a verbs like *arrivare*, ‘arrive’ or *telefonare* ‘call’ that optionally select a covert loco/temporal argument,
 b verbs like *vivere* ‘live’ and *abitare* ‘reside/live’ that obligatorily select an overt loco/temporal argument, and
 c verbs like *impallidire* ‘turn pale’ and *piangere* ‘cry’ that do not select any additional argument.

Given (40), we may wonder what the conditions are that make possible the selection of a loco/temporal argument and what are the factors that determine its projection in syntax as a lexical PP or as an empty category.

Hale & Keyser (1993) may provide theoretical support for some of these intuitions. Assuming that syntax is projected from the lexicon (Chomsky 1981), H&K develop the hypothesis that the correct representation of predicate argument structure is itself ‘syntactic’ in nature. Their analysis has an empirical basis in the study of denominal unergatives. Unergative verbs like *laugh*, *sneeze*, *dance*, etc. are analyzed as derived from incorporation of their complement, a nominal head, into an abstract V. It then follows that the initial lexical structure of an unergative verb is of the transitive type, in other words, unergative verbs are bi-argumental.

Suppose we apply this analysis to the data in (40). Then the availability of an additional argument in inversion verb contexts may follow from the diadic nature of intransitive verbs (cf. also Moro 1993).

However, (40) shows that the projection of the additional argument is not homogeneous across verb classes. *Impallidire* does not take any additional argument. By contrast, *abitare* obligatorily select an overt loco/temporal argument. We may account for this contrast by assuming that *impallidire* is the result of incorporation of the adjective *pallido* into a light verb, at the

level of lexical representation. As a consequence, the verb *impallidire* does not have any additional argument to project in syntax. On the other hand, the verb *abitare* is not the result of incorporation. Then its internal argument is projected in syntax as an (obligatory) overt PP.

Yet, some questions will remain unexplained. For instance, it is not clear what factors determine the realization of the loco/temporal argument as a covert LOC in *arrivare* and as an overt PP in *abitare*. We may hypothesize that verbs like *abitare* have lexical properties that block the interpretation of the covert argument as a deictic element. On the other hand, we observed that the presence of an overt PP in clause-initial position seems to have the function of recovering the missing deictic reading. In other words, the relationship between deictic interpretation and subject inversion seems to be the correct generalization.

6 A Few Conclusions

This chapter has presented an overview of the distribution of subjects in Italian. The discussion focused on two issues: a) the occurrence of the subject in postverbal position appears to be related to the presence of a loco/temporal argument in the lexical structure of the relevant verb, and b) certain interpretive aspects of inversion clearly interact with the underlying syntax, thus suggesting that the relation between structure and meaning may be less obvious than it is standardly assumed.

In the next chapter we will examine more interpretive facts that emerge in inversion contexts. More specifically, we will concentrate on those interpretive differences that point to a correlation between a particular meaning of the subject DP and its preverbal or postverbal position in the clause.

Chapter 2

The Interpretation of Subject Inversion

Introduction

The present chapter will be devoted to the examination of certain interpretive properties of definite and indefinite subjects, pertaining both to their inherent semantics and their informational status (focus). The relevance of these data lies in the fact that they seem to reveal a correlation between a certain reading of the subject and the position in which it occurs. The aim of this chapter is to understand whether this correlation is real and how it could be accounted for in grammar. First, we will try to identify the relevant interpretive notions involved and formulate some descriptive generalizations. Then, we will explore to which extent these notions interact with syntax and we will discuss some hypotheses about how these facts could be translated in formal terms. The technical implementation of these ideas will be presented in chapter 3.

As we will see, definite subjects involve interpretive phenomena which seem to differ from those of indefinite subjects. Although the final conclusions will show that the relevant interpretive notions allow a unified account of the behaviour of both DP classes, I will retain the definite/indefinite distinction for ease of exposition.

1 Definite Subjects

The data I want to discuss in this first section are all instances of definite descriptions, showing up as postverbal subjects in sentences with the unaccusative *arrivare* 'arrive'. The choice of the verb is not accidental. As the reader will recall from chapter 1, I distinguish two types of verbs, according to their behaviour with respect to subject inversion and focus. What I called *inversion verbs* can have a postverbal subject with both a wide and a narrow focus reading. Conversely, what I called *non-inversion verbs* allow inversion only with a narrow focus reading of the subject. As suggested in chapter one, the source of this distinction is a syntactic one, involving the

thematic properties of the relevant verb, the Extended Projection Principle and local conditions on economy. The examples in (1) and (2) illustrate this distinction:

- 1 a Che cosa è successo?
 what happened
- b Timman ha telefonato. / Ha telefonato Timman.
 Timman called / called Timman
- c Kasparov ha urlato. / #Ha urlato Kasparov.
 Kasparov shouted / shouted Kasparov
- 2 a Chi ha telefonato?
 who called
- b Ha telefonato Timman.
 called Timman
- c Chi ha urlato?
 who shouted
- d Ha urlato Kasparov.
 shouted Kasparov

The verb *arrivare* belongs to the former group. If we want to isolate the purely semantic factors affecting the distribution of subjects we must be sure that other, non-interpretive factors are not interfering. *Arrivare*, like other inversion verbs, allows the subject to occur postverbally, both with the wide and the narrow focus reading. Hence, with these verbs subject inversion is neither blocked by syntax nor by focus. If, nonetheless, the subject cannot occur in postverbal position, we could conclude that other factors, possibly of an interpretive nature, are involved in subject inversion.

1.1 Interpretive Factors

Let us start by examining some instances of subject inversion at a pre-theoretical level. Notice that the subjects below are all definite descriptions¹:

¹ For ease of exposition, I will consider the proper name as a definite description.

- 3 a E' arrivato Gianni
 is arrived Gianni
- b E' arrivato il postino
 is arrived the postman
- c E' arrivato lo studente che ti ha cercato ieri
 is arrived the student who has looked for you yesterday
- d #E' arrivato lo studente
 is arrived the student

(3a-c) are felicitous answers to a wide-focus question like 'what happened?'; in this case the whole clause represents the assertion, hence, following Vallduví (1990), it is marked with focus. (3a-c) are also felicitous answers to a narrow focus question like 'who arrived?'; in this case only the postverbal subject bears (narrow) focus.

The behaviour of (3d) is clearly different, since it can neither be the answer to a wide-focus nor to a narrow-focus question.² The infelicity of this sentence seems to be caused by the fact that it cannot be assigned a truth-value, since the presuppositions proper to the semantics of definite descriptions are not satisfied. Intuitively, a singular definite description must refer to a unique object in the relevant context of interpretation. When this presupposition is not satisfied, like in the case of (3d), reference appears to be impossible and the sentence is ruled out. Remember that all the examples in (3) contain the verb *arrivare* 'arrive', which allows subject inversion in both wide and narrow focus contexts. Hence, the infelicity of (3d) must be determined by a non-syntactic factor.

Consider now the following piece of discourse:

- 4 Aspettavo uno studente e un professore.
 I was waiting for a student and a professor
- a #E' arrivato lo studente.
 is arrived the student
- b Lo studente è arrivato.
 the student is arrived

² Unless the domain of interpretation contains exactly one individual which satisfies the property of being a student.

(4a) is infelicitous whereas (4b) is perfectly correct. Compare now (4a-b) to (5a-b):

- 5 A: Aspettavo uno studente e un professore.
 I was waiting for a student and a professor
 B: E chi dei due è arrivato?
 and which of the two arrived
 a E' arrivato lo studente.
 is arrived the student
 b #Lo studente è arrivato.
 the student is arrived

Interestingly, (4) and (5) show reverse patterns. Whereas in (4a) the subject cannot stay in postverbal position, in (5a) inversion represents the only felicitous option. In addition, (5a) is identical to the problematic sentence (3d) above. Clearly, these facts cannot be accounted for by syntax, since the relevant sentences seem to have an identical structure and contain the same lexical items. Hence, it must be the case that, on analogy with (3), also (4) and (5) show that conditions of a non-syntactic nature act as constraining factors for subject inversion.

Before developing this hypothesis further, let us consider this phenomenon from a crosslinguistic perspective.

1.2 Definiteness Effects

The facts we just observed suggest that the notion of definiteness is somehow involved in the determination of the felicity of such sentences in discourse. More precisely, the examples in (3), (4), and (5) show that the distribution of definite DPs in Italian is constrained by factors that are strictly related to their status as definite descriptions. There is a well-known phenomenon, in language, where the notion of (in)definiteness plays a crucial role. This is commonly referred to with the term *Definiteness Effect* (DE).

We speak of a definiteness effect when, in a given construction, the verb requires that one of its complements be indefinite. (6) reports some classical examples of DE in English, French and Dutch, respectively. The examples are borrowed from Safir (1985).

- 6 a There is a man/*the man in the room
 b Il est arrivé trois hommes/*les trois hommes
 IL arrived three men/the three men
 c Er kwam iemand/*de jongen door de deur
 there came someone/the boy through the door

The postverbal DP in the three impersonal constructions illustrated in (6) must be indefinite. If this condition is not met, the sentence is ungrammatical.

The DE is attested in many different languages and it is characterized by a cluster of properties that seem to be widely recurrent or perhaps universal. As Szabolcsi (1984) points out, the verbs we found in contexts involving a DE not only impose an indefiniteness requirement on their complement, they also show the tendency to be linked to an expletive in subject position. Among the verbs that belong to this group there is the copula. The heterogeneous character of this phenomenon raises the important question of whether it requires a semantic account or whether it can rather be explained in terms of syntactic properties. Both perspectives (and a combination of the two) have been extensively discussed in the literature.³

1.3 **The Definiteness Effect in Italian**

Let us now go back to the Italian data. The discussion so far raises two important questions: a) is the constrained distribution of definite subjects in Italian an instance of the DE? b) Independently of (a), are the observed facts syntactic or semantic in nature? As the reader will recall from section 1.1, the latter option was indicated as a possible working hypothesis. In what follows, I will try to substantiate this suggestion by discussing some particularly insightful observations which have been made in the literature and that could help us understand the phenomenon involved.

The existence of a DE in Italian has been discussed, with contrasting outcomes, in Safir (1985) and in Belletti (1988).

³ See Milsark (1977), Safir (1985), Szabolcsi (1984), Reuland & ter Meulen (1987), Belletti (1988), a.o.

1.3.1 DE as a Syntactic Phenomenon

Safir's comparative study is centered around the notions of coindexing and syntactic chains, particularly in structural environments where the subject shows up in a non-canonical position, like expletive impersonal constructions or sentences with subject inversion. Crucially, these two types of sentences are viewed as instantiating the same basic pattern, consisting of an expletive element in preverbal subject position forming a chain with an argument DP in postverbal position. Such a chain (an *unbalanced theta-chain*, in Safir's terminology) is necessary for the postverbal argument, occurring in a caseless position, to inherit the Case which is assigned to the expletive in standard subject position.

Safir argues that there is a correlation between such configurations of 'downward Case inheritance' and the DE. The tail of an unbalanced chain must be indefinite. This is illustrated in (7):

- 7 a There_i is a man_i in the room.
 b *There_i is the man_i in the room.

In (8), where no chain is required, the DE does not arise: both the definite and the indefinite subject are perfectly grammatical:

- 8 a A man entered into the room.
 b The man entered into the room.

Hence, the correct generalization is that the DE occurs in a configuration formally defined as an unbalanced theta chain.

However, the question remains which factors are responsible for the observed DE. Safir points out under the standard view, unbalanced theta chains such as in (7b) would violate Principle C of Chomsky's (1981) Binding Theory, which states that referential expressions must be free. The postverbal DP is bound by the expletive in preverbal subject position. This immediately explains the ungrammaticality of (7b). However, the grammaticality of (7a) suggests (and Safir turns this into a claim) that indefinite DPs in these constructions are exempt from condition C. The reason for the definite/indefinite asymmetry in (7) appears to boil down to certain properties distinguishing definite from indefinite DPs. Safir suggests

that these properties may involve referentiality, in the sense that indefinite DPs are ‘less referential’ than definites and hence, are not strictly subject to principles regulating referential dependencies.

Safir shows how this analysis may derive the presence or absence of the DE in a number of different languages, like English, German, Dutch, French, Portuguese and Italian, from the properties of the relevant expletive element and Infl node. According to the standard analysis (Rizzi 1982), the Infl of a null subject language like Italian has pronominal properties that enable it to absorb Nominative Case and count as a proper governor for the empty category in preverbal subject position. Case is then transmitted to the postverbal argument by a coindexing rule.

However, Italian does not present any DE, as is illustrated in (9):

- 9 a E’ arrivato Gianni.
 is arrived Gianni
 b Ha scritto Maria.
 has written Maria

If the assumed parallelism between expletive-argument constructions like in (7) and sentences with an inverted subject like in (9) is correct, DE would be expected to show up in both constructions. The grammaticality of the examples in (9) indicates that the potential DE is neutralized in Italian. Following partly the analysis of Rizzi, Safir assumes that null subject languages have a subject clitic as part of the verb’s morphology. This invisible clitic, present on the verbal head of the VP, is assigned Nominative Case by Infl under government.⁴ The pronominal properties of Infl are then responsible for the licensing and interpretation of the empty category in the preverbal subject position. For the cases in (9), where the subject is overtly realized but shows up in postverbal position, Safir assumes that Case is assigned to the DP by the subject clitic under government. Since, by assumption, the clitic is part of the VP, Case is assigned directly and does not require the formation of an (unbalanced) chain configuration. Given that the DE was said to correlate with unbalanced chains, a subject inversion sentence in Italian is expected not to show any DE, as the presence of a

⁴ In Rizzi (1982) the subject clitic is in Infl.

subject clitic in null-subject languages makes superfluous the formation of a chain.

Let us turn now to our initial problem. How can we explain the distribution of definite subjects in Italian? (10) repeats the first set of examples we saw in section 1.1:

- 10 a E' arrivato Gianni.
is arrived Gianni
- b E'arrivato il postino.
the postman is arrived
- c E' arrivato lo studente che ti ha cercato ieri.
is arrived the student who looked for you yesterday
- d #E' arrivato lo studente.
is arrived the student

Suppose we follow Safir and consider the DE as a purely syntactic phenomenon. Then the problematic facts in (10) are not instances of the DE since, at least on an intuitive level, there is no formal condition that blocks direct Case assignment to the postverbal definite DP. But then, what explains the difference between (10d), on the one hand, and (10a-c), on the other? If (10d) is a true instance of the DE, then Safir's syntactic approach only partly makes the correct predictions. Yet, the facts in (10) may also be illustrations of a phenomenon that involves conditions of a semantic nature, thus requiring a careful examination of the interpretive properties of the elements involved. As tentatively suggested in 1.1, the latter line of research seems to be more promising and will be pursued in section 1.4.

First, however, let us consider a Case-based approach.

1.3.2 Partitive Case and Partitive Interpretation

The discussion on the syntactic nature of the DE and its possible presence in a null-subject language like Italian is carried on in Belletti (1988). Contrary to what Safir predicts, Belletti shows that a null subject language like Italian does present some instances of the DE. Consider the following examples from her study:

- 11 a All'improvviso è entrato un uomo dalla finestra.

- suddenly entered a man from the window*
- b *All'improvviso è entrato l'uomo dalla finestra.
suddenly entered the man from the window

The sentences in (11) consist of an unaccusative verb, followed by the subject and by a locative argument. Assuming Burzio's (1986) Unaccusativity Hypothesis, Belletti claims that the subject in (11) occupies its base position, i.e. the direct object position. *Dalla finestra* 'from the window' is a complement of the verb, hence VP-internal. According to Belletti, there is a contrast in grammaticality between the indefinite subject in (11a) and the definite one in (11b): the latter is ungrammatical. By considering (11b) ungrammatical instead of just infelicitous, Belletti implicitly states that such phenomena are determined by conditions belonging to the syntactic component, thus excluding possible effects of other aspects of language.⁵

The alleged ungrammaticality of (11b) is supposed to reveal a DE in Italian. Belletti argues that the DE in Italian is limited to the direct object position of unaccusative verbs. This position seems to be subject to an indefiniteness requirement, which rules out as ungrammatical all morphologically definite DPs. The account Belletti gives of these facts is one in terms of Case. Although, according to the Unaccusativity Hypothesis, unaccusative verbs are not Case assigners, Belletti claims that these verbs retain the possibility of assigning what she calls *partitive* Case to the DP in object position. Since partitive Case is assumed to be an instance of inherent Case, it does not block assignment of structural Case to the relevant DP once this moves to a structurally Case marked position.

The crucial issue in Belletti's analysis concerns the assumed correlation between Case and interpretation which should provide an explanation for the DE. Partitive Case is argued to have an interpretive connotation as well, since it triggers a *partitive reading* on the selected DP. Belletti does not give an explicit definition of the partitive reading. She simply states that a DP bearing partitive Case will always refer to 'some of', 'part of a larger set'

⁵ As a matter of fact, (11b) becomes acceptable in a contrastive context in which it must be stressed that the person who entered through the window was the man out of the set of the man and the woman mentioned previously.

and calls this interpretation ‘indefinite meaning’.⁶ Given these assumptions, the DE can now be translated into the following appropriateness condition: DPs cannot occur in the object position of unaccusative verbs because in this position they are assigned partitive Case and the interpretation triggered by this Case is not compatible with their definite nature.

Let us put aside, for the moment, the problems that emerge from this analysis, and draw some conclusions. Belletti claims that Italian does show a DE in contexts with unaccusative verbs. The explanation she gives for these facts is one in terms of Case, hence, essentially syntactic, like Safir’s. What distinguishes her analysis from Safir’s is the fact that she emphasizes the existence of certain interpretive differences and tries to account for them by establishing a correlation between (partitive) Case and (partitive) interpretation. In the next section we will see that, although semantics does play a role in the distribution of subjects in Italian, Belletti’s correlation is essentially stipulative and does not capture the facts observed.

1.4 The Interpretive Properties of the DE

We now turn to the distribution of definite subjects in Italian. Consider the examples in (3), repeated in (12) for ease of exposition:

- 12 a E’ arrivato Gianni.
is arrived Gianni
- b E’ arrivato il postino.
is arrived the postman
- c E’ arrivato lo studente che ti ha cercato ieri.
is arrived the student who looked for you yesterday
- d #E’ arrivato lo studente.
is arrived the student

Is the infelicity of (12d) the result of a DE as in the cases in (11) discussed by Belletti? If the definite subject *lo studente* were in direct object position,

⁶ Belletti’s argument concerning the partitive interpretation is not convincing. As pointed out in de Hoop (1992), there is evidence from Finnish that definite DPs are in fact compatible with partitive Case. In addition, the partitive reading is normally associated with definiteness, since its structural correlate always contains a definite DP.

the infelicity of the sentence could be explained as a violation of the indefiniteness requirement: the interpretation of the direct object must be compatible with the partitive reading triggered by the partitive Case assigned by the unaccusative *arrivare* ‘arrive’ to its internal argument. However, if the infelicity of (12d) is the result of a DE, why do (12a-c) not show the same effect?

Alternatively, the postverbal subjects in (12) may be extraposed (i.e. adjoined to the right of VP), in which case the infelicity of (12d) should be ascribed to factors other than those discussed by Belletti. But let us examine the nature of the factors determining the felicity of the constructions in (12).

In section 1.1 we suggested that the infelicity of (12d) seems to depend on the fact that the referent of the definite DP *lo studente* cannot be uniquely identified. Consider (5), repeated in (13):

- 13 a Aspettavo uno studente e un professore.
I was waiting for a student and a professor
- b E chi dei due è arrivato?
and which of the two arrived
- c E' arrivato lo studente.
is arrived the student

Interestingly, the problematic example (12d) is repeated in (13c) with a perfect result. Clearly, in (13c), the definite description *lo studente* can easily identify its referent, as this is introduced into the discourse by (13a). Since the context of interpretation contains just one object that satisfies the denotation of *lo studente*, the definite DP is successfully interpreted.⁷ The facts in (13) support the hypothesis that semantic factors may affect the acceptability of definite subjects in postverbal position.

In the case of (13) the interpretability of the definite DP *lo studente* is ensured by the presence of an antecedent in the discourse. However, the data in (13) do not explain why (12a-c) are felicitous. Notice that the context of interpretation of (12) does not contain the antecedents of *Gianni*, *lo studente*

⁷ There is another, non-syntactic factor in (13d) that allows the occurrence of the definite subject in postverbal position: its contrastive focus reading. The role of focus as an additional factor affecting the distribution of definite subjects in Italian will be extensively discussed in section 1.5.

che ti ha cercato ieri ‘the student who looked for you yesterday’, or *il postino* ‘the postman’. As we will see in greater detail in the next section, the data in (12) show that it is necessary to distinguish between two types of definite DPs (cf. Kadmon 1990, Neale 1990, Calabrese 1991): those that are interpreted as anaphoric to a lexical antecedent, and those that are interpreted by means of a different (pragmatic) strategy.

Summarizing, the interpretive effect we observed in (12) appears to have the following properties: a) it does not involve all definite descriptions, but just the subclass of anaphoric DPs, b) it does not affect just the direct object position, but the VP-adjoined position and, possibly, the standard preverbal subject position as well, and c) it does not impose an indefiniteness requirement, but rather a condition on the recoverability of the antecedent of the relevant definite DP.⁸ If these conclusions are right, the interpretive effect we invoked for the infelicity of (12d) is not the one studied by Belletti.

In what follows I will show that the data discussed by Belletti involve exactly the same notion as the one we are interested here. Let us now examine the relevant minimal pair discussed by Belletti and repeated in (14):

- 14 a All'improvviso è entrato un uomo dalla finestra.
suddenly entered a man from the window
 b *All'improvviso è entrato l'uomo dalla finestra.
suddenly entered the man from the window

Belletti ascribes the ungrammaticality of (14b) to the definite status of the DP. The interpretation of a definite DP is incompatible with the partitive reading triggered by the assignment of partitive Case to the DP in this position. However, consider the following examples:

⁸ The interpretive effect we are analyzing is not limited to the VP-internal object position, but also emerges in the VP-adjoined position of postverbal subjects of transitive and unergative verbs like in (i) and even in standard preverbal subject position, like in (ii):

- i Chi si è stufato? *who got fed up*
 Si è stufato un uomo/#l'uomo.
got fed up a man/the man
 ii Che cosa è successo? *what happened*
 Un uomo/#L'uomo si è stufato.
a man/the man got fed up

- 15 a Che cosa è successo?
what happened
- b *All'improvviso è entrato l'uomo dalla finestra.
suddenly entered the man from the window
- c All'improvviso è entrato il cane dalla finestra.
suddenly entered the dog from the window

(15b) repeats Belletti's crucial example, which should provide evidence for a DE. (15c) is identical to (15b), except for one word. In the latter sentence the noun *uomo* 'man' is replaced by the noun *cane* 'dog'. The difference between these two sentences is clearly of an interpretive nature and excludes an analysis in terms of Case. Intuitively, it is more a matter of being able to integrate the lexical content of the noun by means of some pragmatic mechanism, so that the definite description *il cane* in (15c) identifies a unique object in the world, i.e. the salient dog in that specific context of interpretation (see Löbner 1987).

By contrast, the definite description *l'uomo* in (15b) cannot be so interpreted and additional information from the context is necessary for the identification of the referent of this DP. The correct example should involve a context in which there is only one man. Consider now (16):

- 16 a Chi è entrato dalla finestra, l'uomo o la donna?
who entered from the window, the man or the woman
- b E' entrato l'uomo, dalla finestra.
entered the man from the window

(16b) is formally identical to (15b). The two sentences differ in interpretation, which is revealed by the intonational pattern (in (16b) the subject is followed by a comma, illustrating an intonational pause). Whereas (15b) cannot be interpreted, (16b) refers to a unique object in the context of interpretation, i.e. the man introduced in (16a).

An analysis in strict morpho-syntactic terms, as Belletti suggests, cannot account for the differences in felicity observed in these sentences, since, formally speaking, they are exactly identical.

The conclusions we can draw at this point are based on the data we have discussed so far and radically depart from Belletti (1988).

The interpretive effect observed in sentences like (12) and Belletti's DE in sentences like (11) are just the result of one and the same source: a condition inherent to the semantics of definite descriptions, governing the identification of the referent of the DP. In the next section we will offer a more formal definition of this condition.

1.4.1 Unambiguous Reference

In the previous section I gave an intuitive explanation for the interpretive effects observed in (11) and (12): a (singular) definite description must refer to a unique entity in the discourse. This property is known in the literature as the condition on *uniqueness of reference* (see Löbner 1987 and especially Kadmon 1990 and references cited there), and it refers to the ability of a definite description to identify its referent in a unique or better, unambiguous way.⁹ While a singular definite description must identify its referent in a unique way, a plural definite description refers to the maximal collection of objects that correspond with the descriptive content of the DP. This latter condition is known as Exhaustivity.

Following Löbner (1987) and Kadmon (1990), I will assume that Uniqueness/Exhaustivity is a property inherent to the semantics of definite descriptions and determining their appropriateness as semantic objects.

The implication of uniqueness which has been claimed to be carried by definite descriptions (see references above) is a much discussed issue in the semantic literature. As reported by Kadmon, uniqueness has been argued to be a basic property of definite DPs, actually, the characteristic that distinguishes them from indefinites. This intuition is particularly clear (although, not uncontroversial (see below)), when the definite is anaphoric, i.e. when it refers to an antecedent which is overtly realized in the discourse.

The opponents to this view, like Heim (1982), argue that when the definite is not anaphoric, what is felt as an implication of uniqueness, is in fact the result of pragmatic strategies for felicitous and efficient

⁹ In order to account for the interpretation of certain definite descriptions that appear to be problematic for a definition of reference in terms of 'unique', Löbner (1987) suggested to replace this term by 'unambiguous'.

communication. Hence, according to Heim, uniqueness cannot be considered as an intrinsic property of definite DPs. Consider (17):¹⁰

17 A wine glass broke last night. It had been very expensive.

Heim observes that although the glass referred to in (17) is interpreted as unique, it does not necessarily need to be the only glass that broke. In other words, the tendency to ascribe an implication of uniqueness to definite descriptions does not provide sufficient evidence for uniqueness as an inherent semantic property of such DPs.

Kadmon discusses Heim's analysis and points out that the interpretation of (17) clearly differs from that of (18):

18 A wine glass which had been very expensive broke last night.

While the glass in (17) carries an implication of uniqueness, the glass in (18) does not. The judgements appear to be very subtle and Kadmon acknowledges that some speakers may fail to assign a different interpretation to (17) and to (18). However, this interpretive contrast supports the hypothesis that the implication of uniqueness is a basic property of definite descriptions.

This claim has the far-reaching consequence that all definites are subject to the Uniqueness condition, i.e. all definites must be able to identify their referent in a unique, unambiguous way. Therefore, it must be the case that Uniqueness is satisfied not only by contextual information which is overtly realized in the discourse, but also by alternative strategies, like implication from the knowledge of the world or accommodation of incoming information about the context. Kadmon accounts for this *realistic* analysis of uniqueness by assuming that "In the course of a conversation, the language user develops a discourse representation into which she introduces not only material which directly represents the text of the conversation (plus necessary accommodation), but also additional material brought in by pragmatic processes. Thus objects and facts that are salient in the context as well as

¹⁰ The fact that (17) contains the pronoun *it* instead of a definite DP, does not affect the discussion here.

conversational implicatures may get added into a DRS."¹¹ Leaving the technical details of Kadmon's analysis aside, we turn now to Italian, where this realistic view of uniqueness seems to be supported by empirical data.

Consider again some of the examples we discussed above, repeated in (19) through (21):

- 19 a Avevo invitato uno studente e un professore, ma non erano sicuri di poter venire entrambi.
I had invited a student and a professor but they were not sure they could both come
- b E alla fine chi è arrivato, lo studente o il professore?
so finally who arrived the student or the professor
- c E' arrivato lo studente.
is arrived the student

The definite description *lo studente* in (19c) satisfies the uniqueness condition since the model of interpretation contains just one salient object corresponding to the denotation of 'the student'. This strategy is witnessed for the definites in (20b) and (21b) as well.

- 20 a Chi ha urlato, l'uomo o la donna?
who shouted the man or the woman
- b Ha urlato l'uomo.
has shouted the man
- 21 a Chi ha scritto questo articolo, lo studente o il professore?
who wrote this article the student or the professor
- b L'ha scritto lo studente.
it-has written the student

In these three cases, additional information about the context of interpretation is overtly realized. The definite descriptions in (19c), (20b) and (21b) have an overt antecedent in one of the previous clauses of the discourse, in (19a), (20a) and (21a), respectively.

¹¹ Kadmon's analysis is embedded in Kamp's (1981) DRT.

However, as pointed out by Kadmon, contextual information does not necessarily need to be realized in grammar. Consider (22), which repeats examples from previous sections above:

- 22 a E'arrivato il postino.
 is arrived the postman
 b E' entrato il cane dalla finestra.
 is entered the dog from the window

Suppose that these sentences are embedded in a context where a postman and a dog have already been introduced into the discourse. Then these two definite descriptions are automatically interpreted as anaphoric to their linguistic antecedent which is lexically realized in the same or in some preceding clause. Consider now the opposite case, where both sentences are uttered out-of-the-blue, i.e. without previous knowledge about the context of interpretation. Intuitively, interpretation (which presupposes satisfaction of the Uniqueness requirement) seems to take place by means of a procedure that seeks the potential referent of the definite in subsequent domains of interpretation. These domains appear to be ordered according to their accessibility degree (Ariel 1990). More concretely, the interpretive procedure starts the search for an antecedent in the linguistic context. If there is no such context, like in (22), the interpretive procedure moves on to a less accessible domain of interpretation, for instance, the situation in which the communicative event takes place. This case could be illustrated by the following situation: an unknown dog is rambling around while two persons are involved in a conversation. The two persons are aware of the dog, but they do not mention it. If then (22b) is uttered as an answer to the question 'who entered from the window?', the definite description *il cane* can only refer to the rambling dog, since it is the only salient dog in the domain of interpretation. Suppose, now, that also this operation fails, since there is no salient dog in the conversation. In this case, definites appear to rely on a speaker-oriented deictic mechanism: the postman is interpreted as the man that delivers the mail in the speaker's area, and the dog is interpreted as the speaker's dog. By failure of the deictic interpretation, the next step could possibly imply the recovery of the antecedent from a even less accessible domain of interpretation, like, for instance, the knowledge store.

A suitable example is provided by (23):

- 23 E' arrivato lo studente che ti ha cercato ieri.
 is arrived the student who looked for you yesterday

The complex noun in (23) can be interpreted successfully only on the assumption that there is one and only one student who was looking for me. If these conditions are not met, the Uniqueness requirement is violated and these DPs are not interpretable.

Consider now the problematic example (3d), repeated in (24b):

- 24 a Che cosa è successo?
 what happened
 b #E' arrivato lo studente.
 is arrived the student
 c #Lo studente è arrivato.
 the student is arrived

If only (24a) is given and no further contextual information, the subject in (24b) cannot be interpreted. The interpretive procedure can further search for the referent in a less accessible domain of interpretation. The problem is that, given the organization of the world we live in, definite descriptions like 'the postman' or 'the dog', carry some sort of contextual information, in the sense that these definites refer to entities entertaining some specific relation with other entities. So, for instance, 'the postman' can be related to a specific neighbourhood and 'the dog' to a specific dog owner. This relational property unables us to identify the unique referent of the definite by lack of additional information about the context of interpretation. In the case of the definite 'the student', this procedure is less straightforward, since this DP does not necessarily evoke a relation between entities. Yet, this interpretive strategy cannot be excluded a priori for definite descriptions like 'the student'. Given an ideal world, where a certain department has just one student, (24b) is felicitously interpreted as 'the unique student belonging to that specific department'.¹²

¹² Thanks to Herman Hendriks for pointing out this fact to me.

Summarizing, we observed that satisfaction of Uniqueness implies the search of the most adequate antecedent in the relevant domain of interpretation. This operation appears to follow a specific order, starting by the most accessible domain of interpretation and proceeding to the less accessible one. This is informally illustrated in the diagram in (25):

25	linguistic context	+accessible
	situational context	↓
	deixis	↓
	knowledge store	-accessible

Notice that satisfaction of Uniqueness by identification of its lexical antecedent (Heim's account of Uniqueness) is just one of the possible steps of the interpretive procedure. If the observations so far are correct, satisfaction of Uniqueness must rely on strategies for information retrieval of a pragmatic nature. I do maintain, however, that Uniqueness is a condition concerning the inherent semantics of definite descriptions and that, as such, it is (one of) the factor(s) involved in definiteness effects in Italian.

Finally, I want to point out that the issue concerning the mapping between linguistic markers and discourse objects has been first proposed and extensively discussed by Prince (1981) and Ariel (1990) in a discourse oriented perspective. The term *accessible* in (25) is borrowed from the latter author.

1.5 The Role of Focus

Uniqueness does not seem to be the only factor affecting the felicity of postverbal definite subjects. Consider (26):

- 26 a Il cane stava distruggendo la casa, così l'ho messo in giardino.
the dog was destroying the house so I put him in the garden
- b Perché sei così agitata, allora?
why are you so upset then
- c #Perché è rientrato il cane.

- because came in again the dog*
- d Perché il cane è rientrato.
 because the dog came in again

Why is (26c) infelicitous? The definite description in (26c) satisfies Uniqueness by identifying its referent with the antecedent in (26a). This does not seem to be sufficient to license the definite DP in postverbal position. Intuitively, (26c) is infelicitous because it is not the correct answer to (26b). The meaning of (26c) is that there is a dog, a *new* one, that entered. In other words, the dog in (26c) is interpreted as new information, hence, it cannot refer to the dog we were talking about in (26a). Therefore, the infelicity of (26c) seems to depend on the focus structure of the sentence. The interpretation of *il cane* ‘the dog’ is not compatible with the focus reading associated with the postverbal subject position, since *il cane* has already been mentioned in the discourse by (26a).

These observations are supported by Calabrese (1991), a study exploring the interaction between the informational properties of sentences in Italian and their logical representations. Calabrese observes that postverbal subjects in Italian are always in focus. Since, in Calabrese’s terms, focalization must be seen as the mechanism that introduces new referents into the discourse, it follows that a postverbal subject must always introduce some sort of new information into the conversation. This is particularly clear when the subject is indefinite, as illustrated in (27).

- 27 a E’ arrivato un pacco.
 is arrived a parcel
- b L’ha scritto uno studente.
 It-has written a student
- c Ha telefonato una ragazza.
 has called a girl

The postverbal indefinite subjects in (27) all show up in focus, independently of the type of verb chosen. Since, as is generally assumed, indefinite DPs introduce new referents into the discourse (see Heim, 1982), their interpretation is perfectly compatible with a focalized reading.

Conversely, definites normally refer to an object that has already been introduced into the discourse, hence, their interpretation should not be compatible with a focused reading. However, Italian gives substantial evidence that sentences with postverbal definite subjects can be perfectly acceptable. This is illustrated in (28), where all subjects are definite:

- 28 a E' arrivata la lettera di Maria.
 is arrived the letter of Maria
 b L'ha scritto la mia segretaria.
 it-has written my secretary
 c Ha telefonato la ragazza di Gianni.
 has called the girlfriend of Gianni

The semantics of the DPs in (28) does not seem to block the focused interpretation. In fact, the three sentences are perfect answers to a question of the type 'who/what V-ed?', requiring narrow focus on the subject. Clearly, definites differ with respect to their possibility of bearing focus.

Calabrese discusses these facts and argues that the compatibility of definite DPs with a focused reading can be explained if the notion of definiteness is relativized to the context of interpretation. To this purpose, he introduces two pragmatic notions: the Common Ground and the Universe of Discourse. The former is defined as the set of referents and properties that are shared permanently by the participants to the conversation. The latter as the set of referents and properties that the participants to the conversation share at the moment of the utterance. The two sets do not necessarily have to intersect. The role of focus is assumed to be that of modifying the Universe of Discourse by introducing a new referent or a new property into it.

The advantage of this analysis is that the 'new' or 'old' status of a definite description (i.e. its compatibility with focus) is now relativized to the set which contains its referent. Hence, a definite DP can be old with respect to the Common Ground, but still new with respect to the Universe of Discourse. This explains why certain definites are perfectly compatible with a focus reading.

Calabrese distinguishes between *anaphoric* definites, which have already been introduced into the Universe of Discourse, and *descriptive*

definites, which still have not. The examples below illustrate these two cases. Consider first (29):

- 29 a Mario mi ha scritto una lettera.
Mario to-me has written a letter
 b *E' arrivata la lettera.
is arrived the letter
 c La lettera è arrivata.
the letter arrived

Since the antecedent of an anaphoric definite is linguistically realized in the discourse, it does not introduce any new referent into the discourse. Hence, we predict that it will not be compatible with a focus interpretation. This prediction is correct. The definite in (29b) cannot occupy the focus position since its antecedent is introduced into the conversation by (29a). The sentence can be rescued only by removing the definite DP from the focus position, as illustrated in (29c).¹³

Conversely, a descriptive definite does provide new information with respect to the Universe of Utterance. Consider (30):

- 30 E' arrivata la lettera che aspettavo.
is arrived the letter that I was waiting for

¹³ This claim fails to explain the following fact:
 i #/*E' arrivata la lettera ieri.
arrived the letter yesterday
 ii La lettera è arrivata ieri.
the letter arrived yesterday

Is (i) ungrammatical or just infelicitous? Does (i) violate Uniqueness or the focus condition? On the assumption that these sentences are uttered in the same context as in (29), Uniqueness is satisfied. As for focus, it depends on which element occupies the most embedded (focus) position. If *ieri* 'yesterday' is just a temporal adverb adjoined to the right of VP, the focus position is occupied by the subject. Hence, the infelicity of (i) is a violation of the focus condition, like in (29b). Alternatively, the focus position may be occupied by *ieri*, on the assumption that *ieri* is a temporal argument selected by the verb *arrivare*. Then it would be reasonable to assume that, if a predicate selects an overt argument (or quasi-argument), it loses the option of selecting an implicit one. Since I claimed that subject inversion correlates with the presence of a covert argument, the ungrammaticality of (i) could simply be a violation of the EPP.

Although the referent of the definite DP belongs to the Common Ground (the participants to the conversation knew about the letter), it has not yet been introduced into the actual conversation. It is this relativized novelty that makes the definite DP in (30) felicitous in focus.

Summarizing, Calabrese (1991) provides evidence for the following important points: a) the interpretation of definite descriptions is relative to the relevant domain of interpretation. b) The felicity of definite subjects is affected by the informational properties (in terms of focus) of the clause. For a discussion of the implications of (a), I refer the reader to chapter 4. As for (b), Calabrese's observations support our hypothesis concerning the role of focus for the felicity of definite subjects.

Generalization (31) summarizes these first conclusions. Remember that, so far, we have only examined contexts with inversion verbs. Therefore, (31) generalizes only over this verb type.

- 31 GENERALIZATION (inversion verbs): definite subjects can show up postverbally if they satisfy the following two conditions:
- a) the definite description identifies its referent in a unique (or unambiguous) way (uniqueness condition);
 - b) the definite description must bear new information (as the postverbal subject position is normally identified with focus in Italian (focus condition)).¹⁴

1.6 **Definiteness at a Comparative Level: *There*-sentences**

In 1.1 we started the discussion with a problematic sentence:

- 32 #E' arrivato lo studente.
 is arrived the student

(32) is infelicitous as an answer to 'what happened?' or to 'who arrived?'. Given that (32) satisfies all syntactic requirements applying to subject

¹⁴ Below we will see that the focus condition prohibits the occurrence of anaphoric definites in focus position. In chapter 3 and 4 I will provide a theoretical explanation for the occurrence of anaphoric definite subjects in preverbal position.

inversion, it is not clear why this sentence is not fine. An analysis of (32) as an instance of the DE, as suggested in Belletti (1988), turned out to be unsatisfactory, both at an empirical and at a conceptual level. The relevant data show that the DE in Italian seems to be better accounted for as the result of the interaction of a limited number of independent factors. This line of research is followed by Calabrese (1991). The definiteness effect observed in Italian constructions with postverbal subjects derives from the interaction between the informational structure of these sentences and certain interpretive properties of postverbal definite subjects.

Interestingly, these observations about the behaviour of definite subjects in Italian are corroborated by Ward & Birner's (1995) (henceforth, W&B) recent work on *there*-constructions in English. As is well known, *there*-sentences form the classical environment where definiteness effects show up. As argued in Milsark (1977), Safir (1985), and others, *there*-sentences only allow indefinite DPs in postverbal position. However, this statement is challenged by countless counterexamples. The essence of W&B's analysis is that the DE is epiphenomenal to two distinct conditions: a) a semantic condition on the appropriateness of definite descriptions and b) an informational condition requiring that elements in focus must bear new information. The felicity of a DP as a complement selected by a *there*-construction depends on the simultaneous satisfaction of these two conditions.

W&B explore the interpretive and informational properties of a vast corpus of definites occurring in *there*-sentences. They identify five distinct cases in which formally definite DPs may felicitously occur in *there*-sentences. Notice that what these definites have in common is the fact that they contain new information for the hearer. The following examples are borrowed from W&B (1995):

- 33 a Hearer-old entity marked as hearer-new:
 There were those neighbours at the City Council meeting
 yesterday.
- b Hearer-new tokens of hearer-old types:
 There is the perfect man for Mary in my 210 class.
- c Hearer-old entities newly instantiating a variable:
 What's on the office desk? There's the telephone, but
 nothing else.

- d Hearer-new entities with uniquely identifying descriptions:
There was the tallest boy in my history class at the party last night.
- e False definites:
One day last year on a cold, clear, crisp afternoon, there was this huge sheet of ice in the street.

W&B's basic insight consists in distinguishing between two different factors involved in the licensing of DPs in *there*-constructions: their informational status and the conditions that license them in postverbal position. With respect to the informational aspect, W&B observe that postverbal subjects in *there*-sentences represent information that the speaker believes is not already known to the hearer. Following Prince (1992), they claim that these facts can be accounted for by a pragmatic principle that states that postverbal subjects of *there*-sentences must bear *hearer-new* information. This novelty principle is illustrated in (34), which reports examples by Prince (1992):

- 34 a There were the same people at both conferences.
b There was the usual crowd at the beach.
c There was the stupidest article on the reading list.

However, novelty of information is not sufficient to neutralize the DE in *there*-constructions. In order to show up in postverbal position, a definite DP must satisfy certain semantic conditions concerning its appropriateness as a definite. W&B argue that the definiteness of a DP is licensed by the unique identifiability of the referent. Consider the following examples, as illustration of this point:

- 35 a The tallest boy in my class got an A on the midterm.
b The tall boy in my class got an A on the midterm.

Gregory Ward (p.c.) observes that only (35a) is possible without prior shared knowledge, since there can be only one 'tallest boy' in any single class. Hence, the presence of the superlative enables us to identify the referent of the definite DP in a unique way. This predicts that (35a), but not (35b) will be fine in a *there*-sentence:

- 36 a There was the tallest boy in my class at the party.
 b #There was the tall boy in my class at the party.

The infelicity of (36b) is consistent with W&B's claim that definite DPs can show up in *there*-sentences only if their referent can be identified in a unique way.

W&B's study shows that the DE in *there*-sentences is neutralized iff the following two conditions are met: a) the definite DP must bear hearer-new information and b) it must be able to identify its referent in a unique way. Crucially, the very same conditions were said to determine the felicity of definite subjects in postverbal position in Italian.

Previous accounts of the DE (see Safir 1985 and Belletti 1988) aimed at a comparative explanation of the phenomenon. Notice that this parallelism is not lost in the analysis I propose. The DE has been reduced to the effect of two primary factors: focus and inherent semantics of the definite descriptions. Given the universality of both notions, we expect that languages will not differ in this respect. A first confirmation that this is a reasonable approach is provided by Ward & Birner's work.

1.7 Definite Subjects with Non-Inversion Verbs

In section 1.1 we decided to consider only constructions with inversion verbs, since this would exclude the possibility that purely interpretive facts are obscured by interfering syntactic conditions blocking subject inversion. For the sake of completeness, we now examine the distribution and interpretation of definite subjects in contexts with non-inversion verbs.

Do Uniqueness and the focus condition hold for definite subjects in non-inversion verb contexts as well? Since Uniqueness is a condition inherent to the semantics of definite descriptions, it is expected to hold independently of the position in which the subject shows up (see also section 1.4.1). As for the focus condition, matters are more complex. Subjects of non-inversion verbs cannot show up in postverbal position with a wide focus interpretation. Hence, the focus condition is irrelevant in this case. On the other hand, subjects of non-inversion verbs occur postverbally if they have a narrow focus interpretation, in which case we expect that the focus condition does apply.

Consider the following examples that illustrate the interaction of Uniqueness with the focus condition:

- 37 a Chi ha scritto questa lettera?
who has written this letter
- b L'ha scritta Beatrice.
it-has written Beatrice
- c L'ha scritta il postino.
it-has written the postman
- d #L'ha scritta lo studente.
it-has written the student

(37a) requires an answer with the narrow focus reading of the subject, i.e. the subject is in focus, so it should contain new information. Do the definites in (37b-c) satisfy Uniqueness and the focus condition?

The proper name *Beatrice* in (37b) is a constant, hence Uniqueness is satisfied. The definite description *il postino* in (37c) satisfies Uniqueness by means of a pragmatic strategy (see section 1.4.1 for details). However, the definite description *lo studente* in (37d) can only be interpreted if it refers to a previously introduced student, i.e. if it is anaphoric.¹⁵ We thus see that Uniqueness uniformly applies to definite subjects of inversion and non-inversion verbs.

Let us turn now to the focus condition. The facts in (37) become clearer if we adopt Calabrese's (1991) distinction between Common Ground and Universe of Discourse (see section 1.5 of this chapter). According to Calabrese, focus is relevant only for the Universe of Discourse (i.e. the actual conversation) and definites that are not yet introduced into it count as new for the focus condition. Now, the definite subjects in (37b) and (37c) are introduced into the conversation for the first time, hence they satisfy the focus condition. By contrast, the definite description in (37d) cannot be new. As we have just seen, the definite *lo studente* can satisfy Uniqueness only if it is anaphoric to a previously introduced antecedent. But if this is the case, *lo studente* violates the focus condition, as an anaphoric definite contains old information by definition.

¹⁵ Or, alternatively, if there is only one salient student in the context of interpretation.

Summing up. In the light of the data we have just examined, we conclude that Uniqueness and the focus condition uniformly apply to definite subjects of inversion and non-inversion verbs. In other words, generalization (31), repeated in (38), appears to hold independently of the type of the relevant verb:

- 38 GENERALIZATION (for all verbs): in Italian definite subjects can show up postverbally if they satisfy the following two conditions:
- a) the definite description identifies its referent in a unique (or unambiguous) way (uniqueness condition);
 - b) the definite description must bear new information (as the postverbal subject position is normally identified with focus in Italian (focus condition)).

From (38) it follows that only subject definite descriptions that satisfy the Uniqueness requirement by means other than anaphoric dependency are admitted in postverbal position.

Before concluding this discussion I would like to signal an interesting point. Consider (39):

- 39 a Chi ha scritto questa lettera, Beatrice o lo studente?
who wrote this letter, Beatrice or the student
- b L'ha scritta lo studente.
it-has written the student

Given the discussion so far, the acceptability of (39b) is unexpected. The postverbal definite *lo studente* is anaphoric to the definite introduced in (39a). However, just because of its anaphoric status, *lo studente* should violate the focus condition rendering the whole sentence unacceptable.

This apparent contradiction is justified by the fact that (39) is an instance of *contrastive* focus, which I assumed to be distinct from the notion of informational focus discussed so far. In chapter 4 we will return to this type of facts and I will suggest an analysis that possibly fits the general framework assumed throughout this study.

2 Indefinite Subjects

In the first part of this chapter we explored the behaviour of postverbal definite DPs. The occurrence of a definite in postverbal position appears to be determined by two main factors: its informational properties (focus) and the satisfaction of the Uniqueness requirement. Focus (indirectly) affects the distribution of constituents in syntax, whereas the semantic condition of uniqueness of reference determines the interpretability of definite descriptions, independently of the position in which these show up. Thus, a definite DP can occupy the postverbal subject position if it satisfies these two conditions, i.e. if it can be interpreted in accordance with the cardinality presuppositions proper to its semantics, and if it carries new information.

From these observations it should naturally follow that indefinite DPs are always felicitous as postverbal subjects, since, according to Heim's (1982) *Novelty Condition*, an indefinite introduces new entities into the discourse. With this in mind, let us consider the examples below:

- 40 La marina americana aveva stazionato tre navi nel Golfo di
 Aqaba.
 the U.S. Navy had stationed three ships in the Aqaba Gulf
- a #Il giorno dopo è affondata una nave.
 the next day sank a ship
- b Il giorno dopo una nave è affondata.
 the next day a ship sank

Suppose that the ship that sank was one of the three which had been stationed there by the U.S.A. Navy. What is the reason for the infelicity of (40a) and why is (40b) preferred? (40a) and (40b) have different interpretations which seem to correlate with the positions in which the subject shows up. (40a), with the subject in postverbal position, reports about the sinking of a ship, without any commitment as to the identity of this ship. (40b), with a preverbal subject, reports about the same event, but the ship involved is clearly interpreted as one of the three stationed in the Aqaba Gulf. Given the context of interpretation, only (40b) is a felicitous continuation of the discourse.

Thus, indefinite subjects in Italian reveal the existence of a correlation between their structural position and their interpretation (as do many other

phenomena involving indefinites).¹⁶ An indefinite DP in preverbal position is informationally related to the previous discourse. This particular interpretation seems to be obligatory in inversion verb contexts. When the same indefinite occupies the postverbal subject position, this reading disappears and the indefinite subject gets the existential/presentational interpretation.

This section will be concerned with a closer analysis of the semantic/informational properties of indefinite DPs that seem to be involved in the distribution of subjects in Italian, aiming at the identification of the relevant factors and at the understanding of their correlation with syntactic structure.

Since Diesing (1988) and Kratzer (1989) it has become fashionable to account for certain (apparent) correlations between meaning and syntactic configuration by assuming a direct relationship between sentence structure and logical representation. In other words, interpretive notions such as *specificity* and *presuppositionality* are supposed to be read off the syntactic representation.¹⁷ This is the basic assumption of a proposal which is known as the *Mapping Hypothesis*. Briefly, Diesing argues that at LF, a tree-splitting operation takes place whereby sentence structure is translated into a logical representation, consisting of a *nuclear scope* and one or more *restrictive clauses*. The relation between syntax and semantics is straightforward: material inside the VP is mapped into the nuclear scope and material outside the VP is mapped into the restrictive clause. According to Kratzer (1989), only nuclear scopes can undergo existential closure. This should account for the fact that VP-internal indefinites can only be interpreted as existentials, whereas VP-external indefinites, being part of the restriction, will be interpreted as presuppositional (specific). Languages are supposed to differ according to the level (overt syntax or LF) on which the mapping procedure takes place.

¹⁶ Cf. Saccon (1993) who argues that a [+presupposed] NP cannot remain inside the VP. Her approach is highly reminiscent of Diesing's claim that *presuppositional* elements must be mapped into the restrictive clause (i.e. VP-externally). As it will become clear in chapter 4, the analysis I will offer radically departs from the view that a particular interpretation correlates with an *absolute* syntactic position.

¹⁷ Diesing (1988, 1992) claims that the term *presuppositional* is equivalent to Enç' *specific*.

Diesing's Mapping Hypothesis will be extensively discussed in chapter 4. We will evaluate Diesing's proposal with respect to the difficulties it meets in order to account for the subject inversion phenomenon in Italian.

Our study will start by examining sentences with inversion verbs. As I explained in the previous section, this choice is motivated by the fact that whereas possible infelicity or ungrammaticality of sentences with non-inversion verbs can be caused either by interpretive or by syntactic reasons, in the case of inversion verbs, the syntactic factor can be excluded a priori, since these predicates allow free inversion. Therefore, inversion verbs will permit us to concentrate exclusively on the interpretive properties of indefinite subjects.

The group of inversion verbs consists roughly of two types of predicates that differ from each other at the level of argument structure. Both types of predicates select additional loco/temporal arguments. However, in the case of verbs like *arrivare* 'arrive' or *chiamare* 'call' this argument can be covert. In the case of verbs like *vivere* 'live' or *lavorare*, 'work', the loco/temporal argument has to be realized overtly as a PP.

Once we have isolated the relevant interpretive properties, we will return to non-inversion verbs in order to study the interaction between the limited structural options available and the necessity of encoding interpretation.

2.1 Indefinite Subjects of Inversion Verbs

In this first section I will try to determine what the possible interpretations of an indefinite subject are in Italian and whether the distribution of these different readings is somehow related to the preverbal or postverbal position of the subject.

2.1.1 The Interpretation of the Postverbal Indefinite Subject

Let us start with verbs that select an implicit argument and consider the possible answers to the question in (41a):

- 41 a Che cosa è successo?
 what happened
 b #Una nave è affondata.
 a ship sank

- c E' affondata una nave.
sank a ship
- d #Un pacco è arrivato.
a parcel arrived
- e E' arrivato un pacco.
arrived a parcel
- f #Uno studente ha telefonato.
a student called
- g Ha telefonato uno studente.
called a student

When (41a) is uttered out-of-the-blue, i.e. when no previous information concerning the context of utterance is assumed, we observe that an answer with the indefinite subject in preverbal position is not felicitous. This is illustrated in (41b), (41d) and (41f). Conversely, (41c), (41e) and (41g) show that a felicitous answer must have the indefinite subject showing up postverbally. In this position the indefinite gets an existential/presentational reading, which means that (41c), (41e) and (41g) are statements about the existence of a ship, a parcel and a student, respectively, and that these three entities are introduced into the discourse for the first time. For ease of exposition, I will refer to the existential/presentational reading by the term *weak* (see Milsark 1977).¹⁸ This reading is the most natural answer to an out-of-the-blue question like (41a) and it is expressed in logical form by the presence of the existential operator, as illustrated in (42) for one of the sentences in (41):

- 42 a E' arrivato un pacco.
arrived a parcel
- b $\exists x$ [parcel(x) & arrived(x)]

Although the preverbal subject position is structurally available (i.e. grammatical), the interpretation the indefinite DP gets in this configuration is not felicitous as an answer to (41a).

¹⁸ Following Milsark (1977) and de Hoop (1992) I will use the term *strong* to refer to the non-existential interpretation of indefinites.

Consider now some instances of inversion verbs with the extra argument overtly realized. Again, we embed the examples in an out-of-the-blue context:

- 43 a Che cosa è successo?
what happened
- b #Un poeta ha vissuto in questa casa.
a poet lived in this house
- c In questa casa ha vissuto un poeta.
in this house lived a poet
- d #Molti linguisti hanno studiato in questa università.
many linguists studied in this university
- e In questa università hanno studiato molti linguisti.
in this university studied many linguists
- f #Due ministri hanno dato le dimissioni in questo ufficio.
two ministers resigned in this office
- g In questo ufficio hanno dato le dimissioni due ministri.
in this office resigned two ministers

As in the previous set of examples, we see that the indefinite subject must occur postverbally, since only in this case does it have the required weak interpretation. Note also that this reading is not only available with the indefinite article but also with other indefinite, or weak, determiners like *molti* ‘many’ and cardinals. The indefinites *molti* ‘many’ in (43d) and *due* ‘two’ in (43f) must be interpreted as *cardinality words* (Milsark, 1977), i.e. as words indicating the size of the nominal, but not affecting the weak reading of the whole DP.

The data we have examined so far seem to indicate that there is a correlation between the weak reading of the indefinite subject and its occurrence in postverbal position. Let us assume for the moment that this is the correct generalization and turn to the preverbal indefinite subjects.

2.1.2 The Interpretation of the Preverbal Indefinite Subject

As answers to an out-of-the-blue question, (41b-d-f) and (43b-d-f) are all infelicitous. However, there is a context in which these sentences are

perfectly correct. Consider the following piece of discourse, repeated from (40):

- 44 a La marina americana aveva stazionato tre navi nel Golfo di Aqaba.
the U.S. Navy had stationed three ships in the Aqaba Gulf
- b #Il giorno dopo è affondata una nave.
the next day sank a ship
- c Il giorno dopo una nave è affondata.
the next day a ship sank

(44a) introduces three ships into the context of utterance. If the discourse continues with the sentence in (44b), the postverbal indefinite *una nave* ‘a ship’, does not refer to one of the three ships in the Aqaba Gulf but to a fourth, different ship, which is introduced for the first time (existential interpretation). Grammatically speaking, (44b) is a perfect sentence. However, from a pragmatic, communicative point of view, (44b) sounds rather odd and (44c) is preferred, since the preverbal indefinite *una nave* ‘a ship’ is unambiguously interpreted as one of the three ships in the Aqaba Gulf. Notice, crucially, that (44c) can be paraphrased by means of a partitive, like in (45):

- 45 Il giorno dopo una delle navi è affondata.
the next day one of the ships sank

The ship in (45) necessarily belongs to the set of ships which were stationed in the Aqaba Gulf. Consider one more instance of this interpretive effect.

- 46 a L'editore aveva spedito una dozzina di libri.
the editor had sent a dozen of books
- b #Stamattina sono arrivati molti libri.
this morning arrived many books
- c Molti libri sono arrivati stamattina.
many books arrived this morning

Given the existence of *una dozzina di libri* ‘a dozen of books’, introduced in (46a), the most natural way of continuing the discourse is as in (46c), where the preverbal indefinite is interpreted as ‘many of the books’, i.e. the books that arrived are part of the set that the editor sent.

A similar structure obtains with inversion verbs that select an overt loco/temporal argument:

- 47 a In questo paese ci sono molti linguisti famosi.
in this country there are many famous linguists
- b Un linguista ha studiato in questa università.
a linguist studied at this university
- c #In questa università ha studiato un linguista.
at this university studied a linguist
- 48 a Quando è scoppiato lo scandalo, trenta ministri hanno dovuto andarsene.
when the scandal broke out thirty ministers had to quit
- b Tre ministri hanno dato le dimissioni in questo ufficio.
three ministers resigned in this office
- c #In questo ufficio hanno dato le dimissioni tre ministri.
in this office resigned three ministers

The postverbal indefinite subjects in (47c) and (48c) can only get the existential/presentational reading. This interpretation, however, is infelicitous in this particular interpretive context. Conversely, the preverbal indefinite article in (47b) and the preverbal cardinal in (48b) are interpreted as referring to a subset of the entities introduced in (47a) and (48a), respectively. (49a) and (49b) give the paraphrases of the respective interpretations.

- 49 a Uno dei linguisti ha studiato in questa università.
one of the linguists studied at this university
- b Tre dei ministri hanno dato le dimissioni.
three of the ministers resigned

So, we observe that the preverbal subject position of inversion verbs correlates with a particular interpretation of the indefinite subject. At an

intuitive level, the indefinite subject must be interpreted as being ‘discourse related’. At a slightly formal level, this particular interpretation of the indefinite can be expressed by means of a partitive DP. This is illustrated in (50):

50 [DP Det of the N]

Crucially, the definite complement of the partitive, i.e. the superset out of which the determiner makes a selection, must be given in the discourse. We will return to this point in section 4.7. For the time being, we will refer to the reading associated with preverbal indefinite subjects by the purely descriptive term of *partitive interpretation*.

The data we have analyzed so far point towards a certain correlation between the interpretive properties of the indefinite subject and the syntactic position it occupies. The descriptive generalization in (51) summarizes these first findings. Remember that we are only considering *inversion* verbs:

51 Indefinite subjects in Italian (1st version):
 preverbal subject → partitive interpretation
 postverbal subject → weak interpretation

The terminology in (51) is still tentative. In order to get a clearer understanding and a better definition of the phenomena involved, we turn now to the examination of certain facts occurring in different languages which seem to involve similar interpretive notions.

2.2 Strong and Weak Interpretation

In the previous section we used the term *partitive* for the reading associated with the indefinite DP in preverbal subject position. The reason to call it partitive was motivated by the fact that a weak DP occurring in this position is interpreted as a covert partitive.

The interpretive facts we observed for Italian appear to occur in a variety of different languages as well, as reported in Reuland (1988), Rullmann (1989), Enç (1991), Abbott (1992), de Hoop (1992), a.o.. What we labelled partitive interpretation is also referred to as the *specific* reading of

indefinites. Although these two terms are often used interchangeably, they subsume slightly different semantic concepts, thus leading to some terminological confusion.

The goal of this section is quite modest. I will simply examine whether and to which extent these interpretive facts are relevant for the study of subject inversion in Italian. The discussion will be centred around two main questions a) which interpretive notions play a relevant role in the facts observed in Italian? and b) are these notions syntactically relevant?

2.2.1 Specificity vs. Partitivity

The apparent relation between a certain interpretive notion and a structural property has been attested in other languages, as well. The interpretation of the direct object in Turkish is a well-known example. Enç (1991) reports that indefinites in object position can be interpreted either as specific or as nonspecific, depending on whether the object bears the accusative Case morpheme $-(y)i$ ¹⁹ or not. Enç gives the examples in (52):

- 52 a *Ali bir piyano-yu kiralamak istiyor.*
 Ali one piano-ACC to rent wants
 ‘*Ali wants to rent a certain piano*’
- b *Ali bir piyano kiralamak istiyor.*
 ‘*Ali wants to rent a (nonspecific) piano*’

The accusative morpheme on the direct object in (52a) triggers the specific reading: there is a particular piano that Ali wants to buy. In other words, the object is interpreted as having wide scope with respect to the modal verb. Conversely, the absence of accusative Case on the object in (52b) correlates with a nonspecific reading, that Ali wants to buy some piano or other. In this case the object is interpreted as having narrow scope with respect to the modal.

The specific/nonspecific interpretation of the examples in (52) can be accounted for in terms of relative scope between the indefinite DP and the modal verb (or other operator-like elements in the sentence). However, Enç

¹⁹ Due to vowel harmony, the vowel of the case morpheme can vary in roundness and frontness.

shows that these specificity effects show up even in absence of operators. Consider the following piece of discourse from Enç (1991:6):

- 53 a Odam-a birkaç çocuk girdi.
my-room-DAT several child entered
'several children entered my room'
- b İki kız-ı tanıyordum.
two girl-ACC I-knew
'I knew two girls'
- c İki kız tanıyordum.
two girl I-knew
'I knew two girls'

In (53b) the object is marked with accusative Case and it denotes individuals belonging to the set of children introduced in (53a). Conversely, the object in (53c) does not bear accusative Case and *iki kız* 'two girls' are introduced into the discourse for the first time. Crucially, the accusative object in (53b) is interpreted as a *concealed partitive* (this term is borrowed from Rullmann 1989). As Enç observes, (53b) can be paraphrased by means of an overt partitive, like in (54):

- 54 Kız-lar-dan iki-sin-i tanıyordum.
girl-PL-ABL two-AGR-ACC I-knew
'I knew two of the girls'

On the basis of these facts, Enç argues that specificity should not be reduced to scope relations. Since the interpretation of the object in (53b) involves partitivity, Enç states that specificity *is* partitivity.

The definition of specificity in terms of partitivity implies that the interpretation of a specific DP is strictly related to the referential and informational properties of the definite part (complement) of the partitive DP.²⁰ As Enç points out, the denotation of the definite complement of a partitive construction must be preestablished in the discourse. From a conceptual point of view, this implies that specificity can only be formalized

²⁰ A detailed discussion of the consequences of this approach is postponed to chapter 4.

as a derived notion, which is based on the type of linking between the concealed definite complement and the discourse.

According to Enç, the definiteness/indefiniteness distinction of DPs combined with the type of linking the DP has with discourse give the following options:

- 55 a specific indefinites (partitives)
- b non-specific indefinites (existentials)
- c definites (always specific)

The DPs in (53b) and (54) are specific indefinites: the determiner is indefinite but the concealed definite complement refers to a superset previously established in the discourse. Specific indefinites thus involve a relation of inclusion. Non-specific indefinites are just existentials, i.e. these DPs introduce a new entity in the discourse. Finally, definites are here claimed to be always specific. Definites identify a unique referent, hence the linking relevant for definites is the identity relation. Since identity entails inclusion, Enç argues that definites are always specific.

Let us turn to Italian and try to identify the interpretive notion involved in the facts we observed in the previous subsection. Consider again Enç's example in (53) and compare it to the following piece of discourse in Italian:

- 56 a *Aspettavo un gruppo di studenti dall'estero.*
I was waiting for a group of students from abroad
- b *Due ragazze sono arrivate (stamattina).*
two girls arrived (this morning)
- c *#A proposito, sai cosa è successo durante la festa? Due ragazze sono arrivate.*
by the way do you know what happened at the party
two girls arrived

(56) illustrates one of the interpretive facts discussed above for Italian. (56a) introduces a group of students into the discourse. The subject *due ragazze* 'two girls' in (56b) can only refer to two members of the set of individuals introduced before. This is the only possible interpretation of the preverbal indefinite. (56c) shows that if the indefinite gets the weak interpretation, i.e.

if the two girls do not belong to the preestablished set, the sentence is infelicitous.

Notice that the mechanism that associates the partitive interpretation of the indefinite DP with a preestablished superset is reminiscent of what we observed in the first part of this chapter with respect to definite DPs. Definites must be able to identify their antecedent in an unambiguous way and identification requires either a lexically realized antecedent or a salient antecedent which is pragmatically retrieved from the knowledge store of the participants to the conversation. Specific indefinites are subject to the same condition. The preverbal indefinite is interpreted as part of a preestablished superset, which can either be overtly realized in the previous discourse, like in the case of (56a) and (56b), or pragmatically inferred from the knowledge store. The latter case is illustrated in (57):

- 57 a *La nazionale italiana doveva arrivare domani mattina.*
 the Italian soccer team was due to arrive tomorrow
 morning
- b *Due giocatori sono arrivati oggi pomeriggio.*
 two players arrived this afternoon

Even if the noun ‘players’ has no linguistic antecedent in the discourse, from our knowledge of the world we infer that the two players belong to the group of at least eleven players that form the Italian national team. Hence, on analogy with what happens with definites, if the identification of the antecedent/superset of the partitive indefinite fails, the DP is uninterpretable and the sentence is ruled out as infelicitous (recall that the existential interpretation of an indefinite in preverbal position is not possible: a fact which still needs to be explained, see section 2.3.1).

So, the intuitions concerning the interpretation of preverbal indefinite subjects in Italian are reminiscent of the interpretive data discussed by Enç for Turkish. Apparently, in Turkish specificity is encoded morpho-syntactically (by means of structural Case realized as an overt morpheme on the direct object), whereas in Italian it seems to correlate with a certain syntactic position. We will return to this point in chapter 4. If our assumption that the facts described in (56) form the Italian counterpart of the interpretive

phenomenon discussed by Enç is correct, we may conclude that in both cases the relevant reading is the *partitive* reading.

2.2.2 Indefinite Subjects in Dutch

Dutch is another language where interpretive differences appear to correlate with syntactic structure. In addition to the canonical preverbal subject position (to which we will refer as the *VP-external* subject position), this language also has a *VP-internal* subject position that becomes available in expletive *er*-constructions. As has been pointed out by Reuland (1988), indefinite subjects in *VP-external* position are grammatical only if they can be interpreted as specific. Consider the following examples, taken from Reuland (1988):

- 58 a Fred denkt dat twee koeien in de tuin zijn.
 Fred thinks that two cows in the garden are
 b *Fred denkt dat een koe in de tuin is.
 Fred thinks that a cow in the garden is

The subject *twee koeien* ‘two cows’ in (58a) can only be interpreted as referring to two cows belonging to a preestablished set of cows. Reuland refers to this as the specific reading of the indefinite. (58a) shows that a *VP-external* subject can get the specific interpretation. What has to be shown now is that a *VP-external* subject *must* get a specific interpretation. This is difficult to prove as weak determiners in Dutch can have both the strong and the weak reading (de Hoop 1992).

Reuland points out that, for reasons that do not concern us here, the indefinite article *een* in Dutch differs from the other weak determiners, in the sense that it only allows the existential interpretation. *Een* may thus be used as a test: if the *VP-external* position allows only the specific reading of the subject, the occurrence of *een* will give rise to an interpretive crash. This prediction is borne out. The ungrammaticality of (58b) shows that the *VP-external* subject position cannot host an indefinite with an existential interpretation.

Consider now the *VP-internal* subject position, in an existential *er*-construction. Again, the examples are borrowed from Reuland (1988):

- 59 a Fred denkt dat er twee koeien in de tuin zijn.
Fred thinks that there two cows in the garden are
- b Fred denkt dat er een koe in de tuin is.
Fred thinks that there cow in the garden is

The subject in (59a) is interpreted as non-specific, that is to say, there are two individuals in the garden and they have the property of being cows. The subject in (59b) must be interpreted in the same way. In both cases the indefinite does not belong to a preestablished set in the discourse.

Notice that what Reuland calls the specific interpretation crucially relies on the presence of a preestablished set of individuals in the discourse. In other words, an element is specific if its referent belongs to such a set. On the grounds of the considerations we made with respect to Turkish specificity facts and Italian partitive facts, we deduce that the Dutch interpretive facts too can be accounted for in terms of covert partitivity. If this conclusion is correct, the VP-external subject position would correlate with the partitive reading, whereas the VP-internal position would be associated with the non-partitive interpretation, which we referred to as *weak*. Like Italian, Dutch seems to encode partitivity in syntax, exploiting the presence of two different subject positions.

The distribution and interpretation of indefinite subjects in Dutch can be summarized by this first generalization:

- 60 Indefinite Subjects in Dutch (1st version):
 VP-external subject → partitive interpretation²¹
 VP-internal subject → weak interpretation

Note that the clearcut pattern in (60) supports Diesing's analysis of the direct mapping of syntactic structure into logical representation. As predicted by the Mapping Hypothesis, VP-internal subjects get the weak interpretation, whereas VP-external subjects are interpreted as strong. In the next pages, however, more data on the distribution and interpretation of Dutch subjects

²¹ This generalization seems to hold only for subjects of unergative and unaccusative verbs. Reuland (1988) points out that this specificity effect disappears in a sentence with a transitive verb. Interestingly, a similar conclusion will appear to hold for Italian too. See section 2.5.

will show that generalization (60) has to be revised in such a way that it becomes potentially incompatible with the MH.

2.2.3 The Referential Reading

The VP-external subject position in Dutch seems to be subject to an indefiniteness restriction: indefinite subjects with a weak interpretation cannot show up in this position. Obviously, this restriction does not apply to indefinites with a strong interpretation.

According to Rullmann (1989), indefinites can show up in the VP-external subject position in the following cases: when the indefinite is subject of a generic sentence, when it is subject of a conditional, when it can be interpreted as a concealed partitive and, finally, when it refers to a specific individual.

What concerns us most in this study are the partitive and the specific readings of the indefinite subject.²² Let us look at them in more detail:

- 61 a Toen ik de bibliotheek in wilde gaan werd de ingang geblokkeerd door een groep studenten.
when I the library wanted to enter the entrance was blocked by a group of students
- b Ik hoorde later dat twee studenten gearresteerd waren.
I heard later that two students had been arrested
- c Ik hoorde later dat twee van de studenten gearresteerd waren.
I heard later that two of the students had been arrested
- d Ik hoorde later dat twee meisjes gearresteerd waren.
I heard later that two girls had been arrested

In (61b) the indefinite subject shows up VP-externally. Rullmann claims that (61b) is perfectly felicitous because the subject can be interpreted as a covert partitive. In other words, *twee studenten* ‘two students’ in (61b) must be interpreted as belonging to the set of students which were introduced into the discourse in (61a). This corresponds to the reading which is associated with

²² Although the generic interpretation in Italian is preferably associated with plural definites, generic indefinites seem to have the same distribution as in Dutch. However, the behaviour of generics will remain outside the scope of this study.

the overt partitive in (61c). The grammaticality of (61d) confirms what we observed for similar constructions in Italian. The concealed partitive must identify its superset, but the latter can either be explicitly introduced into the discourse, or inferred from the context by means of some pragmatic procedure. For instance, the subject *twee meisjes* ‘two girls’ is interpreted as belonging to the set of students introduced in (61a). The DP ‘two students’ in (61b) and ‘two girls’ in (61d) cannot denote two new individuals which had not yet been introduced into the context.

Another exception to the indefiniteness restriction discussed by Rullmann concerns the interpretation of the indefinite DP as referring to a specific individual. Consider (62), from Rullmann (1989):

- 62 a Ik hoop dat een oude vriend van mij morgen op bezoek komt.
 I hope that an old friend of mine tomorrow will visit me
 b Ik hoopte dat een student, wiens moeder ik trouwens nog van vroeger kende, op bezoek zou komen.
 I hoped that a student whose mother I by the way used to know would visit me

Rullmann observes that the VP-external indefinite subject in (62a) can only mean that there is a specific friend of mine about whom I entertain the hope that he will visit me tomorrow. Similarly, the subject in (62b) must be interpreted as referring to a specific student whose mother I have known for a long time.

On the basis of these examples, Rullmann identifies the specific subjects in Dutch with the so-called *referential* indefinites proposed by Fodor & Sag (1982). Accordingly, the term *referential reading* of an indefinite DP implies *rigid designation*, i.e. the indefinite denotes an individual whose identity is determined by the speaker’s intentions (see also Abbott 1992). Ruys (1992) argued that this particular interpretation is the indirect result of scope relations in the clause. An indefinite is interpreted as referential if it gets maximally non-narrow scope, independently of any other scopal element in the sentence. Since, in this case, the indefinite exhibits the same properties as a referential expression, its interpretation is said to be referential.

Let us try to draw some conclusions about the interpretive properties of VP-external subjects in Dutch. According to Reuland (1988), subjects in this position get the specific reading. A closer examination of what this interpretation stands for revealed that the term specific, here, must be understood as *partitive* in Enç's sense. However, Rullmann claims that, in addition to the partitive reading, a VP-external subject can also get the *referential* interpretation, which has to be understood as rigid designation. On the basis of this overview, the descriptive generalization for Dutch must be modified as in (63):

- 63 Indefinite Subjects in Dutch (2nd version):
- | | |
|---------------------|------------------------------|
| VP-external subject | → partitive interpretation |
| | → referential interpretation |
| VP-internal subject | → weak interpretation |

We observe that, whereas in the case of the partitive interpretation the indefinite refers to a partition of a contextually relevant set, in the case of the referential reading, the indefinite must be able to rigidly refer to a certain individual. Arguably, this operation must involve some pragmatic procedure, since the antecedent is determined by the context of utterance.

2.2.4 VP-internal Subjects in Dutch

In de Hoop (1992) the partitive, referential and generic readings of indefinite DPs are unified under the term *strong* interpretation, in opposition to the weak/existential interpretation. De Hoop is mainly concerned with the behaviour of direct objects in scrambling contexts. (64) illustrates an instance of this phenomenon.

- 64 dat de politie twee krakers gisteren opgepakt heeft.
 that the police two squatters yesterday arrested

The direct object in (64) has scrambled out of its VP-internal position past the adverb: in this derived position the object appears to get only the strong interpretation.^{23 24} The interpretation of objects in Dutch seems to correlate

²³ De Hoop (1992) assumes that scrambling is the result of A-movement.

with their structural position in a way that is reminiscent of the distribution of VP-external vs. VP-internal subjects in *er*-sentences and of pre- or postverbal subjects in Italian. Interestingly, de Hoop observes that the position which is normally associated with the weak reading of the indefinite (i.e. the VP-internal position for subjects and the non-scrambled position for objects) can also host an indefinite with a strong reading. (65) reports two of de Hoop's examples:

- 65 a Er zijn ENKELE taalkundigen in de kroeg.
 there are some linguists in the pub
 b Er slapen twee van de katten.
 there sleep two of the cats

The two indefinite subjects in (65) show up in the VP-internal subject position of an existential *er*-sentence.

Given generalization (64), we would expect that these sentences are infelicitous, since an indefinite in the VP-internal subject position gets the existential interpretation, which is not available with a partitive. De Hoop, however, claims that both sentences are perfectly felicitous with the partitive reading of the indefinite subject.²⁵

Similarly, the referential reading too seems to be available in the VP-internal subject position and in the non-scrambled object position.

- 66 a Ik geloof dat er een bepaald probleem in het voorstel zit.
 I think that there a certain problem in the proposal is
 b Ik heb gisteren een moeilijk probleem gedefinieerd.

²⁴ Ruys (1996) gives the following counterexample to this generalization, showing that the strong reading of the object is not required:

- i dat elke arts wel een of andere ziekte (meestal) met penicilline behandelde.
 that every doctor some or another disease mostly with penicillin treated
 ‘that every doctor treated sm disease or other mostly with penicillin’

²⁵ De Hoop ascribes the availability of the strong reading for both VP-internal subjects and non-scrambled objects to her Principle of Contrastiveness. According to the PoC, the contrastiveness of the predicate in (25b) and the contrastive focus on the determiner in (25a) require strong Case, from which the strong reading derives.

I have yesterday a difficult problem defined

Both indefinite subjects in (66) are interpreted as referential, since they denote a specific object that the speaker has in mind.

Summarizing, the data we have analyzed so far indicate that generalization (64) has to be revised in the following way:

- 67 Indefinite Subjects in Dutch (final version):
- | | |
|---------------------|------------------------------|
| VP-external subject | → partitive interpretation |
| | → referential interpretation |
| VP-internal subject | → weak interpretation |
| | → partitive interpretation |
| | → referential interpretation |

(67) states that, in Dutch, indefinites with a referential or a partitive reading can occur in both subject positions. The referential and the partitive interpretation do not seem to have a specific structural correlate. Conversely, the distribution of indefinite subjects with existential interpretation seems to be limited to the VP-internal subject position. Hence, the gist of this generalization is that weak indefinites cannot occur in the VP-external subject position.

De Hoop (1992) observes that the distribution of subjects in Dutch parallels the distribution of direct objects: in both cases, weak indefinite DPs cannot occupy a derived position. She also argues that these facts provide strong evidence against the Mapping Hypothesis. Diesing (1992) claims that, in languages like German and Dutch, the mapping procedure takes place in overt syntax. This implies that, in these languages, the correlation between syntactic position and interpretation is established at surface structure. In other words, material inside the VP should only have the weak interpretation, whereas material outside the VP should only have the strong interpretation.

Clearly, generalization (67) does not support Diesing's prediction, since indefinites with the strong reading are also found inside the VP. Therefore, the Mapping Hypothesis appears to be empirically inadequate. De Hoop (1992) extensively discusses the MH on the basis of data from Dutch and shows that this hypothesis has serious shortcomings at a conceptual level, as well. In chapter 4 we will examine some of de Hoop's points and, in the light

of her conclusions, we will try to propose an alternative analysis for the Italian facts.

2.2.5 Problems with Referentiality

The referential reading of indefinites encounters some conceptual problems, particularly in view of its possible encoding in grammar. Fodor & Sag (1982) (henceforth: F&S) observe that the referential interpretation seems to correlate with a distinct semantic property of the indefinite, i.e. with its tendency to take widest scope with respect to other scopal elements in the sentence. In their view, this fact motivates the existence of a separate interpretive notion which they propose to encode in the lexical entry of the relevant determiner.

De Hoop (1992) shares F&S's view on the relevance of referentiality as a grammatical notion. However, she rejects their solution in terms of lexical ambiguity. According to de Hoop, in Dutch the referential reading of indefinites is triggered by assignment of structural Case (Strong Case in de Hoop's terminology) which is only available when the object undergoes scrambling. From this perspective, the referential reading of the indefinite is made explicit in syntax by the presence of structural Case.

Ruys (1992) radically departs from these views. He challenges F&S's claim that a specific indefinite always takes widest scope by pointing out that specific weak DPs may have intermediate scope as well. This implies that specific indefinites neither display the characteristics of quantifiers (since quantifiers are scopally restricted to local domains and indefinites are not), nor those of referential expressions (which are claimed to have widest scope). On the basis of these facts, Ruys argues that referentiality is not grammatically significant, hence it should not be encoded in grammar.

This brief overview shows that there is not much consensus in the literature on the role played by referentiality in grammar and on which level and in which way this notion should be formalized.

I will not commit myself to a specific position in this discussion; as far as Dutch is concerned, I will assume (68) as the correct description of the interpretive facts involved.

The strong interpretation is available both in VP-external and in VP-internal position.

The weak interpretation is not available in VP-external position.

2.3 A More Precise Generalization for Italian Indefinites

In section 2.1 we formulated a first generalization concerning the distribution and interpretation of indefinite subjects of inversion verbs in Italian. This generalization is repeated in (69):

- 69 Indefinite subjects in Italian (1st version):
 preverbal subject → partitive interpretation
 postverbal subject → weak interpretation

Above we compared the interpretation of certain Italian constructions with Enç's data on specificity. We concluded that what Enç refers to as specific is in fact the partitive interpretation. We also established that this is the correct definition for the reading that Italian indefinites get in preverbal subject position. Therefore, the first part of the generalization in (69) is correct: the preverbal subject position correlates with the partitive reading.

Now we might wonder how strict this correlation is. Let us go back, for a moment, to the generalization for Dutch indefinite subjects in (67). We observe two important things: first, the VP-external subject position can also host the referential reading of the indefinite. Second, the partitive and referential readings can also occur in the VP-internal subject position. In other words, Dutch does not seem to have a strict correlation between interpretation and structural position of the indefinite subject.

Let us now turn again to Italian. Does the preverbal position correlate only with the partitive interpretation or is the referential reading also available? Indefinite subjects in preverbal position do not seem to have the referential reading. Consider the following example in a context where it is likely to be interpreted as an out-of-the-blue assertion:

- 70 #Un ragazzo di cui conosci l'identità ha chiamato.
a boy whose you know the identity called

The indefinite subject in (70) is likely to be interpreted as referential, i.e. it can be naturally assumed to denote a specific individual that the speaker has in mind. If, in Italian, the referential reading were encoded on the preverbal subject position, the sentence in (70) should be perfect. The infelicity of (70) shows that this is not the case. What complicates things is the fact that, if we follow Fodor & Sag (1982) and embed the indefinite in a context which is sensitive to scope relations, the referential reading of the indefinite seems to become available. Consider (71):

- 71 Spero che un ragazzo di cui conosci l'identità abbia
 chiamato.
 I hope that a boy whose you know the identity called

The indefinite subject in (71) is embedded in a clause containing an intensional verb (i.e. a scope sensitive verb). According to F&S, the indefinite is referential if it can be interpreted outside the scope of the verb. This appears to be the case in (71). In (71) I have a hope about a specific boy (whose identity I know) that he has called.

The importance of these data is twofold. On the one hand they show that referentiality, at least in Italian, does not correlate with a syntactic position. In fact, if it did, the examples in (70) should be perfect. On the other hand, we observe that the referential reading is the result of certain scope relations between the indefinite and other scope sensitive elements in the clause. On the basis of these facts, we may conclude, following Ruys (1992), that the referential interpretation is the indirect result of constructional properties.²⁶

²⁶ Notice, in passing, that Italian seems to distinguish an interpretive notion that comes very close to what we referred to as 'referentiality'. This is illustrated in (i) and (ii):

- i Spero che entri un ragazzo che sa parlare olandese.
 I hope that a boy that speaks Dutch will come in
ii Spero che entri un ragazzo che sappia parlare olandese.
 I hope that a boy that speaks-SUBJ Dutch will come in

In (i) the subject refers to a particular person the speaker has in mind, whereas in (ii) the existence of such a person is not implied. The different interpretation of the subject is encoded in grammar by means of a different mood for the verb. The so-called 'referential' reading is marked with indicative mood, whereas the 'non-referential' reading is marked with subjunctive mood.

The data we examined seem to show that, in Italian, the notion of referentiality becomes relevant only in contexts where the indefinite is embedded under an intensional verb. Italian does not provide sufficient evidence for a real correlation between the referential reading of the indefinite subject and its structural position. Therefore, the first part of generalization (69) can remain unchanged: a preverbal indefinite subject is assigned the partitive interpretation.²⁷

This conclusion, however, does not imply that the correlation between partitive reading and preverbal position is rigid. As discussed in section 2.2.4 for Dutch, the partitive reading of indefinites is available in the VP-internal subject position of *er*-sentences too. A closer examination of the data shows that this seems to hold for Italian as well:

- 72 Che cosa è successo?
 what happened
- a E' arrivato uno degli studenti che hanno seguito il tuo
 corso.
 arrived one of the students that attended your course
- b Ha telefonato uno dei vicini.
 called one of the neighbours

The postverbal subjects in (72a) and (72b) are overt partitives. The existential interpretation of these DPs is clearly blocked by the presence of the definite complement *gli studenti che hanno seguito il tuo corso* and *i vicini*. (72) shows that the postverbal subject position in Italian can host both the weak and the (overt) partitive reading of the indefinite, in agreement with what de Hoop (1992) observes for Dutch. However, the distribution of subject overt partitives in Italian appears to be more complex. Consider (73):

- 73 Che cosa è successo?
 what happened
- a #Sono arrivati due degli studenti.
 arrived two of the students
- b #Ha telefonato una delle cugine.

²⁷ On analogy with Dutch, the preverbal subject position also correlates with the generic reading. As stated above, we will not discuss this interpretive notion.

called one of the cousins

The partitive subjects in (73) are not felicitous in an out-of-the-blue context. However, the reason for the infelicity of these sentences does not depend on the position in which the subject occurs. It is rather the consequence of the presence of a definite as a complement of the partitive DP.

As discussed in the first part of this chapter, definite descriptions are subject to two conditions: Uniqueness and the focus condition. Since partitive DPs contain a definite complement, it is plausible to assume that the same two conditions will still hold and that their violation will affect the acceptability of the DP as a whole.

As a matter of fact, the infelicity of (73) is a violation of the following condition: the partitive subjects of these sentences contain an indefinite description that cannot satisfy the Uniqueness requirement without being interpreted as *anaphoric*, in violation of the condition that focused material must refer to new information. (73) contrasts with (72). In (72a) satisfaction of Uniqueness is possible by the presence of lexical material; in (72b) by a pragmatic mechanism of accommodation.

The similarities between definite DPs on the one hand, and indefinite DPs with the partitive or the referential reading on the other, are confirmed by the following data as well:

- 74 a *Aspettavo alcune lettere dall'Italia.*
 I was waiting for some letters from Italy
 b *#Sono arrivate due delle lettere.*
 arrived two of the letters
 c *Due delle lettere sono arrivate.*
 two of the letters arrived

The infelicity of (74b) does not follow from a prohibition on partitives in postverbal position, but it appears to be the consequence of the focus condition applying on the definite complement of the partitive DP. As discussed in the previous part of this chapter, the postverbal subject position is normally in focus (see ch.3 for the technical details). Then the focus condition simply states that the material showing up in this position must be compatible with a focus interpretation, i.e. it must contain new information.

(74b) is thus a violation of the focus condition. The definite complement of the partitive subject is not new, but anaphoric to *alcune lettere* introduced into the discourse by (74a). As we will extensively discuss in chapter 4, we have to resort to an alternative derivation (based on the application of principles of global economy) which yields the structure (74c).

Summing up. The distribution and interpretation of a subject overt partitive appears to depend on the semantic and informational properties of its definite complement. The data we discussed showed that the postverbal subject position can be filled by a non-existential DP on the condition that this element satisfies Uniqueness and the focus condition.²⁸ In chapter 3 and chapter 4 we will discuss a possible technical implementation of these two conditions.

The distribution and interpretation of indefinite subjects in Italian inversion verbs can now be summarized as in (75):

- 75 Indefinite subjects in Italian (final version):
- | | | |
|--------------------|---|---------------------------|
| preverbal subject | → | partitive |
| postverbal subject | → | weak |
| | → | partitive (non-concealed) |

(76) illustrates each reading with an example:

- 76
- | | | |
|---|---------------------------------------|----------------------------|
| a | Due linguisti sono arrivati. | <i>concealed partitive</i> |
| | <i>two (of the) linguists arrived</i> | |
| b | Sono arrivati due linguisti. | <i>weak</i> |
| | <i>arrived two linguists</i> | |
| c | Sono arrivati due dei linguisti. | <i>overt partitive</i> |
| | <i>arrived two of the linguists</i> | |

As observed for Dutch, there is a certain correlation between syntactic position and interpretation. However, the generalization can only be stated negatively.

²⁸ This account of overt partitives will provide an explanation for certain data involving concealed partitives (see section 2.3.1).

- 77 Indefinite subjects with the weak interpretation cannot show up in preverbal position.

Note that (77) provides evidence against Diesing's (1992) Mapping Hypothesis because if mapping in Italian takes place in overt syntax, the occurrence of Italian partitives in postverbal subject position cannot be accounted for at all. This was already pointed out for Dutch by de Hoop (1992). More crucial evidence against Diesing's proposal will be presented in section 2.5.

2.3.1 A Problematic Case

The survey of interpretive data on the previous pages has revealed that the partitive reading of indefinites is available in both preverbal and postverbal subject position. Let us consider the relevant cases again:

- 78 a Uno dei miei amici è arrivato stamattina da Londra.
one of my friends arrived this morning from London
 b Stamattina è arrivato uno dei miei amici da Londra.
this morning arrived one of my friends from London

The indefinites in (78a) and (78b) are overt partitives. For ease of exposition I will refer to this type of indefinites as *partitive indefinites* (part-indefinites), using the term *existential indefinites* (ex-indefinites) to refer to those DPs that, in overt syntax, are not partitive.

The preverbal subject in (78a) and the postverbal subject in (78b) have the same interpretation, the only difference being one in terms of informational properties (focus). Their (partitive) interpretation does not seem to be affected by the position in which they show up. Consider now (79):

- 79 a Due ospiti sono arrivati.
two (of the) guests arrived
 b Sono arrivati due ospiti.
arrived two guests
 c Sono arrivati due ospiti.
**arrived two of the guests*

The indefinite subject *due ospiti* ‘two guests’ in (79) does not have the overt syntactic structure of a partitive. And yet, the preverbal subject in (79a) must be interpreted as ‘two of the guests’, i.e. as a concealed partitive. As discussed above, this reading requires that the superset, out of which the partitive is a partition, be already given in the discourse.

Consider now (79b) and (79c). Crucially, if the same indefinite occurs in postverbal subject position, it can only get the existential interpretation. As shown in (79c), the reading as a concealed partitive seems to be missing.

Let us try to formulate the problem: both the preverbal and the postverbal subject position in Italian can host partitives. Evidence is provided by the examples in (78). However, the picture changes when the subject is an indefinite. We observe that in postverbal subject position the indefinite must be interpreted as existential, hence the interpretation as a concealed partitive is not available in this case. Conversely, in preverbal subject position the indefinite does have to be interpreted as a concealed partitive and, in this case, it is the existential reading which is not allowed. (80) summarizes these observations (upper case indicates the relevant interpretation):

80		preverbal	postverbal
	partitives	PARTITIVE	PARTITIVE
	indefinites	PARTITIVE	EXISTENTIAL

The relevance of (80) is twofold. First, it provides evidence against the Mapping Hypothesis. Second, it seems to indicate that an explanation for this unexpected interpretive pattern requires a closer analysis of the internal structure of the relevant DP. As already observed above, Diesing’s (1992) tree-splitting analysis would correctly account for the interpretation of indefinites, but could not explain why partitives can occur in postverbal position.

Turning to the second point we made above, the peculiar behaviour of indefinites cannot be accounted for in terms of the inherent semantic properties of the relevant DP since, strictly speaking, the very same indefinite can have both the partitive as well as the existential interpretation. The distribution and interpretation of indefinites seem to differ due to some lexical properties of the relevant element. Crucially, it is precisely this observation that might point in the right direction. The basic insight is that

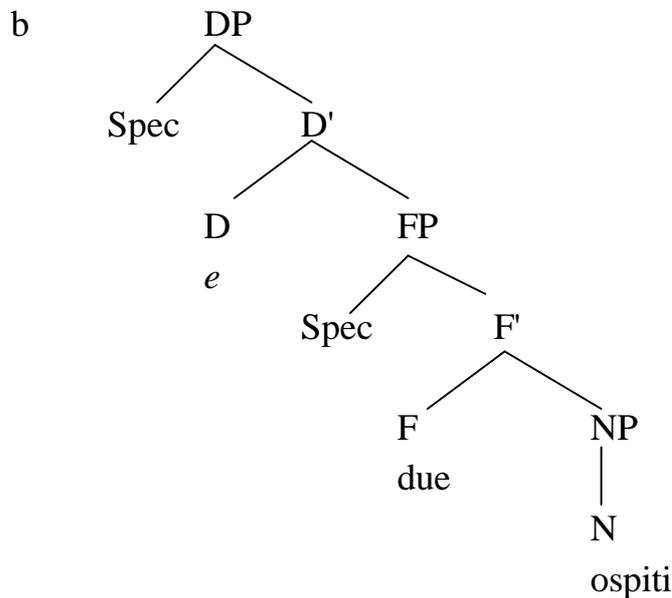
the reason for the differences we observe is a syntactic one, involving the internal structure of the indefinites. In other words, an indefinite cannot behave like a partitive simply because it does not have the structure of a partitive. Our working hypothesis can be formulated as in (81):

81 Hypothesis.

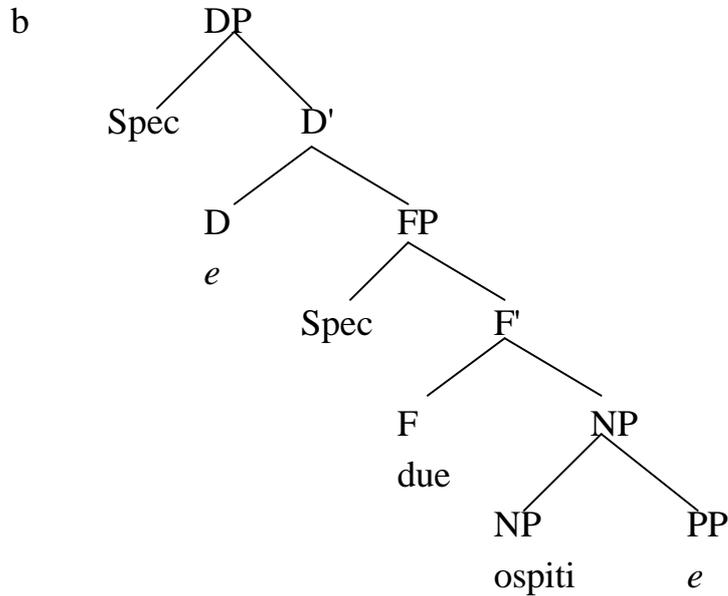
The internal structure of ex-indefinites differs from the internal structure of part-indefinites. Concealed partitives have the same structure as overt partitives.

Notice that in (81) we make the non-trivial assumption that indefinites that are interpreted as concealed partitives, in reality, are concealed partitives also in the syntactic sense. (82), (83) and (84) illustrate the relevant structures:

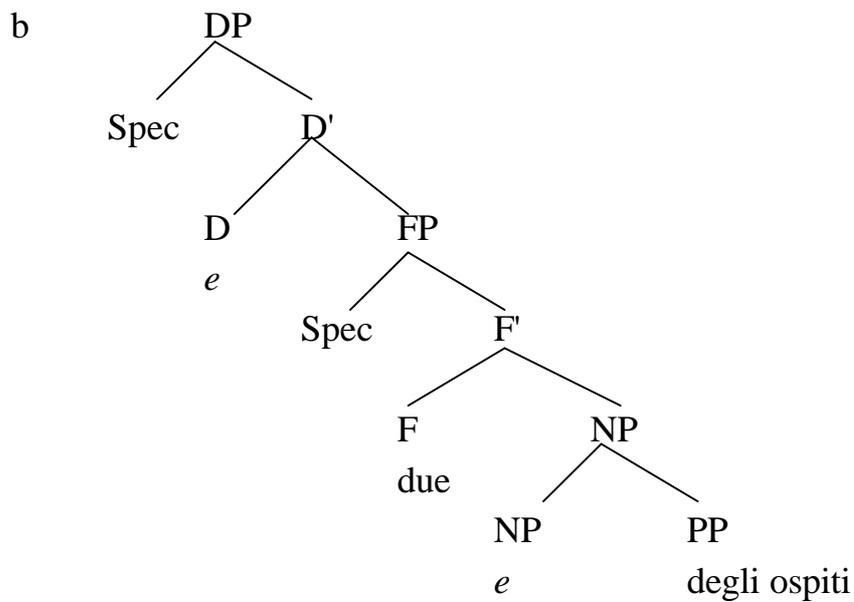
82 a Due ospiti.
two guests



- 83 a Due (degli) ospiti.
two (of the) guests



- 84 a Due degli ospiti.
two of the guests



We will return to these structures and to their interaction with syntactic principles and interface conditions in chapter 3 and chapter 4, respectively.

This analysis of the internal structure of indefinites in their existential and partitive reading implies a reformulation of generalization (81). In light of the assumptions we have just made, we observe that part-indefinites can occur both in preverbal and in postverbal subject position. However, only in the first case can the complement PP remain implicit. As for indefinites, their occurrence in preverbal subject position appears to be blocked (at least, in inversion verbs contexts). (85) illustrates these findings:

85	preverbal	postverbal
	PARTITIVES (\pm overt)	PARTITIVES (+overt)
partitives indefinites	-	EXISTENTIALS

Given (85), we can now define the problem as follows: a) which factors determine the overt or covert realization of the PP in partitives? b) Which factors block the occurrence of the ex-indefinite in preverbal subject position? And c) which factors block the occurrence of concealed partitives in postverbal position?

These issues will be extensively discussed in the next chapters. However, it must be emphasized that the answers to questions (a) and (c) will require an analysis of the informational status of the definite complement of the partitive construction. When the indefinite is interpreted as a concealed partitive, it refers to an entity out of a set that must have been established in the discourse. Conversely, in postverbal subject position, the partitive interpretation requires an overt partitive structure. In this latter case no requirements in terms of old or new information are applied to the definite complement. However, as observed by Cardinaletti & Giusti (1991), the identification of the content of the empty category in N° in (84b) requires feature matching between the NP and the PP. In other words, the paraphrases of the meaning of (86b) is (86c), where the head of the NP must be identical to the head of the PP complement. A paraphrase like, for instance, in (86d) is therefore impossible:²⁹

86 a E' arrivato un gruppo di studenti.

²⁹ As we already observed before, this condition on feature matching between the two N° 's does not hold in the case of a concealed partitive. Cf. example (57), section 2.2.1.

- arrived a group of students*
- b Due degli studenti sono Americani.
two of the students are American
- c ‘*two (students) of the students that arrived are American*’
- d ‘*two (girls) of the students that arrived are American*’

From these facts we draw the following conclusions. First, the overt or covert status of the partitive is somehow related to the informational properties of the definite complement. Hence, as argued for in the first part of this chapter, a closer analysis of the focus properties of these sentences will be necessary for a better understanding of these phenomena.

Second, the felicity of overt partitives seem to involve interpretive conditions on the recoverability of the content of the empty category in N° . Although for now it remains somewhat unclear on which level and how these mechanisms exactly work, we refer to chapter 4 for a more detailed discussion of the topic.

2.4 Indefinite Subjects of Non-Inversion Verbs

We turn now to the behaviour of indefinite subjects with non-inversion verbs. The term *non-inversion verbs* refers to those predicates in Italian that allow subject inversion only with the narrow focus interpretation of the subject. If the whole sentence is in focus (wide focus), the subject must occur in preverbal position. In the previous section we examined the possible interpretations of indefinite subjects in sentences with inversion verbs. Although we cannot speak of a strict correlation between structural position and type of interpretation for the indefinite, it is clear that syntax interacts with semantics, in the sense that the range of possible interpretations of a subject is constrained by conditions on sentence structure. From chapter 1 we know that the occurrence of postverbal subjects in sentences with non-inversion verbs is highly restricted. We thus expect that the interpretive pattern will also be different. For ease of exposition I will examine unergatives, unaccusatives and transitives in three separate subsections.

2.4.1 Non-Inversion Unergatives

We start with the usual test for the existential interpretation. The question in (87a) does not presuppose any knowledge about the context of utterance. A felicitous answer will hence be an all focus sentence (wide focus).

- 87 a Che cosa è successo?
what happened
- b Tremila minatori hanno scioperato.
three thousand miners went on strike
- c Due bambini hanno pianto.
two children cried

Sentences with non-inversion verbs like *scioperare* ‘to go on strike’ and *piangere* ‘cry’ are interpreted with wide focus only if the subject occurs in preverbal position. Hence, a felicitous answer to (87a) will require a preverbal subject, as illustrated in (87b) and (87c). However, in an out-of-the-blue context the indefinite subject must be interpreted existentially, i.e. it is introduced into the discourse for the first time. Again, the felicity of (87b) and (87c) indicates that their subjects do get the existential interpretation. From these facts we deduce that the preverbal subject position of these verbs is associated with the existential interpretation.

In view of generalization (77) in the previous section, this result is quite unexpected. As the reader will recall, the existential reading is banned from the preverbal subject position of inversion verbs. The data in (87) suggest that non-inversion verbs have a different pattern.

Consider now the piece of discourse in (88):

- 88 a La ditta aveva minacciato di licenziare migliaia di
dipendenti entro la fine dell’anno.
*the company had threatened to fire thousands of employees
by the end of the year*
- b Tremila persone hanno scioperato.
three thousand persons went on strike
- c #A proposito, ho sentito che tremila persone hanno
scioperato.

by the way, I heard that three thousand people went on strike

- d Metà dei dipendenti hanno scioperato.
half of the employees went on strike

(88a) introduces into the discourse a set of employees. (88b) is felicitous only if the denotation of the subject belongs to this preestablished set. This appears to be the correct interpretation of the subject in (88b). The DP *tremila persone* ‘three thousand people’ must be interpreted as a concealed partitive: three thousand of the people employed by the company. If the same DP has the existential interpretation, like in (88c), the sentence sounds odd in this context. Thus, the data in (88) show that the preverbal subject position of non-inversion unergatives can be associated with the partitive interpretation as well. As is illustrated by (88d), the partitive complement can also be overtly realized.

Summarizing, subjects of non-inversion unergatives can only show up in preverbal position, where their interpretation is ambiguous between an existential and a partitive reading.³⁰

2.4.2 Non-Inversion Unaccusatives

We turn now to unaccusative verbs. Unaccusatives are generally assumed to allow free subject inversion. In chapter 1 I argued against this assumption by providing evidence for an analysis of inversion which does not rely on the unaccusative properties of the relevant verb. Subject inversion is not a property of a well-established verb class, like the class of unaccusatives, but it is related to the possibility of selecting an implicit loco/temporal argument by the verb involved. This analysis correctly predicts that, for each class, there are predicates that allow inversion and predicates that do not allow it. The unaccusatives we are going to examine belong to this second group. Consider (89):

- 89 a Che cosa è successo?
what happened
b Molte donne sono invecchiate precocemente.

³⁰ As I stated in the previous section, I will not consider the referential and generic interpretations.

- many women got prematurely older*
- c Durante i disordini molte persone si sono ferite.
during the riots many persons got injured

(89b) and (89c) are felicitous answers to the wide focus question (89a). Since no previous knowledge of the context is assumed, the individuals denoted by the DPs in (89b) and (89c) are introduced into the discourse for the first time. This is equivalent to saying that *molti spettatori* ‘many spectators’ and *molte persone* ‘many persons’ have an existential interpretation. Consider now (90), where the relevant example is embedded in a piece of discourse:

- 90 a Un gruppo di donne ha tentato di passare il confine.
a group of women tried to cross the border
- b Una donna si è ferita.
a woman got injured
- c #A proposito, una donna si è ferita.
by the way, a woman got injured
- d Una delle donne si è ferita.
one of the women got injured

The indefinite subject in (90b) must be interpreted as a concealed partitive, referring to one of the women that were introduced in (90a). (90c) shows that the existential interpretation is infelicitous in this context. Finally, (90d) confirms that overt and covert partitives pattern alike.

Summarizing, the conclusion we drew for non-inversion unergatives holds for non-inversion unaccusatives as well: subjects of non-inversion unaccusatives can only show up in preverbal position, where their interpretation is ambiguous between an existential and a partitive reading.

2.4.3 Non-Inversion Transitives

We turn now to the third type of non-inversion verbs, the transitives. First we test the existential interpretation. Consider (91):

- 91 a Che cosa è successo?
what happened
- b Un terrorista ha ucciso il presidente.

- a terrorist killed the president*
- c Molti turisti hanno visitato la cattedrale
many tourists visited the cathedral

(91) presents a pattern that, by now, we can consider characteristic of non-inversion verbs. The felicity of (91b) and (91c) as wide focus answers to (91a) indicates that these indefinite subjects are interpreted as existentials.

Besides the existential interpretation, indefinite subjects of transitive verbs can also get the partitive reading. This is illustrated in (92):

- 92 a Sull'autostrada c'è stato uno scontro tra terroristi e polizia.
*on the motorway there was a confrontation between
terrorists and the police*
- b Un terrorista ha ucciso un poliziotto.
a terrorist killed a policeman
- c Uno dei terroristi ha ucciso un poliziotto.
one of the terrorists killed a policeman

The indefinite subject in (92b) has the same partitive interpretation as the overt partitive in (92c). In both cases the subject belongs to the set of terrorists introduced into the discourse by (92a). As discussed above, the existential interpretation of the indefinite is not felicitous.

Summarizing. The transitives we analyzed in this section present an interpretive pattern which is typical of non-inversion verbs. The subject can occur only in preverbal position where, depending on the context, it can get either the existential or the partitive interpretation.

2.5 A Generalization for Indefinite Subjects of Non-Inversion Verbs

The distribution and interpretation of indefinite subjects in non-inversion verbs in Italian can be summarized as follows:

subjects are ambiguous at surface structure. This class of data may suggest that in Italian the mapping algorithm applies at LF, like in English. However, in chapter 4 we will discuss additional facts that show that this solution does not work either.

We thus conclude that the Mapping Hypothesis is empirically inadequate in providing a correct account of the structural and interpretive facts we observe in Italian. This point will be brought up again in chapter 3, in the perspective of a general syntactic account of subject inversion in Italian.

2.6 An Apparent Exception

From the discussion in the previous section, we understand that non-inversion verbs cannot have a postverbal subject if the sentence must be interpreted with wide focus. This generalization does not seem to be completely correct. Consider the following examples:

- 95 a *Che cosa è successo?*
 what happened
- b *Ha pianto un bambino.*
 cried a child
- c *Ha abbaiato un cane.*
 barked a dog

(95a) requires an answer with wide focus. (95b) and (95c) are felicitous answers to (95a), whence we deduce they must bear wide focus. In spite of the fact that *piangere* ‘cry’ and *abbaiare* ‘bark’ are non-inversion verbs, these sentences have a postverbal subject. In addition, these postverbal indefinites can only be interpreted as existentials (i.e. they follow the pattern of subjects of inversion verbs). On a first scrutiny of the data, (95) represents a strong counterexample to (93).

However, a closer analysis of the internal structure of these DPs will reveal that the interpretive pattern in (95) not only corresponds to what our analysis would predict, but it suggests that the distribution and interpretation of subject inversion may be determined by syntactic factors in the first place.

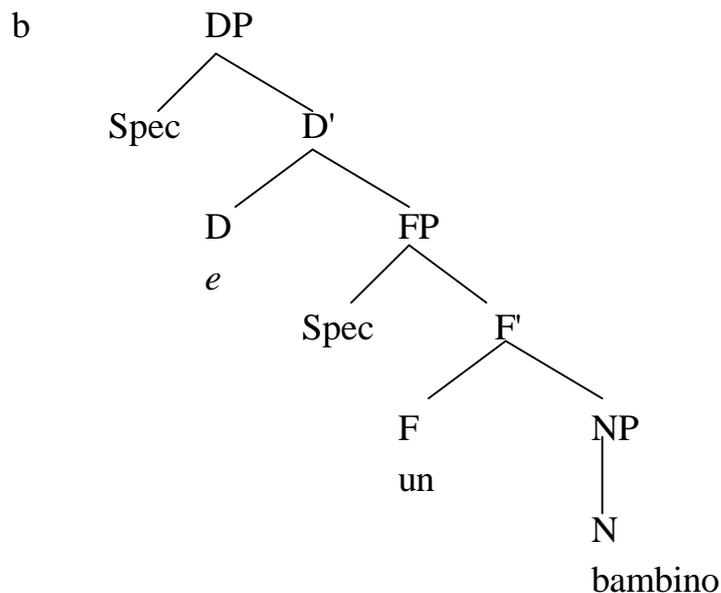
The intriguing question is: what makes subject inversion possible in the sentences above? Let us examine some more data:

- 96 a Che cosa è successo?
 what happened
- b Ha pianto un bambino.
 cried a child
- c #Hanno pianto molti bambini.
 have cried many children
- d #Hanno pianto venti bambini.
 cried twenty children

The postverbal indefinite in (96b) is perfectly felicitous and it is interpreted as existential. Consider now (96c). The indefinite *molti bambini* ‘many children’ gives a bad result in postverbal subject position. The same seems to be true with the cardinal *venti* ‘twenty’ in (96d). We thus observe that the felicity of (96b) does not depend on the weakness (in Milsark’s 1977 sense) of the subject. The subjects in (96c) and (96d) have a weak determiner too, and yet they cannot occur in postverbal position.

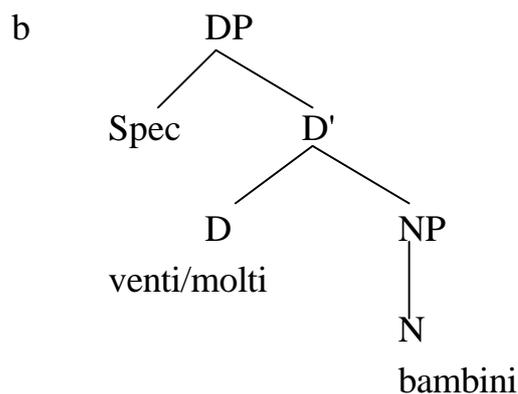
Hence, the conclusion from (96) is that the occurrence of the subject in postverbal position correlates with the presence of the indefinite article. The felicity of (96b) might be related to some peculiar property of the indefinite article. Given the different distribution of other weak determiners, like in (96c) and (96d), this property cannot be intrinsic to the semantics of all weak elements, but must necessarily be related to the position of the indefinite article inside the DP. On analogy with what was proposed in section 2.3.1, I will argue that the indefinite DP in (96b) has the internal structure illustrated in (97):

- 97 a Un bambino
 a child



Crucially, the structure of the DP in (96c) and (96d) must differ from the one of (96b). I propose that *venti* 'twenty' and *molti* 'many' be analyzed as determiners occupying the head of the DP (at a certain point in the derivation). This is illustrated in (98):

- 98 a *Molti/venti bambini*
many/twenty children



The status of the DE appears to be crucial for the occurrence of the subject in postverbal position. As will become clear in chapter 3, a DE containing the categorial feature [+D], but with no phonological content is a more economical candidate for feature checking than a filled DE. The occurrence of the subject in postverbal position will turn out to correlate with the status of the DE.

Chapter 3

A Minimalist View of the Syntax of Inversion

Introduction

In the next sections I will offer a possible analysis of the Italian facts we have examined so far. The account I will propose emphasizes the prominent role played by syntax in the grammar of inversion. Special attention will be paid to focus (information packaging) which will turn out to be a useful diagnostic for the underlying syntactic structure. Some residual problems that seem to defy the suggested approach will be examined and explained in chapter 4.

This chapter will be organized in the following way. In section 1 I will give a brief introduction of the theoretical background assumed in this study. Section 2 will deal with the interaction of focus with subject inversion and with its implementation in a fashion that fits the assumed minimalist framework. In section 3 and 4 I will present my syntactic account of subject inversion and inversion with a clause-initial PP (locative inversion). After a short summary of the conclusions we drew in chapter 1, I will proceed to explain how I think syntax determines the occurrence of subjects in preverbal and postverbal position.

1 Theoretical Background

In this section I will outline the relevant parts of the framework I am adopting, which is essentially based on Chomsky (1995).

The leading idea of the Minimalist Program is the thesis that the language faculty consists of two distinct components interacting with each other: "a cognitive system that stores information, and performance systems that access that information and use it in various ways." (Chomsky 1995:2). The cognitive system is directly linked to just two of these performance systems, i.e. to the articulatory-perceptual system (A-P) and to the conceptual-intentional system (C-I). The link takes place by means of two levels of

linguistic representation, the level of Phonological Form (PF) and the level of Logical Form (LF).

The cognitive system is a mechanism generating sound-meaning pairs (derivations) by means of a few universal constructive rules and in compliance with local conditions on economy. The resulting derivations at the PF- and LF-interfaces contain specific instructions for the the C-I and the A-P system, respectively.

1.1 The Core System

The mechanism that is the core of the cognitive system generates convergent derivations (grammatical structures) by taking the lexical elements contained in a numeration (a set of items chosen from the lexicon) and by combining them according to a highly restricted set of universal principles and general conditions on economy. The items stored in the lexicon are clusters of features, which can be phonological, semantic or formal in nature. A derivation is said to converge when all the elements of the numeration have been used and when the PF and the LF representations contain just items that are interpretable at that specific level. In order to achieve this, uninterpretable features have to be checked before they reach the relevant level. Checking involves Attraction of the required features and their subsequent Deletion (so that they are not visible at LF) or, possibly, Erasure (so that they are no longer accessible to the system).

There are two forms of checking, overt and covert, depending on the strong or weak valence of the attracting feature. Strong features are of a categorial nature and they require checking before Spell-Out (i.e., overtly). Overt checking implies that the strong features, which are always located on functional heads, attract the correspondent features on the closest c-commanded element of the same category. Strictly speaking, only the relevant features undergo attraction. However, for reasons of phonological convergence, this operation involves ‘pied-piping’ of the lexical material as well. The attracted feature-complex (i.e. a whole lexical category) moves to the specifier of the functional category in order to establish a Spec-Head configu-

ration (or, in the case of head-movement, an adjunction configuration), suitable for overt feature checking.¹

Weak features can delay checking to LF, in compliance with Procrastinate (one of the conditions on economy that prefers covert movement whenever possible). In fact, covert checking affects only the relevant features that adjoin to the target head. Yet, weak features may be checked "for free" in overt syntax, when they appear on a constituent bearing strong features, since checking of strong features affects the whole constituent.

1.2 Subject Features

In this study we are particularly interested in features that characterize subjects and that regulate their occurrence in specific positions in the clause. Since Chomsky (1981) the Extended (part of the) Projection Principle (EPP) has been invoked to express the generalization that every sentence needs a subject. Traditionally, the requirement on Case assignment and phi-feature matching, combined with the EPP, have been held responsible for the parametric distribution of phenomena like pro-drop and free subject inversion, as illustrated in (1):

- 1 a Parto domani.
 e leave-1sg tomorrow
 b E' arrivato Gianni.
 arrived Gianni

According to the standard analysis (see Rizzi 1982, Burzio 1986) dropping of the pronominal subject in (1a) and the occurrence of the subject in postverbal position in (1b) are made possible by particular properties of inflection. The EPP forces the presence of a null expletive in preverbal subject position and some additional mechanism has to be invoked for Case (and phi-feature) transmission or assignment to the postverbal subject. For more details, see chapter 1.

¹ The movement operation is in fact more elaborate. Feature attraction creates a chain consisting of a head containing the moved feature cluster and of a foot containing their copy.

In Chomsky's (1995, Ch.4), Case (and phi-features) are divorced from the EPP. This move is supported by empirical evidence from constructions with expletive subjects, constructions with ECM verbs and instances of locative inversion in English.² The *there*-sentence in (2) illustrates the point:

2 There arrived a man.

Chomsky (1986b) argues for the existence of a principle of full interpretation (FI) requiring that every element contained in a PF representation have an appropriate interpretation. For instance, in the case of (2) the expletive *there* satisfies FI only if it is associated with an element carrying a theta role. Hence, the interpretation of a *there*-sentence requires covert raising of the associate, *a man*, to the position occupied by the expletive.

Suppose, now, that the EPP involves Nominative Case checking as well. Then we would expect *there* to satisfy both conditions, i.e. the expletive is the subject of the clause (EPP) and it checks Nominative Case. However, the postverbal subject would be left without Case, giving rise to ungrammaticality. This problem could be solved by enriching the system with a marked mechanism for structural Case assignment inside VP. For instance, Roberts (1987) proposes that Nominative Case could be assigned to the VP-internal subject under direct government by INFL. Alternatively, Case could be transmitted to the postverbal subject by exploiting some chain relation between the expletive and the subject (see Safir 1985). Clearly, these options appear to be problematic for a minimalist approach to grammar, where the notion of government has been eliminated and where chain formation is solely licensed by morphological feature checking.³

² The disjunction of EPP from Nominative Case was first proposed in Branigan (1992), in order to provide an explanation for stylistic inversion sentences in English, where a locative PP appears in preverbal subject position and the subject remains in its base position.

³ In order to account for these constructions, Belletti (1988) claimed that unaccusative verbs (i.e. the class of verbs occurring in *there*-sentences) assign *inherent* partitive Case to their internal argument. For reasons discussed in chapter 2 and in the present chapter, Belletti's analysis is not tenable. In addition, the notion of inherent case to account for these data must be rejected for theory-internal reasons (see Chomsky 1995:288).

On the other hand, if EPP and Case are teased apart, constructions like (2) can be accounted for by assuming that the expletive in preverbal subject position satisfies the EPP, whereas the postverbal subject (the associate), checks Case and phi-features at LF.

In Chomsky (1995), the EPP is redefined in terms of the presence of a strong D-feature located on the head of the inflection I, which has to be checked by an element bearing the same categorial feature. As we just saw, the distinction between EPP, on the one hand, and checking or assignment of Case and phi-features, on the other, has interesting empirical consequences. In particular, it makes it conceivable that the EPP may be satisfied by an element which is not necessarily associated with Nominative Case. If the EPP reduces to checking of the strong D-features of I, we might wonder which elements are eligible for this operation, i.e. which elements bear D-features. Let us consider this question in more detail.

1.3 D-features

The strong D-feature of INFL must be checked against the D-feature of a nominal category (a DP, an NP or one of the two). With this condition Chomsky (1995) captures the empirical observation that the EPP is standardly satisfied by a nominal phrase. However, this generalization is less clear in the case of constructions that show an (apparently) non-nominal category in Spec of INFL, such as *there*-sentences and locative inversion constructions in English, or null-subjects and free subject inversion in Romance.

Consider first (3b) which illustrates an instance of locative inversion in English:

- 3 a There is a bat in the room.
 b Into the room strolled a hen.

As suggested by Stowell (1981) and Bresnan (1994), the PP occupies the subject position and satisfies the EPP. If this analysis of locative inversion is correct, it follows that the potential checker of the strong D-feature of INFL does not necessarily need to be a nominal element.

There-sentences appear to have a different pattern. In (3a) the lexical subject cannot be analyzed as dislocated to the right, as in (3b). Above we

saw that *there* is an expletive requiring the raising of its associate (the subject) at LF, by Full Interpretation. What satisfies EPP in this case then? Since the nominal raises only at LF, Chomsky must assume that the expletive *there* bears a D-feature and that, as such, it checks the strong D-feature of INFL.

Let us turn now to Romance languages. Null subjects and instances of subject inversion represent another problematic case for the definition of EPP in terms of a strong D-feature, since it is not straightforward that the potential checker bears the required [+D] feature. Chomsky discusses the following example from Italian:

- 4 Sono entrati tre uomini senza identificarsi.
 are entered three men without identifying themselves

In (4) the lexical subject occupies a postverbal position whereas the preverbal subject position is said to be filled by a null expletive (see Rizzi 1982, Burzio 1986). This particular example clearly shows the ‘subject’ properties of the postverbal DP: the matrix verb agrees with the postverbal subject. In addition, the subject indirectly binds the anaphor *si* ‘themselves’ and must therefore control the PRO subject in the adverbial clause. These properties indicate that the postverbal subject must adjoin to the null expletive at LF, by analogy with the phenomenon observed in *there*-sentences in English. From these facts Chomsky concludes that the null expletive in Italian shares the relevant properties of English *there*. With respect to features, this parallelism suggests that the null-expletive in Italian bears only categorial D-features.

The facts discussed in Chapter 4 of Chomsky (1995) suggest that the inventory of elements satisfying the EPP includes, in addition to lexical DPs/NPs, at least also expletives like *there* in English and the null-expletive in Italian, which are assumed to carry only a D-feature.

Finally, let us turn to instances of subject inversion in Italian. Consider (5):

- 5 Ha telefonato Dante.
 called Dante

According to the standard analysis the EPP is satisfied by an expletive *pro* in subject position and the subject has been adjoined to the right of VP. However, as extensively argued for in the preceding chapters, subject inversion constructions like (5) must be analyzed as (6), where the peculiar meaning of the clause reveals the presence of a covert locative argument (which I will call loco/temporal *pro*):

- 6 *pro* ha telefonato Dante.
 has called Dante
 ‘Dante called here/this place’

The characteristics of constructions like (6) are such that it may be plausible to assume that the loco/temporal *pro* satisfies the EPP instead of the subject, by analogy with the expletive *pro* in null subject clauses. Given that EPP is checking of a strong D-feature, it follows that the loco/temporal *pro* must bear such a feature as well.

In conclusion, the inventory of possible D-checkers of the strong D-feature of INFL may contain nominal expressions of the [N] or [D] type, the English expletive *there*, the null expletive *pro* and the loco/temporal *pro* in Italian.

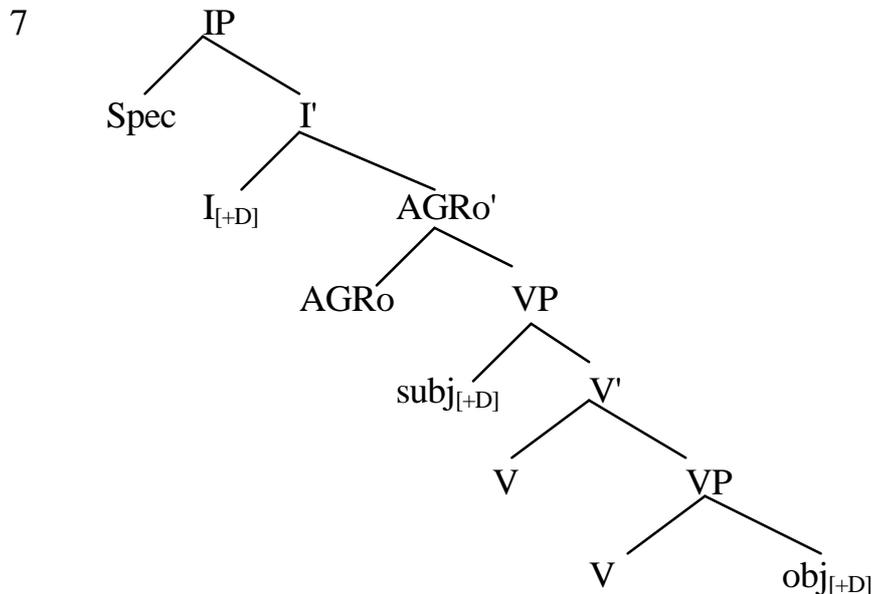
1.4 Considerations of Economy

The computational system is hypothesized to provide instructions for the two performance systems. In other words, PF and LF must contain interpretable representations. In order to achieve this goal, uninterpretable features must be checked at some point in the derivation, and they must be either deleted or erased.

In Chomsky (1995, Ch.4) checking is formulated in terms of the syntactic operation of *Attraction*. The functional heads bearing uninterpretable features attract the relevant features from an element in their near vicinity. This operation is constrained by conditions that evaluate its cost and its complexity, on the hypothesis that the system will always choose the cheapest option. Since the discussion of the Italian data builds upon some of these conditions, I will introduce them briefly here.

1.4.1 The Minimal Link Condition

It may be the case that more than one element is eligible in principle for the checking of a particular feature. A concrete example is represented by a transitive clause. Consider the structure in (7)⁴:

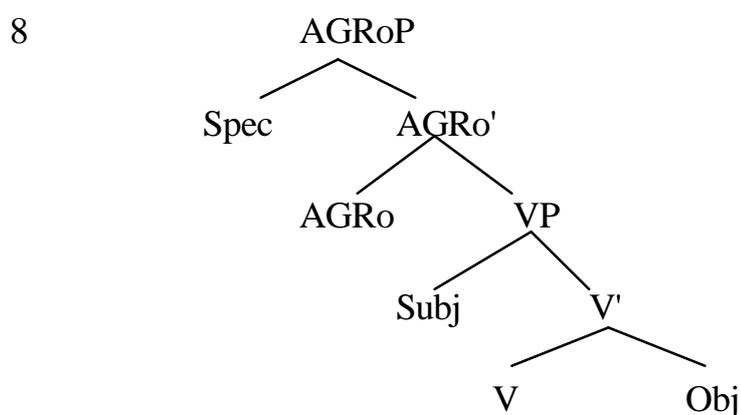


Suppose (7) is the structure of an English clause containing a transitive verb. Since English has no overt verb raising (the V-feature of INFL is weak) the only feature which has to be checked in overt syntax is the strong D-feature of INFL. Theoretically, both the subject and the object are possible checkers since they both carry a D-feature. Clearly, a condition is required that determines how far to look for a constituent carrying the relevant feature. Chomsky suggests that the choice of the optimal checker is determined in terms of relative distance from the target. This condition, the Minimal Link Condition (MLC), is incorporated into the definition of feature attraction, by stating that checking always attracts the closest element bearing the required feature. In the case of a clause containing a subject and an object, the MLC ensures that the EPP can be satisfied only by the subject since this is the closer element carrying [+D].

⁴ Strictly speaking, IP consists of an AGR-phrase, selecting a Tense-phrase. Here I will abstract away from these functional categories.

1.4.2 Equidistance

The MLC is inviolable. Yet, there are cases in which two potential checkers not only carry the relevant feature, but also appear to be equally close to the target node. In this case we speak of *equidistance*. The notion of equidistance is introduced in Chomsky (1995, Ch.3) in order to account for certain constructions that seem to violate the MLC. Take, for instance, object raising, as illustrated below. Suppose AGRo has a strong feature to check, for instance [+D]. The MLC predicts that AGRo will attract the closest relevant category, i.e. the subject. However, in reality, it is the object that moves, causing an (apparent) violation of the MLC.



Chomsky proposes the following solution. Object raising does not violate the MLC since Spec of AGRoP and Spec of VP are equidistant from the object. Movement of the verb to AGRo creates the chain (V,*t*). This has the effect that both Spec of VP and Spec of AGRoP belong to the minimal domain of the verbal chain and are therefore equidistant from Obj. Feature checking can thus attract the object without violating economy.

1.4.3 Phonological Heaviness

The 'cost' of feature checking is strictly related to the stage of the derivation at which this operation takes place. This can be either the overt syntax, prior to Spell-Out, or the covert component, at the level of Logical Form. Chomsky (1995, Ch.4) hypothesizes that while strong features must be checked overtly, weak features can wait until LF. Checking at LF involves only attraction of the relevant features. Overt checking, however, involves pied-

piping of the minimal phonological constituent carrying the relevant feature, as the phonological component is not able to interpret ‘loose’ features. Therefore, in terms of phonological ‘heaviness’, covert checking appears to be more economical than overt checking.

However, it is not clear whether considerations of economy apply to phonological features as well. Chomsky discusses this problem and states the following economy condition on overt movement:

- 9 (A feature) F carries along just enough material for convergence.
[Chomsky 1995:262]

The amount of material necessary for convergence should then vary according to the morphological properties of the language involved. So, we could conceive of a language in which the PF-component requires a minimal amount of material for convergence. In this extreme case, it should be possible for features to be checked overtly without pied-piping by analogy with weak features at LF.

Imagine now the situation in which a particular strong feature can be checked by two possible checkers. This is exactly the situation discussed above for the structure in (8). Suppose, however, that the two potential checkers have different phonological properties. The effect of these properties is that in one case the corresponding feature is attracted along with the overt constituent on which it resides; in the other case there is no pied-piping and the feature raises alone.⁵

At this point we may ask whether considerations of economy can unambiguously determine the choice of the optimal checker. Below we will discuss a concrete example taken from Italian, which seems to show that, other things being equal, the most economical option could be evaluated in terms of phonological heaviness.

Yet, this issue remains rather obscure. On the assumption that phonological heaviness is a criterion for economy, there remains the question of whether (9) is a global condition that applies to the whole derivation, or rather a local condition comparing just the possible alternatives of a single

⁵ This could be the case of a head bearing just the relevant feature. Or, possibly, the case of a language in which the morphological component does not force pied-piping.

step in the derivation. These questions and the issue of phonological heaviness will be discussed below in greater depth.

1.5 Summary

This section has presented a brief overview of Chomsky (1995), which forms the theoretical framework of this study. The most distinguishing trait of this approach is the organization of grammar as consisting of a mechanical procedure, generating structures, and of two levels of representations: LF and PF. This system knows only interface conditions that interact with local conditions of economy. In the next section I will show that Chomsky's basic insights, combined with some additional refinements of the theory, will provide an interesting account of the behaviour of subjects in Italian.

2 Preverbal and Postverbal Subjects

Chapter 1 started with the following empirical question: how free is subject inversion in Italian? The set of data we examined provided an answer which was somehow expected: strictly speaking, inversion in Italian is always possible, as, for every choice of the relevant verb, it is possible to find a context in which the sentence with the subject in postverbal position is perfectly felicitous. However, closer inspection of the data also revealed that the grammaticality and the felicity of each construction depends on a series of factors of a different nature. The goal of this section is to shed light on these still obscure aspects of the supposedly well-known phenomenon of subject inversion.

2.1 Facts to Be Explained

The empirical generalizations formulated in Chapter 1 put notions like focus and argument structure and their role in subject inversion in a new perspective. At the same time, empirical evidence showed that unaccusativity seems to be neither a sufficient nor a necessary property for verbs to allow inversion. Here I will briefly report the major findings of chapter 1. Let us first start by focus and argument structure.

Unlike the standard analysis of subject inversion (Rizzi 1982, Burzio 1986, Belletti 1988), we considered the effects of different focus patterns on clauses with postverbal subjects. Interestingly, all verbs allow subject inversion if the subject carries narrow focus, i.e. if the subject is the only constituent marked with focus. Conversely, if the whole clause is in focus (wide focus), subject inversion appears to be restricted to verbs with certain specific characteristics. The examples in (10) and (11) illustrate the two cases by means of question-answer pairs:

- 10 a Chi è arrivato?
 who arrived
 E' arrivato Timman.
 arrived Timman
- b Chi ha vinto il torneo?
 who won the tournament
 Ha vinto il torneo Loek.
 won the tournament Loek
- 11 a Che cosa è successo?
 what happened
- b E' arrivato Timman.
 arrived Timman
- c #Ha vinto il torneo Loek.
 won the tournament Loek
- d Loek ha vinto il torneo.
 Loek won the tournament

(10) and (11) show that verbs like *arrivare* 'arrive' allow subject inversion with both the wide and the narrow focus patterns, whereas verbs like *vincere* 'win' allow inversion only with narrow focus on the subject. Recall that, for ease of exposition, I called the former type of verbs *inversion* verbs, and the latter type *non-inversion* verbs. These observations are summarized in (12), repeated from chapter 1:

12	a	Inversion verbs:	
		wide focus	narrow focus
		SVO	SVO
		VS	V(O)S
		SVPP	SVPP
		PPVS	PPVS
		*VOS ⁶	
	b	Non-inversion verbs:	
		wide focus	narrow focus
		SV(O)	SV(O)
		*V(O)S	V(O)S
		SVPP	SVPP
		*PPVS	PPVS

(12) shows that the effect of focus on subject inversion calls for an explanation. Below I will try to explain how focus interacts with syntax and why inversion with a wide focus interpretation of the clause is limited to a certain class of verbs.

The second point of discussion concerns the effects of argument structure on subject inversion. Verbs allowing a postverbal subject with a wide focus interpretation of the clause appear to select a loco/temporal

⁶ Transitive verbs allow subject inversion with wide focus only in very few cases:

i In questa stanza hanno dato le dimissioni molti ministri.
in this room gave the resignations many ministers
'in this room resigned many ministers'

Interestingly, in this type of sentences the verb and the object seem to act together as one predicate with an idiomatic reading. This suggests that together they behave as one intransitive verb, perhaps as the consequence of incorporation of the (light) direct object into the V.

argument.⁷ This argument can either remain covert, as in (13a), or be lexically realized as an overt PP (with certain deictic properties), as in (13b).

- 13 a E' arrivato Karpov.
 (here/to this place) arrived Karpov
 b In questo palazzo ha vissuto il Leopardi
 in this palace lived Leopardi

The observed correlation between subject inversion and the presence of this additional argument seems to be significantly consistent across verb classes. These observations are summarized in (14), again, from chapter 1:

- 14 GENERALIZATION
 Verbs with wide focus inversion:
 a) select an extra internal argument
 b) this argument can be either locative or temporal
 c) it can be covert or overtly realized
 d) it must be deictic.

The analysis I will offer below will revolve around these peculiar properties of inversion verbs.

Finally, let us turn to the issue of unaccusativity. It is generally assumed and, has partly, been shown empirically that unaccusative verbs quite naturally allow subject inversion, also in languages where this phenomenon is not supported by additional pro-drop properties (see Coopmans 1989, Hoekstra & Mulder 1990, Levin & Rappaport 1995). However, the data examined in chapter 1 revealed that the correlation between unaccusativity and inversion does not always hold. As illustrated in (15), there are unaccusative verbs that do not allow free subject inversion:

⁷ Particularly in the case of verbs like *arrivare* 'arrive' or *telefonare* 'call', the loco/temporal argument appears to be subcategorized by the verb. For the time being we will assume that this is indeed the case. In section 4, however, a more precise formulation of the properties of this element will be required. As we will see, the 'selected' loco/temporal element is not necessarily a subcategorized argument. It is sufficient for it to be somehow thematically (or maybe, aspectually) linked to the verb.

- 15 Che cosa è successo?
 what happened
- a E' morto Fellini.
 died Fellini
- b #E' impallidito Berlusconi.
 turned pale Berlusconi

On the other hand, inversion seems to be possible with certain unergative and transitive verbs as well, as illustrated in (16):

- 16 Che cosa è successo?
 what happened
- a Ha telefonato Kasparov.
 called Kasparov
- b In questa stanza hanno dato le dimissioni molti ministri.
 in this room resigned many ministers

Therefore, the supposed correlation between inversion and unaccusativity cannot be the correct generalization. However, the fact that inversion and unaccusativity do show some mutual connection could be captured by an analysis that capitalizes on the role of additional arguments in the thematic structure of the relevant verbs.

Summarizing, the examination of Italian data on inversion raises the following questions: a) why is inversion with wide focus limited to a certain class of verbs? b) What is the role of the loco/temporal argument? c) What is the relationship between inversion and unaccusativity? Section 3 and 4 will provide a possible answer to these questions. First, however, the notion of focus deserves some attention. Section 2.2. will introduce the technical apparatus for the analysis of focus which is assumed throughout this study.

2.2 The Hypothesis

As will be clear by now, the hypothesis I want to defend is that the distribution of subjects in Italian is largely determined by syntactic properties. At first sight, this claim might seem to contradict the evidence of the facts discussed in chapter 1 and summarized in generalization (12). In other words,

focus appears to interfere with syntax and to block the occurrence of subject inversion in certain cases. However, the particular approach of focus I will adopt will permit us to maintain the autonomy of syntax and, at the same time, it will provide an adequate account for the empirical data observed. More specifically, I will make the following claims:

- a) (Neutral) focus structure is the indirect product of neutral stress assignment to convergent derivations;
- b) A subject can occur in postverbal position only if the EPP is satisfied by some alternative element in the clause: one such candidate is the loco/temporal argument selected by certain verbs.

2.3 Focus

Let me repeat once again the issue of discussion: all verbs allow subject inversion with the narrow focus reading of the subject. However, when focus involves the whole clause (wide focus reading), only certain verbs allow inversion.

The explanation of these facts is based on the assumption that the rule that derives the neutral focus structure is a mechanical procedure applying at PF to convergent derivations. In other words, the input to this procedure consists of grammatical structures i.e. of structures that have met the well-formedness conditions of the computational system. If the ‘focus rule’ is a mechanical procedure, we do not expect it to have any effect on the word order of the input clauses. Therefore, it follows that the SV or VS word orders of a wide focus clause are indirectly determined by syntax. The analysis of focus I will propose in this study is based on Cinque (1993) and Reinhart (1995).

Cinque (1993) makes the observation that since focus is normally identified by main sentence stress, the rule for stress assignment may indirectly determine which constituent can carry focus. Cinque’s Nuclear Stress Rule is essentially Halle & Vergnaud’s (1987) metrical rule applying cyclically to syntactic trees. Notice that parametric variation is derived without unnecessary enrichment of the mechanism by exploiting the language-specific direction of recursion: starting from the most embedded node, the rule will apply to the remaining cycles of the relevant clause without further stipulations. (17) illustrates assignment of neutral stress to an English sentence:

- 17 Loek won the tournament.
- | | | | | | | |
|-----------|-----------------|------|-----------------|-----|-----------------|-------------------|
| | [_{IP} | Loek | [_{VP} | won | [_{NP} | the tournament]]] |
| | | * | | * | | * |
| NP cycle: | | | | | [| *] |
| VP cycle: | | | [| | | *] |
| IP cycle: | [| | | | | *] |

Starting from the first cycle, in this case the NP-cycle, the NSR assigns an asterisk to the most deeply embedded word. This operations proceeds cyclically, until the whole clause has been processed. Main prominence is then localized on the word carrying the greatest number of asterisks, i.e. on the most deeply embedded word. Given the observed correlation between stress and focus, the focus of a sentence is then identified as any constituent containing the word with main stress.

We will refer to the result of the NSR as the *neutral focus pattern* of a sentence. Notice that the wide focus reading of a clause can only be derived by the NSR, as a consequence of the cyclic nature of this rule. Wide focus is then normally associated to the neutral focus interpretation. However, the NSR also derives the narrow focus reading of the most deeply embedded constituent. Contrary to what is sometimes assumed in the literature, I will consider both options instances of *neutral focus*, since they are both derived by the same mechanical procedure. I will then speak of non-neutral focus only when the required focus option must be derived by an additional (marked) operation.

Reinhart (1995) emphasizes the fact that, as a result of the NSR, each cycle contains the word carrying main stress. Therefore, if focus is identified with main stress, Cinque's procedure determines for every sentence not just one focus but a set of possible focus options, consisting of all the cycles that contain the word with the accent. In light of what we have just said about focus and markedness, the options contained in the focus set must be viewed as neutral focus options. Reinhart's point is illustrated in (18), which repeats (17):

- 18 a Loek won the tournament.
 b [_F Loek [_F won [_F the tournament]]]
 F-set: [_F the tournament]

[_F won the tournament]

[_F Loek won the tournament]

The focus set of (18a) contains three focus options, each corresponding with a cycle containing the word with the main accent, i.e. ‘tournament’. More specifically, the narrow focus of (18a) corresponds to the direct object [_F the tournament], whereas the wide focus option corresponds to the whole clause. Notice that it is only at the interface with the system of use that the ‘meaning’ of each focus option plays a role. At this level, pragmatic considerations will determine the choice of the most adequate focus option. All operations previous to this point are strictly mechanical and do not consider possible interpretive properties of the elements involved. In other words, focus is not driven by meaning. It is only at the interface that these notions are brought together.

We turn now to Italian and try to explain why the wide focus reading with the subject in postverbal position is possible only with certain types (inversion type) of verbs. Consider (19):

19 a Kasparov ha telefonato a Campomanes.

Kasparov called Campomanes

b Ha telefonato Kasparov.

called Kasparov

Telefonare ‘call’ is an inversion verb: its subject can occur both in preverbal and in postverbal position. Both sentences are felicitous answers to an out-of-the-blue question like ‘what happened?’. These intuitions can now be verified by calculating the respective focus-sets. Let us first determine the focus-set of (19a). This is illustrated in (20):

20 [_F Kasparov [_F ha telefonato [_F a Campomanes]]]

F-set: [_F a Campomanes]

[_F ha telefonato a Campomanes]

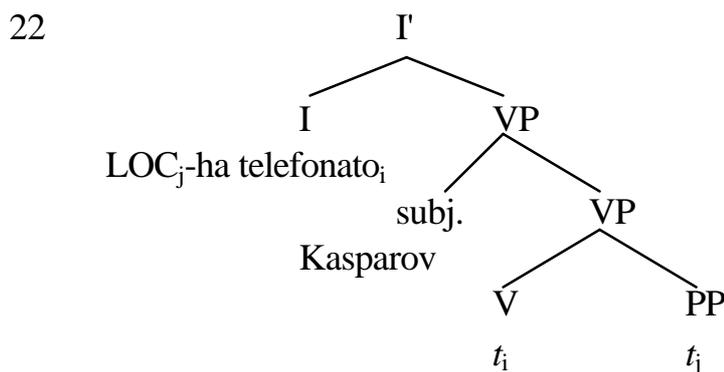
[_F Kasparov ha telefonato a Campomanes]

The focus-set in (20) contains three options. Each option is a felicitous answer to a specific question:

- 21 a A chi ha telefonato Kasparov?
who did Kasparov call
 Kasparov ha telefonato [_F a Campomanes]
- b Chi ha telefonato a Campomanes?
who called Campomanes
 #[_FKasparov] ha telefonato a Campomanes
- c Che cosa ha fatto Kasparov?
what did Kasparov do
 Kasparov [_F ha telefonato a Campomanes]
- d Che cosa è successo?
what happened
 [_F Kasparov ha telefonato a Campomanes]

(21a) represents the narrow focus option: the indirect object is the only constituent marked with focus. Notice that (21b) is infelicitous. The context requires an answer with the narrow focus reading of the subject, which is impossible with this word order since this DP is not a member of the focus set given this word order and focus structure. In (21c) focus marks the predicate (an intermediate option between narrow and wide focus). Finally, in (21d) the whole sentence is marked with focus. This is the wide focus interpretation we are interested in.

Let us turn now to (19b) and concentrate on its underlying syntactic representation.



(22) represents the structure I will propose below. The verb has raised for feature checking. However, the subject occupies just its base position as the

EPP is satisfied by raising of the loco/temporal argument LOC. The NSR applies starting from the most embedded element in the clause which appears to be the subject. Consider now (23), which shows the focus-set of (19b).

- 23 [_F Ha telefonato [_F Kasparov]]
 F-set: [_F Kasparov]
 [_F Ha telefonato Kasparov]

The focus-set in (23) contains only two options: one gives the narrow focus reading of the subject, the other gives the wide focus reading of the sentence. In this case too, each focus option contained in the set represents a felicitous answer to a specific question:

- 24 a Chi ha telefonato?
 who called
 Ha telefonato [_F Kasparov].
 b Che cosa è successo?
 what happened
 [_F Ha telefonato Kasparov]
 c Che cosa ha fatto Kasparov?
 what did Kasparov do
 #[_F Ha telefonato] Kasparov

Notice that the narrow focus option of (23) differs from that of (20). In the former the smallest constituent in focus is the subject. In the latter it is the indirect object, which is the Goal of the action of calling. The infelicity of (24c) thus derives from the fact that the narrow focus reading of the predicate is not a focus option in this set. But what interests us most is the wide focus reading. As expected, the verb *telefonare* allows a wide focus reading of the clause both with the preverbal and the postverbal subject. This is confirmed by the felicity of both (21c) and (24b).

Let us turn now to verbs that do not always allow subject inversion (i.e. the non-inversion verbs). Consider the following question-answer pairs:

- 25 Che cosa è successo?
 what happened

- a [_F Berlusconi è impallidito]
Berlusconi turned pale
- b Che cosa ha fatto Berlusconi?
what did Berlusconi do
 Berlusconi [_F è impallidito]
- c Chi è impallidito?
who turned pale
 # [_F Berlusconi] è impallidito

(25a) is perfectly felicitous with a wide focus reading, (25b) with the narrow focus reading of the predicate. The missing option is (25c), with the narrow focus reading of the subject, as is illustrated in the focus-set below:

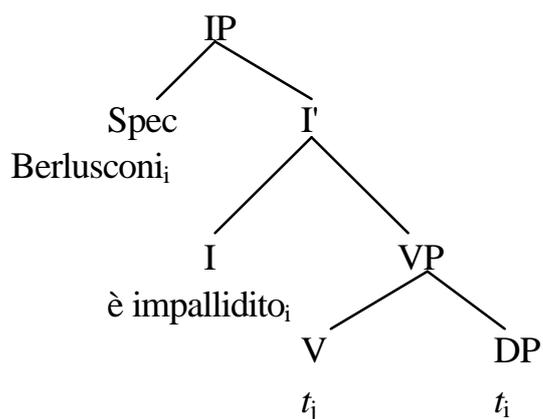
- 26 [_F Berlusconi [_F è impallidito]]
 F-set: [_F è impallidito]
 [_F Berlusconi è impallidito]

Consider now (27):

- 27 Che cosa è successo?
 #E' impallidito Berlusconi.
turned pale Berlusconi

The infelicity of (27) indicates that this verb does not allow subject inversion with a wide focus interpretation of the clause. In this respect, the verb *impallidire* 'turn pale' differs from the verb *telefonare* 'call' which allows a wide focus reading of the clause with both SV and VS word orders. Consider the syntactic structure underlying (25a):

28



For reasons that we will discuss below, the subject in (0) cannot remain in its base position and has to raise to Spec of IP. Hence, by the time the NSR applies, this clause has a SV word order. Then we expect a wide focus reading of the clause with the subject in preverbal position and a narrow focus interpretation of the verb, which is the most deeply embedded element of (0) (on the assumption that traces are not visible for the NSR). These are indeed the focus options contained in the focus set of *impallidire*. Below I will propose that the reason for subject raising in (0) is satisfaction of the EPP, and that the difference between verbs like *impallidire* and verbs like *telefonare* is that the former can satisfy the EPP only by moving the subject to a preverbal position, whereas the latter can exploit an alternative strategy which leaves the subject in its base position. In other words, the infelicity of (0) in the neutral case does not depend on focus, but on syntax. A clause containing a non-inversion verb like *impallidire* will (in this unmarked situation) never show up with a postverbal subject, because this derivation will be filtered out before reaching the level at which stress applies, i.e. before Spell-Out. The exact role of syntax will be extensively discussed in the next two subsections.

As observed at the beginning of this section, all verbs allow subject inversion with the narrow focus reading of the subject. So, (0) is infelicitous with a wide focus reading. However, with a narrow focus reading like in (0), the same sentence is perfectly correct:

- 29 a Chi è impallidito?
 who turned pale
 b E' impallidito Berlusconi.

turned pale Berlusconi

Similarly in sentences with a transitive verb:

- 30 a Chi ha scritto questo libro?
who wrote this book
- b Ha scritto questo libro Dante.
wrote this book Dante

If we explain the infelicity of (27) by claiming that it can never be one of the options of the neutral focus set, then how can we account for the existence of these sentences at all? Notice that these data are not only problematic from an interpretive point of view. The occurrence of the subject in postverbal position is a challenge for the hypothesis advocated so far.

This and similar cases will be dealt with in chapter 4 in greater detail. Elaborating on Reinhart's (1995) account of markedness in language, I will argue that constructions like (29b) and (30b) can only be the result of a marked stylistic rule triggered by interpretive needs. The proposed solution will integrate these and similar facts into the general account advocated here.

3 Syntactic Constraints on Inversion

The examination of the wide focus pattern of sentences in Italian has so far revealed unexpected asymmetries in the occurrence of postverbal subjects. As reported in chapter 1, not all verbs allow subject inversion with the wide focus reading of the clause. (31) summarizes the relevant facts:

- 31 Che cosa è successo?
what happened
- a E' arrivato Kasparov.
arrived Kasparov
- b Ha telefonato Timman.
called Timman
- c #E' impallidito Berlusconi.
turned pale Berlusconi
- d #Ha scritto questo libro la Fallaci.

wrote this book Fallaci

In the previous section I stipulated that since focus is the result of a mechanical procedure of stress assignment, it cannot be held responsible for the asymmetric distribution of postverbal subjects in (31). Rather, the constraining factor must be located at a previous stage of the derivation, i.e. in the syntactic component. I will now develop the hypothesis that the occurrence of subjects in postverbal position is determined by the EPP: the subject can occur in postverbal position if there is another element in the clause that can satisfy the EPP. I will argue that the loco/temporal argument selected by the verb in inversion contexts is a possible candidate for satisfaction of the EPP.

3.1 Evidence for a Covert Argument

In chapter 1 we concluded that the distinction between inversion versus non-inversion verbs involved certain differences at the level of lexical structure. The data examined provided evidence for the existence of an additional argument in the thematic structure of those verbs that allow subject inversion with wide focus interpretation. Let us briefly review the main properties of these predicates. Consider (32) and (33):

- 32 a Irene è arrivata a Milano.
 Irene arrived at Milan
 b Irene è arrivata.
 Irene arrived (somewhere)
 c LOC è arrivata Irene.
 (here/at this place) arrived Irene
- 33 a Dante ha telefonato a Beatrice.
 Dante called Beatrice
 b Dante ha telefonato.
 Dante called (made some telephone calls)
 c LOC ha telefonato Dante.
 (us/to this place) called Dante

The verbs *arrivare* ‘arrive’ and *telefonare* ‘call/phone’ are representative of what I called inversion verbs. As is illustrated in (32) and (33), these verbs normally take an additional internal argument which indicates the goal of the event.⁸ We distinguish three cases: a) the argument is overtly realized, like in the (a)-sentences, b) the argument is implicit, like in the (b)-sentences, and c) the argument is covert, but ‘present’ in syntax, like in the (c)-sentences. Below I will argue that the (b)-sentences must be analyzed as having a different numeration than the (a)- and (c)-sentences. The latter type of sentences contain an additional argument that may be either overt or covert. In the (b)-sentences the argument is only ‘lexically’ present but not syntactically. The interpretation of this argument is thus dependent on the specific context in which the sentence is embedded. Let us concentrate on the inversion sentences (32c) and (33c). Notice that I illustrated the presence of the covert argument by means of LOC.⁹

Evidence for the existence of LOC and for its peculiar properties is provided by a collection of empirical facts that I will briefly recapitulate here. First, as is shown by the glosses, the meanings of both (32c) and (33c) involve a complement indicating the goal of the event of arriving and of calling, respectively.

LOC appears to have just one possible interpretation, i.e. that of a deictic locative (or temporal) referring to a speaker-oriented ‘here and now’. The covert argument in (32c) and (33c) can never refer to a location or a time different than those relative to the speaker.

The presence of LOC can explain the ungrammaticality of sentences like (34b) and (34c). If it is true that inversion constructions select a covert argument, it follows that (34b) and (34c) violate a form of the Theta Criterion by realizing the argument both overtly, as a PP, and covertly, with

⁸ Calabrese (1991) claims that all unaccusatives subcategorize for a loco/temporal argument. Although I agree that this is the case for a certain group of unaccusatives (those expressing a goal in the abstract sense), I will show that this generalization cannot be extended to the whole class. In addition, certain unergatives that show interesting similarities with the unaccusative verbs appear to select the loco/temporal argument as well.

⁹ In this specific case the argument is a locative PP. However, certain inversion verbs like, for instance, *morire* ‘die’ may prefer a temporal argument. In addition, both the locative and the temporal argument subsume a notion of space and time in broad sense, including some abstract domains as well.

deictic interpretation. Notice that the position in which the overt PP occurs does not affect the acceptability of these clauses.

- 34 a Irene è arrivata a casa.
Irene arrived at home
b *E' arrivata Irene a casa.
arrived Irene (here/at this place) at home
c *A casa è arrivata Irene.
at home arrived Irene (here/at this place)

Alternatively, if we assume that the argument is projected only once (as an overt PP), the ungrammaticality of (34b) and (34c) follows from a violation of the EPP, since the subject does not raise. (34a) is fine because subject raising takes place and satisfies the EPP.

Consider now (35):

- 35 a E' arrivata Irene dal Messico.
arrived Irene from Mexico
b E' arrivata Irene con una valigia piena di libri.
arrived Irene with a suitcase full of books

The wellformedness of these sentences can be explained by the fact that the overt PP is an adjunct, so that the EPP must necessarily be satisfied by LOC. In other words, the verb *arrivare*, 'arrive' selects an 'in/at' argument. Hence, the PP's in (35) are both adjuncts and do not violate the Theta-criterion. The data we have examined so far suggest that the occurrence of subject inversion may be determined by syntactic principles in the first place.

Finally, let me mention a point to which we will return in the next section. There appears to be only one case in which inversion tolerates an overtly realized PP:

- 36 a Da questo porto è partito Marco Polo.
from this harbour left Marco Polo
b *Dal porto è partita la nave.
from the harbour left the ship

Notice, however, that not every overt PP will do. The contrast in (36) shows that the PP occurring in clause-initial position must have certain properties. The minimal pair in (36) differ only in the type of DP selected by the preposition: in (36a) the determiner contains the demonstrative *questo* ‘this’, whereas in (36b) the determiner contains the definite article *il* ‘the’. The consistency of this pattern across a large set of data (see chapter 1) seems to indicate that the properties of the PP-internal DP may determine the occurrence of a PP in clause-initial position. One of the properties distinguishing *questo* from *il* is its deictic interpretation. This fact may indicate that deixis plays a role in the licensing of these constructions. In section 4.3 we will examine the nature of this role in more detail.

So far we have examined some facts that seem to support the hypothesis that inversion with the wide focus interpretation correlates with the presence of a covert argument. Generalization (37) summarizes the conclusions:

- 37 Generalization
 Verbs with wide focus inversion:
 a) select an extra internal argument
 b) this argument can be either locative or temporal
 c) it can be either covert or overtly realized¹⁰
 d) it must be deictic (when it occupies the EPP position).

3.2 The Role of the Covert Argument

The correlation between subject inversion and the presence of an additional loco/temporal argument appears to be consistent across different verb classes. Whereas, for instance, unaccusativity is neither a necessary nor a sufficient property for subject inversion, the presence of a loco/temporal argument (either overt or covert) appears to be an essential ingredient of inversion contexts. Recall some of the examples we discussed in chapter 1:

- 38 a E' morto Fellini.
 died Fellini (just now/I have just heard it)

¹⁰ The role of overt PPs will be explored and discussed in section 4 of this chapter.

- b Ha telefonato Beatrice.
called Beatrice (us/this place)
- c *In questo palazzo* ha vissuto il Leopardi.
in this building lived Leopardi
- d *In questo albergo* hanno lavorato molte donne straniere.
in this hotel worked many foreign women

The glosses show that, either implicitly, like in (38a) and (38b), or explicitly, like in (38c) and (38d), a locative or a temporal argument is always involved in an inversion context. As discussed in chapter 1, when this argument is not available, subject inversion is not possible.¹¹

The line of research I will develop in this section is centered around the following hypothesis:

- 39 Hypothesis
In inversion constructions the EPP is satisfied by the loco/temporal argument (LOC).

Given (39), the subject does not need to raise in order to satisfy the EPP. There could be another reason for raising, namely checking of Nominative Case and phi-features. However, recall that I assume that EPP is disjunct from Case and phi-feature checking (see Chomsky's (1995, Ch.4). This opens up the possibility for the latter forms of checking to take place covertly at LF, so that in overt syntax the so-called inverted subject could just occupy its base position.

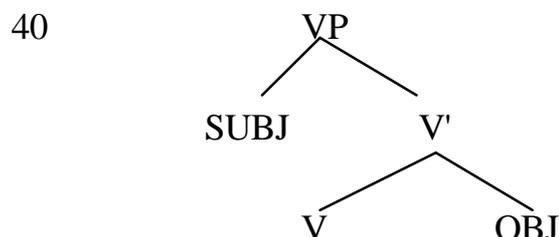
However, before discussing (39) something must be said about the position of the subject.

3.3 The Position of the Subject

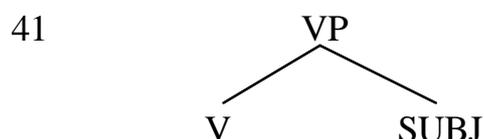
I will assume that subjects of transitive and unergative verbs are uniformly generated in the highest specifier of the verbal projection (see Koopman &

¹¹ The only exception to this general rule is the case of inversion with an indefinite subject. Even if no locative is available, the indefinite subject can show up in postverbal position. For more discussion of this point see section 5.2 of chapter 3.

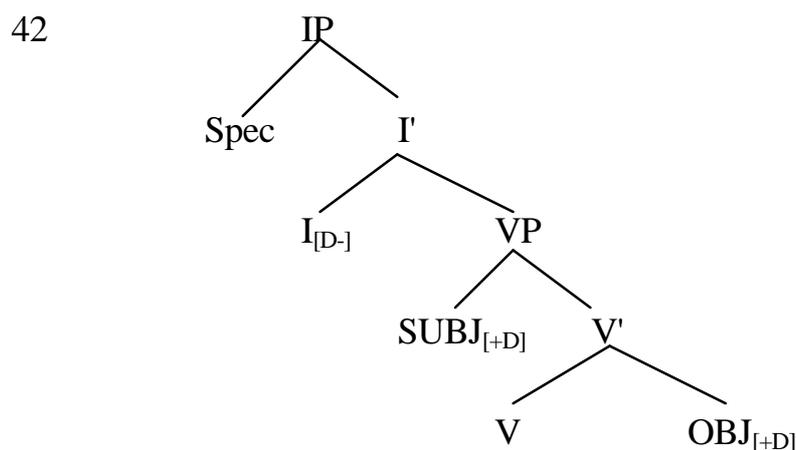
Sportiche 1989, Kayne 1994, Chomsky 1995).¹² (40) illustrates the relevant structure:



Subjects of unaccusative verbs are then generated in the complement position, as in (41):



From its initial position, the subject is supposed to raise to the Spec of INFL in order to satisfy the EPP. In Chomsky's (1995) formulation the EPP corresponds with checking of the strong D-features of INFL against the D-features of the closest relevant element in the clause. As (42) shows, this element is normally the subject.



¹² Chomsky (1995) adopts a Larsonian VP-internal structure, where the lexical verb is in the complement of a light verb *v* to which it has to raise before Spell-Out. For the moment I will ignore this articulated structure since it is not relevant for the purposes of this section.

The operation that checks the D-feature of INFL must take place before Spell-Out. This triggers overt movement of the subject to the Spec of IP creating the specifier-head configuration required for feature checking. In this case there is no doubt about the choice of the most adequate checker. The object cannot satisfy the EPP since it is not the closest element containing D-features. Conversely, when the sentence contains an unaccusative verb, it is the DP in object position, i.e. the only argument, which raises for feature checking, since there is no other closer DP.

Let us turn now to contexts of subject inversion. The subject always occurs in postverbal, sentence final position.¹³ Since we assumed that subjects are generated on the lefthand side of VP (cf. 40), the VOS order can be obtained either by adjoining the subject to the right of VP or of some functional projection dominating it, or by moving all the VP-internal material leftward, past the subject. The first type of approach is along the lines of Rizzi (1982), Burzio (1986), and Roberts (1987). The second type of approach, the one I will follow here, is that proposed by Kayne (1994) and Chomsky (1995).

This line of reasoning is not without consequences. More specifically, we have to provide an account for the following questions: a) how can the EPP be satisfied if the subject does not raise? b) what is the trigger for movement of the verb to a position past the subject? c) does the object raise in Italian? d) how can the subject DP check its Case feature and phi-features?

The first question is crucial for the analysis defended in this study and will be discussed in great detail in section 3.4. About V-raising and object raising I will briefly refer to Belletti (1990), who adduces empirical and theoretical evidence for the existence of the former and the absence of the latter in Italian. As for the last question, I hypothesize that Case features are weak in Italian.¹⁴ This means that the Case feature on INFL is not sufficient to trigger raising of the subject in overt syntax. Case checking can then be delayed until LF, where it takes place covertly. I will assume the same for phi-features. Feature checking will be discussed in more detail in section 3.5.

¹³ The VSO order, available in Spanish and Portuguese, is not present in Italian.

¹⁴ This assumption is perfectly in line with Chomsky's (1995, Ch.4) hypothesis that only categorial features are strong.

3.3.1 V-raising and Object Raising in Italian

According to Belletti (1990), in Italian the inflected verb moves to the highest inflectional projection (AGRs, in her framework) in order to pick up tense and phi-features. The analysis of verb movement she proposes draws on Pollock (1989) and essentially relies on the relative position of the finite verb (and of the past participle) with respect to different types of adverbs which are taken to determine the relevant phrase boundaries.¹⁵ For instance, evidence for V-raising is provided by negative constructions like (43):

- 43 Gianni non parla mai.
Gianni never talks

On the hypothesis that the adverb *mai* ‘never’ fills a position to the right of AGRs and that the negation *non* is a clitic on the V in AGRs, the inflected verb must necessarily occupy the AGRs-head.

Object clitics in Italian are assumed to raise overtly to the Spec of AGRoP and trigger object agreement on the past participle (Kayne 1989):

- 44 a Dante la ha amata.
Dante her-Fem-Sing-has loved-Fem-Sing
b Beatrice le ha lette.
Beatrice them-Fem-Plur-has read-Fem-Plur
c *Beatrice ha lette le.
Beatrice has read-Fem-Plur them-Fem-Plur
d *Beatrice le ha letto.
Beatrice them-Fem-Plur-has read-0

The ungrammatical (44c) and (44d) show, respectively, that the object clitic is not allowed to remain in its base position and that the past participle must agree with the clitic in gender and number.

However, when the object is not a clitic, there seems to be no evidence that this operation takes place overtly. Let us examine this point in more detail. If negative polarity adverbs like *mai* ‘never’ or *più* ‘more’ occur both

¹⁵ Crucial for Belletti’s analysis is the assumption that there is no specific process of adverb movement (cf. Pollock, 1989).

to the right of AGRs and in VP-initial position, the direct object can then show up in the following positions:

- 45 a Dante non ha mai baciato Beatrice.
 Dante not-has ever kissed Beatrice
 b Dante non ha baciato mai Beatrice.
 Dante not-has kissed ever Beatrice
 c *Dante non ha baciato Beatrice mai.
 Dante not-has kissed Beatrice ever

(45a) is perfectly correct. The negative adverb sits on the right of AGRs, the past participle in AGRo and the direct object still fills its base position inside the VP. (45b) is slightly more marked, yet acceptable. If the adverb fills a VP-initial position, the direct object must necessarily be inside the VP. Consider now (45c). Here the direct object precedes the negative adverb. If the latter marks the VP-boundary, then the object must have moved out of the VP. However, (45c) is not fine. If Belletti's assumptions on adverbs as markers of projection boundaries are correct, the ungrammaticality of (45c) provides evidence against overt object raising in Italian.

The analysis I will present below is based on the hypothesis that Italian does not have object shift, in agreement with Belletti (1990). However, both the object shift and the non-movement analysis will be briefly compared, for sake of clarity.

3.4 Checking of the Strong D-feature of Infl in Inversion Contexts

Let us now turn to the most intriguing question: what satisfies the EPP if the subject does not raise? Consider again the inverted sentences in (38), repeated below:

- 46 a E' morto Fellini.
 died Fellini (just now/I have just heard it)
 b Ha telefonato Beatrice.
 called Beatrice (us/this place)
 c *In questo palazzo ha vissuto il Leopardi.*

- in this building lived Leopardi*
- d *In questo albergo hanno lavorato molte donne straniere.*
in this hotel worked many foreign women

On the assumption that the subject remains in its base position and given the fact that these sentences are perfectly correct, we conclude that there must be some other element that can take over the role of the subject in satisfying the EPP. As discussed above, the examination of the empirical data reveals a correlation between inverted context and the presence of an additional loco/temporal argument (LOC). This argument seems to be able to substitute for the subject in its task of checking the strong D-features of INFL. If this is indeed the case, it follows that there is no trigger for the subject to raise overtly, since, as we assumed, its Case and phi-features can wait until LF. Let us see how this could work.

We consider first instances of inversion where the locative remains covert. Inversion with overt locatives will be discussed in the next section.

The claim that LOC in sentences like (46a-b) satisfies the EPP instead of the subject is in fact based on the non-trivial assumptions that a) LOC bears D-features and that b) satisfaction of the EPP by this argument is cheaper than by raising the subject. These two issues will be examined in section 3.4.1 and 3.4.2, respectively.

3.4.1 The Status of LOC and its Features

We consider first the status of LOC. Although in the sentences we examined this element is not overtly realized, there are good reasons to assume that it is thematically related to the relevant verb and that it is present in syntax in an abstract form.¹⁶ We can think of two possible analyses of LOC as a syntactic element: either it is a *pro*, or it is a null clitic.

The hypothesis that LOC is a *pro* finds some support in the fact that this element is ‘present’ in syntax, but does not have any phonological content, by analogy with null subjects in Italian. Then, since LOC behaves

¹⁶ With loco/motional verbs of the *arrivare* ‘arrive’-type we can indeed assume that the covert argument is subcategorized by the relevant verb. However, this assumption appears less natural with other types of verbs like, for instance, *mangiare* ‘eat’ or *studiare* ‘study’. Perhaps, instead of subcategorization, it is more precise to speak of a thematic relation between the covert argument and the verb that selects it.

like a subject DP, it may be plausible to assume that LOC is a *pro* carrying a D-feature.^{17 18}

Alternatively, LOC shows a structural ambiguity which is typical of clitic-like elements (Chomsky, 1995). As an argument of the lexical verb, LOC is projected in syntax as a maximal projection X^{\max} . On the other hand, LOC appears to behave like the expletive clitic *ci* in copula constructions like in (47):

- 47 a C'è Beatrice.
 there is Beatrice
 '*Beatrice is here*'
- b Ci sono molti linguisti in questo istituto.
 *there are many linguists in this institute*¹⁹

Since clitics adjoin to verbal heads, at this stage of the derivation the clitic is analyzed as an X° . LOC is thus ambiguous between an X^{\max} and an X° . This suggests that LOC may be a clitic as well. The data we will discuss below appear to corroborate the latter hypothesis.

An element endowed with a D-feature is a potential checker of the strong D-feature of INFL. So, on either analysis of LOC, the result is that the EPP is satisfied by LOC, instead of by the subject DP. The fact that LOC stands for a loco/temporal argument and that, as such, may satisfy the EPP is not necessarily problematic. The hypothesis that a covert argument is realized

¹⁷ Although a loco/temporal argument in Italian is normally realized as a PP, it does not necessarily need to be so. Nominals like *questa settimana* 'this week' or adverbials like *qui* 'here' are possible as well.

¹⁸ As we will see below, LOC gets a deictic interpretation whenever it occurs in preverbal subject position. Then, it is not clear whether we should assume that LOC contains more than just a D-feature. The presence of additional features may render our hypothesis of LOC as the optimal checker of [+D] less straightforward. On the other hand, the deictic interpretation of LOC clearly is a default option which makes plausible the hypothesis that LOC does not have phi-features of its own (see also section 4.3).

¹⁹ Observe that when no overt PP is present, like in (47a), the clitic *ci* gets a deictic (speaker-oriented) interpretation. This exactly parallels the interpretation of LOC in sentences like (?). There is, however, a crucial difference between LOC, on the one hand, and the clitic *ci*, on the other. In (47b) *ci* is an expletive base generated in INFL and not an argument (see Burzio 1986).

in syntax as a *pro* or as a null clitic endowed with D-features shows that the categorial distinction between DPs and PPs is blurred when these have a covert status. The variations in categorization of arguments may depend on the richness of the morphological system of the relevant language. A language with rich morphology categorizes the different theta roles in DPs bearing different affixes. A language with a more limited morphology instead relies on an alternative option by exploiting the availability of prepositions.

That the categorial status of an argument does not reflect deeper thematic differences was already shown by Bresnan (1994). Bresnan observes a discrepancy between locative arguments in English and their counterparts in a language like Chicheŵa: in English the locative is categorized as a PP, in Chicheŵa as a DP. Bresnan suggests that this difference may derive from a typological difference in the grammatical systems of Case and Gender, whereby Gender must be understood as ‘kind’, not necessarily as ‘sex’. In Chicheŵa locatives are gender classes, i.e. "...they are part of a system that signals contrasts between grammatical categorizations of people, things, locations, qualities, and the like- kinds of things (genera), designated by NPs ..." (Bresnan 1994:116-117). In English locatives do not indicate a gender, but a Case opposition, which can be expressed by categorizing them as PPs, (i.e. the oblique case of PPs versus the direct case of DPs). Evidence for this idea is provided by the fact that Chicheŵa has eighteen different gender classes, involving determiners, pronouns, adjectives, modifiers, among others. Clearly, in languages where gender is extremely reduced, such as in English and, to a certain extent, in Italian, the function of the gender classes is taken over by the preposition.

Let us put aside for the moment the issue of the status of LOC and assume that the general lines of the analysis suggested so far are correct. Then the constructions in (46a-b) should be accounted in the following way. The verb *morire* and the verb *telefonare* obligatorily select a loco/temporal argument (LOC). This argument can either be explicitly realized as an overt PP or remain covert. In the latter case, LOC checks the strong D-feature of INFL instead of the subject which can thus remain in its base position. (46a-b) are thus represented as in (48):

- 48 a LOC è morto Fellini.
 (*just now/I have just heard it*) died Fellini

- b LOC ha telefonato Beatrice.
(us/this place) called Beatrice

3.4.2 The EPP and Economy

We discuss now the second assumption, which holds that satisfaction of the EPP by means of LOC is less costly than by raising of the subject. In the minimalist framework, every operation is evaluated in terms of economy. Yet, by hypothesis, strong features have to be checked before Spell-Out, even if covert checking represented the cheaper option (see Chomsky 1995, Ch.4).

Consider (46a-b). The strong D-feature of INFL must be checked before Spell-Out by a category bearing the same feature. In constructions like (46), two options are evaluated. One is represented by raising of the subject to Spec of INFL, the other by raising of LOC. Let us examine these two options in depth.²⁰

We start by considering a sentence like (49), but with an overt PP.²¹ We know, by now, that when the locative argument is overt and non-deictic, the wide focus interpretation is possible only if the subject occurs in preverbal position.

- 49 Beatrice ha telefonato a Dante.
Beatrice called Dante

Suppose (49) has a numeration containing the following relevant items²²:

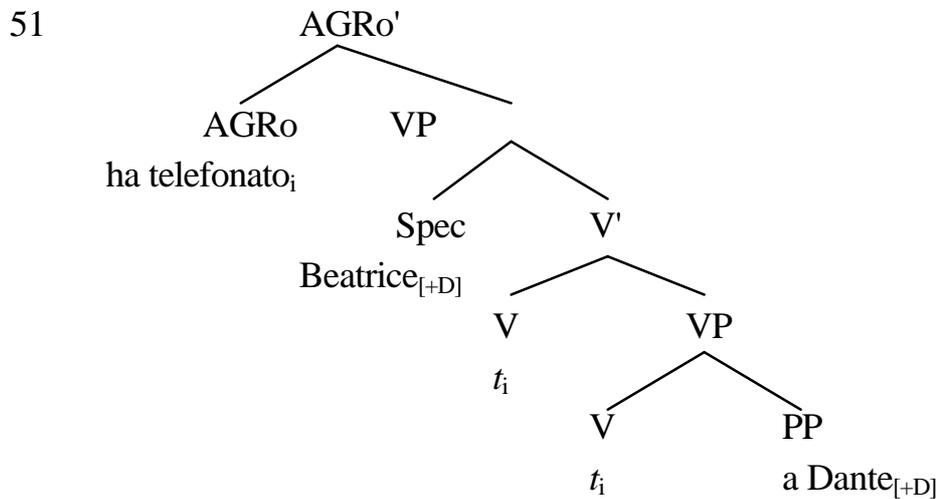
²⁰ For ease of exposition, I will abstract away from additional functional projections like Aspect phrase and Auxiliary phrase that may be present in a clause with a complex tense. I will assume that the past participle raises to AGRo and then to INFL for checking of some strong V-features and that the auxiliary is generated in AGRs. Notice, however, that if the past participle raises to INFL, object shift in (45b) and (45c) cannot be excluded. The adverb *mai* may be adjoined to the right of AGRs or to VP, respectively, and the object may occupy the scrambled position, Spec of AGRo.

²¹ In Italian the verb *telefonare* ‘call’ selects an indirect object which we considered as an abstract locative argument.

²² Again, for ease of exposition, I will leave out those features that are not strictly relevant for the present discussion.

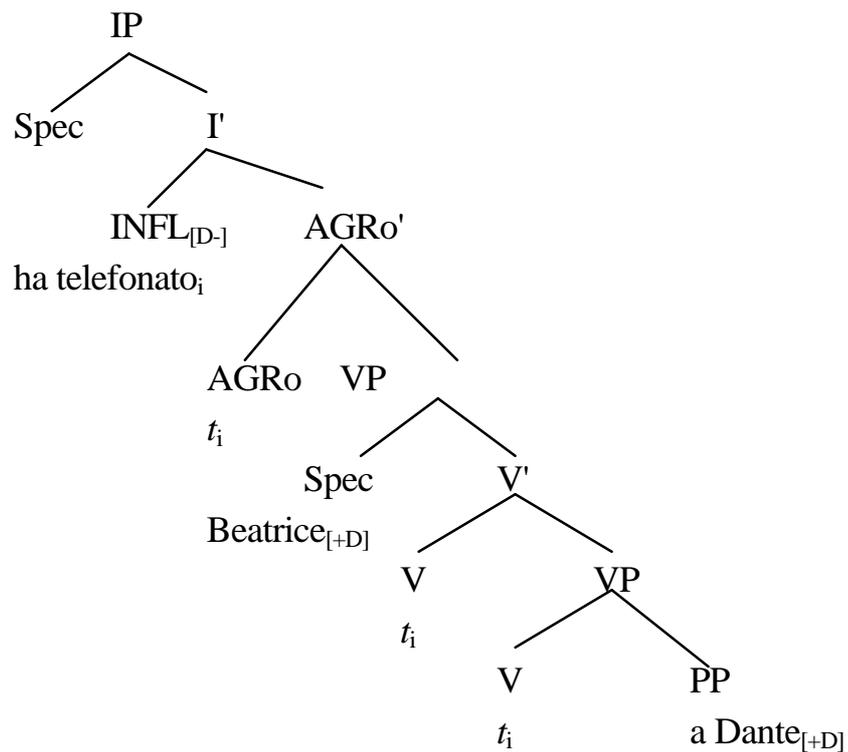
50	D	V	P	D	INFL	AGR
	/Beatrice/	/ha tel./	/a/	/Dante/	[+D]	[V-]
	NOM	[tense]	/phi-feats/	[V-]		NOM
	/phi-feats/				[tense]	/phi-feats/

These items are now inserted into the structure by Merger (the structure-building operation). (51) represents the structure after merging of all the items of (50), except for INFL, and checking of the V-feature of AGRO.



Now we proceed with merge and add INFL to the structure. The verbal complex in AGRO is attracted by the strong V-feature of INFL. At this point the EPP has to be satisfied. The strong D-feature on INFL attracts the closest element bearing a D-feature. Consider the new structure:

52



Clearly, (52) shows that the subject is the only possible checker as, in accordance with the Minimal Link Condition, it is the closest element bearing the relevant feature.

Consider now (46b), repeated in (53):

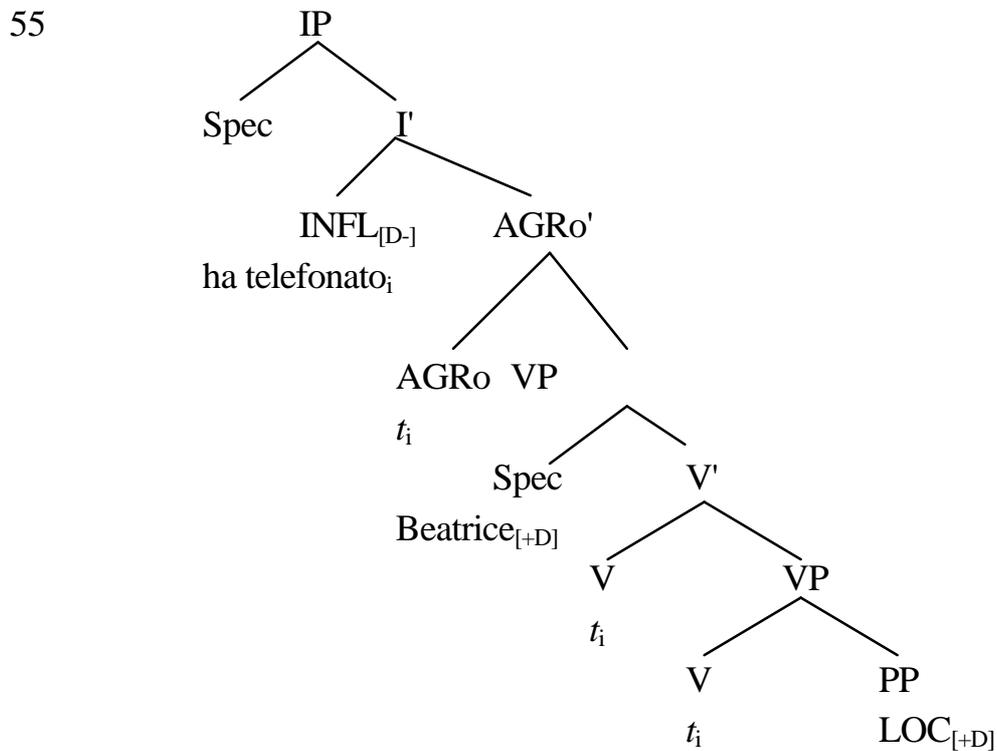
53 Ha telefonato Beatrice.
 called Beatrice (here/to this place)

The hypothesis is that the subject occurs in postverbal position because it does not need to raise. In sentences like (53) the EPP is satisfied by the covert argument LOC. Let us see whether the theoretical framework we adopt supports this analysis.

The numeration of (53) contains the following items:

54	D	V	D	INFL	AGR
	/Beatrice/	/ha tel./	/e/	[+D]	[V-]
	[+human]	[tense]	LOC	NOM	
	NOM		[V-]		
				[tense]	

Recall that LOC only bears a D-feature. Consider (55) which gives the structure of (53) after merger of all the items of the numeration and after raising of the verb to the higher head INFL:

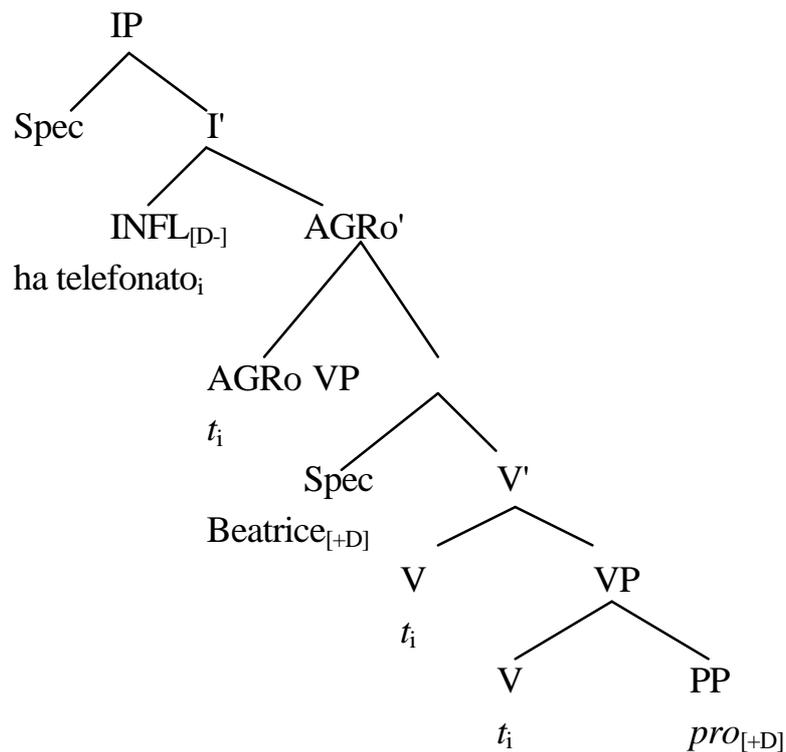


The system always chooses the optimal checker (cf. Chomsky 1995). In other words, if it is correct to assume that the covert argument in (55) satisfies the EPP, then we must show that this option is cheaper than subject raising. There are two cases in which checking by LOC may be less costly than checking by the subject: a) when AGRo has a strong D-feature and b) when LOC is a clitic. These two options are examined in section 3.4.2.1 and 3.4.2.2, respectively.

3.4.2.1 Option 1: LOC is a *pro*

Assume that LOC is a *pro*. This is equivalent to saying that LOC is an empty DP. If this hypothesis is correct, then *pro* carries a D-feature. At the stage where the EPP has to be satisfied the derivation has a structure like in (56):

56

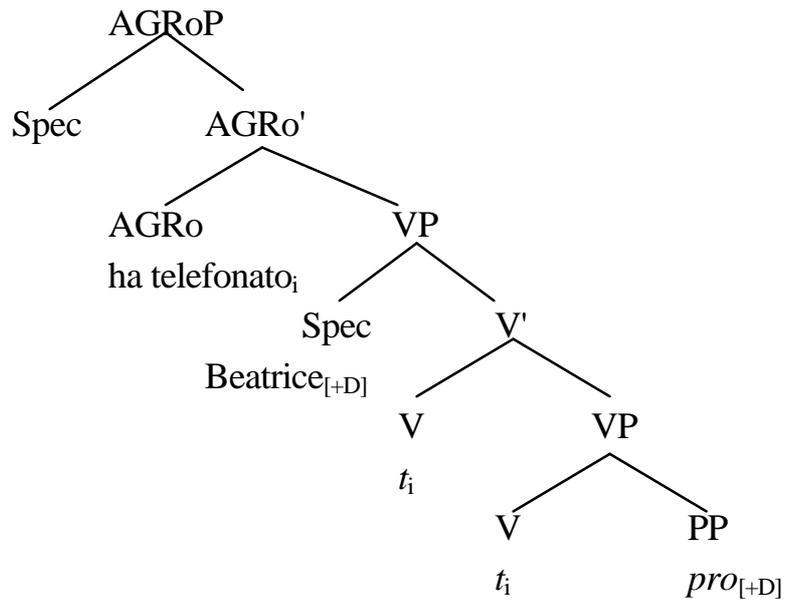


The strong D-feature of INFL attracts the closest category carrying a D-feature. In this case only the overt subject is eligible for checking since the other potential checker, *pro*, is too far embedded inside the VP. The conclusion seems to be that satisfaction of the EPP by *pro* is ruled out by the system as too costly an operation. This would imply that subject inversion can only be derived by assuming an additional rule that moves the subject rightward and adjoins it to the right of the VP. Clearly, an account that dispenses with such a construction-specific rule is preferable. Therefore, let us explore an alternative solution.

Let us assume then that AGRo bears a strong D-feature. Although, to my knowledge, there is no clear evidence for overt object movement in Italian (see Belletti 1990), the discussion of this option will provide us with a better understanding of the interaction between the underlying structure of a clause in this language and the considerations of economy that govern syntactic operations in general.

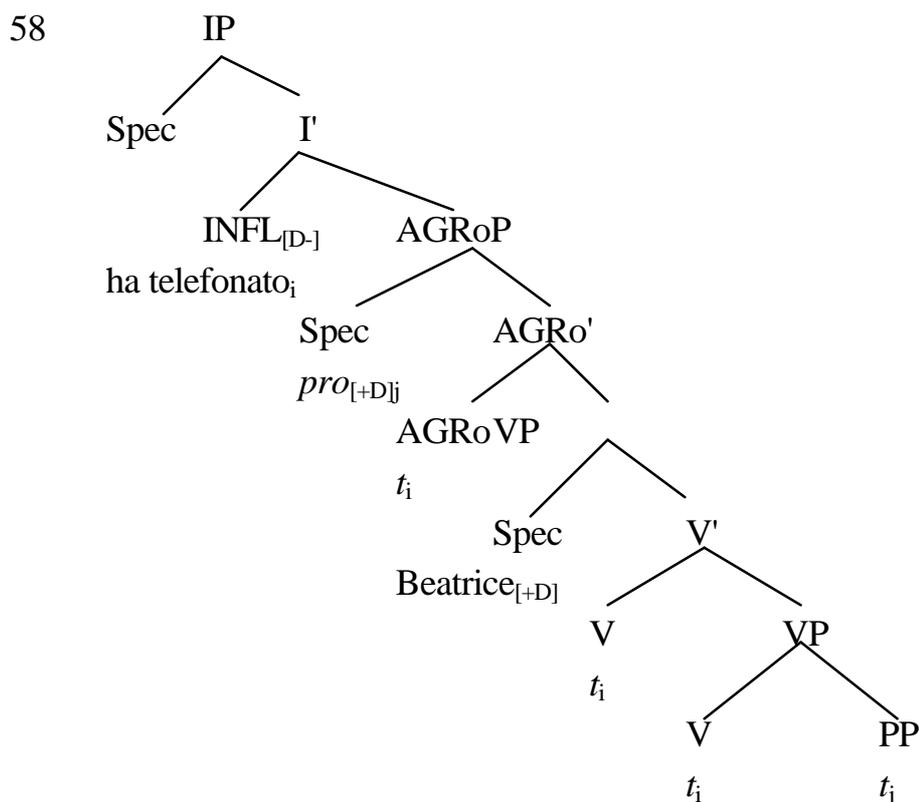
Consider (57). The verb has raised to AGRo. At this point of the derivation the strong D-feature of AGRo must be checked.

57



The structure contains two possible checkers for the strong D-feature of *AGRo*: *pro* and the overt subject. We start by examining the option with *pro*. Raising of the verb to *AGRo* has made *Spec* of *VP* and *Spec* of *AGRoP* equidistant from *pro*, hence *pro* may skip a possible landing position (*Spec* of *VP*) and raise directly to *Spec* of *AGRoP*. Case-mismatch is excluded as, by assumption, *pro* carries only a D-feature.²³ The next step consists in checking of the strong D-feature of *INFL*. The verbal complex has moved further to *INFL*. At this stage the structure looks like (58):

²³ If *pro* bears only a D-feature, satisfaction of the EPP could involve feature attraction without pied-piping of lexical material.



Both the overt subject and *pro* are eligible for feature checking in INFL, as V-raising has made Spec of AGRoP and Spec of IP equidistant from the subject. Is this a case of true optionality? Recall that the notion of optionality is not compatible with the minimalist perspective we adopt in this study. What we have to show is that the preference for *pro* as the optimal checker is determined by considerations of economy.

A possible explanation takes into consideration the properties of the Attraction operation and exploits the phonological status of the two arguments. Strictly speaking, checking only involves attraction of the relevant features. Yet, conditions on phonological convergence require that the lexical material present on the node move along with the features.

Consider now (58). A first possibility is that the EPP is satisfied by the subject. Then, for phonological convergence, the whole DP raises along with the D-feature. This operation has an interesting consequence. If the entire DP raises, Case features and phi-features are taken along as 'free riders' and are checked overtly as well.

The alternative option is that the EPP is satisfied by *pro*. Since this *pro* really is only a D-feature, no overt material needs to be moved. However, at

LF we still need an operation of covert movement for checking of the Case and phi-features of the subject DP.

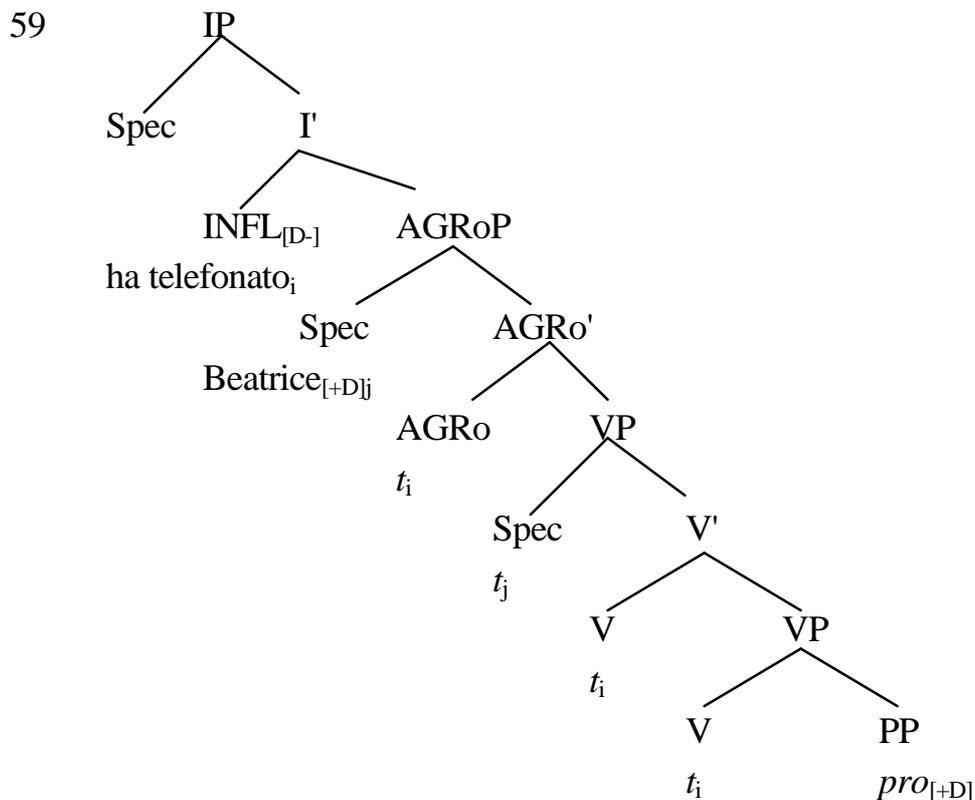
As briefly discussed in section 1.5.1, Chomsky (1995) seems to suggest that, other things being equal, phonological ‘lightness’ may be an economy criterion for the choice of the optimal checker. In other words, a checker that carries along only features should be preferred above one that involves pied piping of lexical material. If it is correct to assume that there is a phonological notion of economy, it follows that in constructions like (58) the EPP must be satisfied by *pro*, as this is the more economical option. This analysis correctly predicts that when LOC is covert, subject inversion is obligatory.

However, there remains an obscure point. If the EPP is satisfied by subject raising, the D-feature is checked along with Case and phi-features. Conversely, if the EPP is satisfied by LOC, only the D-feature is checked. Then the features present on the head of the subject (Case and phi-features) have to be checked at LF. In other words, the first option requires just one ‘heavy’ operation before Spell-Out. The second option requires two operations: one ‘light’ before Spell-Out, plus one ‘light’ at LF. Which of the two options is the more economical one? A possible answer is provided by Chomsky (1995) himself. In Chapter 4 he explicitly claims that economy conditions have to be evaluated in local terms. This means that each step in the derivation must be compared with its possible alternatives, disregarding previous or subsequent stages of the derivation. On this view of economy, it is conceivable that phonological heaviness may play a role and that checking by means of *pro* is preferred.

Let us turn briefly to the structure we started with, in (57). Our original question was: in which sense is LOC the optimal checker of the strong D-feature of INFL? What we have been discussing so far is the case that the strong D-feature of AGRO is checked by *pro*. However, the clause contains another potential D-feature checker: the subject. Let us also examine this option.

The subject raises to Spec of AGRO_P in order to check the strong D-feature of AGRO. If AGRO has Accusative case, the derivation crashes as the consequence of Case mismatch between the subject and AGRO. On the other hand, if AGRO does not bear Case the subject will retain the Nominative

Case feature and check it later at INFL.²⁴ At this point the strong D-feature of INFL has to be checked. Consider the structure in (59):



At this stage of the derivation, the strong D-feature of INFL can only be checked by the subject. *Pro* is too deeply embedded and its movement to Spec of IP would violate the MLC. So, subject raising is the only possible option. The Case and phi-features of the subject are checked 'for free' in the same position. The resulting word order is S V LOC.

Recapitulating. Given the hypothesis that AGRo bears a strong D-feature, we explored two checking alternatives: the D-features of AGRo and of INFL are either checked by *pro* or by the overt subject. After a few calculations we concluded that checking by *pro* requires three operations: overt raising of *pro* first to AGRo and then to INFL, plus covert raising of the subject at LF for checking of Case and phi-features. On the other hand, checking by subject raising seems to require only two operations: subject movement to Spec of AGRoP and then to Spec of IP. No covert raising is

²⁴ The derivation would crash also in the case that AGRo bears phi-features as these are probably not compatible with the phi-features of the subject.

required in this case, as the D-feature of *pro* is interpretable and need not be checked.

Above we saw that, according to Chomsky's Chapter 4, economy conditions apply locally, so, the number of steps necessary for checking of a certain feature does not play a role in this perspective. On the other hand, if economy is locally evaluated, we face again an instance of optionality, as *pro* and the subject are equidistant from the target node. This is problematic in two ways. As already discussed above, optionality is unacceptable in a minimalist framework like the one assumed in this study. In addition, the conclusion that both options are allowed cannot explain the fact that the most natural word order of the sentence has the subject in postverbal position. Therefore, in this case, too, the only way to account for this intuition is by relying on a variant of economy based on the phonological heaviness of the relevant constituents.

Summing up. In this section we evaluated the hypothesis that LOC is a *pro* carrying just a D-feature and that, as such, it represents the optimal choice for satisfaction of the EPP. This analysis encounters a series of problems. We briefly recapitulate them.

If we follow the standard assumption that AGRo in Italian does not have a strong D-feature, the inverted word order (LOC V S) cannot be derived. Raising of *pro* to INFL would violate the MLC, hence, the EPP can only be satisfied by subject raising. This analysis thus leaves the availability of the inverted word order unexplained.

Let us then hypothesize that AGRo in Italian does bear a strong D-feature. An immediate consequence of this assumption is the presence of an additional specifier (Spec of AGRoP) for the checker on its way to Spec of IP. Then, if *pro* moves to this position, both *pro* and the subject are equidistant from the target node Spec of IP. However, equidistance implies optionality, as either the subject or *pro* are possible options for satisfaction of the EPP. Since our theoretical framework does not allow optionality, we can rescue this analysis only by assuming that the conditions of economy are sensitive to a phonological notion of heaviness.

The problematic points we have just reviewed weaken the analysis of LOC as a *pro*. With one eye to the problems we have discussed so far, we now turn to examine the alternative option: LOC is a clitic.

3.4.2.2 Option 2: LOC is a Covert Clitic

In the previous section I argued that LOC may just be an empty D, as in (60):

60 $D_{[+D]}$

According to Chomsky (1995:242), "A category that does not project any further is a maximal projection XP, and one that is not a projection at all is a minimal projection X^{\min} ". For certain elements the two properties can coincide so that we can speak of an X^{\max} and an X^{\min} at the same time. The classical example of elements of such a dual X' -nature are clitics.

The structure of LOC in (60) seems to fit this description. LOC is a D, as we assumed that it carries a D-feature. It is an X^{\max} since it does not project. On the other hand, it is also an X^{\min} since it is not projected, either. Hence, from a theoretical point of view, LOC may be analyzed as a clitic.²⁵ Let us explore this option.

According to our initial hypothesis, LOC satisfies the EPP instead of the subject. What we have to show now is that LOC is the optimal checker of the strong D-feature of INFL.

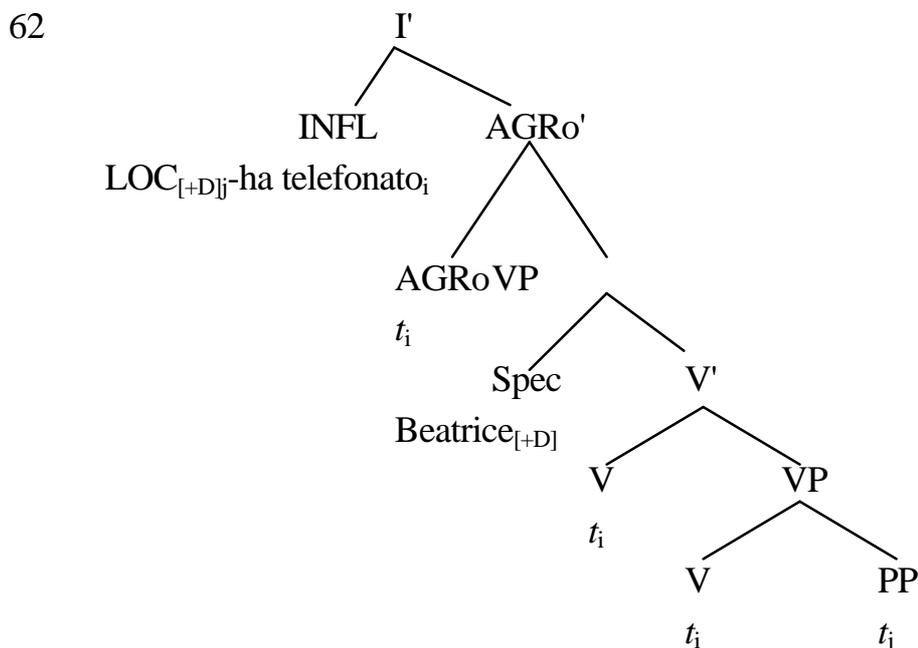
LOC is generated VP-internally, but, being a clitic, it ends up as a head adjoined to INFL. LOC might first move to $AGRo$ and from there to INFL where it adjoins to the finite verb. However, by hypothesis, LOC contains only a D-feature, hence its movement to $AGRo$ is not independently motivated. I would rather suggest that LOC may incorporate into the lexical verb and raise with it to the target node INFL. Raising of LOC to INFL is thus justified by its clitic status. Since LOC bears a D-feature, it automatically becomes the closest, hence, the optimal checker for the strong D-feature of INFL. As expected, the subject remains in its base-position.

Let us go back to our initial example (53), repeated in (61):

61 Ha telefonato Beatrice.
 called Beatrice (here/to this place)

²⁵ An analysis of LOC as a clitic may be supported by its peculiar interpretive properties. Like clitics, LOC can only be assigned an interpretation which is somehow dependent on the context: the familiar interpretation in the case of clitics, and the deictic, speaker-oriented interpretation in the case of LOC.

(62) is the structure of (61) after satisfaction of the EPP by the clitic LOC:



Since the only reason for the subject to raise overtly was satisfaction of the EPP, the occurrence of LOC in INFL makes subject raising more costly, hence impossible.²⁶ Observe as well that, if satisfaction of the EPP is parasitic on the cliticization of LOC on INFL, a further extension of the INFL-projection can be dispensed with, implying some additional 'savings' on the constructional operations. The availability of subject inversion in sentences with the *telefonare*-type of verbs is thus derived from the syntactic properties of these constructions.

Summing up. In this section we have considered the hypothesis that the covert loco/temporal argument LOC may be a clitic. The analysis of LOC as a clitic has a number of theoretical advantages. It accounts for the X^{\min}/X^{\max} behaviour of this element, for its occurrence in a position higher than the subject and for the D-feature it carries. In the Appendix we will examine some properties of direct object and indirect object clitics in Italian that seem to provide some empirical support for the analysis proposed here.

²⁶ Obviously, the Case and phi-features of the subject will have to be checked by covert movement at LF.

3.5 Case and Phi-features

Before concluding this section, let us briefly consider the consequences of my claim for the other features which are normally associated with subjects, i.e. Nominative Case and phi-features. Remember I assumed that the EPP involves only checking of a strong D-feature on INFL. In the case of subject raising, Case and phi-features are checked as a consequence of the fact that these features move together with the DP as free riders in overt syntax. However, if the EPP is satisfied by LOC, and the subject remains in its base position, Case and phi-features must be checked by an independent operation. Clearly, LOC cannot check these features. As illustrated in (63) the subject in postverbal position still carries Nominative Case and determines the agreement properties of the verb:

- 63 a LOC ho chiamato io/*me
 LOC has called I_{NOM}/me_{ACC}
 b LOC è arrivata/*sono arrivata Beatrice
 LOC is arrived-FEM/are arrived-FEM

This can easily be explained if we take the view that Case and phi-features of the subject are checked at LF.

3.6 Some Predictions

Consider again (48), repeated for convenience in (64):

- 64 a LOC è morto Fellini.
 (just now/I have just heard it) died Fellini
 b LOC ha telefonato Beatrice.
 (us/this place) called Beatrice

Considerations of economy predict that subject inversion is never optional. Since checking by means of LOC involves a cheaper operation, the system will have to choose this option, in compliance with the conditions on convergent derivations. Consider then the possible answers to an out-of-the-blue question in (65):

- 65 Che cosa è successo?
 what happened
- a Dante ha telefonato a Beatrice.
 Dante called Beatrice
- b *Ha telefonato a Beatrice Dante.
 called Beatrice Dante
- c Ha telefonato Dante.
 called Dante
- d Dante ha telefonato.
 Dante called

The unwellformedness of (65b) with a wide focus reading is due to an EPP violation: the subject sits in its base position and the locative, being overt, cannot raise enough to check the strong D-feature of INFL. The only possible word order is thus S V LOC, like in (65a).

Consider now (65c) and (65d). The locative argument is not overtly realized, hence, by hypothesis, it should be the optimal candidate for satisfaction of the EPP. We would thus expect that only the inverted word order should be allowed. Yet, (65d) appears to be perfectly fine as well.

However, (65d) is not a counterexample to our analysis. It rather provides empirical support for the thesis that inversion is determined by syntactic conditions in the first place. As observed in chapter 1, the predicate in (65d) does not have the same meaning as the predicate in (65c). Whereas in the former *telefonare* has the indefinite interpretation of ‘making telephone calls’, in the latter it can only mean ‘call us/this place’.²⁷ This interpretive difference explains why (65d) may sound rather odd in an out-of-the-blue context, where the clause gets an all-focus (hence, all-new) interpretation. On the other hand, (65d) is perfectly felicitous in a context like (66), where the meaning of the verb *telefonare* is determined by the actual situation:

- 66 Context: We have all been waiting for Dante’s telephone call, to
 tell us it was all over.
 A: What happened?

²⁷ The term *indefinite* interpretation implies that the meaning of the predicate is determined by the context. Hence, in a specific situation, (65d) allows the interpretation that Dante calls us/this place.

- B: Dante ha telefonato.
Dante called
 ‘Dante made the telephone-call we had been expecting’

Or in a sentence like (67), where the adverb emphasizes the indefinite interpretation of the predicate:

- 67 Dante ha telefonato tutta la mattina.
Dante called (made telephone-calls) the whole morning

These interpretive differences now have a syntactic explanation. In section 3.1 of this chapter I advanced the hypothesis that the numeration of (65c) may differ from that of (65d). Both instances of *telefonare* imply a goal-role. However, in the one case this role remains implicit (i.e. it is present only at a lexical level), in the other it is realized in syntax as a covert argument. From this distinction it follows that the two clauses have different numerations:

- 68 a Dante ha telefonato.
 S V
 b Ha telefonato Dante.
 S V LOC

This structural difference accounts for the different word orders in (68). In minimalist terms, the EPP is satisfied by the optimal checker (the cheapest option). In (68b) this is LOC, as raising of LOC is more economical than subject raising. However, in (68a) there is no choice: since the subject is the only constituent carrying the relevant feature, subject raising is obligatory and inversion cannot occur.

4 Overt Arguments and Inversion

So far we have discussed instances of subject inversion which reveal the presence of a covert loco/temporal argument selected by the verb. However, as was observed in chapter 1, there is another syntactic environment in Italian which allows subject inversion with wide focus. This is schematically represented in (69):

69 PP V SUBJ

This type of inversion construction is characterized by the presence of an overt PP in clause-initial position. Like covert arguments, the overt PP can either be a locative or a temporal complement.²⁸

- 70 a In questa università hanno studiato molti linguisti.
in this university studied many linguists
 b Quest'anno si sono laureati molti studenti.
this year got their degree many students

As we will see in more detail below, the PP is thematically related to the verb.²⁹ When the clause-initial PP is missing, inversion with the wide focus reading is not possible. I will refer to this type of inversion by the term *locative inversion*, by analogy with similar constructions found in English or in totally unrelated languages such as Chicheŵa.

These facts point towards a correlation between covert or overt loco/temporal PPs and the occurrence of the subject in postverbal position. Covert loco/temporal arguments and their possible syntactic role were the topic of the previous section. Now we turn to the examination of their overt counterparts, in an attempt to understand what their relevance is to the syntax of inversion and whether it is possible to reduce the two phenomena to one and the same underlying mechanism.

Consider some more examples of what I call locative inversion in Italian:

- 71 a *In questo palazzo* ha vissuto il Leopardi.
in this building lived Leopardi
 b *In questo albergo* hanno lavorato molte donne straniere.

²⁸ Hence, also in the case of overt PPs the term 'locative' must also be understood as referring to an abstract notion of space and time.

²⁹ However, it must be noted that the thematic link between the loco/temporal argument and the verb that selects it is not always very clear. For verbs that allow inversion with a covert argument, like the unaccusative *arrivare* 'arrive', we can speak of a real instance of subcategorization. Inversion with a clause-initial overt PP seems to involve a somehow looser thematic relation (see Calabrese 1991).

in this hotel worked many foreign women

Notice that (71a) and (71b) are perfectly felicitous with a wide focus interpretation, i.e. they are adequate answers to out-of-the-blue questions of the type "what happened?" or "what's the matter?". The availability of the wide focus reading in (71) tells us something about the underlying syntactic structure of the clause involved. Given the theoretical framework I assume in this study, the wide focus interpretation of a sentence is determined by the nuclear stress rule applying to convergent derivations. The inverted sentences in (71) have a wide focus reading. This means that they have undergone the nuclear stress rule. Since only convergent derivations can be input to this rule, we conclude that the VS word order in (71) must have been determined by syntactic factors and licensed by conditions of economy.

This section is thus devoted to a closer analysis of the syntax underlying locative inversion constructions in Italian. The account I will put forward revolves around the hypothesis that subject inversion is strictly related to requirements imposed by the EPP. More specifically, I will show that the occurrence of the subject in its base position is made possible by an alternative, more economical device for checking the strong D-feature of INFL. This additional possibility for satisfaction of the EPP is made available by the presence of the overt locative in clause initial position. Although superficially different, inversion with a covert argument and inversion with an overt locative will appear to be variations of the same basic pattern, which is based on the idea that the strong D-features of INFL do not necessarily have to be checked by the subject. When alternative and less costly options are available, the subject remains in its base position reflecting the word order typical of inversion constructions.

4.1 Locative Inversion in Italian

Let us now briefly summarize the main characteristics of subject inversion with overt PPs (cf. chapter 1). The following examples must be interpreted as out-of-the-blue.

The overt PP appears to have the following properties: it must occur in clause-initial position:

- 72 a In questo palazzo ha vissuto Dante.
in this palace lived Dante
- b #Ha vissuto in questo palazzo Dante.
lived in this place Dante
- c #Ha vissuto Dante in questo palazzo.
lived Dante in this place

Unlike the constructions we discussed in the previous section, here the PP cannot be covert.³⁰

- 73 a *Ha vissuto Dante.
lived Dante
- b #Ha studiato Chomsky.
*studied Chomsky*³¹

The finite verb must agree with the postverbal subject:

- 74 a In questa università ha*hanno studiato Chomsky.
*in this university have-sg*have-pl studied Chomsky*
- b In questa università *ha\hanno studiato i miei cugini.
*in this university *have-sg\have-pl studied my cousins*

The preposed PP must be compatible with a deictic interpretation:

- 75 a #In giardino ha lavorato Capability Brown.
in garden worked Capability Brown
- b In questo giardino ha lavorato Capability Brown.

³⁰ The fact that the selected loco/temporal argument can sometimes remain implicit and sometimes has to be realized overtly may depend on the intrinsic semantics of the relevant verbs (cf. Jackendoff 1987). So, verbs like *arrivare* select a specific goal, a sort of endpoint of the event which, by default, gets the deictic interpretation; verbs like *studiare* do not select a specific goal/endpoint, hence the deictic interpretation would not give the correct meaning of the predicate.

³¹ The difference in acceptability between the two examples in (73) depends on the thematic structure of the predicate. Whereas *vivere* 'live/reside' requires the obligatory presence of an argument, the verb *studiare* 'study', does not. In this case (73b) becomes acceptable with a narrow focus reading of the subject.

in this garden worked Capability Brown

Finally, the locative PP must be an argument selected by the lexical verb:

- 76 a #Con questa donna ha vissuto Dante.
 with this woman lived Dante
- b In questo palazzo ha vissuto Dante.
 in this palace lived Dante

Therefore, if the lexical verb selects a loco/temporal argument, and if the selected PP shows the properties we have just listed, subject inversion with a wide focus reading of the clause becomes available. As stated before, the line of reasoning I will follow is based on the assumption that if the subject occurs postverbally, in reality, it occupies its base position. Given the EPP, this is possible only in one case, i.e. if there is another element in the clause that can raise instead of the subject and check the strong D-features of INFL. In the previous section we saw that the covert loco/temporal argument selected by the lexical verbs is such an element.

My explanation for the cases of locative inversion will essentially follow the same line. Although these constructions show an overt PP, I will argue that their VP-internal structure is identical to that of the *arrivare*-type verbs, i.e. that the thematic role of the PP is projected in syntax as a cluster of (D)-features (hence, as a covert argument) and that the overt PP is base generated in clause initial position, for reasons I will turn to in a moment. The EPP is then satisfied by attraction of the D-features of the covert argument, by analogy with what we proposed in the previous section.

This analysis is quite appealing since it unifies two different instances of inversion by capitalizing on a number of properties these constructions have in common. However, as we will see, this approach is not without problems.

4.2 The Syntax of Locative Inversion

The hypothesis is that, in inverted constructions, the loco/temporal argument satisfies the EPP instead of the subject. So, we have to show that this idea is conceptually and empirically adequate. In other words, the explanation of this

phenomenon should fit the minimalist background we are assuming and it should reflect the properties of the PPs involved in these specific contexts. More precisely, checking of the strong D-features of INFL implies that a) the PP itself carries D-features, b) that it occurs in a configuration suitable for checking and c) that this operation is less costly than actual subject raising. The three options we will discuss below will be evaluated in light of these three conditions.

In section 2.4 we observed that locative inversion constructions are perfectly felicitous with the wide focus reading. So, in an out-of-the-blue context, (77a) is fine. Notice, however, that (77b) too is felicitous with a wide focus interpretation.

- 77 a In questo albergo ha vissuto Maria Callas.
 in this hotel lived Maria Callas
- b Maria Callas ha vissuto in questo albergo.
 Maria Callas lived in this hotel

The cases in (77) may appear to be instances of genuine optionality. However, from a minimalist point of view, optionality should be excluded, as every operation inside the computational system is solely dictated by the necessity of morphological checking.

Therefore, an account in minimalist terms will have to show that this optionality is only apparent and that there is a distinction of some sort between a sentence like (77b) and its inverted counterpart (77a). There are two possibilities for the system to deal with the optionality problem. Either the relevant sentences have different numerations (they select different items from the lexicon), or they share the same numeration, but each clause gets a different interpretation (see Golan 1993, Reinhart 1993, 1995, Ruys 1992, Fox 1994). Below I will show that for empirical reasons and theory-internal considerations, the examples in (77) should be best analyzed as having different numerations. Before discussing both options in detail, a brief digression is needed in order to introduce Reinhart's (1995) notion of interface economy.

4.2.1 Interface Economy

Suppose the sentences in (77) have the same numeration. Since every numeration fixes a *reference set* (i.e. a set containing all possible alternative derivations for the same collection of lexical items) both (77a) and (77b) are members of the same set. According to Chomsky (1995), derivations belonging to the same reference set are evaluated on the basis of considerations of economy. The goal of this procedure is the selection of just one optimal derivation: the cheaper one.

However, as pointed out by Golan (1993) and Reinhart (1993), this economy condition is too strong. Empirical evidence from multiple WH constructions shows that if derivations are evaluated only in terms of economy, certain constructions appear to be incorrectly ruled out (see also Fox 1994). Consider the following instance of multiple WH:

- 78 a Who wonders [_{CP} who [_{IP} *t* said what]]
 b Who wonders [_{CP} what [_{IP} who said *t*]]

The strong Q-feature of C must be checked against the Q-feature of a category bearing the same feature. Considerations of economy (i.e. the MLC) predict that only (78a) will be allowed by the system since raising of the subject *who* is a less costly operation than raising of the object *what*. However, (78b) is a perfectly felicitous sentence in English. In order to account for (78b), Golan argues that economy must be relative to interpretive needs. In other words, a more costly derivation is permitted by economy if it is needed to derive a required interpretation not available otherwise.

Reinhart (1995) elaborates on this idea and introduces a new notion of economy: *interface economy*. She points out that interface economy must be distinguished from derivational economy. Derivational economy is not violable. By contrast, interface economy is sensitive to interface needs. For the cases we are discussing here the interface need is a different interpretation.

This view of economy has important consequences for the treatment of markedness in a minimalist perspective. Satisfaction of an interface need requires the use of a more costly derivation, i.e. of a marked operation which is uneconomical by definition. Yet, no markedness is perceived when the used operation is the only possibility to derive a certain interpretation.

4.2.2 Same Numeration

Let us turn again to (77), repeated for convenience in (79):

- 79 a In questo albergo ha vissuto Maria Callas.
in this hotel lived Maria Callas
 b Maria Callas ha vissuto in questo albergo.
Maria Callas lived in this hotel

If these sentences share the same numeration, we predict that they will each have a different interpretation, since, if we follow Reinhart (1995), this is the only way to explain why economy tolerates a more costly derivation. The two examples do indeed differ in meaning; (79a) has the narrow focus on the subject *Maria Callas* whereas (79b) has the narrow focus on *questo albergo* ‘this hotel’. On the other hand, we just saw that both sentences are appropriate answers to an out-of-the-blue question, i.e. they can both have a wide focus interpretation. In section 2 we argued that the wide focus interpretation can only be the result of Cinque’s (1993) Nuclear Stress Rule to wellformed derivations. If this analysis is correct, it follows that not only (79b), but also (79a) with the PPVS word order is a wellformed sentence, i.e. a possible output of the computational system and not the result of a marked operation.³² Compare (79) with (80):

- 80 a #In albergo ha vissuto Maria Callas.
in hotels lived Maria Callas
 b Maria Callas ha vissuto in albergo.
Maria Callas lived in hotels

Notice that the only difference between (79) and (80) is the presence in the former and the absence in the latter of the deictic *questo*. (80a) is not an appropriate sentence in an out-of-the-blue context. Hence, the absence of the wide focus interpretation suggests that this word order can only be derived by a marked operation.

³² Recall that we hypothesized that certain word orders like, for instance, the narrow focus reading of the subject in non-inversion verb contexts can only be derived by a marked rule.

These facts show that the status of (79a) calls for a (syntactic) explanation. The hypothesis that (79a) has the same numeration as (79b) does not give a satisfactory answer to this problem and leaves unaccounted for how the EPP could be satisfied in (79a). Therefore, we turn now to the examination of the alternative hypothesis: (79a) and (79b) have different numerations.

4.2.3 Different Numerations

If the sentences in (79) have different numerations, they do not compete with each other in terms of economy since each of them is the optimal choice out of the reference set to which it belongs.

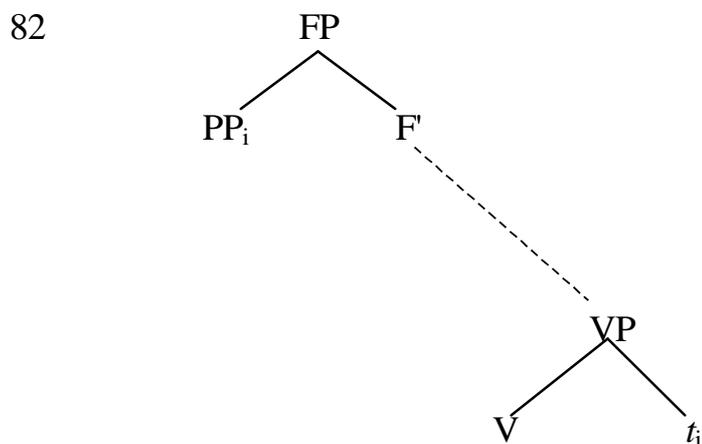
Let us concentrate on (79a), repeated below:

- 81 In questo albergo ha vissuto Maria Callas.
 in this hotel lived Maria Callas

The preverbal PP in (81) can be either analyzed as the result of a movement operation or as an instance of base generation. These options will be discussed in the two following subsections.

4.2.3.1 PP-raising

The occurrence of the PP in clause-initial position may be the result of movement. Consider (82), which schematically represents the structure of the derivation after PP-raising. For the moment I leave the functional projection FP unspecified.



A raising analysis opens up two possibilities: a) the PP raises to Spec of IP, hence it must have a strong D-feature (EPP). Or b) the PP is endowed with some other feature (for instance a feature involving topichood) which triggers raising to a functional projection higher than Spec of IP. Let us discuss both options.

In order to satisfy the EPP, the clause-initial PP must be endowed with a D-feature itself. Chomsky (1995) observes that the D-feature is a categorial feature, either of the DP-type, of the NP-type or of both. A PP normally consists of a P-head selecting a DP or an NP, as represented in (0):



Hence, the complement of the P is a category bearing a D-feature, as required. The question, however, is whether [+D] is still 'visible' when the DP is embedded in the PP-complex. The PP might inherit the D-feature of its NP complement, but this would require the stipulation of a percolation mechanism for which there is no empirical evidence.

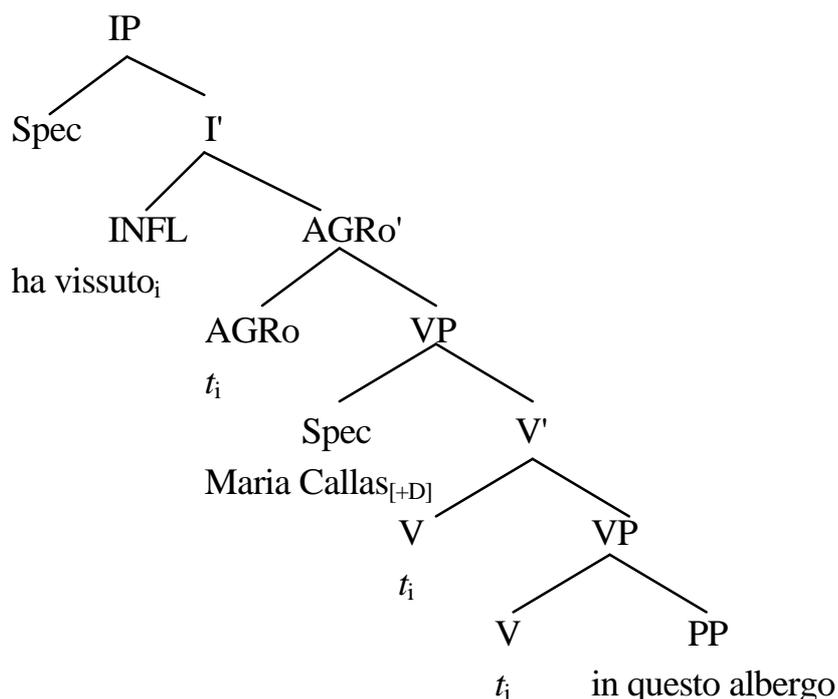
Yet, there are well-known cases in the literature which show that the PP can show up in subject position. The relevant examples are repeated from Stowell (1981) and Hoekstra (1984):

- 84 a Under the stars is the ideal place to sleep.
 b Over Groningen is korter.
 by way of Groningen it is shorter

Therefore, as concluded in section 3.4.1, the hypothesis that the PP bears a D-feature may not be an unreasonable one.

However, the most problematic aspect of this analysis is its cost. In the theoretical framework we adopt, the only justification for choosing feature checking by a PP rather than by the subject is economy. PP-raising must be a more economical operation than subject raising. Let us compute the cost of PP-raising in the structure in (85):

85



(0) represents the derivation after V-raising. At this point the strong D-feature of INFL must be checked (EPP). According to the MLC, the subject is the only possible candidate for feature checking, since it is the closest category carrying the relevant feature. Satisfaction of the EPP by PP-raising is therefore excluded by the MLC.

Alternatively, we could assume that the PP moves to a clause-initial position, not for EPP reasons, but for the checking of some other feature. Obviously, the EPP must then be satisfied by subject raising. Interestingly the PP Subj V word order is not appropriate with a wide focus interpretation:

- 86 a Che cosa è successo?
what happened
- b #In questo albergo Maria Callas ha vissuto.³³
in this hotel Maria Callas has lived

³³ Notice that the PPSV word order is possible only in contexts of contrastive focus on the predicate, like in (i):

- i La Callas, ha cantato in questo albergo?
did Callas sing in this hotel
In questo albergo la Callas ha vissuto, non cantato.
in this hotel Callas lived she did not sing

The fact that (86) cannot be interpreted with a wide focus reading indicates that the PPSV word order cannot be derived by the computational system. As the reader will recall, word orders that are the output of the computational system undergo the Nuclear Stress Rule, hence can have the wide focus reading (cf. section 2.2). Hence, a VP-internal analysis of the overt PP may be problematic.

4.2.3.2 PP-merging

PP may be generated in clause-initial position, either on Spec of IP or on some other functional projection.

If PP is merged in Spec of IP, the Case and phi-features of INFL are checked covertly by the correspondent features on the subject DP. However, merging of a PP in subject position should be possible only with expletives as these do not violate the principle of Full Interpretation. Further the phi-features of the constituent occupying the subject position normally agree with the phi-features of the verb. This happens to be the case in a small number of constructions with a preposed PP, like those quoted in (84), but this is not the case of locative inversion constructions like (81). In addition, if a PP can be base generated in that position, why should this not hold for other categories as well? In fact, even PPs appear to be subject to quite restrictive conditions, as they must be loco/temporal arguments and have a deictic interpretation.

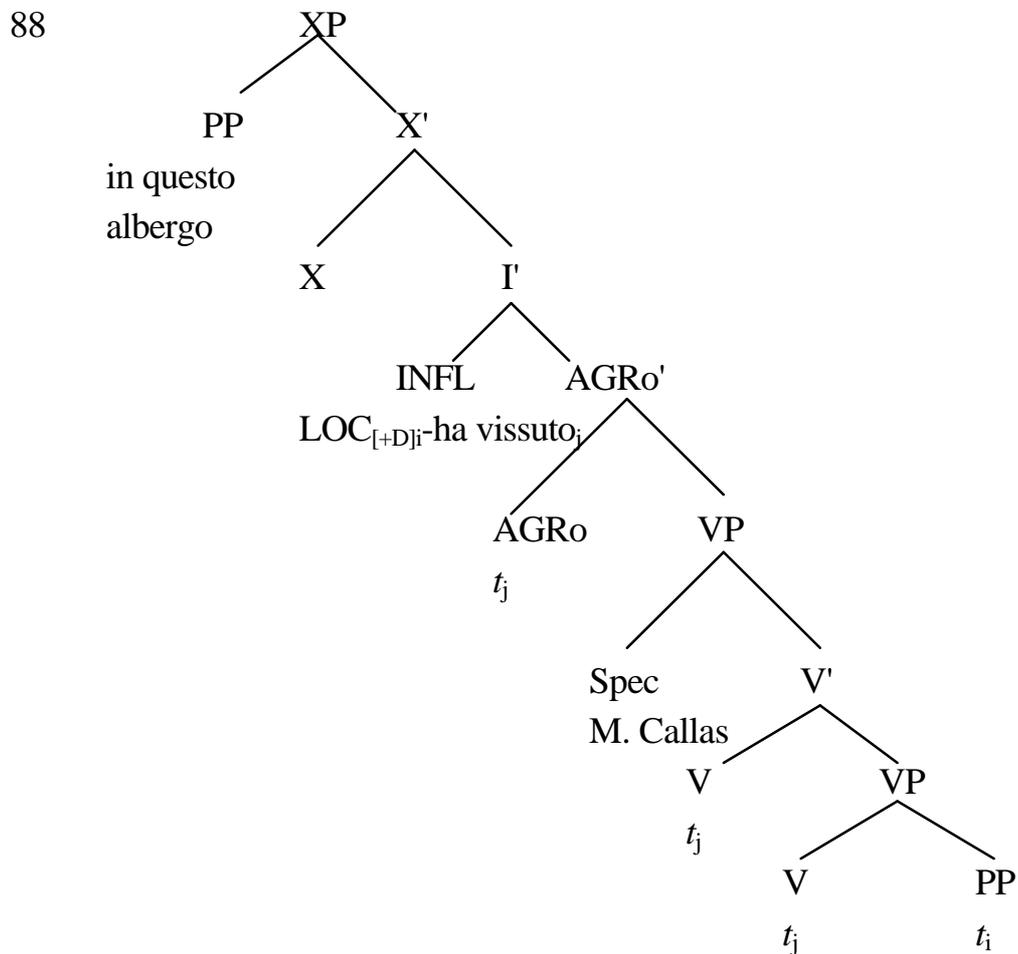
As suggested by Bresnan (1994), the overt PP may be base generated (in minimalist terms, merged) in a position which is higher than the Spec of INFL. This could possibly be the projection in which topic-like elements show up. A base-generation analysis could thus account for the presence of the overt PP in clause-initial position, without violation of conditions of economy. Yet, it is not clear how the EPP should be satisfied in this case. If PP is merged in a higher functional projection, the subject should raise to Spec of IP for checking of the strong D-feature of INFL, so the obtained word order would be PPSV, which is not the one we are trying to explain.

4.2.3.3 Overt PP and LOC

We proceed now to examine a third option which is also based on the assumption that the two clauses have different numerations. Consider (79) (repeated below):

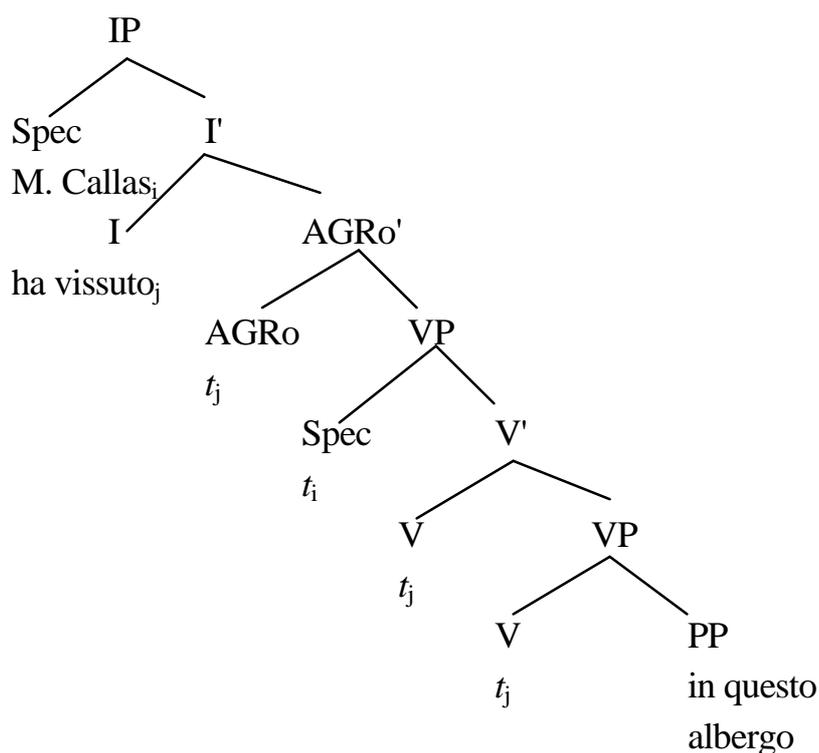
- 87 a In questo albergo ha vissuto Maria Callas.
in this hotel lived Maria Callas
- b Maria Callas ha vissuto in questo albergo.
Maria Callas lived in this hotel

Although, superficially, both clauses contain the same lexical items, I will suggest that the numeration of (87a) contains an additional element, a covert *loco/temporal* argument (LOC) bearing a D-feature. After merger of all the elements contained in the numeration and checking of the strong V- and D-features, the derivation of (87a) will look like (88):



(87b) instead has a structure like (89):

89



The structure presented in (88) is based on the hypothesis that the overt PP is base-generated in clause-initial position (as suggested by Bresnan 1994). However, I will assume that the strong D-feature of INFL is checked by the covert argument LOC. Can this approach justify the absence of subject raising? In other words, in which way is satisfaction of the EPP by LOC in (88) the more economical option?

The hypothesis that PP is merged in a higher functional projection F is in accordance with economy. However, there remains the problem of how the EPP may be satisfied. The assumption that the numeration underlying (88) contains a covert LOC (a clitic) may provide an interesting solution to this problem. By analogy with the inverted structures we discussed in the previous section, LOC may cliticize onto the verb in INFL and satisfy the EPP. The clitic status of LOC (i.e. its raising to INFL for independent reasons) would make subject raising unnecessary (or better, too costly), thus deriving the PPVS word order.

There remain some obscure points. Is there any evidence for the presence of LOC in locative inversion constructions? Does the clause-initial PP play any syntactically relevant role? In section 4.1 we observed that the clause-initial PP in locative inversion constructions has some peculiar prop-

erties: PP must be an argument selected by the lexical verb and it must be compatible with a deictic interpretation. I will take these observations seriously and suggest the following account. The properties we have just seen show that PP is thematically related to the verb. However, as PP occurs in a position to which no theta role can be assigned, I will assume that PP must be coindexed with some null element carrying the relevant theta-role, in accordance with some form of the Projection principle. LOC could possibly be this element. In the next section we will briefly return to the nature of this link.

Summarizing, I propose that instances of locative inversion in Italian must be analyzed as clauses containing a subject in base-position and an overt PP coindexed with a covert loco/temporal argument LOC. LOC is generated VP-internally (in the thematic position) and raises for checking of the strong D-feature of INFL.

As discussed in section 4.2.1, the hypothesis that a locative inversion clause belongs to the same reference set as its non-inverted counterpart encounters serious problems on the empirical and theoretical level. By contrast, the alternative hypothesis that a locative inversion construction may have a different numeration than its SVPP counterpart appears to provide the basis for a more satisfactory account.

More specifically, the approach I suggested provides an explanation for the fact that both the inverted and the non-inverted locative constructions have a wide focus interpretation. Since the two sentences are convergent derivations, both word orders undergo the Nuclear Stress Rule which determines the wide focus reading (cf. section 2.2). In addition, the problems concerning the trigger for PP-preposing and the possible landing site for the moved category are now dispensed with under the assumption that the PP is base generated in clause-initial position.

Finally, along these lines, subject inversion (with a covert loco/temporal argument) and locative inversion (with an overt, clause-initial PP) can be given a unified account which is compatible with minimalist assumptions.

4.3 Deixis

In the previous section we established a correlation between subject inversion and locative inversion in Italian, by suggesting that in both cases the clause contains a covert loco/temporal argument (LOC) that satisfies the EPP instead of the subject. However, the presence of an overt locative in clause-initial position appears to be crucial for a wide focus reading of the postverbal subject of certain verbs. Verbs like *vivere* ‘live’, *studiare* ‘work’ etc. allow a postverbal subject with a wide focus interpretation only if there is an overt PP in clause-initial position. In this section we will speculate a little about the possible role of this PP.

As observed above, one of the distinguishing properties of PPs occurring in this type of construction is that they are thematically related to the lexical verb. According to the framework assumed in this study, arguments are projected in syntax inside the VP. This implies that although the overt PP shows up in clause-initial position, its theta role is projected into the VP-internal complement position. This was the reason for assuming that the PP is coindexed with LOC.

Another characteristic of locative inversion is that the DP-complement of the clause-initial PP must have a deictic interpretation. Consider the examples in (90):

- 90 a In questa fabbrica hanno lavorato molte donne straniere.
in this factory worked many foreign women
- b Qui ha vissuto mio nonno.
here lived my grandfather
- c #In Lussemburgo ha vissuto mio nonno.
in Luxembourg lived my grandfather

Notice that the overt locative argument does not necessarily have to be realized as a PP. The overt adverb in (90b) is equally perfect. What is peculiar to these constructions is rather the fact that, both in (90a) and (90b) the locative has a deictic meaning and is interpreted as referring to a speaker-oriented location or time. The infelicity of (90c) shows that the availability of the deictic interpretation is crucial for the licensing of this word order. Inversion constructions with verbs like *arrivare* ‘arrive’ or *telefonare* ‘call’ do not require an overt locative. Yet, interestingly, deixis emerges again in

the interpretation of the covert loco/temporal argument selected by these verbs (cf. section 2.3.1). Hence, there seems to be a particular correlation between deixis and inversion constructions. More precisely, the deictic interpretation appears to correlate with the presence of a covert loco/temporal argument.

These observations could be explained in the following way. Since deixis is related to the presence of empty D°s it may have the function of assigning a default interpretation to the spatial and temporal variables of the proposition, in our case, to LOC. If the overt complement is absent, the default interpretation may refer to the speaker's domain.

Yet, if LOC gets a deictic interpretation by default, why is the presence of an overt PP obligatory in inversion contexts containing verbs like *lavorare* 'work' or *vivere* 'live'? I believe that the explanation of this puzzle must be sought in certain lexical properties of the different verbs involved. Verbs like *arrivare* belong to a different aspectual class than verbs like *vivere*. We observe that stative verbs (like *vivere*) do not allow the deictic interpretation of the covert argument. However, the deictic interpretation becomes available if LOC is identified by a preposed overt PP.

The presence or absence of the overt PP seems to be related to the nature of the selected argument. Intuitively, verbs that inherently involve an endpoint of the action, a *telos*, may allow a default interpretation of their covert argument.³⁴ Conversely, verbs that do not express such a Goal role cannot be interpreted by default, hence they require a further specification of their complement that can only be achieved by the presence of an overt PP, either in argument position or somehow linked with it.

The role of deixis appears thus to be a pragmatic one. When the obligatory Goal argument of a verb is not lexically realized, its content is recovered by a pragmatic procedure that assigns a deictic interpretation to the covert LOC.

4.4 The Comparative Aspect

The phenomenon of locative inversion is common to many typologically different languages (see Bresnan & Kanerva 1989, Bresnan 1994, Freeze

³⁴ See Calabrese (1991) for interesting observations about the role of telicity in subject inversion constructions.

1992). For more closely related languages, like English, Dutch and Italian, a syntactic account has been proposed which is based on a movement approach (see Coopmans 1989, Hoekstra & Mulder 1990, Freeze 1992, and references cited in these studies). As discussed in section 4.2.1, an analysis in terms of movement is unsatisfactory in light of minimalist theory since it raises additional problems concerning the nature of the trigger for movement and the possible landing site for the preposed PP.

However, interestingly for the present discussion, Coopmans' analysis also emphasizes the correlation existing between the phenomenon of (locative) inversion and the presence in a language of special strategies for licensing and interpretation of an empty category (i.e. the pro-drop properties). Coopmans assumes that in locative inversion constructions in English the overt PP is moved into Spec of CP, from where it identifies the expletive *pro* in standard subject position. Since English is not a pro-drop language, the identification of the empty expletive requires government and feature percolation by a lexical category. Conversely, in a pro-drop language like Italian, the expletive *pro* in subject position is identified by the pronominal features of INFL. This analysis provides a unified account for the two phenomena of subject inversion and locative inversion and explains why the latter requires the presence of a locative whereas the former does not. However, this analysis also leads us to the conclusion that Italian either does not have locative inversion, or, if it does, it is a phenomenon of a different nature.

In the previous sections evidence was given for the existence in Italian of locative inversion, along with standard subject inversion. In fact, I suggested that both phenomena have the same underlying structure and that superficial differences, like the presence of the overt PP, could be ascribed to the thematic properties of the relevant verbs. Here I will show that this analysis can be extended to English.

Bresnan (1994) observes a number of restrictions applying to locative inversion in English and in Chicheŵa. Interestingly, some of these restrictions appear to hold for Italian locative inversion as well. They involve the prohibition of inversion with transitive verbs and with certain intransitives. In addition, the PP must be an argument selected by the verb and the subject must be interpreted as the argument of which the location is predicated. In chapter 1 and in the first part of this chapter we saw that the same is true for Italian. These similarities across different languages suggest that locative

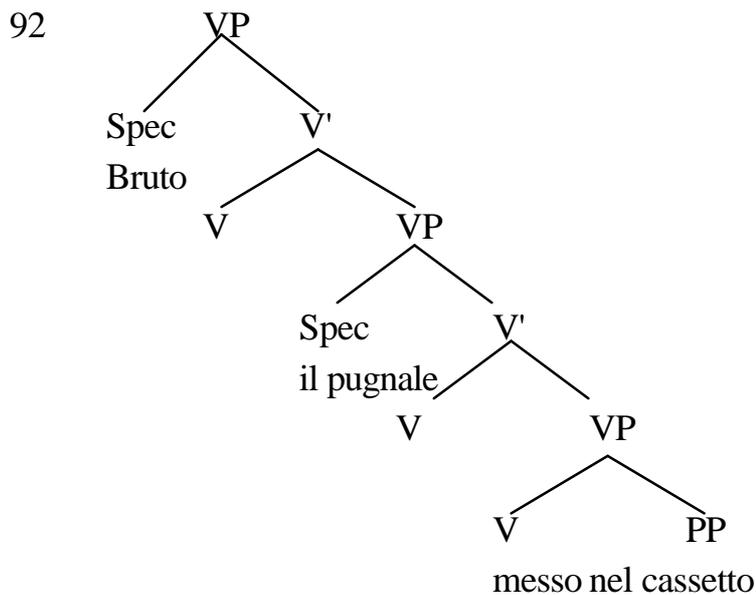
inversion is a general phenomenon, not necessarily related to the pro-drop parameter.

The syntactic account Bresnan offers for locative inversion in English and in Chicheŵa is embedded in a multidimensional functional approach, the LFG framework, which is not immediately compatible with the minimalist perspective in which our study is placed. However, Bresnan's insights are at the basis of a unified account of this phenomenon, independently of the specific theoretical background one chooses. This is the argumentation behind the analysis I proposed in section 4.2.2.

Notice that a minimalist account has the advantage of providing a formal explanation for certain restrictions which have been observed in locative inversion in Chicheŵa, in English and in Italian. Recall that these languages do not allow inversion with transitive verbs and with a certain group of intransitives. In addition, the clause-initial PP in locative inversion must be an argument. The explanation of these facts is based on the assumption that inversion constructions involve the presence of a covert argument, a LOC with D-features, which represents the most economical option for satisfaction of the EPP. If this line of reasoning is correct, part of the restrictions follow straightforwardly. Transitive and intransitive verbs do not select a loco/temporal argument and thus have no other alternative for satisfaction of the EPP but subject raising. A subclass of transitives apparently falsifies this generalization. Consider (91). Given an out-of-the-blue context, only (91) is appropriate. In other words, only (91) can have a wide focus interpretation.

- 91 a Bruto ha messo il pugnale in questo cassetto.
 Brutus put the dagger into this drawer
- b *In questo cassetto ha messo il pugnale Bruto.
 in this drawer put Brutus the dagger
- c *In questo cassetto ha messo Bruto il pugnale.
 in this drawer put Brutus the dagger

The transitive verb *mettere* 'put' obligatorily selects a locative argument. So, what blocks locative inversion with a wide focus reading in these constructions? The word orders in (91b) and (91c) are not available as input to the Nuclear Stress Rule, as they cannot be derived by the computational system. Let us see why not. Consider the diagram in (92):



Notice that the PP must be overt and that it is the most embedded element in the structure. Despite verb raising, satisfaction of the EPP by movement of the overt PP to Spec of IP is blocked by the Minimal Link Condition. Recall that this problem did not arise for the cases of inversion we discussed above, where the analysis of the covert argument as a clitic on the verb provided an independent reason for LOC to move higher than the subject and check the strong D-feature of INFL.

Finally, locative inversion raises the question of why this construction should be possible in the first place. Bresnan claims that it is triggered by presentational focus on the subject. In other words, the PP V S word order is chosen whenever the subject must get a presentational interpretation. In the approach I suggested this problem does not arise, as I assumed that a sentence with locative inversion has a different numeration than a standard SVPP-clause, so that the existence of two word orders is justified by the fact that the two sentences do not belong to the same reference set.

4.5 Summary and a Few Conclusions

In section 3.4 I argued that subject inversion is the result of a more economical device for satisfaction of the EPP: checking of the strong D-feature of INFL by LOC. (0) illustrates the structural pattern underlying subject inversion constructions (previous V-raising and satisfaction of the EPP):

93 [IP LOC_i-V_j [VP SUBJ *t_j t_i*]]

The discussion above seems to point to a similar conclusion for locative inversion. For this construction too I assume the existence of a covert argument which satisfies the EPP instead of the subject. The only difference is the presence of an overt PP in clause-initial position with which LOC appears to be (syntactically) linked. (94) represents the structure underlying locative inversion:

94 PP [IP LOC_i-V_j [VP SUBJ. *t_j t_i*]]

Given the clear parallelism between locative inversion in Italian and locative inversion in English, I would like to suggest that (93) may be assumed to be the universal pattern underlying locative inversion constructions in general.³⁵

If this analysis is correct, the role of the Pro-Drop parameter in inversion constructions becomes less obvious. Rather, whether a language allows null-subjects or not seems to be irrelevant at this point. If (93) can be supported by crosslinguistic evidence, then only considerations of economy can determine whether the subject can remain in its base position or has to raise.

The basic typological distinction expressed by the Pro-Drop parameter seems to reappear in the cases we analyzed as instances of subject inversion with covert arguments. In the standard literature on the topic this construction is referred to as free subject inversion and it represents one of the main characteristics of null-subject languages. From the perspective of this study, however, the pro-drop character of this construction does not involve the subject, but the loco/temporal argument. In other words, the distinction between subject inversion in Italian and in English seems to consist in the possibility of having covert arguments without support of an overt preposition. Italian has this possibility. English does not. Since the presence of the overt PP is determined by how easily the content of LOC can be identified,

³⁵ It is important to note that this generalization could hold only for languages in which the PP is not in standard subject position, i.e. for languages in which the EPP must be satisfied by attraction of the D-features of LOC. Clearly, Chicheŵa is not such a language, since the PP is the real grammatical subject and, as such it occupies the Spec of IP.

the relevance of Pro-Drop for inversion constructions may perhaps reduce to language specific thematic properties.

5 When the Loco/Temporal Argument Is Missing

So far the examination of subject inversion constructions in Italian has revealed an interesting correlation between the occurrence of the subject in postverbal position and the presence of a loco/temporal argument. The availability of such an argument was argued to provide an alternative option for satisfaction of the EPP. At this point, however, the question arises of how strict this correlation should be. In other words, is subject inversion possible only when the lexical verb selects a loco/temporal argument?

In this subsection we will examine Italian sentences containing verbs that do not select a loco/temporal argument. Indeed, these constructions seem to support the descriptive generalization noted above, as they do not allow subject inversion with a wide focus interpretation. Still, there appears to be an interesting exception: when the subject DP is indefinite, inversion with the wide focus reading is perfectly felicitous.

As we will see, this exception, at first sight rather surprising, turns out in the end not to be problematic for a unified account of subject inversion in Italian. Quite the opposite, these facts will shed more light on the ‘syntactic’ role of loco/temporal arguments in inversion constructions, and will support the hypothesis that inversion is primarily the result of an alternative strategy for satisfaction of the EPP.

5.1 Non-Inversion Verbs

In the previous chapters we used the term ‘non-inversion verbs’ to refer to those predicates that do not allow subject inversion with a wide focus interpretation, as illustrated in (95):

- 95 Che cosa è successo?
 what happened
 a #Ha urlato Bossi.
 shouted Bossi
 b #E’ impallidito Berlusconi.

- turned pale Berlusconi*
- c #Ha portato questo pacco tua sorella.
brought this parcel your sister

Inversion with the unergative *urlare* ‘shout’, the unaccusative *impallidire* ‘turn pale’ and the transitive *portare* ‘bring’ is felicitous only when the postverbal subject gets the narrow focus interpretation, as, for instance, in (96):

- 96 Chi ha urlato?
who shouted
Ha urlato Bossi.
shouted Bossi

The group of non-inversion verbs consists mainly of transitives, but in chapter 1 we saw that certain unergatives and unaccusatives pattern in the same way. What blocks subject inversion in out-of-the-blue contexts like (95)? The data we have examined so far suggest that inversion with a wide focus interpretation is possible only when the lexical verb selects a loco/temporal argument. However, this condition is not sufficient. Only in the case where this argument is covert does inversion with wide focus become available. We explained this fact by arguing that a covert argument can satisfy the EPP in a fashion that is more economical than subject raising.

Can this explanation account for the infelicity of the sentences in (95)? Indeed, the verbs *urlare*, *impallidire*, and *portare* do not select a loco/temporal argument. Obviously, predicates are free to occur with a locative or a temporal PP, as illustrated in (97):

- 97 *Domenica scorsa Bossi ha urlato per tre ore a Venezia.*
last Sunday Bossi shouted for three hours in Venice

The verb *urlare* is perfectly felicitous with the italicized temporal and locative PPs. Yet, there is no thematic link between these loco/temporal phrases and the verb that selects them. So, verbs like *urlare* seem to go together with any loco/temporal PP, but no thematic relation is involved. Consider the minimal pairs in (98):

- 98 a Bossi ha urlato a Venezia.
Bossi shouted in Venice
- b Bossi ha urlato contro il governo di Roma.
Bossi shouted against the government in Rome
- c Bossi ha vissuto a Venezia.
Bossi lived in Venezia
- d *Bossi ha vissuto contro il governo di Roma.
Bossi lived against the government in Rome

We see that *urlare* is free to take different PPs. On the other hand, *vivere* ‘live’ can only take a locative phrase. Other types of PPs make this sentence ungrammatical. These facts seem to confirm the observation that in order to play a role in inversion, loco/temporal phrases must be somehow thematically related to the relevant verb.

The infelicity of the examples in (95) could thus derive from the fact that these verbs, lacking the loco/temporal argument, have just one possibility for checking of the strong D-features of INFL, i.e. overt raising of the lexical subject to its preverbal position, the Spec of IP. If correct, this analysis accounts for the fact that the wide focus interpretation is not available with the V(O)S word order of these verbs. Since subject raising is obligatory, at the stage where the Nuclear Stress Rule applies the subject has already left its base position (i.e. the postverbal subject position), hence, the derivation that forms the input to the NSR must necessarily have the SVO word order.

This account of the infelicity of (95) sounds reasonable for verbs that project just one argument in syntax, like unergatives and unaccusatives.³⁶ As for the case of transitive verbs, the analysis is straightforward. The only possible alternative to subject raising would be raising of the object. However, this operation appears to be blocked by the Minimal Link Condition. Recall that the checking operation attracts the closest constituent carrying the relevant feature. In the case of a transitive clause there is just one element satisfying this condition, the subject. Despite its D-feature, the object is more deeply embedded in the clause than the subject. Object-raising would thus be a violation of the MLC.

³⁶ Following Hale & Keyser (1993) I assume that intransitives too have to be analyzed as diadic predicates, where the second argument has been incorporated into the verb at the level of thematic structure.

5.2 Postverbal Indefinite Subjects

Consider the examples in (99), reported from chapter 2:

- 99 Che cosa è successo?
 what happened
 a Ha pianto un bambino.
 cried a child
 b E' svenuto un uomo.
 fainted a man

In chapter 2 I presented these data as a problematic case. The hypothesis of a correlation between postverbal subjects and presence of a loco/temporal argument seems to be challenged by (99). These inverted structures appear to be perfectly felicitous in an out-of-the-blue (wide focus) context. Above we developed the hypothesis that inversion constructions are licensed by the presence of an additional argument that substitutes for the subject as a checker of the strong D-features of INFL (EPP). Given the fact that the verbs *piangere* 'cry' and *abbaiare* 'bark' do not select a loco/temporal argument, subject raising should be the only possible way of satisfying the EPP.

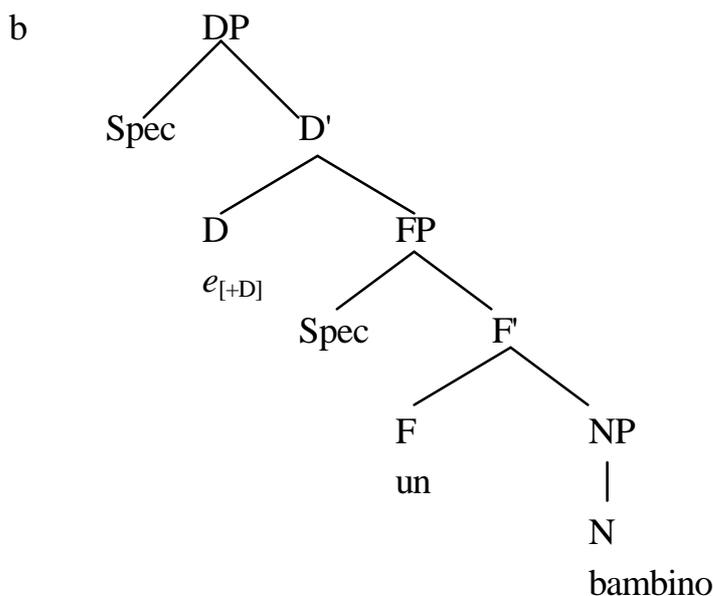
Now compare (99) with (100) below:

- 100 Che cosa è successo?
 what happened
 a #Ha pianto il bambino.
 cried the child
 b #E' svenuto l'uomo.
 fainted the man

The infelicity of the sentences in (100) shows that inversion imposes an indefiniteness requirement on the postverbal subjects of the verbs involved. Another interesting detail is the fact that only subjects with the indefinite article seem to be felicitous in postverbal position. Other weak determiners, such as cardinals or *molti* 'many' and *alcuni* 'some', appear rather to pattern like the definites in (100) and do not allow inversion with the wide focus reading. In chapter 2, this was the reason to suggest that the felicity of the sentences in (99) may be related to the position of the indefinite article inside

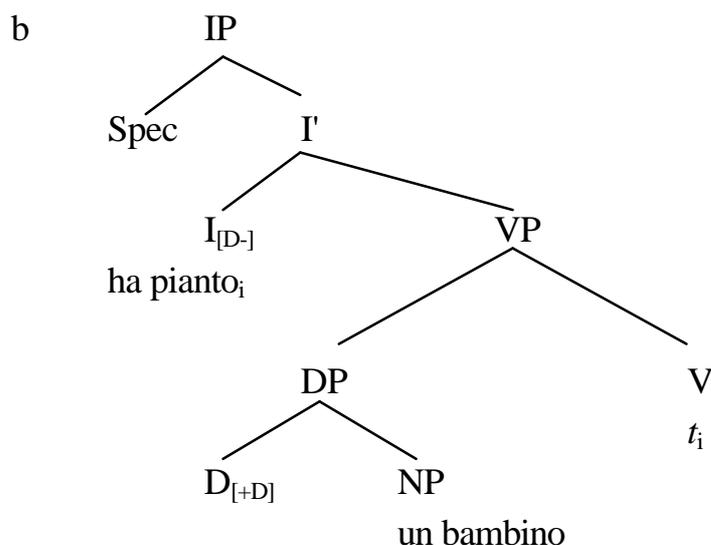
the subject DP. (101) illustrates the possible internal structure of the subject in (99a):

101 a Un bambino
a child



Following Longobardi (1994), I analyze (101a) as a DP. The argument-status of this nominal expression, I will assume, requires the presence of a D-category. The DE, however, contains only a categorial feature (a D-feature). This assumption is in line with Zwarts (1992), who argues that existential indefinites are DPs with an empty DE. The indefinite article itself is thus either part of the NP or it occupies the head position of some intermediate functional projection. As we will see in a moment, this analysis of the internal structure of a subject like (101a) is crucial for an account of its role in the syntax of inversion. Consider now (102) which represents the structure of the clause in (99a):

102 a Ha pianto un bambino.
cried a child



The verbal complex has moved to INFL for morphological checking and the strong D-feature of INFL has to be checked by a category bearing the same feature. In (102b) only the subject can meet this requirement, since the verb *piangere* 'cry' does not select any additional argument. Therefore, the subject DP should raise to Spec of IP and the SV(O) word order would follow. Yet, (102a) appears to be perfectly correct with the inverted word order. Given the minimalist assumptions of this study, the felicity of (102a) implies that the strong D-features of INFL can be checked by an alternative mechanism, so that the subject can remain in its base position. The specific internal architecture proposed for subjects DP can account for these facts.

The analysis I would like to suggest crucially relies on the assumption that in (101b) the DE contains just the feature [+D]. The lexical material is located on nodes that are lower than the D-projection. If this hypothesis is correct, then checking of the strong D-feature of INFL may just require attraction of that one D-feature. In other words, satisfaction of the EPP by attraction of the D-feature and stranding of the subject in its base position may be the optimal option.

This idea finds some theoretical support in Chomsky (1995). In minimalist terms, the optimal option for feature checking is an operation that carries along just enough lexical material as necessary for phonological convergence (cf. Chomsky 1995). Pied piping of lexical material is thus required in language only in order to preserve the integrity of a constituent. If the DE contains just a feature (as we suggested for (102)), convergence may

not require pied piping of the whole DP. By Procrastinate, checking of the remaining features on the NP would then be delayed until LF.

However, the account of the wellformedness of constructions like (102) encounters a serious problem, as it predicts that all indefinites would pattern like *un* in (102). As a matter of fact, the availability of subject inversion in non-inversion verb context strictly correlates with the presence of the indefinite article *un*. As observed in chapter 2, other weak determiners, such as *molti* ‘many’ or other cardinals do not seem to allow the postverbal subject option:

- 103 a #Hanno pianto molti bambini.
 cried many children
 b #Hanno pianto due bambini.
 cried two children

Yet, this construction is even more puzzling in view of the following facts. Consider (104):

- 104 a ??Ha pianto un postino.
 cried a postman
 b Ha abbaiato un cane.
 barked a dog

(103) and (104) together show that the presence of the indefinite article is not a sufficient condition for inversion to occur. In particular, the contrast between (104a), on the one hand, and (102) and (104b), on the other, suggests that the occurrence of the indefinite in postverbal position is somehow related to the type of verb. In the latter sentences, the indefinite subject forms a natural unity with the verb, in the sense that it does not refer to a particular child or a particular dog, but has the flavour of a ‘there was child crying/dog barking going on’. How do these intuitions translate into the formal analysis presented above?

The ‘weakly referential’ status of the subject in constructions like (102) and (104b) may reflect the absence of particular features in the internal structure of the DP. So, while it may be plausible that the indefinite article *un* may occur in a DP whose head only has a D-feature, weak determiners

such as *molti* or *due* at least require Number to be specified. This by itself may prevent the D-head from moving alone to satisfy EPP. More grammatical material is carried along and, correspondingly, more phonological material. Then, according to the analysis proposed above, the whole DP would raise for phonological convergence.³⁷

5.3 Alternative Strategies for Satisfaction of the EPP

Let us draw some conclusions from the preceding discussion. The initial hypothesis that subject inversion in Italian is made possible by the existence of an alternative strategy for checking of the strong D-features of INFL, is supported by a substantial set of empirical data. In addition, this analysis appears to offer some conceptual and theoretical advantages. We proposed that the EPP in Italian can be satisfied in three different ways: a) by overt subject raising, b) by attraction of the D-feature of a covert loco/temporal argument, and c) by attraction of the D-feature of an existential indefinite subject.³⁸ This conclusion supports the claim that subject inversion is determined by syntactic factors which obey conditions of economy. The availability of a different relative word order for subject and verb is thus the consequence of the interaction of morphological checking (EPP) and economy principles, in accordance with a minimalist perspective of grammar.

As briefly noted above, the availability of three different checking mechanisms sheds more light on the role of loco/temporal arguments in inversion constructions. Many of the accounts of locative inversion that are known in the literature capitalize on the intrinsic semantic properties of locative arguments as providing the necessary trigger for inversion (see Hoekstra & Mulder 1990, Levin & Rappaport 1995, a.o.). The analysis proposed here shows that locatives do not fulfill a privileged role in inversion

³⁷ As it stands, this analysis incorrectly predicts that subject inversion should be available in all languages that have the indefinite article:

i *Huilt een kind. (Dutch)
 *Cries a child.

The illformedness of (i) may simply follow from the fact that languages such as English and Dutch normally do not tolerate empty subject positions. Hence, the position must be filled by an empty expletive.

³⁸ Remember that since the EPP has to be satisfied before Spell-Out, I assumed that D-feature attraction takes place overtly.

because of their inherent semantics. Interpretive properties at the level of thematic structure may indeed determine whether the argument must be covert or be overtly realized. However, it is the internal syntactic structure of these elements that makes them suitable for feature checking instead of the subject. To this extent, implicit loco/temporal arguments are not different from any other D-feature-carrying category. The choice of the optimal checker is solely based on economy conditions.

Chapter 4

Subject Inversion at the Interpretive Interface

Introduction

In the previous chapter a syntactic account of subject inversion was offered which develops the hypothesis that the availability of the verb-subject word order is indirectly constrained by the Extended Projection Principle (EPP). In the syntactic framework adopted throughout this study (Chomsky 1995), different word orders are the result of a movement operation which is triggered by the necessity of checking morphological features. In this perspective, the EPP is reinterpreted as the checking of a specific feature (a D-feature) of the INFL node against the same feature on some other element. This view is important for the analysis presented here since it opens up the possibility of extending the class of possible EPP-checkers to all elements bearing the required D-feature. On the assumption that not only subject DPs, but other (nominal) elements as well are endowed with a D-feature, we suggested that the subject can occur postverbally (i.e. in its 'inverted' position) whenever an alternative strategy for satisfaction of the EPP is available. In chapter 3 two of such alternatives for satisfaction of the EPP were examined: one was raising of a covert argument LOC, the other was raising of the D-feature of the empty D° of an indefinite DP.

Yet, this account cannot cover all the empirical facts. As discussed in chapter 2, there remain some problematic cases that, *prima facie*, defy a syntactic explanation and rather seem to involve notions and principles belonging to the domains of semantics and pragmatics. So, for example, the strong or weak interpretation of an indefinite subject seems to correlate with the syntactic position the indefinite occupies with respect to the verb. On the other hand, the distribution of definite subjects seems to be determined by the interaction of the familiarity degree of the DP with the focus structure of the clause.

These interpretive phenomena are not isolated to Italian, but are possibly present in all languages, be it to a different degree or in a different form. The strong/weak interpretations of indefinites and their correlation with

syntactic structure have been observed in Dutch (Kerstens 1975, de Hoop 1992, a.o.) and in German (Diesing 1992). In a similar fashion, the distribution of definite DPs seems to be affected by focus. Although the procedure to encode focus in grammar may differ in each language, the interaction of discourse properties with focus structure (and, possibly, with syntactic structure) has been observed for Catalan (Vallduví 1990), for Spanish (Zubizarreta 1994), and for English (Ward & Birner 1995) as well.

The main concern of the present chapter is that of offering an account of these interpretive facts in a way that fits the minimalist framework. The phenomena under consideration may seem to elude a syntactic account and require new machinery of semantic and pragmatic notions. It is indisputable that certain factors are just intrinsic properties of the semantics of DPs and that the interpretation of a clause is partly determined by considerations of a pragmatic nature at the interface with the system of use. However, I will show that we do not need to enrich the system in order to deal with interpretive facts like the ones discussed here since some of the phenomena observed appear to derive naturally from the theoretical assumptions made in chapter 3.

This chapter aims at providing an account of two main phenomena: the weak/strong distinction of indefinite subjects and the effect of focus and familiarity on the distribution of definite subjects.

1 The Strong/Weak Distinction of Indefinites

There are certain constructions that allow an indefinite DP to occur in two different positions, roughly, a VP-internal and a VP-external position, without affecting the grammaticality of the clause.¹ It has been observed that each position seems to correlate with a particular interpretation of the indefinite. Normally, the VP-internal indefinite gets a weak reading, whereas the VP-external indefinite tends to prefer a strong reading. The term *strong* refers indistinctly to the specific, or the partitive or the generic reading of indefinites. Similarly, the term *weak* refers to the existential/presentational reading (see Milsark 1974, 1977). These constructions are present in different languages. Here we give an example from Dutch:

¹ The term *indefinite* here refers to weak determiners in general, i.e. indefinite articles, numerals, and determiners like *some*, and *many*.

- 1 a Loek heeft gisteren een partij gewonnen.
 Loek won yesterday a game
- b Loek heeft een partij gisteren gewonnen.
 Loek won a game yesterday

The indefinite object in (1a) is interpreted existentially, whereas the indefinite in (1b) gets a specific interpretation.

The minimal pair in (1) can be seen as a structural disambiguation of the indefinite DP. This observation has led some linguists, notably, Diesing (1990), to argue for a strict correlation between syntactic position and the weak/strong interpretation.² Diesing's specific claim is that the link between syntactic structure and logical representation is mediated by a mapping algorithm that directly translates syntactic structure into semantic interpretation. The success of this proposal is probably due to the apparent transparency of the relationship between syntax and semantics. Yet, the empirical and conceptual adequacy of Diesing's theory has been questioned by de Hoop (1992), Reinhart (1995), and Ruys (1996).

Facts like in (1) show up in Italian as well. In certain contexts, the subject can occur either preverbally (VP-external) or postverbally (VP-internal), as is illustrated in (2):

- 2 a E' arrivato un linguista.
 there arrived a linguist
- b Un linguista è arrivato.
 one (of the) linguist(s) arrived

Like in (1), the VP-external subject is interpreted as strong, whereas the VP-internal one is interpreted as weak.

Our examination of the interpretive properties of indefinite subjects in Italian has revealed the existence of a weak/strong distinction pattern analogous to that found in Dutch, German, etc. In other words, in Italian too,

² It must be pointed out that Diesing's definition of the terms *strong* vs. *weak* is different from de Hoop's (1992). Following Milsark (1977), Diesing assumes that there are two types of indefinites: those with quantificational force of their own that behave like real quantifiers, and those that are just variables that have to be bound by a covert existential operator (existential closure). We will return to this point more extensively below.

there might be a correlation between the preverbal subject position and the strong reading of the indefinite, and between the postverbal subject position and the weak reading of the indefinite. Yet, this approach, though appealing, is not the correct one.

The discussion in the next pages will be organized as follows. I will first introduce Diesing's analysis and show that it cannot account for the interpretive data found in Italian. Verbs allowing inversion (i.e., two different positions for the subject) do not present such a strict correlation between structure and interpretation as predicted by Diesing.³ More interestingly, even, unexpected data from indefinite subjects of verbs that do not allow inversion (with the wide focus reading) provide convincing evidence against Diesing's basic insight that the interpretation of an indefinite DP should be transparently linked with its syntactic position. Our conclusion will thus be that the strong/weak interpretation of indefinite subjects in Italian is not determined by the syntactic position in which they show up. This conclusion will appear to be perfectly in line with arguments presented in Reinhart (1995) and in Ruys (1996).

Yet, the interpretive differences which are present in Italian inversion and non-inversion verb constructions do call for an explanation. The account I will propose is based on the hypothesis that the strong/weak interpretation of an indefinite is determined by its internal structure and that the apparent correlation between position and interpretation is just the indirect result of the interaction of the internal structural properties of a DP with general principles and conditions governing the syntax of the clause.

1.1 The Generalization in Italian

The analysis of indefinites presented in chapter 2 makes a distinction between *inversion* and *non-inversion verbs*.⁴ As we should know well, by now,

³ Recall from chapter 1 that I distinguish between *inversion* and *non-inversion verbs*, according to whether subject inversion with a wide focus interpretation is allowed or not. Recall also that this subdivision cuts across the traditional classification of transitives, unergatives and unaccusatives.

⁴ Recall that the inversion vs. non-inversion verb distinction is relative to a wide focus interpretation of the clause. As repeatedly observed in this study, this distinction is blurred in contexts with a narrow focus interpretation of the subject.

subjects of inversion verbs can show up in two different positions, i.e. preverbally and postverbally. Therefore, it is in this type of contexts that the interpretation of an indefinite subject may correlate with a specific syntactic position. On the other hand, subjects of non-inversion verbs always occur preverbally. If the interpretation of an indefinite subject is indeed determined by the position in which this element occurs, we may expect that the absence of a certain position implies the absence of the reading associated with that position. As we shall see, the distinction between inversion and non-inversion verbs will shed more light on these complex facts. We recapitulate the main conclusions of chapter 2.

The availability of two subject positions in inversion verb contexts seems to correlate with two possible interpretations of the indefinite subject: the preverbal subject position is associated with a strong (partitive) interpretation, the postverbal position with a weak interpretation.⁵ This is true for the indefinite subjects in the examples below:

- 3 a Due linguisti sono arrivati.
 two linguists arrived
 ‘*two of the linguists arrived*’
- b Sono arrivati due linguisti.
 arrived two linguists
 ‘*there arrived two linguists*’

The preverbal indefinite in (3a) must be interpreted as a concealed partitive. The indefinite in postverbal position in (3b), instead, can only have an existential reading. How strong is this correlation? (4) shows that an existentially interpreted indefinite is infelicitous in preverbal subject position:

- 4 #Un uomo è arrivato.
 a man arrived
 ‘*there arrived a man*’

⁵ In de Hoop (1992) the term *strong* subsumes the partitive, the referential and the generic interpretations of the indefinite. Yet, the data examined in chapter 2 showed that, possibly, only partitivity plays a role in Italian.

However, an overt partitive DP occurring in postverbal position does give a good result:

- 5 Sono arrivati due dei linguisti.
 arrived two of the linguists

The felicity of (5) is a clear counterexample to Diesing's hypothesis about the correlation existing between position and interpretation. A closer examination of a large corpus of data lead us to the conclusion that the true generalization about the interpretation of indefinite subjects in Italian must be expressed in the following terms:

- 6 Interpretation of indefinites in inversion verb contexts:
 indefinite subjects with the weak interpretation cannot show up
 in preverbal position;
 indefinite subjects with the strong interpretation cannot show up
 in postverbal position.⁶

Subjects of non-inversion verbs can only occur in the standard preverbal subject position (with a wide focus reading, of course). Contrary to expectation, the unavailability of the postverbal subject position does not imply the loss of the weak reading for the indefinite subject. The data show that in this case the indefinite subject in preverbal position gets an interpretation which is ambiguous between the strong and the weak reading (see chapter 2 for more details). The generalization for indefinite subjects of non-inversion verbs can thus be formulated as follows:

- 7 Interpretation of indefinites in non-inversion verb contexts:
 indefinite subjects can get both the strong and the weak reading.

Generalizations (6) and (7) present a precise description of the possible interpretive properties of indefinite subjects in Italian. The choice of distinguishing between two different classes of predicates may seem to weaken the possibility of a general account of the phenomenon. However,

⁶ However, recall we observed that overt partitive subjects are perfectly fine in both positions.

this distinction finds its empirical motivation in the interpretive differences observed which cannot be reduced to a single pattern. In addition, the facts under discussion will fit the assumed syntactic architecture in a quite natural way.

Notice, that (6) and (7) represent a serious problem for Diesing's analysis, as mapping should take place in overt syntax in the case of inversion verb contexts and at LF (by means of lowering) in the case of non-inversion verb contexts. Diesing could argue that this is exactly the pattern found in individual level and stage level predicates, respectively. This explanation, however, cannot be accepted as the stage/level distinction is present in both inversion and non-inversion verb types.

The generalizations presented above must now be translated into formal terms. The strong/weak distinction of indefinites should not be explained by introducing new notions or new mechanical devices. We will take the computational system as our point of departure and we will explore to which extent its principles and properties can account for the facts observed. In other words, our first step is an attempt to find out what role syntax can play in determining the interpretation of an indefinite DP. However, before moving on to possible explanations of (6) and (7), let us consider the strong/weak distinction in more general terms.

1.2 The Strong/Weak Distinction across Languages

The quantificational/existential ambiguity of indefinite DPs and its possible correlation with syntactic structure was first observed by Milsark (1974, 1977). Milsark pointed out that bare plurals and mass nouns are ambiguous between a generic and a presentational reading, depending on the syntactic

environment in which they show up.⁷ Milsark gave the following examples⁸:

- 8 a Unicorns like popcorn.
 b Unicorns came crashing out of the woods and surrounded
 us.
 c There are unicorns in every wood.

The meaning of the proposition in (8a) seems to be true for all unicorns of the world. The indefinite is thus interpreted universally (i.e. it gets a strong reading). However, the same bare plural in (8b) and in (8c) appears to allow only a non-universal (existential) interpretation.

Carlson (1977) came to similar conclusions. He discovered that the nature of the predicate involved in the clause may affect the interpretation of the indefinite subject. Consider the following examples:

- 9 Firemen are available.

The indefinite subject in (9) gets two different interpretations. It can be interpreted universally (strong/generic reading) with the meaning that being available is one of the properties of firemen in general. And it can be interpreted non-universally (existential reading) indicating, for instance, that there is a group of firemen who are available in the present circumstances. Carlson observes that the ambiguous interpretation of indefinite subjects emerges only when the predicate corresponds to temporary states or transitory activities, hence the term *stage-level* predicates. When the predicate refers to

⁷ Milsark showed that a similar ambiguity is present in contexts with weak determiners as well:

- i *Sm* salesmen walked in.
 ii Some salesmen walked in.

The determiner *sm/some* is interpreted as presentational in (i) and as partitive in (ii).

⁸ I propose these examples in order to illustrate the point. However, it must be pointed out that in Italian (and, more generally, in Romance) bare plurals are distributionally quite more constrained than in English, in that they can virtually never be assigned a generic reading and can be interpreted existentially only in position properly governed by the verb (see Longobardi 1994).

permanent states or properties, i.e. when it is an *individual-level* predicate, the indefinite subject is necessarily interpreted as strong.

Kerstens (1975) and others have observed that the strong/weak interpretation of an indefinite object in Dutch varies according to the position in which the DP occurs as the result of scrambling. The relevant examples are given in (10):

- 10 a dat Frans een partij vaak wint
 that Frans a game often wins
 b dat Frans vaak een partij wint
 that Frans often a game wins

The object in (10a) occupies a position outside VP, as the result of a scrambling operation.⁹ The indefinite must here be interpreted as strong, i.e. it is a specific game that Frans often wins.¹⁰ The situation in (10b) is different. The indefinite gets here an ambiguous interpretation which appears to correspond to the two possible syntactic structures that this sentence can have. The adverbial may be adjoined to a node higher than VP in which case the actual position of the object could be either internal or external to the VP. In the first case the object is still in situ, from which its existential interpretation follows. In the second case, the object has (vacuously) scrambled outside the VP, thus making only the strong reading available.

Diesing (1992:34) reports a similar phenomenon in German and claims that in this language the interpretive differences are structurally disambiguated in overt syntax. The facts she discusses involve bare plural subjects. Consider (11):

- 11 a weil [_{IP} Kinder ja doch [_{VP} auf der Strasse spielen]]
 since children indeed normally play on the street
 b weil [_{IP} ja doch [_{VP} Kinder auf der Strasse spielen]]
 since indeed there are children playing in the street

⁹ Crucially, on the assumption that scrambling is the result of a movement operation. These considerations do not hold for a base-generated approach to scrambling (see Neeleman 1994).

¹⁰ The generic reading is available as well: often, when there is a game, Frans wins it.

The examples in (11) show that bare plural subjects in German can occur in two different positions: Spec of IP and Spec of VP. Additional evidence for the existence of two subject positions is provided by extraction facts in *was-für* split and split-topic constructions. Diesing further observes that the two different positions correspond to two different interpretations for the bare plural subject. The bare plural subject in (11a) has a generic (strong) reading: playing in the street is a general property of children. On the other hand, the bare plural subject in (11b) has an existential reading, meaning something like ‘there are children playing in the street’.

Summarizing, there are well-known examples in the literature that seem to point towards a correlation of some sort between syntactic structure and the weak/strong interpretation of indefinite DPs. In the next section we will examine a possible formalization of these facts.

1.3 Diesing’s Hypothesis

Before we proceed, a few considerations are in order on the course this analysis will take. The aim of this study is that of pursuing a general account of the phenomenon of subject inversion along the guidelines of Chomsky’s (1995) Minimalist program. Our preference will thus go to an analysis that does not need to assume any sort of extra machinery.

The interpretive data presented above seem to suggest that syntactic structure is somehow involved in the determination of the semantic interpretation of indefinites. Therefore, the discussion here will centre around the determination of the role of syntax in affecting the semantic interpretation of indefinite subjects. Precisely this question is the starting point of Diesing’s (1992) analysis.

Diesing’s account is based on the assumption that indefinites are ambiguous between a weak reading, as cardinality predicates, and a strong reading, as quantifiers (see Milsark 1974, 1977). Crucially, these interpretive properties of a DP are stored in the lexicon and, according to Diesing, must be encoded in syntax. In the case of subjects, a strong indefinite must be projected in Spec of IP. A weak indefinite must instead occur in Spec of VP.

As an empirical motivation for this analysis, Diesing adduces data from German and English concerning the distribution and interpretation of bare plural subjects. The German data were presented in (11) above. German

shows a straightforward correlation between syntactic position and semantic interpretation. However, in English (non-*there*-sentences contexts) subjects are allowed to show up only in a VP-external position, i.e. in Spec of IP. As discussed above, the interpretation of the bare plural subject is then ambiguous between a generic and an existential reading. The relevant examples are repeated below:

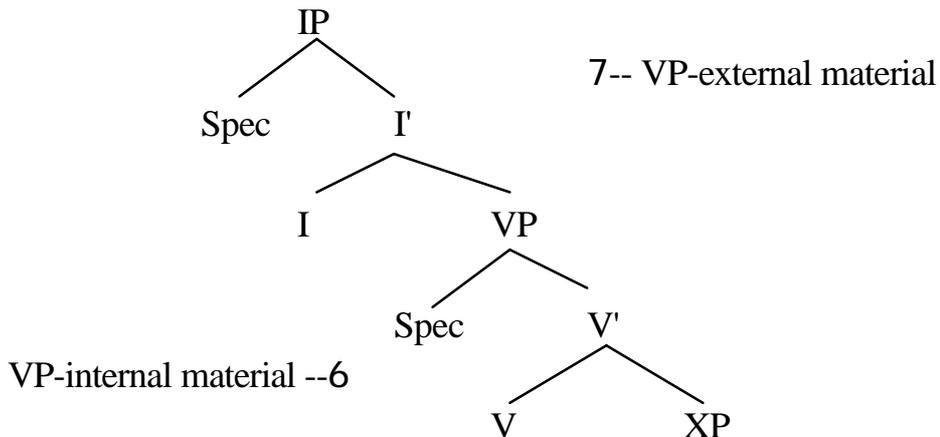
- 12 a Firemen are friendly.
 b Firemen are available.

(12a) contains an individual-level predicate, which only allows the strong reading. In this case the correlation between position and interpretation of the indefinite is straightforward. (12b) contains instead a stage-level predicate, which allows both the strong and the weak reading. Since, in English, subjects almost never occur VP-internally, the weak reading should be excluded. Yet, as observed by Milsark (1974, 1977) and Carlson (1977), the indefinite subject in (12b) also has an existential reading.

In order to save her analysis, Diesing must assume that, in English, the projection of semantic information is not as straightforward as it is in German, but is mediated by a lowering rule at LF. We will return to the details of this solution in a moment.

At the interface the interpretive properties carried by syntactic structure are mapped into a semantic representation. How does this mapping take place? Diesing advocates the view that the relationship between syntactic structure and semantic representation is a straightforward one. She assumes the existence of an algorithm that splits the syntactic tree into two parts, roughly, one part including all material inside the VP projection, the other including all material outside it, as is illustrated in (13):

13



At the interface with the interpretive component, the various pieces of syntactic material are mapped into a quantificational representation, consisting of an operator, one (or more) restrictive clause(s), and a nuclear scope (see Heim 1982). The mapping proceeds along the following guidelines (see Diesing 1992:10):

14 *Mapping Hypothesis* (MH)

Material from VP is mapped into the nuclear scope.

Material from IP is mapped into a restrictive clause.

In Kamp (1981) and Heim (1982), assumed (only partly, as we will see) in Diesing's analysis, the interpretation of an indefinite is strictly dependent on its position in the logical representation. The idea is that indefinites are variables that have to be bound. When the indefinite occurs in the restrictive clause, it is bound by an operator of some sort (i.e. by an adverbial, a quantifier, etc.). When the indefinite occurs instead in the nuclear scope, the variable must be bound by an existential operator (the so-called existential closure of the variable). Diesing argues that in the first case we get the strong interpretation of the indefinite, in the second its existential reading. It then follows that a VP-internal indefinite is mapped into the nuclear scope of the logical representation and is therefore interpreted as existential. On the

other hand, a VP-external indefinite is mapped into the restrictive clause and thus gets a strong interpretation.

In Diesing's analysis, the Kamp/Heim view of indefinites as variables that have to be bound is combined with Milsark's (1977) observation that weak determiners are ambiguous between a strong/quantificational reading and a weak/existential reading. We thus obtain the following classification: strong DPs are either DPs headed by a strong determiner or indefinite DPs with the indefinite determiner receiving the same semantic and, presumably, syntactic analysis as strong determiners. In both cases, they have quantificational force of their own and must undergo a raising operation (QR) (if not already outside the VP) that brings them outside the VP, so that they can be mapped into the restrictive clause. On the other hand, indefinites with a weak interpretation are variables that have to be bound inside the VP by a covert existential operator. According to (14), they are then mapped in the nuclear scope. Crucially, in Diesing's analysis, the presuppositional reading she claims is a characteristic of DPs in VP-external position, is provided by the material mapped into the restrictive clause. In other words, the restrictive clause defines the set that the quantifier (i.e. the strong determiner or the weak determiner with a strong reading) quantifies over and this set is assumed to contain objects whose existence is presupposed, or objects that are familiar to the speaker/hearer.

Let us turn again to (13). Diesing claims that the mapping algorithm is a universal procedure and, from her comparison of German and English, we understand that parametric variation emerges at LF, where languages may differ in allowing lowering and/or raising operations. This conclusion, if correct, is quite problematic. Let us briefly consider the case of reconstruction with English weak indefinites.

We know that, for independent reasons, English subjects must show up in Spec of IP, i.e. VP-externally (with the exception of *there*-constructions). On the other hand, English indefinite subjects have an ambiguous interpretation. However, the Mapping Hypothesis predicts that indefinites with a weak interpretation must be mapped into the nuclear scope, where they undergo existential closure. To save the MH, Diesing must thus propose that weak indefinites lower at LF into the VP-internal subject position, Spec of VP. Obviously, this reconstruction rule must apply before mapping takes place, so that the weak subject can be correctly mapped in the nuclear scope.

This analysis may raise some reservations. First, the assumption of lowering is incompatible with the minimalist perspective of this study (see also Delfitto & D'Hulst 1994). In addition, as pointed out by Reinhart (1995), Diesing's analysis hints at the possibility of establishing parametric variation at the level of Logical Form which does not square easily with current thinking.

In the next section we will test Diesing's analysis against the Italian facts discussed in chapter 2 and summarized above. The evaluation of the empirical and conceptual adequacy of the Mapping Hypothesis sets off and elaborates on some critical comments by de Hoop (1992), Reinhart (1995) and Ruys (1996).

2. An Evaluation of the Mapping Hypothesis

In what follows I will maintain the distinction between inversion vs. non-inversion verbs in Italian. The choice of distinguishing predicates according to their properties in inversion contexts has a strong empirical motivation in Italian. But, most importantly, it has the advantage of rendering the underlying syntactic mechanisms more transparent. In section 3 we will see that exactly this apparent dichotomy will enable us to give a unified explanation of the syntactic/semantic correlation analyzed in this chapter.

2.1 The Strong/Weak Distinction with Inversion Verbs

Subjects of inversion verbs can show up in preverbal and in postverbal position. I will assume that the preverbal position corresponds with the Spec of IP. As for the postverbal position, it involves a VP-internal node, although we cannot tell for sure whether this has to be identified with the Spec of VP (in unergative inversion contexts) or with the direct object position (the base position of unaccusative subjects).

The distribution and interpretation of indefinite subjects in inversion verb contexts is repeated in (15) and illustrated in (16):

- 15 Inversion verbs with indefinite subjects:
 preverbal subject → partitive/#existential
 postverbal subject → existential/#partitive

Inversion verbs with overt partitive subjects:

- preverbal subject → partitive
 postverbal subject → partitive

- 16 a Due linguisti sono arrivati. *partitive/#existential*
two (of the) linguists arrived
 b Sono arrivati due linguisti. *existential/#partitive*
arrived two linguists
 c Due dei linguisti sono arrivati. *partitive/#existential*
two of the linguists arrived
 d Sono arrivati due dei linguisti. *partitive/#existential*
arrived two of the linguists

Can Diesing's Mapping Hypothesis account for these data?

Consider (16a). The preverbal subject is VP-external, hence, the MH predicts that the DP *due linguisti* ends up in the restrictive clause of the logical representation, where it gets a strong interpretation. This prediction is correct, as the partitive reading of (16a) is one of the possible interpretations that fall under the label *quantificational* (see Milsark 1977). (16a) also shows that the preverbal (hence, VP-external) subject position can only host indefinites with a strong reading and that the existential interpretation is not available. We draw the same conclusion from (16c). So far, Italian preverbal indefinites seem to match the pattern predicted by the MH. From (16a) and (16c) we deduce that in Italian tree-splitting must take place in overt syntax. If the mapping were at LF, (16a) should be acceptable with the existential reading, on the assumption that, like in English, the weak indefinite could lower at LF and be mapped into the nuclear scope anyway. This option, however, does not seem to be present in inversion verb contexts in Italian, and indefinites are directly mapped into their correspondent logical structure without mediation of any reconstruction rule.

Let us turn now to the postverbal indefinites. Both the numeral determiner in (16b) and the overt partitive in (16d) appear to give felicitous

results. The former is interpreted as weak/existential, whereas the latter clearly gets a strong (partitive) reading.¹¹ The availability of the weak reading in a VP-internal position is predicted by the MH, as the indefinite is mapped directly in the nuclear scope, where it is bound by an existential operator. However, the felicity of (16d) is a serious problem for Diesing's approach, at least if the mapping algorithm is assumed to apply to overt structure in Italian, no reconstruction rule can rearrange the distribution of the indefinite DPs inside and outside the VP-projection. Hence, VP-internal material, like the overt partitive in (16d) is necessarily mapped into the nuclear scope. But if this were the case, (16d) should be infelicitous, since an overt partitive is not compatible with the weak/existential interpretation which is imposed on the indefinite by the operation of existential closure. The perfect acceptability of (16d) shows that this cannot be the correct analysis.

Suppose tree-splitting takes place at LF and that, by analogy with English, there is a special rule that places the indefinite into that part of the syntactic tree that corresponds with its interpretation. More concretely, the partitive indefinite in (16d) should raise to Spec of IP in covert syntax, so that it could be mapped into the restrictive clause and be interpreted as strong, as required. Although such a raising rule could possibly work for (16d), it fails to explain why the overt partitive does not directly raise in overt syntax, as it does in (16c). In addition, if the mapping procedure applies covertly (i.e. at LF), we would expect sentences like (16a) to be ambiguous between a strong and a weak interpretation, depending on whether the indefinite undergoes covert LF-operations (such as lowering). This, however, is certainly not the case. As was stated before, the true generalization is that in inversion verb contexts weak/existential indefinites are not allowed to occur in preverbal subject position. Apart from these empirical shortcomings, Diesing's proposal appears to be problematic from our current theoretical point of view as well. The proposed rule of lowering at LF is incompatible with the minimalist assumptions we want to follow here. To this, it should be added that the assumption of a lowering rule cannot account for all the empirical facts either. For instance, (16d) requires raising, not lowering. We would thus expect that languages not only vary in the choice of overt or

¹¹ Recall that weak determiners in postverbal position can never be interpreted as *concealed* partitives (see chapter 2). We will return to this point in section 3.3 of this chapter.

covert movement, but also in the type of movement, i.e. either lowering or raising. It seems quite inevitable, then, that the setting of all these parameters would render the MH just a vacuous mechanism.

The argumentation against Diesing's MH I have just presented is centred around the occurrence of overt partitives in postverbal subject position.¹² Yet, it could be argued that overt partitives are not *indefinites* in the strict sense of the word, since the complement of the indefinite determiner is always a definite. Diesing does not explain how overt partitives should be treated in her framework, although she acknowledges that partitivity would require a closer analysis.¹³ However, the MH seems to hold for definites and, more generally, for strong determiners as well. Diesing adopts Milsark's (1977) classification of determiners in terms of weak and strong. Strong determiners, including the definite article and quantifiers like *every*, *all*, and *most* are always quantificational (strong). On the other hand, weak determiners are ambiguous between a weak and a strong reading. For both the strong determiners and the weak determiners with a strong reading Diesing assumes that they undergo QR and adjoin to IP, forming a tripartite structure. Recall that the restrictive clause defines the set that the quantifier quantifies over. Material mapped into the restrictive clause thus provides the presupposition that is associated with strong DPs.¹⁴

¹² Actually, Ruys (1996) points out that strong quantifiers in object position provide much stronger evidence against Diesing's analysis. Contrary to Diesing's predictions, strong objects are perfectly fine in a VP-internal position.

¹³ Diesing (1992:60, n.6) reports one of de Hoop's (1990) examples, in which an overt partitive occurs in an *er*-sentence, i.e. VP-internally:

i Er zitten twee van de drie katten in de tuin.
there sit two of the three cats in the garden

Diesing does not seem to take this counterexample very seriously and suggests that existentials in Dutch may show a different pattern depending on whether the relevant clause undergoes verb second or not. However, this account is empirically incorrect as the same judgements hold for the embedded clause (ii), which I checked with native speakers:

ii dat er twee van de drie katten in de tuin zitten
that there two of the three cats in the garden sit

Surprisingly, Diesing gives this sentence as '*?*

¹⁴ Here the discussion focusses the structural properties of subject DPs. Below we will see that the distribution of subjects in Italian can be affected by contextual information as well.

Turning to (16d), Diesing could claim that partitives are ambiguous as well, depending on whether their indefinite determiners are interpreted as weak or strong. Needless to say, the distinction between weak partitive and strong partitive is so subtle that it cannot be used as the basis of a serious theoretical account. In any event, Diesing should still assume that the definite complement of the weak partitive raises at LF, in order to be mapped into the restrictive clause, as the definite *is* the presupposition of the whole DP, independently of the weak or strong interpretation attributed to the indefinite determiner. Apart from the fact that it is not clear how the operation of quantifier raising works in Diesing's framework (see, for critical comments Delfitto & D'Hulst 1994, Ruys 1996), the assumption of a movement operation just for strong partitives would render the MH void of explanatory content. We thus conclude that the Mapping Hypothesis is empirically inadequate, or at least would deserve a non-trivial extension to account for the set of data discussed so far.

2.2 The Strong/Weak Distinction with Non-Inversion Verbs

We turn now to indefinite subjects in non-inversion verb contexts. The generalization proposed in chapter 2 is repeated below:

- 17 Indefinite subjects with non-inversion verbs:
 preverbal subject → partitive or existential
 postverbal subject → not available with wide focus¹⁵

These findings are illustrated by the following examples with transitive and intransitive verbs, respectively:

- 18 a Molti turisti hanno visitato la cattedrale. *exist./part.*
 many tourists visited the cathedral
 '*many of the tourists visited the cathedral*'
 b Molte donne sono invecchiate precocemente. *exist./part.*
 many women got prematurely older

¹⁵ As discussed in the first two chapters, non-inversion verbs allow inversion only with a narrow focus reading of the subject. However, in this case the DP is ambiguous between the weak/strong reading.

- 'many of the women got prematurely older'*
- c Tremila dipendenti hanno scioperato. *exist./part.*
three thousand employees went on strike
'three thousands of the employees went on strike'

The data in (18), by themselves, do not represent a problem for the MH. In fact, they show exactly the same pattern as indefinite subjects in English. So, the subjects in (18) move, for independent reasons, to the preverbal position where they get an ambiguous interpretation. Then, like in English, reconstruction at LF would lower the weak indefinites back into the VP-internal base position, so that the weak interpretation can be obtained by existential closure of the VP. In other words, (18) could be explained in Diesing's terms on the condition that the mapping algorithm applies at LF.

Recapitulating so far, on the one hand indefinite subjects in non-inversion verb contexts seem to follow the pattern predicted by Diesing's MH, on the assumption that tree-splitting is covert in Italian. On the other, we have seen that in inversion verb contexts the picture is completely different, in that the subject cannot be reconstructed VP-internally, judging from the unavailability of the existential reading. Tree-splitting at LF leaves unexplained the absence of ambiguity in preverbal subject position. But tree-splitting in overt syntax does not help either, as the postverbal subject position can host both a strong and a weak reading.

The possible solution of relativizing the MH to the type of predicates involved in the clause cannot work for Italian. Recall from section 1.1 that we cannot reduce the inversion/non-inversion verbs dichotomy to the stage level/individual level predicates distinction. But, apart from this, there are additional complications of an empirical nature. As extensively discussed in chapter 1, the distribution of subject inversion in Italian is not homogeneous across the three main verb classes. In other words, it is true that unaccusative verbs are more likely to occur with a postverbal subject than transitive and unergative verbs. However, it is also true that this distinction is not rigid. We saw examples of unaccusatives that are unacceptable with subject inversion. And we also found instances of unergative and even transitive verbs that are perfectly happy with a postverbal subject.

Finally, let us turn to a last set of data which, in my opinion, convincingly show that the MH is not adequate for a correct account of the

interpretive properties of indefinite subjects in Italian. In chapter 2, the examination of the behaviour of indefinite subjects in non-inversion verb contexts revealed the following unexpected facts:

- 19 a Che cosa è successo?
 what happened
 b Ha pianto un bambino.
 cried a child
 c E' svenuto un uomo.
 fainted a man

The two answers contain non-inversion unergative and unaccusative verbs, respectively. What is unexpected is the fact that the two sentences are perfectly felicitous answers to a wide focus question.^{16 17} Of the generalizations holding for the Italian facts, (17) was the only one that, so far, was compatible with an analysis in Diesing's terms. However, (17) must now be adjusted in order to include these facts as well. I propose a formulation like in (20):

- 20 Indefinite subjects with non-inversion verbs:
 strong and weak indefinites must occur in preverbal subject position where they are ambiguous. When the determiner is the indefinite article, the subject can show up both in preverbal and postverbal position, correlating with a strong and a weak interpretation respectively.

¹⁶ In chapter 2 I showed that only DPs containing the indefinite article seem to be felicitous in postverbal subject position.

¹⁷ Notice that, besides a postverbal subject, these constructions allow a preverbal subject as well:

- i Un bambino ha pianto.
 a child cried
 ii Un uomo è svenuto.
 a man fainted

As observed in chapter 2, the preverbal indefinite then tends to be interpreted as strong/partitive (i.e. the strong/weak ambiguity seems to disappear).

Generalization (17) was still compatible with the MH. (17) represents the English pattern. However, this is no longer the case with generalization (20), as in this case, the algorithm would need to distinguish between the indefinite article, which requires an overt mapping (like indefinite subjects of inversion verbs), and all the other weak determiners which can only show up in preverbal subject position and which would thus require lowering at LF.

At this point we can evaluate the MH on the grounds of concrete empirical evidence from Italian. The intricate distributional and interpretive pattern of indefinite subjects in Italian cannot be captured by an account like the one suggested for German and English by Diesing (1992). In addition, the data we have examined show little evidence for Diesing's central claim that the relationship between syntactic structure and the tripartite quantificational structures which are assumed to encode the existential and the presuppositional readings is a direct one. Structure and meaning seem at times to coincide. Yet, this apparent correlation cannot be the only explanation of the behaviour of indefinite subjects.

3. A Possible Explanation for the Italian Facts

The appeal of Diesing's claim about the existence of a strict correlation between syntactic structure and semantic interpretation (via the familiar tripartite structures) is perhaps due to the elegance of a transparent relationship between syntax and semantics. Yet, this transparency has a conceptual cost as Diesing's claim that we need two types of indefinites (the strong/quantificational type and the weak/cardinal type) implies a redundancy at the lexical level which is not very elegant. In addition, generics represent a problem for this analysis. Weak indefinite DPs (the non-quantificational, variable type) are devoid of quantificational force and the particular interpretation they get seems to depend on their structural position. Diesing assumes that generics are strong. This means that generics have quantificational force of their own so that they have to raise. Yet, in the logical representation, generics are claimed to be bound by a covert generic operator *Gen*, whereby generics turn out to behave like the unselectively bound variables of indefinites with a weak interpretation.

As discussed by Ruys (1996), the position of an indefinite DP with respect to other constituents can indeed affect the meaning of the clause.

This, however, does not imply that the meaning of an indefinite DP depends on its *absolute* position. For instance, Ruys shows that some of the strong/weak interpretive differences observed in Dutch scrambling constructions can be best explained as the effect of scrambling on relative scope relations based on c-command. Consider (21):

- 21 a ... dat Jan waarschijnlijk een meisje heeft gekust
that Jan probably a girl has kissed
 b ... dat Jan een meisje waarschijnlijk heeft gekust
that Jan a girl probably has kissed

Ruys argues that it is not the semantics of the indefinite *een meisje* ‘a girl’ that changes according to its scrambled or unscrambled position. It is rather the meaning of the whole structure which is affected by the different scope relations between the indefinite and the adverb *waarschijnlijk* ‘probably’.

In a similar vein, Reinhart (1995) argues that certain interpretive differences should be analyzed as the effect of scrambling on the focus structure of the clause. Reinhart shows that, in Dutch, scrambling is applied every time the direct object is not compatible with a focus reading. There can be various reasons for blocking focus on the direct object. The clearest one, however, is the case of anaphoric destressing of a definite object. Consider (22):

- 22 a Hoe gaat het met de review van Jan’s boek?
how goes it with the review of Jan’s book
 b Ik heb het boek eindelijk gelezen.
I have the book finally read
 c #Ik heb eindelijk het boek gelezen.
I have finally the book read

The direct object in (22b) is scrambled outside the VP and gets a strong interpretation. This strong reading, however, is not determined by its ‘scrambled’ VP-external position. The strong interpretation derives from the fact that this DP is anaphoric to its antecedent in (22a). Since anaphoric elements are not compatible with a focus reading, they undergo scrambling,

and this arguably explains the correlation between VP-external DPs and the strong reading.

Let us now turn to Italian. My analysis will be quite different from Diesing's line of reasoning. Following Reinhart (1995) and Ruys (1996), I will maintain that the interpretation of the indefinite DPs in Italian is not determined by the absolute position in which they show up, but by the interaction of different factors of a syntactic or interpretive nature. More precisely, and in agreement with the previous chapters, I will maintain that the distribution of arguments is primarily determined by syntax. The output of the computational system is then evaluated against pragmatic considerations and needs at the interface with the system of use.

3.1 The Syntax of Indefinites

Before turning to the discussion of a possible analysis of the interpretive differences we have observed on the previous pages, I would like to introduce some assumptions concerning the internal structure of indefinite DPs. The approach I want to develop is based on the hypothesis that the existential and the partitive reading of the indefinite subject is reflected by the internal structure of the relevant DP. This hypothesis was already formulated in chapter 2 and is repeated below:

23 Hypothesis.

The internal structure of existential indefinites differs from the internal structure of partitive indefinites. Concealed partitives have the same structure as overt partitives.

Given (23), the partitive reading and the existential reading of the indefinite DP correspond with the internal structures illustrated in (24) and (25), respectively:

24 a Due studenti *existential*
two students

at the interface with the system of use.

3.1 The Syntax of Indefinites

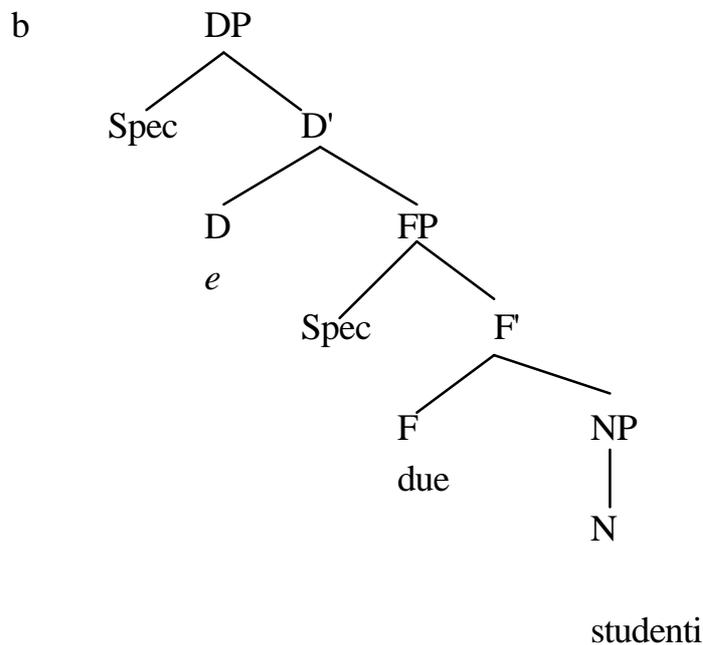
in chapter 2 and is repeated below:

23 Hypothesis.

The internal structure of existential indefinites differs from the internal structure of partitive indefinites. Concealed partitives have the same structure as overt partitives.

Given (0), the partitive reading and the existential reading of the indefinite DP correspond with the internal structures illustrated in (0) and (0), respectively:

- 24 a Due studenti *existential*
two students



- 25 a Due (degli) studenti *partitive*
two (of the) students

partitive structure. In (25), representing the structure of a concealed partitive, the PP is filled by an empty category. This structure reflects the intuition that the indefinite *due studenti* implies the existence of a superset of students which has already been given in the discourse. The indefinite *due studenti* denotes a partition of this superset. As we will see below, the identification of the content of the empty PP is governed by conditions of an interpretive nature like those holding in contexts of anaphora resolution.

My analysis will address the following questions which are distilled from generalizations (15) and (20):

- a) why is the preverbal subject position forbidden for existential indefinites in inversion verb contexts?
- b) why is it instead available for indefinite subjects of non-inversion verbs?
- c) why can and must the reading of indefinites as concealed partitives occur in preverbal subject position?

Questions (a) and (b) will be discussed in section 3.1. Question (c), however, requires additional theoretical assumptions, and will therefore be discussed not until the second part of this chapter.

3.2 Existential Indefinites

In inversion verb contexts, indefinites with the weak/existential interpretation can never show up in preverbal subject position. This is illustrated in (26):

- 26 a Un pacco è arrivato.
 **a parcel arrived*
 'one of the parcels arrived'
- b E' arrivato un pacco.
 arrived a parcel
 #'arrived one of the parcels'
- c Due studenti hanno telefonato.
 **two students called*
 'two of the students called'
- d Hanno telefonato due studenti.
 have called two students
 #'have called two of the students'

As a matter of fact, (26) raises two questions: a) what blocks the existential interpretation of the indefinite in preverbal subject position? and b) why is the strong interpretation available? The account I will propose for (a) and (b) is based on the hypothesis proposed above that existential indefinites have a different internal structure than partitive indefinites (concealed partitives). However, in this section I will concentrate on existential indefinites. The discussion of partitive indefinites is postponed till section 4.1.3, in the second part of this chapter.

I would like to suggest that the fact that the existential interpretation of the indefinites in (26a) and (26c) is not available indicates that these subjects have an internal structure as in (25), i.e. the structure of a concealed partitive. From this correlation we draw a first conclusion: indefinites with the structure in (24) cannot show up in preverbal position, while indefinites with the structure in (25) can. How can we account for this peculiar pattern?

The explanation of this puzzle has a syntactic and an interpretive aspect. The syntactic aspect will be discussed directly. The interpretive aspect involves the notion of focus, which requires the introduction of some theoretical assumptions and which will thus be discussed in the second part of this chapter.

Turning to the data, what blocks the occurrence of an existential indefinite in the preverbal subject position of constructions like (26)? The answer is strictly related to the syntax of these verbs (inversion verbs): the occurrence of the subject in preverbal position is blocked by economy. In chapter 3 it was argued that the crucial distinction between inversion and non-inversion type verbs reduces to the presence vs. absence of a covert clitic LOC. LOC fulfills an essential role, not only in the explanation of the distribution of inverted subjects in general, but also in the account of the interpretive differences that emerge with definite and indefinite DPs.

Both the verb *arrivare* and the verb *telefonare* in (26) select a LOC. LOC carries a D-feature but no other overt material. As such, it turns out to be the optimal candidate to check the strong D-feature of INFL. Satisfaction of the EPP by raising of LOC is thus a cheaper operation than movement of the subject to Spec of IP. It then follows that subjects of inversion verbs have to remain in situ as their movement would be a violation of economy.

Thus the impossibility of having a weak indefinite in preverbal subject position in (26a) and (26c) just has a syntactic explanation: subject raising

violates economy (and this is the reason for my marking these sentences with ‘*’. The optimal choice is represented by (26b) and (26d), where the EPP is satisfied by the covert LOC and the subject remains in situ.

We turn now to question (b) of section 3.1. Given the account we have just proposed for the distribution of existential indefinites in inversion-verb contexts, the availability of the weak reading for the preverbal indefinite subjects of non-inversion verbs is predictable. I repeat some relevant examples of these data below:

- 27 a Molti turisti hanno visitato la cattedrale. *exist./part.*
many tourists visited the cathedral
‘many of the tourists visited the cathedral’
- b Molte donne sono invecchiate precocemente. *exist./part.*
many women got prematurely older
‘many of the women got prematurely older’

The explanation for the existential interpretation of (27) naturally follows from the theoretical assumptions we made for the facts in (26). The verbs in (27) do not select LOC (see chapter 3 for details). Hence, the subject must raise in order to satisfy the EPP.

Crucially, this analysis shows that the distribution of the existential interpretation of the indefinite subject does not correlate with a particular syntactic position, but is the result of the interaction of the internal structure of the DP with general principles of the computational system.

Finally, the examination of the distribution of existential indefinite subjects would not be complete without an explanation of the following apparent counterexample, which was already observed in the previous chapters. As we have just seen, the preverbal subject position of non-inversion verbs can host both the weak and the strong reading (and the postverbal position is just not available with the wide focus reading). Yet, when the noun is introduced by the indefinite article, and, crucially, only in this case, does the distribution and interpretation of indefinites appear to pattern like in inversion verb contexts, i.e. the preverbal subject tends to prefer the strong reading and the postverbal subject the weak reading (see n. 13). The relevant data are repeated in (28):

- 28 a Ha pianto un bambino. *existential*
 cried a child
- b Un bambino ha pianto. *partitive*
 a child cried

In chapter 3 I showed how the occurrence of the indefinite in postverbal position is explained by the interaction of the internal structure of the existential indefinite DP and general syntactic principles like the EPP. Therefore the wellformedness of (28a) has a syntactic explanation based on considerations of economy. Yet, the wellformedness of (28b) still calls for an explanation.

In this section I have provided a possible account of the fact that existential indefinites in Italian show a strong preference for the postverbal subject position.¹⁸ What has still to be explained is why concealed partitive subjects can and must occur in preverbal position (see question (c) section 3.1). Since an adequate account of these facts requires the introduction of some assumptions concerning the notion of focus and its interaction with the syntactic and the interpretive systems, I will discuss these issues in the second part of this chapter.

Let me now summarize the main conclusions of the discussion so far. In this section we examined the conditions that determine the distribution of existential subjects in Italian. The questions we wanted to explain were:

- a) why is the preverbal subject position forbidden for existential indefinites in inversion verb contexts?
- b) why is it instead available for indefinite subjects of non-inversion verbs?

The explanation I proposed is essentially syntactic. On the assumption that the internal structure of existential indefinites differs from that of concealed partitives, I argued that the distributional patterns we observed are the result of considerations of economy. More specifically, subjects can occur in preverbal position only if there is no cheaper strategy for satisfaction of the EPP (see chapter 3 for details).

¹⁸ As a matter of fact, indefinite subjects *must* show up in postverbal position, except for non-inversion verb contexts with an indefinite subject other than the indefinite determiner *un/uno/una* 'a'.

However, from this perspective, the wellformedness of the SV(O) word order in inversion verb contexts is unexpected. In addition, this word order appears to correlate with the partitive interpretation of the indefinite. The following sections will provide an explanation for these puzzling facts.

4. The Effects of Focus on the Distribution of Subjects

The account of the distribution of Italian subjects proposed in chapter 3 and successfully adopted in the first part of this chapter may be undermined by the following two classes of facts: a) subjects of inversion verbs must sometimes occur in preverbal position (think of the concealed partitives in the previous sections) and b) subjects of non-inversion verbs must sometimes occur in postverbal position (the narrow focus reading of the subject). These problematic cases seem to defy a minimalist account where movement is determined by the need for morphological feature checking. So, it may be reasonable to ascribe the factors responsible for the strange behaviour of (a) and (b) to different components of language or of language use, external to the core of the computational system. This could be the most elegant and safest option, but, perhaps, not the most interesting.

In what follows, I will rather take up the challenge of showing that the phenomena in (a) and (b) do involve principles and properties of a pragmatic/interpretive nature, but that these principles and properties interact with syntax in an interesting way. More precisely, I will adopt Reinhart's (1995, 1996) theoretical framework and I will show that the interaction between the computational system and non-syntactic conditions at the interface is governed by considerations of economy. The facts referred to by (a) and (b) will be discussed in section 4.1 and 4.2, respectively.

4.1 Obligatory Preverbal Subjects: Anaphoric Definites

The major claim of this study is that subject inversion is strictly related to the availability of an alternative checker for the strong D-feature of INFL. The choice between the two options, however, is determined by an evaluation of the costs of each operation. In other words, if the EPP can be satisfied by an element different from the subject, it must obligatorily be so. In this case,

raising of the subject would be a violation of economy. Given this analysis, the following facts appear to be quite problematic:

- 29 a L'editore ha spedito una dozzina di libri.
the editor sent a dozen of books
 b #Sono arrivati i libri.
arrived the books
 c I libri sono arrivati.
the books arrived

Arrivare 'arrive' is an inversion verb, hence, the subject should always occur in postverbal position. Then, why is (29b) infelicitous? And why is (29c) not a violation of economy?¹⁹

As discussed in chapter 2, the strange facts in (29) are determined by two main factors: the Uniqueness condition and the Focus condition. Uniqueness states that definites must satisfy certain presuppositions (in terms of cardinality requirements, that is, Uniqueness or Exhaustiveness). As for what I called the focus condition, it states that the element carrying focus must contain (hearer-) new information.

In (29) Exhaustiveness is satisfied only if the definite *i libri* 'the books' refers to the set of books introduced into the domain of interpretation by (29a). However, in (29b) the definite occupies the position in which (neutral) focus is assigned in Italian. Since the definite clearly is not new, its occurrence in focus position is a violation of the focus condition.

The infelicity of (29b) thus has an interpretive source. However, the wellformedness of (29c) seems to suggest that such interpretive conditions can undo the results of syntactic operations and rearrange the word order of the elements in the clause according to the intended purpose of use.

¹⁹ Notice that the definite or indefinite status of the subject does not seem to play a role in this case. The same results are obtained in the following clauses with indefinite subjects:

- i L'editore ha spedito una dozzina di libri.
the editor sent a dozen of books
 #Sono già arrivati due libri.
arrived already two books
 Due libri sono già arrivati.
two books already arrived

Although it is true that the word order in (29c) is justified by interpretive needs, I will show that there is still more syntax involved in (29) than one may suspect.

4.1.1 Anaphoric Destressing

At this point, a note of clarification is necessary on the use I will make of notions like *focus*, *stress*, and *familiarity*. Recall from chapter 3 that I assume that focus is the indirect result of the distribution of sentence stress in the clause (see Cinque 1993, Zubizarreta 1994, Reinhart 1995, 1996). Stress is a property assigned at PF. At the interface with the system of use stress has the function of signalling a potential focus option. As we will see in the next section, stress also plays an important role in anaphora resolution, as a means of indicating the relative distance between an anaphor and its antecedent. Hence, the apparent interaction between focus and the old/new status of a discourse entity (familiarity) is just the reflection of the fact that both notions are mediated by stress.

The facts observed in (29) can be described by means of the following generalization:

30 Generalization:

Familiar material cannot stay in focus.

Note that this generalization expresses the content of the focus condition of chapter 2. The definite *i libri* has already been given in the discourse, hence it cannot stay in the position in which new entities are introduced by means of focus. At an intuitive level (30) is quite obvious. Yet, how can this type of information affect the focus structure of the clause?

Some of the solutions that have been proposed for the encoding of familiarity in grammar capitalize on the anaphoric relation between the discourse old entity and its antecedent (for the special case of definite descriptions, see Heim 1982). However, this boils down to a prohibition against anaphoric constituents showing up in focus, which is little else than a reformulation of (30), descriptively adequate but with little explanatory power.

Williams' (1995) proposal, too, revolves around the anaphoric properties of the constructions involved. His claim, in a nutshell, is that

anaphoric DPs cannot be stressed. Yet, the analysis he suggests is based on a much stronger claim: focus/presupposition structures (i.e. the distribution of familiar and non-familiar material) *are* anaphoric structures and, as such, they share the same rules that are responsible for the identification and interpretation of normal (intrinsic) anaphora.²⁰

According to Williams, focus/presupposition structures must be seen as the result of destressing certain material in the clause. Notice that this observation is crucial, since it establishes a link between stress and familiarity. It then follows that (30) should be reformulated as in (31):

31 Generalization:

Familiar material cannot be stressed.

Williams shows that the conditions that determine whether destressing can take place or not appear to be exactly the same conditions that hold in anaphoric contexts. From this the conclusion follows that destressing must be anaphoric. As a consequence, we expect focus structures to have the same fixed number of constructional patterns that are available in anaphoric contexts.

The advantage of Williams' analysis over other anaphora-based accounts of (30) is that it makes clear predictions about the possible distributional patterns of focus and destressed material in the clause. More importantly, however, this is the only analysis that predicts the existence of a special focus pattern, the contrastive focus pattern, as one of the logical combinatorial possibilities of the constructional properties of anaphoric contexts. We will return to the issue of contrastive focus in section 4.4.

4.1.2 Anaphoric Destressing and Syntax

Let us return to the distribution of definite subjects in the Italian examples in (29), repeated below:

²⁰ Pronouns etc. are *intrinsic* anaphora. Yet, anaphoric dependencies of non-inherently-anaphoric material can arise in specific contexts as well. As discussed by Williams, this phenomenon is particularly clear in ellipsis constructions, as illustrated below:

i John [gave Fred an apple] and [0_v Bill an orange]

He shows that the conditions that determine whether the verbal head can remain empty or not appear to follow exactly the same pattern as anaphoric dependencies.

- 32 a L'editore ha spedito una dozzina di libri.
the editor sent a dozen of books
- b #Sono arrivati i libri.²¹
arrived the books
- c I libri sono arrivati.
the books arrived

(32b) is infelicitous because a familiar DP occupies a position in which focus is assigned. (32b) violates (31). Consider now the alternative (32c). Here the definite subject, the anaphoric element, does not occupy the focus position, so that (31) does not apply and the sentence is fine.

The facts in (32) raise a number of questions concerning the level at which generalization (31) may hold and the nature of the operation that derives the alternative (32c). Where does anaphoric destressing apply? Do we have to conclude from (32) that anaphoric destressing in Italian affects the word order of the clause? And if this is the correct generalization, how is this alternative derivation obtained? Notice that the latter question may involve additional complications. If the operation responsible for (32c) belongs to the computational system, it must be triggered by the necessity of checking some morphological feature. On the other hand, if this operation is not triggered by core properties of the system, its application represents a marked move which has to be justified in some way.

The solution I will propose for these facts is based on Reinhart's (1995, 1996) work on the relationship between focus and economy. Although Reinhart's study deals with data from English and Dutch, her basic insights will shed new light on the Italian facts as well.

Reinhart argues that anaphoric destressing must necessarily be viewed as a condition at the interface with the system of use. At this level anaphora resolution takes place and each anaphoric element must be identified by a suitable antecedent. Hereby, stress appears to have the important function of signalling the accessibility (i.e. the distance) of the antecedent with respect to

²¹ That the infelicity of (32b) is only determined by focus is supported by the following type of constructions. (i) is perfectly fine in an out-of-the-blue context.

i Sono arrivati i libri che avevo ordinato.
arrived the books I had ordered

In other words, the subject in (i) contains new information. Uniqueness is vacuously satisfied as the DP is a complete definite description.

the relevant anaphor. On the other hand, since the focus set of a clause is determined on the basis of main sentence stress (see chapter 3 for discussion), the link observed by Williams between focus and anaphoric destressing is derived as well.

Languages appear to vary in the way anaphoric destressing is implemented. In English destressing is a purely phonological mechanism that shifts the stress from the focussed constituent (the most embedded) to the next constituent higher up. This case is illustrated below (bold face indicates stress):

- 33 a I met **the girl**.
b I **met** her.

(33a) shows that the direct object is normally marked with focus, as it occupies the most embedded position in the clause. However, when the object is a pronoun like in (33b), anaphoric destressing must apply and the stress shifts to the verb.

Dutch has phonological destressing as is exemplified in (34):

- 34 a Ik heb **Chomsky** ontmoet.
I have Chomsky met
b Ik heb hem **ontmoet**.
*I have him met*²²

Yet, as pointed out by Reinhart, in certain cases this language appears to exploit an alternative strategy, as is illustrated in (35):

- 35 a Ik heb gisteren **Chomsky** ontmoet.
I have yesterday Chomsky met
b Ik heb hem gisteren **ontmoet**.
I have him yesterday met
c #Ik heb gisteren hem **ontmoet**.

²² The different position of the object in Dutch and in English is due the fact that Dutch is a left-branching language, while English is a right-branching one. Recall that in Cinque's (1993) system, the Nuclear Stress Rule applies blindly and parametric variation is determined by the direction of recursion of the actual language.

I have yesterday him met

(35b) is a typical instance of scrambling, with the direct object showing up to the left of the temporal adverbial. Reinhart observes that if the clause contains an adverbial, anaphoric destressing does not make use of a stress-shifting operation, like in (35c), but it exploits the availability of a different (scrambled) word order, like in (35b).

The explanation of this phenomenon elegantly fits a minimalist view of grammar enriched by two crucial assumptions: a) that economy is always sensitive to meaning and b) that economy conditions apply at the interface. Anaphoric destressing is a marked operation since it modifies the stress pattern created by the nuclear stress rule (assigning neutral sentence stress). As such, its application is a violation of economy. However, when there is no other means of obtaining the desired interpretation, stress shift is a perfectly licit operation. On the other hand, (35b) represents the case in which anaphoric destressing is achieved by means of a cheaper alternative, since the scrambled word order is available anyway (see Neeleman 1994). As is illustrated in (35c), application of the stress shifting rule violates economy and gives an infelicitous derivation.

Reinhart's account of anaphoric destressing in Dutch may provide a plausible explanation for the facts observed in the Italian examples in (32). More specifically, I would like to suggest that anaphoric destressing in Italian does not need to use a marked phonological rule, because the same result can be obtained by choosing an alternative word order (linked to a certain syntactic derivation). However, in Italian this alternative word order is not independently available (as it is the case of scrambling for Dutch), but must be derived by a more costly operation.

Consider again the relevant Italian cases with bold face indicating stress:

- 36 a L'editore ha spedito una dozzina di libri.
 the editor sent a dozen of books
- b #Sono arrivati **i libri**.
 have arrived the books
- c #Sono **arrivati** i libri.
 have arrived the books

- d I libri sono **arrivati**.
the books arrived

Given the context (36a), (36b) is infelicitous: an anaphoric element cannot be stressed, hence anaphoric destressing must take place. In (36c) a phonological procedure of anaphoric destressing has applied (like in the English cases), by which the stress has been removed from the most embedded element and shifted to the next constituent higher up. In fact, this structure is likely to correspond with a derivation where the subject has been right-dislocated to an adjoined position (cf. Antinucci & Cinque 1977). The alternative option is (36d), where anaphoric destressing is obtained by means of a different word order. The resulting sentence is perfectly fine.

These facts seem to show that anaphoric destressing in Italian is not phonological but relies instead on a syntactic operation, where the term ‘syntactic’ still has to be made more precise. In any event, the syntactic alternative to phonological destressing must satisfy conditions of interface economy.

However, the wellformedness of (36d) seems to be a problem for the syntactic analysis I proposed in this study. Since *arrivare* in (36) is an inversion verb, subject raising should be excluded by considerations of economy. So, how is (36d) derived? I will argue that the SV word order of (36d) is derived by application of a more costly operation, i.e. by subject raising. This idea requires some clarifications. In (36d) LOC raises in order to check the strong D-feature of INFL. However, the subject raises as well (and Case and phi-features are thus checked overtly in this case). The ‘trigger’ for this latter operation is anaphoric destressing. Why should this operation not count as an economy violation then? The choice of a more costly derivation, is here justified by interface economy. According to Reinhart (1995,1996) the use of a more costly operation is allowed if it is the only way to satisfy an interpretive need. For Dutch it was argued that anaphoric destressing does not require the application of a marked phonological rule as this language independently associates the same numeration to derivations corresponding to different word orders (Neeleman’s 1994 analysis of scrambling as base generated).

In Italian anaphoric destressing can either be obtained by application of a phonological rule of stress shift, or by the choice of a more costly

derivation. Put in terms of global economy, the derivation corresponding with defocusing of the subject, being associated with a distinct interpretation, becomes accessible for the computational system (even though it is less economical in strict computational terms).

Recapitulating; we can now state that anaphoric destressing is the ‘trigger’ for the occurrence of the subject in preverbal position in inversion verb contexts in Italian. Considerations of economy at the interface determine the use of a more costly operation. Subjects of verbs that do not allow inversion, obviously, do not occur in postverbal position (i.e. in the position where sentence stress is assigned), hence anaphoric destressing is not necessary in these contexts.

4.1.3 Other Related Interpretive Facts

The analysis we have just proposed for obligatory preverbal definites provides an explanation for the third question in section 3.1: why can and must the reading of indefinites as concealed partitives occur in preverbal subject position? The relevant examples are repeated in (37):

- 37 a Due libri sono arrivati. *partitive/#existential*
two books arrived
 b Sono arrivati due libri. *#partitive/existential*
arrived two books

The answer I will provide is based on the hypothesis that indefinites with a partitive reading have a partitive internal structure. This, *prima facie*, gratuitous assumption has the advantage of rendering certain interpretive effects more transparent. More specifically, it provides an explicit account of the fact that concealed partitives appear to behave like anaphoric definites.

(38b) illustrates the internal structure of the concealed partitive in (38a):

- 38 a due libri (dei libri)
two books (of the books)
 b $[_{DP} \text{ due } [_{NP} \text{ libri } [_{PP} e]]]$

As is shown by the glosses, the empty PP complement is assumed to contain a definite DP, representing the superset. Crucially, this superset must have already been introduced given in the discourse. The overt or covert realization of the PP thus appears to be the result of conditions on the familiarity degree of the relevant DP.

As pointed out in chapter 2, recent studies on discourse theory have provided an explicit description of the effects of familiarity for anaphora resolution. In particular, it has been claimed by Ariel (1990) that the choice of the most suitable linguistic marker for a given discourse entity is determined by a number of factors among which the degree of accessibility of the antecedent. Along these lines, the choice of a covert PP referring to the superset reflects the fact that the antecedent of the PP is highly accessible. Interestingly, this account is supported by the distribution of overt partitives. Consider (39):

- 39 a Che cosa è successo?
 what happened
- b Sono arrivati due dei miei studenti.
 arrived two of my students
- c #Sono arrivati due studenti.
 arrived two students

Given the out-of-the-blue context (39a), the PP complement referring to the superset of my friends must be overtly realized as it is introduced into the present conversation for the first time. As is shown by (39c), the covert partitive reading is not available in this context.

Another advantage of this account of concealed partitives is that the presence of a definite DP in the PP complement of the partitive may permit us to ascribe certain distributional properties of the whole DP to its anaphoric character. As we saw above, conditions on anaphora resolution can indeed trigger the selection of the derivation in which the subject moves to the preverbal position in accordance with certain interpretive needs at the interface. Therefore, it is plausible to expect that the occurrence of the concealed partitive in preverbal subject position may just be determined by

the rule of anaphoric destressing which rules out stressed definites that cannot inherently satisfy the Uniqueness/Exhaustiveness requirement.²³

4.1.4 Summary

The obligatory occurrence in preverbal position imposed on the subjects when they are assigned an anaphoric interpretation appears to be ‘triggered’ by an interpretive constraint: anaphoric destressing. However, the mechanisms that are used to satisfy this constraint appear to be subject to considerations of economy like those holding for operations inside the computational system. By adopting Reinhart’s (1995, 1996) notion of interface economy we showed that potential counterexamples to the syntactic approach proposed in this study may be the natural consequence of the minimalist framework.

In the second part of this chapter we will concentrate on the opposite situation i.e. on those cases in which the subject must occupy the postverbal position.

4.2 Obligatory Postverbal Subjects

Since chapter 1 I have been stressing the fact that the claims about the distribution of subject inversion in Italian pertain only to wide focus contexts. For these cases I showed that the occurrence of postverbal subjects is the indirect consequence of the presence of a covert argument LOC that can satisfy the EPP and permit the subject to remain in its base position. Obviously, verbs that do not select LOC can satisfy the EPP only by subject raising, so that inversion is not available. This analysis appears to be empirically adequate as long as we keep to wide focus contexts. However, the picture is made more complex by contexts requiring a narrow focus reading of the subject, like in (40) and (41):

40 a Chi ha scritto questo libro?
who wrote this book

²³ Recall that anaphoric destressing applies in order to prevent stressing of a familiar constituent. As we just saw, there are all kind of reasons to assume that a concealed partitive is familiar. Then its occurrence in postverbal position would violate anaphoric destressing.

- b #Dante ha scritto questo libro.
Dante wrote this book
- c Ha scritto questo libro Dante.
wrote this book Dante
- 41 a Chi si è stufato?
who got fed up
- b #Beatrice si è stufata.
Beatrice got fed up
- c Si è stufata Beatrice.
got fed up Beatrice

(40b) and (41b) show that the SV(O) word order is not felicitous and that the V(O)S order has to be chosen instead. However, the V(O)S order of (40c) and (41c) appears to be problematic for the analysis of inversion advocated in this study. The verbs in (40) and (41) are non-inversion verbs, hence satisfaction of the EPP requires obligatory subject raising. So, the question arises why these sentences are not a violation of the EPP.

Let us proceed step by step. How is the EPP satisfied in (40c) and (41c)? Given the fact that non-inversion verbs do not select LOC, the only possible way of checking the strong D-feature of INFL is by subject raising. It then follows that (40c) and (41c) have been derived from the SV(O) word order.

Let us turn now to the focus properties of these clauses. Why are (40b) and (41b) infelicitous? The questions (40a) and (41a) require an answer with the narrow focus reading of the subject. However, this focus option is not included in the neutral focus set (derived by Cinque's nuclear stress rule). Determination of the focus set of a sentence proceeds in the following way: every syntactic cycle containing the word with the main accent is interpreted as a possible focus option.²⁴ Consider (42), which illustrates the focus set of (40b):

- 42 [F Dante [F ha scritto [F questo libro]]]

²⁴ We assumed that main sentence stress is assigned at PF by Cinque's (1993) nuclear stress rule. This rule applies cyclically to syntactic structures after all morphological checking operations have taken place.

Focus set: [F questo libro]
 [F ha scritto questo libro]
 [F Dante ha scritto questo libro]

The focus options in (42) are felicitous answers to the following questions:

- 43 a Che cosa ha scritto Dante?
what did Dante write
 b (Dante ha scritto) questo libro.²⁵
Dante wrote this book
- 44 a Che cosa ha fatto Dante?
what did Dante do
 b (Dante) ha scritto questo libro.
he wrote this book
- 45 a Che cosa è successo?
what happened
 b Dante ha scritto questo libro.
Dante wrote this book

However, none of the options in (42) is a felicitous answer to (40a) since none of them provides the narrow focus reading of the subject. Yet, as we saw, Italian does have an adequate answer to (40a), namely a clause with the subject in postverbal position, like in (40c).

It is clear that these facts are potentially problematic for the analysis proposed here. So far I have argued that subject inversion is primarily the result of syntactic factors and I have defended the thesis that interpretive properties as such cannot serve as a trigger for movement.²⁶ However, the

²⁵ The parenthesized constituents can be omitted.

²⁶ This may sound as a contradiction, as I have just proposed that the occurrence of anaphoric subjects in preverbal subject position is motivated by interpretive needs. However, my point here is that assuming global economy at the interface is different from stipulating the existence of interpretive features such as ‘familiarity’ that jeopardize the autonomy of syntax.

wellformedness of (40c) and (41c) seems to suggest that an interpretive requirement can indeed overrule the results of syntactic processes.

This discrepancy between the objectives of the computational system and those of the pragmatic system is not an isolated phenomenon and it seems to motivate the inevitable assumption that some sort of additional stylistic rule needs to be postulated.

4.2.1 Narrow Focus in English and Dutch

Most notably, Reinhart (1995, 1996) acknowledges the existence of problematic focus options that do not seem to be the result of the standard procedure for the determination of the (neutral) focus set. As an illustration of the problem, she gives the following examples:

- 46 a My neighbour is building a desk.
 b Focus set: [_F a desk]
 [_F is building a desk]
 [_F my neighbour is building a desk]

(46a) is a felicitous answer to (47a), (47b) and (47c), but not to (47d) (the constituent in bold face carries main stress):

- 47 a What's this noise?
 [_F my neighbour is building a **desk**]
 b What's your neighbour doing?
 my neighbour [_F is building a **desk**]
 c What's your neighbour building?
 my neighbour is building [_F a **desk**]
 d Who is building a desk?
 #my neighbour is building [_Fa **desk**]

(47d) requires an answer with a narrow focus reading of the subject. However, this focus option is not contained in the focus set (46b). Notice that (47d) shows the same narrow focus pattern as the Italian sentence (40b).

Reinhart elaborates on Cinque's (1993) observation that neutral focus, as the result of the Nuclear Stress Rule, may be altered in order to comply with a pragmatic need. She thus assumes the existence of a marked operation

of stress strengthening that adds stress to a constituent that was not assigned main stress by Cinque's rule. In English, this rule has the effect of relocating the main stress, as is illustrated in (48):

- 48 a Who is building a desk?
 b **My neighbour** is building a desk.

The assumption of a marked rule for stress relocation may appear to be a weakening of the thesis we have defended so far. These facts are likely to go beyond the limits of syntax. However, just like in the case of anaphoric destressing, the application of operations triggered by some discourse need is evaluated in terms of interface economy: the marked rule of stress strengthening may apply just in case there is no other cheaper alternative available that can derive the desired interpretation.

As observed by Reinhart, the necessity of rearranging the distribution of stress in order to derive the missing focus option is present in Dutch as well. Yet, the availability of scrambling in this language, seems to have the same function as the marked stress shift rule. Consider (49), discussed by Reinhart:

- 49 a #Ik heb gisteren het **boek** gelezen, en niet verscheurd.
I have yesterday the book read and not torn-up
 b Ik heb het boek gisteren **gelezen**, en niet verscheurd.
I have the book yesterday read, and not torn-up

In Dutch, the direct object is marked with neutral stress as this is the most embedded element in the clause. It follows that the focus set does not contain the option with the verb in narrow focus. This is precisely the focus reading required in (49). In order to obtain it, the marked rule of stress strengthening could apply, as it was the case in the English example in (48). However, Dutch seems to show the preference for an alternative strategy, i.e. the choice of the scrambled word order which is independently available. In (49b) the object precedes the adverbial and it is the verb that occupies the most embedded position and gets main stress. So, like in the case of anaphoric destressing discussed above, Reinhart argues that the choice of an unmarked alternative like scrambling in Dutch is the consequence of interface economy

considerations. Discourse needs may thus trigger certain operations. Yet, the choice between a marked or an unmarked strategy appears to be constrained by a general principle of grammar.

Let us turn to the Italian facts repeated below:

- 50 a Chi ha scritto questo libro?
who wrote this book
b Ha scritto questo libro Dante.
wrote this book Dante
- 51 a Chi si è stufato?
who got fed up
b Si è stufata Beatrice.
got fed up Beatrice

(50b) and (51b) are the most natural answers to narrow focus questions like (50a) and (51a), respectively. By analogy with English and Dutch, we could assume that (50b) and (51b) are derived by application of a marked rule. But then the question becomes: what is the nature of this rule?

We have just seen that English derives a missing focus option by adding extra prominence to a constituent that does not bear neutral stress. Stress strengthening exists in Italian as well:

- 52 a Chi ha scritto questo libro?
who wrote this book
b **?Dante**, ha scritto questo libro.
Dante wrote this book
c ?E' Dante che ha scritto questo libro.
it is Dante who wrote this book

I have marked (52b) and (52c) with a '?' as these sentences are not the most appropriate answers to (52a). (52b) and (52c) sound more appropriate in a contrastive context in which the possible alternatives are introduced by the question:

- 53 a Ha scritto Beatrice questo libro?
did Beatrice write this book
- b E' Beatrice che ha scritto questo libro?
is Beatrice who wrote this book
- c Chi ha scritto questo libro, Dante o Beatrice?
who wrote this book Dante o Beatrice

The questions in (53), be it in different ways, introduce a finite set of alternatives. In this case, the answers in (52) are perfectly appropriate and naturally allow a negative conjunct like in (54):

- 54 a **Dante**, ha scritto questo libro, non Beatrice.
Dante wrote this book not Beatrice
- b E' Dante che ha scritto questo libro, non Beatrice.
it is Dante who wrote this book not Beatrice

These contexts, however, have a clearly contrastive flavour which is not implied by a question like (52a). Recall from chapter 1 that, following the line of Vallduví (1990) and Lambrecht (1994) among others, I distinguish between informational focus and contrastive focus. As was explained in chapter 3, the focus set determined by Cinque's nuclear stress rule only contains neutral focus options. The narrow focus reading of a constituent is just one of these neutral options and the fact that in each focus set only one constituent can bear narrow focus is solely the consequence of the mechanical nature of Cinque's rule. We will return to this issue in the next section, where I will be more explicit about my view of contrastiveness.

In sum, I will maintain that (50a) and (51a) are questions that require a (non-contrastive) narrow focus answer. Since this focus option is not contained in the (neutral) focus set of the two clauses, we must conclude that (50b) and (51b) are derived by means of an additional operation that modifies the neutral focus pattern. This operation, however, is not a phonological rule of stress strengthening, but rather seems to involve a rearrangement of the word order of the clause.

4.2.2 The Limits of Syntax

Above we saw that, when scrambling is available, the missing focus option is derived by exploiting the derivation with the alternative word order, as this is cheaper than stress strengthening. Italian may thus pattern like Dutch and opt for a syntactic solution instead of a marked phonological rule. This line of reasoning may be plausible as it is in conformity with economy at the interface. So, the narrow focus reading of the subject could be obtained by using the VOS counterpart of (55a): (55b).

- 55 a Dante ha scritto questo libro
 Dante wrote this book
 b Ha scritto questo libro Dante.
 wrote this book Dante

However, as we know, (55b) is not generated by the computational system. Whereas inversion verbs can derive all focus options by using either the VS derivation or the SV derivation, non-inversion verbs just have one option: the one with the subject in preverbal position. There is no immediately plausible morphological feature requiring checking that could justify rightward movement of the subject. Notice that this is corroborated by the fact that (55b) cannot have a wide focus reading. The only possible interpretation is one with narrow focus on the subject.²⁷ ²⁸ We thus conclude that (55b) cannot be the result of an operation belonging to the computational system. In other words, it seems that with these facts we have reached the limits of syntax. So far we have tried to show that the domain of syntactic operations is much broader than what is standardly assumed. The minimalist approach we have adopted showed that the facts that were normally assumed to belong to the interpretive/pragmatic component of language should rather be analyzed as the result of syntactic conditions in the first place. Sentences like (55b), however, seem to defy an analysis based on syntactic conditions.

²⁷ In other words, the focus on the postverbal subject does not project. This is perfectly in agreement with the properties Reinhart (1995, 1996) claims to be typical of the narrow focus interpretation (see also Zubizarreta 1994).

²⁸ On the other hand, inversion verbs can have a wide focus interpretation with both the SV and the VS word order (cf. chapter 1).

Yet, it is an acknowledged fact that certain phenomena in language go beyond the limits of syntax. Chomsky writes:

"In early transformational grammar, a distinction was sometimes made between 'stylistic' rules and others. Increasingly, the distinction seems to be quite real: the core computational properties we have been considering differ markedly in character from many other operations of the language faculty, and it may be a mistake to try to integrate them within the same framework of principles." (Chomsky 1995:324)

So, we could ascribe the derivation of the narrow focus reading of the subject in (55b) to a stylistic rule that rearranges the word order of the clause in such a way that the subject ends up postverbally. Yet, such an account is little more than a restatement of the problem. Even on the assumption that the trigger for this operation may be an interpretive one, why is it so crucial that the subject occurs in postverbal position? And once it sits there, how does it get the narrow focus interpretation?

Although it seems inevitable that (55b) can only be the result of a stylistic operation, it may be worth while to try to formulate it in more precise terms. The next section must thus be seen as an attempt in this direction. I will present and elaborate on Zubizarreta's (1994) proposal to account for certain focus patterns in terms of *prosodic movement*.

4.2.3 Narrow Focus in Italian

Let us examine the structure of (55b) in more detail. The basic assumption is that (55b) is derived from the SVO structure in (56):

56 Dante ha scritto questo libro.
 Dante wrote this book

(55b) must then be derived from (56) by means of a movement operation. The available options are basically two: either the subject undergoes rightward movement and adjoins to the right of VP or IP, or the verb and the direct object (either together or apart from each other) move leftward. The first option, the one assuming rightward movement of the subject, is not compatible with the theoretical frameworks currently assumed (Kayne 1994, Chomsky 1995). On the other hand, since the rule involved does not belong to the core of the computational system, it may have properties that are quite

different from those of normal syntactic rules. From this perspective, movement to the right may be an admissible explanation.²⁹

Zubizarreta's (1994) discusses a similar problem in Spanish, another language exhibiting subject inversion. Her point of departure is the observation that the focus structures of the three Spanish sentences below differ in an important respect:

- 57 a Juan trajo el **vino**.
 Juan brought the wine
- b Trajo **Juan** el vino.
 brought Juan the wine
- c Trajo el vino **Juan**.
 brought the wine Juan

Zubizarreta's argumentation is quite clear. Given that Spanish can optionally have SVO or VSO word order (Torrego 1989, Zubizarreta 1991), we expect that both word orders will be associated with the wide focus interpretation (as they both undergo the Nuclear Stress Rule). All other focus interpretations will thus be derived by means of a marked operation. So, while (57a) can have a (neutral) wide focus interpretation, the narrow focus reading (given in bold face) of the subjects in (57b) and (57c) can only be derived by application of a special rule.

Following Cinque (1993), Zubizarreta assumes that the neutral focus pattern (the one in (57a)) is determined by the Nuclear Stress Rule assigning stress to a clause. Then, by definition, the constituent in focus is the one bearing main stress, as focus and stress are assumed to represent two different aspects of the same notion.

By contrast, the narrow focus interpretation of the subject in (57b) and (57c) can only be derived by marked operations that modify the neutral focus pattern in order to derive the required narrow focus option. Zubizarreta accounts for the former case by assuming a phonological strategy of deaccenting the direct object and shifting the stress to the left-adjacent constituent, i.e. the subject, like the phonological rule discussed by Reinhart

²⁹ As a matter of fact, Chomsky (1995) leaves this possibility open. By contrast, in Kayne's antisymmetry framework, every form of rightward movement is strictly banned.

(1995, 1996). Conversely, in the case of (57c), the desired focus interpretation must be derived by a movement operation (which possibly goes together with some stress-assignment rule).

Zubizarreta's solution is an attempt to translate the syntactic, phonological and interpretive properties of the phenomenon in terms of one unified, formalized account. The word order in (57c) is the result of an instance of *p(rosodic)-movement* motivated by an interpretive/prosodic condition: focus and stress must fall on the same constituent. Since this operation is prosodically driven, it has overt word order effects. The trigger for p-movement is thus focus, which is encoded in grammar as a feature [+F]. [+F] must match the word carrying main prominence.

In order to satisfy this condition, the material marked as [-F] must be removed, so that the constituent carrying [+F] ends up in clause-final position (the most embedded position) where it is assigned stress by Cinque's algorithm.

P-movement has a number of properties that distinguish it from movement driven by morphological feature-checking. So, for instance, it does not obey the principle of greed. In (57c) the object must be removed from the most embedded position (the focus position) in order to make it possible for the subject to get main stress. Further, p-movement also appears to involve phrases other than DPs and it creates new binding relations. These last two properties are illustrated in the examples below, taken from Zubizarreta (1994). In (58b) it is a PP that undergoes p-movement across the subject while in (59b) p-movement of the direct object makes available the interpretation of the pronoun as a variable bound by the quantifier.

- 58 a Habló el sindicato contra el gobierno.
 spoke the union against the government
 b Habló [_{pp} contra el gobierno]_i el **sindicato** *t_i*.
 spoke against the government the union
- 59 a *El primer día de escuela acompañará su_i madre a cada
 nino_i
 the first day of school will accompany his mother each
 child

- b El primer día de escuela acompañará [_{DP} a cada niño]_i su_i
madre *t_i*
*the first day of school will accompany each child his
 mother*

Could Zubizarreta's analysis hold for Italian as well? Spanish provides empirical evidence for the existence of a prosodically triggered operation by what has been analyzed as object scrambling (see Ordoñez 1993). In Italian, however, there is no convincing evidence for object raising (see chapter 3). In addition to this, Zubizarreta assumes a VSO underlying word order for Spanish, so that p-movement reduces in fact to removal of the object. In Italian, by contrast, the basic word order is SVO (the VSO order is not possible). Hence, in order to get the subject in clause-final position not only the object has to raise, but the verb as well.

There is a construction in English that shows the same characteristics as the Italian narrow focus sentences: heavy NP-shift (HNPS) (or more generally, Focus NP-Shift, cf. Rochemont 1978). Like in Italian, HNPS only allows narrow focus on the clause-final constituent and no binding effects seem to arise. In addition, English is comparable to Italian as both languages are assumed to have a SVO base word order and no object scrambling.

Zubizarreta argues that HNPS is an instance of p-movement. As proposed by Larson (1988), HNPS-constructions should be seen as a case of V'-reanalysis followed by V-raising, as is illustrated in (60), from Larson (1988):

- 60 I [gave to John]_i everything he demanded *t_i*

The matrix V and the dative PP under V' reanalyze to form a complex V which then raises and adjoins to the higher V-node (the light verb) deriving the required word order. If we assume that this operation is triggered by the feature [+F] on the heavy NP, then V'-reanalysis and raising of the complex V to a higher functional projection (to the p-position, in Zubizarreta's terms) could be language-specific variants of p-movement.

Given the similarities between English and Italian, we may assume that the two languages adopt the same type of p-movement, i.e. V'-reanalysis and V-raising. In the case of our example, repeated below, the internal argument

questo libro should form a complex predicate with the matrix V *ha scritto* and then raise and adjoin to a particular functional position higher up.

61 [Ha scritto questo libro]_i Dante *t_i*
 wrote this book Dante

A closely related problem involves focus assignment to the clause-final constituent (in Italian, the postverbal subject). According to Zubizarreta, p-movement applies in order to have the [+F] marked constituent occupying the most embedded position.³⁰ Then Cinque's nuclear stress rule applies and the most embedded constituent gets main stress, thus matching its [+F] feature. However, if stress is assigned by Cinque's rule, not only the narrow focus option should follow, but also a wide focus reading of the whole clause, as, by definition, focus is identified by the constituent containing the word with main prominence. In Italian this prediction is empirically incorrect.³¹ As extensively discussed above, (61) cannot be a felicitous answer to an out-of-the-blue question.

Finally, a consideration on conceptual adequacy. Zubizarreta chooses to encode focus in grammar by means of a feature [+F], marking the constituent designated to be interpreted as focus. In Chomsky's (1995) framework, features are stored in the lexicon and they are projected in syntax with the relevant category to which they belong. Now, focus is an interpretive notion that, by definition, is dependent on the context of interpretation. Therefore, it seems counterintuitive to me to assume that constituents enter syntax with a previously determined focus value.

To sum up. Zubizarreta's p-movement as a possible marked mechanism for the derivation of a missing focus option may be empirically adequate for the Spanish facts. However, this solution appears to be problematic for a correct account of the Italian narrow focus options.

³⁰ It is reasonable to assume that even a VP-adjoined position will do, on the assumption that the VP-internal material has left the VP and that traces are not visible for Cinque's nuclear stress rule.

³¹ And I expect the same judgment for Spanish and English, as Zubizarreta claims that one of the peculiarity of p-movement is precisely the fact that it involves narrow focus only.

What then is the solution for the Italian narrow focus constructions? Elaborating on Zubizarreta's basic insights, we may suggest that the narrow focus reading of the subject is derived by a marked rule consisting of two parts: a syntactic operation adjoining the subject to the right of the VP (i.e. dislocation to the right, as in Rochemont (1986) plus a phonological operation that assigns stress to the dislocated subject so that, at the interface, it can be interpreted as narrow focus.³²

The status of this phonological rule is not completely clear, though. Stress may be assigned by Cinque's Nuclear Stress Rule. The wide focus reading of this V(O)S clause would then be blocked by economy.³³ However, in order for the NSR to have the required effect, the right dislocated position in which the subject is placed must be the most embedded position of the clause. This appears to be the case in sentences with intransitive verbs, as we assumed that the verb raises overtly and that traces do not count for the NSR. However, this appears to be a problem in sentences with transitive verbs. Since we assumed that Italian does not have object shift, the direct object ends up occupying the most embedded position.

Alternatively, the phonological rule may be a special operation that assigns stress to the constituent that has to be interpreted as focus. However, this analysis has the disadvantage of not being able to account for the fact that in Italian not one (like in English), but two operations are needed.

4.2.4 Conclusions

We conclude that the derivation of the narrow focus reading of subjects of non-inversion verbs must be obtained by the application of a marked rule, consisting of a styling operation adjoining the subject to the right of the VP and of a phonological rule assigning stress. The trigger for the application of this marked rule is the interpretive need, at the interface, of deriving a missing focus option. As argued by Reinhart (1995, 1996), interface economy allows the use of a marked operation if this is the only way to obtain an interpretation that otherwise would be unavailable.

³² Perhaps, we can even dispense with the assumption of a special focus feature.

³³ Recall that the wide focus interpretation of this clause is already derived by application of the NSR to the SVO order, which is less costly than the VOS order.

4.3 Contrastive Focus

Finally, we conclude this chapter with a few considerations on some peculiar focus facts. The following examples appear to be problematic for an analysis based on anaphoricity:

- 62 a E alla fine chi è arrivato, il poeta o la ragazza?
and at the end who arrived the poet or the girl
- b E' arrivato il poeta.
arrived the poet
- c #Il poeta è arrivato.
the poet arrived

The definite description in (62b) satisfies Uniqueness by referring to its antecedent which is contained in (62a). The definite DP is thus anaphoric. According to the discussion so far, anaphoric definites are not compatible with stress, hence their occurrence in postverbal subject position should be blocked by the rule of anaphoric destressing. However, the sentences in (62) show exactly the reverse pattern: a felicitous continuation of the conversation requires the subject to show up in postverbal position. This example clearly challenges the generalization stating that anaphoric definites cannot occur with focus.

Sentences of this type are normally analyzed as instances of *contrastive focus*, which is considered to be distinct from informational focus. For instance, Vallduví (1993) observes that the function of contrastive focus is that of providing a sort of metalinguistic correction, thus not that of marking the assertion of the utterance, like in the case of information focus. Therefore he concludes that contrastive focus must rather be considered an epiphenomenon.

Lambrecht (1994) analyzes in great detail the notion of contrastiveness and the possible accounts that have been proposed for it in the literature. Interestingly, he points out that one of the difficulties in giving a precise definition of contrastiveness derives from the fact that the contrastive reading appears to be dependent on a series of linguistic and extra-linguistic factors, such as the number of possible alternatives available, the intonation, the structure of the clause, or the intended meaning of the speaker. He also

observes that the impression of contrastiveness may be due to the somewhat unusual syntactic and pragmatic configuration of the relevant clause. Anything unusual can be perceived as contrasting with a more usual alternative. Lambrecht illustrates this point with an example from Spanish:

- 63 Quien hizo el queque, tu o tu mamá?
 who baked the cake you or your mother
 Lo hize YO.
 I did

This type of focus does not necessarily imply contrast, i.e. a limited set of potential (focus) candidates. The answer in (63) shows exactly the same prosodic and syntactic properties as the following answer to a question with narrow (informational) focus on the subject :

- 64 Quien hizo el queque?
 who baked the cake
 Lo hize YO.
 I did

This appears to be the case in Italian as well. The distinction between narrow focus and contrastive focus seems to be determined by the interpretive context.

- 65 Chi ha fatto il dolce, Franco o Francesco?
 who baked the cake Franco or Francesco
 Lo ha fatto FRANCO.
 it-baked Franco
- 66 Chi ha fatto il dolce?
 who baked the cake
 Lo ha fatto FRANCO.
 it-baked Franco

Lambrecht's conclusion is thus that "... contrastiveness, unlike focus, is not a category of grammar but the result of the general cognitive processes referred to as 'conversational implicatures'."

In line with Vallduví (1990) and Lambrecht (1994) I will thus consider contrastive focus as an epiphenomenon. However, even as an epiphenomenon, contrastive focus appears to violate the condition on anaphoric destressing at the interface. We might thus wonder whether this marked pattern could be derived in an independent way.

Williams' analysis may provide an interesting solution to this problem. Williams acknowledges that examples of the type in (62) violate the principle that requires anaphoric destressing whenever possible. Yet, he observes that focus on an anaphor gives the sentence a very specialized 'metalinguistic' use, it can only be used when previous discourse provides an appropriate antecedent, one with the same focus. As an illustration he gives the following example:

- 67 a Mary likes the short policeman, but the uncooperative
 prisoner likes the TALL policeman.
 b No, the **COOPERATIVE** prisoner likes the TALL
 policeman.

The peculiar property of this clause is that the second focus is embedded inside the first, i.e. the second focus is contained in the presupposition of the first one.

Williams accounts for these facts in a fashion which is very close to Chomsky's (1995) and Reinhart's (1995) considerations of economy in syntax and which captures Lambrecht's observations on the nature of contrastive stress. In his discussion of the *Generalized Blocking Principle*, Williams argues that if two (grammatical) forms have the same meaning, only one is allowed by the Blocking Principle (this is reminiscent of Reinhart's thoughts on economy). Hence, it follows that if two forms are different, then their meaning must be different too.

Back to the Italian example in (62), repeated in (68):

- 68 a E alla fine chi è arrivato, il poeta o la ragazza?
 and at the end who arrived the poet or the girl

- b E' arrivato il poeta.
arrived the poet
- c #Il poeta è arrivato.
the poet arrived

The assertion in (68b) is not who arrived, but which element of the set of possible arrivers arrived. This new dimension of novelty conveyed by the definite DP could justify the fact that an anaphoric element is marked with focus. We can thus conclude that Williams' account of focus/presupposition structures in terms of anaphoric destressing correctly predicts the existence of a marked focus pattern which is licensed by meaning-sensitive conditions of economy.

Appendix to Chapter 3

Clitics

1 Clitics and the EPP

The analysis of LOC as a clitic has two advantages: it makes it natural to assume that LOC bears a D-feature (clitics *are* Ds), and it provides an independent reason for LOC to occur in a position which is higher than the position of the subject. As we saw in section 3.4, the feature content and the relative distance from the target node are crucial for the determination of the optimal checker.

However, this analysis makes a strong prediction: every element that can raise that high (higher than the subject) and that carries the required D-feature can satisfy the EPP instead of the subject. Italian seems to have such elements: object clitics, indirect object clitics and expletive clitics. The analysis we proposed for LOC predicts that the presence of a clitic in the clause is sufficient to license subject inversion. Apparently, the data offer a confusing picture that may undermine our generalization. Yet, closer inspection of the structures underlying such clauses seems to confirm our predictions and shows that this analysis may be empirically adequate. In the next two subsections we will examine sentences with one clitic complement and with two clitic complements, respectively.

1.1 One Clitic Complement

The clitic complement can be the direct object or the indirect object, in both cases cliticized onto the verb in INFL. Since clitics must be related to an element previously introduced into the discourse, the question-answer tests we have been using are slightly adapted to the different context. (1) has a direct object clitic:

- 1 a Che fine ha fatto la macchina da scrivere?
 where did the typewriter go to
 ‘*what about the typewriter*’

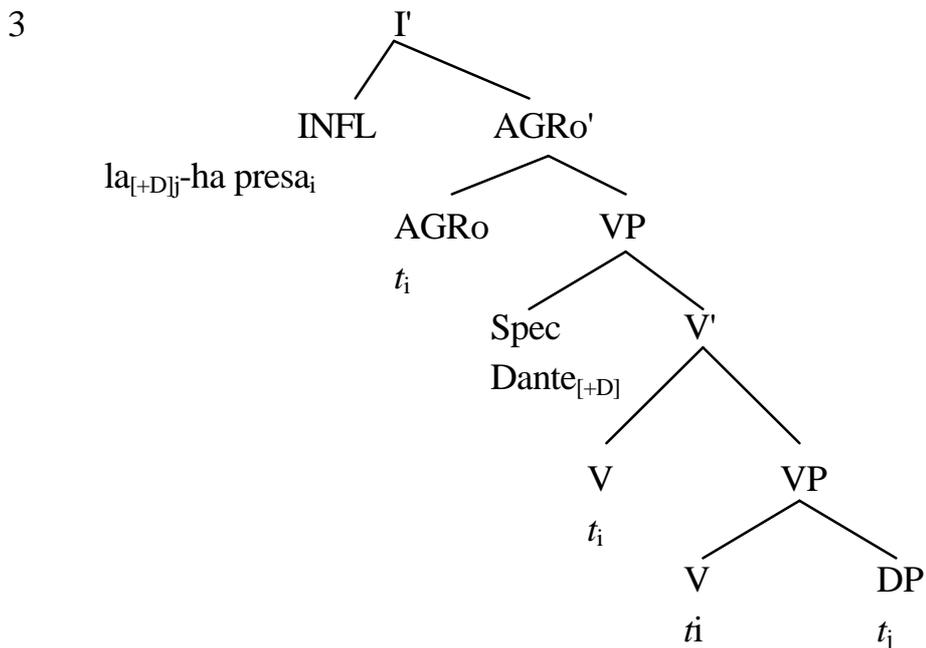
- b L'ha presa Dante.
it-Fem-Sing-has taken-Fem-Sing Dante
- c #Dante l'ha presa.
Dante it-Fem-Sing-has taken-Fem-Sing

In both answers the clitic is adjoined to the finite verb (in INFL), yet only (1b) with the subject in postverbal position, is felicitous. The same pattern is found in (2), with an indirect object clitic:

- 2 a Hai notizie di Beatrice?
have you got news about Beatrice
'what about Beatrice'
- b Le ha parlato Francesca.
to-her-has spoken Francesca
- c #Francesca le ha parlato.
Francesca to-her-has spoken

The intuitions are subtle, but consistent. Cl V S is the most natural word order for answers to wide focus questions like (1a) and (2a).¹ From a minimalist perspective, we expect that this word order is thus the result of a more economical alternative for satisfaction of the EPP. Indeed, the analysis proposed above for the clitic LOC may provide an elegant explanation for these facts as well. Consider (3), representing the structure of (1b) after verb raising:

¹ Notice, in passing, that the S Cl V word order of (1c) and (2c) must be derived by a special rule, as it is the case for the narrow focus reading of the subject in non-inversion verbs context (see chapter 4 for more discussion).



The verb ends up in INFL, moving through AGRo. The direct object clitic adjoins to the finite verb in INFL (perhaps it incorporates into the verb before leaving the VP). Since the clitic carries a D-feature, it satisfies the EPP and it allows the lexical subject to remain in its base position. I will assume the same analysis for the indirect object clitic Cl_{IO} in (0b). Consider now (0c) and (0c). These sentences are unacceptable in this context. Raising of the subject is blocked as a more costly alternative for satisfaction of the EPP. However, (0c) and (0c) become felicitous in a context that requires a narrow focus interpretation of the predicate, like (0) and (0):

- 4 a Cosa ha fatto Dante con la macchina da scrivere?
what did Dante do with the typewriter
- b Dante l'ha presa.
Dante it-Fem-Sing-has taken-Fem-Sing
'Dante took it'
- 5 a Che provvedimenti ha preso Francesca nei confronti di Beatrice?
which measures did Francesca take towards Beatrice
- b Francesca le ha parlato.
Francesca to-her-has talked

The wellformedness of (4b) and (5b) may appear problematic for our analysis. Observe that in both clauses the lexical subject and the clitic co-occur in preverbal position. If it is correct to assume that the clitic checks the strong D-feature of INFL (EPP), what then is the trigger for subject raising? This operation cannot be justified by the necessity of checking Case and phi-features, as we assumed that these features are weak and therefore checked until LF.

The peculiarity of (4b) and (5b) disappears if these sentences are placed in the same interpretive context as narrow focus constructions like (6):

- 6 a Chi è impallidito?
 who turned pale
 E' impallidito Berlusconi.
 turned pale Berlusconi
- b Chi ha scritto questo libro?
 who wrote this book
 Ha scritto questo libro Dante.
 wrote this book Dante

In (6) the postverbal subject gets a narrow focus interpretation. Recall that these sentences contain non-inversion verbs, hence they do not allow inversion with the wide focus interpretation (cf. chapter 1). As suggested in section 2.2., this type of construction may require a marked focus rule. The constructions in (4b) and (5b) belong to the same interpretive domain. The subject can occur in preverbal position only if it is already given in the discourse, so that the predicate gets a narrow focus interpretation (see chapter 4 for more discussion of this issue).

1.2 Two Clitic Complements

We turn now to the relative distribution of clitics and DPs/PPs in inversion contexts. The following sentences contain two internal arguments, one of which is a clitic and the other a lexical DP or PP. Consider first (7), with a direct object clitic:

- 7 a Che fine ha fatto la macchina da scrivere?

- 'what about the typewriter'*
- b L'ha prestata Dante a Beatrice.
it-Fem-Sing-has lent-Fem-Sing Dante to Beatrice
- c #Dante l'ha prestata a Beatrice.
Dante it-Fem-Sing-has lent-Fem-Sing to Beatrice

The contrast in felicity between (7b) and (7c) is not very sharp. Yet, (7b), with the Cl_{DO} V Subj IndObj, sounds more natural. This subtle difference may be explained by the analysis suggested above. In the former clause the EPP is satisfied by the direct object clitic, as expected, so that the subject just remains in its base position. In (7c) the subject has raised as well, although there was no (syntactic or interpretive) trigger for this operation. (7b) may thus be preferred as a more economical derivation.

Consider now a clause with an indirect object clitic:

- 8 a E Beatrice, come mai è così contenta?
and Beatrice, why is she so glad
- b #Le ha prestato Dante la macchina da scrivere.
to-her-Fem-Sing-has lent Dante the typewriter
- c Dante le ha prestato la macchina da scrivere.
Dante to-her-Fem-Sing-has lent the typewriter

(8b), with inversion, is clearly worse than (8c) with the subject in preverbal position. The infelicity of (8b), with the Cl_{IO} V Subj Obj word order, is unexpected and contrasts with the Cl_{DO} V Subj IndObj word order of (7b).

Let us recapitulate. The distribution of clitics with respect to subject inversion is summarized in (9):

- 9 a Cl_{DO} V Subj
b Cl_{IO} V Subj
c Cl_{DO} V Subj IndObj
d # Cl_{IO} V Subj DObj²

² (9) is reminiscent of the old adjacency problem. See Chomsky (1995, Ch.4) for a solution in minimalist terms.

The distributional patterns in (9a-c) are correctly predicted by the account proposed here. (9d), however, remains unexplained until we have a better understanding of cliticization in general, and of the properties of direct and indirect object clitics more specifically.

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Samenvatting

Licentiëring en interpretatie van geïnverteerde subjecten in het Italiaans

Het centrale onderwerp van dit proefschrift is het verschijnsel dat bekend staat als *subjectinversie*. In talen zoals het Italiaans kan het onderwerp vóór het werkwoord staan, zoals in het Nederlands, maar ook erachter:

- 1 a Beatrice ha sorriso.
Beatrice heeft gelachen.
- b Ha sorriso Beatrice.
Heeft gelachen Beatrice.

Gezien het feit dat beide zinnen welgevormd zijn, wordt standaard aangenomen dat subjectinversie in het Italiaans vrij is. Dat wil zeggen, dat de grammatica zowel de subject-werkwoord (SV) als de werkwoord-subject (VS) woordvolgorde toestaat. Dat (1b) een geschikt antwoord is op de vraag "wie heeft gelachen?" maar niet op de vraag "wat is er gebeurd?" wordt dan aan factoren van pragmatische aard toegeschreven.

Deze visie wordt in deze dissertatie ter discussie gesteld. De adequaatheid van (1a) en (1b) wordt inderdaad door structurele en pragmatische condities bepaald. De interactie tussen syntaxis en interpretatie is echter niet triviaal. Hier wordt gepoogd aan te tonen dat een aantal interpretatieve effecten door de structurele eigenschappen van het relevante element of de relevante constructie veroorzaakt worden, en dat bepaalde syntactische operaties die, in principe, verboden zouden zijn, juist door overwegingen van interpretatieve aard teweeg worden gebracht.

Het doel van deze studie is tweeledig. Ten eerste beoogt het proefschrift een heldere beschrijving te geven van het fenomeen subjectinversie in al zijn complexiteit. Ten tweede wordt een analyse van dit verschijnsel voorgesteld, die de relevante structurele en interpretatieve factoren tot een aantal primitieven reduceert en ze in formele termen vertaalt.

Dit onderzoek is geplaatst in het minimalistisch kader van Chomsky (1995) en ontleent belangrijke ideeën aan het werk van Reinhart (1995, 1996). De studie bestaat uit twee delen. Hoofdstukken 1 en 2 presenteren de relevante empirische feiten met betrekking tot de distributie en de interpretatie van geïnverteerde subjecten in het Italiaans. Hoofdstukken 3 en 4 bieden een mogelijke formele verklaring voor de geobserveerde feiten. Het verschijnsel subjectinversie wordt in een aantal primitieve factoren ontleed die zowel een formele analyse als een comparatieve uitbreiding mogelijk maken. Er wordt beargumenteerd dat een groot deel van die verschijnselen die tot op heden gewoonlijk aan de pragmatiek werden toegeschreven (d.w.z. dat ze buiten het computationeel systeem opereren), op een natuurlijke en elegante wijze verklaard kunnen worden in een theoretisch kader dat op Chomsky (1995) en Reinhart (1995, 1996) gebaseerd is. Hoewel betoogd wordt dat de syntaxis veel meer aankan dan tot dusver gedacht werd, moeten sommige feiten nog steeds als het resultaat van stilistische processen verklaard worden.

Het proefschrift is als volgt ingedeeld:

In het eerste hoofdstuk wordt een breed corpus aan data onderzocht om vast te kunnen stellen welke structurele factoren de positie van het subject ten opzichte van het werkwoord kunnen bepalen. Het blijkt nuttig een onderscheid te maken tussen contexten waarin het subject ‘narrow focus’ krijgt en contexten waarin de hele zin (met een postverbaal subject) nieuw informatie is (‘wide focus’). De belangrijkste conclusie van dit eerste hoofdstuk is dan dat er slechts daadwerkelijk sprake is van vrije inversie in zinnen met werkwoorden waarvan de betekenis de aanwezigheid van een loco/temporeel argument inhoudt. Dit loco/temporeel argument hoeft niet noodzakelijkerwijs fonetisch gerealiseerd te zijn, en heeft een deictische, spreker-georiënteerde interpretatie. Bijvoorbeeld, (2a) is correct als een zin met ‘wide focus’ (echter slechts met de betekenis dat "Dante hier/ons heeft opgebeld". (2b), daarentegen, kan alleen de ‘narrow focus’ interpretatie krijgen, nl. "Het is Beatrice die gelachen heeft":

- 2 a Ha telefonato Dante.
 Heeft gebeld Dante.

- b Ha sorriso Beatrice.
Heeft gelachen Beatrice.

Naar aanleiding van deze observaties formuleren we een eerste hypothese: er lijkt een correlatie te bestaan tussen subject inversie en de aanwezigheid van een additioneel loco/temporeel argument in de thematische structuur van het relevante werkwoord.

In hoofdstuk 2 worden de interpretatieve eigenschappen van preverbale en postverbale subjecten bestudeerd. Hier staan twee vragen centraal: a) welke semantische noties spelen een rol bij subjectinversie in het Italiaans? en b) in hoeverre kunnen we spreken van een directe correlatie tussen de interpretatieve eigenschappen en de structurele positie van het subject? In het geval van indefiniete subjecten, maakt het Italiaans een onderscheid tussen de existentiële en de partitieve lezing. Informationeel gezien wordt een verschil gemaakt tussen ‘nieuw’ linguïstisch materiaal en ‘gegeven’ linguïstisch materiaal. Op dit niveau kan een distributionele generalisatie geformuleerd worden: de meest ingebedde positie in de zin wordt altijd met focus geassocieerd. Echter, er moet geconstateerd worden dat er geen overtuigend empirisch bewijs is voor een mogelijke correlatie tussen de structurele positie van het subject en zijn partitieve of existentiële interpretatie. Deze observatie leidt tot de hypothese dat deze interpretatieve feiten het resultaat zijn van de interactie tussen de interne structuur van het subject, en de condities die zijn semantische en informationele adequaatheid bepalen. Hierbij kan men denken aan de conditie die toekenning van een existentiële interpretatie aan indefiniete NP's zonder focus (die namelijk deel zijn van de presuppositie van de zin) onmogelijk maakt.

Deze analyse wordt verder tot definiete subjecten uitgebreid en laat zien dat interpretatieve feiten die oorspronkelijk als definietheidseffecten geanalyseerd werden, in werkelijkheid uit condities van semantische en informationele aard volgen, zoals de ‘Presuppositie van Unicité of Exhaustiviteit’ die kenmerkend is voor definiete descriptions en de toekenning van focus.

In hoofdstuk 3 wordt dieper ingegaan op de hypothese dat subject inversie correleert met de aanwezigheid van een loco/temporeel argument

(LOC). Zoals beargumenteerd in Chomsky (1995), moeten subjecten in preverbale positie staan om het sterke D-feature van INFL te kunnen checken (Extended Projection Principle of EPP). Hier wordt beargumenteerd dat er andere strategieën zijn om aan EPP te voldoen en dat LOC dankzij zijn bijzondere eigenschappen een dergelijk alternatief biedt. Als het sterke D-feature van INFL door LOC gecheckt wordt, kan het subject in zijn basispositie blijven zodat we de geïnverteerde VS volgorde afleiden. Vanuit dit perspectief is subjectinversie het resultaat van de interactie van een syntactisch principe, het EPP, van lexicale en structurele eigenschappen van de erbij betrokken constituenten, en van economie-condities.

Toch lijken een aantal feiten zich aan een syntactische analyse te onttrekken. Problematische gevallen zoals de sterke/zwakke lezing van indefiniëte subjecten, de ‘narrow’ focus interpretatie van het subject en een aantal andere interpretatieve verschijnselen worden in hoofdstuk 4 besproken. De verklaring die we voorstellen legt weer de nadruk op het belang van een modulaire aanpak die rekening houdt met de wisselwerking tussen de principes van het computationele systeem, de syntactische eigenschappen van het subject en verschillende economie-condities die een rol spelen op derivationeel niveau en op de overgang tussen syntaxis en interpretatie. De formele benadering die hier gepresenteerd wordt, is tevens een poging om de uiterste grenzen van het computationele systeem te verkennen.

Riassunto

Proprietà sintattiche ed interpretative dei soggetti postverbali in italiano

Il tema centrale di questa tesi è il fenomeno dell'inversione del soggetto. In lingue come l'italiano, il soggetto può precedere il verbo, oppure seguirlo:

- 1 a Beatrice ha sorriso.
- b Ha sorriso Beatrice.

Visto che entrambe le frasi sono perfette, si ipotizza che in italiano l'inversione del soggetto è libera. Questo vuol dire che la grammatica permette sia l'ordine soggetto-verbo (SV), sia l'ordine verbo-soggetto (VS). Il fatto che (1b) sia una risposta adeguata alla domanda "chi ha riso?", ma non alla domanda "che cosa è successo?" è attribuito a fattori di natura pragmatica.

Nella presente ricerca, questa analisi viene messa in discussione. L'adeguatezza di (1a) e (1b) è effettivamente determinata da fattori strutturali e pragmatici. Tuttavia l'interazione tra sintassi e interpretazione non è banale. Dimostreremo che alcuni effetti interpretativi sono provocati dalle proprietà strutturali di un dato elemento o di una data costruzione, e che operazioni sintattiche in linea di principio illegittime diventano possibili sulla base di considerazioni interpretative (la cosiddetta 'interface economy').

Lo scopo di questa tesi è duplice. Da un lato vuole offrire una chiara descrizione del fenomeno dell'inversione del soggetto in italiano in tutta la sua complessità. Dall'altro è un tentativo di identificare i primitivi strutturali e interpretativi che sono alla base di questo fenomeno e di tradurli in termini formali.

La presente ricerca si ispira al programma minimalista di Chomsky (1995) e a recenti proposte di Reinhart (1995, 1996) sulle condizioni di economia. I capitoli 1 e 2 esaminano le proprietà sintattiche e interpretative dei soggetti postverbali in Italiano. I capitoli 3 e 4 presentano una possibile spiegazione formale dei fatti osservati. La scomposizione del fenomeno

dell'inversione del soggetto in un ristretto numero di fattori non solo crea i prerequisiti per un approccio di tipo formale, ma fornisce le premesse di una possibile estensione dell'analisi a livello comparativo. L'adozione del quadro teorico proposto da Chomsky (1995) e da Reinhart (1995, 1996) permette di spiegare un certo numero di effetti interpretativi che tradizionalmente vengono attribuiti al dominio della pragmatica (operano cioè al di fuori del sistema computazionale). Tuttavia, pur dimostrando che il ruolo della sintassi nel caso dell'inversione è molto maggiore di quel che si è ipotizzato finora, rimane inevitabile attribuire un certo numero di fenomeni all'effetto di regole stilistiche attive alla periferia del sistema computazionale.

La tesi è strutturata nel modo seguente.

Nel primo capitolo esaminiamo un vasto corpo di dati empirici per stabilire quali fattori strutturali determinino la posizione del soggetto nei confronti del verbo. A questo fine, è risultato utile discriminare fra i contesti in cui il soggetto postverbale riceve 'focus ristretto' e i contesti in cui l'intero enunciato contenente il soggetto postverbale corrisponde ad informazione nuova ('focus esteso'). La conclusione più importante di questo capitolo è che si può veramente parlare di inversione libera solo in contesti contenenti verbi il cui significato comporta la presenza di un argomento spazio-temporale (non necessariamente realizzato foneticamente) con interpretazione deittica relativizzata al parlante. Per esempio, (2a) è legittima come frase a 'focus esteso' (ma, si badi, solo con l'interpretazione 'Dante ha telefonato qui'), mentre a (2b) può essere associata solo l'interpretazione a 'focus ristretto' ('E' Beatrice la persona che ha sorriso'):

- 2 a Ha telefonato Dante.
 b Ha sorriso Beatrice.

Queste osservazioni suggeriscono una prima ipotesi: l'inversione del soggetto, quando questa corrisponde ad un'interpretazione a 'focus esteso', sembra essere collegata alla presenza di questo argomento spazio-temporale nella griglia tematica del verbo.

Il secondo capitolo si occupa delle proprietà interpretative dei soggetti preverbal e postverbal. L'intento qui è di stabilire quali nozioni semantiche svolgano un ruolo determinante nell'inversione del soggetto in Italiano e in che senso si possa parlare di una interdipendenza tra le proprietà interpretative del soggetto e le sue caratteristiche distribuzionali. Nel caso di soggetti indefiniti, l'italiano distingue fra la lettura esistenziale e la lettura partitiva. A livello informativo, viene invece operata una distinzione fra materiale linguistico 'presupposto' e materiale linguistico 'nuovo'. A questo livello, una generalizzazione distribuzionale sembra essere possibile: la posizione più incassata contiene sempre un elemento focalizzato. Per quanto riguarda invece l'ambiguità fra lettura esistenziale e lettura partitiva, non sembra possibile formulare solide generalizzazioni distribuzionali. Questa osservazione conduce all'ipotesi che questo tipo di ambiguità sia una conseguenza dell'interazione fra la sintassi interna del soggetto e le condizioni che ne determinano l'adeguatezza semantica e informativa, per esempio la condizione che a indefiniti defocalizzati (interpretati cioè come parte della presupposizione) non possa essere attribuita un'interpretazione esistenziale. Questa analisi viene successivamente estesa ai soggetti definiti, mostrando come fatti interpretativi originariamente in termini di 'effetto-definitezza' siano in realtà dovuti all'influenza di condizioni semantiche e informative quali la 'presupposizione di Unicità/Esaurività' propria delle descrizioni definite e l'assegnazione del focus (coi relativi meccanismi di 'deaccentuazione anaforica').

Nel capitolo 3 viene sviluppata l'ipotesi che l'inversione del soggetto in italiano è collegata alla presenza di un argomento spazio-temporale (LOC). Secondo Chomsky (1995), il soggetto deve occupare la posizione preverbale per verificare il tratto forte D di INFL (Principio di Proiezione Estesa o EPP). La nostra proposta è che il sollevamento del soggetto non è l'unico modo di soddisfare l'EPP. La presenza di LOC rappresenta un'alternativa per la soddisfazione del principio in questione. Se il tratto forte D di INFL è verificato da LOC, il soggetto può rimanere nella sua posizione base e dar quindi luogo all'ordine invertito VS. Da questo punto di vista, l'inversione del soggetto diventerebbe il risultato dell'interazione fra principi sintattici (EPP), proprietà strutturali del DP e condizioni di economia.

L'obiettivo del capitolo 4 è di spiegare alcuni fatti che sembrano eludere un'analisi di tipo sintattico. La lettura forte e debole degli indefiniti, l'interpretazione del soggetto come unico costituente in focus, e altri effetti interpretativi vengono analizzati come fenomeni relativi all'interfaccia. La spiegazione che proponiamo enfatizza una volta di più l'importanza di un approccio modulare che tenga conto dell'interazione fra i principi del sistema computazionale, le proprietà sintattiche del soggetto e distinte condizioni di economia che si applicano a livello derivazionale e a livello di interfaccia. Il tipo di analisi che abbiamo cercato di sviluppare in questo lavoro può essere inteso come un tentativo di individuare i limiti estremi della sintassi.

Curriculum Vitae

The author was born in Belluno (Italy), on February 23, 1961. She attended the *liceo scientifico* 'Galileo Galilei' in Belluno from which she graduated in 1980. She then entered the *Istituto Universitario di Lingue Moderne (IULM)* in Feltre where she received her master's degree in 1986, majoring in German Language and Literature, with minors in English Language and Literature and History of Art. In that year she moved to the Netherlands and in 1987 she enrolled in the General Linguistics department of Utrecht University. In 1991 she received her master's degree in General Linguistics with specializations in generative syntax and Italian syntax. In the spring term of 1992 she was employed as a lecturer at the Italian department of Leiden University. In september 1992 she joined the Research Institute for Language and Speech (OTS) of Utrecht University where she has been working as a Ph.D. student until the present day.