

Structures and Strategies

Adriana Belletti

Structures and Strategies

Routledge Leading Linguists

EDITED BY **CARLOS P. OTERO**, *University of California, Los Angeles, USA*

1. Essays on Syntax and Semantics

James Higginbotham

2. Partitions and Atoms of Clause Structure

Subjects, Agreement, Case and Clitics
Dominique Sportiche

3. The Syntax of Specifiers and Heads

Collected Essays of Hilda J. Koopman
Hilda J. Koopman

4. Configurations of Sentential Complementation

Perspectives from Romance Languages
Johan Rooryck

5. Essays in Syntactic Theory

Samuel David Epstein

6. On Syntax and Semantics

Richard K. Larson

7. Comparative Syntax and Language Acquisition

Luigi Rizzi

8. Minimalist Investigations in Linguistic Theory

Howard Lasnik

9. Derivations

Exploring the Dynamics of Syntax
Juan Uriagereka

10. Towards an Elegant Syntax

Michael Brody

11. Logical Form and Linguistic Theory

Robert May

12. Generative Grammar

Theory and its History
Robert Freidin

13. Theoretical Comparative Syntax

Studies in Macroparameters
Naoki Fukui

14. A Unification of Morphology and Syntax

Investigations into Romance and Albanian Dialects
M. Rita Manzini and
Leonardo M. Savoia

15. Aspects of the Syntax of Agreement

Cedric Boeckx

16. Structures and Strategies

Adriana Belletti

Structures and Strategies

Adriana Belletti

First published 2009
by Routledge
270 Madison Ave, New York, NY 10016

Simultaneously published in the UK
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

This edition published in the Taylor & Francis e-Library, 2008.

“To purchase your own copy of this or any of Taylor & Francis or Routledge’s collection of thousands of eBooks please go to www.eBookstore.tandf.co.uk.”

© 2009 Taylor & Francis

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark Notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Library of Congress Cataloging in Publication Data

Belletti, Adriana.

Structures and strategies / by Adriana Belletti. -- 1st ed.

p. cm. -- (Routledge leading linguists ; 16)

Includes bibliographical references and index.

1. Grammar, Comparative and general--Clauses. 2. Grammar, Comparative and general--Verb. I. Title.

P297.B45 2009

415--dc22

2008023454

ISBN 0-203-88713-1 Master e-book ISBN

ISBN10: 0-415-96201-3 (hbk)

ISBN10: 0-203-88713-1 (ebk)

ISBN13: 978-0-415-96201-8 (hbk)

ISBN13: 978-0-203-88713-4 (ebk)

Contents

<i>Acknowledgments</i>	ix
Introduction	1
 PART I	
Clause Structure and Verb Related Syntax	
1 Generalized Verb Movement	15
2 Agreement and Case in Past Participial Clauses in Italian	71
3 Verb Positions: Evidence from Italian	91
4 (Past) Participle Agreement	109
5 Italian/Romance Clitics: Structure and Derivation	130
 PART II	
The Syntax of (Some) Discourse Related Strategies	
6 Aspects of the Low IP Area	161
7 Inversion as Focalization and Related Matters	192
8 Extended Doubling and the vP-Periphery	201
9 Kinds of Evidence for Linguistic Theory	224

10	Answering Strategies: New Information Subjects and the Nature of Clefts	242
11	Pronouns and the Edge of the Clause	266
	<i>Notes</i>	285
	<i>Bibliography</i>	343
	<i>Author Index</i>	357
	<i>Subject Index</i>	361

To Luigi, and to our sons Marco and Leonardo.

Acknowledgments

Chapter 1 appeared in 1990 as Chapter 1 of *Generalized Verb Movement. Aspects of Verb Syntax*, Rosenberg and Sellier, Turin (out of print).

Chapter 2 appeared in 1992 in *Syntax and Semantics*, vol. 26, *Syntax and the Lexicon*, Tim Stowell and Eric Wehrli editors; reprinted here with permission from Academic Press.

Chapter 3 appeared in 1994 in *Verb Movement*, Norbert Hornstein and David Lightfoot editors; reprinted here with permission from Cambridge University Press.

Chapter 4 (written in 2001) appeared in print in 2006 in *The Blackwell Companion to Syntax 1–6*, vol. 3, Martin Everaert and Henk van Riemsdijk editors; reprinted here with permission from Blackwell Publishing.

Chapter 5 appeared in 1999 in *Clitics in the Languages of Europe*, Henk van Riemsdijk editor; reprinted here with permission from Mouton De Gruyter.

Chapter 6 appeared in 2004 in *The Structure of CP and IP*, Luigi Rizzi editor; reprinted here with permission from Oxford University Press.

Chapter 7 appeared in 1999 in *Catalan Working Papers in Linguistics 7*; last two sections reproduced here.

Chapter 8 appeared in 2005 in *Probus 17*; reprinted here with permission from Mouton De Gruyter.

Chapter 9 appeared in 2007 in *Selected Papers on Theoretical and Applied Linguistics, Proceedings of the 17th International Symposium on Theoretical and Applied Linguistics*, A. Agathopoulou, M. Dimitrakopoulou, D. Papadopoulou editors, Aristotle University, Thessaloniki.

Thanks are due to all the publishers listed for granting permission for reprinting. Chapter 10 and Chapter 11 are published here for the first time.

I want to express my deepest gratitude to Simona Matteini for invaluable help in composing the manuscript.

Finally, I thank many friends and colleagues for their comments, suggestions, and criticisms. I should thank too many of them over a much too long period of time to be reasonably sure to acknowledge them all. I prefer to thank all friends and colleagues together; my debt to each one of them will clearly emerge from reading the different chapters of this book.

Introduction

The collection presented in this volume is a selection of articles that I wrote over the last almost twenty years up to now. The selection has been guided by the idea of designing an internally coherent volume, containing some of the most representative steps in the research conducted on the following two closely related domains:

- i. The establishment of the functional structure of the clause, with special reference to Verb Syntax, in the tradition initiated by Pollock's (1989) seminal article, in the spirit of the cartographic projects (Cinque 2002; Rizzi 2004b; Belletti 2004b).
- ii. The identification of discourse-related positions in the low portion of the clause structure and the properties of the clausal phase *edge*, a privileged position in minimalism (Chomsky 2005).

In my personal recollection, ii. is a natural, direct development of the research undertaken under i.

This is reflected in the title given to the volume, which synthesizes the essential guidelines of the research program illustrated by the assembled chapters, according to which the basic formal ingredients of grammar, the structures, are taken to directly condition the computation of both morpho-syntactic processes and the strategies of discourse operations.

As for the specific contents of the book, Chapter 10—'Answering Strategies: New Information Subjects and the Nature of Clefts'—and Chapter 11—'Pronouns and the Edge of the Clause'—are two new articles, especially written for this volume; Chapter 7—'Inversion as Focalization and Related Matters'—presents the last two sections of an article previously published with the same title in the reference indicated in the acknowledgments, dealing with word order issues directly related to those addressed in Chapter 6, but not discussed there. The remaining eight chapters correspond to articles that appeared in different volumes, journals, and proceedings, indicated in the acknowledgments, some of which are fairly difficult to access by now. They are republished here with no change, apart from minor formal readjustments. The different chapters are ordered in terms of both their thematic

coherence and their chronological history. The volume is divided into Part I and Part II, accordingly. Part I: Clause Structure and Verb Related Syntax. Part II: The Syntax of (Some) Discourse Related Strategies.

Throughout the chapters of the volume, Italian is the language most closely investigated. However, all chapters adopt a comparative perspective, in particular with other Romance (e.g., French, Spanish, Brazilian Portuguese [BP]) and Germanic languages (e.g., English, German). The volume can thus be situated in the tradition of studies sometimes referred to as ‘The New Comparative Syntax’ (Haegeman 1997). I take this style of research to be one of the most innovative features of formal studies on natural language, often a source of major discoveries, that has been first undertaken within the Principle and Parameters model (Chomsky 1981, 2002), and that is best illustrated by R. Kayne’s contributions (e.g., Kayne 2000c; the articles recently collected in Cinque and Kayne 2005, and Kayne’s introduction), a constant source of inspiration over the years.

I want to devote these introductory pages to an outline and brief discussion of some of the themes addressed in the two parts of this volume; I will select those that I think are of particular relevance and that identify aspects that, also in retrospect (especially in connection to Part I), qualify as core topics and issues, both on the theoretical and on the empirical side.

PART I: CLAUSE STRUCTURE AND VERB RELATED SYNTAX

1 Functional Structure and Verb Movement

A central issue that accompanies all chapters of Part I is the lexical-functional distinction and its role in determining the overall clausal architecture. The lexical-functional distinction has played a crucial role in the theoretical debate during the late eighties and nineties of the last century, leading to a conception of clause structure that is at the same time abstract and rich, detailed and simple: The functional architecture of the clause explicitly contains positions (heads) expressing all relevant morphosyntactic features directly conditioning the syntactic computation; it is built through the recursive application of the same operation merging two such heads (or their projection, Chomsky 1994); it contains and dominates the lexical information expressed in the projection of the verb and its arguments.

The Pollockian conception—and its ancestor in Emonds (1978)—of clause structure as consisting of a split IP is at the base of all the chapters in Part I, but most specifically of Chapter 1—‘Generalized Verb Movement’—where the generalized application of the Verb (head) movement operation is argued to occur in Italian tensed and infinitival clauses in a uniform way. The respective order of the two inflectional heads assumed, Agr and T, has reversed the order originally proposed by Pollock (1989), on both morphological and conceptual grounds. In more current terms, influenced by minimalist assumptions, the label chosen for the highest head would probably not

be Agr, but a more specific head or set of DP-related heads (along the lines of the pioneering article by Shlonsky 1989; and also of the more recent work by Cardinaletti 2004; Sportiche 2007; see also Belletti 2001a for relevant discussion on Agr nodes). The essence of the arguments, however, remains unchanged. In particular, the comparison between Italian and French would still be captured in terms of the different scope of verb movement in the two languages in non-finite contexts, which Chapter 1 discusses in detail. The main comparative distinction between the two languages is also corroborated by the analysis of the nonfinite past participial morphology, discussed in Chapter 3—‘Verb Positions: Evidence from Italian’—where an aspectual head as well as a specific past participial agreement-type head are introduced. Verb movement to a non-finite inflectional head is shorter *and* optional in French, as opposed to Italian, with the aspectual head of the past participial morphology corresponding to the non-finite tense head of full clauses (to be combined with the low infinitival head also assumed in Chapter 5—‘Italian/Romance Clitics: Structure and Derivation’). A word of caution is in order here. As the writing of the different chapters took place at different times, slight changes in some analytical hypotheses across the different chapters typically reflect the constant development of the research ideas. The refinement of the analysis of the past participial structure throughout the different chapters is one case in point.

The conception of verbal morphological checking adopted in most of the chapters of Part I has left some crucial issues open, which are still not settled at present. One such issue is quite central: What is the ultimate triggering factor inducing verb movement? To put it in comparative terms: What is the head and the featural specification responsible for the parametric variation found across languages on the verb movement process? Some progresses, also in terms of the empirical coverage, have been made in this domain, but the deep question is still rather open. Partly different conceptions of the process have been proposed over the years, up to the reductionist idea that there is no real verb-head movement process at all, but just movement of chunks of the verb phrase; some of these movements mimic movement of a head since the moved phrase only contains the head V. Koopman and Szabolcsi (2000) is probably the most thoroughly developed version of this different conception, which is directly inspired by Kayne’s work making extensive use of remnant movement derivations, so that processes previously analyzed in terms of head movement are reinterpreted as phrasal movements, both in the domain of verb syntax and in the domain of nominal syntax (Cinque 2005; Shlonsky 2004). The crucial question about the featural trigger remains though, however the head versus phrasal movement issue is settled. The different scope of verb movement in non-finite contexts in Italian and French, discussed in Chapter 1, is particularly relevant for this question: The longer movement of Italian cannot be simply justified on the basis of a strong/overt verbal morphology, since the overt morphological shape of the infinitive is the same in both Italian and French. So, the overt shape of the

verbal morphology cannot be the relevant triggering feature. A particular proposal is developed in Chapter 1 that tries to formally characterize the different nature of the Agr affix in the two languages. A technical solution along those lines may be worth pursuing further. However, no such development has been attempted in this chapter or in later work. From the empirical point of view the scene is richer now, though, than it was at the time the article was written. Interesting work by Bobaljik (2002) based on variations in the scope and (at least apparent) admitted optionality of verb movement in Faroese and Kronoby, a Swedish dialect, suggests that verb movement can be considered driven by richness of morphology only as far as the agreement morphology is concerned; the richness of other verbal morphology (e.g., the tense morphology) may or may not be a relevant factor. There is a one-way implication holding: If rich agreement morphology > V moves (Holmberg and Platzack 1995; Roberts 1993b; Vikner 1997); the other direction of the implication does not hold, as Bobaljik's data and the Italian versus French infinitive data clearly indicate. It remains to be understood what the triggering factor in these cases might be exactly, why this factor correlates with the optional character of the movement, and to what extent the optionality is real. The research project is still pretty much open on this point and alive.

2 Case and Agreement

The relation between Case and agreement has come to the foreground within the minimalist program, both in its first formulations (Chomsky 1993, 1995) and also in the more recent developments, where Case is implemented in terms of the relation Agree, between a probe and a goal. The Case-agreement relation is central to the discussion of Chapters 2—'Agreement and Case in Past Participial Clauses in Italian'—and 5—'Italian/Romance Clitics: Structure and Derivation'—in particular, on the morphosyntax of past participial small clauses and clitic constructions respectively. The manifestation of agreement in ϕ -features of number and gender is also central to the discussion of Chapter 4—'(Past) Participle Agreement'—dealing with past participle agreement in Italian and French. The core idea is that agreement in ϕ -features is the overt morphological manifestation of a Spec-head relation between a phrase in the Spec position of a head carrying the agreeing feature (Kayne 1989a; Sportiche 1998). There are however cases where the agreement relation is established between a head and its complement, either its head (e.g., in the D-N relation), or its specifier at the edge. The idea developed in Chapter 2 capitalizes on the hypothesis that the second relation is established in past participial small clauses in Italian and that the agreement in ϕ -features between the past participle and its complement is also Case agreement. The proposed relation, which possibly corresponds in part to the one assumed for other related structures previously studied in the literature, the inflected infinitive of Portuguese studied in Raposo (1987)

and Aux-to-COMP structures of Italian studied in Rizzi (1982), could be implemented in more current terms as the establishment of the minimalist relation Agree (Chomsky 2004), occurring in a local configuration. Thus, the participial small clauses studied in Chapter 2 remain a relevant empirical domain to verify the formal conditions governing the Case-agreement system. A further relevant empirical domain in this connection is presented in Chapter 5 where the morphosyntax of Italian/Romance clitic pronouns is addressed in detail and where it is claimed that Romance-type clitic pronouns are a privileged, fairly complex area, which allows one to see the Case-agreement system at work in close relation with verb syntax. A special status is attributed in this chapter to the negative head for which the relation with Case agreement is only indirect, mediated through subject clitics of the northern Italian dialects type.

3 Verb Movement and Adverb Placement

The correlation between the verb movement process and the position of adverbs of different classes is a classical research topic that Chapters 1, 3, and, partly, 2 address in detail. Variations in this domain are interpreted as following from the interplay of two factors: the position of the adverb in the clause structure; and the presence and scope of verb movement. The adverb classes considered in Chapters 1–3 are basically three: negative adverbs, sentence adverbs, and so-called low adverbs. The classification of adverbs assumed is not particularly fine-grained, but it reflects currently assumed classifications of the time. The status of adverbs and their location in the clause structure is assumed to somehow be the reflex of their semantics, but how exactly this aspect should be expressed in structural terms is not developed at all and is implicitly left open for future research. It is assumed in various points in the chapters that adverbs are generally adjoined to the phrase they modify (adopting the ‘modification’ relation of Sportiche 1988): Sentence adverbs are adjoined to the root of the sentence, low adverbs are adjoined to the verb phrase; negative adverbs are either adjoined to some low functional head in the area of the verb phrase or fill the specifier of a higher negative phrase (cf. also Zanuttini 1997 for further development). Many word order variations within the same language (Italian) and among the different languages considered (French and English, in particular) follow from these assumptions. However, this was clearly an area where further knowledge and understanding were called for. And, indeed, a major progress in terms of both empirical coverage and overall explanation of adverb syntax was made some years after these chapters had been published with the appearance of Cinque’s (1999) monograph, a real landmark in this domain. Cinque’s influential hypothesis, supported by an impressive mass of data from numerous and diverse languages, is that adverbs fill the specifier of functional heads that enter the constitution of the functional

architecture of the clause, viewed as the verb extended projection. The modification expressed by different adverbs depends on the feature content of the different heads of which different adverbs are the specifiers. The assumption is that specifier and head automatically share the same feature content. There is a certain analogy here with the agreement in ϕ -features that holds between a given affixal head and its specifier, or, more generally, with the agreement occurring with respect to various types of interpretable features when 'criterial' conditions are at stake (Rizzi 2006). Cinque's hierarchy of interpretable heads (Belletti 2004b, introduction) is rigid across languages; it is a property of UG rooted in semantics as a specific kind of semantic selection that the child does not have to learn. Depending on the language type, the same content can be realized as the head or as the specifier of the same functional projection. This fundamental new insight was still missing at the time Chapters 1–3 had been written. Thus, although the style of the argumentation is essentially the same from Pollock (1989), passing through these chapters up to Cinque (1999) and the work generated from it (e.g., Laenzlinger 1997), the descriptive conclusions reached in Chapters 1–3 are not as fine-grained as they could have been a few years later.

Various other themes are addressed in the chapters of Part I, some of which are also central to Part II, such as the computation of clitic doubling structures, the shape of small clauses, the nature of topicalization/focalization processes (on which see the qualification following). Other themes identify specific issues such as the distinction between a negative sentence and a sentence that is interpreted as negated because in the scope of a higher negation, as in the case of the low adverbial clauses discussed in Chapter 3, the special status of auxiliaries as always higher in the clause structure than lexical verbs—their behavior in various northern Italian dialects strongly supports this proposal (Poletto 2000)—an idea that naturally leads to the further proposal that the high part of the IP/AgrP is rich and articulated, as advocated in more recent work by Cardinaletti (1997, 2004).

Before moving on to some comments on the themes central to the second part of this volume, let me indicate one last terminological note relative to Part I. Throughout most of the chapters in Part I, following current practice at the time, the term 'topicalization' is used to refer to the process that in the most recent chapters of Part II is labeled 'focalization.' This reflects a terminological shift that occurred in the late nineties with the split-CP cartographic analysis presented in Rizzi's (1997) work on the left periphery. As it is clear from the articles in Part II where the distinction is explicitly assumed, in the most recent cartographic works the term 'topicalization' is reserved to processes involving a topic/given constituent while the term 'focalization' is reserved to those processes where the constituent is focused/new. Since both processes may involve preposing into the left periphery, this may explain the opaque terminology at the time. A clear distinction between the two processes has been made explicit within the cartographic approach, which has reserved for them different positions in the split CP.

PART II: THE SYNTAX OF (SOME) DISCOURSE RELATED STRATEGIES

4 The vP-Periphery

The chapters constituting the second part of this book all reflect recent, up to current research. They revolve around a set of coherent themes among which the central one is the cartographic analysis of postverbal subjects (and of some complement reordering operations). Special attention is devoted to postverbal subjects that are the focus of new information. Chapter 6—‘Aspects of the Low IP Area’—develops the analysis in full detail. The basic proposal there is that, following cartographic guidelines, the low part of the clause should be enriched with an area of discourse-related positions of focus and topic, sometimes labeled a vP-periphery. One of the main aims of the cartographic projects is the design of a detailed and fine-grained map of the clause where not only (head) positions hosting morphosyntactic features are represented in the clausal architecture, but also positions related to discourse. The fundamental insight is that to the extent that a given discourse interpretation strictly correlates with a particular word order, then there must be a dedicated position in the clausal map for that interpretation. As I have also discussed in Belletti (2004b, introduction), this is the way in which one of the core minimalist questions is addressed in cartographic terms: The computational system directly connects to the interfaces through an explicit readability of syntactic structures. Thus, a crucial part of the interpretation related to new versus given information in discourse comes as a consequence of word order variability, since the different positions where a given constituent can appear correlate with different contents in information. The syntax of postverbal subjects in a null-subject language like Italian qualifies as a particularly clear domain where the tight relation between structural position and informational content manifests itself. It is advocated, in Chapters 7—‘Inversion as Focalization and Related Matters’—and 8—‘Extended Doubling and the vP-Periphery’—that the same low portion of the clause is also involved in other clause-internal word order phenomena that have a direct impact on discourse, such as the reordering of verbal complements (building on the approach first developed in Belletti and Shlonsky 1995) and in structures where a lexical subject is ‘doubled’ by a strong pronoun. It is claimed that the reordered complements in the former case and the strong doubling pronoun in the latter illustrate different ways in which the discourse-related vP-periphery can be exploited in different computations. It is proposed in Chapter 10—‘Answering Strategies: New Information Subjects and the Nature of Clefts’—that the same vP-periphery is exploited in the presence of the copula, in instances of subject cleft sentences in those cases where the clefted subject expresses new information. One representative instance of subject clefts of this kind is claimed to be illustrated by French—and other languages manifesting analogous

behaviors—in the context of answering strategies, a domain thoroughly discussed across languages in Chapter 10, and also touched upon in Chapter 9—‘Kinds of Evidence for Linguistic Theory’—see the discussion in section 5. Subsequent work has shown further domains where the low vP-periphery of the clause is activated, such as, for example, *wh-in situ* structures (Kato 2003, on BP). This area of the clause has also been shown to be active both in related languages (Poletto 2006; see also German in Grewendorf 2005) and in languages that are very far apart from Italian or other Romance/Germanic languages, such as Chinese (Tsai 2007; Badan 2007), in a way that is remarkably analogous to the one discussed here for Italian (especially in doubling-type structures of the kind discussed in Chapter 8).

5 Kinds of Data

The content of this book mainly reflects work on syntactic theory and language description that adopts a fairly standard research practice whereby the fundamental empirical source of data comes from grammaticality judgments given by native speakers. However, this is by no means the only possible source of empirical data on which analyses and the explicative value of theoretical hypotheses can be tested and supported. Data from acquisition and pathology can be a very rich source of evidence for linguistic theory. This has been clearly shown by the theoretically oriented work on acquisition and pathology over the last twenty years or so (Hyams 1986; Rizzi 2005; Wexler 1994; Friedmann and Grodzinsky 2000), to cite just some representative works of a by now vast research domain. Over the last ten years or so, I have personally conducted some experimental work, in particular on L2 acquisition, and have analyzed data from acquisition in different modalities (L1, L2, bilingual, SLI), and have also directed much research in these domains conducted by graduate students. This has been one of the most exciting intellectual experiences over the last years that gave me the real sense of a discovery of an immense domain, which is by now an essential source of inspiration. This kind of work is not directly reflected in this volume, but it appears in a more or less indirect way in various places throughout, especially in Chapter 10 on answering strategies. Indeed, as is discussed in the chapter, the research track pursued there has been directly suggested in origin by some experimental work on adult L2 acquisition of the appropriate use of new information postverbal subjects in Italian, at a non-advanced level of attainment (then reconsidered in a wider perspective in Belletti, Bennati, and Sorace 2007 with near-native speakers of Italian). As it is also discussed in Chapter 10, the experimental setting of elicited production is directly usable in language description as well since it provides a controlled source of data, especially important in domains where discourse conditions are directly relevant. Reliable grammaticality judgments are particularly hard to obtain from native speakers in these domains as they require an often heavy imaginative effort on the part of the interviewed

speaker who must figure out the relevant context, which in turn must match the one assumed by the linguist. Indeed, the existence of different answering strategies across languages emerges in a very neat way in the experimental conditions of elicited production adopted, as the results from both Italian and BP discussed in Chapter 10 illustrate (from Guesser's 2007 adaptation of the experiment originally conceived of for Italian). Whereas the elicited answer on the identification of the subject provided by Italian speakers has the subject in the postverbal position (as is also the case in other null-subject languages, e.g., European Portuguese; see also Costa 2004), in BP it has the subject in either the preverbal position, associated with a special prosody (as is also the case in other non-null-subject languages, e.g., English), or in the post-copular position in a variety of subject clefts (as is also the case in other non-null-subject languages, e.g., French), or in a pseudocleft structure. The examples in (1) and (2) illustrate the different strategies revealed by the elicitation procedure in Italian and BP (VS, the variety of clefts/pseudocleft, SV).

(1) Q: Who spoke/has spoken?

IT: A.

Ha parlato un ragazzzo
—has spoken a boy

BP: A.

- a. Foi um rapaz que falou
it was a boy who spoke
- b. Foi um rapaz
it was a boy
- c. Um rapaz que falou
a boy who/that spoke
- d. Quem falou foi um rapaz
who spoke was a boy

(2) Q Who has screamed/coughed?

IT: A

Ha urlato la ragazza
Has screamed the girl

BP: A

Uma senhora tossiu
A lady coughed

The answers provided in the L2 Italian of L1 English or French speakers in the very same experimental conditions characteristically had the subject in the preverbal position associated with a special prosody in the former case, and the subject in the post-copular position of a cleft structure in the latter. Thus, the elicited production reflected the transferring of the L1 prevalent strategy into the L2. The reader is referred to Chapter 10 for detailed analyses and the full development of these ideas. The point I want to stress here is the general conclusion that data from acquisition deserve close attention

in developing linguistic analyses and that often more reliable results can be obtained by incorporating this kind of data into the picture. Moreover, the advantage that can be gained by non-neglecting experimental results in language description should also be kept in mind as a particularly fruitful research guideline, as Chapter 10 discusses in connection with examples such as those in (1) and (2).

Chapter 9 of this volume—‘Kinds of Evidence for Linguistic Theory’—briefly presents three case studies that show the peculiar contribution that data from acquisition (in different modes, as discussed in Hamann and Belletti 2006 and references cited there) can provide to guide and shape linguistic hypotheses. The proposal put forth there is that properties that have been tightly related to the positive or negative setting of the null-subject parameter are actually related in ways partly different from what is currently assumed and to different extents. The possibility of so-called ‘free inversion’—which is, in fact, discourse-related inversion as discussed in Chapters 6 and 10—should be regarded as a weak-type of correlation as the null-subject nature of the language is a necessary but not sufficient condition to allow for it (see also Nicolis 2005), while the *quelqu’un* alternation of French is interpreted as a strong-type correlation in that the shape of the complementizer appears to be directly dependent on the negative setting of the parameter. Data from different modes of acquisition reveal the different status of the two standardly assumed correlations. Finally, on a different domain, it is claimed that the special computations involved in cliticization, also discussed in Chapter 5, combined with the tripartite classification of personal pronouns in the terms proposed in Cardinaletti and Starke (1999) may also be the source of subtle differences in the acquisition of clitic pronouns in two closely related grammatical systems such as French and Italian, which different modes of acquisition appear to manifest.

6 Doubling and the CP Edge. The Status of CPs: Full and Small Clauses

Doubling-type phenomena are a prominent topic throughout this book, both in Part I and in Part II, with emphasis on different aspects. The analysis presented in Chapter 5 for clitic doubling is reconsidered and refined in the more recent Chapter 8—‘Extended Doubling and the vP-Periphery’—in the context of a wider discussion of doubling phenomena, also taking into account quantifiers as in Sportiche’s (1988) influential analysis of quantifier floating, and in the phenomena of subject doubling with a strong pronoun of Italian, already mentioned in section 4. In Chapter 11—‘Pronouns and the Edge of the Clause’—it is assumed that the doubling computation is also at play to yield the phenomenon of Clitic Left Dislocation (CLLD; see the proposal in Cecchetto 2000), and also, in different terms, structures containing a Hanging Topic (HT). The reader is referred to this chapter for an overview of the two phenomena and for the implementation of partly

distinct analyses for them. Here I want to just concentrate on three aspects addressed in this chapter: the proposal that CLLD and HT are more closely related structures than often assumed (Cinque 1977, 1990b), both targeting the left periphery of the clause in partly similar ways crucially involving a doubling computation; the proposal that doubling can be implemented through an iterated DP to the effect that a pronominal portion of the DP comes to fill the *edge* of the CP, and in this position it remains silent (Kayne 2005a; Rizzi 2005); and the idea that the HT constitutes a phase (Chomsky 2005) on its own. These ideas are current research topics, so they are certainly bound to be in need of further refinements and adjustments in the future, possibly even major ones. The hope, however, is that some real interpretive mechanism has been uncovered by the proposed analyses, which may be ultimately at play when a personal pronoun is present in the clause. It is essentially suggested that CLLD, HT, and doubling computations may be more widespread than meets the eye and that they are possibly at work whenever a sentence contains a personal pronoun, since a silent doubled pronoun is present at the CP *edge* in these cases. It is submitted that the fundamental requirements of classical principle B could be a direct consequence of this approach. A systematic investigation of this consequence is left open to future detailed research.

The analysis of the CP left periphery of the clause is directly inspired by cartographic studies throughout this book (Rizzi 1997; Benincà and Poletto 2004; Haegeman 2006; and references cited in Chapters 10 and 11 in particular). Beside the domains mentioned where this portion of the clause is directly implicated, it is proposed in Chapter 10 that the CP can also have a special nature in some cases, and qualifies as a small clause in an updated version of Stowell's (1983) original proposal in terms of 'subjects across categories.' The proposal is that a CP small clause is a CP with an EPP feature. One instance of a CP with this property is the CP complement of the copula in cleft structures (and the complement of perception verbs in the same sense of Guasti 1993). Although small clauses and their possible analysis is a fairly constant research theme of this book throughout both parts (Chapter 2 and Chapter 10, in particular), its discussion in the context of the analysis of cleft sentences conducted in Chapter 10 opens up a new research front that remains prominent in the agenda of future further work.

Part I

Clause Structure and Verb Related Syntax

1 Generalized Verb Movement

1 INTRODUCTION

Recent work in syntactic theory has developed two far-reaching ideas: the extension of the X' -schema to the projection of functional heads (Chomsky 1986a) and a more articulated and abstract conception of sentence structure (Pollock 1989; Chomsky 1989). These two ideas have been shown to interact in a very productive way once they are combined with the general principles of UG. The proposals that head movement processes are Structure Preserving in Emonds' (1976) sense and that they are constrained by the general ECP (Baker 1988) play a crucial role in this connection. Pollock's (1989) article has convincingly shown that, once this set of assumptions is adopted and put into work, previously mysterious phenomena related to word order variations and adverb placement can be given a rational account.

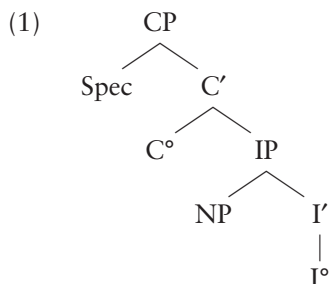
The present chapter is a contribution in the same direction. The syntax of verbs in Italian will be analyzed both in tensed and infinitival clauses. As in Pollock's article, the relative position of the inflected verb and adverbs of different sorts, negation, and floated quantifiers will be interpreted as explicit evidence illustrating the occurrence or nonoccurrence of a verb movement operation, under the fundamental assumption that no special process of adverb movement is at work in the syntax. In order to do that, special attention will be devoted to the empirical issue concerning the determination of the base position of different classes of adverbs. This is indeed a fairly central issue once instances of word order variation involving adverbs and verbs provide arguments revealing the various different scopes of application of V-movement. This investigation will lead us to a fairly articulated typology of different classes of adverbs.

It will be shown that the verbal head systematically moves, in Italian, to the highest inflectional head position assumed, with no difference between tensed and infinitival environments. This generalized application of verb movement gives rise to significant differences with a closely related language like French, which will be discussed throughout the chapter. The proposed analysis also has a direct bearing on different independent issues such as the

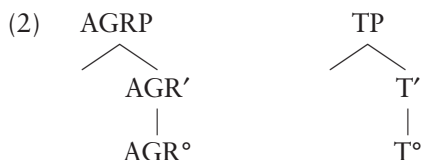
proper analysis of certain kinds of small clauses as complements of perception verbs and related structures and the existence in Italian of absolute past participial clauses with peculiar properties. We will address these topics toward the end. Finally, in the last section, we will present a possible formalization of the V-movement operation in a language like Italian.

2 ON SENTENCE STRUCTURE

In Chomsky (1986a) it has been proposed that the clausal system is not exceptional with respect to the X'-schema but conforms to it. Heads can be attributed to the traditional S' and S , the functional categories $C(OMP)$ and $I(NFL)$ respectively. S' and S are analyzed as the CP projection of C° taking the IP projection of I° as complement, in the sense of X'-theory, as illustrated in (1):



with the Spec of CP position to be filled only through movement and the Spec of IP position identified with the NP subject position. Since this proposal has been put forth, various authors¹ have pointed out that, despite its being an important step toward a constrained conception of sentence structure, it still suffers from some conceptual deficiencies. The major conceptual problem has been recognized in the fact that if I° is a head in the sense of X'-theory, it should not simultaneously contain all the material commonly associated to it, that is to say both agreement features (AGR) and tense features (T), two independent sets of features often distinguished in the verbal morphology of different languages. AGR and T should rather be seen as two independent functional heads. If this is the case, they should give rise to their own projections in terms of the X'-theory:



The most important contribution of Pollock's work has consisted in showing that this conceptual argument has a very explicit empirical correlate. The idea of the existence of two functional head positions containing verbal morphology provides two possible landing sites for the verbal root. This is so under the assumption advocated in Baker (1988) and Chomsky (1986a) that the association of the verbal root with its morphology is obtained through movement of the verbal head into the inflectional head position(s) with a head-to-head type of movement, submitted to the general ECP. A further possibility remains: The verb can be associated with its morphology through Affix Hopping (Chomsky 1957). This gives a fairly articulated range of combinations that turn out to be all attested either within a given language depending on the different structures in which a verb is inserted or across different languages: (a) the association can be done through Affix Hopping, with the affixes lowering to the verbal root; (b) the association can be done in part through Affix Hopping and in part through V-movement, with the verb moving to the first functional head and the remaining affix lowering to the same position; (c) the association can be entirely done through V-movement, with the verb moving to the first functional head position and subsequently to the second. Following the argument originally attributed to Emonds (1978), Pollock has argued that the different scope of V-movement can account for the interlinguistic difference between French and English manifested by contrasts like those in (3) arising in negative sentences:

- (3) a. Jean n'aime pas Marie
 b. *Jean ne pas aime Marie
 c. *John likes not Mary

If the negative adverbs *pas* and *not* occur between an inflectional head and the VP at D-structure, the contrast in (3) overtly shows that the lexical verb moves to the inflectional head in French, while it does not do so in English, where the association is obtained through Affix Hopping.² Verb movement in French seems to follow the same pattern if other adverbs and Floated Quantifiers (FQ) are taken into account:

- (4) a. Jean embrasse *souvent* Marie
 b. Les enfants pleuraient *tous* en même temps
 c. *Jean *souvent* embrasse Marie
 d. *Les enfants *tous* pleuraient en même temps

Adverbs like *souvent* and FQs arguably fill a VP-initial position. A difference relative to the respective position of the verb and the adverbial element or FQ shows up if infinitivals are taken into account. Pollock has pointed out that although the lexical verb does not seem to move across the

negative adverb *pas* it seems to be able to move across adverbs like *souvent* and FQs:

- (5) a. Ne *pas* sembler heureux est une condition pour écrire des romans
 b. *Ne sembler *pas* heureux est une condition . . .
 c. *Souvent* paraître triste pendant son voyage de noce c'est rare
 d. Paraître *souvent* triste pendant son voyage de noce . . .
 (Pollock (1989): (16)a,b; (24)b, (27)b)

These otherwise fairly mysterious facts find a simple and rational account if the assumption is made that the inflectional features to be associated with the verb do not constitute a single functional head but two, AGR and T, respectively. Suppose that the negative adverb *pas*, on the one hand, and adverbs of the *souvent* type and FQs on the other, hang from different levels in the sentence structure, with the former in a position immediately lower than the highest functional head and the latter in an immediately pre-VP position. The contrast internal to French between paradigms (3) and (4), on the one hand, and (5) on the other is accounted for in the following terms: In tensed clauses the verb always moves to the highest functional head position, while in infinitivals it is only allowed to move to the lowest functional head position, the first head that it meets.³ Long movement to the highest functional head gives the order V *pas*, while in order to obtain the order V *Adv/FQ* the shorter movement to the lower functional head is sufficient. These contrasts provide direct empirical support in favor of the idea that the clause should contain (at least) two functional head positions.⁴

2.1 The Respective Position of AGR and T

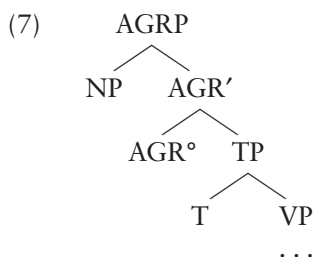
The idea that the combination of the verbal root with its inflectional morphology can occur through the syntactic process of V-movement has the non-trivial theoretical consequence of situating (part of the) morphology within the syntactic component of the grammar. This is in fact one significant result of Baker's (1988) work and his study of incorporation processes, of which V-movement can be seen as a particular instance. This is also the idea advocated in Chomsky (1989). Of course, morphology has a concrete manifestation in the real words of the language. Consequently, it must be the case that the words that result from a syntactic movement process are morphologically well-formed words. V-movement can be no exception to this general requirement.

A central constraint that guides the interplay of syntax and morphology is the principle that Baker (1985) called the 'Mirror Principle,' according

to which in a given word the respective order of affixes that may be present reflects the syntactic derivation of the word, i.e., the order in which the affixation has taken place through syntactic head movement.⁵ Hence, the affix that is closer to the root must be the one that has attached first and so on. Furthermore, given that the affixation is done through head movement that is in turn constrained by the ECP like any other movement process, it must be the case that the first affix in the word is also the one that is closer to the root in the hierarchical tree structure. These considerations immediately open the question of the respective order of the AGRP and TP projection in the clause structure. They also indicate how to interpret the answer coming from the observation of the relevant data: The order of affixes in the resulting inflected verb will reveal their respective order of attachment in the tree. Let us then take an inflected verb in Italian and observe its form. For the clarity of the argument, let us take two forms where the respective order of the affixes is overtly visible through simple observation; this is the case in the imperfect and the future tenses:

- (6) a. Legg-eva-no
 they read (order of affixes: T, imperfect; AGR, 3 person plural)
 b. Parl-er-ò
 I will speak (order of affixes: T, future; AGR, 1 person singular)

As is clear from (6), the respective order of tense and agreement features in the verbal morphology of Italian is the order $T \dots AGR$. We now have a simple but straightforward answer to the question concerning the respective order of T and AGR in the hierarchical tree structure of the clause: T must be lower than AGR.⁶ We then come to the conclusion that, putting aside the possible existence of other (intervening) functional heads, the structure of the sentence in Italian as well as in related languages is as in (7):



According to (7) the traditional S/IP is viewed as an AGRP with AGR taking a TP complement, in the sense of the X'-theory, and where the subject NP fills the position of Specifier of AGR.

3 NEGATION, ADVERBS, FLOATED QUANTIFIERS AND V-MOVEMENT IN TENSED CLAUSES

Let's now check what the shape of Italian tensed clauses is with respect to the occurrence of V-movement. We will examine it by taking into consideration different sorts of items. In particular: negation, 'sentence' adverbs, 'lower' (VP) adverbs, and floated quantifiers.

3.1 Negation

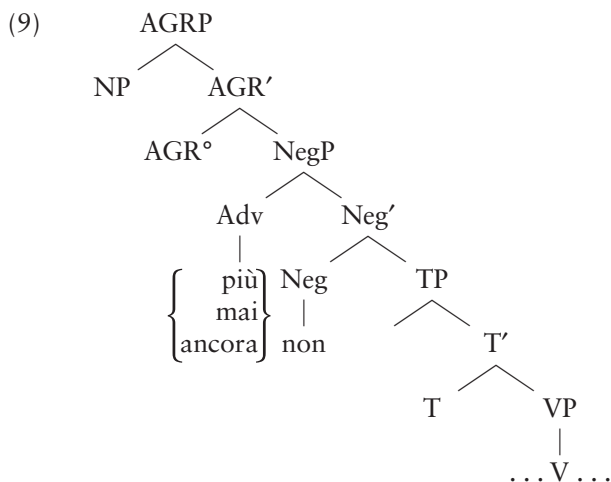
Consider the sentences in (8):

- (8) a. Gianni *non* parla *più*
Gianni does not speak anymore
b. Maria *non* rideva *ancora*
Maria did not laugh yet
c. Lui *non* diceva *mai* la verità
he never told the truth

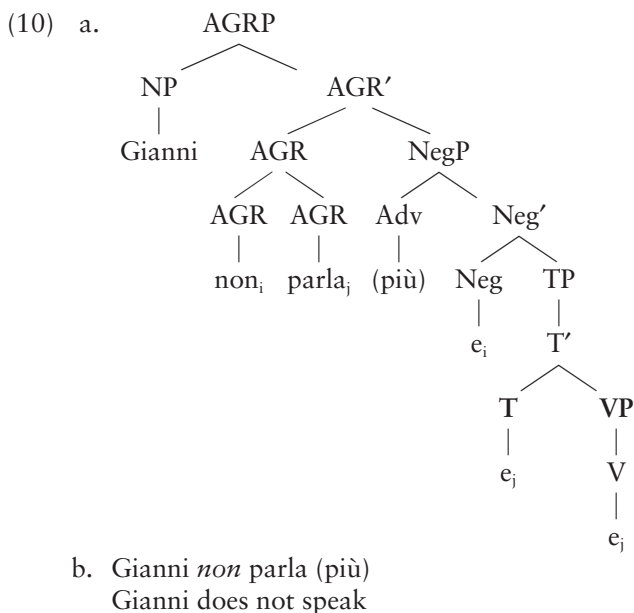
In (8) two negative elements are present: the negation proper *non* and various negative (polarity) adverbs like *più*, *ancora*, and *mai*. Notice that the negative adverbs need not be present to express simple sentential negation in Italian. From this point of view, they are not the exact correspondent of French *pas*, whose presence is obligatory in French negative clauses if no other negative adverb is present, as is well known. We can, nevertheless, maintain that their distribution corresponds to the distribution of *pas*.⁷ If we compare (8) with the French sentences in (3), we remark a complete parallelism: the linear order of constituents is: '... *non/(ne)* V *più*, *ancora*, *mai* (*pas*) ...'. In commenting on (3), we interpreted those sentences as overt evidence of the occurrence of V to I° movement, following the Emonds-Pollock argument. More precisely, adopting Pollock's analysis, negative sentences of this sort can be taken as evidence of the occurrence of movement of V to the structurally highest inflectional position, i.e., AGR, in our system. According to (our reinterpretation of) this analysis, the negative adverbs fill a position to the right of the highest inflectional head AGR at D-Structure. Hence, once the crucial assumption is also made that there is no specific process of adverb movement, the order 'inflected Verb ... negative adverb' can only be arrived at through V to AGR movement.⁸

The following questions arise: Where exactly are the negative adverbs located in the tree structure? What position does the negation *non* fill? Pollock (1989) and other subsequent works have proposed that between the two inflectional heads AGR and T a Negative Phrase may be present in

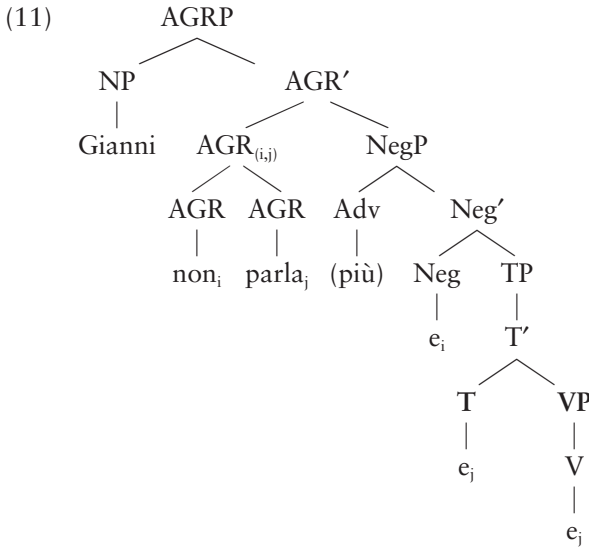
negative clauses. Parallel to French *ne*, Italian *non* can be viewed as the head of this phrase. The negative adverbs in turn can be dealt with as possible specifiers of it. The proposal is synthesized by the tree in (9):



This proposal includes the further hypothesis that the negation *non* is a clitic.⁹ Suppose that, due to its clitic nature, it must move to the AGR position, with a head-to-head type of movement. Assume, for concreteness that this instance of head-movement is left-adjunction to AGR.¹⁰ The derivation of the sentences in (8) then includes the following processes: Neg to AGR; V to T to AGR. Suppose that the movements of V are cases of substitution, in the sense discussed by Rizzi and Roberts (1989). According to this proposal, incorporation of the inflectional morphology within the verb is obtained by substituting the verbal root for a particular slot for which the morphology subcategorizes. Thus, the Tense morphology subcategorizes for the verbal root (V___/T), and the AGR morphology subcategorizes for a V + T (V + T___/AGR).¹¹ Given the combination of the processes just described, the order '*non* inflected V *negative adverb*' is thus obtained. Notice that the same analysis holds for French negative sentences like those in (3). According to this proposal, the difference between Italian and French consists in the fact that the Specifier position of the NegP is *obligatorily* filled (by *pas*) in French and *optionally* filled by negative adverbs like *più* ... in Italian. Thus, when the Spec position of NegP is empty in Italian the result is a clause involving simple sentential negation. The diagram in (10) a. illustrates the proposed derivation for a sentence like (8) a. When the adverb *più* is not present, a possibility indicated by the parenthesis, the result is sentence (10) b.:



Before turning to the study of more complex structures, a potentially serious objection to the proposal just presented should be discussed. The representation (10) a., although empirically adequate, seems to involve a violation of the head movement constraint, that is to say of the ECP: On its way to the AGR position the verb passes over the intervening Neg head, a seemingly unavailable option. Can the derivation be maintained and reconciled with the general principles of syntactic theory or should it be dismissed? The solution to this problem that I am going to adopt is the one presented in Moritz (1989) for French.¹² Moritz's hypothesis consists in claiming that, although *derivationally* incompatible with the head movement constraint, the described derivation still gives a well-formed *representation*. The head movement constraint/ECP being an LF principle, it is the representation resulting from the application of 'Move *a*' that needs to conform to it. Let me propose the following implementation of Moritz's suggestion. As is clear from (10) a., the negation-chain and the verb-chain share the same head: AGR. Let us represent this by attributing to the resulting AGR the pair of indices (i, j), i.e., both the index of the negation and of the verb, as indicated in (11). This sharing of the same head by the two chains is the key to the well-formedness of the representation (11). The proposal can be made explicit through the assumption that the antecedent-government relation that is required to hold between any two members of a chain is defined in terms of non-distinctness from the indexation of the head of the chain. So, the relation of antecedent-government holds between e_i and e_j in (11) because both empty categories have an index non-distinct from the index of the AGR head:



3.1.1 Negation and Complex Tenses

Let us now consider the distribution of negation in tensed clauses containing complex tenses formed by an aspectual auxiliary and a past participle. When simple negation is involved, the distribution completely parallels that of tensed clauses containing simple tenses, which we just discussed. Here as well the negation proper *non* immediately precedes the inflected verb carrying the tense and agreement feature, in this case the aspectual auxiliary:

- (12) a. Gianni *non* ha parlato
 Gianni has not talked (lit: Gianni not has talked)
 b. Maria *non* è uscita
 Maria has not left (lit: Maria not is left)
 c. I ragazzi *non* hanno incontrato i loro amici
 the children have not met their friends (lit: the children not have met their friends)

When negative adverbs are involved as well, two possibilities are available. The negative adverb can intervene between the auxiliary and the past participle:

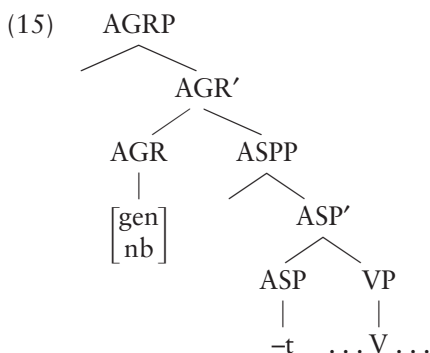
- (13) a. Gianni *non* ha *più* parlato
 Gianni has not talked anymore (lit: Gianni not has anymore talked)
 b. Maria *non* è *mai* uscita
 Maria has never left (lit: Maria not is ever left)

- c. I ragazzi *non* hanno *ancora* incontrato i loro amici
the children have not yet met their friends (lit: the children
not have yet met their friends)

Alternatively, the negative adverb can occupy a position immediately following the past participle:¹³

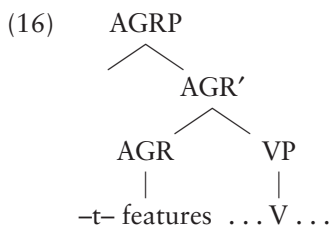
- (14) a. Gianni *non* ha parlato *più*
(lit: Gianni not has anymore talked)
b. Maria *non* è uscita *mai*
(lit: Maria not is left ever)
c. I ragazzi *non* hanno incontrato *ancora* i loro amici
(lit: the children not have met yet their friends)

Before examining (12), (13), and (14) in turn, let us first address the question of what category the past participle is. As discussed also in Chapter 2 (and Chapter 4), and as is independently proposed by Pollock (1989) and Chomsky (1989), a past participle can be viewed as an AGRP, the ‘Object Agreement projection’ of Chomsky (1989). In order to be accurate from a morphological point of view, I will assume that the past participial AGR takes a further functional projection as complement, call it ASPP (‘Aspectual Phrase’). The ASP head contains the past participial inflection proper, *-t* in Italian, and the AGR head contains the typical agreement features of gender and number, which can be either overtly expressed (e.g., *parti-t-il* masc, pl, ‘left’) or realized with the unmarked masculine singular ending (*parla-t-o* ‘spoken’), depending on different syntactic structures. The ASP head takes the VP as complement. According to this analysis the structure of a past participle corresponds to (15):

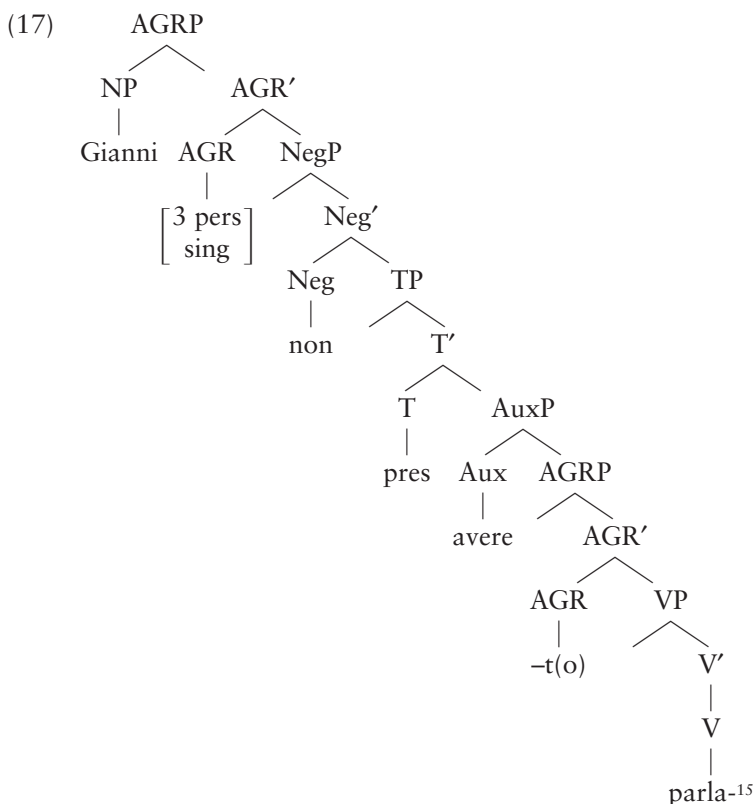


where V moves to ASP and then to AGR to form the past participle.¹⁴

Besides the (few) cases where the presence of both the AGR and the ASP projections could be empirically relevant, in order to simplify the representations I will make use of the simplified structure in (16), keeping in mind that the full representation rather corresponds to (15):

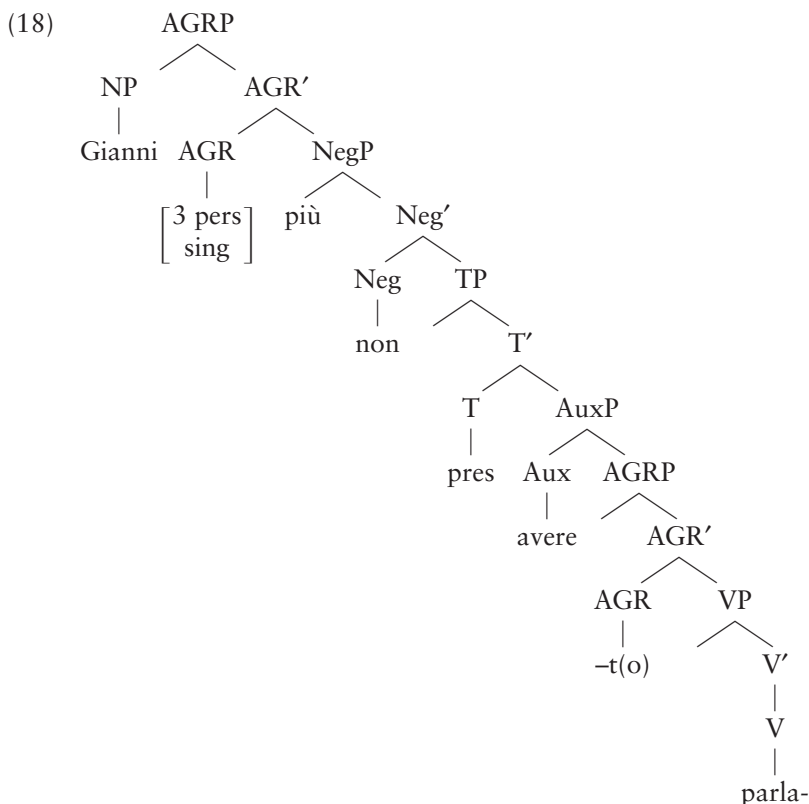


Consider now (12). These sentences can be attributed the same structure as those in (8) and (10) b., modulo the absence of an overt specifier in the Spec position of the NegP and the presence of a past participial AGRP as complement of Aux, as illustrated by (17) for (12) a.:



In (17) *non* must cliticize to AGR through left adjunction, Aux must move to T and then to AGR, V must move to the AGR past participle head.

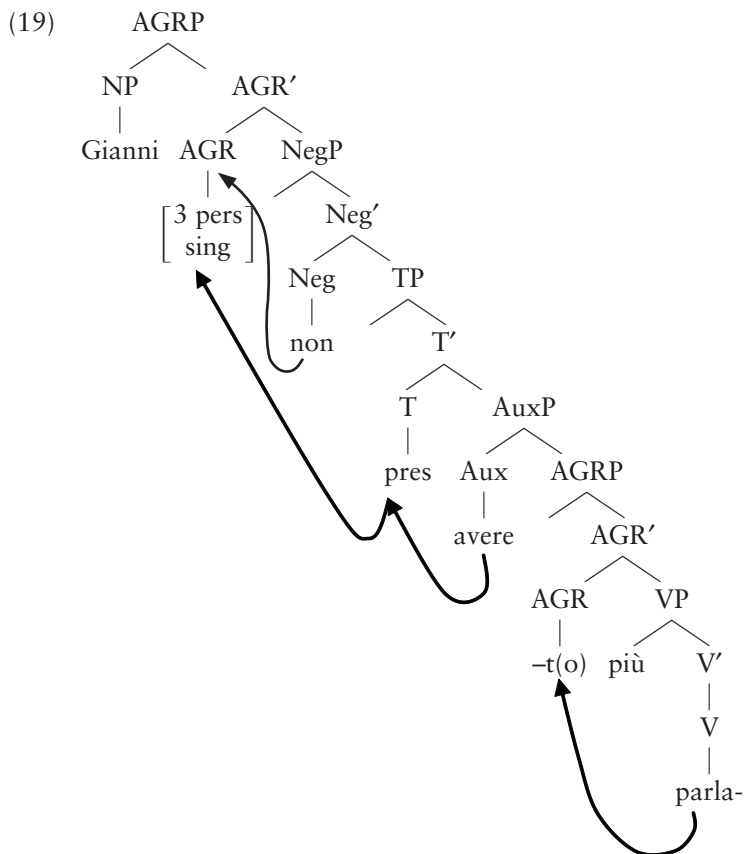
As for (13), its D-structure corresponds to (17) with the Spec of NegP realized as one of the negative adverbs *più*, *mai*, *ancora*, as indicated by (18) for (13) a.:



The same movement processes discussed in connection with (12) a. and (17) take place by giving an S-structure displaying the order 'NP *non* Aux *più, mai, ancora* Pst Prt.'

Consider now (14), whose constituents display the S-structure word order 'NP *non* Aux Pst Prt *più, mai, ancora*.' The question is how to derive the immediate adjacency of Aux and Pst Prt. It seems that if the negative adverbs can only fill the Spec of NegP position, we are left with only one possible analysis: The past participle must incorporate within the Aux. If this is the case, it would then be the complex word 'Aux + Pst Prt' that would move to the highest AGR position generating the desired word order. Of course, this analysis requires non-trivial qualifications in order to ensure that the inflectional endings of Tense and Agreement end up on the auxiliary in the final structure. Alternatively, we could suggest that negative adverbs are also allowed to fill a different position in the clause structure. A possible candidate would be the VP-initial position, which is a possible adverb position, filled by adverbs like *spesso* (often). If this is the case there is no need to assume the occurrence of the incorporation process in order to obtain the desired word order. We could assume that the NegP has no overt realized Spec and that the negation regularly moves to the AGR position and the

Aux as well, and the V moves to the past participial AGR position past the VP-initial negative adverb. The preposed structure is given in (19) for (14) a. and the associated derivation is indicated by the arrows:¹⁶



The question whether the analysis in (19) is more adequate than the analysis assuming the Aux + Pst Prt incorporation is an empirical question that cannot be answered unless further data are considered. Notice that the two analyses make two very different general predictions: Given a sequence 'NP Aux Adv Pst Prt,' with Adv equal to an adverb of different kinds, the incorporation hypothesis predicts that the order 'NP Aux Pst Prt Adv' will always be available as well, no matter which base position the adverb fills, provided that it is a position lower than the AGR head. On the other hand, if no process of 'Aux + Pst Prt' incorporation is assumed to be available, the prediction is that the order 'NP Aux Pst Prt Adv' can only be obtained in case the adverb in question fills the VP-initial position (as we assumed for *più* . . . etc.). If it fills any position higher than VP, the final order of constituents will always be 'NP Aux Adv Pst Prt.' We will verify these two predictions shortly.

Notice that, should we end up concluding that no process of Aux + Pst Prt incorporation is available in general, an analysis along the lines of (19) will have to be adopted in order to account for the sentences in (14) displaying the word order 'NP *non* AUX Pst Prt *più, mai, ancora*.' Hence, the choice between the two possible analyses of (14) depends upon the study of the syntax of different sorts of adverbs.

Before closing this discussion, we might notice that independent crosslinguistic evidence that negative adverbs of the type discussed may also fill a VP-initial lower position is provided by French data like (20), presented by Pollock (1989):

- (20) (?) Pierre dit ne manger *plus/point* (= (125b))
 Pierre says not to eat anymore/ at all

which, French internally, contrast with infinitival sentences involving simple negation where *pas* can never follow the infinitive, as in (21) b.:

- (21) a. Pierre dit *ne pas* manger
 Pierre says not to eat (lit: Pierre says *ne pas* to eat)
 b. *Pierre dit *ne manger pas*
 lit: Pierre says *ne* to eat *pas*

Of course, next to (20), (22) is also possible (and in fact more natural):

- (22) Pierre dit *ne plus/point* manger
 lit: Pierre says not anymore/at all to eat

What is directly relevant to our discussion is the contrast between the relative well-formedness of (20) and the complete impossibility of (21) b. This contrast seems to indicate rather neatly that negative adverbs like *plus* . . . have the possibility of filling a relatively low position in the clause structure, a position lower than the one occupied by the (obligatory) negative adverb *pas* and that could be identified with the VP-initial position.¹⁷

3.1.2 *Positive Adverbs in Assertive Clauses*

A distribution significantly parallel to the one identified for the negative adverbs is manifested by a number of adverbs that have the semantic function of reinforcing the assertive value of the sentence, which have been recently discussed by Lonzi (1989).¹⁸ These are adverbs like *già, sempre, ben*:

- (23) a. Maria parlava *pur/ben/già/sempre* di lui¹⁹
 Maria spoke indeed/already/always . . . of him
 b. Maria ha *pur/ben/già/sempre* parlato di lui
 Maria has indeed/already/always . . . spoken of him

The natural hypothesis to account for their distribution consists in claiming that these adverbs are the ‘positive’ counterpart of the negative adverbs discussed in the preceding paragraph. This naturally leads us to assume that in ‘positive/assertive’ clauses a Positive Phrase (PosP) is present whose Spec is filled by one of the adverbs listed above.²⁰ Given this hypothesis, their distribution is predicted through the same set of assumptions introduced in connection with the discussion of the NegP. A crucial property of the PosP, which distinguishes it from the NegP, is the fact that its head is not phonologically realized. It is thus a phrase with an empty head. This should be true of Italian and other familiar languages as well. Notice furthermore a certain similarity between a PosP with an empty head and a lexical Spec and the NegP of English, which also has an empty head and a lexical Spec (i.e., *not*) (see Moritz 1989 and Rizzi 1990b for discussion).²¹

The parallelism between the NegP and the PosP is in fact quite tight. Consider in particular the behavior of an adverb like *ben(e)* illustrated by the contrast in (24):

- (24) a. Gianni avrà *ben* risposto
 Gianni will have indeed answered
 b. *Gianni avrà risposto *ben(e)*
 Gianni will have answered indeed

(24) a. is a well-formed sentence, while (24) b. is not, if the adverb is to be interpreted as a positive adverb. (24) b. is irrelevantly well-formed with *bene* interpreted differently, as a manner adverb equivalent to English *well*. But the positive adverb reading is not available. The contrast in (24) can be directly accounted for through the PosP idea assuming that *ben(e)* can only fill the Spec of PosP position. Indeed, the contrast in (24) strongly recalls the well-known contrast manifested by French negative clauses as those in (25):

- (25) a. Jean n’aura *pas* répondu
 Jean will have not answered
 b. *Jean n’aura répondu *pas*
 Jean will have answered not

The contrast in (25) is accounted for by the fairly uncontroversial assumption that *pas* can only be in the Spec of NegP position. See also the discussion in 3.1.1. Thus, Italian seems to have an exact positive correspondent of the French negative *pas*.²²

Consider now a sentence like (26) and compare it with (24) b.:

- (26) Gianni avrà parlato *ben* di lui
 Gianni will have talked indeed about him

In order for the contrast between (24) b. and (26) to receive a coherent account we have to assume that *ben* is here directly adjoined to the following PP, instantiating the familiar modification relation. This analysis is confirmed by the possibility of preposing the whole sequence '*ben* + PP', illustrated by a sentence like the following:

- (27) E' *ben* di lui che Gianni avrà parlato
It is indeed of him that Gianni will have talked

A PosP and a NegP should, of course, be in complementary distribution in the clause. This accounts for the impossibility of the following sentences (respective order of the adverb irrelevant):

- (28) a. *Maria non parlava più *pur/ben/già* di lui²³
Maria not talked anymore indeed . . . of him

We might finally also point out that *già* and *sempre*, contrary to *ben(e)* and *pur(e)*, can also fill the Spec of NegP position thus acquiring a negative interpretation (on the mechanism that insures this interpretation see section 3.3). The following contrasts are accounted for by this hypothesis:

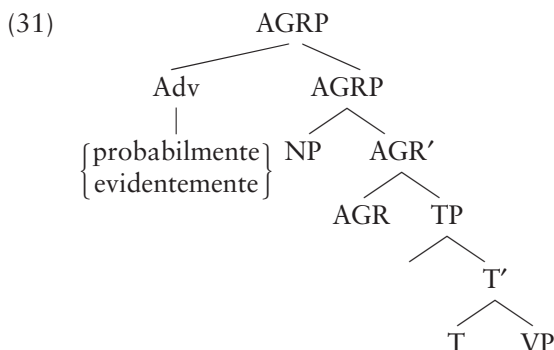
- (29) a. Maria non parlava *già/sempre* di lui
lit: Maria not talked already/always of him
b. Maria non ha *già/sempre* parlato di lui
lit: Maria not has already/always talked of him
c. *Maria non parlava *pur/ben* di lui
lit: Maria not talked indeed . . . of him
d. *Maria non ha *pur/ben* parlato di lui
lit: Maria not has indeed . . . talked of him

3.2 Sentence Adverbs

Adverbs like *probabilmente* are classified as sentence adverbs by Jackendoff (1972). Distributionally, they typically fill a position at the very beginning of the sentence, over which they have scope:

- (30) a. *Probabilmente* Gianni telefonerà alle 5
probably Gianni will call at 5
b. *Evidentemente* Gianni partirà
evidently Gianni will leave

This can be paraphrased with sentences like: 'It is probable that . . .', 'It is evident that . . .'. Sentences like (30) can be attributed the structure in (31), with the adverb adjoined to the highest functional projection of the clause over which it has scope:



Although the clause initial position of (30) can be considered their typical location, these adverbs may also fill other positions in the clause. Abstracting away from clauses containing a complex tense formed by an aspectual auxiliary and a past participle, to which we will turn in the following section, *probabilmente*-type adverbs can also fill a position immediately following the preverbal subject, as in (32) a., or a position at the very end of the sentence, as in (32) b.:

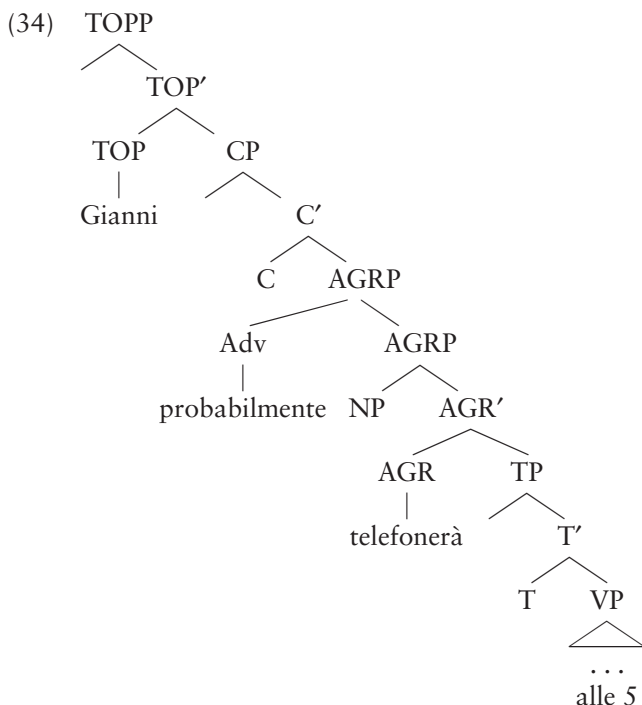
- (32) a. Gianni *probabilmente* telefonerà alle 5
 Gianni probably will call at 5
 b. Gianni telefonerà alle 5, *probabilmente*
 Gianni will call at 5, probably

As for (32) b., the comma is meant to indicate that, in this kind of sentence, a quite perceptible pause must occur between the adverb and what precedes it.²⁴ This can be taken as an indication that the sentence structure is somehow broken in (32) b., with the adverb filling a right peripheral position, the same position filled by right dislocated phrases. According to this interpretation, sentences like (32) b. are derived structures. The derivation should be the same as the one involved in clauses with right dislocation of some phrase:

- (33) L'ho visto ieri, Gianni
 I saw him yesterday, Gianni

In (33) the right dislocated phrase is the direct object NP and a clitic pronoun referring to it appears in the sentence. Lack of any clitic in (32) b. is due to the fact that adverbs have no pronominal counterpart.²⁵

Consider now (32) a. I would like to propose that sentences of this type are derived structures as well. In this case the adverb occupies its typical clause initial position and the subject is in a left peripheral position, left dislocated or topicalized; let us identify this position with the TOP position of Chomsky (1977):²⁶



Evidence in favor of this proposal comes from sentences whose subject is an indefinite quantifier like, for instance, *nessuno*. Since an indefinite quantifier cannot be left dislocated (see the following),²⁷ if our analysis of (32) a. is correct we predict that in the case of a *nessuno* subject only the topicalization structure should be available. In Cinque (1990b) it is shown that topicalization is always focal in Italian. On the use of the term “topicalization” see the remark in the Introduction. With this in mind, consider now (35) where a clear contrastive stress is necessary on the *nessuno* subject:

- (35) a. NESSUNO probabilmente telefonerà alle 5²⁸
 nobody probably will call at 5
 b. Dicono che NESSUNO probabilmente telefonerà alle 5
 they say that nobody probably will call at 5

If the subject were simply in the canonical Spec of AGRP subject position, it would not be so easily understood why this peculiar intonation should be required. But this is exactly what is expected if these structures require left dislocation or topicalization of the subject, hence just topicalization in case the subject is an indefinite quantifier.

Notice that, given the proposed analyses for the examples in (32), we are left with the interesting conclusion that adverbs of the *probabilmente* type have one base position in the sentence structure: the clause initial position.²⁹

No special process of adverb movement is advocated to account for the different surface orders, which are obtained through the application of general syntactic processes, such as topicalization, or left and right dislocation. In the former cases it is the subject NP that is involved, in the latter it is the adverb itself. Lack of special rules only concerning adverbs is of course a welcome result, in the spirit of a principled approach to phenomena of word order variations. Finally, it should be pointed out that, according to the proposed analyses, the distribution of sentence adverbs turns out to play a neutral role with respect to the issue of determining the scope of application of the verb movement process. The different possible orders are not a function of verb movement.

3.2.1 *Comparative Remarks*

Some comparative remarks are appropriate at this point. As has been pointed out in Pollock (1989) and as has been discussed in Kayne (1989b), sentences word-for-word identical to the Italian (32) a. are possible in English and impossible in French:

- (36) a. John probably likes linguistics
- b. *Jean probablement aime la linguistique

Kayne assumes that this contrast is a consequence of the fact that, as in the original Emonds-Pollock analysis of negation, V does not raise out of VP in English as it does in French. Hence, the ungrammaticality of (36) b. is due to the fact that V has not raised out of VP, to the highest functional head, contrary to what it must do in a language like French. However, Kayne points out that, as also noticed in Pollock (1989), the situation is more complicated in that the same contrast is preserved with complex tenses containing an auxiliary and a past participle:

- (37) a. John probably has made several mistakes
- b. *Jean probablement a fait plusieurs erreurs

But it is well known that auxiliaries raise out of VP in English as they do in French. Hence the contrast in (37) is not expected, in that (37) a. should also be impossible, but it is not. In order to account for this unexpected asymmetry Kayne proposes a system that includes the following two assumptions: a) *probably/probablement* are base generated between the first and the second functional head in the clause structure, b) auxiliaries (as lexical verbs) raise to the highest functional head position in French but they stop at the lowest one in English. This makes the right predictions on paradigms like (36) and (37).³⁰ Then, according to Kayne's interpretation, the different word orders in French and English are a function of the different scope of the V-movement process in the two languages. Besides its attractive

simplicity (but see note 30), this hypothesis leaves the Italian facts that we just discussed unexpected. If the order ‘Subject *probably/probabilmente/probabilmente* V’ is a function of V-movement, we would expect Italian to pattern with French rather than with English. Both in Italian and French the verb uniformly raises out of VP in general, contrary to English. But, as we saw in (32) a., in these structures Italian patterns with English and not with French. If, on the other hand, the relevant order is not interpreted as a function of verb movement but of topicalization of the subject in a sentence with a clause initial sentence adverb, the fact becomes much less mysterious. It is well known (although the reason is not understood) that no topicalization process is available in French. However, it is also well known that such a process is available in English and Italian (although with different characteristics). Hence, if topicalization is involved in these structures, it comes as no surprise that, in this case, Italian and English cluster together, leaving out French.³¹ This contrast between French and English may in fact constitute supplementary indirect evidence in favor of the topicalization analysis of these structures.

3.2.2 *Sentence Adverbs and Complex Tenses*

Let us now examine the distribution of sentence adverbs in clauses where an auxiliary and a past participle are present to form a complex tense. Of course, the clause initial position is always available, as we expect, it being the base position of this class of adverbs according to the analysis just developed:

- (38) a. *Probabilmente* Gianni ha sbagliato
 probably Gianni has mistaken
 b. *Evidentemente* Maria ha rivelato il segreto
 evidently Maria has told the secret

As we also expect given the preceding discussion, the immediate post-subject position and the clause final position are available as well:

- (39) a. Gianni *probabilmente* ha sbagliato
 Gianni probably has mistaken
 b. Maria ha rivelato il segreto, *evidentemente*
 Maria has told the secret, evidently

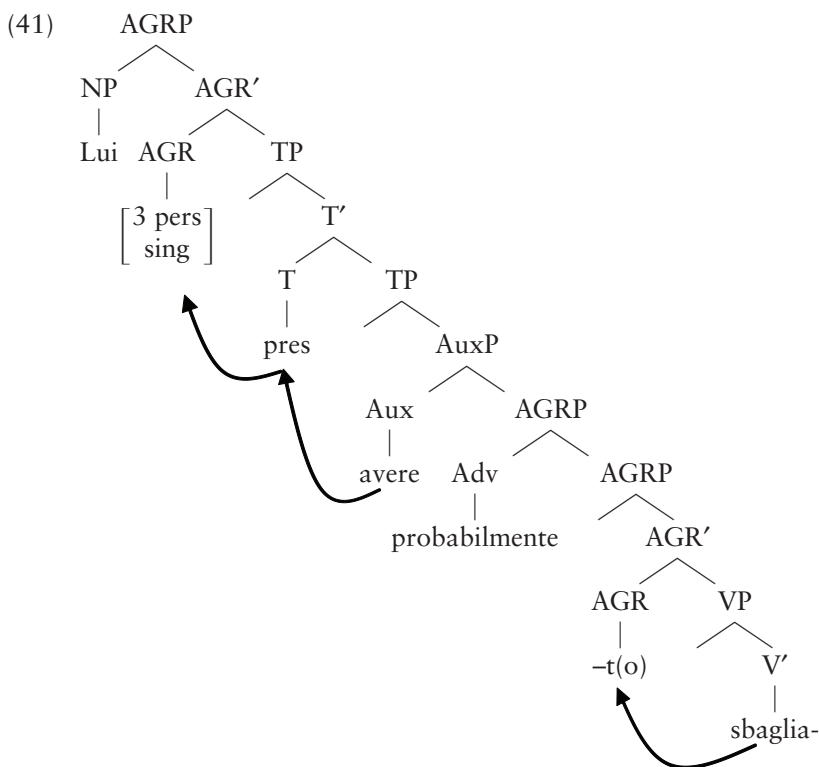
The sentences in (39) display the same pattern as those in (32); hence they naturally undergo the same analysis.

The range of distributional possibilities is wider in sentences containing a complex tense: The adverb can also appear between the auxiliary and the past participle, as illustrated in (40):

- (40) a. Lui ha *probabilmente* sbagliato
 He has probably mistaken
 b. Maria ha *evidentemente* rivelato il segreto
 Maria has evidently told the secret

A number of options come to mind to account for this word order. I will first discuss two, which do not involve any construction-specific statement. Let us call them analyses A and B. After presenting A and B we will consider some comparative data involving English and French. They will lead us to propose a further alternative analysis, call it C, which will prove more adequate crosslinguistically.

3.2.2.1. *Analysis A* According to this hypothesis, the following definition of sentence adverb could be assumed: A sentence adverb is an AGRP modifier. This definition immediately provides us with a further position for *probabilmente*-type adverbs in sentences containing a complex tense. Recall in fact that we analyzed the past participle as an AGRP. Hence, the past participle qualifies as a phrase that can be modified by an adverb of this class. Let us consider what the structure would be for a sentence like (40) a. (D-structure positions indicated; derivation illustrated by the arrows):



(40) a. is directly obtained through familiar application of the movement of Aux to the highest AGR and of V to the past participial AGR.

Despite its simplicity, analysis A appears to be empirically inadequate. Consider sentences where both a negative adverb like *più* and a sentence adverb like *probabilmente* appear. Only one reciprocal order of the two adverbs is available, the one where *probabilmente* precedes *più*:

- (42) a. Gianni non ha probabilmente più sbagliato
 Gianni has not anymore probably mistaken
 b. *Gianni non ha più probabilmente sbagliato
 Gianni has not anymore probably mistaken

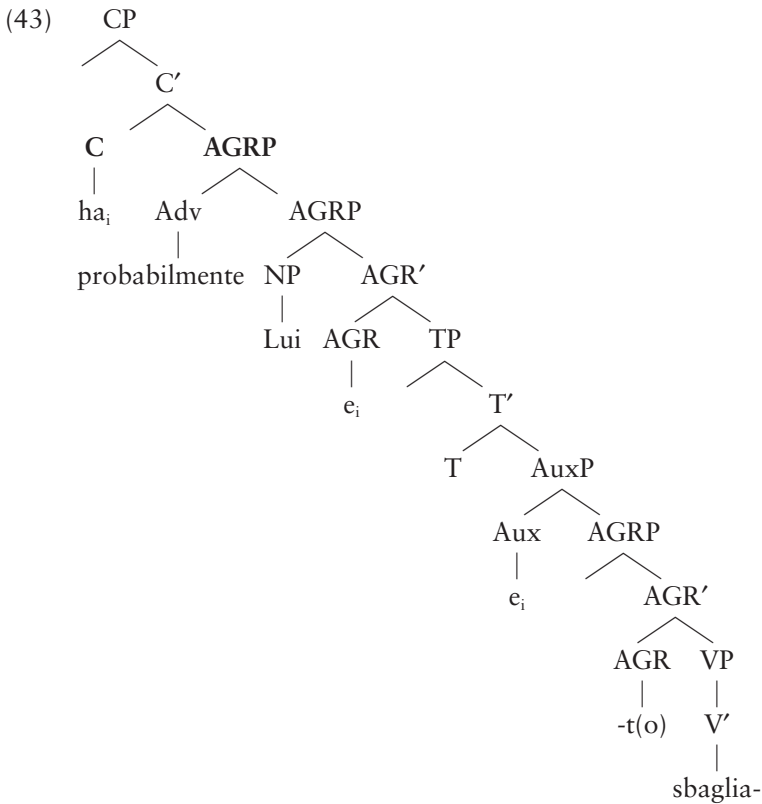
Given A, *probabilmente* can modify the past participle AGRP. This means that it ought to be lower than *più* in the tree structure. This would in turn predict that *più* should precede *probabilmente* in the linear string; hence the grammaticality judgments should be reversed in (42). Let us now consider the alternative analysis B.

3.2.2.2. *Analysis B* This second line of inquiry assumes that only the clause initial position is available to sentence adverbs. If we put this hypothesis together with the background assumption that no special adverb movement rule is available in general, we have to reach the conclusion that the word order displayed by (40) is obtained through the application of some syntactic processes affecting both the subject NP and the auxiliary. Where might the subject and the Aux be? Let us address these two questions separately starting from the one concerning the auxiliary. A natural site for the auxiliary to move to is the C° position, of which AGRP can be taken to be the complement also in root clauses.³² Movement of Aux to C° also conforms to the head movement constraint/ECP. It will yield the representation in (41). Here the subject is in the Spec of AGRP subject position, as indicated in (43) (see next page).

(43) corresponds to the ill-formed sentence (44):

- (44) *Ha probabilmente lui sbagliato
 has probably he mistaken

The impossibility of (44) can be taken to be at the source of the necessity for the subject to fill a position different from the canonical subject position. What could the reason for the impossibility (44) be? Assume the inability of the auxiliary in C° to Case-mark the subject in Spec of AGRP. Some observations are in order to support this proposal. Notice first of all that an auxiliary in C° *can* in some circumstances mark for nominative Case a subject filling the subject position. This is what we see in the so-called



AUX-to-COMP construction (Rizzi 1982), involving gerund or infinitival auxiliaries, illustrated in (45):

- (45) a. Avendo lui sbagliato troppe volte, fu escluso dalla gara
 having he mistaken too many times, he has been eliminated
 from the race
 b. Ritenevano aver lui sbagliato troppe volte
 they believed to have he mistaken too many times

However, if a sentence adverb like *probabilmente* intervenes between the auxiliary and the subject, the acceptability decreases considerably:

- (46) a. *?Avendo probabilmente lui sbagliato troppe volte . . .
 b. *?Ritenevano aver probabilmente lui sbagliato troppe volte

The reason ruling out (46) can be lack of nominative Case on the subject NP assuming that some adjacency condition on Case assignment (à la Stowell 1981) is operative for Case assignment under government. The

intervening adverb breaks the necessary adjacency in (46).³³ We might then assume that the same lack of adjacency rules out (44). However, although this fact might contribute to increase the complete unacceptability of (44), it cannot be the only reason for it if we also consider the impossibility of (47), which is identical to (44) except for the absence of the adverb:

- (47) *Ha lui sbagliato troppe volte
has he mistaken too many times

This suggests that nominative cannot be assigned under government by the finite auxiliary in C° altogether, contrary to the gerundival and infinitival auxiliary.³⁴ Lack of nominative Case on *lui* can then be considered the source of the impossibility of (44) and (47).

If the subject cannot occupy the canonical subject position once Aux is in C°, which position does it fill? It must fill a left peripheral (e.g., TOP) position, where it can be Case-marked in the way left peripheral phrases are Case-marked in general. Suppose it is either left dislocated or topicalized. Can we decide whether just one option is available or both? In principle, if topicalization (Chomsky 1977; Cinque 1990b) involves some kind of operator-vbl relation at LF, we would expect topicalization not to be available because the variable would fill the Spec of AGR subject position that, as we saw, is not a Case position, hence not a possible variable position.

On the other hand, left dislocation can be available assuming that a (silent clitic-like, expletive) *pro* originating in subject position can be licenced. How could *pro* be licenced in this non-Case position? An answer to this question can come from the system developed by Friedemann (1990) in his study of French interrogatives. In Friedemann's analysis it is assumed that *pro* can satisfy the Case-theoretic requirement it is subject to through incorporation within the verb (here the auxiliary) in C°; in so doing the same mechanism that Rizzi and Roberts (1989) assume to overtly operate with French subject clitics in inversion constructions is utilized. Hence, left dislocation but not topicalization of the subject is possible in principle.³⁵ This prediction seems to be empirically correct if we consider that next to (40), where the subject is a referential NP, (48) is not available, where the subject is the indefinite quantifier *nessuno*:

- (48) *?Nessuno ha probabilmente sbagliato troppe volte
nobody has probably mistaken too many times

Although (48) might not be perceived as ungrammatical as a first reaction, there is a widespread consensus among speakers that it is impossible to associate an appropriate intonation (parenthetical aside) to this sentence, which in turn entails the impossibility of attributing a felicitous interpretation to it. It is well known that indefinite quantifiers cannot be left dislocated

(see also the discussion earlier). If left dislocation is the only way available to obtain the order 'Subject Aux *probabilmente* Pst Prt,' the impossibility of (48) and its contrast with the well-formedness of (40) come as no surprise.

Moreover, the unavailability of the topicalization intonation for (48) comes as no surprise either given that topicalization is not possible in this structure. (48) also almost minimally contrasts with examples like (35), repeated here as (49), where topicalization is the only available intonation:

- (49) NESSUNO probabilmente sbaglierà
nobody probably will mistake

The status of sentences containing *nessuno* as subject and displaying the order 'Subject Aux *probabilmente* Pst Prt' allows us to draw some conclusions concerning the evaluation of hypotheses A and B as we have formulated them. Only hypothesis B has something to say on the contrast between (40) and (48). Hypothesis A would be silent on it. According to A, there is no need to think that what appears to be a subject does not fill the Spec of AGRP subject position in these structures. But if this is the case it would not be understandable why the nature of the subject, referential NP or indefinite quantifier, should make any difference. Also with respect to the facts mentioned in (42) concerning the cooccurrence of *probabilmente* and a negative adverb (*più*), B seems superior to A. According to B, as a sentence adverb, *probabilmente* will always be higher than other clause-internal adverbs; hence, (42) could not be generated. At this stage, then, B looks more adequate than A. Let us now consider some comparative data.

The analysis B just presented seems to work fairly neatly for Italian. However, things look more complicated as soon as we take into consideration French and English, which both display a paradigm like the Italian one. The order 'NPsub Aux *probably/probablement* Pst Prt' is admitted when the subject is a referential NP, but is excluded when it is a negative quantifier:

- (50) a. John has *probably* left
b. *?Nobody has *probably* left
c. Jean a *probablement* abordé le problème
d. *?Personne n'a *probablement* abordé le problème

It is especially hard to see how the English paradigm could be amenable to a left dislocation analysis in the terms discussed for Italian, involving a silent *pro* in subject position. French would not be easily amenable to the same analysis either. Moreover, the consideration of a further fact contributes to complicate the picture. It appears to be the case that if the subject is a non-negative indefinite quantifier, the acceptability of sentences equivalent to (50) b. and d. improves significantly:

- (51) a. Everybody has *probably* left
 b. Chacun a *probablement* abordé le problème

Indeed, an equivalent judgment is obtained in Italian as well. The acceptability of the following (52) contrasts with (48):

- (52) Ognuno ha *probabilmente* sbagliato qualcosa

In other words, the relevant structure is problematic only when the indefinite subject is a negative quantifier. And this is true across the three languages considered. This state of affairs suggests that the interpretation that we have formulated in terms of the analysis B for the Italian paradigm must be revised. B would in fact predict that no difference in status should exist between the unacceptable (48) and the well-formed (52) as an indefinite quantifier cannot be left dislocated in general, irrespective of its negative or non-negative nature.

Suppose that the relevance of the negative versus non-negative nature of the quantified subject is accounted for on independent grounds. Still, the facts in (50) lead us to conclude that a different hypothesis should be put forth to account for the possibility of the word order 'NPsub Aux *prob.* Pst Prt' in the three languages considered.

The first option that comes to mind would be to propose a kind of variant of the preceding hypothesis A, call it A', and assume that, contrary to what was discussed in 3.2, sentence adverbs like *probabilmente* can either be clause initial, as proposed so far, or can also be base generated between the two first functional heads of the clause structure. This amounts to a proposal along the lines of Kayne's (1989a), which does not run into the empirical problem of our previous hypothesis A concerning cooccurrence with negative adverbs and resulting in the contrast in (42). However, A' is not empirically adequate either. If sentence adverbs have this further base position, it is hard to see how the generation of impossible sentences like the following (53) in Italian and French would be blocked:³⁶

- (53) a. *Gianni partirà *probabilmente*
 Gianni will leave probably
 b. *Jean partira *probablement*

On the basis of the data concerning negation and negative adverbs we concluded, following the classical argumentation, that V has to move to the highest functional head position. But if this is true with respect to negation, it has to be true in general; hence (53) should be possible, contrary to fact. How is the relevant word order going to be obtained then? I want to propose and adopt the analysis C presented in the following subsection.

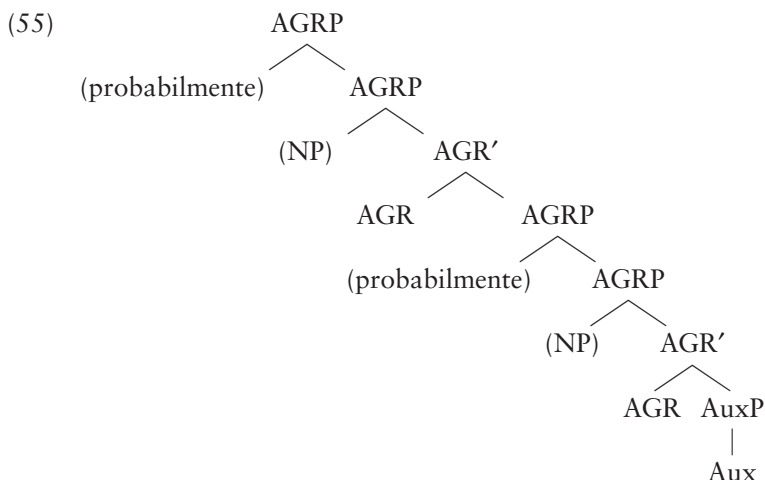
3.2.2.3 *Analysis C* According to C, sentence adverbs can indeed have a further base position in addition to the clause initial one and this further base position can be located between the first two functional heads. However, this would only be possible when an auxiliary is present in the clause. We can claim more precisely that when an auxiliary is present in the sentence, one further functional head can be present in the clause structure as well. What would this further functional head be? To what extent is its postulation in cooccurrence with an auxiliary plausible? Let us phrase the proposal in the following terms.

Suppose that structures containing an auxiliary exploit a possibility left open by UG, i.e., free recursion of AGRP. An AGR head, and its projection, can be recursively generated. However, only one occurrence of AGR is filled with morphological agreement-type features. We take this contentive AGR to be the first, i.e., the lowest in the clause structure. All other eventually present AGR heads must then be empty. The subject should fill the highest Spec of AGRP position, whose AGR is lexicalized (i.e., contains a verb). Using Chomsky's (1989) terminology, we can see this AGRP recursion as a recursion of what he calls AGRP(S). It appears to be the case in general that only auxiliaries are allowed to move to an empty AGR.³⁷ This claim is justified on empirical grounds by familiar English data on V-movement and by as familiar French data on V-movement in infinitival clauses. Only auxiliaries are allowed to raise out of VP in these two classes of cases:

- (54) a. I have not come
 b. *I come not
 c. Jean dit n'avoir pas parlé
 Jean said to have not talked
 d. *Jean dit ne parler pas
 Jean said to talk not³⁸

Given the clause structure assumed here, the Aux movement illustrated by (54) a. and c. is to be interpreted as movement to an empty AGR.

Now, if free recursion of AGRP is allowed, this has the immediate consequence that only an auxiliary will be able to move to an empty AGR head, higher than the contentive AGR. This has a direct impact on the word order issue at stake here. It is sufficient to say that a sentence adverb like *probabilmente* can freely modify any AGRP(S). If it modifies the highest, the final word order will only be: 'probabilmente NPsub Aux Pst Prt.' If it modifies an AGRP(S) lower than the highest, the word order 'NPsub Aux *probabilmente* Pst Prt' will become available, with Aux filling the highest and empty AGR.³⁹ The following tree summarizes the proposal:



The possibility in standard Italian of 'Aux-to-COMP' type structures like the following might constitute further evidence in favor of an analysis along the lines of C:

- (56) Avendo lui probabilmente sbagliato troppe volte . . .⁴⁰
 having he probably mistaken too many times . . .

If, given familiar assumptions (Rizzi 1982), the subject *lui* in (56) receives nominative Case from the auxiliary in C°, this implies that it should not fill a TOP position. It should rather fill the canonical subject position. Then (56) cannot be derived from a base structure involving a clause initial adverb and a topicalized subject. Indeed, the fact that *probabilmente* can follow the subject strongly suggests that the sentence is derived by moving Aux to C° from a base structure displaying the word order 'NPsub Aux *prob* Pst Prt.' But a structure of this kind not involving topicalization of the subject is only available when Aux is present, and this is an option under C.

Let us then maintain that an analysis along the lines of C accounts for the word order issue.

Before concluding this discussion, we must provide an explanation for the further issue raised by the contrast in acceptability judgments between sentences like (51) and (52) on one side and (48) and (50) on the other, which we left open. Why is a negative quantifier impossible as the subject of clauses displaying the word order 'NPsub Aux *prob* Pst Prt'? An answer to this question, which interacts in an interesting way with the analysis just proposed, can come from the consideration of the French data in (57):

- (57) a. *?*Probablement* Jean lira ces livres
 Probably Jean will read these books
 b. *Probablement* que Jean lira ces livres
 Probably that Jean will read these books

The (quasi) impossibility of (57) a. indicates that in French the sentence adverb is not allowed to remain in what we consider its base position, i.e., the clause initial position. The fact that only (57) b. is perfectly natural indicates that the adverb moves in the syntax in French. The natural analysis of (57) b. is that it moves to the Spec of CP position, where C° is realized as the declarative complementizer *que*. I will assume that an analysis along these lines accounts for the French paradigm. The most natural way of interpreting the nature of this movement is to regard it as a kind of 'scope assignment' process. It would then seem natural to assume that sentence adverbs undergo movement in general. What is peculiar to French is that the movement can (must) be syntactic. However, what French can perform overtly other languages do at the level of representation where scope is generally assigned, i.e., LF. Notice that if this analysis is adopted, an immediate explanation suggests itself to account for the contrast at issue between (51) and (52) and (40) and (50), repeated here for convenience, in (58) and (59):

- (58) a. Everybody has probably left
 b. Chacun a probablement abordé le problème
 c. Ognuno ha probabilmente sbagliato troppe volte
- (59) a. *?Nobody has probably left
 b. *?Personne n'a probablement abordé le problème
 c. *?Nessuno ha probabilmente sbagliato troppe volte

The unacceptability of the set of examples in (59) can be interpreted as an instance of 'inner island' effect induced by the presence of the negative subject. It can be accounted for along the following lines, in terms of a Relativized Minimality violation. Suppose, as we just said, that the adverb must move to the Spec of CP position at LF; suppose furthermore that the negative subject too must move to an A'/Spec-like position at LF, presumably located within the AGRP projection, due to its negative nature.⁴¹ If this is the case, the presence of the (moved) negative subject would interfere with the LF movement of the adverb to the Spec of CP position. Of course, no interference effect is expected when a non-negative subject is present because it would not undergo the same sort of LF movement to an A'/Spec-like position. It should also be noted that no interference effect giving rise to a RelMin violation is expected even if a negative subject is present if the adverb is clause initial (e.g., *Probabilmente nessuno è partito* 'probably nobody left'). In this case there exists a well-formed derivation where movement of the adverb to the Spec of CP position does not interfere with the presence of the (moved) negative subject: First the adverb is moved to the Spec of CP position, then the negative subject is moved in turn.⁴²

3.3 More on Aux + PstPrt and Negative Adverbs

Let us briefly come back to the issue raised in 3.1.1 concerning the correct analysis of the sequences ‘Aux+PstPrt’ found in sentences like (14), repeated as (60):

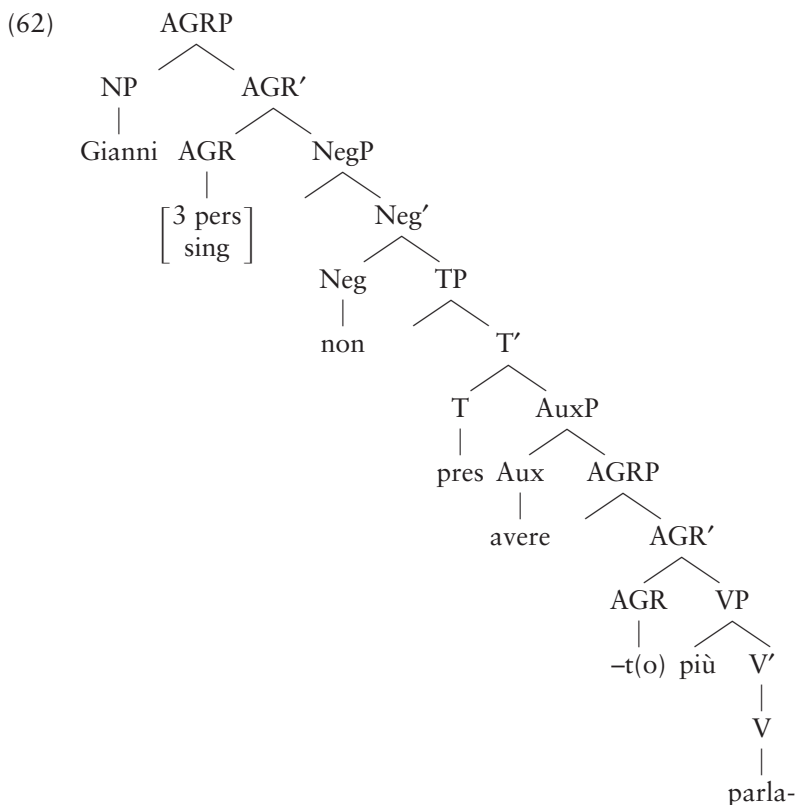
- (60) a. Gianni *non* ha parlato *più*
 Gianni has not talked anymore
 b. Maria *non* è uscita *mai*
 Maria has never talked
 c. I ragazzi *non* hanno incontrato *ancora* i loro amici
 the children have not met their friends yet

We left the following question open: Is the immediate adjacency of Aux and PstPrt due to the fact that the past participle is incorporated within the auxiliary or is it just an instance of simple adjacency of the two items with no incorporation involved? Remember that, if the latter were the case we would have to assume that negative adverbs like *più*, *mai*, and *ancora* can also fill a lower position as the VP-initial one illustrated in the representation (18), beside the Spec of NegP position illustrated in (11) and (17). We are now in a position to answer this question. The independent empirical material that we needed is provided by the class of sentence adverbs like *probabilmente* that we just discussed. As we have seen in the examples in (40), sentence adverbs can surface in a position between the aspectual auxiliary and the past participle. As was pointed out earlier, if the incorporation idea was correct, the general prediction would be that each time the order ‘Aux Adv PstPrt’ is a possible option, the order ‘Aux PstPrt Adv’ should be an option as well, as is indeed the case with the negative adverbs. But this is *not* what happens with sentence adverbs. In fact, next to the examples in (40), sentences like (61) are totally impossible:

- (61) a. *Lui ha sbagliato *probabilmente*
 he has mistaken probably
 b. *Maria ha rivelato *evidentemente* il segreto
 Maria has told evidently the secret⁴³

The ungrammaticality of (61) can be interpreted as direct evidence against the idea that the sequence Aux+PstPrt can form a unit/word, with the past participle incorporated within the auxiliary. We then conclude that there is no such process of incorporation operating in Italian.

As for our original question, we should then also conclude that in sentences like (60) the negative adverb does not fill the Spec of NegP position, but rather is in a lower position, like a VP adverb, as in the representation (19), repeated in (62) for (60) a.:



This conclusion is also consistent with the crosslinguistic evidence discussed by Pollock (1989) in the examples reported in (20), repeated in (63):

- (63) (?) Pierre dit ne manger *plus/point*
 Pierre said not to eat anymore/at all

(63) should be interpreted as an instance of V to T, an option available in French infinitivals.⁴⁴

Although empirically adequate, the analysis in (62) opens a new question. One interesting property of Moritz's (1989) implementation of the NegP idea and the analysis of negation in French is the fact that the necessary cooccurrence with negation of an element like *pas* is viewed as a simple direct consequence of the fact that within the NegP, of which *pas* is the specifier, the general process of Spec-head agreement takes place: The head being the negation *ne*, the specifier *pas* acquires its negative character by virtue of being in agreement with *ne*. It would certainly be most welcome if indeed the kind of negative polarity nature of certain items could generally be reduced to the fact that they are found in Spec of NegP and hence in an

agreement relation with the negation. Of course our conclusion concerning the possibility of negative adverbs like *più* being lower/VP adverbs is at odds with this desideratum. The question then is: Is it possible to reconcile our empirical findings with the conceptually valuable conclusion that necessary cooccurrence with negation is contingent upon agreement within NegP? The question can be given a positive answer if we assume that agreement within NegP is also allowed to take place in LF, and if we furthermore allow negative adverbs like *più* to move into Spec of NegP at LF. The proposal can be phrased as follows: Negative adverbs can either be S-structure specifiers or LF specifiers of NegP. When they are LF specifiers, they are lower/VP adverbs at S-structure, as in (62). According to this proposal, at LF all clauses containing a negative adverb will have it in Spec of NegP; they will then all look in this regard as the representation in (11) and (18). This analysis has the empirical advantage of immediately predicting that cooccurrence of more than one negative adverb per negation should be excluded, as is in fact the case. Consider in this respect the following examples in (64):

- (64) a. *Maria *non* ha *più* parlato *mai* con Gianni
 lit: Maria not has anymore talked ever with Gianni
 b. *Maria *non* ha *mai* parlato *più* con Gianni
 lit: Maria not has ever talked anymore with Gianni

These sentences have a well-formed S-structure with one negative adverb in Spec of NegP and the other in the VP-initial position. However, given the aforementioned proposal, their LF is not well-formed: Assuming that movement into Spec of NegP is a case of substitution within an empty slot, there is no position available where the second negative adverb could move. Hence, the second adverb cannot have the negative interpretation.⁴⁵ This being the only interpretation it is eligible for, the sentences are ungrammatical because they cannot be associated with a well-formed LF. Interestingly enough, if we deal with VP adverbs that are not negative adverbs, sentences displaying a word order exactly parallel to the one in (64) are perfectly grammatical. Take examples like those in (65) involving the VP adverb *spesso*, which will be discussed in detail in 3.4:

- (65) a. Maria *non* ha *più* parlato *spesso* con Gianni
 lit: Maria not has anymore talked often with Gianni
 b. Maria *non* ha *mai* parlato *spesso* con Gianni
 lit: Maria not has ever talked often with Gianni

The sentences in (65) are well-formed because *spesso* is not a negative adverb; as such it does not need to move into Spec of NegP at LF. Hence, no incompatibility is expected to arise with the presence, at –S-structure, of a negative adverb in this position.⁴⁶

3.4 'Lower' Adverbs

With the term 'lower' adverbs I refer to those adverbs that are located lower than negation (negative adverbs) in the clause, and that do not typically appear clause initially, contrary to sentence adverbs. Subtle distributional non-uniform behaviors further differentiate the members of this wide class. Without trying to arrive at a detailed typology, I will rather consider more closely two cases in point and use them as an illustration. The cases to be looked at are those of *completely* (completely) and *spesso* (often). See the contrast between a. and b. in (66) that shows that *spesso* is lower than a negative adverb in the clause structure:

- (66) a. Non ha *mai* parlato *spesso* con te
 he has never talked often with you
 b. *Non ha *spesso* parlato *mai* con te
 he has not often talked ever with you

Given a sentence containing a transitive verb, they can both appear between the verb and the direct object:

- (67) a. Quel medico risolverà *completamente* i tuoi problemi
 that doctor will completely solve your problems
 b. Quel medico risolverà *spesso* i tuoi problemi
 that doctor will often solve your problems

A direct way of characterizing these data, which follows the Emonds-Pollock original line of argumentation, consists in claiming that the base position of these adverbs is somewhere in front of the VP; we will specify the precise location in the following. The order is then obtained through movement of the verb out of the VP.

Both adverbs can appear at the very end of the sentence:

- (68) a. Quel medico risolverà i tuoi problemi *completamente*
 that doctor will solve your problems completely
 b. Quel medico risolverà i tuoi problemi *spesso*
 that doctor will solve your problems often

These facts indicate that the sentence final position is also a possible base position for these adverbs. Assume, for concreteness, that they have the option of being adjoined to the right of the VP. Two important differences exist in the distribution of the two adverbs: *spesso*, contrary to *completamente*, can also appear clause initially and in a position immediately following the subject. The relevant contrasts are illustrated in (69):

- (69) a. *Spesso* Gianni sbaglia
 often Gianni makes mistakes
 b. Gianni *spesso* sbaglia
 Gianni often makes mistakes
 c. **Completamente* Gianni sbaglia
 completely Gianni makes mistakes
 d. *Gianni *completamente* sbaglia
 Gianni completely makes mistakes

It seems reasonable to propose that the two differences can be reduced to a single one in the sense that the possibility of having a certain distribution entails the possibility of having the other and vice versa; if a distribution is unavailable the other will be unavailable too. I would like to propose that the primitive possibility is the one instantiated by (69) a., where the adverb is clause initial. This location is not the basic one, though, for these adverbs that, as we saw earlier, occupy a relatively low position in the clause structure.⁴⁷ It must then be a derived position. Suppose that sentences of this kind involve topicalization of the adverb *spesso*. On the other hand, an adverb like *completamente* seems unable to topicalize. How should (69) b. be analyzed then? Let us propose that, besides a topicalized *spesso*, (69) b. also involves a left dislocated subject. Of course, if an adverb like *completamente* cannot be topicalized, a sentence displaying the order in (69) c. cannot be obtained.⁴⁸ Can it be shown that the idea of considering sentences like (69) a. as involving topicalization of the adverb *spesso* is empirically correct? The question is important at this point given that the proposed account is based on this primitive difference between *spesso* and *completamente*. We can answer affirmatively. Notice that if *spesso* is topicalized when it is clause initial we expect that no other phrase of the sentence that follows the adverb can be topicalized in turn. This is so because topicalization cannot affect more than one constituent per sentence. And indeed a sentence like the following (70) containing a topicalized direct object and a clause initial *spesso* is unacceptable:

- (70) **MARIA spesso* Gianni incontra in vacanza
 Maria often Gianni meets on vacation
 (cfr. *Spesso* Gianni incontra Maria in vacanza/Often Gianni
 meets Maria on vacation)

It remains unacceptable if the subject 'Gianni' immediately precedes *spesso*:

- (71) **MARIA* Gianni *spesso* incontra in vacanza
 MARIA Gianni often meets on vacation

If *spesso* stays in its lower base position the resulting sentence involving topicalization of the direct object is perfectly well-formed:

- (72) MARIA Gianni incontra *spesso* in vacanza
lit: MARIA Gianni meets often on vacation

The unacceptability of (70) and (71) is thus reduced to the unacceptability of sentences like (73) that involve two topicalized phrases:

- (73) *IL LIBRO A MARIA Gianni ha dato
THE BOOK TO MARIA Gianni has given

Notice that if, in order to account for (69) a., we were simply ready to claim that *spesso* could also be a clause initial adverb, besides the implausibility of the proposal, we would be left with no explanation for the ungrammaticality of (70). As a matter of fact, sentence adverbs can cooccur with topicalization of some phrases with no problem. Consider in this respect the sentences in (74):

- (74) a. MARIA *probabilmente* Gianni incontrerà
 MARIA probably Gianni will meet on vacation
 b. MARIA *evidentemente* Gianni incontrerà in vacanza
 MARIA evidently Gianni will meet on vacation

We have claimed that the order ‘S(subject) *spesso* VP’ illustrated by (69) b. is obtained through left dislocation of the subject in a structure containing a topicalized *spesso*. Let us now consider sentences with an indefinite quantifier as subject. As was already discussed, indefinite quantifiers cannot be left dislocated. Now, if the analysis of (69) b. as involving left dislocation of the subject NP is correct, we expect that the order ‘S *spesso* VP’ should be unavailable when the subject is an indefinite quantifier. Indeed, we observe the contrast in (75):

- (75) a. Qui *spesso* nessuno/ognuno parla
 here often nobody/everybody talks
 b. *Qui nessuno/ognuno *spesso* parla
 here nobody/everybody often talks

The contrast between the perfect status of (75) a. and the unacceptability of (75) b., which is in fact uninterpretable, is quite sharp. It follows directly from the hypothesis that in order to obtain the ill-formed word order the negative quantifier should be left dislocated: an unavailable option.

The impossibility of sentences like (75) b. is important for the central issue at stake here concerning the location of adverbs like *spesso*. One might have thought, at first sight, that sentences like (69) b. should not be analyzed as involving any particular derivational process but that they simply illustrate the availability of a further (base) position for this class of adverbs between the subject and the AGR head. Examples like (71) already showed

the inadequacy of this hypothesis: If *spesso* could simply fill a position between the subject and AGR, why should topicalization of the direct object be impossible? One would not understand at all why the position of *spesso* should play any role in conditioning the possibilities of topicalization. As we have just seen, the idea that *spesso* in this kind of sentence is topicalized in turn directly accounts for this interplay. The impossibility of (75) b. provides us with the second logical half of the argument: it clearly shows that the order 'S *spesso* VP' necessarily involves left dislocation of the subject.

The reduction of examples like (69) a. to instances of topicalization of the adverb that in turn entails the analysis of (69) b. as involving further left dislocation of the subject makes the right predictions on the facts just discussed. It also has a direct bearing on the issue concerning the occurrence of verb movement in Italian (tensed) clauses, central to this work. Notice that, on the basis of simple considerations of word order, one might have interpreted the possibility of examples like (69) b. as direct evidence against the idea that verb movement occurs in these structures at all. The simple consideration of the superficial word order would be compatible with an analysis where the subject NP is in subject position, the verb is in its D-structure position inside the VP, and *spesso* is in some pre-VP position. If this were the case, examples of this kind would clearly show that verb movement is not a generalized, obligatory process in Italian (tensed) clauses. Of course, the question would remain as to why its application should be suspended in exactly these cases. This issue does not arise, though: The facts we discussed in this section clearly show that such an analysis cannot be maintained and that the derivation of sentences like (69) b. involve more processes than meet the eyes. As a matter of fact, the total impossibility of sentences involving *completamente* like (69) d., combined with the observation that this adverb cannot be topicalized, as in (69) c., can be interpreted as straightforward evidence for the obligatory occurrence of verb movement to AGR in Italian tensed clauses.

3.4.1 *Word Order and Extraction*

Consider furthermore the following: An important and yet surprising prediction is made by the analysis that assumes that left dislocation of the subject is involved in clauses displaying the superficial word order 'NPsub *spesso* VP'. It is a relatively well-established fact that clauses involving left dislocation of some constituent are islands with respect to movement processes. This is illustrated by the relative ill-formedness of (76) c. and d. derived through wh-extraction from the clause containing a left dislocated direct object:

- (76) a. Quel libro, Gianni lo regalerà a sua figlia
that book, Gianni will give it to his daughter
- b. Penso che quel libro Gianni lo regalerà a sua figlia
I think that that book Gianni will give it to his daughter

- c. *?A chi quel libro Gianni lo regalerà?
to whom that book Gianni will give it
- d. *?A chi pensi che quel libro Gianni lo regalerà?
to whom do you think that that book Gianni will give it?
- c' a chi [_{TOPP} quel libro [_{CP} [_{AGRP} Gianni lo regalerà—]]]
- d' a chi pensi [_{CP} che [_{TOPP} quel libro [_{CP} [_{AGRP} Gianni lo regalerà—]]]]]

A subadjacency interpretation of the reason of the impossibility of c. and d. is directly suggested by the representations, with the extracted constituent crossing at least the CP and TOPP barriers in c' and TOPP and two CP's barriers in d'. Now, if clauses displaying the word order 'NPsub *spesso* VP' involve left dislocation of the subject they should qualify as islands much as the sentences in (76) do. Indeed, we find that the facts confirm this prediction.⁴⁹ Consider the contrasts in well-formedness illustrated by the following examples:

- (77) a. Con chi dicevi che Gianni parla *spesso*?
with whom did you say that Gianni talks often
- b. *?Con chi dicevi che Gianni *spesso* parla?
with whom did you say that Gianni often talks
- c. E' a Maria che Gianni telefona *spesso* in questo periodo
it is to Maria that Gianni telephones often in this period
- d. *?E' a Maria che Gianni *spesso* telefona in questo periodo
it is to Maria that Gianni often telephones in this period

(77) a. and b. involve wh-extraction to form an interrogative, (77) c. and d. involve extraction of an operator to form the cleft sentence. The only superficial difference between the well-formed a. and c. and the ill-formed b. and d. consists in the position of the adverb *spesso*: postverbal in the good cases, preverbal in the bad cases. The bad cases are those that, according to our analysis, would involve left dislocation of the NP subject (beside a topicalized *spesso*):

- (78) a. Con chi dicevi [_{CP} che [_{TOPP} Gianni [_{CP} [_{TOPP} spesso [_{CP} [_{AGRP} parla—]]]]]]]
- b. E' a Maria [_{CP} che [_{TOPP} Gianni [_{CP} [_{TOPP} spesso [_{CP} [_{AGRP} parla—]]]]]]]

A subadjacency violation of the kind illustrated by the previous examples in (76) takes place here. The analysis of the word order 'NPsub *spesso* VP' as involving left dislocation of the subject makes the correct prediction on the different extraction possibilities of the sentences in (77), despite their superficial close similarity.⁵⁰

3.4.2 *Lower Adverbs and Complex Tenses*

The location of lower adverbs in sentences containing complex tenses makes explicit which position they fill in the clause structure. We notice the following distribution:

- (79) a. Quel dottore ha risolto *spesso* i tuoi problemi
lit: that doctor has solved often your problems
b. Quel dottore ha risolto *completamente* i tuoi problemi
lit: that doctor has solved completely your problems
c. Marla ha parlato *spesso* con Gianni
lit: Maria has talked often with Gianni
d. Maria ha chiuso *completamente* con quel lavoro
lit: Maria has finished completely with that job

In (79) the adverbs can be analyzed as VP-initial adverbs. The order ‘Aux PstPrt *Adv*’ is directly obtained by moving the verb to the past participial (AGR) head. In this movement, the adverb is left behind. This is the same derivation we proposed in 3.3 to obtain the same order with negative adverbs in cases like (14). The following sentences in (80) are also well-formed: They represent cases where the adverb is VP final, as in the examples in (67) involving a non-complex tense:

- (80) a. Quel dottore ha risolto i tuoi problemi *spesso*/
completamente
that doctor has solved your problems often/completely
b. Maria ha parlato con Gianni *spesso*
Maria has talked with Gianni often
c. Maria ha chiuso con quel lavoro *completamente*
Maria has closed with that job completely

Things are somewhat more complex when we consider the further potential location of the adverb between the auxiliary and the past participle. We expect it to be impossible: If the adverb is a VP adverb, it should not be able to precede the past participle given that the past participle morphology is located higher than the VP. It seems that this is in fact the case for *spesso*, (but see note 51):

- (81) a. *?(A quella riunione) Gianni ha *spesso* parlato
(at that meeting) Gianni has often talked
b. *?(In quelle circostanze) Gianni ha *spesso* sbagliato
(in those circumstances) Gianni has often mistaken⁵¹

Completamente functions differently, though. Its location between the auxiliary and the past participle gives a perfect result. The following (82) sharply contrasts with (81) b.:

- (82) (In quelle circostanze) Gianni ha *completamente* sbagliato
(in those circumstances) Gianni has completely mistaken

This suggests that an adverb like *completamente*, although a lower adverb in the sense defined earlier, can also fill some higher position than the VP (initial) position, contrary to what happens with an adverb like *spesso*.⁵² Different possible locations compatible with the data come to mind: The adverb could be adjoined to the past participial AGRP or to the TP projection. I leave the particular question concerning the choice between different alternatives open, assuming for concreteness TP adjunction. To summarize, both lower adverbs like *spesso* and *completamente* are VP (initial or final) adverbs; *completamente* has the further option of being a TP adverb as well. This range of possibilities in combination with the operation of verb movement gives the attested distributions.

3.5 Floated Quantifiers

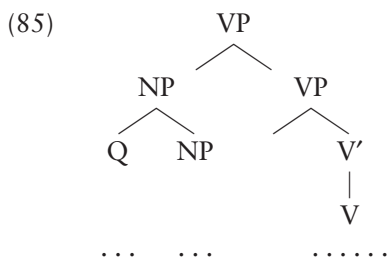
The distribution of FQs coincides with that of VP-initial VP adverbs that we just discussed. In simple tenses an FQ immediately follows the inflected verb and precedes the complements:

- (83) a. Gli invitati salutarono *tutti* Maria
lit: the guests greeted all Maria
b. Gli invitati parlarono *tutti* con Maria
lit: the guests talked all with Maria

The location of the FQ before the inflected verb gives an ill-formed output:

- (84) a. *Gli invitati *tutti* salutarono Maria
the guests all greeted Maria
b. *Gli invitati *tutti* parlarono con Maria
the guests all talked with Maria.

The contrast between (83) and (84) can be interpreted as directly showing, once again, the obligatory occurrence of verb movement in Italian tensed clauses, assuming that: FQs always fill a VP-initial position. We can in fact assimilate the distribution of FQ to that of VP-initial VP adverbs in a most straightforward way by adopting Sportiche's (1988) analysis of the FQ phenomenon. According to Sportiche's account, the basic properties of FQs, most notably their anaphoric nature, can be derived from the following two assumptions: All subjects are generated VP-internally at S-structure and a FQ is a modifier of the subject NP. The D-structure of a VP containing a subject NP modified by a quantifier has the shape of (85):



The subject NP fills a VP-adjoined position (V max in Sportiche's formulation, and in Koopman and Sportiche 1991), and the modifying quantifier is adjoined to the NP subject itself.⁵³ In Sportiche's account, the NP has to move to a position where it can be Case-marked. That is why at S-structure it fills the typical subject position, which we have here identified with the Spec of AGRP position. In this movement the modifying quantifier can remain in place.⁵⁴ That is how the quantifier and the NP can be separated while still being connected from the point of view of the interpretation. If we adopt this analysis, the assimilation of the behavior of FQs to that of VP-initial VP adverbs immediately follows from the fact that they have the same D-structure location for the relevant respects. Hence, the contrast between (83) and (84) is direct evidence of the obligatory occurrence of verb movement. (Although, of course, it is neutral evidence with respect to the question of which functional head the verb ends up filling.)

3.5.1 *FQs and Complex Tenses*

FQs fill the VP-initial position at S-structure. Hence, given the structure that we associate with complex tenses, the possibility of sentences like those in (86) follows immediately, assuming movement of the verbal root to the past participial morphology, as is systematically the case:⁵⁵

- (86) a. Gli invitati hanno salutato *tutti* Maria
 lit: the guests have greeted all Maria
 b. Gli invitati hanno parlato *tutti* con Maria
 lit: the guests have talked all with Maria

As we noticed earlier, a VP-initial modifier should not be able to be found in a position between the auxiliary and the past participle at S-structure. This is so given that the past participial morphology is higher than VP. Although this is not the preferred location, an FQ can appear between the auxiliary and the past participle. Next to (86), (87) is also admitted:

- (87) a. (?)Gli invitati hanno *tutti* salutato Maria
 the guests have all greeted Maria
 b. (?)Gli invitati hanno *tutti* parlato con Maria
 the guests have all talked with Maria

These examples might still not be very significant to check our point, given that they involve a relatively 'heavy' VP and could be amenable to a different analysis given the discussion of note 51. More significant is the following contrast:

- (88) a. *?Loro hanno *spesso* riso
 they have often laugh
 b. (?)Loro hanno *tutti* riso
 they have all laugh

Although, as we discussed earlier, the location of the adverb *spesso* between the auxiliary and the past participle (of a short VP) does not produce a well-formed output, as in (88) a., the same location of an FQ gives a fairly acceptable result, as in (88) b. How are we going to interpret this contrast? Once more, it can be made to follow from the analysis of FQ that we are assuming, following Sportiche's (1988) theory. Suppose that in its movement to the highest Spec position in the clause structure the subject NP originating in the VP is allowed to pass through the various Spec positions that it finds on its way. It is in fact hard to see how to stop this possibility.⁵⁶ Suppose furthermore that the modifying quantifier is allowed (more or less naturally, subject to individual variation) to stop in any such Spec position freely. It then follows that if it stops in the Spec position of any projection higher than the past participial head (AGR) where V moves, the output S-structure word order will be the one in (81) b., i.e., *Aux FQ PstPrt*.⁵⁷

In summary, the data that we discussed in this section concerning the interaction between the location of the inflected verb and different classes of adverbs, including negation, sentence adverbs, lower/VP adverbs, and FQs in tensed clauses, all point to the same conclusion. Besides the individual complexities of each class that may sometimes obscure the transparency of the relevant facts, the verb can be shown to systematically move out of the VP and in particular to the highest inflectional head position of the clause structure in Italian, which we have identified with the AGR head.

4 INFINITIVAL CLAUSES

Interestingly enough, the study of the interaction between the location of the infinitive verb and the adverbial elements of the classes we have seen and FQs shows a strict parallelism with the situation we have detected in tensed clauses. Let us proceed to a detailed analysis of the data.

4.1 Negation

Let us take infinitival sentences like those in (89) where both the negation proper and the negative adverbs are present. The distribution is identical to

the one of tensed clauses that we saw in the examples in (8) with the negation proper preceding the verb (here in the infinitive form) and the negative adverbs following it:

- (89) Gianni ha deciso di non tornare *più/mai/ancora*
lit: Gianni has decided yo not come back anymore/ever

The distribution coincides with that of tensed clauses when the infinitive contains a complex tense as well, as illustrated in (90):

- (90) a. Gianni sostiene di *non* essere uscito
lit: Gianni claims to not have gone out
b. Gianni sostiene di non essere *più/mai/ancora* uscito
lit: Gianni claims to not have anymore/ever gone out
c. Gianni sostiene di non essere uscito *più/mai/ancora*
lit: Gianni claims to not have gone out anymore/ever

The complete parallelism of the infinitival paradigm and the tensed paradigm naturally leads to the conclusion that the derivation of the infinitival form of the verb proceeds in the same way as that of the finite form with the verbal root moving to the highest inflectional head AGR. Particularly relevant in this respect is a sentence like (90) b. The fact that the negative adverbs *più*, *mai*, and *ancora* are located between the auxiliary and the past participle indicate that they cannot be analyzed as lower/VP adverbs, as they must be in (90) c.; see the discussion of (14) earlier. In (90) b. they must be higher than the past participial AGRP. As we know from previous discussion, the other position that they have available is the specifier position of NegP. Then, the fact that the auxiliary precedes the negative adverbs is overt evidence that it has moved to the highest AGR head. As in tensed contexts, movement of the verb to the highest AGR is mandatory; next to (90) b. we cannot have (91):

- (91) *Gianni sostiene di *non/più/mai/ancora* essere uscito
lit: Gianni claims to not anymore/ever/have gone out

A completely parallel paradigm is found with verbs that do not take any overt complementizer,⁵⁸ as, say, *potere*, *volere*, and *dovere*. Consider (92) instantiating *potere*:

- (92) a. Gianni potrebbe *non* aver parlato *mai*
lit: Gianni could not (to) have spoken ever
b. Gianni potrebbe *non* aver parlato *mai*
lit: Gianni could not (to) have ever spoken
c. *Gianni potrebbe *non mai* aver parlato

Analogous paradigms are found in subject infinitivals:

- (93) a. Non aver *più/mai* parlato è stata una scortesia
 Not to have anymore/ever talked was not kind
 b. *Non *più/mai* aver parlato è stata una scortesia
 Not to anymore/ever have talked was not kind

Notice furthermore that those adverbs that in 3.1.2 we dealt with as being the Spec of a PosP present in assertive-declaratives give rise to a parallel distribution in infinitival clauses as well. Consider (94), (95), and (96):

- (94) a. Gianni sostiene di aver *pur* parlato
 Gianni claims to have indeed talked
 b. *Gianni sostiene di *pur* aver parlato
 Gianni claims to indeed have talked
- (95) a. Gianni potrebbe aver *pur* parlato
 Gianni could have indeed talked
 b. *Gianni potrebbe *pur* aver parlato⁵⁹
 Gianni could indeed have talked
- (96) a. Aver *pur* detto la verità non gli è bastato
 to have indeed told the truth was not enough for him
 b. **Pur* aver detto la verità non gli è bastato
 indeed to have told the through was not enough for him

It should now be pointed out that Italian differs crucially from French in this respect. This is immediately evident upon consideration of Pollock's (1989) data concerning negation in infinitivals, which we repeat in (97) and that give rise to close to minimal pairs with the Italian examples just considered:⁶⁰

- (97) a. *Jean dit ne parler pas (vs (89))
 b. Jean dit ne pas avoir parlé (vs (91) and (92)c)

Let us now comment on Italian examples like (89) a bit more closely. In our discussion concerning the negative adverbs we have been led to assume that they can also fill the VP-initial position (or, anyway, a low position in the clause structure). Hence it could be argued that examples like (89) simply show that the infinitive must move out of the VP, but that it does not need to reach the highest AGR position: It could stop at the first functional head it meets, i.e., T in our proposal. The word order in (89) would be obtained also with this derivation. This would have the consequence that, in the comparison with French, we should reach the conclusion that the two languages differ only on the obligatoriness (Italian) versus optionality

(French) of the movement of lexical verbs to T. This interpretation does not seem to be correct, though. In fact it appears that we must reach the conclusion that (also) lexical verbs do have to reach the AGR head in infinitivals as well, as we saw they do in tensed clauses. Data that point to this conclusion is provided by the ungrammaticality of sentences like (98), which minimally contrast with (89):

- (98) a. *Gianni ha deciso di *non/più/mailancora* tornare
 Gianni decided not to anymore/ever/again come back
 b. *Gianni potrebbe *non più/mailancora* tornare
 Gianni could not anymore/ever/again come back

We have admitted that the negative adverbs also typically fill the Spec of NegP position, which directly accounts for their distribution with complex tenses, in particular for their occurrence in the position between the auxiliary and the past participle. Hence, if the lexical verb were allowed to stop at the T functional head in infinitivals, (98) ought to be derivable with the verb in T and the negative adverb in Spec of NegP. The complete impossibility of (98), which parallels that of (91) and (92) c., containing a complex tense indicates that no derivation can yield this word order, which in turn implies that lexical verbs necessarily move out of VP up to the highest functional head AGR in Italian. Comparatively, the contrasts that we have seen between Italian and French infinitivals are double-edged: They both concern the position where the lexical verb moves as well as the obligatory versus optional character of this movement. The position is AGR in Italian and T in French; the movement is obligatory in Italian and optional in French. The data that remind us of the optional character of the movement of V to T in French is reproduced in (99); both sentences in (99) are possible in French, as Pollock (1989) has pointed out:

- (99) a. Souvent paraître triste . . .
 b. Paraître souvent triste . . .

(99) involves the VP adverb *souvent*. The order in (99) a. is obtained through leaving the V in its D-structure position within the VP, while the order in (99) b. is obtained through V to T movement. Notice that if *plus*, contrary to *pas* but as Italian *più*, can also be treated as a lower/VP adverb besides it (possibly) being the Spec of NegP, the facts pointed out by Pollock and reproduced in (20) and here in (100) are amenable to the same analysis as (99), with V to T as a general option of French infinitives:

- (100) a. Pierre dit ne plus manger
 b. Pierre dit ne manger plus

4.2 Lower Adverbs and FQs

Given the discussion of the preceding section, we expect the distribution of adverbs that are lower than negation (typically VP adverbs) to mimic in infinitival clauses the distribution that they display in tensed clauses. This is, in fact, the case with respect to adverbs like *spesso* and *completamente*, discussed earlier.

Consider (101):

- (101) a. Quel medico sostiene di risolvere *spesso/completamente* i problemi dei suoi pazienti
that doctor claims to solve often/completely the problems of his patients
b. Quel medico può risolvere *spesso/completamente* i problemi dei suoi pazienti
that doctor can (to) solve often/completely the problems of his patients

And no other option is available, V-movement being systematically obligatory:

- (102) a. *Quel medico sostiene di *spesso/completamente* risolvere i problemi dei suoi pazienti
that doctor claims to often/completely solve the problems of his patients
b. *Quel medico può *spesso/completamente* risolvere i problemi dei suoi pazienti⁶¹
that doctor can (to) often/completely solve the problems of his patients

Equivalent paradigms are obtained with FQs, as expected given the VP origin of these elements in the terms of the analysis discussed in 3.5:

- (103) a. Quei medici pensano di risolvere *tutti* il difficile problema di quel paziente
these doctors think to solve all the hard problem of that patient
b. *Quei medici pensano di *tutti* risolvere il difficile problema di quel paziente
... to all solve the hard problem ...

Consider (104), which has the verb *potere* as matrix verb and that does not involve any lexical complementizer:

- (104) a. Quei medici potrebbero risolvere *tutti* il difficile problema di quel paziente
these doctors could solve all the hard problem of that patient
b. *Quei medici potrebbero tutti risolvere il difficile problema di quel paziente
these doctors could all solve the hard problem of that patient⁶²

Similar facts hold in subjects infinitivals:

- (105) a. **Spesso/completamente* risolvere i problemi dei propri pazienti è compito di ogni medico
Often/completely solve the problems of his own patients is task of any doctor
b. Risolvere *spesso/completamente* i problemi dei propri pazienti è compito di ogni medico
To solve often/completely the problems of his own patients is the task of any doctor

4.3 Infinitives and Sentence Adverbs

Given the analysis we have proposed according to which sentence adverbs have the clause initial (AGRP) position as their base location we would expect that, with this class of adverbs the superficial word order 'Adv Infinitive' should be available. Even if, as we argued, the infinitive always moves to the highest functional AGR head exactly as the inflected tensed verb does, the adverb should nevertheless precede the verb in this case because it precedes the entire clause. There are structures where the distribution at issue can be tested and where it is indeed attested. These are infinitival relative clauses.⁶³ Consider the examples in (106) a., (Rizzi 1982, [73] a., p.103), and (106) b. containing the adverbs that we used in the preceding discussions:

- (106) a. Cerco un uomo al quale *possibilmente/forse/domani* presentare Maria
I look for a man to whom *possibly/perhaps/tomorrow* to introduce Maria
b. Ho trovato qualcuno a cui *probabilmente/evidentemente* affidare questo tipo di incarico
I found somebody to whom *probably/evidently* to assign this kind of duty

Much as in the discussion of the equivalent word order in tensed clauses, the fact that the adverb precedes the verb here is a neutral fact with respect to the issue concerning the V-movement process: Irrespective of how the verb syntax works, the adverb should precede the verb. It should now be

pointed out that a sentence like (106) b. minimally contrasts with (107) a. where the VP adverb *spesso* occurs. Here the respective word order of the adverb and the infinitive is necessarily 'Infinitive Adverb,' as is revealed by the contrast with (107) b., whose ill-formedness, in turn, minimally contrasts with the acceptability of (106) b. This is, of course, expected given that VP adverbs are clause-internal, contrary to sentence adverbs:

- (107) a. Ho trovato qualcuno a cui affidare *spesso* questo tipo di incarico
 I found somebody to whom to assign often this kind of duty
 b. *? Ho trovato qualcuno a cui *spesso* affidare questo tipo di incarico⁶⁴
 . . . to whom often to assign . . .

The discussion can then be concluded by pointing out that the possibility of (107) a. also minimally contrasts with the unacceptability of (108), which displays the order 'Infinitive Sentence Adverb':

- (108) *? Ho trovato qualcuno a cui affidare *probabilmente* questo tipo di incarico⁶⁵
 I found someone to whom to assign this kind of duty

5 RIEN/NIENTE, TOUT/TUTTO. SOME COMPARATIVE SPECULATIONS

It is a well-known fact that in complex tenses Italian and French display a major distributional contrast with respect to the location of the quantifiers *rien/niente*, *tout/tutto*. The first systematic discussion of the French facts is found in Kayne (1975), where the following basic contrasts are pointed out:

- (109) a. Il n'a rien compris
 he has nothing understood
 b. Il a tout compris
 he has everything understood
 c. *Il n'a compris rien
 he has understood nothing
 d. *Il a compris tout
 he has understood everything

The equivalent Italian paradigm has symmetric grammaticality judgments:

- (110) a. *Non ha niente capito
 he has nothing understood

- b. *Ha tutto capito
he has everything understood
- c. Non ha capito niente
he has understood nothing
- d. Ha capito tutto
he has understood everything

It is tempting to relate this fundamental difference between the two languages to the different scope of the V-movement rule that is manifested in infinitival clauses. The way the correlation could hold is not simple, though. I will suggest a possible analysis. After presenting it, I will also point out that an alternative account is possible. According to it, the contrast in (109) and (110) would not be a necessary consequence of the different scope of application of V-movement. I will finally discuss some interesting evidence that seems to favor the first approach.

Suppose that the following claim is made about French: A lexical verb does not move to AGR if it is not combined with a (morphological) Tense inflection. In Italian, on the other hand, the verb always moves to AGR (independently of whether there is a morphological realization of tense or not). For the time being, let us assume this informal statement. This has the consequence that no movement to AGR is ever possible for a lexical verb, except in the case of tensed clauses in French.⁶⁶ In particular, given the structural characterization proposed for past participles, this has the consequence that the verb does not move to the past participial AGR head in French. Notice that we immediately expect a minimal contrast between the infinitival examples discussed by Pollock (1989), reproduced in (20) and (111), and examples like the following (112), unacceptable according once again to Pollock (1989):

(111) (?) Pierre dit ne manger plus

(112) *Je n'ai mangé plus

If the past participle does not raise to the past participial AGR, should (112) involve a VP adverb *plus*, it would be underivable anyway. Granted that much, let us now go back to *rien/tout*. In the spirit of a somewhat updated version of Kayne's (1975) original account, it can be assumed that *rien/tout* have the defining property of obligatorily undergoing a QR-type movement process in the syntax (presumably to be assigned scope already at this level of representation). Suppose that this process adjoins *rien/tout* to VP. Notice now that this hypothesis, combined with the further hypothesis just discussed that the verb does not raise to the past participial AGR head, immediately gives the French paradigm in (109) where the quantifiers precede the past participle.⁶⁷

Consider now Italian. We have seen that the verb does move to the past participial AGR head in this language. Hence, we might assume that *nientel tutto* behave exactly as their French equivalents and that the significantly different S-structure word order that is displayed in this language is a function of the verb moving over the VP-adjoined quantifiers to reach the past participial AGR. Movement to AGR is obligatory in Italian infinitival clauses, as we saw; it is natural to assume that it should also be obligatory with respect to the past participial AGR head. Given this set of hypotheses, the Italian paradigm (110) is obtained. Hence, the important difference that Italian and French exhibit with respect to these quantifiers, is not to be considered a function of the different syntax of the quantifiers *per se*, but it is rather a direct function of an independent fundamental difference between the two languages, i.e., the different scope of application of the verb movement process.

Let us now discuss the alternative hinted at earlier. It could be proposed that the QR-type rule rather than adjoining the quantifiers to VP moves them out of the VP. Suppose that it moves them into the Spec position of some functional phrase higher than VP. We might take this to be the NegP in the case of *rien*⁶⁸ and the PosP in the case *tout*. If this assumption is made, the French paradigm (109) is directly obtained, irrespective of whether the verb has moved to the past participial AGR head or not. Hence, this hypothesis has the effect of making the data relative to these quantifiers neutral as far as verb syntax is concerned. What would a hypothesis of this sort say about Italian? Of course if not further qualified it would make the wrong prediction that Italian should be exactly like French in admitting a distribution equivalent to paradigm (109): Even if the past participle moves to its AGR head, the moved quantifiers should precede it. The obvious qualification that should be provided with this hypothesis consists in assuming that the difference between the two languages concerns the syntax of the quantifiers. The rule displacing them in the syntax takes place in French but does not take place in Italian so that they are always found to the right of the verb in the latter language irrespective of whether the verb is fully inflected or is a past participle. Phrased in this way the qualification simply restates the observed difference. A more interesting version of it could consist in assuming, for instance, that the process affecting these quantifiers that overtly takes place in French is an LF process in Italian.⁶⁹ Hence no overt effect on the word order is expected. Of course, the first alternative remains more interesting in that it links this difference to another relatively important difference between the two languages.

Before concluding these remarks I would like to point out a further fact of Italian that seems to constitute interesting evidence in favor of the idea that these quantifiers move in the syntax in Italian as well. If this is indeed the case (some version of) the first and more interesting alternative seems then to better qualify to account for the difference between the two languages, a

welcome conclusion. The fact is the following.⁷⁰ In Italian when the process of subject inversion is performed in a clause containing a transitive verb and a direct object the result is fully acceptable only under special contextual conditions that correlate with a particular intonation.⁷¹ With continuous intonation the result is not natural, as indicated by the question mark in the following examples (113):

- (113) a. ?Ha comprato il regalo Gianni
 lit: has bought the gift Gianni
 b. ?Ha detto la verità Gianni
 lit: has told the truth Gianni

As is shown by Calabrese (1982), the result becomes fully acceptable if the direct object does not fill the canonical direct object position. The best example of this situation is when it is cliticized on the verb. The perfect status of (114) contrasts with the marginality of (113):

- (114) a. (Il regalo) L'ha comprato Gianni
 lit: (the gift) it_{cl} has bought Gianni
 b. (la verità) L'ha detta Gianni
 lit: (the truth) it_{cl} has told Gianni

Now, if the transitive structure contains one of the quantifiers under discussion as direct object, if subject inversion is performed the result is perfectly acceptable. In fact, the status of the obtained sentence rather patterns with cases like (114) where cliticization of the direct object has occurred than with the marginal (113) where the direct object fills its canonical position. The clearest data are provided by sentences containing the quantifier *tutto*:

- (115) a. Ha comprato tutto Gianni
 lit: has bought everything Gianni
 b. Ha detto tutto Gianni⁷²
 lit: has said everything Gianni

Assuming that the disturbing factor in the marginal (113) is the physical presence of a direct object before the (inverted) subject, a way of interpreting the contrast between (113) and (115) could be the idea that only in (113) does the direct object fill the direct object position. In (115) the direct object-quantifier could have moved away from its canonical position. This would produce a kind of intransitive VP, whence the naturalness of subject inversion, much as in the cases where the direct object has been displaced through cliticization, as in (114).⁷³

6 FURTHER CONSEQUENCES

6.1 Small Clauses

The precise analysis of small clauses is a long-standing issue. Interestingly, verb syntax can furnish some explicit indication about it and also provide a fairly simple explanation of some rather surprising distributional asymmetries that arise in different kinds of small clauses.

Let us first consider the small clause complement of perception verbs in Italian. Given the kinds of arguments developed in sections 3 and 4, the conclusion can be drawn that the respective position of the verb and adverbs of different classes not only tells us whether the verb moves out of the VP, but it also neatly indicates that there exists a head position in the clause structure to which the verb can move. Moreover, given the arguments developed in sections 3 and 4, the respective location of the verb and adverbs is also in principle capable of revealing to which functional head position the verb has moved. Hence, if the respective order is 'V VP adverb,' we know that the verb has at least raised till the T head. If the further order 'V negative adverb' is also necessarily manifested, we know that the verb must have raised till the AGR head. If we look at the infinitival complement of perception verbs under this perspective we can reach the conclusion that it should be analyzed as a full-fledged AGRP: The respective location of the verb and VP adverbs and negative adverbs fully corresponds to that of full infinitival clauses, as the control structures analyzed in section 4. Consider the following paradigms (116)–(118):

- (116) a. Ho sentito [i bambini piangere *spesso*]
I heard the children cry often
- b. *Ho sentito [i bambini *spesso* piangere]
I heard the children often cry

- (117) a. Ho sentito [i bambini piangere *tutti*]
I heard the children cry all
- b. *Ho sentito [i bambini *tutti* piangere]
I heard the children all cry

- (118) a. Ho sentito [i bambini *non* piangere *più*]
I heard the children not cry anymore
- b. *Ho sentito [i bambini *non più* piangere]
I heard the children not anymore cry

(116) and (117) can be interpreted as evidence that there must be some functional head in the infinitival complement structure where the verb can move and that this functional head corresponds to T. The contrast in (118)

finds a direct explanation if the assumption is made that the complement of a perception verb is in fact an AGRP and that the verb moves to the AGR head in this kind of structure, as it always does in both tensed and untensed clauses in Italian.⁷⁴

Let us now take the small clause complement of verbs like *ritenere/considerare* (consider) that does not contain a verb but rather a predicative phrase of different kinds (AP, PP, NP). Let us consider the case of an AP predicate. If the small clause contains an FQ, a minimal contrast is produced with examples like those in (117):

- (119) a. Ritenevo [quei ragazzi *tutti* intelligenti]
 I considered those boys all intelligent
 b. *Ritenevo [quei ragazzi intelligenti *tutti*]
 I considered those boys intelligent all

The fact that the adjective necessarily follows the FQ while the infinitive in (117) was shown to necessarily precede it is directly accounted for. We interpreted the word order in (117) as a direct function of V to T/AGR movement; now, even if small clauses of the kind in (119) were analyzed as AGRPs, still the adjective could not move to a functional head (T or AGR) that is reserved for verbal inflections. Hence, assuming that the analysis for FQs is the same in both cases, the word order 'FQ Adjective,' is expected to be the only option in (119).⁷⁵

Consider now English and the complement of the causative verb *make*. As discussed in Pollock (1989), aspectual auxiliaries and the copula *be* optionally raise out of VP in English infinitives (although somewhat marginally). An example containing the copula is provided in (120) (Pollock 1989, [21] a., b.):

- (120) a. Not to be happy is a prerequisite for writing novels
 b. To be not happy is a prerequisite for writing novels

The respective position of the infinitive copula *to be* and the negation *not* indicates that the copula can optionally reach the highest functional head in English infinitives. Consider now the contrast in (121) where an FQ is present in the small clause complement of causative *make*:

- (121) a. I made [my parents both be happy]
 b. *I made [my parents be both happy]

Contrary to what we just saw in (120), the copula is not allowed to raise out of the VP in (121): The only possible order is 'FQ copula.' It does

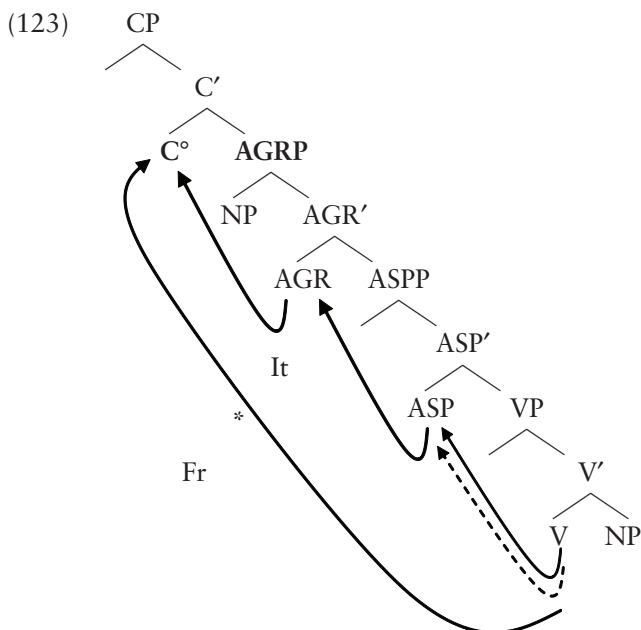
not seem plausible to claim that verb syntax changes in precisely these two cases. The most natural analysis of the contrast in (120)–(121) consists in admitting that the copula is always allowed to move (in infinitives), but that it cannot move in the small clause complement of the causative *make* because there is not an inflectional position where it could go. This amounts to claiming that the small clause complement of the causative verb does not have a ‘clausal’ shape in that it lacks the functional heads (projections) of regular clauses, i.e., AGR and T, and that it is just a pure VP, as has been already proposed several times. If this is true, the contrast in (121) is directly accounted for: (121) b. cannot be derived because there is no functional position where the copula could move; but we know that the word order ‘V FQ’ can only be obtained through V-movement. Hence, (121) b. is indervivable altogether.⁷⁶

6.2 Past Participial Clauses

Under the assumption we have been working with—that V does not raise to the AGR past participial head in French while it does in Italian—it seems that we can find a direct way of accounting for the fact that French lacks past participial clauses of the kind Italian has (see Chapter 2, this volume). A class of Italian past participial clauses can be analyzed as having the past participle filling the C° position and the subject filling the Spec of (past participial) AGRP position. An example of this kind is given in (122), where the contrast with French is also illustrated:

- (122) a. Arrivata Maria, la festa cominciò,
 arrived Maria, the party started
 b. *Arrivée Marie, la fête commença

The contrast in (122) can be interpreted as a consequence of the different verb syntax in the following way. Given the structure we have adopted for past participles, movement of V to the C° position conforms to the head movement constraint/ECP only in the Italian case where C° is the head immediately higher than the AGR where V moves. In French, on the other hand, movement of V to C° would necessarily violate the head movement constraint/ECP because V is not in AGR in French past participles. Hence, a principled explanation is provided given our previous assumptions. The contrast is diagrammed in (123)⁷⁷:



7 ON TRIGGERING V-MOVEMENT

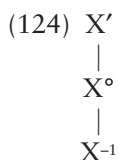
In this chapter the V-movement process in Italian has been characterized in a fairly precise way. The contrast with a closely related language like French also came out clearly. An important question that we have not addressed so far lies behind the proposed account: Why should V-movement pattern the way it does in a language like Italian? Why should the scope of the V-movement operation significantly vary across languages? An answer to these questions is not easy to formulate and I will not try to do it here. In what follows, I will sketch out a possible formalization of the observed differences.

An influential research trend on this kind of issue is the one represented by the approach developed by Pollock (1989) and its readaptation proposed in Chomsky (1989). The main line of this approach consists in claiming that I (i.e., AGR and/or T) attracts V only if it is provided with a certain 'morphological' strength. In Pollock's terms, this happens because only a morphologically sufficiently rich I allows the verb to assign its Th-role(s).⁷⁸ Let us adopt these leading ideas that have also proved to be able to provide a principled account of the contrast that can be detected in connection with V-movement between two languages like French and English. French verbal agreement morphology is richer than the (almost non-existent) English verbal agreement morphology.⁷⁹ So, it is tempting and natural to relate the different verb syntax to the different morphological

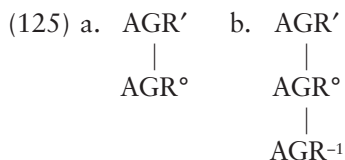
richness, with V-movement occurring in French tensed clauses, but not in English.

The study of Italian verb syntax that we have undertaken here complicates the picture. Given the trend that we just described, the following issue arises: From the point of view of morphological richness Italian can be considered fairly close to French in the tensed paradigm and identical to it in the infinitival one. The form of the infinitive is essentially alike in the two languages: i.e., *parlare* and *parler* (to talk). Still, as we have seen in this study, Italian and French contrast in important ways as far as verb syntax is concerned. The most important difference from this point of view is precisely the fact that Italian verb syntax is completely uniform across tensed and infinitive paradigms, while French verb syntax is not, with V raising to AGR only in the tensed paradigm but not in the infinitive (and in the past participle). This suggests that any account that relates occurrence of V-movement to morphological richness must be refined enough to capture a non-uniform behavior of this kind, displayed by two languages otherwise fairly close as far as verbal morphology is concerned, such as Italian and French.⁸⁰ In the following lines I will sketch out a system that sets the different status of the verbal inflection at an appropriate level of abstraction with respect to 'visible' morphology, thus trying to make explicit the triggering factor of V-movement.

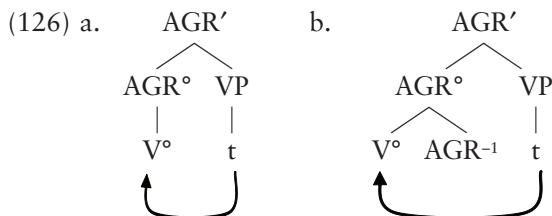
I will base my account on some recent proposals by Roberts (1990). In his study of the historical development of English agreement, Roberts (1990) has proposed to adopt the theory put forth in Selkirk (1982). According to Selkirk's approach, below the X^0 word level an X^{-1} level is present, to be interpreted in the sense of X' -theory as a projection below the lexical level in the way schematized in (124):



The typical filler of the X^{-1} position are affixes, i.e., those elements that cannot be independent words. Roberts (1990) has proposed that the functional head that we have been labeling AGR can contain an affix either of the X^0 level, hence equal to AGR itself, or of the level X^{-1} ; (125) is an illustration of the proposal:



According to Roberts, V-movement can be instantiated in one of two ways: either as substitution into an empty AGR° or again as substitution into a subcategorized position at the AGR⁻¹ level:



Leaving aside the issue of the analysis of the historical development of the English verbal agreement system, which obviously raises major questions and complications that go well beyond the scope of the present discussion, I want now to focus on the following idea. Let us suppose, as Roberts (1990) does, that whenever the verbal inflectional morphology is represented as in (125) b. the only way to amalgamate the verbal root with the inflectional ending is through V-movement into the subcategorized position at the AGR⁻¹ level, along the lines of (126) b. On the other hand, whenever the verbal inflectional morphology is represented as in (125) a. the amalgamation cannot obtain through syntactic V-movement; it then takes place through an Affix Hopping process.⁸¹

I would like to make the following proposal concerning the nature of the verbal inflectional morphology of the AGR type in a language like Italian: Italian verbal inflectional morphology is uniformly represented as in (125) b. Given the system described, this has the consequence that the amalgamation of V with the inflectional endings can only be performed through V-movement in the way illustrated in (126) b. The situation is different in a language like French. According to this proposal, the difference consists in the fact that the verbal inflectional morphology is represented as in (125) b. only when AGR has features (i.e., person and number features). Otherwise it is represented as in (125) a. Consequently, it is only in the first case that the amalgamation with the verb can obtain through V-movement in the way illustrated by (126) b. In the other cases the process of Affix Hopping applies.⁸²

In summary, the difference between two languages like Italian and French can be characterized as due to the different nature of the verbal inflectional morphology in AGR in the two cases: It is uniformly represented as in (125) b. in Italian, it varies from (125) b. to (125) a. in French depending on its overt shape. Consequently, it is only in Italian that it uniformly triggers V-movement giving rise to a generalized occurrence of the process.⁸³

2 Agreement and Case in Past Participial Clauses in Italian

1 INTRODUCTION

Italian past participle clauses display a number of peculiarities that constitute the central empirical concern of this chapter. The fundamental properties characterizing the construction are exemplified by the sentences in (1), where the past participle clause is in boldface:

- (1) a. ***Arrivata*** *Maria*, Gianni tirò un sospiro di sollievo.
arrived(FEM-SG) Maria Gianni was relieved
'Maria [having] arrived, Gianni was relieved.'
- b. ***Conosciuta*** *Maria*, Gianni ha subito cambiato il suo
known(FEM-SG) Maria Gianni has immediately changed his
stile di vita
lifestyle
'Having known Maria, Gianni immediately changed his
lifestyle.'
- c. ****Telefonato*** *Gianni*, Maria andò
telephoned(MASC-SG) Gianni Maria went to the
all'appuntamento.
appointment
- d. ****Salutata*** *Maria da Gianni*, tutti uscirono dalla sala.
greeted(FEM-SG) Maria by Gianni everyone went out of the
room

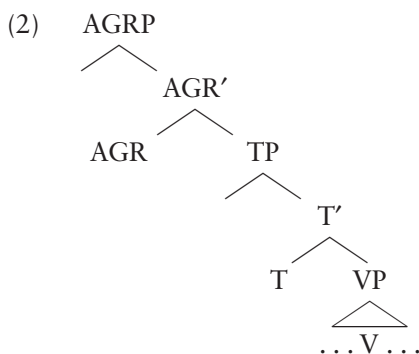
Past participle clauses are formed by a past participle followed by a lexical NP and possibly some other complement of the verb. As is clear from (1), the sequence is not always well-formed. Its acceptability varies depending on the nature of the verb involved: It is perfectly acceptable with unaccusative and transitive verbs, but impossible with intransitives and passives.¹ Another fundamental property of the construction is that the unaccusative or transitive past participle obligatorily agrees in number and gender features with the following NP. Further properties will be investigated as the

analysis proceeds. But in order to begin a close investigation, a number of background assumptions need to be spelled out.

2 BACKGROUND

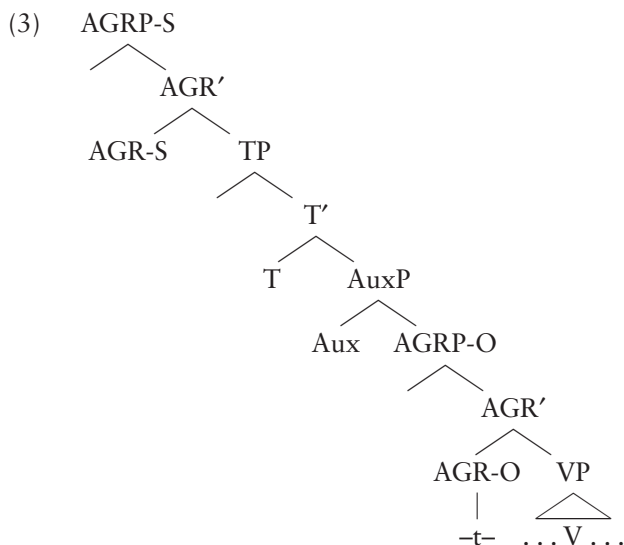
The first question to ask is: How does the internal structure of participial clauses compare to the structure normally associated with full clauses? More precisely, are participial clauses full clausal projections, or are they somehow 'partial' clausal projections? Intuitively, it would seem that the second alternative should be more adequate to represent the obvious fact that past participial clauses are NOT full clauses. To mention just one fundamental difference from full clauses, they lack full temporal specification, like small clauses in general.

But let me briefly spell out what my assumptions are concerning the internal structure of full clauses. Following recent work inspired by Pollock (1989), I will admit that the functional category INFL (inflection), traditionally conceived as constituted of both temporal and agreement features, is in fact split into two independent functional heads: T and AGR. In Chomsky (1986a), it is assumed that functional categories give rise to their own projections in terms of the X'-schema and, in particular, that INFL is the head of the clause. Once INFL is split into the two functional categories T and AGR, we have to admit that each of them gives rise to its own projection. For reasons that are not directly relevant to the present discussion, I have argued elsewhere that AGR is the head of the sentence, which can then be seen as an AGRP, and that AGR takes the projection of T as its complement, in the sense of X'-theory.² This gives us the following representation:³



In a language like Italian, in full clauses V moves to T and then to AGR, in order to be associated with the inflectional features, via a head-to-head sort of movement in Baker's (1988) sense. Chomsky (1989) assumes that a further Agreement-type projection can be present in the clause, which he calls Object-Agreement (AGR-O). Incorporating conclusions of Kayne (1985,

1989a), Chomsky assumes that it is under the AGR-O position that the past participial morphology is contained. I will adopt this proposal. Call *-t-* the past participial ending, to be completed with gender and number features. These can be specified, as in *uscì-t-a* 'gone out, feminine singular,' or left unspecified, as in *parla-t-o* 'spoken, masculine singular,' where the masculine-singular combination represents the nonagreeing or unmarked choice. Adapting this hypothesis to (2), we have a structure like (3), where the aspectual auxiliary is represented as a verb taking AGRP-O as its complement. The notation AGR(P)-S stands for the Subject-Agreement projection.⁴

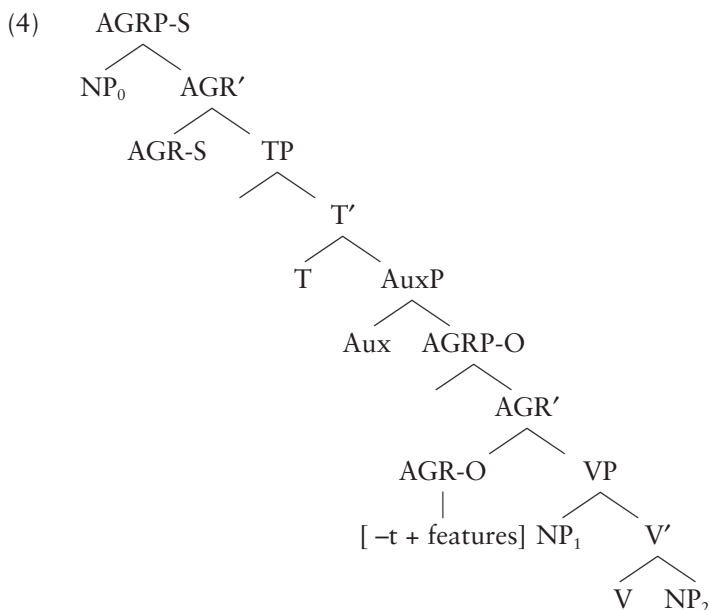


A further background assumption that I adopt here is the proposal developed in particular by Koopman and Sportiche (1991), according to which subjects of transitive and intransitive verbs are not 'external' to the VP (Williams 1981) at D-structure, but rather are VP-internal. They are assigned their θ -role in a VP-internal position, higher than the object position. Suppose, for concreteness, that such a position is the SPEC of VP position.⁵

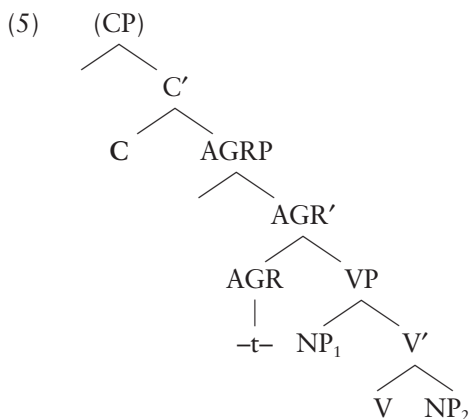
Integrating this proposal with our previous assumptions, the structure of a full clause (containing an aspectual auxiliary) will look, in its essentials, like (4) (see next page).

In (4), NP₁, is the D-structure position of the subject of a transitive or intransitive verb. At S-structure, NP₁ fills the NP₀ position, where it is assigned nominative Case by the finite AGR-S; the auxiliary verb moves to T and then to AGR-S to incorporate into the inflectional morphology. V moves to the AGR-O position to be associated with the past participial morphology. NP₂, if present, stays in its D-structure position.⁶

Adopting these hypotheses concerning the structure of full clauses containing an aspectual auxiliary and a past participle, a proposal to represent



the internal structure of past participial clauses along the following lines suggests itself. I will assume that they consist of (at least) AGRP, with the past participial morphology sitting under the AGR head, and with VP as a complement of AGR; they correspond then to the projection that in the full clausal structure we called AGRP-O (details aside). With unaccusative verbs, for Case-theoretic reasons to be discussed in detail in section 3, I will admit that they are CPs taking AGRP as complements. Hence the resulting structure will be (5), with the CP projection present if necessary:



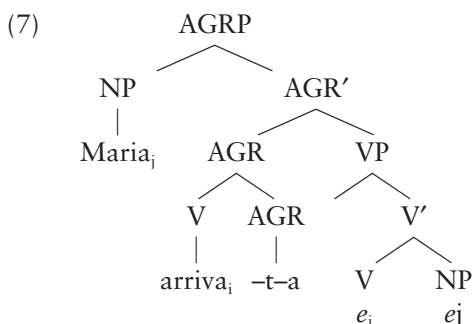
In (5), NP₁ is the D-structure subject position, a θ -position with transitive and intransitive verbs, and a non- θ -position with unaccusatives. With all three verb classes, V moves to the AGR position, to incorporate into the participial inflection *-t-*. In what follows we will see how specific assumptions about agreement processes, in interaction with Case requirements and a structural representation like (5), can account for the basic properties of past participial clauses.⁷

3 PAST PARTICIPLE CLAUSES AND UNACCUSATIVES

As shown by (1) a., the status of past participle clauses is perfect with unaccusative verbs. The order of the constituents in (1) a. is Past Participle-NP_{lex}, and the complete impossibility of (6) shows that this order is mandatory:

- (6) **Maria arrivata*, Gianni tirò un sospiro di sollievo.
 Maria arrived(FEM-SG) Gianni was relieved

Why should it be so? An explanation in terms of Case seems promising. Suppose, as is quite uncontroversial, that a tensed/finite AGR, i.e., AGR combined with T under head-to-head movement, can assign nominative Case to the preverbal subject position. This position is the SPEC of AGR-S position in (3). Presumably, nominative is assigned here under the SPEC-head relation (Koopman and Sportiche 1991), which is also the typical relation triggering agreement of the two items involved. But we have assumed that past participle clauses do not have full temporal specification, and they do not, in fact, include any T projection at all. 'Standard' nominative Case assignment cannot, then, obtain in principle.⁸ Hence (6), with the associated representation (7), is ruled out as a Case Filter type of violation:



In (7), e_i is the trace of *Maria*, which originates in direct object position under the unaccusative hypothesis, and e_i is the empty category left by the Verb in its movement to AGR.⁹

The well-formedness of (1) a., repeated here, indicates that Case must be correctly assigned in this type of structure:

- (1) a. *Arrivata* *Maria*, Gianni tirò un sospiro di sollievo.
arrived(FEM-SG) Maria, Gianni was relieved

The contrast in (8) shows that the Case assigned to the postverbal lexical NP is nominative, as is visible in the personal pronouns of first and second person singular, where the distinction nominative/non-nominative is morphologically realized:¹⁰

- (8) a. *Arrivata io/tu*, Gianni tirò un sospiro di sollievo.
'I/you [having] arrived, Gianni was relieved'
b. **Arrivata me*, Gianni tirò un sospiro di sollievo.
arrived me_{ACC} Gianni was relieved

We then want to know (a) how nominative Case is made available in (1) a. and (8) a.; (b) why availability of nominative Case correlates with the obligatory order Past Participle-NP_{lex}; and (c) where exactly the past participle and the lexical NP are found in the structural representation assumed.

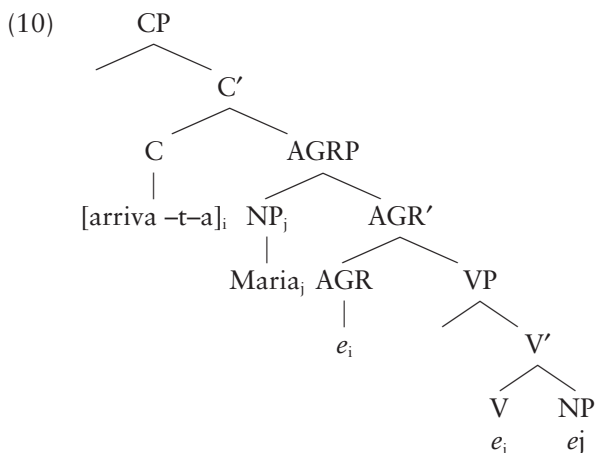
Let us provide an answer to these questions. It has been argued by Rizzi (1982) for Italian, and by Raposo (1987) for Portuguese, that a nominative Case assigner can be present in some nonfinite clauses in these languages. This nominative Case assigner has at least one property that restricts the effects of its presence: It appears in C⁰.¹¹ It seems to be a general property of the process of nominative Case assignment that it obtains under agreement.¹²

If we take this to be in fact an essential property of this process, it has a crucial consequence for the non-finite clauses under consideration. Should a lexical NP be present in the Spec of AGR (subject) position, it will not be able to be marked with nominative Case directly from C⁰, unless some feature agreeing with it is also present in this head position. The features that qualify are those under AGR, which, through the SPEC-head relation, are always in agreement with the NP in SPEC of AGR. AGR could then move to C⁰ via a head-to-head type of movement, and from there assign nominative Case, through agreement, to the lexical NP in Spec of AGR. The nature of the AGR head as an affix, however, makes it impossible for it to surface standing alone; it needs to be attached to an appropriate lexical head, namely, a verb. Hence, AGR can move to C⁰ with an incorporated V, and from there assign nominative Case to a lexical NP in SPEC of AGR in the way described. It is precisely by assuming movement of the auxiliary verb to COMP that Rizzi (1982) and Raposo (1987) analyze non-finite clauses with a (nominative) lexical subject like the Italian gerundival construction and Portuguese inflected infinitive construction in (9) a. and (9) b. respectively.

- (9) a. *Avendo Gianni chiuso il dibattito*, la riunione è finita prima
 Having Gianni closed the debate, the meeting ended early
 'Gianni having closed the debate, the meeting ended early.'
 b. O Manel pensa *terem os omigos levado o livro*
 Manel thinks have(3PL) the friends taken the book
 'Manel1 thinks the friends have taken the book.'

According to these analyses, movement of the verb to COMP creates the appropriate context for nominative Case assignment to the lexical subject NP. I will assume that this is due to the nature of the process of nominative Case assignment.¹³ As is overtly manifested by the morphology in the Portuguese example, the preposed verb carries features of person and number; nominative can thus be assigned to the lexical NP *os amigos* through feature agreement. The same can be said for the Italian example, with the qualification that no overt features of person, number, or gender are manifested in this case, due to the nature of the gerundival morphology.

An analysis essentially equivalent to the one just outlined can be proposed for the unaccusative past participial clauses under discussion, which can provide an answer to the three questions raised earlier. Suppose that the same nominative Case assigner that is found in gerundival clauses in Italian (9) a. and in the inflected infinitival constructions of Portuguese (9) b. is present in the C⁰ position of (unaccusative) past participial clauses. Nominative is then available in past participial clauses. However, it can only be assigned if an AGR head agreeing with the lexical NP in SPEC of AGR fills the C⁰ position. AGR, i.e., the past participial morphology, must then move to C⁰ with the incorporated verb. From there it can assign nominative Case to the lexical NP in SPEC of AGR under feature agreement, in the way discussed earlier. A possible derivation of the well-formed unaccusative past participial clauses of the kind in (1) and (8) a. is schematized in (10) for (1) a.:



In this representation, the preposed lexical NP is assigned nominative Case through agreement with the features in C⁰.

This analysis answers the three questions raised earlier in the following way: Nominative is available in the C⁰ position; it can be assigned to the lexical NP through the past participial morphology in C⁰; hence the well-formed respective order of the past participle and the lexical NP must be past participle-NP. In the final representation of the clause, the past participle fills the C⁰ position, as illustrated in (10).¹⁴

Notice now that the order past participle-NP_{lex}, which in the proposed analysis results from movement of the past participle into C⁰, coincides, in the unaccusative structures under investigation, with the D-structure respective linear order of V and NP, with V in the head of VP and NP in direct object position (see Belletti 1981). We have motivated movement of the past participle to the C⁰ position as movement to the only available nominative position providing a device to Case-mark the lexical NP. Can it be empirically shown that movement of the direct object into SPEC of AGR also takes place? This conclusion seems theoretically necessary, in that the direct object position is too far for nominative Case to reach it from C⁰. Interestingly, it can be convincingly shown that the lexical NP does not fill the D-structure direct object position. Let us review the relevant facts.

It is well known that the Italian partitive clitic *ne* 'of it/them' can only be extracted out of an indefinite quantified NP in object position, and never from a similar NP in the preverbal subject position. The paradigm in (11) shows this contrast.

- (11) a. Mario *ne* ha salutati [molti—].
 Mario of them_{cl} has greeted many
 'Mario greeted many of them.'
 b. *[Molti—] *ne* hanno salutato Mario.
 many of them_{cl} have greeted Mario
 'Many of them greeted Mario.'

This basic distributional fact of *ne* has been discussed in the literature, in particular by Belletti and Rizzi (1981) and Burzio (1986). Without going into the details of the analysis, which would take the discussion too far, we could say the following. In terms of Chomsky's (1986a) Barriers system, (11) a. is a standard well-formed output of an extraction process taking place from the L-marked direct object NP, a typical extraction site. The ill-formedness of (11) b. would result, among other things, from the fact that extraction has taken place from the non-L-marked preverbal subject NP, giving rise to a violation of the Empty Category Principle. *Ne* cliticization from the postverbal subject of unaccusatives gives a well-formed output, while the output remains ill-formed if extraction takes place from the preverbal subject position.

- (12) a. *Ne* arriveranno [molti—].
of-them_{cl} will arrive many
‘Many of them will arrive.’
b. *[*Molti—*] *ne* arriveranno
many of-them_{cl} will arrive

Examples (11) and (12) constitute one of the central paradigms in favor of the unaccusative hypothesis: *ne* is extractable from the postverbal subject of unaccusatives because this NP fills the direct object position, at S-structure as well as at D-structure. Taking these facts as a background, we now try to determine how *ne* extraction works in past participial clauses. The ill-formedness of the sentences in (13) b. and (13) d. indicates that it cannot take place.

- (13) a. *Arrivati parecchi invitati*, la festa cominciò.
arrived many guests, the party began
‘Many guests [having] arrived, the party began.’
b. **Arrivatine* [*parecchi—*], ...
arrived-of them_{cl} many
c. *Appena partite tre lettere di invito*, la riunione fu
as soon as left three letters of invitation the meeting was
rinviiata
cancelled
‘As soon as the three letters of invitation were mailed, the
meeting was cancelled’
d. **Appena partitene* [*tre—*], ...
as soon as left-of them_{cl} three

The *ne* extraction facts indicate that the lexical NP of past participial unaccusative clauses does not fill its D-structure direct object position. Rather, it is in a position from which extraction cannot occur, which can be identified with the [NP, AGRP] subject position.¹⁵

Another typical property of the internal argument of an unaccusative verb is not shared by the lexical NP of past participial clauses. As discussed in Belletti (1988), the internal argument of an unaccusative verb displays the so-called Definiteness Effect (DE) when found in its D-structure direct object position. This is shown by Italian examples like (14) b.–d., which instantiate the schematic structure in (14) a.

- (14) a. [_{VP} V NP PP]
b. *Sono arrivati tutti gli studenti a lezione.
are arrived all the students to class
c. *E’ tornato ogni studente a casa propria.
is gone every student to home his own
d. *E’ caduto il missile in giardino.
is fallen the missile in garden

No DE is manifested when the relevant NP fills the preverbal subject position.

- (15) a. Tutti gli studenti sono arrivati a lezione.
 all the students arrived at class
 b. Ogni studente è tornato a casa propria.
 every student went to home his own
 c. Il missile è caduto in giardino.
 the missile fell in garden

Once again, the postverbal lexical NP of past participial clauses behaves like a preverbal subject NP, rather than like an NP in the unaccusative verb's direct object position.

- (16) a. *Arrivati tutti gli studenti a lezione*, si è potuto cominciare.
 arrived all the students to class we could start
 'All the students [having] arrived, we could start.'
 b. *Tornato ogni studente a casa propria*, la scuola chiuse
 gone every student to home his own the school closed
 i battenti.
 the doors
 'Every student [having] gone to his own home, the school
 closed the doors.'
 c. *Caduto il missile in giardino*, la storia ebbe inizio.
 fallen the missile in garden the story began
 'The missile [having] fallen in the garden, the story began.'

Summarizing, the facts concerning the phenomena of *ne* extraction and the DE quite directly indicate that the lexical NP of unaccusative past participial clauses does not fill the D-structure direct object position. With respect to these two classes of facts, its behavior is completely parallel to that of a preverbal subject NP in full clauses. Thus, our assumption that this NP fills the subject position in past participial clauses receives strong support.

4 PAST PARTICIPIAL CLAUSES AND TRANSITIVES

As illustrated in (1) b., repeated next, past participial clauses are possible with transitive verbs:

- (1) b. *Conosciuta Maria*, Gianni ha subito cambiato il suo stile di vita.
 '[Having] known Maria, Gianni immediately changed his lifestyle.'

An obvious question immediately arises. Are participial clauses of this sort active or passive constructions? Of course, the term 'construction' has no theoretical content *per se*. However, a number of theoretically discrete properties can be identified, whose occurrence may or may not be expected in what we traditionally call active or passive constructions. Thus, in order to answer the question, we should verify the behavior of transitive past participial clauses with respect to these properties.

One crucial property is Case. A fundamental aspect of passive is that no accusative Case is available for the direct object NP. As argued in particular by Roberts (1987) and Baker, Johnson, and Roberts (1989), this follows from the fact that accusative is assigned to the 'argumental' passive past participial morphology that retains it. We can then verify what the situation looks like in past participial clauses with respect to the availability of accusative Case. It is easy to see that accusative is available, and that the lexical NP is marked with it.

- (17) a. *Conosciuta me*, hai cominciato ad apprezzare il
 known me(ACC) you started liking the
 mare.
 seaside
 b. *Salutata me*, si è accorto che c'era molta altra gente.
 greeted me he realized that there were many more people

The lexical NP *me* of (17) corresponds to the NP in direct object position in the parallel full clauses, which receive accusative Case (*Ha conosciuto me* 'he has known me'; *Ha salutato me* 'he has greeted me'). Hence, (17) strongly indicates that the lexical NP here too is a structural direct object, marked with accusative Case as usual. The ungrammaticality of (18) shows that nominative is not a possible Case option for the NP, thus sharply contrasting with (8), where the past participle was unaccusative.

- (18) a. **Conosciuta io*, ...
 known I(NOM)
 b. **Salutata io*, ...
 greeted I(NOM)

The impossibility of (18) is expected if the NP is the direct object of the transitive verb. It would not be so expected if it were in the SPEC of AGR subject position, as in the unaccusative examples and as in passive full clauses, where it undergoes movement.¹⁶ As a matter of fact, the NP in these past participial clauses is a well-behaved direct object with respect to the *ne* cliticization phenomenon as well; when it is a quantified NP, its N' can be extracted through *ne* cliticization.

- (19) a. *Conosciutene* [molte—], ...
 known-of-them_{cl} many
 ‘[Having] known many of them, ...’
 b. *Salutatene* [tre—], ...
 greeted-of-them_{cl} [three—]
 ‘[Having] greeted three of them. ...’

Example (19) sharply contrasts with the parallel facts in (13), involving an unaccusative past participle. This contrast is particularly interesting in that, with a naive conception of the unaccusative hypothesis, one might expect a parallel behavior in this regard of both unaccusative and transitive past participial clauses, mimicking the situation in full clauses. But this could only obtain if the lexical NP were in the direct object position in both structures. This is not the case in unaccusative past participial clauses, as we have seen. On the basis of (19), we can conclude that this is the case in transitive past participial clauses. With respect to the question whether these clauses are ‘passive’ or not, the *ne* cliticization facts of (19) play a neutral role. It is well known that *ne* is extractable from the postverbal subject of passive clauses, as (20) illustrates.

- (20) *Ne sono state salutate [molte—].*
 of-them_{cl} have been greeted many
 ‘Many of them have been greeted.’

However, once combined with the Case data concerning availability of accusative for the lexical NP, the *ne* cliticization facts of (19) are no exception to the general conclusion that the clitic is always extractable from the direct object NP position of a transitive (active) verb.

The possibility of the direct object NP cliticizing onto the past participle constitutes further evidence that transitive past participial clauses are not instances of passive.

- (21) a. *Conosciutami*, ...
 known me_{cl}
 ‘[Having] known me, ...’
 b. *Salutatata*, ...
 greeted her_{cl}
 ‘[Having] greeted her, ...’
 c. *Incontratici*, ...
 met us_{cl}
 ‘[Having] met us, ...’

Never in passive constructions can the clitic corresponding to the direct object show up. To the extent that this possibility is related to the

independent availability of accusative Case, the facts in (21) are consistent with those in (17).

The facts reviewed so far lead us to conclude that transitive past participial clauses are not instances of passive, as far as Case properties are concerned. Consider now the transitive past participial clauses of (22).

- (22) a. *Elogiata solo se stessa*, Maria restò del tutto isolata.
praised only herself Maria remained completely isolated
'Having praised only herself, Maria remained completely isolated.'
- b. *Criticata perfino se stessa*, Maria decise di abbandonare
criticized even herself Maria decided to abandon
l'impresa.
the enterprise
'Having criticized even herself, Maria decided to abandon the enterprise.'
- c. *Letti gli uni i libri degli altri*, gli autori attribuirono il
lead each other's books the authors awarded the
premio
prize
'Having read each other's books, the authors awarded the prize.'

The examples in (22) show that the direct object NP can be a lexical anaphor. This fact constitutes further evidence that the transitive past participial clauses are not passive. Never in a passive full clause can the D-structure object be an anaphor.

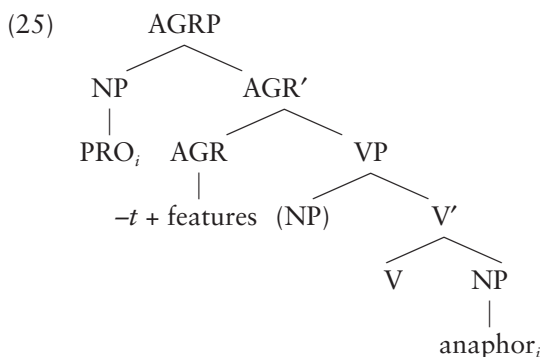
- (23) a. **Perfino se stessa è stata criticata* (da Maria).
even herself was criticized (by Maria).
b. **E' stata criticata perfino se stessa* (da Maria).
was criticized even herself (by Maria)

Different reasons can be at the source of the complete ungrammaticality of (23), which does not vary according to the S-structure position of the D-structure direct object (i.e., preverbal versus postverbal subject). One possibility might be that (23) simply instantiates the operation of the general ban against nominative anaphors, whatever the theoretical explanation for that should turn out to be (see Burzio 1992; also Rizzi 1990a). Moreover, the presence of the anaphor in (23) creates a violation of the relevant binding condition, under the plausible assumption that no adequate binder is present in the structure.¹⁷ Whatever the precise factor characterizing the impossibility of (23) should turn out to be, no such factor plays any role in transitive past participial clauses like (22), which are perfectly grammatical. Furthermore, we already know that the lexical NP is an accusative direct

object, so no ban against nominative anaphors should be operative in these structures. As a matter of fact, the anaphor in examples like (22) can also be realized as a reflexive clitic attached to the past participle, as shown by (24).

- (24) a. *Criticatasi*, . . .
criticized-herself_{cl}
b. *Elogiatasi*, . . .
praised-herself_{cl}

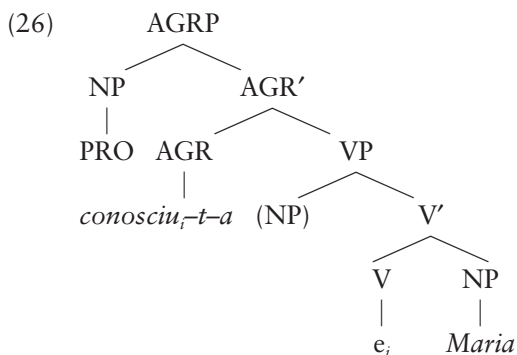
If we take the reflexive clitic to be the clitic counterpart of the strong anaphor, the possibility of (24) comes as no surprise. Examples (22) and (24) together parallel the pair of paradigms in (17) and (21), discussed earlier with respect to personal pronouns. Furthermore, the perfect acceptability of (22) and (24) also directly indicates that the relevant binding condition is respected in these structures. This means that a binder must be available to bind the anaphor. I propose that the binder is a PRO filling the NP subject position of the transitive past participial clause, whose structure then corresponds to (25).¹⁸



Given the evidence discussed here, a structure like (25) can be taken to be the representation of transitive past participial clauses in general, where the direct object position is filled by the lexical NP and the SPEC of AGR position is filled by PRO. Consider then (26), the representation of the transitive past participial clause (1) b (see next page 85).

A representation like (25)–(26) directly accounts for the data presented. Transitive past participial clauses are control structures. This is shown by the unacceptability of (27) versus the perfect status of (28).

- (27) a. **Salutata Maria*, cominciò un terribile temporale.
greeted Maria started a terrible storm
b. **Chiamato il taxi*, smise di piovere.
called the taxi, it stopped raining



- (28) a. *Salutata Maria*, Gianni se ne andò.
 greeted Maria Gianni left
 ‘[Having] greeted Maria, Gianni left.’
 b. *Chiamato il taxi*, Maria uscì
 called the taxi Maria went out
 ‘[Having] called the taxi, Maria went out.’

The examples in (27) are ungrammatical because no possible controller for PRO is available in the matrix clause following the past participial clauses. When a controller is present, as in (28), the sentences are perfect.¹⁹ This property is directly accounted for by the proposed representation (25)–(26), where the subject is PRO.

4.1 Agreement and Accusative Case-Marking

A fundamental property of transitive past participial clauses is the fact that the past participle obligatorily agrees with the following NP. The unacceptability of (29), in contrast with the well-formedness of (1) b. and (17), illustrates this fact.

- (29) a. **Conosciuto Maria*, ...
 known (MASC-SG)
 b. **Conosciuto me_{fem}*

Why should agreement be possible and obligatory here? The question is particularly important in a language like standard Italian, where verb-object agreement is never instantiated in full clauses. I propose that agreement here is ultimately due to Case-theoretic reasons, i.e., to the necessity of Case-marking the direct object NP. The proposal assumes, as a crucial step, a particular conception of the consequences of the process of incorporation of

the verb within the past participial morphology. I want to propose that an automatic consequence of this process is that the accusative Case-assigning capacity of the verb is blocked, because accusative is taken up by the past participial morphology.²⁰ If we assume this, then no (accusative) Case is available to Case-mark the direct object NP, once the process of incorporation has taken place.

I will then assume that a marked agreement strategy obtains: The verb in the AGR position agrees with its governed direct object.²¹ Once agreement is established, the direct object becomes itself marked for accusative Case. This, then, is another instance of Case-marking through agreement, of the same kind that is at work in past participial clauses containing an unaccusative verb. The only difference between the two cases lies in the way that the past participle agreement is obtained: through the SPEC-head relation with unaccusative past participles, and through the head-complement relation with transitive past participle.²²

In fact, we can speculate that these are the only two strategies made available by Universal Grammar (UG). More specifically, we can suppose that the fundamental relation regulating agreement processes is just government by the head or by a head projection. Within a given XP, the head and its first projection govern the complement position and the SPEC position respectively. In languages like standard Italian, and in many other familiar languages, the SPEC-head relation is ranked as the least marked agreement strategy, and the head-complement relation is left (nearly) unexploited. However, the head-complement relation remains a UG option, and it is not surprising that it becomes operative if the unmarked option is unavailable, for whatever reason, and agreement is necessary. Here, I argue, the necessity of agreement comes from the need to Case-mark the direct object NP.²³

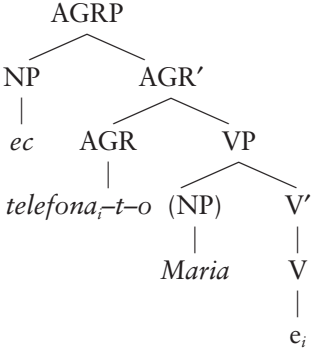
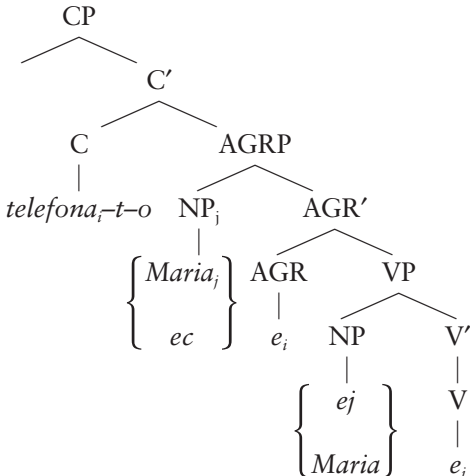
Finally, we should provide an answer to a question left open: What in the system rules out the possibility of moving the past participle into the C⁰ position (and the object into the subject position), thus making nominative Case available for the NP to be Case-marked with? In other words, what rules out the possibility of still deriving impossible forms like (18), with a derivation parallel to the one proposed for unaccusative past participial clauses? My proposal here is that some version of the ban against Case conflict is responsible for this; this condition is presumably to be formulated in terms of Chomsky's (1986b) chain condition. Notice that the verb would move to the nominative C⁰ position, together with the incorporated accusative Case-marked past participial inflection. I assume that such an operation would give rise to a Case conflict: (Structurally) Case-marked elements are never allowed to move to a Case position. Hence the operation is impossible. Thus, according to this system, the only available derivation for transitive past participial clauses is the one represented in (26), with agreement arising in the way discussed.

5 INTRANSITIVES AND PASSIVES

The interpretation of the agreement facts in the transitive case gives us a fundamental clue for understanding why past participial clauses should be impossible with intransitive verbs and why passive should not be available either, at least when a lexical subject NP is present. The relevant examples in (1) are repeated here.

- (1) c. **Telefonato Gianni*, Maria andò all' appuntamento.
 telephoned Gianni Maria went to the appointment
 d. **Salutata Maria da Gianni*, tutti uscirono dalla sala.
 greeted Maria by Gianni, everybody left the room

Let us discuss the intransitive case first. In order to rule out examples like (1) c., we must exclude each of the two possible representations that can in principle be associated with them, given in (30).

- (30) a. 
- b. 

In (30) a., the verb moves to the AGR position and the lexical subject remains in its D-structure position inside the VP; in (30) b., the verb moves further, to the nominative C⁰ position, and the lexical subject either moves to the [SPEC, AGRP] position or remains in its D-structure position. Several factors rule out these representations.

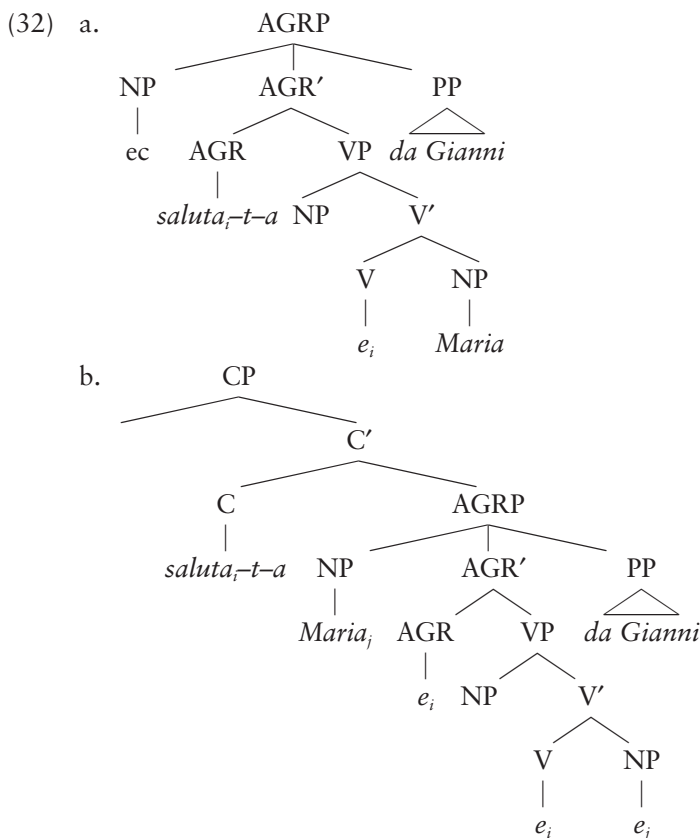
As for (30) b., it is straightforwardly excluded for the same reason that V-movement into the C⁰ position in the transitive case is excluded, namely, the fact that Case conflict inevitably obtains in this representation. I crucially assume that all intransitive verbs are in fact possible assigners of accusative Case.²⁴ This entails that, as a consequence of the incorporation process, the past participial morphology receives accusative Case with intransitives as well; this in turn implies that movement to another Case position is excluded, and movement to the nominative C⁰ position would be exactly this sort of movement: Hence, the impossibility of a derivation along these lines. Furthermore, whether the lexical NP moves or not does not change the situation in any relevant respect: In both cases it would be impossible to Case-mark the NP, because the potential Case-marker fills an inappropriate position.

As for (30) a., lack of Case-marking of the lexical NP in the VP-internal subject position is again the cause of its ill-formedness. Notice that the only way in which *Maria* could be Case-marked in this representation would be through agreement with the accusative Case-marked past participial morphology. Such agreement, however, cannot obtain, as witnessed by the total impossibility of (31).

- (31) **Telefonata Maria*, . . .
 telephoned(FEM-SG)
 ‘Maria having telephoned, . . .’

I assume that this is due to the fact that, contrary to what happens in the transitive case, the NP to be Case-marked here is not uniformly a ‘complement’ for the complex head V+Past Participial morphology. It is a complement for the past participial morphology, and a specifier for the verb, prior to incorporation. This creates an inconsistency that disallows the possibility of agreement obtaining through the head-complement relation, the only available strategy in this case.²⁵

Let us now discuss the impossibility of passive, illustrated by (1) d. Here too we have to rule out two possible representations: (32) a., where the lexical NP remains in its D-structure direct object position; and (32) b., where the D-structure direct object moves to the [SPEC, AGRP] position and the past participle is in C⁰:



Representation (32) a. corresponds to a transitive, active structure [cf. (26)]. Here the lexical NP in object position should receive accusative Case through agreement with V+AGR. The visibility condition excludes the possibility of the past participial morphology being 'argumental' under these circumstances, as it must be in the passive: One Case, accusative, would have to simultaneously make two arguments visible for θ -role assignment—the past participial morphology and the direct object NP—a situation excluded in principle. The verb should then assign its 'subject' θ -role to the SPEC of V position. But this prevents this θ -role from being assigned to the NP embedded under the *by*-phrase. (The latter possibility is available only in passive structures containing the 'argumental' past participial morphology, which forms a chain with the *by*-phrase.) With this representation, the sentence is ultimately ruled out by the same factor that rules out any active clause containing a *by*-phrase [**Ha salutato Maria da Gianni* '(he) has greeted Maria by Gianni'].

The representation in (32) b. more closely corresponds to a passive structure, with the direct object having moved to the SPEC of AGR. The past participle has also moved to the C⁰ position. We know from the discussion here that this is a position where nominative Case is assigned. Furthermore, we also know from the previous discussion that movement of accusative Case-marked past participial morphology into the nominative position is ruled out in principle. Given the proposed system, the past participial morphology of the transitive verb *salutare* is accusative Case-marked. Hence no movement of the past participle can take place. The representation in (32) b. is thus ruled out for the same reasons that ruled out the parallel representation in (30) b. containing an intransitive past participle.

A passive past participle clause becomes perfect if no lexical NP subject is present.

- (33) *Salutata da tutti*, Maria lasciò la sala.
 greeted by everybody Maria left the room
 ‘[Having been] greeted by everybody, Maria left the room.’

There is no need for the past participle to move to C⁰, because no Case is needed for PRO. Hence, the past participle can remain in the AGR position:

- (34) [_{AGRP} PRO_i [_{AGR'} [_{AGR} saluta_i-t-a] [_{VP} [_{V'} [_V e_i [_{NP} e]]]]]] da tutti]

In conclusion, it appears that the paradigm in (1), primarily characterizing past participial clauses in Italian, is fairly well understood within the system developed. To summarize, this system includes as its fundamental components (a) a representation of past participial clauses corresponding to a subpart of the canonical representation of full clauses containing an aspectual auxiliary; (b) the theory of head incorporation; and (c) a particular conception of the interplay between Case theory and Agreement theory, of which I have sketched out some basic properties.

3 Verb Positions

Evidence from Italian

1 INTRODUCTION

If we adopt the research strategy initiated by Pollock (1989), inspired in turn by the pioneering approaches of Emonds (1978) and Klima (1964), some of the phenomena concerning word order variation can be taken to be a function, at least in part, of a head movement process that moves the verb out of its base position within the VP into some inflectional head position.¹ Particularly revealing in this regard is the respective position of the inflected verb and adverbs of various classes. Variations among languages as to the position that adverbs appear to fill within the clause can be interpreted as being not a primitive and rather mysterious difference in adverb syntax proper, but rather a function of a verb syntax working differently. Under the assumption that the position that different classes of adverbs fill in the clause structure remains invariant across (at least typologically close) languages, the observed variation can be made to follow from the different scope of application that the verb movement operation can have. Whence, for instance, the by now classical approach to the observed difference in the position occupied by the negation adverb in two languages like French and English that constitutes the starting point of Pollock's analytical approach. As is well known, the basic paradigm in (1) can be accounted for by assuming that the French negation *pas* and the English negation *not* occupy the same position in the clause structure of the two languages, and that the different position they appear to fill with respect to the inflected verb is epiphenomenal and due to the fact that the verb moves out of the VP into a high inflectional head position in French but not in English:

- (1) a. Jean n'aime *pas* Marie
b. *John likes *not* Mary

I would like to present a number of case studies concerning the interaction of verb and adverb syntax within the perspective just outlined,

ultimately aiming at determining what the position filled by the inflected verb is in a language like Italian. The cases that I will consider in detail deal with the study of the position filled by the inflected verb and the following classes of adverbs: negative adverbs, positive adverbs, and sentence adverbs.

2 NEGATION

Under the view of sentence structure that splits the traditional INFL node into different functional heads, in particular AGRs (in Chomsky's 1991 terminology) and T at least, I assume the following basic structure, where AGR and its projection is above T and its projection:²

$$(2) \quad [_{\text{AGRP(S)}} \text{NP} [_{\text{AGR}'} \text{AGR} [_{\text{TP}[\text{T}' \text{T VP}]]}]]]$$

Negation is expressed in standard Italian by the negative particle *non* that always precedes the (inflected and also the infinitival) verb. *Non* can optionally cooccur with a negative adverb, such as *più*, *mai*, and *ancora* . . .; (3) gives an example of both possibilities in a clause containing a simple tense:

$$(3) \quad \text{Gianni } non \text{ parla } (più/mai/ancora)$$

As is clear from (3), the negative adverb follows the inflected verb; and this is the only possible order:

$$(4) \quad * \text{Gianni } non/più/mai \text{ ancora } parla$$

Adapting Pollock's analysis of the equivalent data in French, I propose that the negative adverbs occupy the same position as the negative adverb *pas* in French and the negative particle *non* occupies the same position as the French negative particle *ne*. More precisely, these positions are to be identified with the Specifier and the head, respectively, of a further functional projection: NegP.³ The idea of dealing with Italian in the same terms as French is immediately suggested by the parallel distribution displayed by the two languages. Compare (3) and (4) with (5) a. and b.:

$$(5) \quad \begin{array}{ll} \text{a. } \text{Jean } n' \text{ aime pas Marie} \\ \text{b. } * \text{Jean ne pas aime Marie} \end{array}$$

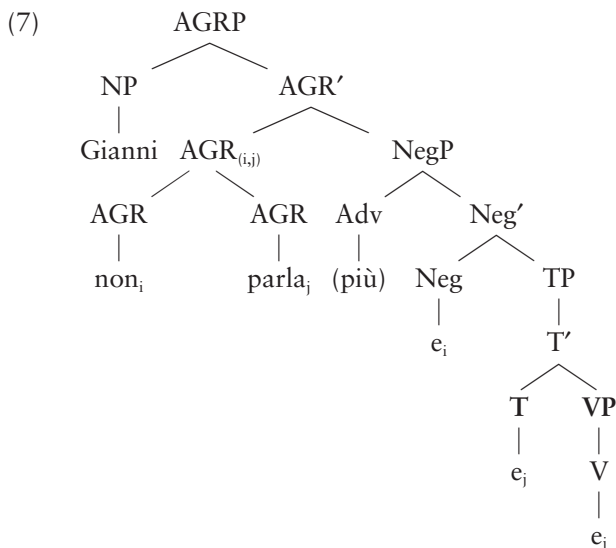
Distributionally, the major difference between the two languages is to be recognized in the fact that the presence of the negative adverb is obligatory

in French and optional in Italian. I then propose that the NegP is located between the two functional projections AGRP and TP, much as in Pollock's original proposal, with the only difference being AGRP is higher than TP in the present account:

- (6) . . . AGR [_{NegP} *pas/più* [_{Neg'} *ne/non* [_{TP} [_{T'} T VP]]]]

How is the observed word order derived then? It is derived by leaving the negative adverbs in their base position in Spec of NegP and by moving the verb into the highest functional head, AGR. Given the ungrammaticality of (4) and (5) b., this instance of V-movement is to be considered obligatory.

What about the negative head *ne/non*? Notice that it intervenes both linearly and structurally in (6). Of course, this is not true in the final S-structure linear word order, where *ne/non* precedes the inflected verb that, by the argument just given, fills the AGR position. Notice, furthermore, that by assuming that V moves first to T and then to AGR with a head-to-head type of movement, the obvious theoretical question arises of how a violation of the Head Movement Constraint/Empty Category Principle (HMC/ECP, henceforth) can be avoided with this kind of derivation where the Neg head would be skipped. I claim that the answer to the first question opens the answer to the second. As was first proposed by Kayne (1989c) and by Pollock for French *ne*, I want to propose that *non* can be considered a clitic element.⁴ More precisely, *non* can be analyzed as a syntactic clitic that undergoes a clitic placement operation. The effect of this operation is that *non* left-adjoins to the AGR head, much as object pronominal clitics do. It then turns out that *non* and the verb fill the same AGR head at the end of the derivation. This is going to be the key for the answer to the second question just raised. Indeed, although the described derivation does involve a violation of the HMC/ECP, the output representation can be claimed not to do so. The 'philosophy' of this approach is the same as the one put forth in Moritz (1989) for the same problem raised by the French data, and by Chomsky (1989), according to which HMC/ECP is a condition on representations and not on derivations. Hence, what is crucial is that the final representation does not involve a violation of the principle, independently of whether the derivation does. Suppose that we implement this proposal in the following way. Although giving rise to two different chains, the negation *non* and the inflected verb share the same head, AGR. We can formally represent this by attributing to AGR a pair of indices corresponding to the index of the negation and to that of the verb, say *i* and *j*, respectively. Hence, in the final representation AGR is indexed (*i*,*j*). We can then claim that the antecedent-government relation is preserved in the resulting representation under the assumption that it holds between any two members of a chain if they carry an index non-distinct from that of the head of the chain. The proposal is illustrated in (7):



2.1 Clitics and Negation

The proposed analysis assumes a certain parallelism between the negation *non* and pronominal clitics: Both are syntactic clitics and undergo movement in the syntax; both left-adjoin to the head AGR, i.e., the head where the inflected verb ends up. This has been argued for pronominal clitics in Kayne's work,⁵ and for *non* in the account I have just developed. Zanuttini (1991) has questioned this point of view. At least two of her arguments deserve discussion here. Zanuttini observes the following: (a) if *non* is a clitic, it should be subject to ordering constraints when it is found in a cluster with other pronominal object clitics, as object clitics usually are (with ordering constraints varying from one language to the other: cf. Italian *glielo darò* versus French *je le lui donnerais*); however, the preverbal negative element generally precedes pronominal object clitics, and this is quite systematic across languages.⁶ (b) The second observation is provided by the possibility of coordinate structures like (8), pointed out by Paola Benincà (Zanuttini 1991, 85) and also discussed by Kayne (1991):

- (8) *Non lo prendo adesso e te lo riporto tra due giorni*
 neg it (cl) take now and to you(cl) it(c1) return in two days
 'I am not going to take it now and return it to you in two days'

If the negation *non* and the object pronominal clitics (as well as the inflected verb) fill the same AGR head, it is hard to see how this coordination should be possible with the intended interpretation where the negation has scope over both coordinate constituents, as the glosses make explicit.

Although sentences like (8) have a certain marginal flavor, still I take their possibility to be problematic for the simple idea that *non*, pronominal object clitics, and the inflected verb necessarily fill the same AGR head position.⁷ In order to account for facts like (8), one could adopt the following proposal. I assume in the following that the AGR_S projection can be recursively generated.⁸ Then, there can be at least two heads of the AGR_S type in clause structure:

- (9) $[_{AGRP(1)} NP [_{AGR'} AGR [_{AGRP(2)} [_{AGR'} AGR \dots]]]]$

I assume that the subject NP always fills the Spec position of the highest AGR whose head is lexicalized. Suppose now that the negative clitic *non* has the option of adjoining to the highest AGR head, a position not directly accessible to object clitics, or to the verb.⁹ If this possibility is made available for the negative clitic, the possibility of coordinate structures like (8) can be derived: In this kind of sentence the coordination can occur at the level of the $AGRP(2)$ projection, excluding $AGRP(1)$. Since, by hypothesis, $AGR(1)$ can be the host of the negation, in this analysis there exists a derivation of these clauses where the negation is outside the domain of the coordination. On the other hand, since $AGR(1)$ is higher than $AGR(2)$ and in fact c-commands $AGRP(2)$, the negation can have the coordinate structure in its scope. (10) gives the schematic representation of (8) under this analysis:

- (10) $[_{AGRP(1)} \dots [_{AGR(1)} non] \dots [_{AGRP(2)} [_{AGRP(2)} lo\ prendo\ oggi] e [_{AGRP(2)} te\ lo\ riporto\ domani]]]$

If $AGR(1)$ is the head that typically hosts subject clitics in null-subject languages (cf. note 8) but not object clitics, a fairly direct account is provided for Zanuttini's first observation: why, in the general case, negation precedes object clitics. If movement to $AGR(1)$ is the preferred option for *non*-type negation, it is no surprise that there are not reorderings within the clitic cluster between the negative clitic and object clitics since they do not form a syntactic cluster but fill different head positions.¹⁰ On the other hand, one would expect, under this view, that reorderings could in principle be available with subject clitics with which the clitic negation in $AGR(1)$ would form a syntactic cluster. Indeed, this is what we find. There exist dialectal varieties of Italian where the *non*-type negation reorders with second person singular subject clitics. One instance is provided by Toscano (as pointed out in Brandi and Cordin 1981) where both (11) a. and (11) b. are possible:

- (11) a. T' un gliel'ha detto
 you neg have told him that
 b. Un tu gliel' ha detto
 neg you have told him that
 'You have told him that'¹¹

If the arguments just presented are on the right track, one could continue to assume that *non* is a syntactic clitic, with the qualification that it is more akin to a subject clitic than to an object clitic.

A potential problem for the proposed account should be pointed out. If the assimilation of the preverbal *non*-type clitic negation to subject clitics were complete, one should expect that *non*-type negation would behave like subject clitics in coordinate structures as well. However, subject clitics must always be repeated in both conjuncts of a coordinate structure (Brandi and Cordin 1981, Trentino data):

- (12) a. *La canta e bala
 she(c1) sings and dances
 b. La canta e la bala
 she(c1) sings and she(c1) dances

Within the spirit of the hypothesis developed earlier, the impossibility of (12) a. is not expected: The subject clitic should be able to remain outside the coordination, much as we have proposed for *non* in the analysis of (8). Possibly reasons could be found to account for this different behavior of negation and subject clitics. However, I would like to take a different tack. While the analysis of the preverbal *non* negation as akin to subject clitics could very well be on the right track, as paradigms like (11) strongly suggest, it might still not be responsible for coordinate structures like (8). Indeed, the analysis of sentences of this sort deserves further qualification. Notice that if a negative adverb is present in coordinate structures like (a), it can only appear within the first conjunct; its presence within the second conjunct gives rise to sharp ungrammaticality.

- (13) a. Gianni *non* scrive un lavoro e poi lo pubblica
 Gianni not writes a work and then it(c1) publish
 b. Gianni *non* scrive *mai* un lavoro e poi lo pubblica
 Gianni not writes ever a work and then it(cl) publish
 ‘G. doesn’t ever write a work and then publish it’
 c. *Gianni *non* scrive un lavoro e poi lo pubblica *mai*
 Gianni not writes a work and then it(cl) publish ever
 ‘Gianni doesn’t write a work and then ever publish it’

Consider also (14), whose examples are more closely equivalent to (8):

- (14) a. *Non* lo prendo *piu* il martedì e te lo riporto il giovedì
 I neg it (cl) take anymore on Tuesday and to you (cl) it (cl)
 take back on Thursday
 b. **Non* lo prendo il martedì e te lo riporto *piu* il giovedì
 I neg it (cl) take on Tuesday and to you (cl) it (cl) take back
 any more on Thursday

The sharp impossibility of (13) c. and (14) b. strongly suggests that coordinate structures like (8) or (13) a., b., and (14) a. do not involve the coordination of two negative clauses. If this were the case, a negative adverb should be able to appear either in the first or in the second conjunct of the coordination (or maybe in both). There is no apparent reason why *non* should be possible just in the first conjunct. I conclude that examples of this sort do not involve the coordination of two negative clauses but simply the coordination of a negative and a positive clause. I suggest that the second conjunct acts as a kind of adjunct to the VP of the first conjunct. I assume that it is for this reason that negation has scope over both clauses from an interpretive point of view: This is so because negation is high in the structure and c-commands the adjunct clause introduced by the coordinating particle(s) *e (poi)*. The situation is similar to that found in sentences like (15), where the clausal adjunct is in the scope of the negation.

- (15) Gianni *non* fa *mai* qualcosa perché ci crede
 Gianni not does ever something because he believes it
 'Gianni never does something because he believes it'

Given these considerations, the possibility of sentences like (8) turns out to be irrelevant to the clitic status of negation. Furthermore, should one assimilate *non* to a subject rather than to an object clitic as suggested, the fact that it can be absent in the second conjunct of a coordinate clause (contrary to subject clitics) in sentences like (8) does not come as a surprise anymore as the second conjunct is not a negative clause in our analysis.

In conclusion, I will continue to assume that *non* is a clitic, syntactically adjoined to AGR. Under the AGR_S recursion hypothesis, I will continue to assume that *non* adjoins to AGR_S1, the highest AGR head in the clause structure.

2.2 More on Negation

Consider now the structure of a clause containing a complex tense formed by an auxiliary and a past participle. I assume that the past participle has an internal functional structure that parallels that of the clause. In particular, much as in Chomsky (1991), the functional structure of a past participle projects from an AGR head, call it AGR_O,¹² and from an aspectual-type head, call it ASP. Parallel to the full clause where AGR_S is above T, AGR_O is ordered higher than ASP in the past participle and the VP is the complement of ASP. AGR contains features of gender and number.

- (16) [_{AGRP} [_{AGR'} AGR [_{ASPP} [_{ASP'} -t- V]]]]

As is well known, the (object) agreement features are visible in some instances of the past participial form, e.g., with ergative verbs (*arriva-t-i*

'arrived' (masc,pl)) and when an object clitic is present (*l' ho vis-t-a* 'I have seen(fem,sing) her(c1,fem,sing)'); otherwise, they are realized in the unmarked masculine singular (*parla-t-o* 'spoken').

In sentences containing a complex tense, the clitic negation *non* always precedes the inflected auxiliary; if a negative adverb is present, the favored location is between the auxiliary and the past participle. However, it can also follow the past participle, and in some varieties of Italian this is the much preferred order:

- (17) a. Gianni *non* ha *più* parlato
 Gianni not has anymore spoken
 b. Gianni *non* ha parlato *più*
 Gianni not has spoken anymore
 'Gianni hasn't spoken anymore'

Notice that in French, only the equivalent of (17) a. is possible:

- (18) a. Jean *n'a pas* parlé
 b. *Jean *n'a* parlé *pas*

The order in both (17) a. and (18) a. is directly accounted for under our previous assumptions: The auxiliary moves to AGR_s as well as *ne/non*. The negative adverb fills the Spec of NegP, a position higher than the past participial functional structure; hence, it precedes the past participle. The ungrammaticality of (18) b. is then completely expected. Given our discussion so far, the possibility of (17) b. is not. Two alternatives are available: (a) the past participle incorporates within the auxiliary, and for this reason the negative adverb appears to follow the past participle; (b) the negative adverb *più*, contrary to French *pas*, has another lower location available in the clause structure, somewhere within the projections forming the past participle. According to the second alternative, the negative adverb follows the past participle as a consequence of the verb moving to some head position within the past participle functional structure. As I have argued elsewhere (Belletti 1990, Chapter 1 of this volume), the first alternative involving incorporation is not a viable one for various reasons. Hence we are left with the second alternative. This in turn means that the very possibility of the word order displayed in (17) b. can be taken as a direct indication that the verb moves out of the VP to form the past participle, much as it moves to form the inflected finite verb. Notice that there are two possible locations for the negative adverb within the past participle structure. *Più* (*mai, ancora . . .*) could be adjoined to the VP or to ASPP.¹³ In the first case the desired word order would be obtained with a short verb movement to ASP; in the second case, it would be obtained with a longer verb movement to AGR_O. While it is hard to decide on these rather subtle questions, there is at least one indication that the second approach is more likely to be on the right track. If we

take the French equivalent of *più*, *plus*, and if we compare its distribution with that of a VP adverb like *souvent*, the following subtle but detectable contrast shows up:

- (19) a. ??I1 a lu *souvent* des romans
 b. *I1 n'a lu *plus* des romans

While (19) a. is marginally acceptable, (19) b. is ungrammatical for French speakers. This contrast could be interpreted by assuming that while *souvent* is a VP-adjoined VP adverb, 'lower' *plus* is an ASPP adverb. The desired word order of (19) a. is obtained through short verb movement of the verb to the ASP head. Assuming furthermore that the verb does not move higher than the first functional head in nonfinite forms in French, the impossibility of (19) b. follows: *Plus* cannot come after the past participle even if it is an ASPP adverb because verb movement stops at the ASP head in the past participle structure; hence, it stops in a position lower than the position where *plus* is adjoined, i.e., ASPP. Notice that the short verb movement occurring in the past participial structure parallels the one that Pollock first detected in French infinitivals. According to his analysis, in French infinitivals the verb can optionally (although somewhat marginally for some speakers) move to the first functional head (T, in our approach), but it cannot go higher than that; it is through this assumption that the by now 'classical' contrast in (20) is interpreted.

- (20) a. *Ne sembler *pas* heureux . . .
 b. (?)Paraître *souvent* triste . . .

The word order in (20) a. cannot be obtained because, given the high location of *pas* in the clause structure, it would require a long movement of the verb to AGRS, a possibility not available in French infinitivals. This is in fact a crucial difference between French and Italian, as I have argued in detail in Belletti (1990, Chapter 1 of this volume). But in order to obtain (20) b., only short verb movement is necessary since *souvent* is a lower (VP) adverb, and this movement is available in French infinitivals as well. In conclusion, the analysis we have presented assimilates the syntax of the verb in the past participle to that of another nonfinite form of the verb, the infinitive in both French and Italian. We can then make the analytical proposal that in Italian the verb moves to the highest AGR₀ head within the past participial structure. This gives the order in (17) b. In French, on the other hand, it only moves to an AGR-type head in finite clauses, to AGR_s in particular; in infinitives and past participles it only moves to the first functional head, i.e., T and ASP respectively.¹⁴

It should be pointed out that the parallel between past participles and infinitives that I have just proposed for French is superficially not preserved as far as the distribution of *plus* is concerned in that *plus* can follow the

infinitive just as *souvent* can (*Jean dit ne manger plus sa soupe*), contrary to what happens with past participles. I will tentatively suggest that when *plus* (and *più* as well, presumably) is not in Spec of NegP, it is then a lower negative adverb, and fills a position lower than TP. Suppose furthermore that the ASPP is present in all clauses.¹⁵ As for *souvent*, I will continue to adopt the standard assumption that it is a VP adverb. Now, if V (optionally) moves to T in French infinitivals, this has the consequence that both *plus* and *souvent* can follow the verb in these structures given that T is higher than both the ASPP and the VP in the clause structure. In clauses involving a past participle, on the other hand, T is not accessible to movement of the lexical verb; rather, the auxiliary moves through it to reach the AGR_s head. V moves within the past participle projection only and it can at most reach the ASP head in French, by our hypothesis.¹⁶ ASP is higher than VP; hence *souvent* can follow the past participle. *Plus*, on the other hand, will necessarily precede it since it fills a position higher than the ASP head, i.e., that of modifier of ASPP.

I would also like to point out parenthetically that the fact that the verb moves to form the past participle in a language like Italian is also indicated by the distribution of VP adverbs like *spesso* and (although less directly; see note 17) by FQs:

- (21) a. Loro hanno riso *spesso*
 they have laughed often
 b. *?Loro hanno *spesso* riso
 they have often laughed
 c. Loro hanno riso *tutti*¹⁷
 they have laughed all

However, given the reasoning developed here on the basis of the distribution of *più/plus*, (21) tells us nothing about the exact final location of the verb in the past participle structure.

3 POSITIVE ADVERBS AND THE POSP

Let us now move from negation to assertion. There exists a class of adverbs in Italian whose distribution significantly parallels that of negative adverbs (see also Lonzi 1989). The class is constituted by adverbs like *già*, *sempre*, *pur*, and *ben*, whose semantic function consists in reinforcing the assertion. I want to propose that their distribution follows directly from the idea that they fill the specifier position of a Positive Phrase, which is in complementary distribution with NegP and occupies the same position between AGRP and TP.¹⁸ As we shall see, the distribution of at least one member of the class, the adverb *ben*, completely parallels that of a negative adverb like French *pas*. Hence, Italian has an exact correspondent of the French negative adverb, in

the positive modality rather than in the negative one. Recall that *più* is only partially parallel to *pas* in that, contrary to *pas*, which only fills the Spec of NegP position, it can also fill a lower position in the clause structure. PosP and NegP differ in one aspect of their internal shape: While the head of NegP is systematically filled with the negative marker *non*, no lexical realization is available for the head of the PosP in Italian. I will assume that the head of the PosP is filled with an empty element. This, in turn, makes the Italian PosP more akin to the English NegP, which also has an empty head and a realized specifier, i.e., the negation *not*.¹⁹

Consider the following examples illustrating the distribution of positive adverbs, and the way they contribute to showing the occurrence of verb movement to AGR.

- (22) a. Maria parlava *pur/ben/già/sempr*e di lui
 Maria spoke indeed/already/always . . . of him
 b. Maria ha *pur/ben/già/sempr*e parlato di lui
 Maria has indeed/already/always . . . spoken of him

Particularly revealing is example (22) b. where positive adverbs precede the past participle paralleling French *pas*. While *pur(e)*, *già*, and *sempr*e have the further (slightly marginal) possibility of following the past participle, thus paralleling the distribution of *più*, *ben* behaves as the exact correspondent of *pas*.

- (23) a. Gianni avrà *ben* risposto
 Gianni will have indeed answered
 b. *Gianni avrà risposto *ben*
 Gianni will have answered indeed
 c. Gianni avrà risposto *pure/già/sempr*e
 Gianni will have answered indeed/already/always . . .

The adverb *ben(e)* here should not be confused with the homophonous manner adverb that is a VP-final adverb. The contrast between (23) a. and (23) b. directly recalls the one between (24) a. and (24) b. involving *pas*:

- (24) a. Jean n'aura *pas* répondu
 John will have not answered
 b. *Jean n'aura répondu *pas*
 John will have answered not

The possibility of sentences like (25) a. can be accounted for by analyzing the adverb as a modifier of the following PP adjoined to it. The correctness of the hypothesis is confirmed by the possibility of preposing the whole sequence *ben* + PP to form a cleft sentence, as illustrated in (25) b.:

- (25) a. Gianni avrà parlato *ben* di lui
 Gianni will have talked indeed about him
 b. E' *ben* di lui che Gianni avrà parlato
 It is indeed of him that Gianni will have talked

The following paradigm illustrates the complementary distribution between a PosP and a NegP. They cannot both appear in the same sentence.

- (26) a. *Maria non parlava più *pur/ben/già* di lui²⁰
 lit.: Maria not talked anymore indeed . . . of him
 b. *Maria non ha mai *pur/ben/già* parlato di lui
 lit.: Maria not has ever already . . . talked of him

4 SENTENCE ADVERBS

The distribution of sentence adverbs is extremely intricate. However, it can reveal otherwise somewhat hidden properties of verb syntax. I will take the sentence adverb *probabilmente* as a typical representative of the class.

- (27) a. *Probabilmente* Gianni arriverà domani
 probably Gianni will come tomorrow
 b. Gianni *probabilmente* arriverà domani
 Gianni probably will arrive tomorrow
 c. Gianni arriverà domani, *probabilmente*
 Gianni will arrive tomorrow, probably

The word order in (27) a. is to be considered the basic word order. This can be represented by having the adverb adjoined to the highest clausal projection, AGRP:

- (28) [_{AGRP} probabilmente [_{AGRP} NP [_{AGR'} AGR TP]]]

I want to propose that both (27) b. and (27) c. are derived structures, involving left dislocation or topicalization of the subject in the first case, and right dislocation of the adverb in the second. In particular, in (27) c. the adverb has been right dislocated much as the direct object is in a structure like (29), where the clitic preceding the right dislocated direct object obligatorily refers to it:

- (29) Lo conoscerai domani, Gianni
 him(c1) you will know tomorrow, Gianni

In (27) c. there is no clitic referring to the adverb because (non-argument) adverbs do not have a corresponding clitic. As for (27) b., a direct argument

can be provided, showing that it really involves left dislocation or topicalization of the subject. The argument runs as follows. Since indefinite quantifiers cannot be left dislocated (as discussed in Rizzi 1986b; Belletti and Rizzi 1988) but can only undergo topicalization, a sentence like (27) b. whose subject is an indefinite quantifier should only be possible with the contrastive/focal intonation associated with topicalized structures in a language like Italian (Cinque 1990b). This is indeed the case. (30) are well-formed sentences only with a contrastive intonation on the indefinite subject.

- (30) a. NESSUNO *probabilmente* arriverà domani
 nobody probably will come tomorrow
 b. Penso che NESSUNO *probabilmente* arriverà domani
 I think that nobody probably will come tomorrow

Hence, we can conclude that in the word order manifested in (27) b. the subject fills a left-peripheral position: It is topicalized if it is an indefinite quantifier, and it is either topicalized or left-dislocated when it is a referential NP.²¹ Given this analysis, one single base position can be assumed for the sentence adverb at the beginning of the clause, and no special adverb movement process is advocated. Finally, we can also reach the conclusion that the distribution of the sentence adverb in (27) plays a neutral role in determining the occurrence and scope of the verb movement process since the adverb precedes the whole clause in its base position. A different point of view has been put forward by Kayne (1989b) to deal with the French and English equivalents of sentences like (27) b. Kayne has suggested that sentence adverbs like *probably/probabilmente* have their base location between the first and second functional projections forming the clause.²² The contrast in (27) can then be seen as the manifestation of a familiar difference between French and English: A lexical verb moves out of the VP in French but not in English.

- (31) a. John *probably* likes linguistics
 b. *Jean *probablement* aime la linguistique

However, the contrast remains also in compound tenses, as Kayne notes:

- (32) a. John *probably* has made several mistakes
 b. *Jean *probablement* a fait plusieurs erreurs

Under standard assumptions (32) a. should be impossible in English as well, where auxiliaries move high in the structure. This has led Kayne to propose a subtler analysis according to which auxiliaries move higher in French than in English. Hence the contrast in (32) could still follow from the different verb syntax. (This analysis also implies a significant revision of

classical analyses of negation, which I will not discuss here.) Notice that in Italian a word order like that of (32) a. is also well-formed:

- (33) Gianni *probabilmente* ha sbagliato molte volte

I believe that this casts doubt on Kayne's proposal. If such word order were a function of verb movement, Italian should pattern with French rather than with English, given the close similarity of verb syntax in the two languages. On the other hand, if we adopt the point of view that I just presented, a reason is made available for why Italian behaves like English rather than like French. While in both Italian and English a process of topicalization exists,²³ in French it does not (although for reasons that are not understood). If sentences where the subject precedes the sentence adverb involve topicalization of the subject, as we are proposing, it comes as no surprise that Italian and English pattern together.²⁴

In sentences containing a complex tense formed by an auxiliary and a past participle, besides the three positions that we saw in (27), illustrated in (34), a sentence adverb can also fill a position between the auxiliary and the past participle, (35).

- (34) a. *Probabilmente* Gianni ha sbagliato molte volte
 probably Gianni has made mistakes many times
 b. Gianni *probabilmente* ha sbagliato molte volte
 c. Gianni ha sbagliato molte volte, *probabilmente*
 Gianni has made mistakes many times, probably

- (35) Gianni ha *probabilmente* sbagliato molte volte
 Gianni has probably made mistakes many times

I will now concentrate on how the order in (35) can be derived and on what it can tell us about verb syntax in particular.

We could suggest the most straightforward analysis and claim that the adverb can be dealt with as an AGRP modifier. This would mean that it could modify either AGR_S or AGR_O. In the first case it would be superficially clause initial, in the second case it would appear between the auxiliary and the past participle, as in (35). Despite its attractive simplicity, this hypothesis makes the wrong empirical prediction in at least one important case. It predicts that if a negative adverb is present in the clause as well, it should be able to precede the sentence adverb, because the NegP whose specifier position it fills (at least as one option) is higher in the clause structure than AGR_OP. But this is not the case; the sentence adverb necessarily precedes the negative adverb:

- (36) a. Gianni non ha *probabilmente* più sbagliato
 Gianni has not probably anymore made mistakes

- b. *Gianni non ha più *probabilmente* sbagliato
Gianni has not anymore probably made mistakes

Can it be proposed that sentence adverbs are only clause initial and that the order in (35) is a derived one, obtained through movement of the auxiliary and of the subject? I have developed this argument in detail in Belletti (1990, Chapter 1 of this volume). I will only give here the main lines of the arguments.

Starting from a base word order '*probabilmente* Subject Aux Past Prt,' one could propose that the order in (35) is obtained by first moving the auxiliary to the only available position higher than AGR_s, i.e., C. The subject should then be left dislocated and fill a clause-peripheral position. This could be interpreted as due to Case-theoretic requirements.²⁵

The main reason to rule out this analysis lies in the fact that both French and English allow for a word order equivalent to the one in (35):

- (37) a. John has *probably* understood the problem
b. Jean a *probablement* compris le problème

It would be hard to assume a left-dislocation analysis for the subject in these cases. The resumptive pronoun should be a silent *pro* that is not normally licenced in these languages.²⁶ To obtain the order in (35) we could then assume a less rigid view of the distribution of *probabilmente* and claim that the adverb can also have another base position and, much as in Kayne's proposal referred to earlier, it is located between the first two functional projections building up the clause (AGRP and TP or AGRP and NegP in negative clauses). Once the auxiliary moves to AGR, the adverb ends up following it. This conclusion seems, however, a bit too simple in that it does not draw any distinction between the situation in clauses containing a simple tense and in those containing an auxiliary and a past participle. One would then expect that just as it can follow the auxiliary, the adverb could follow the lexical verb as well in sentences containing a simple tense. However, this is not the case, as indicated by the impossibility of (38).

- (38) *Gianni sbaglierà *probabilmente*
Gianni will make mistakes probably

This leads me to the following proposal. Suppose that the possibility is left open by UG of allowing free recursion of AGR_sP (see Cardinaletti and Roberts 1991 for a version of this proposal). Suppose furthermore that a sentence adverb is, as we have assumed so far, an AGR_sP modifier. If AGR_sP is recursively generated twice, this gives us two possible locations for the sentence adverb; it can be adjoined to the higher or to the lower AGR_sP:

- (39) [_{AGRSP} (probabilmente) [_{AGRP} NP AGR [_{AGRSP} probabilmente [_{AGRP} NP AGR . . .]]]]

Suppose now that the subject agreement features are always located on the lower AGR_s head and that any other AGR_s is consequently empty. Furthermore, the subject systematically fills the Spec position of the highest lexicalized AGR. I want to propose that only auxiliaries are allowed to move to an empty AGR. This is clearly shown by languages like English and French (and also Romanian; see Motapanyane 1989) in standard paradigms:²⁷

- (40) a. *I come not
 b. I have not come
 c. *Jean dit ne parler pas
 d. Jean dit n'avoir pas parlé

According to this proposal, the word order displayed in (35) and (37) is a further manifestation of the wider distributional possibilities of auxiliaries. It is derived by moving the auxiliary to the highest AGR_s head and by having the sentence adverb modifying the lowest, with the subject filling the highest Spec (whose head is lexicalized) as usual. (We can assume that the subject moves to this higher Spec position.)

- (41) [_{AGRSP} Gianni ha [_{AGRSP} probabilmente [_{AGRP} AGR [_{TP} T [_{AUXP} Aux AGR_{OP}]]]]]

In conclusion, according to this interpretation, the word order in (35) and (37) is not a (completely) derived word order but is obtained under recursion of AGR_sP and the exploitation of a possibility only available for auxiliaries, that of moving to an empty AGR.

I would like to conclude by making three relevant empirical observations.

1. That sentences containing auxiliaries involve more structure in the highest part of the clause than sentences not involving auxiliaries is also indicated by data from northern Italian dialects. According to the description provided to me by Poletto, in Trentino and northern varieties of Venetian a subject clitic is only present in sentences containing an auxiliary (on Valdatain, see also Roberts 1993a):

- (42) [Trentino]
 a. *Nisun el riva
 nobody *cl* arrives
 b. Nisun l'è rivà
 nobody *cl* is arrived

- (43) [Cornuda, North Veneto]
- | | | | |
|----|----------------------------|-----|------------------|
| a. | Gian el magna | a'. | Gian magna |
| | Gianni <i>cl</i> eats | | Gianni eats |
| b. | Gian l'a magnà | b'. | *Gian a magnà |
| | Gianni <i>cl</i> has eaten | | Gianni has eaten |

These facts can be interpreted as indicating that the subject clitic fills the highest AGRs head, thus exploiting a position made available (although indirectly) by the presence of the auxiliary, i.e., by the fact that an auxiliary can occupy an AGR_S not filled with verbal subject agreement features (and hence available for the subject clitic). Possibly, these subject clitics must necessarily cliticize onto a V in the syntax, a possibility only available when an auxiliary has moved to that position.

2. The idea that auxiliaries can move higher than lexical verbs, under the version of the AGR_SP recursion developed here, can provide an interpretation of a fact often noted but still unexplained: The fact that the Aux-to-C construction of Italian only involves auxiliaries. Thus, sentences like (44) a. are possible, but not sentences like (44) b.:

- (44) a. Avendo Gianni parlato troppo a lungo la riunione finì con molto ritardo
 having Gianni spoken too much, the meeting ended very late
- b. *?Parlando Gianni troppo a lungo la riunione finì con molto ritardo
 speaking Gianni too much, the meeting will finish late

If we assume that the AGR_SP recursion always obtains, the contrast in (44) can be interpreted in terms of the HMC/ECP: Movement to C would only be available for auxiliaries because they can first move to the highest empty AGR_S. Since lexical verbs only move to the lowest AGR (filled with verbal subject agreement features), movement to C would constitute a standard violation of the HMC/ECP because the AGR_S head would be skipped. Notice that we might interpret the question mark on (44) b. as due to a suspension of the AGR_SP recursion so that C could govern the AGR_SP head containing the lexical verb.

3. Consider the following pair:

- (45) a. *?Avendo *probabilmente* lui sbagliato . . .
 having probably he made mistakes . . .
- b. Avendo lui *probabilmente* sbagliato . . .
 having he probably made mistakes . . .

(45) a. is directly excluded as a violation of the adjacency condition on Case assignment and is derived by movement of the auxiliary to

C starting from the base word order 'Adv NP Aux Pst Prt.' In order for the auxiliary in C to be able to Case-mark the subject in (45) b., it is necessary that the NP fill the subject position and not a peripheral topicalized position (which would also presumably be higher than C). This means that (45) b. can only be derived from the base word order 'NP Aux Adv Pst Prt.' This in turn implies that this word order must be a basic one, as in the proposed account.

4 (Past) Participle Agreement

1 INTRODUCTION: PAST PARTICIPLE AGREEMENT AS SPEC/HEAD AGREEMENT AND CLAUSE STRUCTURE

One of the most influential developments of recent syntactic theory over the last decade is the articulated and abstract conception of clause structure first inspired by Pollock's (1989) article. Functional categories constitute the skeleton upon which clause structure is built up. Although abstract in a certain way, this conception can in fact be seen as very 'concrete' as it explicitly translates into syntactic positions features that can be overtly realized in the inflectional morphology (or are indirectly signaled by the (fixed) position of different classes of adverbs; Cinque 1999). The Infl node of Chomsky (1981) has been internally analyzed in several distinct syntactic (morpho) heads. Typical labels for these heads directly mirror their morphological feature content: Agr(eement), T(ense), Asp(ect), M(ode), Voice, Fin(itness), for those related to verbal morphology, and Neg(ation), Foc(us), Top(ic), Force for those related to the informational content of the clause (cf. Belletti 1990, Chapter 1 of this volume; Zanuttini 1997; Rizzi 1997, among many others of a quite extensive literature, according to the different aspects treated). A central role is played in the clause structure by Agr nodes and their projections that constitute a kind of bridge between the purely lexical content of verbs and the nominal content of the arguments: They are the reflection of nominal features in the verbal morphology (on the role and status of Agreement projections see Belletti 2001a).

Although in the most recent developments of the Minimalist Program (MP) the very existence of Agr nodes in the functional (minimal) clause structure has been put into question as their feature content is not 'interpretable' in the relevant minimalist sense (Chomsky 1995, 2000, 2001), *positions* that (pre)minimalist Agr nodes designate, although possibly differently labeled, should be preserved in order to account for the morphosyntactic interaction that agreement processes display. With this qualification in mind, we can continue to use the label Agr in the traditional way to refer to

the syntactic position(s) where agreement relations are established between a nominal element projection and heads connected to verbal inflectional morphology.¹

Between the late 1980s and mid 1990s, especially under the impulse of Kayne's (1989a) article on Romance past participle agreement and Chomsky's first formulations of the MP, the idea has been put forth that clause structure should not only contain Agr-type projections related to the preverbal (high) subject position, but also other positions of this type in the lower part of the clause, closer to the VP area (see Belletti 1994, Chapter 3 of this volume, 2001a; Cardinaletti 1997; and Cardinaletti and Roberts 2002, for the proposal that the upper part of the clause could contain more than one single Agr-type position hosting the preverbal subject in its Spec). One of these positions, initially identified with the so-called object Case/agreement projection (AgrOP), later distinguished from it and sometimes labeled Agr PstPrtP, is the one where past participle agreement obtains (Belletti 2001a; Friedemann and Siloni 1997).

Under the view that agreement processes can be taken to be the reflex of an established Spec-head relation inside an Agr projection, as revealed by (preverbal) subject agreement, Kayne (1989a) has proposed that past participle agreement is no exception to this general characterization. As a first illustration, take the case of past participle agreement in structures containing an object clitic in Italian:

- (1) L' ho conosciuta ieri
 her (CL) (I) have known (Fem, Sing) yesterday
 'I have known her yesterday'

Here, the past participle agrees with the moved object clitic. This agreement can be assumed to be obtained through the Spec-Head relation in the relevant low Agreement projection related to the past participial morphology, labeled AgrPstPrtP. The relation is established in the course of movement of the clitic to its final landing site in some (functional) head in the upper part of the clause. So, past participle agreement is a reflex of the displacement of the nominal projection determining agreement. Note, incidentally, that past participle agreement gives an interesting hint as to the way the process of cliticization takes place. The process must involve a first part of movement as a maximal projection of the projection containing the clitic, passing through the Spec of the relevant agreement projection. It is only toward the end of the process, and anyway after the passage through the Spec of the projection responsible for past participle agreement that the clitic can accomplish its movement as a head, ultimately incorporating into the (finite) verb (Kayne 1989a; Rouveret 1989; Sportiche 1996; Belletti 1999b, Chapter 5 of this volume; Rizzi 2000b; and see section 3.3 for a discussion of the cases of object agreement that constitute apparent exceptions to this general pattern).

2 PAST PARTICIPLE AGREEMENT IN ROMANCE: BASIC DATA

Past participle agreement phenomena are widespread in Romance, with differences among the various languages and dialects. Some of these will be mentioned in the course of the discussion. The Romance languages that have mostly been discussed in the literature in this connection are standard Italian and standard French. These two languages will also constitute the central focus of the following discussion.

2.1 Standard Italian

Past participle agreement holds in the following syntactic contexts:²

(a) With unaccusative verbs:

- (2) Maria è *partita*
 Maria is left (Fem, Sing)
 'Mary has left'

(b) With passive morphology, both on the passive auxiliary and on the lexical verb:

- (3) Maria è *stata assunta*
 Maria is been (Fem, Sing) hired (Fem, Sing)
 'Mary has been hired'

(c) Under direct object cliticization:³

(i) obligatorily for the third person:

- (4) a. L' ho *vista*/*o
 her (CL) (I) have seen (Fem, Sing/*NonAgr⁴)
 b. Le ho *viste*/*o
 them (Fem, Pl) (I) have seen (Fem, Pl/*NonAgr)
 c. Li ho *visti*/*o
 them (Fem, Pl) (I) have seen (Masc, Pl/*NonAgr)
 'I have seen her/him/them'

(ii) optionally with the other persons:

- (5) a. Mi/ti ha *vista*/o/o
 me/you (CL) (he) has seen (Fem, Sing/Masc Sing/
 NonAgr)
 b. Ci/vi ha *viste*/i/o
 us/you (he)has seen (Fem Pl/MascPl/NonAgr)
 'He has seen me/you/us/you'

(d) With reflexive/reciprocal clitics (including the inherent reflexive/ergative *si*-constructions of Burzio 1986):

- (6) a. Mi sono guardata allo specchio
 Me(Refl, CL) (I) am watched to the mirror
 b. Ci siamo guardate allo specchio
 Us(Refl, CL) are watched to the mirror
 'I/we have watched myself/ourselves in the mirror'

(e) With impersonal (passive) *si*:

- (7) Ultimamente si sono costruite/*o molte case
 lately SI have been built many houses
 'Lately, one many houses have been built up'

2.2 Standard French

Past participle agreement holds in similar contexts in French, with the following qualifications distinguishing it from the Italian paradigm:

(a) With unaccusative verbs taking *être* as aspectual auxiliary (hearable in some regional varieties; same constraint as in standard Italian except that *être* is not the only auxiliary taken by unaccusative verbs in French, see section 3.4):

- (8) Elles sont venues
 They (Fem, Pl) are come
 'They have come'

(b) With passive morphology on the lexical verb only:

- (9) Ces sottises ont été faites par les élèves de
 these stupid things have been done by the students from
 Cinquième
 5th grade

(c) Under direct object movement, via cliticization and wh-movement, optionally in both cases:⁵

- (10) Ces sottises, Jean ne les a jamais
 These stupid things (Fem, Pl) Jean not them(CL) has ever
 faites/-
 done (Fem, Pl)
 'These stupid things, John has never done them'

- (11) Voilà les sottises que Jean n'aurait
 Here are the stupid things (Fem, Pl) that Jean wouldn't have
 jamais faites/-
 ever done (Fem, Pl)
 'These are, the stupid things that Jean would not have ever done'

- (d) With reflexive/reciprocal clitics (including the inherent reflexive/ergative *si/se*-constructions of Burzio 1986, the so-called pronominal verbs of normative descriptions, both requiring *être* as aspectual auxiliary, hence falling under case (a)):

- (12) Elles se sont reprises
 They themselves have recovered
 'They have recovered'

Besides these basic data, there are other domains where past participle agreement gives rise to various complications. Let us consider standard Italian, where the phenomenon is clear as it always has a phonetic correlate. In transitive structures containing an overt direct object and a reflexive clitic corresponding to an indirect object (benefactive/dative), the past participle obligatorily agrees with the indirect reflexive clitic, hence with the subject:

- (13) a. Maria si è lavata/* i capelli
 Maria (to) herself is washed the hair
 'Maria washed her hair'
- b. Gianni e Mario si sono stretti la mano
 Gianni and Mario (to) themselves are shaken the hand
 'Gianni and Mario have shaken hands'

However, if the direct object of sentences like (13) is cliticized, past participle agreement is with the direct object clitic:

- (14) a. Maria se li è lavati
 Maria (to) herself them (CL, Masc, Pl) is washed (Masc, Pl)
 'Maria washed it'
- b. Gianni e Mario se la sono
 Gianni and Mario (to) themselves her (Fem, CL, Sing) are
 stretta.
 shaken (Fem, Sing)
 'Gianni and Mario have shaken it'

A hierarchy seems operative according to which past participle agreement with the direct object clitic necessarily takes priority over agreement with the indirect object (reflexive) clitic. The same paradigm is preserved if the reflexive clitic corresponds to a benefactive:

- (15) a. Maria/io si/mi è/sono letta questi libri volentieri
 Maria/I (to) herself/myself is/are read (Fem, Sing) these
 books volentieri.
 'Maria/I has/have read these books gladly for herself/myself'

- b. Maria/io se/me li è/sono
 Maria/I (to) herself/myself them (CL, Masc, Pl) is/are
 letti volentieri
 read (Masc, Pl) gladly
 'Maria/I have read them gladly for herself/myself'

Burzio (1986) states the operation of a hierarchy of this sort leaving the reasons for its existence as an open question. See section 5 for further discussion and a proposal.

Finally, past participle agreement with a direct object clitic is preserved and obligatory in standard Italian, also in so-called A(bsolute) S(mall) C(lauses):

- (16) a. Conosciutala, ...
 known (Fem,Sing) her (CL) ...
 'Having known her ...'
 b. Incontratala, ...
 met(Fem,Sing) her (CL) ...
 'Having met her ...'
 c. *?Conosciutola, ...
 known her (CL)
 d. *?Incontratola, ...
 met her (CL)

Note that here the clitic is an enclitic on the past participle.⁶

3 PAST PARTICIPLE AGREEMENT AS SPEC-HEAD AGREEMENT

As mentioned earlier, a partial reformulation of Kayne's influential approach to past participle agreement (PPA), originally formulated in terms of the relation government, interprets the occurrence of the phenomenon as a consequence of passing through the Spec of the past participle projection of an element, typically the direct object, moving to some other position in the clause: the preverbal subject position in the case of unaccusatives and passives,⁷ the clitic landing site position in the case of cliticization, the (left) periphery of the clause in the case of *wh*-movement. Clearly, the most salient and interesting feature of this approach is its unifying character that drastically simplifies the understanding of a complex pattern. Let us concentrate more closely on the agreement occurring under cliticization and *wh*-movement, leaving for section 3.3 the discussion of some (apparent) cases of object agreement. Section 3.4 addresses the issue of the (apparent) correlation between auxiliary selection and past participle agreement.

3.1 Cliticization

The described approach to past participle agreement requires a movement analysis of cliticization.⁸ The clitic projection in its movement to its final landing site in the upper part of the clause, passes through Spec of AgrPstPrt and triggers agreement in a way parallel to the one assumed for the case of preverbal subject-verb agreement in finite clauses. The only difference between the two cases is related to the nature of the past participial morphology, which only manifests 'gender' and 'number' features and no feature 'person.' Kayne's original account, as well as the subsequent literature on the topic, has typically left unexplained why such an agreement process should be obligatory in some cases and optional in other cases that would otherwise meet the relevant configuration. Consider the difference in Italian, presented in section 2, between third person clitics on the one side, obligatorily triggering past participle agreement, and first and second person clitics, doing so only optionally on the other. This pattern seems to identify an area of genuine optionality, also systematically manifested in the French paradigm of cliticization with clitics of all persons and numbers.

The question is a complex one. Occurrence versus non-occurrence of past participle agreement could in fact be a sign of different types of derivations: one involving passage through the Spec of the past participial projection, one not involving it (see Sportiche 1998, chap. 3). Alternatively, the different agreement pattern could be related to other independent differences, internal to Italian and between Italian and French. The system elaborated in Guasti and Rizzi (2002) can provide a way of making the relevant distinction. In that work, the proposal is put forth that overt manifestation of agreement should in general be correlated to morphological checking taking place in the syntax; in particular, as far as verbal agreement is concerned, to syntactic verb movement. Suppose that the hypothesis is made that the internal structure of the Agr past participial projection is more articulated than hypothesized so far in that it could involve different designated positions for clitics of different persons, with first and second person higher than third person. A way of accounting for the way the optionality is manifested in Italian suggests itself. If syntactic V-movement implementing morphological checking takes place obligatorily into the first Agr head, but only optionally into the others, past participle agreement is expected to be obligatory with third person clitics only. The difference internal to Italian could thus find a reasonable account.⁹ As discussed in Guasti and Rizzi (2002), this approach can also provide a way of accounting for the difference between Italian and French in this connection. As has been known since Pollock (1989) and Belletti (1990, Chapter 1 of this volume), the verb only moves optionally with nonfinite morphology in French, while verb movement is generalized in Italian. The optionality of past participle agreement with object clitics of all persons in French could then be reduced to a further manifestation of the optionality of nonfinite verb movement in this language.

3.2 Wh-Movement

As illustrated in section 2, a similar issue arises in the case of *wh*-movement. Taking into consideration standard French, this language optionally manifests past participle agreement under *wh*-movement, as in examples (10) and (11). As far as standard Italian is concerned, this type of agreement is never manifested, as the following contrasts indicate:

- (17) a. *I libri che ho letti
the books (Masc, Pl) that (I) have read (Masc, Pl)
b. I libri che ho letto
the books that (I) have read
c. *Quanti libri hai letti?
how many books have you read (Masc, Pl)
d. Quanti libri hai letto?
how many books have you read

The contrast between French and Italian does not go in the usual direction in this case in that Italian does not manifest agreement in cases where French does (can do). French does not seem to make any distinction as to the nature of the movement involved, cliticization or *wh*-movement, past participle agreement being optional in both cases. Indeed this could ultimately be viewed as an indirect consequence of the relative ‘poverty’ of French (past participial) morphology whose structural correlate could be a (relatively) flat projection for the past participle. In the spirit of the discussion in section 3.1, optionality of past participle agreement should then be expected across the board in French as a function of the optionality of non-finite V-movement, independently of the kind of movement involved.¹⁰ As far as Italian is concerned, the proposal should be that the verb never reaches the (by hypothesis) high(est) head in the richly articulated past participle projection, whose specifier hosts the passage of the *wh*-phrase. Lack of agreement with *wh*-movement would then follow in the way discussed in section 3.1.

Contrasts arising in standard French in the domain of *wh*-movement are particularly interesting in this connection. As past participle agreement is normally optionally admitted in this language, cases where it is impossible must reveal the operation of some principle source of their ungrammaticality. The relevant contrasts are those in (18), discussed in Rizzi (1990b) and Obenauer (1994):

- (18) a. Combien de voitures a-t-il conduites ?
how many of cars has he driven (Fem, Pl)
b. *Combien a-t-il conduites de voitures ?
how many has he driven (Fem, Pl) of cars

In (18) a. the whole direct object is *wh*-moved (into CP), while only the quantifier is moved in the ungrammatical (18) b. The possibility in French of moving only the *wh*- quantifier, leaving the rest of the phrase containing the nominal projection behind, is shown by the grammaticality of sentences like (19), which in fact differ from (18) b. only in that they do not display past participle agreement:

- (19) Combien a-t-il conduit de voitures?
 how many has he driven of cars

This is a straightforward indication that the source of the ungrammaticality of (18) b. is solely to be found in the illegitimate past participle agreement.

Adapting Rizzi's discussion, the impossibility of (18) b. can be interpreted as a case of improper movement ultimately induced by Relativized Minimality (RM). Assume that, due to RM, the derivation of sentences like (19) involves movement of the *wh*- quantifier to and from the same syntactic position in the VP area also available for the adverbial modifier *beaucoup*, illustrated by sentences like (20):

- (20) Il a beaucoup consulté ces livres
 he has much consulted these books

The same position is also used as a landing site for movement of the QP in sentences like (21) b., related to (21) a.:

- (21) a. Il a consulté beaucoup de livres
 he has consulted many of books
 b. Il a beaucoup consulté de livres
 he has much consulted of books
 c. *Il a beaucoup conduites de voitures
 he has much driven (Fem, Pl) of cars

The relevance of the relation between sentences like (21) b. and (20), was first pointed out in Obenauer (1994) and has been extensively discussed in Rizzi (1990b). This adverbial position is considered an A'-position, as adverbial positions in general. The impossibility of (18) b. can then be attributed to the fact that, in order for past participle agreement to obtain, passage to the Spec of the past participial morphology should be necessary. It seems natural to consider this position an A-position, as specifiers of agreement projections are in general.¹¹ If the adverbial position is located lower than the past participle projection, the resulting derivation would constitute a case of improper movement involving the illegitimate step A' > A, crucial in order for past participle agreement to be triggered. Note that past participle agreement is excluded also in sentences like (21) c., parallel to (18) b. Note

furthermore that interaction between *combien* extraction and the adverb *beaucoup* in the pre-VP position of (20) is confirmed by the following paradigm, first discussed in Obenauer (1976) and interpreted by Rizzi (1990b) as a typical instance of the operation of the RM principle:

- (22) a. Combien de livres a-t-il beaucoup consultés?
 how many of books has he much consulted
 b. *Combien a-t-il beaucoup consulté de livres?
 how many has he much consulted of books

If, contrary to the hypothesis just explored, we were to assume that the past participle projection is lower in the clause structure than the adverbial position (the speculative proposal of section 5 would probably lead to this conclusion), agreement could take place and *combien* could subsequently move into the adverbial position with no improper movement step being created. The alternative explanation suggested in Rizzi (1990b) could then be assumed. According to this interpretation, movement of *combien* to the Spec of the past participial projection should be excluded in principle under structure preservation, as this position should be reserved to noun phrases, hence excluding QPs.

3.3 Object Agreement

As seen in the previous sections, past participle agreement is possible/obligatory with direct objects under the particular structural conditions created by DP movement, clitic movement, and *wh*-movement, with the described asymmetries. It appears to be the case that past participle agreement can sometimes occur with a direct object that, at least apparently, fills the regular direct object position, linearly following the verb. This is neither true in standard Italian nor in standard French. However, it is true in some dialectal varieties of (southern) Italian, it is true in some other Romance languages (e.g., Occitan), and also in a somewhat more literary Italian.¹² The question then arises as to how the Kaynean approach can account for these cases, which correspond to sentences like (23), using an Italian example (marginally possible at the relevant stylistic level):

- (23) Maria ha conosciute le ragazze
 Maria has known (Fem,Pl) the girls (Fem,Pl)

There seem to be two solutions to this pattern. The first is to assume that the direct object is only apparently a regular direct object in (23); in these cases, it actually fills a position different from the canonical position of direct objects (e.g., it could be dislocated, see the following). The second solution is to assume that there is more structure defining the past participle area with at least one further position higher than the projection of the past participle;

the past participle has to move into the head of this higher projection, while the direct object moves to and remains in Spec of AgrPstPrt. Under the first approach, tentatively adopted in Kayne (1989a), the kind of position the direct object fills should be made clear. Kayne suggests that it fills the right dislocated position. Presence of a silent clitic is assumed as the real trigger of agreement. A proposal along these lines does not seem adequate to account for those varieties where agreement appears to be obligatory: After all, why should a direct object systematically be right dislocated? Moreover, how could the presence of the silent clitic be independently justified? Under the second approach, one should clarify what kind of further functional projection would dominate the past participle agreement projection as well as what would force the verb to move into its head.¹³ Hence, both approaches are tentative and leave a number of open questions. This second approach would probably provide a more natural way to account for the difference among languages. Presence versus absence or optional presence of object agreement could be viewed as a function of object movement and syntactic verb movement (both allowing for an amount of optionality that may vary along the lines reviewed in section 3.1 for the case of non-finite V-movement). Agreement would result from the combination of both object movement and syntactic verb movement. The difference among the various languages could be phrased in terms of whether movement of the object goes further than the VP area, as in the case of DP movement (in passives and unaccusatives), cliticization and *wh*-movement, or not. Some languages (standard Italian, French) would allow object movement only in the former case; others would extend the process to all cases.¹⁴

As discussed in Belletti (1990, 1992, Chapters 1 and 2 of this volume), standard Italian has past participial small clauses, referred to as ASC. These display a special agreement pattern. The past participle is the first constituent of the small clause, followed by the subject in the case of unaccusative verbs, and by the direct object in the case of transitive verbs.¹⁵ In both cases, past participle agreement is obligatory:

- (24) a. Arrivata Maria, . . .
 arrived (fem, sing) Maria, . . .
 ‘Having Maria arrived, . . .’
 b. Conosciuta Maria, . . .
 known (fem, sing) Maria, . . .
 ‘Having known Maria, . . .’

If the agreement in (24) a. appears to be a standard case—as the past participle always agrees with the postverbal subject in unaccusative structures—the same is not true for (24) b.; as discussed earlier, transitive past participles do not normally agree with the direct object in standard Italian. The idea of analyzing (24) b. as a passive past participle, thus reducing this kind of agreement to the standard cases of past participle agreement under

passive morphology, ultimately equivalent to the unaccusative structures, does not appear to be empirically correct, as discussed in detail in the references cited. The most direct indication is provided by the fact that the nominal following the past participle is marked with accusative Case, visible when it is a (first or second person) personal pronoun (cf. *Conosciuta me/*io*). ASC like (24) b. are better dealt with as transitive structures, with a control PRO filling the subject position. Past participle agreement in (24) b. is then a genuine case of agreement with the direct object. Various ideas come to mind to express this pattern. Notice that the second analysis hinted at earlier for cases like (23) can provide a fairly straightforward account: The direct object moves to Spec of the past participle agreement projection and the past participle moves higher (maybe to C; see the references cited). Word order is obtained. The necessity of agreement in this case, contrary to regular full transitive clauses of standard Italian, should be due to special properties characterizing ASC, possibly crucially related to Case requirements. As proposed in the works cited, agreement here provides a device to assign Case to the direct object.¹⁶

3.4 On Auxiliaries and Past Participle Agreement

The widespread cooccurrence of past participle agreement and presence of auxiliary *essere* might lead one to think that the two processes are strictly dependent on one another. In particular, selection of *essere* as aspectual auxiliary could be taken to be the crucial factor forcing agreement. However, the simple correlation between auxiliary selection and presence versus absence of agreement is empirically incorrect in both directions. There are cases where *avere* is selected, for example, with transitive verbs, and agreement is manifested, see the discussion in connection with (23); furthermore, there are Romance varieties where *avere* is selected with unaccusatives and still agreement is manifested.¹⁷ On the other hand, there are cases where *essere* is selected in standard Italian and yet agreement is impossible. Compare the impersonal SI construction with intransitives and transitives, also pointed out in Burzio (1986) in this connection:

- (25) a. Si è telefonato/*i
 one is called (*masc, pl)
 ‘Someone rang’
 b. Si è mangiato/*i due castagne
 one is eaten (*masc, pl) two chestnuts
 ‘Two chestnuts were eaten’

It can be suggested that selection of *essere* is due to the presence of the impersonal SI in these cases, but as no movement is involved here from the VP-internal/object position, contrary to, for example, the impersonal passive of examples like (7), no past participle agreement is produced. This

indicates that movement from the VP-internal (object) position, and not the kind of auxiliary selection, is the crucial step triggering agreement.

Lack of past participle agreement in (25) is also interesting in comparison with (26), where the adjective agrees in gender and number with the arbitrary plural impersonal SI—third person singular on the verb is often interpreted as the unmarked person agreement, the only one compatible with the impersonal subject (cf. Belletti 1982a; Burzio 1986):

- (26) Si è felici/*e
one is happy (Masc, Pl/*Sing)

This contrast may indicate that the AP involves a different internal representation than the intransitive or transitive past participle. Its representation is possibly closer to the one of the past participle of unaccusatives that systematically manifest agreement (cf. *Si è partiti* 'someone left'). See section 5 for a proposal concerning unaccusatives that could extend to this case.

4 ON SOME CASES OF PAST PARTICIPLE AGREEMENT IN FRENCH AND THE COMPARISON WITH ITALIAN

4.1 On the A versus A' Status of the Specifier of the Past Participle Projection

Kayne (1989a) discusses impossible cases of past participle agreement in *wh*- constructions involving an expletive subject:

- (27) a. Quelle chaleur atroce il a fait/*e
what heat terrible it has done
'What terrible heat!'
b. Je me demande combien de chaises il sera
I to me wonder how many of chairs (Fem, Pl) it will be
repeint/*es cette année
repainted (Fem, Pl) this year
'I wonder how many chairs will be repainted this years'
c. Les chaises qu'il m'aurait fallu/*es
'The chairs which I would need'

The account proposed by Kayne (1989a) crucially relies on the assumption that the Spec position of the past participle projection is an A' position. Assuming that at LF the expletive must be eliminated through substitution from the associate (Chomsky 1986b), the impossibility would follow from the fact that the LF movement at work for substituting the expletive would imply an illegitimate A'—A step, from Spec of the past participle projection to the subject position in Spec of IP. However, the hypothesis that the Spec of the past participle projection is an A' position does not look plausible on

both theoretical and empirical grounds.¹⁸ From the theoretical point of view, the specifier of the past participle projection would constitute an isolated exception to the general A status of the specifiers of agreement projections. An implausible conclusion that is not independently justified. On the empirical side, consider the following pair (presented in Grevisse 1986; Ruwet 1982; and Kayne 1989a):

- (28) a. *Une femme qu'on aurait dite ne pas être belle
 'A woman that one would have said (Fem, Sing) not to be beautiful'
 b. Une femme qu'on aurait dite belle
 'A woman that one would have said (Fem, Sing) beautiful'

If *wh*-extraction in (28) a. requires passage through the CP of the subordinate infinitival clause (Kayne 1983), the impossibility of past participle agreement here can directly follow from the assumption that the specifier of the past participle projection is an A-position in the following way. The derivation would imply an improper movement in one of its steps: the step from [Spec CP], an A'-position, to [Spec AgrPstPrt], an A-position. On the other hand, if the small clause in (28) b. is not a CP projection, no passage through this position is ever at work, hence the *wh*-phrase can directly move to the specifier of the past participle projection and from there into the CP position of the relative clause. In no step of the derivation is any improper movement created. This is the interpretation proposed for contrasts of this type in Belletti and Rizzi (1996), which crucially requires that the specifier of the past participle projection be an A-position.

4.2 Past Participle Agreement and Inherent Case

In the same work the impossibility of past participle agreement in expletive constructions like (27) is interpreted as due to the unavailability in French of (past participle) agreement with indefinite postverbal subjects, under the hypothesis that they be marked with inherent Case in these constructions (Belletti 1988; Sportiche 1998). These examples would then fall under the often observed lack of agreement triggered by nominal expressions marked with inherent Case.¹⁹ Indeed, if the assumption is made that agreement with inherently Case-marked noun phrases is systematically excluded in French, several apparently unrelated cases of impossible agreement, some having passed unnoticed in the theoretical literature, are attributed a unified interpretation (cf. Belletti and Rizzi 1996 where it is also pointed out that the data on psych verbs are implicitly noted in Grevisse 1986).

- (a) The impossibility of agreement under *en* cliticization (where *en* realizes partitive Case, possibly assigned by the indefinite quantifier here: cf. Cardinaletti and Giusti (1991):²⁰

- (29) Il en a repeint /*es deux
 He of them (CL) has repainted /*(fem, pl) two
 'He has repainted two of them'

(b) The impossibility of agreement with psych verbs of the *worry* class:²¹

- (30) a. Cela l' a surpris /*e
 this her(cl) a surprised /*Fem, Sing
 'This has surprised her'
 b. La fille que ton départ /ce spectacle a profondément
 the girl that your departure/this show has deeply
 surpris/*e
 surprised/*Fem, Sing

(c) The impossibility of agreement with the postverbal subject in subject inversion structures:

- (31) Il a été repeint /*es trois voitures
 it has been repainted /*Fem, Pl three cars

This case of impossible agreement can be seen as the same lack of agreement systematically manifested in this type of structure in French, independently of the presence of a past participle:

- (32) Il arrivera /*arriveront trois filles
 there will arrive/*Pl three girls

Note that lack of agreement in (31) and (32) cannot be related to presence of the expletive. The same impossibility is preserved in Stylistic-Inversion structures containing a semi-idiomatic expression V+N where the expletive can be absent, as first pointed out in Kayne and Pollock (1978):²²

- (33) a. Le jour où a été mis /*mise fin au conflit
 the day where has been put /*Fem, Sing end to the conflict
 'The day when the conflict was ended'
 b. J'exige que soit mis /*mise fin au conflit
 I pretend that be put /*Fem, Sing end to the conflict
 'I pretend that the conflict has ended'

The comparison with standard Italian is particularly interesting in that all the data where a comparison is directly possible have an opposite shape: Past participle agreement is possible and obligatory under *ne* cliticization, with psych verbs of the *worry* class, in subject inversion structures, including those containing a semi-idiomatic V+N expression:

- (34) a. Ne ho comprate /*comprato molte
 of them (CL) have bought (Fem, Pl) /*bought many
 'I have bought many of them' (cf. (29))

- b. Questo l' _____ ha sorpresa /*sorpreso
 this her (CL, Fem, Sing) has suprised (Fem, Sing) /*suprised
 'This has surprised her' (vs (30))
- c. Sono entrati _____ /*entrato due ladri _____ dalla
 are entered (Masc, Pl) /*entered two robbers from the
 finestra
 window
 'Two robbers have entered through the window' (cf. (31))
- d. Esigo _____ che sia messa /*?messo _____ fine al _____ conflitto
 (I) pretend that be put (fem, sing) /*?put end to the conflict
 'I pretend that the conflict was ended' (cf. (32))

(The last example is slightly more acceptable than the other impossible cases. The marginal possibility of lack of agreement here could reflect the fact that the expression is analyzed as fully non-compositional.) The proposal sketched out in Belletti and Rizzi (1996) to deal with the French-Italian contrast is that a parametrization is possible as for the availability of agreement with inherent Case. Italian admits (and requires) it, French does not (cf. also Mahajan 1990 for a similar proposal in the context of a comparison between Hindi and closely related languages).

It should be pointed out that (past participle) agreement is systematically excluded with dative Case, a general fact in Romance, illustrated here for Italian in the context of cliticization:

- (35) *Le ho parlata
 to her (I) have spoken (fem, sing)
 'I have spoken to her'

One possibility to capture the difference between dative and inherent Case is that, as witnessed by the presence of a preposition, datives imply a further level of structure, a PP level. P being incompatible with phi-features, agreement is excluded in principle when this level is activated. The hypothesis should then be that inherent Case is not prepositional.²³

In those cases where *ne* corresponds to an adnominal complement, past participle agreement is optional (see also Lepschy and Lepschy 1977):

- (36) a. Ne _____ ho letta _____ /*letto la metà
 of it (CL) (I) have read (Fem, Sing) /*read the half
 'I have read half of it'
- b. Ne _____ ho consultata _____ /consultato l' opera
 of it (CL) (I) have consulted (Fem, Sing) consulted the work
 'I have consulted his work'

A possible interpretation here is that *ne* can be ambiguously analyzed in these cases either as inherently Case-marked or as a PP.

4.3 Past Participle Agreement and Effects on the Interpretation

As first pointed out in Obenauer (1992, 1994) and discussed in Déprez (1998), the optionality of past participle agreement in *wh*-structures in French is not without consequences from the point of view of the interpretation. The distinction is particularly clear in *wh*-structures involving *combien*. Consider (37):

- (37) a. Combien de fautes a-t-elle faites ?
 b. Combien de fautes a-t-elle fait ?
 how many mistakes has she done (Fem, Pl) /-

In the agreeing case a set of specific typical mistakes is presupposed, while there is no such presupposition in the non-agreeing case, at least not necessarily. The two interpretations can be linked to different syntactic positions: the presuppositional (D-linked) interpretation to a VP-external one, the non-presuppositional (non-D-linked) interpretation to a VP-internal one.²⁴ In the spirit of the discussion in section 4.2, a possible interpretation of the contrast could then be the following: Assume that the *wh*-moved direct object is marked with structural accusative in (37) a. and with inherent case in (37) b. Assume furthermore that the inherent case, which is available VP-internally by assumption, is only compatible with weak, non-presuppositional, indefinite objects, while no such limitation constrains structural accusative case, which is assigned/checked in some functional projection outside the VP projection. The contrast in (37) is directly accounted for. In the derivation of (37) b. the inherently Case-marked object does not trigger agreement in its passage through the Spec of the past participle agreement projection on its way to the CP area, as is generally the case with inherently Case-marked phrases in French; in (37) a. the direct object does not carry inherent case, but structural accusative case, hence in its passage through the same Spec position it does trigger agreement.

As discussed in section 2, agreement is usually optional in *wh*-constructions in French. This also implies that a structurally Case-marked *wh*-object can avoid triggering agreement. Hence, lack of agreement can derive from two distinct factors: either from inherent Case-marking or from optional agreement with an accusative Case-marked indefinite object. This in turn implies that the presuppositional interpretation, only compatible with accusative case, can also be available in the non-agreeing form. Obenauer's data confirm this prediction. As noted earlier, the presuppositional reading is not impossible also in the non-agreeing form.

5 SPECULATIVE REMARKS

Crucial data concerning the phenomenon of past participle agreement in Romance is that no variety allows for the past participle to agree with the

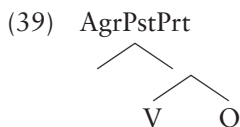
subject of intransitive/unergative and transitive verbs. This solid fact is illustrated in (38) with Italian examples:

- (38) a. *Maria ha parlata
 Maria has spoken (Fem, Sing)
 b. *Maria ha letta un bel romanzo
 Maria has read (Fem, Sing) a nice novel

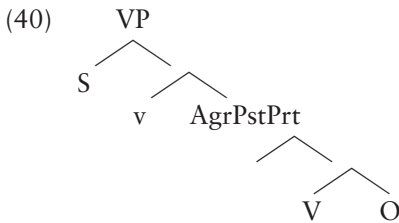
Any treatment of the computation involved in past participle agreement must account for this fact. In particular, any account should explain the difference between the impossible cases in (38) and all the possible cases discussed so far.

Following the fundamental insight of Burzio's original account, the appropriate generalization seems to be that past participle agreement involves arguments belonging to the lowest level of the VP projection, typically the direct object, on the agreement cases involving indirect object reflexive clitics as in example (13), see the following. It does not involve external arguments (in Williams's 1981 original terminology that, taken literally, is not appropriate once all arguments are projected VP-internally, given the VP-internal subject hypothesis of Koopman and Sportiche 1991). The external argument is in fact the argument that is merged as the highest one within the VP (Chomsky 2000, 2001). In what follows a possible line of explanation of this fundamental pattern is suggested.

A straightforward way of excluding the highest VP argument (S) of intransitive/unergative and transitive verbs from triggering past participle agreement consists in assuming that this argument cannot pass through the Spec position of the past participle projection (on its way to the preverbal subject position). The most direct way of excluding this possibility consists, in turn, in assuming that this is so because the relevant agreement projection is located in a position lower than the base position of S. This amounts to claiming that the relevant agreement projection is in fact VP-internal. According to this hypothesis, past participles always correspond to unaccusative/passive structures: They are VPs with no external argument (not including the argument that is merged last). The idea is schematized in (39) (where the label O stands for the typical internal argument, i.e., the direct object):



The internal structure of an intransitive/unergative or of a transitive VP should correspond to a projection along the lines of (40).



Only O, the argument merged first filling a low position within the VP, has access to the specifier of the past participle projection in its movement(s). The hypothesis schematized in (40) directly derives the basic data presented in section 2 as well as the impossibility of (38), with the supplementary assumption that, systematically in standard Italian and less so in other Romance languages, the auxiliary *essere* selects projections like (39), while *avere* selects projections like the one illustrated by (40) (on sentences involving impersonal SI, see the following).²⁵

Some of the data in section 2 require a closer discussion. Consider structures involving a reflexive clitic like (6), repeated in (41):

- (41) Mi sono guardata allo specchio
 myself (Refl, CL) (I) are watched (Fem, Sing) to the mirror
 ‘I have watched myself into the mirror’

Here, agreement is obligatory. The idea of relating this agreement to movement of the direct object reflexive clitic as in standard clitic constructions leaves its obligatoriness unexplained. It contrasts with the general optionality of past participle agreement with first and second person clitics in Italian, noted in section 2 and discussed in section 3.2. Hence, past participle agreement in (41) must be due to the reflexive nature of the construction. Following the spirit of one of Kayne’s original proposals, it can be assumed that reflexive clitics are generated outside the VP projection, possibly as a kind of ‘agreement’ marker within the clause functional structure. Structures like (41) can then be considered on a par with unaccusative structures: What actually moves here is not the clitic, but the internal argument of the unaccusative construction (in this case a silent first person singular pronoun with feminine reference). The same analysis would be attributed to unaccusative structures involving an inherent reflexive.

Now consider structures containing a reflexive (indirect object, benefactive) clitic and a full direct object like those in (13) repeated in (42):

- (42) a. Maria si è lavata i capelli
 Maria (to) herself is washed (Fem, Sing) the hair
 ‘Maria has washed her hair’
 b. Maria si è letta questo libro
 Maria (to) herself is read this book
 ‘Maria has read this book’

The VP in (42) is a transitive VP, projected as in (40). The reflexive clitic (indirect object, benefactive) is generated outside the VP as in the preceding discussion. But suppose that a further Agr projection above the transitive VP is selected in these cases.²⁶ Consequently, when the subject *Maria* moves out of the VP to reach the preverbal subject position in the high portion of the clause structure, it passes through the specifier of the further, higher (past participle) Agr projection and triggers past participle agreement. According to this proposal, past participle agreement is triggered here by movement of the subject, not of the reflexive clitic (a necessary conclusion given the assumed line of analysis for reflexive clitics). The object does not move in this case. When the object moves, for example, to cliticize, past participle agreement is triggered in the lower agreement projection:²⁷

- (43) a. Maria se li è
 Maria (to) herself them (Masc, Pl, CL) is (Masc, Pl)
 lavati
 washed (Masc, Pl)
 ‘Maria washed them’
 b. Maria se lo è letto
 Maria (to) herself it (Masc, Sin, CL) is read (Masc, Sing)
 ‘Maria has read it’

Note that in order to exclude the impossible examples of (25) of section 3.4, projection of the further past participle agreement projection above VP should not be allowed with impersonal (non-passive) SI, even if *essere* is the selected auxiliary. If movement of a null subject (linked to SI) from the highest merged VP-internal position to the preverbal subject position is at work, as seems natural to assume, if the further higher agreement position were made available, past participle agreement should be expected, contrary to fact. Consider now that impersonal (non-passive) constructions corresponding to (25) involve the subject clitic *on* in French, which does not require selection of auxiliary *être*, contrary to the various instances of *se* (*se moyen*, reflexive). This may be relevant for the Italian paradigm. It suggests that *essere* with impersonal (non-passive) SI in standard Italian is more akin to *avere* than to *essere* of structures involving true reflexives as those in (41) and (42).²⁸ Hence, only in the latter case the further higher past participle projection should be activated. On the strict relation between auxiliaries *avere* and *essere*, see Kayne (1993); see also Cocchi (1995); and Vikner and Sprouse (1988).

The (tentative) proposal sketched out in the present section has a feature that deserves some closer discussion. In current treatments of past participles, the agreement projection related to the past participial morphology is generally assumed to be (immediately) outside the VP projection. In the proposal sketched out here, the suggestion has been put forward that it may be located internally to the lexical projection of V.²⁹ This proposal allows a

simple account of a complex pattern. Is the assumption plausible and well grounded? At this stage we can only speculate.

Let us assume that the plausibility of such a low location of the past participle agreement projection could come from the consideration that the past participle typically constitutes part of the periphrastic passive morphology in Romance. Keeping the main focus on standard Italian and French, passive morphology involves auxiliary *essere/être* + past participle. It is not unreasonable to identify the passive past participle projection with (or at least to strictly link it to) the projection of a Voice head (cf. Sportiche 1996 and Cinque 1999 in particular). Cinque (1999) proposed that the Voice projection is located in a very low position in the clause structure; it may be the lowest functional projection in the functional architecture of the clause, possibly VP-internal. Interesting empirical evidence indicating the low location of the passive voice/past participle is provided by contrasts like the one in (44), presented in Cinque (1999).

- (44) a. Hanno accolto bene il suo spettacolo solo loro
(they) have received well (the) his show only they
'Only they received his show well'
(Cinque (1999, (79a), 102))
- b. *Hanno bene accolto il suo spettacolo solo loro
(they) have well received (the) his show only they
(Cinque (1999, (79b), 102))
- c. Questo genere di spettacoli è sempre stato bene accolto
this kind of show is always been well received
'This kind of show has always been well received'

Following Cinque's insight, the contrast in the relative order of the past participle and the low adverb *bene* in (44) a. (active) and (44) c. (passive), indicates that the passive past participle can remain low in the structure, lower than the active one.³⁰ The reason for that could be that the passive past participle does not (have to) move higher than the low Voice head. The proposal outlined in this section identifies the passive voice/past participle with the structure in (39). No further landing sites are available for the lexical verb. Active past participles necessarily involve more structure, at least as much as in (40); hence the verb moves higher in an active past participle anyway.

5 Italian/Romance Clitics

Structure and Derivation

1 INTRODUCTION

The aim of this work is to provide a constrained system from which the basic properties of the syntax of Romance pronominal clitics derive, with relatively few specific assumptions. It will be proposed that this aim is attainable by careful consideration of the interplay between the following factors: the internal structure attributed to clitic pronouns, the assumed clause structure, the general principles concerning movement, and morphological checking with the implied derivations.

The most striking property of clitic pronouns is that they appear in designated positions within the clause, which typically differ from the canonical complement positions. Furthermore, still at the observational level, clitics have a host: They appear next to a verb, sometimes as proclitics, sometimes as enclitics. If we take the classical approach to cliticization that goes back to Kayne (1975), the reason why clitics appear in special positions in the clause is because they *move* from the canonical complement position. We should then ask the following questions:

- (a) Why do clitics move?
- (b) Why is clitic movement obligatory?
- (c) Where do clitics move exactly in the clause structure?
- (d) Why do clitics sometimes appear as *proclitic* and sometimes as *enclitic* with respect to the verb?

In this work I will mostly consider data from standard Italian and standard French.¹ Taking Italian, the following examples illustrate the questions:

- (1) a. *Conosco Maria*
I know Maria
- b. *La conosco—* (clitic moves)
I her_(CL) know
- c. **Conosco la* (clitic moves obligatorily)
I know her_(CL)

- d. *Conoscerla* / *Conoscendola* / *Conosciutala*
 (to) know her_(CL) / knowing her_(CL) / known her_(CL)
- e. **La conoscere* / **La conoscendol* / **La conosciuta*
 (to) her_(CL) know / her_(CL) knowing / her_(CL) known
 (clitic must sometimes be enclitic)

The account to be proposed here will be based on a particular implementation of the theory of morphological checking presented in Chomsky's (1993) MP. Key roles will be played in this account by the procedures of Case checking and checking of verbal inflectional morphology. Case checking is considered the fundamental trigger of clitic movement; checking of verbal inflectional morphology conditions this movement in various ways, thus accounting for the basic different mechanisms yielding either proclisis or enclisis. The picture that emerges is such that cliticization is interpreted as a fundamentally PF phenomenon. An account of the basic properties of clitic doubling structures also emerges rather naturally from the approach developed here; leading to the conclusion that cliticization preserves its movement nature in doubling constructions.

1.1 Background Assumptions

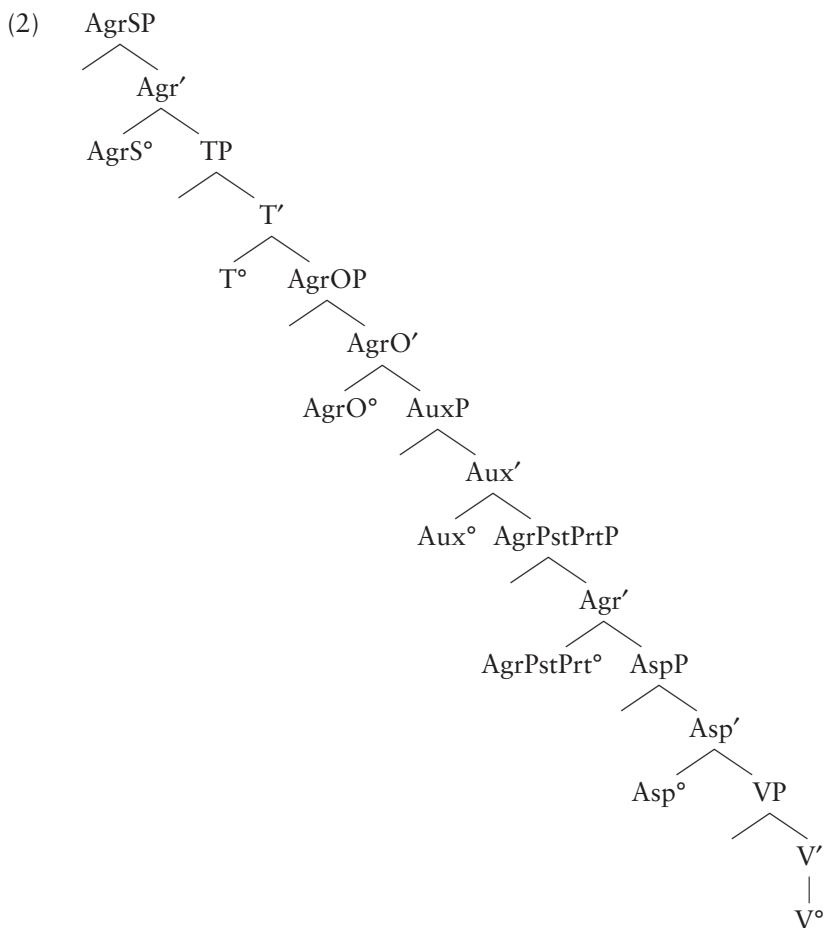
In Chomsky (1993) Case is among the Φ -features with which DPs are inserted in the clause structure. As for all Φ -features, Case requires checking. DPs check their Case feature by filling the Spec position of the Agr head that carries the appropriate Case feature.² In nominative/accusative languages, nominative is checked in Spec/AgrS (combined with T); accusative is checked in a lower Spec/Agr position currently labeled AgrO. The system is formulated in terms of 'strength' of features to the effect that:

- (a) Checking is syntactic if the relevant Agr contains a strong Case feature.
- (b) Checking is delayed until LF if the relevant Agr does not contain a strong Case feature.

Syntactic checking implies overt movement of the relevant DP; LF checking implies covert movement. In languages like Italian (and French . . .) we can make the same assumption currently made for English and claim that:

- (a) Nominative is checked in syntax.
- (b) Accusative is checked in LF.

Thus, subject moves in syntax, object does not; it delays its movement until LF.³ The clause structure that will be assumed in this work is given in the schema in (2):



(2) corresponds to clauses containing an auxiliary and a past participle.⁴ At least two comments are in order. First, structure (2) assumes with Friedemann and Siloni (1997) that the position where accusative Case is checked (within the AgrO projection) is to be kept distinct from the Agr and its projection containing number and gender Φ -features of past participles as in (3).

- (3) *vistile/a/o*
 seen(MASC PL, FEM PL, FEM SG, MASC SG)

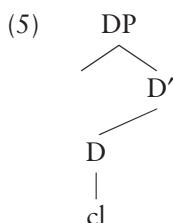
This Agr is labeled AgrPstPrt in (2).⁵ Second, once (2) is assumed, the direct evidence showing that object movement is not syntactic in Italian and similar languages is provided by the impossibility of the word order in (4), with the direct object filling a position linearly following the auxiliary and preceding the past participle:

- (4) **Ho Maria vista/o*
I have Maria seen

This order would be obtained with the direct object in Spec/AgrO and the auxiliary in AgrS, the functional head where all verbs move in Italian and related languages.

2 STRUCTURE AND MOVEMENT

Within the spirit of much current work on the topic, I will assume that third person (accusative) Romance clitics belong to the category D^0 . They enter an impoverished structure that solely contains the clitic itself, as illustrated in (5):⁶



The core assumptions of the analysis to be developed are the following:

- (a) Clitics move in syntax because they have a ‘strong’ Case feature to check.
- (b) The landing site of this movement is within the AgrO projection.
- (c) Given their structure, clitics can either X⁰-move onto the AgrO head or XP-move to Spec AgrO.

Let us first concentrate on (a) and (b), putting aside for the moment any discussion of the possible empirical consequences of (c). (a) is the fundamental assumption of the proposal. It is based on the very straightforward observation, taken to play a crucial role, that pronominal clitics are the only elements entering a Case inflection paradigm in Romance. This is assumed to play a crucial role in the following account. There are accusative, dative, genitive, partitive, locative, nominative clitics. A sample is given in (6) (from Italian 'I,' French 'F,' Trentino 'T'):

- (6) *La conosco* (I) (I)
 I her(CL, ACC) know
Gli parlerò (I) (I)
 I to him(CL, DAT) will speak

<i>Ne parlerò</i>	(I)
I of-it(CL, GEN) will speak	
<i>Ci andrò</i>	(I)
there(CL, LOC) I will go	
<i>Ci penso spesso</i>	(I)
of it/him I often think	
<i>Il parle</i>	(F)
he (CL, NOM) speaks	
<i>El Mario el parla</i>	(T)
the Mario he (CL, NOM) speaks	

In (6), standard French and Trentino are taken as an illustration of subject clitics. The different status of these two kinds of subject clitics, made clear in the literature on the topic, is not relevant at this preliminary, purely observational, level (see section 4.1). The other Case inflections are illustrated in (6) by standard Italian.⁷ Let us make the hypothesis that this morphological property of clitic pronouns is the reflex of a theoretically relevant distinction: Clitics bear a strong Case feature. Such Case feature, then, requires syntactic checking. Whence the overt movement that clitics appear to undergo. As for (b) it can be claimed that since the feature to check is Case, the landing site of the triggered movement must be within the AgrO projection. Let us further qualify (a) and (b).

Although AgrO does not contain a strong Case feature *per se*, I assume that it can be the target of a syntactic movement. That it is the target of movement is just due to the kind of feature that needs checking, namely Case. That movement is syntactic is due to the very nature of the clitic itself. A central assumption of the system of checking procedures is that an unchecked strong feature, which can typically have a phonological manifestation (although it does not have to), cannot be interpreted at PF (Chomsky 1993). Typically, a strong feature is ‘neutralized’ under the Spec-head agreement relation. This is for instance what happens in the case of movement of the subject to Spec/AgrS in a finite clause, where the Case of the DP is checked against the strong AgrS(+T) head. Now, given the assumed structure (5) for clitics, nothing could appropriately move from inside the DP to the Spec position to ‘neutralize’ the strong Case feature carried by the D° clitic head. Furthermore, it is not clear that such movement would check the relevant Case feature anyway, since the appropriate location for such checking is within AgrO. Whence the strong clitic DP moves in syntax to the appropriate checking position within AgrO.⁸

The question that then arises is the following: Does the clitic move as a head or as a maximal projection? Given its nature, it could take either one of the two options. In fact, I will argue that the different options are taken by different languages such as French and Italian, thus accounting for the important differences in proclisis and enclisis that these two languages

manifest (see section 4.1). However, even internally to Italian the two movement strategies appear to be adopted within one single derivation. That this is the case is overtly visible in sentences containing a complex tense formed by an auxiliary and a past participle and involving cliticization. The past participle obligatorily agrees with the accusative clitic:

- (7) a. *Le ho salutate*
 them(CL, FEM, PL) I have greeted(FEM, PL)
 b. **Le ho salutato*
 them(CL, FEM, PL) I have greeted (MASC, SG, unmarked ending)

Past participle agreement under cliticization can be interpreted as the direct evidence that the clitic moves as a maximal projection, at least in the first part of its movement. This is so under the assumption that features agreement is a manifestation of the Spec/head relation with an Agr head. Past participle agreement conforms to this general pattern, as originally proposed in Kayne's (1989a) first influential analysis of past participle agreement phenomena. Hence, the clitic XP moves to Spec/AgrPstPrt. It is clear, however, that the clitic ends up incorporated within the verb in the final structure; hence, clitic movement must be head movement in the final part of the derivation. The question then is: Why can't the clitic move as a head from the very beginning of the derivation, as the past participle agreement phenomenon indicates? The answer to this question has two parts:

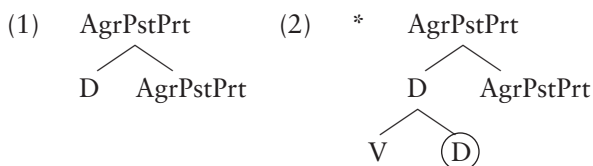
- (a) The clitic head could not move directly to its landing site AgrO.
 (b) The clitic head could not move step-by-step to its landing site AgrO.

Hence, since there is no way for the clitic to move as a head, it (first) moves as a maximal projection. Its movement as a head will start later on in the derivation. Let us develop the two parts of the answer to the question starting with (a). Given the number of heads intervening between the clitic D° and AgrO reproduced in (8), it is clear that direct movement of the clitic to AgrO would violate the head movement constraint and for that reason it is excluded:

- (8) AgrO Aux AgrPstPrt Asp V cl

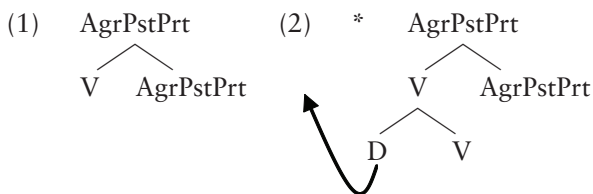
Part (b) of the answer is more fully articulated. Let us illustrate in details what the problems would be if the clitic head moved step-by-step through the various intervening heads. We can distinguish two subparts. Let us call them I and II.⁹

- I. The source of the problem here is that checking of the verbal morphology could not be appropriately performed. The checking problem arises in AgrPstPrt (under the assumption of note 10, otherwise an identical problem would already arise at the level of Asp). Suppose that first D adjoins to AgrPstPrt and then V further adjoins (to D):



I assume here and throughout that (i) head movement, when it is not substitution into an empty root, is left-adjunction; (ii) multiple adjunction to the same head is excluded, following Kayne (1994).¹⁰ Consider (2): In this structure, intervention of D between V and AgrPstPrt blocks appropriate checking of the verbal morphology agreement features.

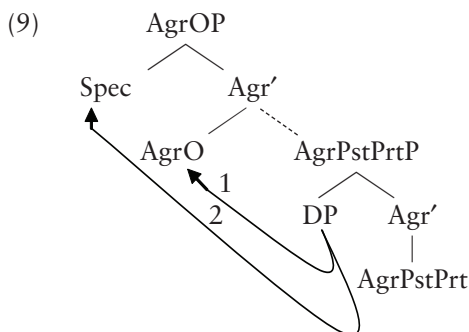
- II. What rules out the following alternative derivation is that it would necessitate appeal to excorporation. An option that I do not admit. Suppose then that, in order to avoid the problem described in I, first V adjoins to AgrPstPrt and then D adjoins further:



Although checking of the verbal morphology agreement features could probably adequately take place here, the output structure is still problematic since the clitic D would have to excorporate later in the derivation. It is clear that the clitic does not remain within the past participle in the final structure. It seems reasonable and in the spirit of minimalist/economy considerations to limit, if not to exclude altogether, the possibility of excorporation processes. This is what rules out the alternative derivation in II. Notice that the excorporation problem just described would also arise with respect to step (2) of the derivation in I, a step that is likely to be excluded anyway on independent grounds, as we just saw. Furthermore, the same problem would also rule out any conceivable derivation where the clitic D directly adjoined to V as a first step in the derivation.¹¹

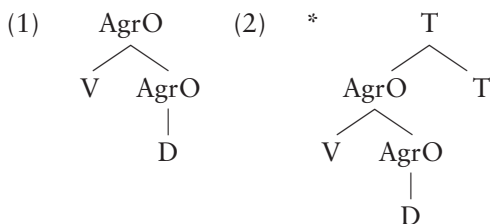
In conclusion, the clitic DP first moves as a maximal projection since it could not directly move as a head.

From Spec/AgrPstPrt the clitic DP pursues its movement within AgrO¹²:



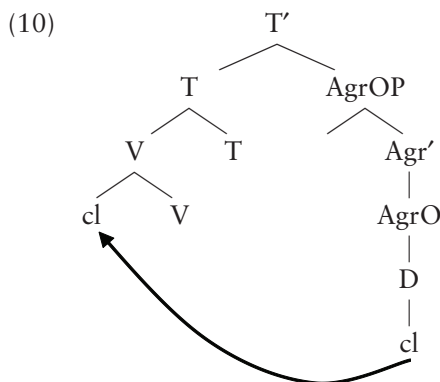
It is at this level that it can still move either as a maximal projection or as a head. I propose that in Italian the clitic moves as a head to AgrO. Variation is expected to occur at this point of the derivation. We will discuss the issue in some detail in section 4.1.

The computation involving clitic pronouns does not end in AgrO, though. In the final string the clitic is attached to the verb. The verb is not in AgrO but in some higher functional head. Assume AgrS, as it appears to be uniformly the case in Italian finite and nonfinite clauses. Hence, the clitic must end up on the verb in AgrS. In other words, its movement must continue and does not end in AgrO. A further question must then be asked at this point: Why must the clitic attach to V (in its final functional position)? The essence of our answer is going to be that the reason is a PF reason: Since AgrO is not a (Case) strong head/projection, it cannot contain material that needs PF interpretation. Hence, AgrO must be voided prior to PF.¹³ The clitic leaves AgrO and incorporates to V. Assume, for the sake of concreteness, that the incorporation takes place at the level of the T head already. Let us consider the details of the computation. Consider first the case of a language like Italian, in which we have proposed that the clitic moves via substitution as a head in AgrO. A way to void AgrO could consist in moving the verb through this head, taking the clitic, and then pursuing the verb movement further. Although attractively simple, I assume that this derivation would give an ill-formed output. Problems for checking of the verbal morphology would arise at the level of the functional head T, as illustrated by (2):

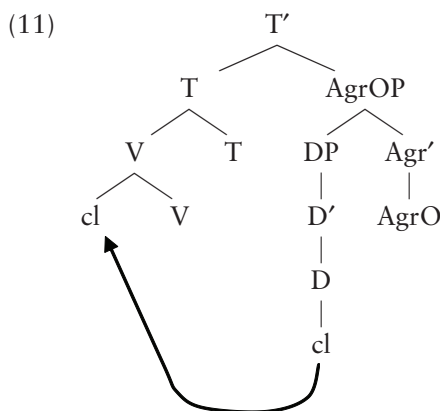


D intervenes between V and T at the step illustrated by (2) thus blocking the appropriate checking of the verbal morphology. Suppose then that in its

movement to AgrS the verb skips AgrO when it is filled with a clitic. Verbal morphology is thus correctly checked in T and AgrS subsequently. However, as proposed earlier, the clitic must leave AgrO prior to PF. The only way to do that is via incorporation to V.¹⁴ Assume this takes place at T, as illustrated in (10):



Notice that should the clitic still be a DP in Spec/AgrO, head movement of D would take place from the Spec position:



Notice incidentally that in the null hypothesis, given the assumptions so far, the head incorporation of (10) and (11) yields procliticization, since adjunction is left-adjunction.

To summarize this section, we have proposed that the factor triggering clitic movement is the 'strong' nature of the Case carried by clitic pronouns. Reduced to its essential, the idea is that this nature is responsible for movement of the clitic both *to* Agr(O) and *from* Agr(O). Due to the fact that the clitic is both a head and a maximal projection, its movement is partly XP movement and partly X° movement. Integrated within a restrictive view

of (verbal) morphological checking, possibilities of ‘excorporation’ and the operation of general constraints on movement such as the HMC, the system yields a general account of the process of cliticization. We have mostly concentrated on the procliticization output so far, assuming that it is produced by adjunction of the clitic to the verb (in a functional head). The proposed account crucially assumes movement of the clitic DP, as in the traditional Kaynean approach. The following section discusses a crucial issue that any movement analysis of cliticization must address.

3 THE STRUCTURE OF CLITIC DOUBLING

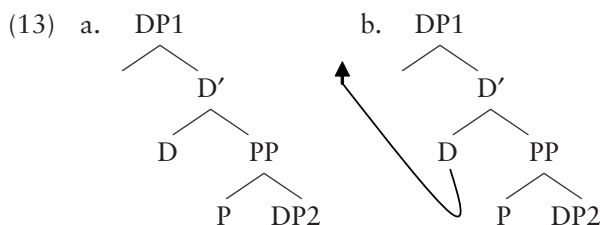
A classical problem for any analysis of cliticization that assumes movement of the clitic itself is the very existence of the so-called ‘clitic doubling’ phenomenon. Many Romance languages, most notably Spanish in its different varieties, allow and in some cases require, that an accusative or a dative clitic be ‘doubled’ by a connected lexical noun phrase. A detailed description of the phenomenon is not the aim of the present discussion. I will just emphasise some of its crucial properties as they have been discussed in the literature. Typical examples of doubling structures are given in (12):

- (12) a. *Lo vimos a el*
We him(CL, ACC) see him
b. *Lo vimos a Juan*
We him(CL, ACC) see Juan
c. *Miguelito le regalò un caramelo a Mafalda*
Miguelito her(CL, DAT) gave a candy to Mafalda
(Jaeggli 1982)

The questions raised by doubling constructions for a movement analysis of cliticization can be summarized as follows: How can a single argument have two distinct realizations, the clitic and the lexical noun phrase? How can two different elements correspond to what seems to be one single source? Theoretically, these questions can be seen from two different angles: Case and Th-role. How can both the clitic and the lexical argument be Case-marked? How can both be thematically interpreted? A typical answer offered in the literature to the thematic problem has been that of considering the clitic an expletive, thus an element that does not need a Th-role. A classical answer to the Case problem relies on the idea known as Kayne's generalization. According to this view, the clitic carries the same Case that would be assigned to the complement of the relevant verb and the lexical argument receives the Case assigned by a dummy preposition, for example, *a* in Spanish, *pe* in Romanian. Following Kayne's generalization, the doubling phenomenon should in fact only be possible in those languages that avail themselves of an 'extra' Case marker to Case-mark the lexical argument.

Furthermore, in order to account for the fact that two elements appear to correspond to one single source, a typical proposal consists in assuming that the clitic is base generated in the (surface) clitic position and that the lexical argument is the only element filling the complement/Th-position from the initial structure.

Within an approach to doubling along the general lines just described, the idea that cliticization does not involve movement of the clitic plays an essential role.¹⁵ I would like to propose that this assumption is not necessary. Cliticization may very well imply movement of the clitic and be compatible with the existence of clitic doubling structures. This idea is naturally expressed within the approach to cliticization presented in section 2. Suppose that what differentiates a clitic doubling structure from a non-clitic doubling structure is the fact that the clitic D^0 has a complement in X' theoretic terms in the former case and no complement in the latter. According to this idea, a clitic DP giving rise to doubling will be represented as in (13):



D^0 of DP_1 is the clitic and its PP complement corresponds to the doubled lexical argument. The computation of clitic doubling structures involves the usual syntax for the clitic, as discussed in section 2, and stranding of its PP complement in its base position, as schematized in (13) b.¹⁶

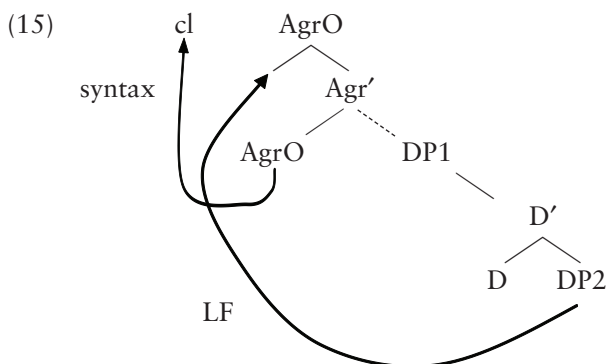
In the spirit of this proposal, Kayne's generalization is assumed to play a crucial role. What is essential in order for clitic doubling to occur is that a Case marker be available for the complement of the D^0 clitic. Only in this case can the complement be overtly realized.¹⁷ As for the thematic problem, the analysis in (13) solves it directly through the assumption that DP_1 and DP_2 share the same Th-role by virtue of their both filling the same Th-position in the clause.

The role of the preposition in (13) needs to be discussed in more detail. Let us limit the discussion to the case of direct objects for the sake of simplicity and also because indirect objects, such as datives, always involve a preposition anyway. The assumption we are working with is that a direct object DP checks its Case in Spec/AgrO at LF, at least in the Romance languages under discussion. In a parallel fashion, the DP complement of a preposition can be assumed to check its Case in Spec/PP, again at LF. The natural question then arises as to why the lexical argument of a clitic doubling construction,

DP, of the doubling structure (13), could not also check its Case at LF in the same way as direct objects. If that were the case, impossible sequences like the following would then become possible:

- (14) a. **Lo vimos el*
 b. **Lo vimos Juan*

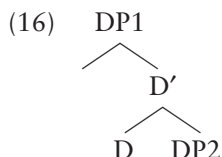
A crucial role must be played by the presence of the clitic. A widespread and fairly influential traditional idea on the question as to why something like Kayne's generalization should hold in clitic doubling constructions was that the necessity of an extra Case marker is induced by the fact that the clitic absorbs the Case that would otherwise be assigned to the lexical argument.¹⁸ Within the proposed analysis we can provide a formal account of this intuition, without making reference to special 'Case absorption' processes. As discussed earlier, the clitic D moves to AgrO in the syntax but then leaves this position still in the syntax, because of the assumed property of the AgrO projection that cannot enter PF if it contains overt material to be phonologically interpreted. Movement of the clitic deprives AgrO of its Case feature. Indeed, we may think that movement of the clitic has the effect of eliminating the AgrO head altogether so that the AgrO projection can no longer function as a Case checker. LF movement to Spec of such AgrO then does not result in Case checking of the Case of the moved DP. The derivation yielding ill-formedness is described by the following schema:



Thus, the presence of the preposition in the doubling structure allows the doubled argument to check its Case within the PP without the necessity of moving to Spec/AgrOP. The doubled argument can check its Case at LF in SpecPP, as normally happens with complements of prepositions.¹⁹

It was pointed out earlier that a clitic DP giving rise to clitic doubling can be seen as 'intransitive' in that the clitic D takes an indirect PP complement. A clitic DP not giving rise to doubling can also be seen as an 'intransitive'

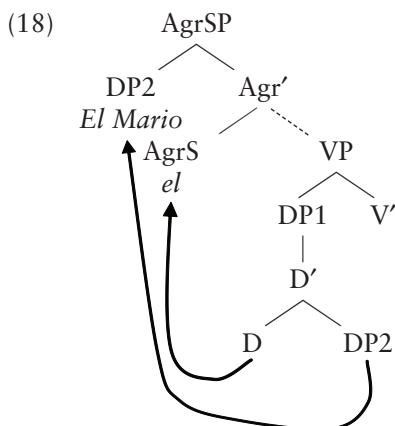
DP in that the clitic D takes no complement at all. It seems natural to wonder whether a 'transitive' clitic DP could also exist. It would instantiate the structure in (16):



Given the discussion concerning the Case checking property of the AgrO projection, the answer to the earlier question would seem to be necessarily negative. A clitic DP like (16) could not exist for Case reasons. However, this answer needs to be qualified. It is correct for object clitics, but what about other kinds of clitics, such as subject clitics? Let us consider those subject clitics of northern Italian dialects that have been considered as heads in the literature. Subject clitics of this sort are those found for instance in Trentino, to quote a case that is well known in the literature since Brandi and Cordin's (1981, 1989) articles on the topic.²⁰ This kind of subject clitic, traditionally analyzed as realizations of I, is well analyzed in the currently assumed rich clause structure as filler of an AgrS head. A crucial well-known fact concerning dialects of this kind is that a lexical subject can cooccur with an agreeing subject clitic. The relevant examples are those of (17), from Trentino:

- (17) $\left\{ \begin{array}{l} \text{La Maria la} \\ \text{El Mario el} \end{array} \right\} \text{ parla}$
 The Maria/o she/he(CL) speaks

It has been clearly demonstrated, since the cited Brandi and Cordin article, that the lexical subject fills a clause-internal position in these examples and cannot be considered left dislocated. These examples do not instantiate the CLLD construction, normally characterized by the presence of a left peripheral phrase and a clause-internal resumptive clitic. Both the lexical subject and the clitic are clause-internal in (17). Hence, we can describe (17) as a case of subject doubling. A natural way of analyzing the distribution in (17) consists in having the lexical subject as the Specifier of the AgrSP projection whose AgrS head contains the subject clitic. We propose that such final configuration is obtained by moving the subject clitic and the lexical subject from a subject clitic doubling DP whose structure corresponds precisely to (16). Suppose, following the VP-internal subject hypothesis, that the subject clitic doubling DP originates in the Spec of VP and that both the clitic D and the lexical DP move within the AgrS projection in the way schematized in (18):



Thus, the transitive clitic doubling DP has a well-formed output with subject clitics of the discussed type. Note that lack of need for an extra Case checker preposition here is due to the kind of configuration the clitic and the doubled subject give rise to in the syntax. For object clitics we claimed that the syntactic movement of the clitic filling AgrO has the consequence of depriving AgrO of its Case checking capability; consequently, Spec/AgrO cannot be used in LF for checking of the Case of the lexical argument, whence the need of the preposition. In the configuration (18), however, the subject clitic in AgrS does not need to move further, due to the strong nature of a tensed AgrS projection. Consequently, the AgrS projection is not deprived of its Case checking capability, and the lexical subject can check Case in the Spec position. Case checking is syntactic here as is usually the case with subjects, whence the overt nature of the movement of the lexical subject.

We can qualify the account proposed in this work as a generalized movement approach to cliticization. This is so since clitic movement is supposed to occur also in clitic doubling structures, the typically most recalcitrant structures to admit a movement analysis. A straightforward prediction made by the present approach is that any ‘movement’ diagnostic that should hold for cliticization should also hold in clitic doubling structures. This is so since cliticization occurs in precisely the same way in the two cases. One typical movement property displayed by cliticization has been recently pointed out by Luigi Rizzi and is discussed in Siloni (1994). Much like structures involving syntactic wh-movement, structures involving cliticization also display CED-type effect (Huang 1982). Consider the contrasts in (19) and (20):

- (19) a. *Eri seduto* [accanto [a Gianni]]
 You were seated next to Gianni
 b. *Eri felice* [accanto [a Gianni]]
 You were happy next to Gianni

- c. *A chi eri seduto accanto?*
To whom were you seated next?
- d. **?A chi eri felice accanto?*
To whom were you happy next?

- (20) a. *Gli eri seduto accanto*
To him(CL) you were seated next
- b. **?Gli eri felice accanto*
to him(CL) you were happy next

In (19) a. the complex PP *accanto a Gianni* is the locative complement of the verb *essere seduto* (to be seated), while in (19) b. it is rather a locative adjunct. Wh-extraction of the inner PP (*a Gianni*) from the complex PP produces a perfectly well-formed output in the first case, (19) c., and a strongly deviant one in the latter, (19) d. The inner dative PP can also be extracted through cliticization. The output is perfectly acceptable when the complex preposition is the complement of the verb as is shown by (20) a., and strongly deviant when it is an adjunct as (20) b. illustrates. Since sensitivity to CED can be taken to be a significant diagnostic for movement, the status of (20) b. is perfectly accounted for by an analysis of cliticization involving clitic movement. Interestingly, Siloni (1994) points out that examples comparable to (20) b. appear to have the same status in clitic doubling structures. Consider for instance the following Spanish examples quoted by Siloni that translate (20) b. and utilize the doubling strategy:

- (21) a. *Maria se le colocò cerca a Juan*
- b. **Maria le es feliz cerca a Juan*

The contrast between cliticization from a complement complex preposition and an adjunct one illustrated in (21) comes as no surprise for an analysis such as the one presented here that has the dative clitic extracted from the PP. The fact that the structure involves doubling should not make any difference in principle with respect to structures such as those in (20) where no doubling is involved. It should be pointed out here that the shape of paradigm (21) is particularly problematic for any analysis of doubling structures that has the clitic base generated in some (clitic) position high in the clause and does not involve clitic extraction. If we assume, as is generally done, that CED is a condition on *overt syntactic movement*, the status of (21) b. can be taken as evidence that doubling structures involve clitic movement, hence that cliticization is a unitary movement phenomenon.²¹ Furthermore, within this account the identical behavior displayed by structures involving cliticization, as in (20) and (21), and those involving syntactic wh-movement, as in (19), is an expected fact.

4 A HYPOTHESIS ON PROCLISIS VERSUS ENCLISIS

An important fact concerning cliticization is that the clitic and the verb do not always show up in the same position with respect to one another. The clitic can either precede or follow the verb yielding *proclisis* or *enclisis*. If we take Italian as a starting point, the straightforward generalization is that proclisis is manifested with finite verbal morphology and enclisis with non-finite verbal morphology.

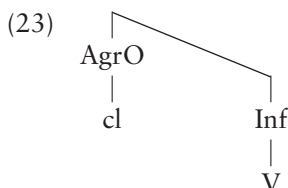
(22) illustrates the basic paradigm:

- (22) a. *Le* *vedo*
 I them(FEM,CL) see
 b. *Le* *ho viste*
 I them(FEM,CL) have seen
 c. *Vederle*
 To see-them
 d. *Averle* *viste*
 To have-them(FEM,CL) seen
 e. *Vedendole*
 seeing them(FEM,CL)
 f. *Vistele*
 seen them(FEM,CL)

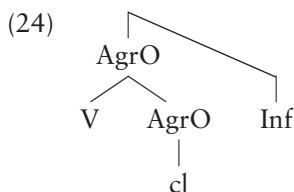
We have assumed that the clitic D moves into the AgrO head in a language like Italian; it then continues its movement further up. In the final structure the clitic ends up adjoined to the verb filling the functional head where it ends its morphological checking, AgrS in Italian finite clauses. We have assumed that adjunction of the clitic to the verb (within a functional head) yields proclisis, under the generally accepted hypothesis that adjunction is left-adjunction. Recall that we also have claimed that the verb could not pass through the AgrO head (via adjunction) taking the clitic with it in its further movement to T and AgrS, since checking of the verbal morphology could not be appropriately performed, due to the presence of the clitic within AgrO. Hence, proclisis in finite clauses is produced by the clitic subsequently adjoining to the verb.²² Suppose now that there could be cases where the verbs were allowed to pass through the AgrO head containing the clitic. In principle, these could only be cases where such passing through would not interfere with the checking of verbal morphology. This would then be possible if checking of the verbal morphology were already performed below AgrO. The proposal that I would like to make is that this is precisely what happens in the nonfinite contexts illustrated in (22) c.–f.

Consider first the case of the infinitive. Following Kayne (1991) an Inf inflectional head where checking of the infinitival morphology is performed

can be assumed to be present in infinitival structure.²³ Such a head is assumed to fill a position relatively low in the structure. Assume that this position is below AgrO. Consider now the case that concerns us here where AgrO is filled with a clitic, as schematized in (23):



Since checking of the verbal morphology is performed in Inf, if V must continue its movement higher than AgrO it can pass through AgrO taking the clitic with it in its further movement. Indeed, it appears to be the case that infinitives do rise high in the clause structure in Italian, presumably as high as AgrS (Belletti 1990, Chapter 1 of this volume). This is then a situation where V would adjoin to (the functional head containing) the clitic. Since, by assumption, adjunction is left-adjunction this derivation yields enclisis.²⁴ This is illustrated in (24):



Notice that implicit in this account is the idea that if head movement, here verb movement, can proceed step-by-step it does so. This is why enclisis is in fact the only option in this case.²⁵

The essence of the proposed interpretation of the factor yielding either proclisis or enclisis can be schematized as in (25):

- (25) a. *Proclisis*
 CL on V (within functional head)
 V CL CLV
 b. *Enclisis*
 V in CL (within AgrO)
 CL V VCL

No extrinsic order is of course imposed to derive the desired output, which is a consequence of the constraints on morphological checking, in particular checking of verbal morphology. If the clitic can be taken with it

by the verb passing through AgrO, it is taken and this yields enclisis; the clitic joins the verb otherwise and this yields proclisis.

Finally, I would speculate that the often observed fact that the relation between the verb and the clitic appears to be somehow 'stronger' in situations of enclisis than in those of proclisis could be related to the fact that the process adjoining the verb to the AgrO containing the clitic matches the structural relation that is normally produced in the course of the checking procedure of the verbal morphology, where the verb adjoins to the various functional heads where checking must be performed (T, AgrS, Asp, AgrPst-Prt . . .).²⁶

A particularly interesting case where enclisis is manifested in Italian nonfinite contexts is that of absolute past participial small clauses (Belletti 1992, Chapter 2 of this volume; Kayne 1989a). These absolute small clauses display a number of peculiar properties that need not concern us here and that are discussed in detail in the references cited. Let us give here just the elements of the analysis that are necessary to account for this instance of enclisis. Consider first of all the fact that in complex tenses involving an auxiliary and a past participle the clitic is systematically on the finite auxiliary:

- (26) a. *L' ho vista*
 I her(CL, FEM) have seen
 b. **Ho vistala*
 I have her(CL, FEM) seen

In the absolute past participial construction, however, the clitic is attached to the past participle as an enclitic:

- (27) *Vistala, Gianni si tranquillizzò*
 seen her(CL, FEM), Gianni himself calmed

From this basic contrast we can conclude that there is no intrinsic quasi-morphological incompatibility between the clitic and the past participle, as one might hypothesize just looking at (26) a. and b. Rather, the possibility of having the clitic on the past participle shown by (27) must be the consequence of some structural difference holding between full clauses such as those in (26) and absolute small clauses, which gives rise to a different derivation. Under the natural assumption that the syntax of the clitic is the same in both cases, the contrast should come from a different verb syntax in the two clauses and small clause structures. In particular, the possibility of enclisis on the past participle manifested by absolute small clauses must ultimately be a consequence of the somewhat reduced clause structure that they display. Let us elaborate on this point.

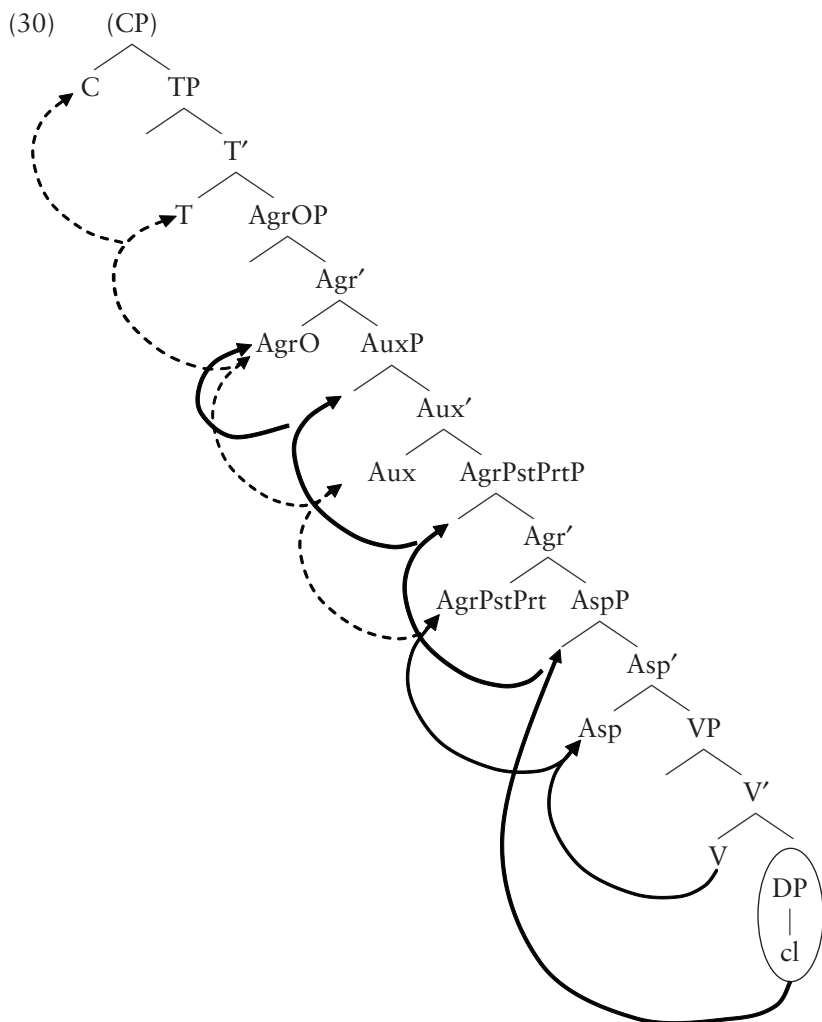
I will first adapt and update the proposal developed in the works cited earlier to the hypotheses made here. The idea that the past participial functional projection has to be kept distinct from the AgrO projection where Case is checked, leads us to the conclusion that both projections should be present in the absolute small clause structure. This is so for the following two reasons: a) AgrPstPrt must be present because a verb with past participial morphology is present; b) AgrO must be present since an important property of participial absolute small clauses is the fact that accusative Case is licenced when a transitive past participle is present. The possibility of containing an accusative clitic already shows this point in (27), which is further illustrated by examples like (28), displaying the accusative form of a strong pronoun:²⁷

- (28) *Vista me/te . . .*
 seen me/you(ACC)

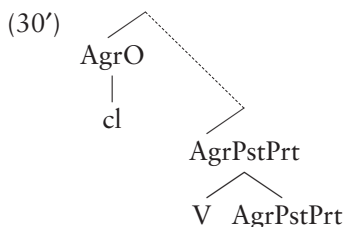
Data concerning the unavailability of sentential negation in absolute small clauses, discussed in Belletti (1992, Chapter 2 of this volume) and in Zanuttini (1996), combined with the hypothesis that sentential negation is located relatively high in the clause structure, let us assume between AgrS and TP as in previous works of mine and others, indicate that absolute small clauses have a reduced structure with respect to full clauses. The negation data, which are reproduced in (29) for the sake of clarity, suggest that the absolute small clause structure should be reduced at the TP level at most:

- (29) **(Non) Vista mai me, . . .*
 (not) seen ever me
 **(Non) Arrivata più Maria, . . .*
 (not) arrived anymore Maria

The availability of accusative Case indicates that the structure of absolute small clauses should be reduced at the AgrO level at least. Some CP-type projection also seems likely to be present as the root of the absolute small clause projection. See the references cited on the topic.²⁸ Let us also assume, as a general guideline, the idea that clause structure can in principle be reduced at various levels, but that once it is cut at the level of a certain projection all the projections below that one are present in the remaining structure. Cutting ‘within’ clause structure is not allowed.²⁹ The structure we are then led to propose for absolute small clauses is the one illustrated by the schema in (30). The schema also illustrates the derivations at work when an object clitic is present, involving the clitic and the verb:



According to (30), the clitic moves to AgrO in the standard way assumed in this work. The verb, on the other hand, performs a longer movement than the one that past participles usually undertake in full clauses: First it moves until AgrPstPrt for morphological checking requirements; then, it pursues its movement further up. Let us assume that this further movement takes the verb up to C, as proposed in the references cited (see also Cinque 1990b).³⁰ Schematically, the verb has completed its morphological checking in AgrPstPrt and the clitic fills AgrO:



Precisely as in the infinitive case, in pursuing the higher step(s) of its movement the (past participle) verb is allowed to move through AgrO in this case as well. Such passing through does not interfere with the checking of its morphology. It can be performed and it is performed (cf. note 26). Hence, enclisis is derived.

It should be emphasized here that the different distribution displayed by full clauses containing an auxiliary and a past participle is due, in this account, to the fact that the tensed auxiliary is present there. Since it must undergo its own morphological checking, proclisis on it is produced as in all cases involving a finite morphology. The lexical verb, on the other hand, ends its movement in the same position where it ends its morphological checking, i.e., AgrPstPrt.³¹ Hence, the ultimate reason for the different location of the clitic in full clauses containing an auxiliary and a past participle on the one hand and in absolute small clauses on the other is the longer movement of the past participle in the latter construction.³² Empirical support for this conclusion is provided by paradigms like the following (31), where the distribution of the adverb *completamente* is shown to be different in full clauses containing an auxiliary and a past participle and in absolute small clauses:

- (31) a. *Gianni ha completamente risolto il problema*
 Gianni has completely solved the problem
 b. *Risolto completamente il problema, Gianni si sentì meglio*
 Solved completely the problem, Gianni felt better
 c. **Completamente risolto il problema, ...*
 Completely solved the problem

The impossibility of the word order in (31) c. indicates that the past participle of absolute small clauses does not end its movement in the same position as the past participle of full clauses. If that were the case the adverb should be able to precede the past participle in both cases, but it does so only in full clauses. The natural conclusion to draw is that the past participle moves higher in absolute small clauses than in full clauses.³³

4.1 Speculations on Proclisis in French Infinitives

Let us limit ourselves to the case of infinitives, although the discussion should eventually extend to other nonfinite contexts as well. A very well-known

contrast between standard Italian and standard French is constituted by the fact that proclisis is displayed in French infinitives while Italian infinitives display enclisis, as was discussed in the previous section:

- (32) a. *Vederle*
to see him(CL, FEM)
b. *Les voir*
Them(CL) to see
c. **Voir les*
to see them(CL)

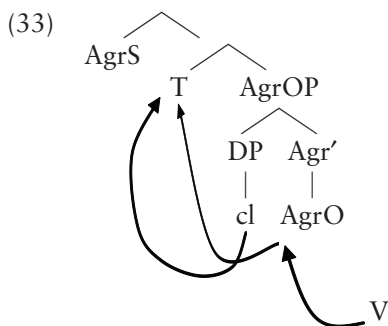
This central issue has received much attention in the recent literature.³⁴ Here, I will focus on the question of whether the system developed can capture this kind of contrast and how. It appears that some supplementary assumptions are needed that have a natural status within the system.

We mentioned in section 1 that the assumed structure for clitic pronouns naturally leads one to the hypothesis that the clitic DP can move either as a maximal projection or as a head. We have indeed claimed that movement cannot be X^0 movement from the beginning, since the AgrO projection is too far from the position where movement begins. We suggested that the clitic moves as a head to AgrO in Italian. We left open, however, the possibility that it could still move as a DP at the level of the AgrO projection, thus filling the Spec/AgrO position at this level. Suppose in fact that this is a place where languages vary. Let us (tentatively) propose that French differs from Italian precisely in this respect: Object clitics move as a maximal projection to Spec/AgrO. Their movement as heads starts from this position. Following the typology of pronouns presented by Cardinaletti and Starke (1999) (see also Holmberg 1991), this proposal amounts to claiming that object clitics are dealt with as 'weak pronouns' until the AgrOP level. According to the quoted typology, weak pronouns share with clitic pronouns the property of moving out of their base position in the syntax. Weak pronouns, however, are maximal projections and move to a Spec position, while clitics are heads and they target a head position. Putting the issue in these terms, the proposed analysis of cliticization claims that the process always involves some steps of movement as a weak pronoun. It can be that the clitic still is a weak pronoun at the AgrOP level. This could precisely be the case of French. This hypothesis can have interesting consequences with regard to the question at issue here: proclisis with infinitives in French.

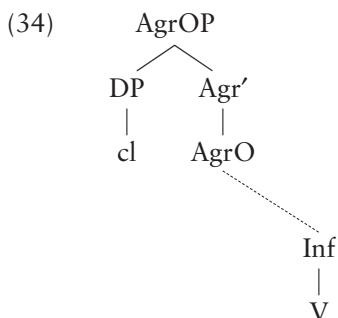
Before addressing the empirical analysis in detail, let us speculate on one important problem that the proposal immediately raises. Why should Italian and French differ in this way? On what basis does the child acquiring Italian decide that the clitic already is a clitic (a head) at the level of AgrO while the child acquiring French decides that at this same level it still is a weak pronoun (a maximal projection)? These central questions will only

receive a speculative, perhaps not too conclusive, answer here. Let us begin by considering another important difference that distinguishes French and Italian: While both languages have clitic pronouns for objects, only French has so-called 'subject clitics,' where the term refers to the existence in this language of unstressed subject pronouns. The non-null-subject nature of French requires the overt expression of unstressed subject pronouns. The null-subject nature of Italian would not require the expression of any subject pronoun; however, Italian lacks any paradigm of unstressed subject pronouns of the French kind altogether. The literature on the topic has extensively shown that French unstressed subject pronouns are *not* syntactic clitics, so that the very term 'subject clitic' is in fact fairly misleading when applied to French.³⁵ French unstressed subject pronouns fill the canonical subject position as any other lexical subject; according to the aforementioned typology, they constitute then typical instances of weak pronouns. Consider now the role of the AgrSP and AgrOP projections: They are the projections hosting subjects and complements, respectively, for the purpose of Case checking. From a substantial point of view they are positions of the same kind. It then seems natural that those pronouns that are required to target them do so in the same way. To the extent that there exists evidence that unstressed subject pronouns are weak pronouns in Spec/AgrSP, we can speculate that this justifies (for the child learning French) a parallel analysis of unstressed object pronouns. This would imply moving them to the Spec of the projection relevant for complements, AgrOP. We then suggest that the very existence of subject weak pronouns in French may influence the analysis of object clitics at the level of AgrOP, causing their movement as maximal projections to its Spec. Lack of subject weak pronouns accounts for the lack of an analogous influence in Italian. We have indeed proposed that object clitics are already heads at the level of the Case checking projection AgrOP, where they substitute for the AgrO head.³⁶

Pollock (1989) has shown that French infinitives can optionally move relatively high in the clause structure. Adapting his proposal to the adopted clause structure, we can say that they optionally move to T. Suppose that AgrO contains an object clitic in its Spec (hence, an object weak pronoun). Much as we did for Italian, it is natural to assume that checking of the verbal morphology is performed at the level of the infinitive head in French as well. Movement to T is then not triggered by reasons of morphological checking, much as in Italian for movement of the infinitive to T and AgrS. However, unlike in Italian, in its passing through AgrO the infinitive will not find any clitic to carry with it since the clitic does not fill the head but the Spec of AgrOP. Hence, much as in finite clauses, the clitic will subsequently reach the verb, at the level of T. The derivation is illustrated in (33); as in finite clauses, since it is the clitic that adjoins to the verb (in the functional head T), the result is one of proclisis:



Through the hypothesis that the clitic DP fills the Spec rather than the head of AgrO we derive proclisis with French infinitives moving up to T, with a process that parallels the one involved in finite clauses. It is well known, however, that, as we have already mentioned, movement of V to T is optional in French infinitivals. The residual question that needs to be answered then is: How is proclisis produced when the verb does *not* move up to T (and remains, presumably, in Inf)? In fact, no particular process should be assumed here. As the schema in (34) makes explicit, proclisis is realized by the final representation:



The linear precedence of the clitic with respect to the verb, illustrated by the diagram, should correspond to an instance of proclisis in the final sequence. Notice that the proclisis arrived at in this case involves a certain structural distance between the clitic and the verb.³⁷ PF cliticization is subsequently at work since the requirement that AgrOP be empty at PF should still be considered operative. Let us propose that PF cliticization be systematically on the right, namely onto the element that follows the one that must cliticize. The schema in (34) suggests that the relation between the clitic and the verb is 'less strict' in a structural situation of this kind. Indeed, it appears that there exist cases where a proclitic is separated from the verb by some adverbial element, typically the adverb *bien*. Consider the following examples, first discussed and pointed out by Kayne (1991):

- (35) a. *Pour le bien faire*
 b. ... *en bien parler*

Examples of this kind (fairly obsolete in present day French, though), can be taken to correspond to a representation (and the implied derivation) as the one illustrated by (34), where the clitic and the verb do not enter in any close morphosyntactic relation.

4.2 On Enclisis and Positive Imperatives

A well-known, often observed fact that is coherently shared by the various Romance languages is that positive imperatives systematically display enclisis. Consider the basic paradigm that illustrates this fact in Italian and French:

- (36) a. *Fallo* *Fais-le*
 do it(CL)
 b. *Facciamolo* *Faisons-le*
 let us do it(CL)
 c. *Fatelo* *Faites-le*
 do(2PL) it(CL)

Without developing a systematic analysis of the syntax of imperatives, this section implements a proposal that mainly focuses on Italian, under the assumption that it should naturally extend to those languages that share the same relevant properties. Some speculations will also be developed on the possible analysis holding for French.

An often observed fact concerning imperatives is that their verbal morphology is somewhat reduced/impooverished. Italian is particularly revealing in this regard, since tense and subject agreement morphology are often quite explicit, e.g., in the case of various forms of the indicative. Nevertheless, no tense and subject agreement morphology is manifested with imperative forms. The examples in (37) are especially relevant in this respect:

- (37) a. *Fa' questo lavoro*
 do this work
 b. *Di' la verità*
 say the truth
 c. *Va' a casa*
 go home
 d. *Sta' a casa*
 stay home

All the examples in (37) contain a second person singular imperative. Indeed, the second person can be the only real person of the imperative.³⁸ If

we consider singular to be the default number, second person singular can be taken to constitute the only real imperative form. Interestingly, while first and second person plural, usually quoted in the imperative paradigm, correspond to the indicative morphology (*facciamo/let's do*, *fate/do-pl*), a special imperative morphology only exists for the second person singular. (37) provides some illustrative examples. Notice now that all of the examples in (37) share the property of not manifesting tense and subject agreement overt morphology. This property is realized in one of two ways: either through use of a truncated form [of the indicative (37) a., c., and d., or through use of an altogether special form (37) b.1].³⁹ Both the truncated forms and the special one are interpreted as second person singular; furthermore, truncated forms (of the corresponding indicative) only exist for the second person singular, thus somehow confirming the idea that this really is the only person of the imperative. Notice incidentally that converging evidence to this effect is provided by contrasts like the one in (38). Given the root nature of imperative clauses, a clause containing an unambiguously imperative form should not be able to be embedded. This is clearly illustrated by the sharp ungrammaticality of (38) b. where the second person imperative form *di'* is present:⁴⁰

- (38) a. *Ho sostenuto che dici la verità*
 'I claim that you say the truth'
 b. **Ho sostenuto che di' la verità*

The set of these observations naturally leads us to the following hypothesis: T and AgrS do not actively enter in the checking process of the imperative verbal morphology. Checking of the verbal morphology is performed below the T and AgrS level.⁴¹

Let us now make some more general remarks on imperative clauses, starting by asking the following question: Where does the imperative interpretation come from? Assume it is forced upon the presence in the sentence peripheral Comp of an Imp(erative) Operator. The fundamental syntactic role of this Op is to bind an empty category filling the subject position of imperative clauses and attribute to it the value of a constant corresponding to 'second person, sing/pl, +/–speaker' = *tu* (you, sing), *voi* (you, pl), *noi* (we) (cf. note 39). The relation between the Op and the constant accounts for the 'quasi-null-subject' phenomenology occurring in imperatives across language types. Of course, that the empty subject of imperatives cannot be dealt with as a pronominal null-subject of the kind found in real null-subject languages is precisely indicated by the fact that its referential value is limited just to those persons compatible with the imperative interpretation. According to our earlier proposal, this reduces the interpretive options to the second person (modulo number variation and +/–inclusion of the speaker). Consider further the following general point. The operator binding the subject position can be taken to fill the A' Spec of (some relevant head in the)

CP (area).⁴² Suppose now that each time an Op carrying a particular feature fills the relevant A' Spec position a general well-formedness condition, ultimately forced upon us by the interpretation, is at work requiring that a head carrying the very same feature fills the head of the same projection. The requirement for this type of an A' agreement relation has been discussed in the literature with respect to wh-structures and negative structures in the form of different instances of a well-formedness criterion: the 'wh-criterion' (Rizzi 1991) and the 'negative criterion' (Rizzi 1991; Haegeman 1992). A criterion of the same kind should then be operative in imperative clauses as well, call it the 'imperative criterion' for the sake of clarity. It can be phrased as in (39):

(39) *Imperative Criterion*

An imperative Op must be in a Spec-head relation with an imperative head and vice versa.

On which head is the imperative feature located? It is natural to assume that it is located on the verb, as the existence of some special imperative morphology like the one discussed earlier strongly suggests. This has the immediate consequence that, in order to satisfy the criterion in (39), the verb has to move up to the head of the projection in the peripheral CP area whose Spec contains the Imperative operator. In other words, imperative clauses should involve a 'V to C' type process that exactly parallels the one at work in wh-questions in English giving rise to 'Aux to C' movement (Rizzi 1991).⁴³

(40) What_i has_j John e_i said e_j?

If the sketched analysis of imperative clauses and the processes taking place within them as well as the proposed analysis of the imperative verbal morphology are on the right track, we are in a position to provide a fairly straightforward interpretation of the enclisis occurring in positive imperatives, which is the central empirical concern of this section. Indeed, this interpretation is going to parallel, in all relevant respects, the one developed for the cases of enclisis already analyzed, those involving nonfinite verbal morphology in Italian.

Consider the case of structures containing a clitic within AgrO. Since checking of the verbal morphology is performed in a low position in the clause, nothing prevents the verb from passing through AgrO and taking the clitic with it on its way to (the relevant head in the) C (area). As it is always the case when it is the verb that adjoins to the (head carrying the) clitic, according to our proposal, the result systematically produces enclisis.⁴⁴

Before concluding this discussion, a (highly speculative) consideration must be made for French. In section 4.1 we made the proposal that French

object clitics are still maximal projections at the level of AgrOP. We formulated the hypothesis by saying that, at this level, they are weak pronouns. It is through this hypothesis that we were able to account for the proclisis occurring with nonfinite inflections. The natural question that arises here is why enclisis should then be manifested with French imperatives. Of course, it is not at all plausible to assume that cliticization works differently in imperatives so that, only in these structures, the clitic should be a head at the level of AgrOP and enclisis would be obtained in the same way as in Italian. A more reasonable approach would be one that tries to relate the somehow 'special' output of cliticization in French imperatives to the peculiar verb syntax that imperatives display under the analysis we proposed. Consider the following line of reasoning. The functional projections that lie between AgrOP and CP (or, rather, the relevant A' area) are (at least) T and AgrS. We claimed that these heads play no role in the checking of verbal morphology; however, the verb should pass through them on its way to C due to the operation of the HMC. Let us say that T (and AgrS) is 'radically empty' in imperatives. Hence, if we admit, as we already have, that the clitic moves as a head at the level of T, and that in this case it substitutes for a radically empty T head, the verb should then be able to take it on its way to C, adjoining to it, much as it does in languages like Italian at the level of AgrO already. Crucial in this sketch of an account is the idea that the clitic can move as a head by substitution into T in imperative clauses since only in these structures is T (and AgrS as well) 'radically empty.' This distinguishes the T (and AgrS) functional head of imperatives from that of both finite and nonfinite clauses. If such an assumption is fairly evident for the case of finite inflections, it seems to be less so, intuitively, for other non-finite inflections (infinitives, gerunds . . .). However, the hypothesis can appear to be less stipulative if we correlate it to the fact that T is able to autonomously attract the verb in some nonfinite inflections in French as well, notably in the case of the infinitive. It then seems reasonable to conclude that T is not as radically empty in other nonfinite inflections as it is in the case of imperatives.⁴⁵ This is what makes this head available for the clitic to substitute. For the reasoning to be complete we will also have to admit that once the clitic leaves AgrO(P) as a head, as it does in both French and Italian, if substitution can be performed it is preferred over adjunction. Hence substitution into T is preferred to adjunction into the verb in T. This further step makes sure that a derivation yielding enclisis is anyway better evaluated with imperatives than one that would parallel that of infinitives, necessarily leading to proclisis. It is along these lines that the system would try to capture the differences and similarities existing within standard French between structures containing nonfinite inflections and imperatives.

Let us summarize the fundamental features of the analysis developed. We have claimed that the factor triggering clitic movement is the necessity for the clitic to check its (strong) Case feature. This singles out the

AgrOP projection as the landing site of clitic movement. Necessity of voiding AgrO(P) prior to PF accounts for the subsequent movement of the clitic, thus providing a characterization of cliticization as a phenomenon fundamentally triggered by PF factors. The basic properties of clitic syntax are derived in combination with specific hypotheses on the structure of the clitic DP, clause structure, verb syntax, and the mechanisms involved in the checking of verbal morphology.

Part II

The Syntax of (Some) Discourse Related Strategies

6 Aspects of the Low IP Area

1 INTRODUCTION

This chapter reconsiders and develops a proposal presented in Belletti (2001b). The discussion that follows leaves the core insight of the original proposal essentially unchanged, although some aspects of the implementation will be revised in a way that leads to changes in some areas; the overall empirical coverage of the proposal itself will also be widened.

Recent studies on the cartography of the left periphery of the clause, starting with Rizzi (1997) and subsequent works (see also Poletto 2000; Benincà 2001; Benincà and Poletto 2004; Poletto and Pollock 2004a and references cited therein), have come to the conclusion that the clause (IP, henceforth for simplicity) external area, traditionally labeled CP, is indeed a much richer and articulated space than traditionally assumed. Several dedicated positions split the single head C, including positions indicating the Force of the following clause and its Fin(itness). As extensively discussed in Rizzi (1997) and related work, between Force and Fin various other CP internal positions are identified: crucially a Focus position surrounded by (possibly iterated) Topic positions. Processes of Focalization and Topicalization are thus analyzed as involving movement of a phrase to the dedicated position in the left periphery.¹ In this view, the different interpretations of the peripheral constituent, either as a topic or as a focus with respect to the following sentence, are automatic reflexes of the derived configuration. Under the general idea that a relation that closely recalls an agreement relation, and that is often assimilated to it, is established between the head of a phrase and the constituent filling its Spec,² a focus head and the phrase in its specifier will share the focus feature/interpretation; an identical relation will account for the topic interpretation of a phrase in the specifier of the topic projection. These by now fairly standard assumptions provide a very simple and straightforward way of expressing the mechanisms granting the possible different interpretations related to different configurations. The interpretation as focus or topic of an element in the left periphery is an automatic consequence of the element's filling the specifier of different heads. A simple conclusion of the sort could not be as easily drawn in a

CP projection not internally analyzed and split in the different positions discussed in the references cited. The relation between syntax and the interpretative interface (LF) is expressed in an optimally simple way: The interpretation is read off the syntactic configuration. The same analysis should also lead to an equally simple way to express the relation of the syntactic configuration with the phonetic/phonological interface. In particular, as far as the stress contour of a clause and its overall intonation are concerned, they should be directly determined from the syntactic configuration. Typically, a focused constituent in the left periphery is contrastively stressed; a topicalized phrase in the peripheral position is associated with a special downgrading intonation:

- (1) a. A GIANNI ho dato il libro (non a Piero)
to Gianni I have given the book (not to Piero)
- b. A Gianni, (gli) ho dato il libro
to Gianni (I) to him (cl) have given the book

Both intonations should be directly read off the different syntactic positions the phrases occupy in the CP area.

The proposal developed here analyzes the fine-grained structural cartography of the clause's (IP) internal low area. It will be suggested that the area immediately above the verb phrase displays a significant resemblance with the left periphery of the clause, the so-called CP area just discussed. In particular, a clause-internal Focus position, surrounded by Topic positions, is identified in the low part of the clause.³ Partly different intonations are associated to these positions as opposed to the parallel positions in the left periphery. Different interpretations are also associated to the positions of what we may call the 'clause-internal periphery' as opposed to those in the clause-external one. Both the interpretations and the related intonations are thus linked to properties of the configuration. Without attempting a systematic investigation of the various detectable differences holding between the left peripheral positions and the clause-internal parallel periphery but just pointing out some of the crucial ones, in what follows I concentrate on the properties of the clause-internal focus, with some reference to the clause-internal topic.⁴

Before entering the close empirical investigation, one further general question should be raised. If the conclusion of the proposal to be presented here is on the right track, a significantly parallel configuration introduces the verb phrase and the IP. Assuming that this sort of duplication is justified on empirical grounds, the question as to why such a parallelism should exist arises. Although a definite answer to this at present relatively complex question cannot be produced, it is worth pointing out that similar conclusions, differently phrased and in different perspectives, have already been reached. Most recently, Chomsky (2001) has precisely singled out CP and complete verb phrases (vP in his terminology) as '(strong) phases' in the sense of the

recent version of the MP that is syntactic units that share a certain amount of independence (and that are transmitted to the interface systems). According to our proposal, CP and the verb phrase (vP or VP) would be parallel in that vP/VP has a CP-like periphery. Furthermore, various proposals have appeared in the literature ultimately attributing to vP/VP a periphery resembling that of the clause. The idea has led to the assimilation of the vP/VP of the clause to the general format of small clauses, some of them VP small clauses. In this type of approach, small clauses are analyzed as full clauses (Starke 1995; Sportiche 1995) including a peripheral C projection. The proposal presented here can be seen as a contribution within this same line of approach to clause structure, providing a more fine-grained design of the assumed vP/VP-periphery.

2 THE POSITION OF POSTVERBAL SUBJECTS

Let us briefly review the fundamental data arguing for the plausibility of the proposal that a clause-internal focus position be present in the vP area.⁵

Subject inversion is a widespread phenomenon in Romance. The topic has been extensively addressed, with the general conclusion that so-called Free Subject Inversion is a fundamental property of null-subject languages somehow linked to the possibility of leaving the preverbal subject position phonetically unrealized.⁶ Among the Romance languages, French has a special status in that it does not display the phenomenon of free subject inversion, a consequence of its non-null-subject nature. Indeed, the kind of inversion structures allowed in French—the so-called Stylistic Inversion (SI) structures (Kayne and Pollock 1978, 2001)—have very different properties from those found in null-subject Romance languages: Descriptively, they require a ‘trigger’ for inversion (wh, subjunctive), while no overt trigger is required in the case of Free Inversion (whence, the characterization as ‘free’, FI). Basing my discussion mainly on Italian as far as FI is concerned,⁷ the following contrasts arise with French:

- (2) a. Ha parlato Gianni.
has spoken Gianni
- b. E' partito Gianni.
is left Gianni
- c. *A parl  Jean.
has spoken Jean
- d. *Est parti Jean.
is left Jean
- e. Le jour o  a parl /est parti Jean.
the day when has spoken/is left Jean
- f. Il faut que parle/parte Jean.
it is necessary that speak/leave (subj.) Jean

- g. Il giorno in cui ha parlato/è partito Gianni.
the day in which has spoken/is left Gianni
- h. E' necessario che parli/parta Gianni.
it is necessary that speak/leave (subj.) Gianni

The fact that examples (2) g. and h. are possible in French as well, as in examples (2) e. and f., whereas examples (2) a. and b. are also perfectly well-formed in Italian but are excluded in French, as shown in examples (2) c. and d., strongly indicates the different nature of the two inversion processes, SI and FI. The word-by-word parallelism of (2) e. and f. and (2) g. and h. must be considered epiphenomenal: The Italian structures in (2) g. and h. plausibly involve the same 'inversion'⁸ process that is at work in (2) a. and b., which is different from the one at work for (2) e. and f. In their recent analysis of SI, Kayne and Pollock (2001) have crucially characterized the phenomenon as involving the high, clause-external periphery of the clause. Briefly put: The subject is moved out of the clause⁹ to a position within the left periphery; the remnant IP is subsequently moved past the subject in a further higher position of the left periphery. One crucial feature of this analysis is that the subject is very high in the clause structure. A natural way to characterize the difference between SI and FI would then consist in assuming that the postverbal subject is not high in FI. As in traditional accounts, we could reach the conclusion that FI is indeed a clause-internal phenomenon.

According to this (rather traditional) hypothesis, the same order VS can be thought of as being obtained in two very different ways in the two processes: either through IP-remnant movement as for SI or through movement of the verb over the subject as for FI.¹⁰ I assume that this characterization is fundamentally on the right track. As a general guideline, I adopt the restrictive working hypothesis that remnant-type movements be limited to those cases where interpretive/intonational factors seem to call for them. I assume that, although not always explicitly discussed in these terms in Kayne and Pollock (2001), this should be taken to be the case for SI in the frame of their analysis. However, a remnant-type analysis is not justified for FI in the general case. The next step is then to determine how internal to IP the postverbal subject is.

2.1 Postverbal S is Low in the Clause Structure

The distributional evidence concerning the respective location of the subject and adverbs that are located in a very low position in the clause structure, according to Cinque's (1999) hierarchy, discussed in Belletti (2001b) and also pointed out in Cardinaletti (2001), points to the conclusion that the postverbal subject is very low in the clause as it follows low adverbs. Consider the contrasts in (3) in this perspective:

- (3) a. ?Capirà completamente Maria.
will understand completely Maria
- b. ?Spiegherà completamente Maria al direttore.
will explain completely Maria to the director
- c. ?Capirà/spiegherà bene Maria (al direttore).
will understand/explain well Maria (to the director)
- d. Capirà/spiegherà tutto Maria (al direttore).
will understand/explain everything Maria (to the director)
- (4) a. *Capirà/spiegherà Maria completamente (al direttore).
will understand/explain Maria completely (to the director)
- b. *Capirà/spiegherà Maria bene (al direttore).
will understand/explain Maria well (to the director)
- c. *Capirà/spiegherà Maria tutto (al direttore).
will understand Maria everything

Notice incidentally that similar data have been discussed also for Icelandic in Bobaljik and Jonas (1996), as in example (21), giving opposite results:

- (5) það luku sennilega *einhverjir studentar* alveg verkefninu
there finished probably some students completely the assignment
- (6) *það luku sennilega alveg *einhverjir studentar* verkefninu
there finished probably completely some students the assignment

The contrast between (3)–(4) and (5)–(6) suggests that a further, higher position is available for subjects in Icelandic, but not in Italian.

Note that no special intonation is associated with the sentences in (3). This will always be the case in the examples to be discussed here, unless explicitly indicated. The examples in (3) b., c., and d., where the postverbal subject is followed by a PP complement (see section 4.1 on this possibility) are particularly significant in that they indicate that further lower portions of the clause can be present following the subject (i.e., a PP complement).¹¹ Given the guidelines indicated earlier, as there do not seem to be reasons to admit a complex derivation including remnant movement steps, I assume that these steps are not implemented in the derivation of these sentences. Whence the significance of these cases.¹²

A closer discussion of the lack of the ‘?’ in example (3) d. is also relevant in this connection. Suppose that the ‘?’ on (3) a., b., and c. is due to some interference effect between the adverb and the postverbal subject, which should ideally immediately follow the verb. The perfect status of (3) d. is an indication that no interference operates here. The relevant notion characterizing the disturbing proximity between the adverb and the postverbal subject must be hierarchical, as all the examples are alike from the linear

point of view (see Rizzi 1996 for a proposal). As *tutto* is supposed to move in the clause leaving its original location,¹³ contrary to adverbs, it can be assumed that it is precisely this movement that is responsible for the establishment of the relevant necessary distance between *tutto* and the postverbal subject. Notice now that, were the Vadv/*tutto*S order to be obtained through remnant movement of the relevant portion of the IP,¹⁴ leaving the subject behind, there would not be any way to capture the relevant hierarchical distinction between the adverbs and *tutto*, which are both equally included in the remnant moved portion.¹⁵

From the preceding considerations, we can conclude that the shape of paradigms (3) and (4) is a clear indication that the subject is low in the clause structure.

2.2 Postverbal S and Extraction

If we abstract away from the case of postverbal subjects of unaccusatives,¹⁶ it appears that the postverbal subject is not a felicitous extraction domain. Both *ne* cliticization and *wh*-extraction are less than perfect, as illustrated in (7):

- (7) a. Ha telefonato il direttore del giornale al presidente.
has phoned the director of the newspaper to the president
b. ?? Il giornale di cui ha telefonato il direttore al presidente.
the newspaper of which phoned the director to the president
c. ?? Ne ha telefonato il direttore al presidente.
of it has phoned the director to the president
d. ?? Ne hanno telefonato molti al presidente.
of them have phoned many to the president

If we put together the observations of the preceding section and the shape of paradigm (7), we can conclude that the low position of the subject is not an extraction domain, as extraction gives rise to CED-type effects.¹⁷

Kayne and Pollock (2001) point out a distinction as for extractability from the postverbal subject in French SI. While extraction of *en* appears to be impossible, *combien* extraction gives better results:

- (8) a. *Le jour où en ont téléphoné trois.
(Kayne and Pollock (19a))
the day when of them (cl) have called three
b. ?*Le jour où en sont partis trois.
(Kayne and Pollock (19c))
the day when of them (cl) are left three
c. *Le criminel qu'en ont condamné trois.
(Kayne and Pollock (21))
the criminal that of (them) have condemned three

- d. Combien ont téléphoné de linguistes?
(Kayne and Pollock (29a))
how many have called of linguists
- e. Combien sont partis de linguistes?
(Kayne and Pollock (29b))
how many are left of linguists

Their interpretation of the contrast is in terms of c-command. The IP preceding the subject is moved past it through remnant movement. In the resulting configuration *en* does not c-command its trace within the subject from which it has been extracted; hence a violation of proper binding is created. No equivalent violation is created in the case of *combien* extraction via wh-movement as the wh-quantifier is further raised to the appropriate high position in the CP where wh-phrases normally end up. From there it c-commands its trace as required. As no contrast is displayed in the Italian examples between *en* extraction and wh-extraction, this is an indication that a similar analysis should not be extended to the FI structures.¹⁸ The conclusion must be that the position occupied by the postverbal subject in FI is not a felicitous extraction domain altogether. If the proposal that follows is on the right track, a natural reason can be provided for that, as such position is identified with the Specifier of a Focus phrase,¹⁹ not an argument position in the sense relevant for CED.²⁰ I now turn to the core of this proposal.

3 THE INTERPRETATION OF THE POSTVERBAL SUBJECT IN FI

Here I briefly review the fundamental paradigm leading to the proposal. Question-answer pairs like the following indicate that the postverbal subject can be interpreted as new information focus:

- (9) a. Chi è partito / ha parlato ?
who has left/has spoken
b. E' partito / ha parlato Gianni.
has left/has spoken Gianni
c. #Gianni è partito / ha parlato.
Gianni has left/has spoken

However, with the appropriate intonation and in the appropriate pragmatic conditions, a postverbal subject can also receive the topic (given information) interpretation:

- (10) a. Che cosa ha poi fatto Gianni?
What has Gianni finally done

- b. Ha (poi) parlato, Gianni.
He has finally spoken, Gianni

In what follows I will mainly concentrate my attention on the new information focus interpretation, keeping the possibility of exchanges like the one in (10) in mind, as they can provide a direct indication of the fine configuration of the low IP internal area under discussion (see section 6 for more on that).

It is very clear from the contrast between (9) b. and (9) c. that the postverbal and the preverbal position²¹ have a very different informational content: Only the former can carry new information. The postverbal subject is also informationally new when the whole clause is new information. Example (9) b. is also an appropriate answer to a general question like (11), while (9) c. would not be, unless some presupposition is held by the speaker concerning the subject:

- (11) Che cosa è successo?
What happened?

Let us concentrate our attention on the case of the so-called narrow new information focus reading of sentences like (9) b.²²

According to the general guidelines assumed in this work, the focus interpretation of the postverbal subject should optimally come out of the syntactic configuration in which the subject DP is inserted. As I have shown that the subject is low in the clause structure, this naturally leads to the proposal that it should fill a low Focus position (or Topic, see section 6).²³ This in turn argues in favor of the existence of such a position clause-internally.

To make the point stronger, a possible alternative should be considered, in line with the assumed guidelines: The postverbal subject fills a Focus position indeed, but this position is not clause-internal; rather, this position should be identified with the left peripheral one already proposed and independently justified in the literature. According to this alternative, the subject is actually very high in the clause structure and the portion of the clause preceding it is even higher. Within this analysis, FI would look much more akin to SI than we have hypothesized so far. The following section closely discusses, and dismisses on further empirical grounds, this alternative, which the data discussed in section 2 already put into question.

3.1 The Subject Is Not High in FI

We saw in section 2 data involving the distribution of low adverbs leading to the conclusion that S is low in FI. We also noticed some properties (extraction) differentiating SI and FI. We now look at other differentiating behaviors of SI and FI that appear to be naturally derived if the postverbal

subject is thought of as being high in the former case, but low in the latter. Consider the following contrasts:

- (12) a. Non ho incontrato che (i/dei) linguisti.
I have 'not' seen 'that' (the/some) linguists
- b. Non hanno parlato che (i/dei) linguisti.
 have 'not' spoken 'that' (the/some) linguists
- c. *(Che) (i/dei) linguisti non hanno parlato.²⁴
 ('that') (the/some) linguists 'not' have spoken

- (13) a. Non conosco alcun linguista.²⁵
 I do not know any linguists
- b. Non parlerà alcun linguista.
 will not speak any linguist
- c. *Alcun linguista non parlerà.
 Any linguist will not speak

- (14) a. Non ho visto nessuno.
 (I) have not seen nobody
- b. Non ha parlato nessuno.
 has not spoken nobody
- c. *Nessuno non ha parlato.
 nobody has not spoken

In all the examples the postverbal noun phrase is an NPI element that needs to be licenced by the negative marker *non*. Suppose that licencing is obtained through c-command: In all of the b. examples, the postverbal subject behaves like the direct object of the a. examples and differently from the corresponding preverbal subject of the c. examples. This strongly suggests that the necessary c-command relation is established in the b. examples as it is in the a. examples. In turn, this suggests that the b. sentences should not be analyzed as involving a high subject and a higher remnant IP. If that were the case, the relevant c-command relation could not be established and the resulting sentences should be as ungrammatical as those involving a preverbal subject are.²⁶ Indeed, paradigms with precisely this type of distribution of judgments are discussed by Kayne and Pollock and are used as an argument in favor of their analysis of SI in terms of remnant movement of IP past the high subject. The relevant examples that they discuss in this connection are reproduced in (15):

- (15) a. Jean a peu vu de linguistes.
 Jean few saw of linguists
- b. *De linguistes ont peu vu Jean.
 of linguists have few seen Jean

- c. *Le jour où ont peu téléphoné de linguistes.
the day where have few phoned of linguist
- d. Il n'a pas vu de linguistes.
he has not seen of linguist
- e. *De linguistes ne sont pas venus.
Of linguists are not come
- f. *Le jour où ne sont pas venus de linguistes.
the day where are not come of linguists

If *peu* and *pas* are taken to be the licenser of the polarity noun phrase introduced by *de*, lack of c-command can be held as the responsible factor ruling out the *de*-phrase from the preverbal subject position. Similarly, lack of c-command could account for the same impossibility in (15) c. and f. that involve SI. This sort of paradigm is then utilized by Kayne and Pollock as a substantial argument in favor of their analysis of SI.

The shape of the Italian paradigm remains unchanged if the relevant examples are made equally complex as the SI cases:

- (16) a. Il giorno in cui non hanno parlato che (i/dei) linguisti.
the day when have not spoken that (the/some) linguists
- b. Il fatto di cui non parlerà alcun linguista.
the fact of which will not speak any linguist
- c. Il momento in cui non ha parlato nessuno.
the moment in which has not spoken anybody

The postverbal subject of FI is then not a high subject. If it is correct to assume that it fills a Focus position, this position cannot be the high, left peripheral one.²⁷

3.2 The Postverbal Subject Does Not Fill the Left Peripheral Focus

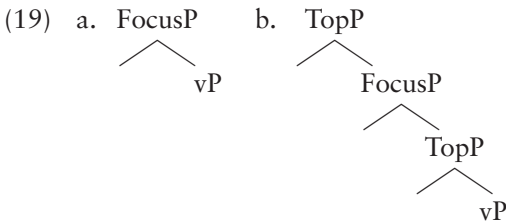
Furthermore, the identification of the focus position of postverbal subjects with the left peripheral one does not seem justified on empirical grounds if the kind of focal interpretation is considered in more detail. In Italian, the peripheral focus position is systematically associated with a contrastive/corrective interpretation and carries a special stress, as mentioned in connection with (1). No equivalent interpretation or intonation is necessarily associated with a postverbal subject. Although, as noted earlier, the postverbal subject is the carrier of new information, the peripheral focus position cannot be associated with simple new information:

- (17) a. Chi è partito / ha parlato ?
Who has left/has spoken?

- b. (*) GIANNI è partito/ha parlato.
GIANNI has left/has spoken
- (18) a. Che cosa hai letto?
What have you read?
- b. (*) Il LIBRO ho letto (non il giornale).
THE BOOK I have read, not the newspaper

Examples (17) b. and (18) b. are not appropriate answers to genuine questions of information. Contrast or correction is necessarily implied. It would be difficult to understand why the opposite should hold for postverbal subjects.²⁸ From this it is legitimate to conclude that the focus position hosting the postverbal subject cannot be the same as the one located in the left periphery. Rather, it must be a clause-internal position and the VS order is not obtained through a remnant topicalization process that moves a portion of IP over a left peripheral high subject. I maintain that an analysis along these lines could hold for SI, as in Kayne and Pollock, but not for FI.²⁹

The most direct way to phrase the proposal is in terms of a diagram like (19) a., which postulates the presence of the clause-internal focus position right above the verb phrase. This is too simple a version of the proposal, though, and it must be enriched to allow for topic-like positions to also be present in the low, clause-internal domain. In this way the possible topic interpretation of postverbal subjects illustrated by sentences like (10) b. will be directly captured. This leads to the version in (19) b., which assumes a strict parallelism between the clause-internal vP/VP-periphery and the clause-external one in the CP left periphery, mentioned at the outset:



3.3 Why Is S Focus (or Topic) in FI?

We have established that S typically is a new information focus in FI, and we have made the hypothesis that this is a consequence of S filling a clause-internal focus position where it is interpreted. The question then is: What forces S to be in focus? Or, put it differently: Why is S necessarily focalized in FI?

In Belletti (2001b) I related that to Case: If Case is only assigned locally, there is no available Case assignor for S in the lower portion of the clause.

S moves to Focus in order to be licenced by a different feature from Case—namely Focus. But, the hypothesis of allowing Focus to play a role comparable to Case can look like a weakening of the general approach, as it is not obvious what Case and Focus should have in common that would allow them to play an essentially equivalent role.³⁰ Moreover, in recent versions of MP, Chomsky has made the proposal that Case assignment can be a non-local process and that Case can also be available at a distance, with the (agreeing) Case assigning head looking for its Case assignee target also in a non-local domain. If some process of the sort has to be admitted, we should look for a different reason accounting for the focalized nature of the postverbal subject.

I would like to speculate that this effect may be somewhat ultimately related to economy considerations. Let us ask, what would fill the preverbal subject position in FI structures; namely, what would satisfy EPP? I will assume that, as in traditional accounts, the preverbal subject position is filled by a non-overt expletive *pro*, the associate of the postverbal subject:

pro ha parlato Gianni
has spoken Gianni

No expletive is present in structures that contain a preverbal subject, as the EPP is satisfied by the lexical subject in those structures. Hence, FI structures contain one element more than the structures containing a preverbal subject. Suppose that a kind of economy principle drives the selection of the initial Lexical Array (LA) (Chomsky 2000) to the effect that an LA bigger in size is to be chosen only for some ‘purpose,’ or, to put it in Chomsky’s terms, only if this choice has a reflex on the outcome. Focalization could precisely be one such reflex. It can be assumed that exactly the same ultimate reason is responsible for the topic interpretation of the postverbal subject as well.³¹ If this line of interpretation is on the right track, focalization (or topic interpretation) of the postverbal subject could be derived without having to admit any special licencing property for the focus (or topic) feature, comparable to Case.³² I tentatively make this assumption here.

4 ON VSXP

4.1 VSO and VSPP

A fairly clear contrast can be detected with VSXP word order according to whether what follows S is a direct object or a PP. The following examples (discussed in part in the references cited) illustrate the contrast:

As no relation external to vP is required for PPs, no RM violation is brought about by the presence of a PP following the postverbal S.

Two further considerations have to be made, before moving to the discussion of VS#O (# is an intonational break). The VSPP sequences in (20) appear to be optimally appropriate in situations where the whole verb phrase is taken to be new information focus. The most direct way to characterize this interpretation within the guidelines assumed so far would be to assume that it is actually the whole verb phrase, rather than just the subject, that moves to the specifier of the Focus phrase. We leave this as an open possibility. If this hypothesis is adopted, nothing changes in the proposed account for the different status of VSPP versus VSO, as all the relevant hierarchical relations involved remain unchanged.³⁶ Note that PP can also be the topic in sentences displaying the VSPP order. This would be the case in a sentence like (22) b. as an answer to (22) a., which is normally associated with a downgrading intonation on the PP:

- (22) a. Chi ha sparato al carabiniere?
b. Ha sparato il bandito al carabiniere

In these sentences only the subject should fill the Focus position.

As a last remark, something should also be said on the mild (the question mark in parentheses) degradation attributed to the VSPP examples in (20). The less than perfect status of these examples could be related to a tendency to have a narrow focus interpretation of the postverbal subject, hence a preference to have it in the last position.³⁷ The tendency is not respected in the relevant examples in (20), whence their less than perfect status. On the other hand, no grammatical principle is violated, so these sentences are acceptable.

4.2 VS#O

Judgments change according to whether a pause intervenes between S and O, when O is a direct object. Consider the following two possible sentences:

- (23) a. L'ha comprato Maria, il giornale.
it(cl) bought Maria, the newspaper
b. Ha comprato Maria, il giornale.
has bought Maria, the newspaper

Example (23) a. is a case of clitic right dislocation, (23) b. is a case of so-called *emarginazione*—‘marginalization’—in the sense of Antinucci and Cinque (1977). After the pause, indicated in both cases by the comma,

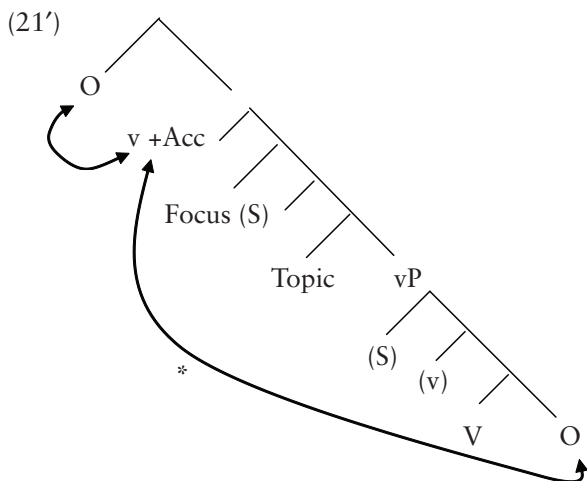
a downgrading intonation characterizes the pronunciation of the following direct object. Although apparently very similar, the two structures can be considered to significantly differ. The distinction, which only manifests itself in few special contexts, has been brought to light in Cardinaletti (2001) and Frascarelli (2000). Consider the following question–answer pairs:

- (24) A: Chi ha comprato il giornale?
 Who bought the newspaper?
 B: a. L'ha comprato Maria, il giornale
 It(cI) bought M., the newspaper
 b. *Ha comprato MARIA, il giornale
 has bought M. the newspaper

The postverbal subject is necessarily contrastively focused in the case of *emarginazione* [(24) Bb] while it is not necessarily so in the case of right dislocation [(24) Ba]. This explains why a sentence like (24) Ba can be a felicitous answer to the question of information in (24) A, while (24) Bb cannot. Example (24) Bb essentially reproduces the judgment reported in (17) and (18). The following account can be provided for the distinction.

Consider the analysis of (24) Ba first. Following Cecchetto (1999), I assume that the right dislocated phrase fills a clause-internal low topic position; the clitic is raised to the appropriate clitic position in the higher portion of the clause, leaving behind the topicalized object, with a stranding type of derivation that assimilates these structures to clitic-doubling structures in most important respects.³⁸ Given the shape of the vP/VP-periphery assumed here, this amounts to claiming that the right dislocated phrase fills the low topic position below the clause-internal focus. We can assume that the necessary Case requirements are fulfilled by the clitic in these structures.³⁹ Hence, there is no need to directly associate the topicalized direct object with the Case head located above the Focus projection. The postverbal subject fills the low focus position, accounting for its possible interpretation as new information focus.

Let us elaborate more on how the clitic fulfills Case requirements in (24) Ba. As the clitic moves to the (Specifier of the) Case projection, it ends up in a position higher than the position filled by S. In this position no interference by S occurs; hence accusative can be correctly assigned, or checked.⁴⁰ Lack of clitic would leave the direct object as the only element to fulfill Case requirements, with O in VP and anyway lower than S; there is no way to avoid interference by S. The structure is consequently impossible, as we saw VSO structures are in general. The following schema summarizes the two different situations:



Given the very different status of (24) Ba and (24) Bb, an analysis along the lines just proposed is not to be extended to (24) Bb. In fact, an analysis along these lines could not be extended to (24) Bb, given the analysis just developed. Lack of the clitic in (24) Bb indicates that the object has to be related to its Case-assigning head directly, without the mediation of the clitic. Hence, the structure is impossible as VSO usually is, as discussed. The presence of a pause in VS#O should not make any difference. The fact that the same word order is in fact (only) acceptable with an interpretation of the subject as contrastive focus rather than new information focus indicates that a different structure and derivation should be associated with this interpretation/intonation.

Let us make the restrictive hypothesis that the contrastive focus interpretation is available in the left peripheral focus position and, in fact, this interpretation is available only in that position. If this is the case, the contrastive focus interpretation indicates that the element carrying it is located in the high left peripheral focus position. This means that the postverbal subject should fill the peripheral focus position in (24) Bb, and this has a direct consequence for the object. We can think that movement of the subject to the clause-external focus position frees the object to establish the appropriate relation with the vP external Case-assigning head. Schematically, if in (24) Ba the order of the relevant projections is the one indicated in (25), with S intervening between the object Case-assigning head and O itself, in (24) Bb the order is the one indicated in (26), where S does not create any intervention effect, it being much higher in the structure:

(25) ... v+Acc ... [_{Focus} (S)] ... [_{Topic} (O)] ... [_{VP} (S) ... (O)]⁴¹

(26) ... [_{Focus} S] ... [IP ... v+Acc ... [_{Focus}] ... [_{Topic}] ... [_{VP} ... (O)]]

If this is the correct hypothesis, the natural analysis of sentences like (24) Bb must imply that other topicalization processes are at work to reach the final word order: topicalization of the direct object into the peripheral topic position located below the focus projection (Rizzi 1997), and remnant topicalization of the remaining portion of the IP past the peripheral focalized subject and topicalized direct object:

- (27) ... [[_{IP_k} e_i ha comprato e_j]Top [[MARIA] Foc] [[il giornale]
Top] ... IP_k⁴²

4.2.1 *A Follow-up on VS#O*

Given the described analysis of the ‘emarginazione’ cases of VS#O, a natural question to ask is what would happen if the IP remnant movement part of the derivation does not take place.⁴³

It appears that sentences resulting from this kind of derivation are relatively acceptable:⁴⁴

- (28) a. ?MARIA, quel giornale, ha comprato.
Maria, that newspaper, has bought
b. ?QUEI RAGAZZI, Maria, hanno criticato.
those boys, Maria, have criticized
c. ?IL RESPONSABILE, le soluzioni, troverà.
the responsible, the solutions, will find

We can assume that the same procedures involved in the derivation of the ‘emarginazione’ ‘VS#O’ cases would extend to (28), modulo absence of the IP remnant movement step.

Direct objects are not normally allowed to be topics, without a clitic being present in the following clause. Well-known contrasts like the one in (29) are easily detectable, however:

- (29) a. Il discorso, (Gianni) lo leggerà (Gianni) (a tutti).
the discourse, (Gianni) it-cl will read (Gianni) (to everybody)
b. *Il discorso, (Gianni) leggerà (Gianni) (a tutti).
the discourse, (ianni) will read (Gianni) (to everybody)

As the constituents in parenthesis indicate, their presence and location appear to be irrelevant: The source of the contrast in (29)—in particular the ungrammaticality of (29) b.—is solely to be identified in the absence of the clitic. Suppose that necessity of the clitic here is due to the fact that the empty position to which the topicalized phrase should be linked would not otherwise have a precise status (an assumption often made).⁴⁵ The fact

that the clitic can be missing in (28) is further indication that the possibility comes as a by-product of the clause-external focalization of the subject. Indeed, the phenomenon appears to be more general, as the possibility is also manifested if another constituent, different from the subject, is focalized, as indicated in (30) a., which contrasts with (30) b.:

- (30) a. A GIANNI, il libro, ho dato.
 to Gianni, the book, I have given
 b. *Il libro ho dato a Gianni⁴⁶.
 the book I have given to Gianni

We can conclude that O can be topicalized without presence of the clitic only if another constituent is simultaneously focalized in the left periphery. We leave open for the time being a precise analysis as to exactly what kind of parasitic use of focalization the topicalized object is allowed to make, this depending crucially on what the exact explanation for the impossibility of (29) b. turns out to be, one option being the one alluded to earlier (and in note 45). We just note here that the equivalent of the *emarginazione* VS#O-type sentences not involving the remnant step seems indeed to be possible, as one would expect. Also, in all the possible cases, O is adequately Case-licensed IP internally due to lack of intervention of S. Lack of intervention is brought about by focalization of S in (28) and by movement of (null-subject *pro*) S to the preverbal subject position in cases like (30).

The kind of parasitic use of focalization that a topicalized direct object seems to be able to make, which we just discussed and that allows it to appear without a clitic in the following sentence, seems to be constrained in a precise manner: It is available only in the respective order illustrated in (28) and (30) with the focused phrase preceding the topic phrase. The opposite order gives impossible results. Compare (28) and (30) with (31):

- (31) a. *Quel giornale, MARIA, ha comprato.
 that newspaper, Maria, has bought
 b. *Maria, QUEI RAGAZZI, hanno criticato.
 Maria, those boys, have criticized
 c. *Le soluzioni, IL RESPONSABILE, troverà.
 the solutions, the responsible, will find
 d. *Il libro, a GIANNI, ho dato.
 the book, to Gianni, I have given

We can describe the different status by observing that only a topic in a complement-like relation with focus can take advantage of presence of focus in the structure. If topic has focus as complement, the same advantage cannot be taken. We leave open further elaborations on this point.⁴⁷

4.2.2 VSO, *S Pronoun*

A systematic class of ‘exceptions’ to the general ban against VSO in Italian is provided by cases where *S* corresponds to a personal pronoun. Consider in this respect the contrast in (32):

- (32) a. Di quel cassetto ho io le chiavi.
 of that drawer have I the keys
 b. *?Di quel cassetto ha Maria le chiavi.⁴⁸
 of that drawer has Maria the keys

While the sentence in (32) b. can only be rescued with a special contrastive or corrective intonation/interpretation on the postverbal subject ‘Maria,’ no similar special intonation/interpretation needs to be associated with the pronoun in (32) a. The contrast between the personal pronoun and the lexical noun phrase suggests that pronouns should avail themselves of a further position in the postverbal domain, which is excluded for lexical noun phrases. This further subject position should be higher than the one filled by the lexical noun phrase and such that it would not interfere in the Case assignment of the direct object.

Converging evidence is provided by the contrasts in (33). While a lexical postverbal subject noun phrase must follow low adverbs, a postverbal pronominal subject must precede them:

- (33) a. Di questo mi informerò io bene.
 of this will inform myself I well
 b. *?Di questo si informerà Maria bene.
 of this will inform herself Maria well
 c. Spiegherà lei completamente al direttore.
 will explain she completely to the director
 d. *?Spiegherà Maria completamente al direttore. (cfr. (3))
 will explain Maria completely to the director

Notice that if a low adverb precedes the postverbal pronominal subject, the latter necessarily receives a special contrastive or corrective interpretation, as in (34) a. This suggests that in this case the postverbal subject fills the higher focus position, and the sentence is associated with a very different representation involving remnant movement of the clause above the postverbal subject, as in the preceding analysis of (24) Bb. The contrast in interpretation in (34) indicates that, contrary to the postverbal pronominal subject, the postverbal lexical subject can remain clause-internal, thus not requiring any contrastive/corrective interpretation, as assumed so far:

- (34) a. Di questo mi informerò bene io (non tu / . . . non importa che
lo facciano altri).
of this will inform myself well I (not you/ . . . it doesn't matter
that other people do it)
b. Di questo si informerà bene Maria.
of this will inform herself well Maria

4.3 VSO, VSPP: FI versus SI

In concluding this discussion, it is worth pointing out that a contrast in acceptability in VSXP structures seems to be detectable in French SI as well, with VSPP judged as more acceptable than the excluded VSO. For instance, Kayne and Pollock (2001) quote pairs like the following:

- (35) a. Qu'a dit Jean à Marie? (Kayne and Pollock (133))
 what said Jean to Marie
 b. *A qui a dit Jean tout cela?
 To whom has said Jean all that

Although similar at first sight to the contrasts in (20), it is fairly clear from Kayne and Pollock's discussion that the similarity of the two paradigms in the two languages should not be taken as an indication that the processes involved in the derivation of SI and FI should ultimately be the same. The most significant indication that this would not be the right approach is provided by the fact that the VSPP order of Italian does not appear to be subject to the numerous constraints the equivalent order appears to be subject to in French. An illustration of that is provided by the fact that no so-called counterdefiniteness requirement constrains the nature of the PP in the VSPP order of Italian, as it does in French [exx. (36) a.–f. in Kayne and Pollock 2001; (140) a. and b. quoted from Cornulier 1974]:

- (36) a. (?) Sta parlando Maria a qualcuno.
is talking Maria to somebody
b. (?) Sta parlando Maria a Jean-Jaques.
is talking Maria to Jean-Jaques
c. *Sta salutando Maria qualcuno.
is greeting Maria somebody
d. *Sta salutando Maria Jean Jaques.
is greeting Maria Jean-Jaques
e. ?*Qu'a avoué Pierre à quelqu'un?
what has confessed Pierre to somebody
f. Qu'a avoué Pierre à Jean Jaques?
what has confessed Pierre to Jean Jaques

Furthermore, Kayne and Pollock remind one of the observation in Kampers-Mahne (1998) that VSPP is actually impossible in the structures where SI is induced by the presence of the subjunctive mood:

- (37) *Il faut que le dise Jean à Marie.
it is necessary that it(cl) say (subjunctive) Jean to Marie

VSPP in Italian FI does not make any such distinction:

- (38) a. E' necessario che lo dica Gianni a Maria.
(it) is necessary the it(cl) say(subjunctive) Gianni to Maria
b. Mi sembrava che lo stesse dicendo Gianni a qualcuno.
(it) seemed to me that was(subjunctive) saying it(cl) Gianni to somebody

The order VSPP is equally possible in both cases.⁴⁹

4.4 On VSO in Other Romance Languages

As has been described in the literature (Zubizarreta 1998; Ordóñez 1997; Motapanyane 1995), VSO (where O is a direct object) is a possible word order in various Romance languages, not requiring any special stress or intonation associated to the sequence. I repeat here some examples from the references cited:

- (39) a. Todos los días compra Juan el diario. (Zubizarreta 1998)
every day buys Juan the newspaper
b. Espero que te devuelva Juan el libro (Ordóñez 1997)
I hope that cl-you return Juan the book
'I hope that Juan returns the book to you'
c. O invita cam des Ion pe fata acesa. (Motapanyane 1995)
her invites quite often Ion 'pe' girl the-that
'Ion invites that girl quite often'

But why should it be so? Why should there be such a difference between Italian (and Catalan; see Picallo 1998) on the one side and Spanish and Romanian on the other, limiting the domain of investigation to (some of) Romance?

There are in principle two approaches to this problem: (a) the languages allowing VSO avail themselves of a further subject position, higher in the structure than the Focus (or Topic) position hosting the postverbal subject in Italian and such that it would not interfere with Case assignment of the object; (b) the languages allowing VSO avail themselves of a further way to Case-mark the direct object, allowing it to remain VP-internal, with no need

to be associated to the VP-external Case position, thus reducing VSO to the same status as VSPP in Italian.

In favor of the first approach, which is the one adopted, with differences, in the references quoted and in Belletti (2001b) among others, is the observation that a similar higher subject position seems available in other languages anyway—for example, Icelandic, see examples (5) and (6), and, possibly, in Italian as well, but there limited to hosting subject pronouns only, as in the discussion in section 4.2.2. In favor of the second alternative, the following consideration is given. There appears to be a correlation between availability of VSO and existence of a special Case-marking of direct objects in the same set of languages involving a preposition under certain conditions, e.g., animacy of the object in Spanish, see Torrego (1998), from which I draw the examples in (40). The preposition is also visible in object Clitic doubling constructions also possible in both Spanish and Romanian, in Romance:

- (40) a. Ana salutò a uno amico.
 Ana greeted to a friend
 b. Juan lo visitò al chico.
 Juan visited to the boy⁵⁰

The hypothesis could then be that, at least in VSO, there can be recourse to an 'abstract' version of the preposition for Case-marking the direct object. Of course, the next step should be a thorough investigation of the conditions under which the abstract preposition should be licenced. I leave the two alternatives open here at this rather speculative stage, noticing that the correlation between possibility of VSO and existence of a preposition available to Case-mark the direct object appears to hold beyond the Romance domain as it is also found in other languages as well, such as modern Greek.⁵¹

5 ON VOS

To the extent that VOS sequences are possible in Italian, they are only marginally so and appear to allow for only a special interpretation. In order to be able to have sentences like the following (41), the VO sequence must be given in the immediate context, that is, it must be topic:

- (41) a. ??Capirà il problema Gianni.
 will understand the problem Gianni
 b. ??Ha chiamato Maria Gianni.
 has called Maria Gianni
 c. ??Ha letto il romanzo Gianni.
 has read the novel Gianni

For instance, a sentence like (41) a. could constitute a possible answer to (42):

- (42) Chi capirà il problema?
Who will understand the problem?

In (41) a., the given part of the VP, VO, is repeated word by word. Of course, there are other more natural ways to answer (42). In the by far most natural answer to (42), the direct object is not fully repeated, but is rather pronominalized, as in (43) a.; (43) b. and c. are the respective more natural answers than (41) b. and c. to the relevant parallel questions:

- (43) a. Lo capirà Gianni.
it will understand Gianni
b. L'ha chiamata Gianni.
her has called Gianni
c. L'ha letto Gianni.
it has read Gianni

We can account for the difference between the relatively strong marginality of (41) and the full acceptability of (43) in the following terms. Suppose that O is not allowed to remain in the position where it checks its Case. O can transit through (the Spec of) the Case position, but must void it.⁵² This leads us to conclude that VOS is impossible in Italian. I assume that this is the right idealization of the data. If O can empty the Case position, the structure is rescued, though: This is precisely what cliticization does. Whence the full acceptability of (43).

But why is it that VOS has a slight degree of acceptability and is not fully ungrammatical, then? It is clear, for instance, that VOS is felt as more acceptable than VSO by Italian speakers. Suppose that, as suggested by the interpretation, VOS can be attributed an analysis to the effect that no violation of grammatical principles is involved. According to this analysis the constituent containing the VO sequence is interpreted as topic. Assume for concreteness that it fills the low topic position right above the clause-internal focus. S fills the low new information focus position. To the extent that they are considered acceptable, these sentences would then illustrate an instance of clause-internal remnant topicalization.⁵³ We can speculate that this analysis is felt as somehow more costly than the more straightforward one whereby O is pronominalized and then cliticized. Whence, the nonperfect status of the sentences in (41).⁵⁴

As an independent indication that this might be the correct approach to the problem, it is worth pointing out that the more 'prototypical' the situation illustrated by the VO sequence is, the better the status of VOS becomes. For instance, sentences like the following (44) can often be heard in live

radio broadcasting of soccer games, where VO pictures a typical situation in the games and counts as if it were taken from a given list of possibilities:

- (44) *Protegge l'uscita del portiere il terzino sinistro*
protects the coming out of the goal keeper the left back

Another case where VOS is fully acceptable, and that does not involve pronominalization of O, is the one given in sentences like (3) d., repeated in (45) following, where O is the quantifier 'tutto':

- (45) *Capirà tutto Maria.*
will understand everything Maria

As noted in connection with the discussion of paradigm (3), the quantifier *tutto* moves in syntax to a position high enough to enable it not to give rise to the same interference effect that low adverbs give rise to, which leads to the marginal flavor of VAdvS. The perfect status of (45), as opposed to the usually impossible VOS, indicates that *tutto* should be located in a different position than the position a normal direct object would fill in VOS. As a possible way of characterizing the difference, we can assume that *tutto* is not in the object Case position. Possibly, *tutto* never ends up in this position altogether, as its quantifier status does not impose Case requirements on it. If the problem posed by VOS is linked to the impossibility of filling the object Case position, as we are assuming, we understand why *tutto* should not cause any similar problem. Note also that the perfect status of 'V tutto S' as opposed to the impossibility of VOS is further indication that the relevant ordering constraints do not involve any linear requirement. Furthermore, no topic-like interpretation is necessarily attributed to VO, O= *tutto*, as expected under the adopted analysis.

5.1 More on [VO] Remnant Topicalization

The postverbal subject in VOS is not c-commanded by the material contained within the remnant phrase. This leads us to expect that if some c-command relation is required to hold between O and S, this should not be possible. Indeed, it appears that binding relations cannot hold between O and S in VOS. Consider the following question-answer pair, necessary to provide a somewhat natural context for (the limited availability of) VOS in (46) b.:

- (46) a. *Chi ha salutato Gianni?*
Who greeted Gianni?
b. **Hanno salutato Gianni_i i propri_i genitori.⁵⁵*
greeted(pl) Gianni his own parents

The opposite direction of binding significantly improves the judgment:

- (47) a. Chi ha salutato i propri genitori?
Who greeted his own parents?
b. Ha salutato i propri_i genitori Gianni_i
greeted (sing) his own parents Gianni
c. Chi ha baciato la propria moglie?
Who kissed his own wife?
d. Hanno baciato la propria_i moglie tutti i candidati_i.
have kissed (pl) their own wife all the candidates

The acceptability of binding in (47) b. and d., can be assumed to be obtained through reconstruction of the remnant VO, with O interpreted in its base position where it is c-commanded by S.

The relative acceptability of the various answers to the questions in (48), granted the usual marginality of VOS, may appear as problematic, at least at first glance:

- (48) a. Chi ha detto la verità?
Who has said the truth
b. Che cosa/chi ha espresso la verità?
What/who has expressed the truth
- (49) a. Non hanno detto la verità che due studenti.
have 'not' said the truth 'that' two students
b. Non ha detto la verità nessuno.
has not said the truth nobody
c. Non ha espresso la verità alcunché/alcun ministro.
has not expressed the truth anything/any minister

If *non*, the licenser of the polarity expression in the postverbal subject position, is contained within the remnant-moved VO sequence, the sentences in (49) should be impossible. But they are perfectly acceptable. How can this be? Suppose that, in fact, *non* is not contained within the remnant-moved [VO] constituent, but that it is outside the topicalized constituent, in a position from where it does c-command the postverbal subject. Indeed, this is directly suggested by the fact that the negation is attached to the auxiliary and not to the lexical verb. In the assumed analysis of VOS as involving remnant topicalization of the [VO] constituent, the verb involved in the process is the lexical verb; the auxiliary must be higher in the clause. The negation should then be at least as high as the auxiliary to which it is attached. This is schematically indicated in the simplified representation (50):

- (50) ... [_{IP} non+hanno [_{TOP} [_{VP} e_i detto la verità]_j Top [_{Foc} [che due studenti]_i Foc Top [VP_j]]]] ...]

Hence, the (marginal, as always for VOS) acceptability of (49) is not problematic for our general assumed account of the (marginal) VOS word order.

It is interesting that a contrastive focus interpretation/intonation on the postverbal subject in sentences like (49) leads to an even stronger marginality than the one normally associated with VOS. This is coherent with the restrictive assumption that contrastive focus is only established in the left peripheral focus position, and not in the clause-internal one, reserved for new information focus only. If the postverbal subject fills the left peripheral focus position when it is contrastively focused or stressed, then the remnant portion of the clause to be topicalized must contain the whole clause itself (with the subject trace); this, in turn, implies that the negation should be contained within the remnant topicalized portion, whence, c-command would not hold between *non* and the polarity phrase in the postverbal subject. Indeed, it appears that it is not possible to associate the relevant interpretation/intonation to the following sentences in (51) B and D:⁵⁶

- (51) A. Hanno detto la verità tutti i partecipanti.
Have said the truth all the participants
- B. 1. *? No, non hanno detto la verità CHE GLI STUDENTI.
No, have 'not' said the truth 'that' the students
2. *? No, non ha detto la verità NESSUNO.
No, has not said the truth nobody
- C. Ha espresso la verità quel comportamento/quel ministro
Has expressed the truth that behavior/that minister
- D. *?No, non ha espresso la verità ALCUNCHE'/ALCUN
MINISTRO
No, has not said the truth anything/any minister

Sentences word-by-word identical to (51) B and D—for example (49)—can be (marginally, as always with VOS) acceptable in the context of (51) A and C, but the intonation involved is not the contrastive one suggested by use of the capital letters on the postverbal subject in (51) B and D. In those cases the whole sentence might count as a correction, and the postverbal subject is not contrastively stressed or focused.⁵⁷ It is only in the latter interpretation/intonation that the sentences in (51) B and D are judged as very strange—indeed impossible. This is further illustrated by pairs like the following, which explicitly indicate the strong marginality arising if contrast/correction is exclusively put on the postverbal S:

- (52) a. Ha detto la verità GIANNI (non Mario)
has said the truth Gianni (not Mario)
- b. *?Non hanno detto la verità CHE GLI STUDENTI (non i professori)
have 'not' said the truth 'that' the students (not the professors)

- c. *?Non ha detto la verità NESSUNO (non Gianni)
has not said the truth nobody (not Gianni)

As a final remark on this point, we note that if we take the negative quantifier *nessuno* in the preverbal subject position where *non* licensing is not required in Italian as *non* does not show up altogether, and we associate it with contrastive focus intonation/interpretation, the resulting sentence is perfectly acceptable, as (53) b. illustrates in the following:

- (53) a. Tutti hanno detto la verità.
Everybody has said the truth
b. No, NESSUNO ha detto la verità (non tutti)
No, nobody has said the truth (not everybody)

This indicates that there is nothing intrinsically wrong with this particular intonation/interpretation, but that the problem in (52) c. is indeed structural in nature.

6 POSTVERBAL S CAN ALSO BE TOPIC

As we have assumed that a low topic position is available below the clause-internal focus one, nothing in principle should prevent a postverbal subject to fill the topic position in some cases. This possibility is available, as already illustrated in (10), and it is the only available one in some contexts. These contexts are *wh*-interrogatives, which will be discussed in section 6.1.

Let us first consider some further examples of simple declaratives in which postverbal S appears to be a low topic, a possibility left open by the proposed account. As also suggested by the downgrading intonation on postverbal S, the most suitable analysis of the examples b. and d. of the exchange in (54) has the subject as a topic. This would precisely be the low topic in question:

- (54) a. Che cosa ha poi fatto Gianni per quella questione?
what has then done Gianni for that matter
b. Sì, sì ha poi parlato, Gianni, al direttore
yes, yes has then spoken Gianni, to the director
c. Che cosa farà Gianni?
what will do Gianni
d. Partirà, Gianni.
will leave, Gianni

The PP ‘*al direttore*’ in (54) b. is a further topic. It is known from the left periphery that topics can be iterated. There wouldn’t be any reason for this not to happen for clause-internal topics as well.

6.1 Postverbal Subjects in *wh*-Interrogatives

We start by noting that *wh*-interrogatives allow—and, in fact, require—that the subject be postverbal. Contrasts like the following are well known and widely discussed in the literature:

- (55) a. *Che cosa ha detto Gianni?*
 What has said Gianni
 b. **Che cosa Gianni ha detto?*
 What Gianni has said

Without trying to provide an account for the reason(s) why the subject could not be preverbal in these interrogatives,⁵⁸ let us try to determine where it is found when it is in the postverbal position.

We start by noting that *wh*-interrogatives are systematically incompatible with left peripheral focalization. The ill-formedness of the sentences in (56), shaped on similar ones discussed in Rizzi (1997), illustrate this point:

- (56) a. **Che cosa A GIANNI hai detto?*
 What TO GIANNI have you said?
 b. **A GIANNI che cosa hai detto?*
 TO GIANNI what have you said?

This kind of ill-formedness is interpreted by Rizzi as due to the fact that *wh*-words end up in the specifier of the peripheral focus position. This position being unique, it cannot contain both a contrastively focused phrase and the *wh*-word. Assuming this to be the right approach, we could suppose that since in the approach developed here the postverbal subject is located in a different clause-internal focus position, no incompatibility should be expected between *wh*-interrogatives and clause-internal focalization. It could then be assumed that there is no particular issue raised by *wh*-interrogatives and that the postverbal subject of interrogatives like (55) a. could be a postverbal focalized subject. The situation does not appear to be that simple, however. The next observation to make is that focalization appears to be a process normally affecting one single constituent per clause.⁵⁹ For instance, no more than one constituent can undergo focalization in the left periphery:

- (57) **A GIANNI MARIA ho presentato*
 to GIANNI MARIA (I) have introduced

This impossibility could be traced back once again to the fact that there is only one focus position in the left periphery. The problem seems to be more general, though. It appears that left peripheral focalization is also not compatible with clause-internal focalization. It does not seem to be possible to associate the right interpretation/intonation to sentences like the following,

with the left peripheral phrase contrastively focused and the direct object in (58) a. and the postverbal subject in (58) b. interpreted as new information focus (underscored, for clarity); the sentences are excluded under this interpretation:

- (58) a. *A GIANNI ho regalato un libro.
to Gianni (I) have given a book
b. *UN LIBRO ha letto Gianni.
a book has read Gianni

The shape of paradigms (56), (57), and (58) suggests that a constraint is operative to the effect that a sentence can only contain one focused element, but this constraint does not seem to make a distinction as to the kind of focus in question, as (58) reveals.⁶⁰ If this is the case, *wh*-interrogatives containing a postverbal subject are unlikely to be analyzed as involving a focalized postverbal subject and a *wh*-word in the left peripheral focus position; they would constitute an isolated exception to the set of the paradigms in (56), (57), and (58). I conclude that, in fact, the postverbal subject of *wh*-interrogatives fills the low topic, not the low focus, position. This possibility is made available by the analysis proposed and is used in other cases as well as those illustrated in (54) and (10).

Further independent indication that this hypothesis is on the right track is provided by data from some northern Italian dialects. In these dialects (Fiorentino and Trentino) a particular subject clitic (F) or no clitic at all (T) appear in inversion structures in declarative clauses. The data are taken from Brandi and Cordin (1981).

- (59) a. Gl'è venuto le su' sorelle. (F)
it+has come his sisters
b. E' vegnù le so' sorele. (T)
has come his sisters

In *wh*-interrogatives the subject must be in a postverbal position, much as in standard Italian, but a different clitic from the one that shows up signaling inversion in declarative clauses appears in these cases. The subject clitic appearing in *wh*-interrogatives is the one found in right dislocation. Consider (60) and (61) in this respect [from Brandi and Cordin 1981, exx. (15) a., b., (74), (75)]:

- (60) a. Quando l'è venuta la Maria? (F)
when she+has come the Maria?
b. Icché l'ha portato la Maria?
what she+has brought the Maria?
c. *Icché gl'ha portato la Maria?
what it+has brought the Maria?

- (61) a. Quando è la vegnuda la Maria? (T)
 when has-she come the Maria?
 b. Cosa ha la portà la Maria?
 what has-she brought the Maria
 c. *Cosa ha portà la Maria?
 what has brought the Maria?

These data are perfectly coherent with the analysis proposed earlier: The right dislocated subject of (60) and (61) fills the low topic position, as in the analysis developed for standard Italian both for subject inversion in *wh*-interrogatives and for right dislocation more generally. The interesting aspect of these data from the dialects is that the nature of the position occupied by the postverbal subject is revealed and made visible by the nature of the subject clitic (F) or by its very presence (T).

A last piece of evidence that the postverbal subject is not a focalized subject but rather a topic in *wh*-interrogatives comes from contrasts like the one in (62) involving weak crossover configurations:

- (62) a. *?Attualmente, in un suo_i appartamento vive Gianni_i
 At present, in one his apartment lives Gianni
 b. Attualmente, in quale suo_i appartamento vive Gianni_i?
 At present, in which his apartment lives Gianni?

Example (62) a. shows that a WCO violation is induced by a postverbal subject in declarative clauses, while no such violation is induced by a postverbal subject in a *wh*-interrogative. For reasons that we will not develop here, focus is known to give rise to WCO violations. Thus, the impossibility of (62) a. can be seen as typical WCO violation induced by focus, as the postverbal subject fills the clause-internal focus position according to our analysis.⁶¹ The fact that no comparable violation is at work in the *wh*-interrogative (62) b. is a further indication that the postverbal subject in these interrogatives is not focalized. The status of sentences like (62) b. is perfectly compatible with the proposed analysis that the postverbal S is in topic position in *wh*-interrogatives and the contrast between (62) a. and (62) b. indirectly supports the overall approach.⁶²

7 CONCLUDING REMARKS

The main purpose of this chapter has been the identification of different positions in the low IP area surrounding the VP. These positions appear to be related to different types of interpretations and associated intonation. The aim has been internal to the cartographic perspective presented at the outset. The main empirical domain analyzed has been the one concerning the distribution of postverbal subjects; however, the aim of this work

has not been that of providing a systematic and comprehensive analysis of subject inversion structures. Several issues related to VS structures have not been touched upon, and they are central for a detailed account of this complex phenomenology. Two of them are dealt with in some detail in Belletti (2001b): the integration within the proposed clause structure and the assumed processes of clause-internal focalization/topicalization of structures containing unaccusative verbs; the availability of nominative Case for postverbal subjects. For a discussion of these issues the reader is referred to the reference cited.⁶³

The evidence presented here strongly indicates that the low IP vP/VP-periphery is plausibly rich in the positions made available. These positions appear to be tightly connected with discourse-related relations of Focus and Topic in a way significantly parallel to the positions available in the clause-external (left) periphery.

7 Inversion as Focalization and Related Matters

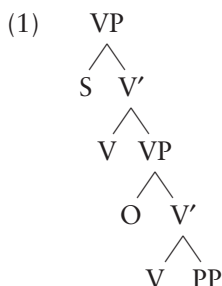
FOREWORD

The text following corresponds to the last two sections of an article that appeared, with the title of this chapter, in the source indicated in the acknowledgments. The article contained the first elaboration of the proposal that the low part of the clause includes a vP-periphery with dedicated positions for new information focus and topic/given information, with the related core idea that so-called ‘subject inversion’ is a typical instance of clause-internal focalization. A richer and more refined version of the overall proposal is given in Chapter 6 of this volume. The present chapter constitutes a virtual integration of Chapter 6. The following sections deal with some of the main ‘related questions’ mentioned in the title. There are several possible related relevant questions. Among them the following can be singled out and are addressed here: How does the vP-periphery proposal deal with other cases where word order variations and information structure are at stake? Two core cases are considered: (i.) the possible reordering of verbal complements in sentences containing a multiple complement verb phrase; (ii.) the postverbal location of definite and indefinite subjects with unaccusative verbs.

The following text has been left in its original formulation and only minimally readapted to clarify references to previous sections of the article, when needed; a few updating comments, mostly terminological, have also been added to better integrate the text within the proposals of the other related chapters in this volume; they are in square brackets and signaled with the notation [AB].

1 MULTIPLE COMPLEMENTS REORDERING AND SUBJECT INVERSION

Let us assume a VP-internal structure like the one in (1):¹



Consider now the following sentences, involving a verb like *dare* that takes both a direct and an indirect prepositional object: beside the ‘unmarked’/basic V O PP order, also the V PP O order is admitted, as discussed in detail in Belletti and Shlonsky (1995; hereafter cited in text as B & S):

- (2)
- a. Ho dato un libro a Gianni
(I) have given a book to Gianni
 - b. Ho dato a Gianni un libro
(I) have given to Gianni a book

B & S provide a rich list of multiple complement verbs, all manifesting the same paradigm, with both orders of complements possible and the order V O PP normally considered the ‘unmarked’/basic one. Note now that both orders are perfectly acceptable when also a preverbal overt subject is present:

- (3)
- a. Gianni ha dato un libro a Maria
Gianni has given a book to Maria
 - b. Gianni ha dato a Maria un libro
Gianni has given to Maria a book

As observed in B & S, complement reordering interacts in interesting ways with subject inversion. The order V O PP S is (marginally) acceptable with the only interpretation having V O PP, the ‘remnant’ VP, as the ‘given’ information and the postverbal subject as the ‘new’ one. Consider the sentences in (4) in this respect [cf. B & S exx. (24) a. and c.]:

- (4)
- a. Ha dato un libro a Maria Gianni
has given a book to Maria Gianni
 - b. Ha messo il libro sul tavolo Maria
has put the book on the table Maria

These sentences can be attributed the same status as the possible subject inversion clauses displaying the order VOS.² Given this similarity and

the observation that the whole VP has to be considered 'given' information in order for the sentences to attain the level of (marginal) acceptability, it seems natural to attribute to them the same analysis as the one attributed to VOS clauses. The sentences in (4) should then be analyzed as involving a topicalized 'remnant' VP and a focalized subject in the specifier of the Focus projection.³ (4) sharply contrasts with (5), where complement reordering has taken place in combination with subject inversion [B & S, exx. (24) b. and d.]:

- (5) a. *Ha dato a Maria un libro Gianni
has given to Maria a book Gianni
b. *Ha messo sul tavolo il libro Maria
has put on the table the book Maria

Why should there be such a sharp degradation? In order to answer this question, the appropriate analysis of the complement reordering phenomenon must be first spelled out.

As noted in B & S, complement reordering appears to be a further case of clause-internal focalization. Consider the following question-answer pair from B & S:

- (6) A Che cosa hai restituito a Maria?
What have you given back to Maria?
B Ho restituito a Maria le chiavi⁴
(I) have given back to Maria the keys
B' #Ho restituito le chiavi a Maria
(I) have given back the keys to Maria

where B' is pronounced with normal non-interrupted intonation. If an overt lexical subject is also present in the question, it shows up as a preverbal subject in the answer:

- (7) A Che cosa ha restituito a Maria Gianni?
What has given back to Maria Gianni?
B Gianni ha restituito a Maria le chiavi
Gianni has given back to Maria the keys

The direct object 'le chiavi' constitutes the 'new' information. Assume that it is then associated with the specifier of the Focus phrase in both (6) B and (7) B. I take the latter sentence containing a preverbal subject to be a clear indication that focalization is clause-internal here. Recall that no special intonation is associated with these clauses. Suppose that sentences like (6) B and (7) B involve clause-internal topicalization of the remnant VP overtly containing V and PP;⁵ the direct object is focalized in the specifier

of the Focus phrase, the preverbal subject is in the appropriate preverbal subject position. Schematically, the derivation in (8) (disregarding details):⁶

- (8) [Gianni_i . . . ha . . . [_{TopicP} [_k *e*_i restituito *e*_j a Maria] [_{FocusP} [_j
Gianni has given back to Maria
le chiavi] [_{TopicP} [_{VP} *e*_k]]]] . . .]
the keys

Consider now the possibility of a sentence like (9):

- (9) C'è qualcosa che [restituito a Maria] Gianni ancora non ha: le
chiavi
There is something that given back to Maria Gianni hasn't yet:
the keys

For reasons that do not concern us here, this kind of preposing, discussed in Cinque (1990b), requires presence of negation in the clause. A sentence like (9) can be analyzed as involving further movement of the clause-internal topic to the clause-external one, present in the left periphery.⁷ Note that here the preverbal subject and the auxiliary remain in the same clause-internal positions as in (8). The natural assumption is that the direct object too fills the same position as in (8), i.e., the clause-internal focus position:

- (10) . . . [_k *e*_i restituito *e*_j a Maria] . . . [Gianni_i . . . ancora non ha
given back to Maria . . . Gianni . . . hasn't yet
· . . [_{TopicP} [_k *e*] [_{FocusP} [_j le chiavi] [_{TopicP} [_{VP} *e*_k]]]] . . .]
· . . the keys

In conclusion, we can make the hypothesis that complement reordering is an instance of clause-internal focalization of the object, combined with (usually clause-internal) topicalization of the remnant VP containing V and PP. We are now ready to provide an interpretation of the reasons accounting for the sharply degraded status of the sentences in (5) involving complement reordering combined with subject inversion.

Intuitively, what rules out (5) should be the fact that both complement reordering and subject inversion are instances of clause-internal focalization. If we admit, as in standard X' theory, that only one specifier position is available for X' projection, it follows that either the object or the subject can be focalized, but not both. This is the same line of explanation developed by B & S.⁸ Since we have assumed that Focus is a syntactic feature that licences DPs, if multiple specifiers are admitted (Chomsky 1995, 2000), the same effect is obtained under the natural assumption that the same syntactic feature (here Focus) cannot licence more than one DP argument.⁹ Let us see how the computation works to rule out V PP O S. Indeed, in the system

developed here this order is not derivable. It cannot be derived with (remnant) VP topicalization of V + PP, combined with movement into the specifier of the Focus phrase of both O and S since, as we just said, we assume that Focus can licence at most one argument in its specifier(s). An alternative derivation would be one where O would move to the specifier of the Focus phrase and the subject would remain within the VP in its base position. But we already know that such derivation is not permitted.

An alternative order with respect to (5), where the subject would precede the direct object is also ruled out. As (11) shows, this order is equally impossible [B & S, ex. (24) e.]:

- (11) *Ha dato a Maria Gianni un libro
has given to Maria Gianni a book

A sentence like (11) is not derivable. It does not seem to be possible to topicalize V + PP leaving O VP-internal and moving S into the specifier of the Focus phrase, as the linear order would require. Such a topicalization would necessarily pick up O as well.¹⁰ Note that the linear order could be obtained if O is also topicalized into the lower Topic phrase surrounding the Focus phrase. In this case the object acquires the status of a 'marginalized' constituent in Antinucci and Cinque's sense. This derivation correlates with an interruption right before the marginalized object and a downgrading intonation on it:

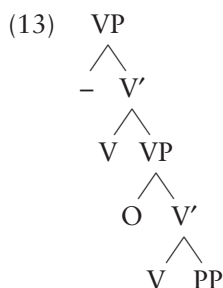
- (12) Ha dato a Maria Gianni # un libro¹¹
Has given to Maria Gianni # a book

2 REMARKS ON UNACCUSATIVES

The unaccusative/ergative hypothesis as formulated in the eighties assumes that verbs of this class do not have an external argument but all arguments are VP-internal. The surface preverbal subject of unaccusatives is in fact a deep object, and, even more importantly, the postverbal subject of unaccusatives is in fact not only a deep but also a surface object. This is, we may say, the core of the hypothesis. Note, however, that once the assumption is made that all subjects that can appear as preverbal subjects originate VP-internally, independently of the class to which the verb belongs, the natural question arises as to where the difference between unaccusatives on the one side and transitives and unergatives on the other should be located.

I would like to address the question by considering unaccusatives that also select a prepositional argument beside the direct one. Note, incidentally, that this is the most common situation.¹² If a VP-internal structure like the one in (1) is assumed for transitive verbs that select both a direct and an indi-

rect argument, it would appear that a direct updating of the unaccusative hypothesis should hypothesize a structure along the lines of (13):



where no argument is associated with the nonthematic VP-internal subject position. Adapting traditional accounts, I would assume that O needs licencing and that this can be done VP-internally with unaccusatives (Belletti 1988). Suppose that licencing is done through Case in the VP specifier filled by O in (13).¹³ Notice now that, once V moves outside the VP into some functional head, this immediately yields the linear order: V O PP. The structure being unaccusative, we know that O is in fact S, namely the argument that can also appear as a preverbal (agreeing) subject. We have observed that V S PP structures are fairly acceptable with S licenced in the specifier of the clause-internal Focus projection and PP licenced *in situ*, VP-internally, for V unergative intransitive.¹⁴ We are now phrasing the unaccusative hypothesis in such a way that the same V S PP linear sequence is attributed a different syntactic representation with all arguments licenced VP-internally in the described way. Can we detect different behaviors of the two kinds of postverbal subjects?

As has been frequently pointed out in the literature, V S PP is a perfectly acceptable order with unaccusatives when S is indefinite. Within the terms of the analysis sketched out earlier, we can claim that there is an indefinite requirement for VP-internally licenced subjects. Sentences like (14) are usually considered the most natural occurrences of unaccusative structures:

- (14) a. E' arrivato uno studente al giornale
 has arrived a student at the newspaper
 b. E' entrato un ladro dalla finestra
 has come in a thief from the window

In previous discussion we attributed to the sentences in (15) a, c, e, a slightly marginal status, indicated as (?) [Chapter 6. Cf. note 14. (AB)]. The proposed analysis, however, did not make one expect any marginality. Let us now comment on this. Suppose that the slight marginality of sentences like (15) a. and c. repeated here:

- (15) a. (?)Ha telefonato Maria al giornale
 has phoned Maria to the newspaper
 b. (?) Ha parlato uno studente col direttore
 has spoken a student with the director

is due to the existence of a certain tendency whereby there is a preference in having the focused constituent in the clause final position.¹⁵ We can make the hypothesis that the marginality of (15) is due to the fact that this tendency is not respected. Since the structure does not violate any deep constraint it is ruled in but acquires a marginality flavor. Note now that no marginality whatsoever is associated with the sentences in (14). The different analysis attributed to these sentences with a VP-internal postverbal indefinite subject not involving focalization provides a natural interpretation for the contrast.

If the VP-internal position for the unaccusative postverbal subject is reserved to indefinite noun phrases, a definite subject should fill a different position. Such position can be identified with the one filled by postverbal subjects of non-unaccusative verbs that we have identified with the specifier of the clause-internal Focus phrase. If this assumption is correct, we expect that sentences containing a definite subject and an unaccusative verb should be attributed essentially the same level of marginality as the marginal sentences of (15). I think that this photographs the situation in a fairly accurate way:¹⁶

- (16) a. ?E' arrivato lo studente al giornale
 has arrived the student at the newspaper
 b. ?E' entrato Mario dalla finestra
 has come in Mario from the window

No marginality is detectable anymore if no prepositional complement follows the postverbal subject, as no violation of the tendency to locate the focused constituent in the last position is produced:

- (17) a. E' arrivato lo studente
 has arrived the student
 b. E' entrato Mario
 has come in Mario

It is well known that *ne* cliticization gives a perfect output when it takes place from a postverbal unaccusative subject,¹⁷ but a marginal output when it takes place from a unergative one. (18) illustrates the contrast:

- (18) a. (?) Ha telefonato uno studente al giornale
 has phoned a student to the newspaper
 b. ??Ne ha telefonato uno al giornale
 of-them+has telephoned one at the newspaper

- c. E' arrivato uno studente al giornale
has arrived a student at the newspaper
- d. Ne è arrivato uno al giornale
of-them+has arrived one at the newspaper

Updating Belletti (1988), I interpret the contrast between (18) b. and d. as due to the fact that (*ne*) extraction is possible from the VP-internal (subject) position but does not work equally well from the VP-external Focus position.¹⁸

The natural question to ask now is: What is the status of clauses containing a reordering of the postverbal subject and the prepositional object of an unaccusative verb? We note first of all that such a reordering is possible:

- (19) a. E' arrivato al giornale uno studente
has arrived at the newspaper a student
- b. E' entrato dalla finestra un ladro
has come in from the window a thief

These sentences can be attributed the same status as the double complement sentences involving reordering. The null assumption is that they are attributed the same analysis with a topicalized (remnant) VP and a focalized subject.¹⁹ Note that if this analysis is on the right track we expect *ne* cliticization to have the same status in both cases. This status should be a marginal one, since we saw that extraction from a noun phrase in the specifier of the Focus phrase gives rise to marginality. This is indeed what we find. (20) a. and b. containing an unaccusative verb and (20) c. containing a double complement verb are all rather marginal. Their status compares with that of (18) b.:

- (20) a. ??Ne è arrivato al giornale uno
of-them+has arrived at the newspaper one
- b. ??Ne è entrato dalla finestra uno
of-them+has come in from the window one
- c. ??Ne ho dato a Gianni uno
(I) of-them+have given to Gianni one

3 'IN SITU' FOCALIZATION

If (20) c. has a very marginal status, the marginality totally disappears if the 'reordered' direct object is preceded by the adverb 'solo':

- (21) Ne ho dato a Gianni solo uno²⁰
(I) of-them+have given to Gianni only one

It is currently assumed that the adverb 'solo' has a focalizing function. If this is the case it is natural to assume that if the adverb is present in some specifier position of the focalized phrase, there is no need for this phrase to move to a designated focus position in order to be focalized. We can then analyze focalization through 'solo' as a case of *in situ* focalization not involving movement of the relevant phrase into the specifier of the Focus phrase.²¹ If this is correct, sentences like (21) can be attributed a very different representation than those in (20), involving complement reordering. In particular, no (remnant) VP topicalization of V + PP and no focalization of the direct object in the specifier of the Focus phrase are involved here. (21) could be analyzed as involving a 'scrambling' type of operation affecting the PP,²² leaving the object *in situ*.

An analysis along these lines simultaneously accounts for the focalized status of the direct object and for the possibility of *ne* cliticization, with the latter characteristically taking place from a VP-internal position.

8 Extended Doubling and the vP-Periphery

1 INTRODUCTION

1.1 The Origin of Doubling Structures

Much work within Principle and Parameters (P&P) over the late eighties and the nineties concerned the issue of looking for a ‘solution’ to the problem(s) posed by doubling structures. Most of the work focused in particular on clitic doubling structures (CLD) of the kind found in languages like Spanish, illustrated by examples like the following (1), first discussed in detail in Jaeggli (1982):

- (1) *Lo vi a Juan*
(I) him(cl) saw to Juan
‘I saw Juan’

The doubling problem(s) can be phrased as follows: there are two ‘arguments,’ the clitic and the lexical noun phrase, for one Th-role and (presumably) one Case. Whence the term ‘doubling,’ suggesting the existence of a ‘duplication’ of one single argument. Based on Spanish examples like (1), the Case problem was given a descriptive solution through what has come to be known as Kayne’s generalization: Clitic doubling is only possible in languages that avail themselves of an extra Case marker for the extra argument. Spanish and Romanian appear to illustrate the operation of the generalization as in both languages a preposition (‘a’ and ‘pe’ respectively) is involved in doubling. Upon closer investigation, however, CLD did not appear to completely conform to the generalization. For instance, the construction known as CLLD, studied in Cinque (1977, 1990a) and illustrated by the following Italian example (2) a., and right dislocation structures (RD) of the type in (2) b. do not, even if they share obvious similarities with CLD:

- (2) a. *Gianni, lo* vedo
Gianni, (I) him(cl) see
b. *Lo* vedo, *Gianni*
(I) him(cl) see, Gianni

Moreover, even if the Case side of the problem could be taken care of through Kayne's generalization assuming that the examples in (2) are of a different nature, despite their resemblance, the Th-side remains open. Essentially, the question is: How is it possible that the same argument (same Th-role) is realized twice?

The work referred to earlier, apart from individual differences (Torrego 1995; Uriagereka 1995; Belletti 1999b, Chapter 5 of this volume; Sportiche 1998; Kayne 1994; Rouveret 1989),¹ has put forth the fundamental insight that the problematic status of CLD can find a rational account if these structures are interpreted as deriving from a single 'big DP' (Cecchetto 2000), where both the clitic pronoun and the doubled lexical argument originate. The idea behind these approaches is that it is the 'big DP' that is assigned a Th-role in the Th-position where it is merged. By virtue of this, its internal constituents are also Th-interpreted.² The Case side of the problem can be accounted for by assuming that at least one part of the original big DP, the clitic, is Case-marked in an adequate position (e.g., a clitic/Case position; Belletti 1999b, Chapter 5 of this volume; Sportiche 1998) and that the lexical part is Case-marked by virtue of the relation established with the Case-marked portion of the original big DP. It can be that languages vary as to whether an extra preposition appears, this being possibly dependent on the position where the lexical part is ultimately located.³

This informal summary of a family of proposals on clitic doubling formulated over the last ten to fifteen⁴ years primarily intends to underscore one of its properties: This kind of analysis shares one crucial aspect with the influential analysis proposed in the late eighties by Sportiche (1988) for the so-called FQ phenomenon. Although FQ structures might be taken not to pose particular problems from the point of view of Th-theory and Case theory—in that quantifiers, differently from pronouns, can be assumed to be exempted from both Th and Case requirements,⁵—it is clear that, at least observationally, also in the FQ phenomenon, as in clitic doubling, we observe one single argument split into two parts, so somehow 'doubled':

- (3) *I miei amici andranno tutti al cinema*
'My friends will go all to the movies'

According to Sportiche's illuminating account, FQ structures involve one single original big constituent where both the noun phrase containing the lexical part and the quantifier originate. A computation can take place whereby the two parts are split, with the quantifier 'stranded' in some position within the clause structure and the phrase containing the lexical part moved further up.

Besides the observational similarity described, it is clear that the approach to CLD briefly summarized here and Sportiche's style of approach to FQ also share important similarities with the formal computational point of view. In both cases an original big constituent is split with one part moved to some

position in the clause structure and the other part stranded in some other position. We can refer to this computation as ‘movement + stranding.’

Note that we can remain vague as to which part is moved (and where) and which part is stranded (and where): Optimally, this should follow from the interaction between intrinsic properties of the various parts of the original big constituent and properties of the possible landing sites within the clause structure. This chapter will be mainly devoted to singling out the various possibilities instantiated by the different computations and their outputs, currently referred to as different ‘constructions’: CLD, FQ, CLLD, RD, and the further construction that will be analyzed in some detail here that I will label ‘strong pronoun doubling’ (SPD) for convenience.⁶ In CLD of the Spanish kind, part of the DP is moved through cliticization and the part containing the lexical noun phrase is stranded clause-internally in some position (presumably the same position reserved for ‘a’ objects in general, in Spanish, as mentioned earlier); in FQ the part containing the lexical noun phrase is moved to an argument position of the clause, most typically the subject position and the part containing the quantifier is stranded in some lower position;⁷ in CLLD the left dislocated argument is moved⁸ to a topic like left peripheral position and the clitic is stranded clause-internally in clitic position (Cecchetto 1999, 2000); in RD the clitic fills the clitic position, and the part of the original big constituent containing the lexical noun phrase is stranded in a position that, following Cecchetto (2000) I assume to be a clause-internal Topic position.

An important property that is shared by all cases mentioned is the fact that the two parts in which the original constituent split are such that one contains a lexical noun phrase, the other a functional word, either a clitic or a quantifier. Th-theoretic reasons exclude the possibility that the two parts be both constituted by lexical noun phrases. Whence the total impossibility of sentences like (4), which would parallel (3):⁹

- (4) *I miei amici andranno i loro genitori al cinema
 ‘My friends will go their parents to the movies’

For ease of reference let us call the part of the original big constituent containing the functional word the ‘doubler’ and the part containing the lexical noun phrase the ‘doublee.’

Note that no reason excludes the possibility for the original big constituent to contain more functional material. This is exemplified by cases like the following:

- (5) I miei amici li ho incontrati tutti al cinema
 My friends (I) them(cl) have met all at the movie theater
 ‘My friends, I met all of them at the movie theater’

This combines doubling through the clitic and FQ, thus indicating that the original constituent can be rich enough to contain both.¹⁰ It is time now

to introduce the further SPD construction to be discussed here and to make some more explicit assumptions on the complex configuration of the original big constituent.

This chapter is organized as follows: The following two sections 1.2 and 1.3 are devoted to a description of SPD and to a precise characterization of the original big DP. Sections 2 and 2.1 provide a formal characterization of the informational content of SPD in terms of the vP-periphery assumed in the present work. Sections 3, 3.1, and 3.2 discuss possible consequences of the proposed analysis. Some peculiar ordering restrictions and their informational import are discussed in section 4. Section 5 concludes the paper with some remarks on the status of SPD in relation to economy considerations.

1.2 Strong Pronoun Doubling (SPD)

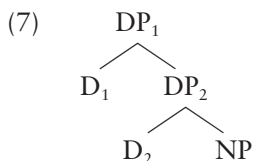
The name attributed to the construction to be investigated now is very transparent: It directly refers to the fact that it is a case of doubling, parallel to CLD, the only difference being that the ‘doubler’ here is not a clitic, but a strong, stressed pronoun. The construction was first discussed in some detail in Burzio (1986)¹¹ and is illustrated by examples like the following:

- (6) a. *Gianni* verrà *lui*
 Gianni will come he
 ‘Gianni himself will come’
 b. *Gli studenti* risponderanno *loro*
 The students will answer they
 ‘The students themselves will answer’

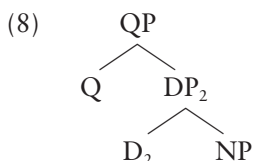
In both cases in (6) the ‘doublee’ is a preverbal subject and the ‘doubler’ fills a lower position in the clause. For various reasons (see the brief discussion in section 4) this is the typical illustration of SPD, a construction very similar to FQ. Indeed, it can be assumed to be the same construction modulo presence of a strong pronoun instead of quantifier ‘tutti.’ One question that will need to be asked is whether the position where the strong pronoun is stranded is the same or a different one from the position where the FQ is stranded. This question will be briefly taken up in 1.3. But before doing that, let us make some explicit assumptions about the configuration of the original constituent.

1.3 The Configuration of the Original Constituent

The original constituent is either a DP or a QP. Although other possible and more complex configurations come to mind, I will adopt the most minimal one that is compatible with the data so far observed:



Note that in (7) D projections are iterated twice. D_1 corresponds to the pronoun, the ‘doubler,’ DP_2 corresponds to the ‘doublee.’ I assume that if DP_2 is moved to some position in the clause structure, the remnant pronominal DP_1 will then undergo the computation reserved to a pronoun according to its clitic or strong nature. This gives the split of the original big constituent. An analogous computation occurs starting from a similar QP:



In (8) in place of DP_1 of (7) a QP is present. Once again, if DP_2 moves, the remnant QP will fill one of the positions reserved to quantifiers in the clause structure, which may or may not be the same as that/those of strong pronouns. Observe the well-known fact that FQ can be located between an auxiliary and a past participle in Italian (and French, and English . . .), a position that is not available to strong pronouns, which remain lower in the clause:

- (9) I miei amici hanno tutti parlato
 My friends have all spoken

- (10) *I miei amici hanno loro parlato
 My friends have they spoken

To conclude these introductory sections, let us summarize what their main points have been so far: First, we have highlighted an essential analogy in the computation involved in CLD, CLLD, and RD on the one side, and FQ constructions on the other that had remained partly implicit throughout previous literature. Second, we have proposed an extension of the same analysis to another construction, SPD, which, also at the descriptive level, shares crucial similarities with the preceding ones.

As a final general observation on the empirical side, it is worth remembering another significant fact already noted in the literature where the resemblance between FQ and what we now call SPD had already been pointed out.¹² We observe that in both FQ and SPD, much as in CLD and CLLD

and RD, the pronoun and the quantifier doubler are necessarily interpreted as having the same reference as the doublee. From the point of view of binding theory this is not obvious data to explain; some kind of extra interpretive mechanism appears to be necessary to assure the right interpretation.¹³ Note, however, that no extra mechanism seems necessary within the (extended) doubling analysis where the unique big constituent where both the doubler and the doublee originate may be held responsible for this interpretive property.

In the rest of the chapter we will address a number of directly related issues: First of all, we will try to determine in an explicit way what the positions filled by the various stranded elements are within the clause structure. It will be claimed that the SPD construction in particular, together with RD, provide us with a special window on an area surrounding the vP zone of the clause, a vP-periphery as I have called it elsewhere (and section 2), interacting in a direct way with discourse conditions. Second, it will be claimed that the extended doubling analysis proposed here allows us to make some natural hypotheses on classical questions that remain central also within the more recent minimalist framework such as: defining the mechanisms involved in the assignment of nominative Case to postverbal subjects in Italian-style subject inversion structures; determining the nature of the silent 'pro' element that can be assumed to fill (one of) the preverbal subject position(s)¹⁴ in the clause; and identifying instances of 'default' type nominative Case (section 3). I will then try to characterize the operation of a constraint that is likely to operate at the discourse level, and that may be held responsible for the impossibility of some of the outputs otherwise expected to be possible through the blind application of the assumed computation involved in the doubling constructions (section 4). Finally, the last section, 5, will be devoted to some speculative remarks concerning the 'minimalist questions' that arise with respect to the various doubling constructions analyzed. Assuming the plausibility and essential adequacy of the assumed analysis, doubling structures open up various questions, given minimalist guidelines that can be summarized as follows: Why is the same argument realized twice (or more)? A question that arises in a particularly strong way in the case of doubling involving a pronoun (clitic or strong). Why the possible (FQ) and often necessary (CLD, CLLD, RD, SPD) split of the original big constituent? I will conclude by suggesting some speculation on the possible reasons justifying the apparently uneconomical flavor surrounding the doubling phenomenology.

2 SPD AND THE vP-PERIPHERY

In Belletti (2001b, 2004a, Chapter 6 of this volume), I have proposed that the area immediately surrounding the vP zone of the low area of the clause structure contains a number of positions that have a discourse-related nature and that, following standard terminology, I have referred to as Topic and

Focus.¹⁵ According to this proposal, the vP shares a periphery that closely resembles the clause-external CP left periphery.¹⁶ The reader is referred to the works cited for further details and discussion on this point (see also the references cited in notes 15 and 16). The proposal I would like to put forth here is that (the remnant DP containing) the strong pronoun in SPD is precisely stranded in one of these discourse-related positions, either as a Focus or as a Topic.¹⁷ The assumed vP-periphery has the following essential design (parallel to the CP periphery):

... [_{TopP} Top [_{Foc} Foc [_{Top} Top ... vP]]]

Let us first consider what the interpretation of the sentences in (6) can be. In order to do that, let us imagine the kind of pragmatic context in which expressions like (6) might be used, repeated in (11) for convenience:

- (11) a. *Gianni* verrà *lui*
 Gianni will come he
 ‘Gianni himself will come’
 b. *Gli studenti* risponderanno *loro*
 The students will answer they
 ‘The students themselves will answer’

In both (11) a. and (11) b. the strong pronoun appears to add new information concerning the subject. It is often observed that a preverbal subject typically has a topic-like interpretation.¹⁸ The strong pronoun in (10) adds some new elements of information about the known topic. For instance, the sentences in (11) could be pronounced in contexts as those illustrated in (12):

- (12) a. Maria manderà suo fratello, invece *Gianni* verrà *lui*
 Maria will send her brother, but Gianni will come he
 ‘Maria will send her brother, but Gianni will personally come’
 b. *Gli studenti* risponderanno *loro*; non cercheranno
 The students will come they; they will not try
 che lo faccia qualcun altro al loro posto
 that it does somebody else in their place
 ‘The students will personally answer; they will not try that
 somebody else does in their place’

The interpretation is close to that of an adverbial (PP) expression like ‘in person’ and can typically be used in similar pragmatic situations.¹⁹ We can assume that this kind of interpretation of the doubler strong pronoun is provided by its filling the clause-internal (specifier of the) Focus phrase in the vP-periphery. But this is not the only interpretation that can be reserved to the doubler strong pronoun. Sentences word-by-word identical to (11) can

be produced, where a neat impression of a pause preceding the pronoun is produced and a downgrading intonation is associated to it. With this different intonation, the sentences could continue as in (13), where the difference in intonation with respect to (11) is indicated by the ‘comma’ preceding the pronoun:

- (13) a. *Gianni* verrà, *lui*; lo conosco, so che è affidabile
 Gianni will come, he, I know him, I know he is trustable
 (Maria invece non so cosa farà)
 (Maria on the contrary I don’t know what she will do)
 ‘Gianni will come, as far as he is concerned; I know him, I know he is trustable (Maria, on the contrary I don’t know what she will do)’
- b. *Gli studenti* risponderanno, *loro*; i professori non so se
 The students will answer they; the professors, I
 faranno altrettanto
 don’t know whether they will do the same
 ‘The students will answer, as far as they are concerned; as for the professors, I do not know whether they will do the same’

The proposal here is that, in cases like (13) the strong pronoun fills the vP peripheral Topic position. It can be noted right away that the kind of intonation and pragmatic situation associated with the use of the pronouns in (13) are strongly reminiscent of the kind of pragmatic situation and associated intonation manifested by RD structures of which an example is repeated in (14) (where the sentence can continue in the way suggested by the parenthesis):

- (14) Lo conosco, Gianni;
 (I) him(cl) know Gianni
 (so che mantiene le promesse)
 (I know that he maintain his promises)
 “I know him, Gianni (I know that he maintains his promises)”

The proposed analysis attributes to the two cases a derivation that shares an important aspect: In both cases the low clause-internal Topic position is involved, hosting the strong pronoun and the right dislocated noun phrase, respectively, adopting an analysis for RD à la Cecchetto (2000), as assumed in section 1.1.

2.1 Further Refinements

The examples we have discussed so far all contain intransitive verbs with no complement overtly associated with the verb. The question arises as to what the situation would be if some complement of the verb were also present.

This straightforward question deserves an articulated answer. Let us first consider the case where the complement is a PP; we will consider the case where the complement is a direct object next.

Some examples where the verb takes an indirect PP complement are given in (15):

- (15) a. Maria parlerà lei al dottore
 Maria will talk she to the doctor
 ‘Maria herself will talk to the doctor’
- b. I rappresentanti dei lavoratori discuteranno loro col
 The representatives of workers will discuss they with
 presidente
 the president
 ‘The workers representatives themselves will discuss with the
 president’
- c. Gli studenti risponderanno loro all’appello
 The students will answer they to the call
 ‘The students themselves will answer to the call’

In all the cases in (15) the doubler strong pronoun is followed by a PP and is used in its Focus interpretation. The sentences are all possible and well-formed. The analysis to be attributed to them should be one where the pronoun is in the vP peripheral Focus phrase and the PP can be assumed to remain VP-internal. Notice that this is the same analysis that can be attributed to sentences like (16), containing a postverbal subject followed by a prepositional complement of the verb:

- (16) (?) Risponderà Maria alla lettera²⁰
 Will answer Maria to the letter
 ‘Maria will answer to the letter’

As proposed in the cited works, in cases like (16) the postverbal subject can be analyzed as filling the clause-internal low Focus position. Indeed, one essential feature of the approach developed here, which is worth underscoring in the present context, is that in SPD the doubler strong pronoun fills the same positions as that of a postverbal subject.²¹ Notice that the doubler strong pronoun or the postverbal lexical subject can also be interpreted as Topic, hence filling (one of) the Topic phrase:

- (17) a. Maria parlerà, lei, al dottore
 Maria will talk, she, to the doctor
 ‘Maria will talk to the doctor, as far as she is concerned’
- b. Risponderà, Maria, alla lettera²²
 Will answer, Maria, to the letter
 ‘Maria will answer to the letter, as far as she is concerned’

Let us now consider the case where the verb takes a direct object. Here there is a distinction between a postverbal lexical subject and a strong pronoun; for concreteness, let us consider the case where the doubler strong pronoun or the postverbal subject would fill the Focus phrase:

- (18) (?) Maria scriverà lei la lettera
 Maria will write she the letter
 ‘Maria herself will write the letter’

- (19) *Scriverà Maria la lettera
 Will write Maria the letter

The impossibility of VSO examples like (19) has been reduced to Case reasons (Belletti (2004a, Chapter 6 of this volume), assuming that the postverbal subject would interfere between a vP-external Case assigner of the direct object (in a ‘probe-goal’ Agree-type relation), thus blocking the appropriate Case relation. If an account along these lines is on the right track, this implies that the doubler strong pronoun does not interfere in the same way. I suggest that this is due to the fact that the doubler strong pronoun is allowed/required to further move to some higher position in the clause structure, dedicated to host strong pronouns. It is the pronominal nature that opens up a further possibility for the pronoun as opposed to the lexical (postverbal subject) noun phrase.²³

That some mechanism of the sort distinguishing pronouns from lexical noun phrases may be at work is also suggested by contrasts like the following in (20), where the doubler strong pronoun can precede a low adverb like ‘bene’ (Cinque 1999), while a postverbal subject cannot (as noted in the cited works by Belletti and also by Cardinaletti 2001):

- (20) a. (?) Di questo (Maria) si informerà lei bene
 of this (Maria) will get informed she well
 ‘Of this, Maria herself will get the information’
 b. *?Di questo si informerà Maria bene
 of this will get informed Maria well

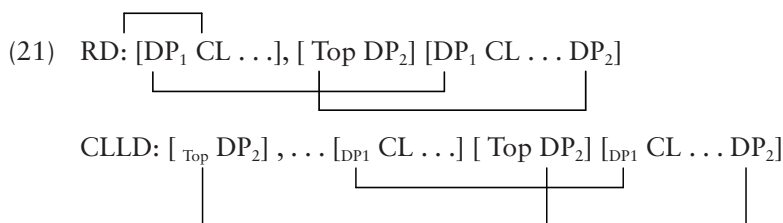
As suggested by the parenthesis surrounding ‘Maria’ in (20) a., the strong pronoun is admitted in the postverbal position preceding the low adverb independently of its doubler nature; it can appear there also as a ‘simple’ pronominal postverbal subject.

These observations suggest then that the final position of a postverbal pronominal subject or of a postverbal doubler strong pronoun must be identified with some higher position in the clause. We can then assume that the doubler strong pronoun rises from the position in the vP-periphery where it gets the relevant interpretation as Focus (or Topic) in the intended sense, and reaches a higher dedicated position for pronouns.²⁴

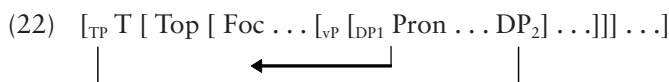
3 CONSEQUENCES: THE ASSIGNMENT OF NOMINATIVE CASE

To the extent that the position of doubler strong pronouns can be essentially assimilated to the position of a postverbal subject (with the qualification at the end of the preceding section), an interesting possibility opens up for the account of one classical issue in both P&P and minimalism: How does nominative Case reach the postverbal subject in languages of the Italian type that admit so called ‘free inversion’? In order to make this possible consequence of the analysis explicit, let us first make the following further consideration concerning SPD.

As already mentioned in the introductory section, the big DP/constituent hypothesis can provide an answer to the Case side of the problem posed by doubling structures: Since at least one of the parts in which the original big constituent is split fills a Case position, the relation that is established between the two parts through movement can be held responsible for the fact that Case reaches all parts of the original big constituent. As one example, let us take the case of CLLD and RD: In these cases the clitic can be seen as the Case-marked part of the split big DP. The connection that is established between this part and the part that has moved from there and fills the left peripheral (CLLD) or clause-internal (RD) position can be assumed to also be Case-marked. Schematically, the following relations hold (the line above indicates the last step of the cliticization process):²⁵



It is natural to assume that a mechanism of the same kind is at work in establishing the Case relations in SPD: The lexical part of the original big DP is in a nominative Case position and the strong pronoun can be Case-marked through the doubling relation along the lines schematized in (22):



where DP₁ containing the pronoun can move either to the Focus or the Topic phrase depending on the interpretation (and then further up to the position dedicated to strong pronouns; see the discussion in section 2.1). Note that a parallel derivation and consequent Case-marking can be taken to be at work

in subject clitic constructions of the kind found in several northern Italian dialects, where a lexical subject appears together with a pronominal clitic:

- (23) *La Maria la parla*
 the Maria she(cl) speaks
 'Maria speaks'

Apart from discourse factors, the only grammatical, formal difference between the two cases in terms of the computation involved is to be recognized in the clitic (23) versus the strong nature of the pronominal part of the original big DP.

According to the proposal just developed, in typical examples of SPD such as those in (11) and (13), the doubler strong pronoun is Case-marked with nominative Case by virtue of the doubling configuration. Notice now that this analysis opens up a direct possible account on the way nominative Case gets assigned to a postverbal subject in cases of simple subject inversion. Recall first of all that the nominative Case-marking on the postverbal subject is unambiguously visible in Italian when a first person singular pronoun is present, as nominative has a morphological realization there:

- (24) *Parlerò io*
 Will speak I
 'I myself will speak'

The hypothesis itself suggests that a doubling computation is involved in these cases as well, with the only difference with respect to the SPD cases analyzed so far being that the part that moves to the nominative subject position is not an overt lexical noun phrase but rather a silent 'pro.' According to this proposal, in the original big DP both DP₁ and DP₂ are pronominal DPs, one with no overt realization, a so-called small 'pro.' Thus, the analysis of sentences like (23) should be along the lines of (25), much as in traditional accounts, enriched of the doubling insight: 'pro' moves to the nominative subject position originating in the big pronominal constituent containing the first singular pronoun *io*. The remnant part of the original big DP containing *io* then moves to the relevant position in the vP-periphery, and then further up to the dedicated position for strong pronouns; only movement of 'pro' illustrated in (25).

- (25) *pro parlerò [io . . .]*
 └──────────┘

If a proposal of this sort is on the right track, a further extension suggests itself: All instances of subject inversion can be analyzed as cases of doubling, with a silent 'pro' moved to the nominative position and the lexical part

moved to the relevant position in the vP-periphery, only movement of ‘pro’ illustrated in (26):

- (26) pro parlerà [Gianni . . .]
└──────────────────┘

According to this proposal, nominative assignment to the postverbal position comes as a direct consequence of the doubling computation.²⁶

3.1 Further Consequences: On the Status of ‘Pro’

What is the status of ‘pro’ in the analysis just developed? In principle, there are two possible answers to this question: (i.) ‘pro’ is the equivalent of an expletive pronoun (as proposed in traditional accounts on inversion, e.g., Rizzi 1982 and subsequent work); (ii.) ‘pro’ is a silent personal (referential) pronoun. In the latter hypothesis, it is natural to assume that ‘pro’ would share the same features as the overt pronoun or lexical noun phrase sitting in the postverbal position, which would be inherited through a regular agreement process taking place internally to the original big DP. It is tempting to propose that the latter hypothesis is the correct one, or possibly the preferred one. Notice that, if this is the case, verbal agreement with the postverbal subject could come as a consequence of the presence of the personal silent ‘pro’ in subject position, with no need of special mechanisms to assure direct agreement in phi-features with the postverbal subject.²⁷

There are languages such as BP that are known to have ‘lost’ a productive null-subject property with referential null subjects. A way of characterizing this could be that ‘pro’ does not have the referential status of a personal pronoun anymore in BP. Sentences like the following are impossible in modern BP:

- (27) a. *(Ela) não usa mais chapéu
 ‘She does not use hat anymore’
 (adapted from Figueiredo (1996))
 b. * Encontrou a Maria ontem
 he/she met Mary yesterday
 (Figueireido (2000))
 c. * Cantam os pássaros
 sing (3p,pl) the birds
 ‘The birds sing’
 (Kato (2000))

Interestingly, BP has also lost a productive free subject inversion strategy, as indicated by the ungrammaticality of (27) c. If, as in the account proposed here, subject inversion is, in the typical case, just doubling with a referential/

personal 'pro' in the nominative preverbal position, the correlation between the two properties is directly captured.²⁸ Note that subject doubling with an overt strong pronoun is possible and even rather common in modern BP:²⁹

- (28) a. Ele, ele é meu amigo
 'he, he is my friend' (Kato 2000)
 b. João, ele comprou um carro
 'João, he bought a car' (Kato 2000)
 c. Ele telefonou, o João
 'he telephoned João' (Kato 2000)
 d. Eu, eu o adoro isso
 'I, I like it' (Kato 1999)

3.2 SPD in Infinitival Clauses and Further Instances of Nominative Case

There are other instances of nominative Case in seemingly doubling constructions obtaining within infinitival control clauses, illustrated in (29):

- (29) a. Penso di [PRO parlare *io* di questo problema]
 (I) think to speak I of this problem
 'I think that I myself will speak of this problem'
 b. Gianni pensa di [PRO parlare *lui* di questo problema]
 Gianni thinks to speak he of this problem
 'Gianni thinks that he himself will speak of this problem'
 c. Maria mi ha chiesto di [PRO parlare *io* con Gianni]
 Maria me has asked to speak I with Gianni
 'Maria asked me that I myself speak with Gianni'

Given the approach developed so far a natural analysis for sentences of this kind interprets the presence of the strong pronoun within the infinitival clause as a consequence of doubling where the original big DP contains both control PRO and the lexical pronoun, with PRO raised to the subject position of the infinitival clause as schematically illustrated in (30) for (29) a.:

- (30) ... [PRO parlare [io ...] ...]

Notice, however, that nominative here cannot simply be considered a consequence of the doubling derivation, as PRO is not in a nominative position. I will assume that nominative here is a 'default' realization of Case in a context where no other Case would be available, as in the infinitival clause. More precisely, the 'null Case' associated with PRO is incompatible with the overt realization of the pronoun; whence the necessity of realizing a

different Case on it. We can think of nominative here as the overt realization of the null Case of PRO.³⁰

Interestingly, continuing the comparison with BP, it is worth noticing that sentences totally parallel to (29) are possible in BP:

- (31) Os meninos querem [PRO falar eles com o diretor]³¹
 the kids want to talk they with the director
 'The kids want that they themselves speak with the director'

Thus, there is a contrast between the unavailability of inversion in finite clauses, e.g., (27) c., and the possibility of a the strong pronoun in postverbal position within the infinitival control clause. If subject inversion structures contain a referential small 'pro' in subject position, as assumed in the previous analysis, but infinitival structures contain a big control PRO in subject position, the contrast comes as no surprise. Big PRO should be universally available, while availability of referential small 'pro' is a consequence of the parametric choice connected to the null-subject parameter, which, as pointed out earlier, is lost in modern BP in its productive form.³²

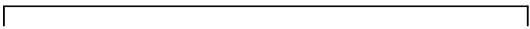
Sentences parallel to (29) with a lexical (subject) noun phrase in the post-verbal position instead of the strong pronoun are totally excluded:

- (32) a. *pro pensa di [PRO parlare Gianni di questo problema]
 (he/she) thinks to speak Gianni of this problem
 b. *lui pensa di [PRO parlare Gianni di questo problema]
 he thinks to speak Gianni of this problem
 c. *Maria gli ha chiesto di [PRO parlare Gianni con Piero]
 Maria him asked to talk Gianni with Piero

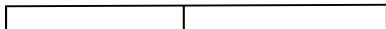
If subject inversion involves a computation that essentially reduces to doubling and if nominative can be available as a default Case, the impossibility of sentences like (32) is *prima facie* problematic. However, sentences of this kind can be naturally excluded as they may be taken to involve a violation of principle C of the binding theory, induced by the controller of big PRO present in the matrix clause. Essentially, the impossibility of (32) parallels the ungrammaticality of sentences like (33) that involve a principle C violation:

- (33) *pro_i ha chiesto a Maria_j di [PRO_i salutare Gianni]_j³³
 (he) asked Maria to say hello to Gianni

We may notice in conclusion of this point that, as is expected, raising structures minimally contrast with control infinitivals on this point. Sentences parallel to (32) involving a raising instead of a control verb are well-formed:

- (34)  pro Sembravano [... aver parlato [i ragazzi ...] di questo
(they) seem to have spoken the boys of this
problema]]
problem
'the boys themselves seemed to have spoken of this problem'

As indicated by the schematic illustration of the derivation of the sentence, here the doubling analysis raises 'pro' up to the matrix clause, thus avoiding any principle C violation, as is always the case in doubling structures. This implies that the nominative that can be seen within infinitival sentences parallel to (34), as the one illustrated in (35), is obtained through the standard doubling configuration assumed so far and it is not a case of default nominative, differently from (29):

- (35)  pro Risultavo [... aver parlato [io ...] di questo problema]]
(I) turned out to have spoken I of this problem
'I myself turned out to have spoken of this problem'

As a final remark let us briefly discuss the status of sentences like the following:

- (36) In una situazione del genere, parlare (?)io/??tu/ ??lui/(?)noi/??
voi/??loro/*Gianni sarebbe strano
In a situation of this kind, to speak I/you/he/Gianni would be
strange

These sentences are generally considered very deviant by native speakers, at different levels of marginality, for which we will suggest one speculation. Let us first comment on the essential impossibility of (36). This could be due to the incompatibility between the ARB interpretation associated with the PRO subject of these independent infinitival clauses and the definite interpretation of the strong pronouns or of the lexical noun phrase. We can speculate that the fact that the first person pronoun *io/noi* is the most acceptable one could follow from the nature of the ARB interpretation, which can have an 'inclusive' version. This reading is totally excluded in the presence of a lexical noun phrase, and at a slightly less marked level, also with other persons of the personal pronouns paradigm, different from the first person.

4 MORE ON SPD AND THE ORDERING RESTRICTION OF 'DOUBLER' AND 'DOUBLEE'

In the instances of SPD discussed so far two properties are systematically manifested: (i.) the doublee is higher than the doubler; it is the lexical part of

the original big DP that moves while the pronominal part is stranded;³⁴ (ii.) the doublee is a subject. Let us discuss the two properties in turn.

(i) Consider the following pair:

- (37) a. *Lui verrà Gianni
 he will come Gianni
 b. Lui verrà, Gianni
 he will come, Gianni

(37) a. is the reverse of the typical SPD constructions illustrated in (11) and (13) that originated our discussion, repeated in (38) for convenience:

- (38) a. Gianni verrà lui
 Gianni will come he
 ‘Gianni himself will come’
 b. Gianni verrà, lui
 Gianni will come, he
 ‘Gianni will come, as far as he is concerned’

Here the strong pronoun is either interpreted as Focus or as Topic within the vP-periphery. The contrast in (37) opens up the following considerations. On the one side, the acceptability of (37) b. indicates that nothing in principle prevents a doubling computation whereby the stranded part is the lexical noun phrase and the part that moves higher is the strong pronoun. This is a welcome conclusion: Within the spirit of our approach there is no principled reason that should exclude this computation.³⁵ The question is then reduced to the following: Why is (37) a. excluded? Observe now that the only difference between (37) a. and (37) b. is to be recognized in the interpretation associated with the postverbal doublee subject: It is a Focus in (37) a., it is a Topic in (37) b. Let us then make the natural suggestion that this is the source of the contrast in acceptability. Let us make the proposal that the impossibility of (37) a. is due to the operation of some discourse constraint that disallows that a topic element be less ‘rich’ in content than a focused element, if they are related. As mentioned in section 2, the preverbal subject position(s) is associated with a non-focus interpretation; it is typically associated with a topic-like interpretation. Hence, in sentences like (37) a. the relevant discourse constraint is violated, as the lexical noun phrase should be considered ‘richer’ than the pronoun in the relevant sense. We can tentatively assume that this independent discourse factor is at the source of the unacceptability of these kind of sentences. For the sake of concreteness let us give a (informal) formulation of the discourse constraint we have in mind:

- (39) Topic (or topic-like) cannot be ‘less informative’ than Focus, if they are related

In (39) the ‘richness’ of the topic/topic-like element referred to earlier is identified with informational richness, ultimately possibly

reducing to richness in content. Thus a lexical noun phrase is richer in the relevant informational sense than a pronoun. Hence it can't be the Focus of the sentence if the topic is the related pronoun.³⁶ I leave the proposal at this tentative stage. Let us point out that the operation of a constraint along the lines in (39) provides a way of interpreting the following paradigms:

- (40) a. Lui verrà lui
 he will come he
 b. Lui verrà, lui
 he will come,he
- (41) a. *Lui, verrà Gianni
 he, will come Gianni
 b. Lui, verrà lui
 he, will come he

To the extent that pragmatic conditions are met that justify the use of an expression like (40) a. without too strong a feeling of redundancy, this sentence is perfectly acceptable, as would be expected through the constraint. Similarly for the other examples in (40) b. and (41) b.: In all cases the constraint applies vacuously in that the element functioning as topic and the one functioning as focus have the same informational/referential richness as they are both pronouns. (41) a. is another instance of the operation of the constraint, where the preverbal pronominal topic is (presumably) located in a (Topic) left peripheral position, as suggested by the intonation.³⁷

The generality of the operation of the constraint can also be seen in the distribution of judgments in sentences like the following (42):

- (42) a. Quanto a Gianni, lo incontro sempre
 as for Gianni, (I) him(cl) meet always
 al cinema
 at the movie theater
 'As for Gianni, I always meet him at the movie theater'
- b. *Quanto a lui, incontro sempre Gianni al cinema
 as for him, (I) meet always Gianni at the movie theater
- c. Quanto a Gianni, incontro sempre lui al cinema
 as for Gianni, I meet always him at the movie theater
 'As for Gianni, I always meet him at the movie theater'
- d. (?)Quanto a lui, incontro sempre lui
 as for him, (I) meet always him
 al cinema
 at the movie theater
 'As for him, I always meet him at the movie theatre'

- e. Quanto a lui, lo incontro sempre
 as for him, (I) him(cl) meet always
 al cinema
 at the movie theater
 'as for him, I always meet him at the movie theater'

The sentences in (42) contain a hanging topic in the left periphery of the clause. The element referring to it in the following clause appears to follow the requirement of a discourse constraint along the lines of (39).³⁸

Finally, it is worth pointing out that the effects of the constraint are also visible in the distribution of judgments for the sentences in (43), involving an FQ:³⁹

- (43) a. Hanno parlato tutti i linguisti
 have spoken all the linguists
 b. Hanno parlato tutti, i linguisti
 have spoken all, the linguists
 c. *Hanno tutti parlato i linguisti
 have all spoken the linguists
 d. Hanno tutti parlato, i linguisti
 have all spoken, the linguists
 e. I linguisti hanno tutti parlato
 the linguists have all spoken
 f. I linguisti hanno parlato tutti
 the linguists have spoken all
 'All the linguists have spoken'

The unacceptability of (43) c., where the postverbal subject is interpreted as focus, combined with the perfect status of (43) d., where it is interpreted as topic, illustrate the direct operation of the discourse constraint. The other examples in (43) all illustrate the variety of other possible combinations compatible with the constraint.

The following sentences in (44) illustrate the operation of the discourse constraint in more complex structures, where the original big DP out of which the doubling computation starts contains both a DP and a QP level.

- (44) a. ?*Hanno tutti parlato loro, i linguisti
 have all spoken they, the linguists
 b. Hanno tutti parlato, loro, i linguisti
 have all spoken they the linguists
 c. *Loro hanno parlato tutti i linguisti
 they have spoken all the linguists
 d. *Loro hanno tutti parlato i linguisti
 they have all spoken the linguists

- e. Loro hanno parlato tutti, i linguisti
they have spoken all the linguists
- f. Loro hanno tutti parlato, i linguisti
they have all spoken the linguists
'All the linguists themselves have spoken'

Note that the distribution of judgments in (44) suggests that a personal pronoun must be considered richer in the sense relevant for the constraint than a quantifier (cf. note 38). Once again we have an indication that richness in content could be the relevant notion involved. A pronoun is richer than a quantifier in that it also carries a 'person' feature.⁴⁰ The reader can compute the articulated operation of the constraint in the earlier examples with this proviso in mind.

As a final remark on this point, let us observe the shape of (45):

- (45) a. ?*Egli parlerà lui
he (weak) will talk he (strong)
b. Egli parlerà, lui
he (weak) will talk, he (strong)

In (45) the 'weak' overt pronoun 'egli' fills the preverbal subject position. Note that the very strong marginality of (45) a. recalls that of (37) a. discussed earlier where a strong pronoun and a lexical subject noun phrase were present, and contrasts with the relative acceptability of (40) a. where two overt strong pronouns were present. It may be speculated that the relevant discourse constraint appears to be sensitive to the more 'informative' character of a strong pronoun as opposed to a weak pronoun.⁴¹

- (ii) Let us now address the second question raised at the beginning of this section. Is SPD restricted to subjects? Indeed the case of subject SPD is by far the most typical one, the one that immediately comes to mind as an illustration of the construction. The question is whether there are reasons that exclude SPD with other constituents, in particular with a direct object or whether, in fact, SPD is also possible with a direct object.⁴² It seems that the latter conclusion is the correct one. The limited availability of SPD with a direct object can indeed be interpreted as a further manifestation of the constraint in (39). Consider the often observed fact that, in the so-called unmarked word order, a direct object typically constitutes the focused constituent of the clause. Through the constraint in (39), it is immediately understandable why SPD should not be available with a direct object: The lexical part of the original big DP would count as the focused direct object; the pronoun should then act as the topic, thus inducing a violation of the constraint. However, if the requirements of the constraint are satisfied there do not appear to be special problems in admitting instances of

SPD with a direct object. This is the way in which we can interpret the judgments for examples like the following:

- (46) a. *Ho salutato Maria, lei
 I have greeted Maria, her
 b. (?) Ho salutato lei, Maria
 I have greeted her, Maria

The requirements of a constraint along the lines of (39) are satisfied in (46) b. since the most ‘informative’ part of the split DP giving rise to doubling, the lexical noun phrase ‘Maria,’ is interpreted as the topic,⁴³ while the doubler strong pronoun is interpreted as focused. On the contrary, the constraint is violated in (46) a.

5 CONCLUDING REMARKS: WHY TWO (OR MORE) AND THE ‘ECONOMY’ OF SPD

Let us conclude this study by asking one general question. The doubling structures considered in this work all share one property that looks surprising at first consideration. They all have a kind of ‘uneconomical’ flavor: More than one element, split in different positions in the clause, contribute to the constitution of a single argument. If in the case of quantified phrases analyzed here as QPs the quantifier and the DP can also cooccur in one single unsplit constituent (*tutti i ragazzi/all the boys*), in the other cases discussed the pronoun (clitic or strong) never overtly cooccurs with the rest of the DP where they are both initially merged, as proposed here (**Loro i ragazzi parleranno*). Nevertheless, when the big DP split in two (or more) parts, they can be both overt and they can both somehow realize the same argument in the clause. The natural question arises as to why this should be possible. Let us identify two more specific questions: (i) why the split; (ii) why two (or more) for one single argument.

As for the necessary split of the different parts when a pronoun is involved, various reasons come to mind: let us assume that they can ultimately be reduced to the licencing conditions of the pronominal element involved, clitic or strong pronoun, which necessitates a move to a special position in the clause.⁴⁴

Let us now address the question ‘why two’ when the big DP contains both a pronoun and a lexical noun phrase (or a further pronominal DP). Possibly, the clitic case in CLLD and RD may have a different answer from SPD. I tentatively suggest that presence of the clitic in CLLD and RD (and CLD [?]) can be reduced to Case reasons, as already discussed in sections 1.1 and 3, with the clitic ultimately contributing to Case licencing of the noun phrase in Topic position.⁴⁵

Let us concentrate on SPD. It is tempting to suggest that it is a discourse requirement that is the ultimate reason for the duplication: The doubler

strong pronoun contributes to the informational content of the clause by adding new information (focus) to a given topic or by iterating a given topic. This might be what justifies the selection of a seemingly redundant/uneconomical lexical array.⁴⁶

We may conclude these speculative remarks with the following empirical observation, which strengthens the point just made. We have proposed that the relation between the moved part of the original big constituent and the stranded part is what provides both parts with Case and Th-role. If this is correct, then one might expect that the system allows for the doubler to be also allowed to appear in Caseless positions, e.g., in the subject position of an infinitival clause, complement of a raising verb. However, the expected output is totally ungrammatical:

- (47) *I ragazzi risultarono [loro aver risposto alla domanda]
the boys turned out they to have answered the question

We can assume that nothing would go wrong with the formal computation in (47), but the sentence results in ungrammaticality because the doubler strong pronoun does not serve any discourse requirement in that position. Whence exclusion of the 'redundant' construction: The more economical lexical array (hence the simpler DP) is chosen, whenever possible. (47) minimally contrasts with the sentence in (48):

- (48) I ragazzi risultarono [aver risposto loro alla domanda]
The boys turned out to have answered they the question

Here, as in the analysis presented for (34) earlier, the strong pronoun is interpreted as focus⁴⁷ in the sense discussed in this work, and fills the position dedicated for this interpretation within the infinitival clause (it then moves to the position dedicated for pronouns, as generally assumed). Informational discourse-related reasons appear to favor the selection of a bigger-in-size lexical array in this case. Whence its selection.⁴⁸

We conclude this chapter by pointing out one aspect that will be left open for the time being, but that will deserve further study. It is the comparative aspect, particularly relevant in SPD:⁴⁹ Why don't languages that have strong pronouns appear to also have a doubling strategy involving a doubler strong pronoun of the kind utilized by Italian? Take the case of English as one single example: Although the subject can be said to be doubled in sentences like the following (49), both the kind of doubler and the position that it fills look very different from those discussed and analyzed here for Italian:

- (49) a. I myself would say that
b. John himself will come

The two differences are possibly related; I will not try to formulate precise hypotheses on how the relation could be expressed. I just speculate, in these conclusive remarks, that the very different location of the doubler is due to the fact that, for independent reasons, English does not activate the vP-periphery in the same way as Italian does, thus excluding the possibility for doubling to occur in the same fashion.⁵⁰

9 Kinds of Evidence for Linguistic Theory

1 INTRODUCTION

A well-known crucial struggle for theoretical linguists is the search for the appropriate kind of evidence that should guide them in the choice of the optimal formal analyses for empirical linguistic data of various sorts. Data do not come with a label of what the formal mechanisms involved in their computations are, nor do they come with a comment of what their overall significance is for the general functioning of the speakers' internal grammar. Furthermore, linguists do not have any direct access to the functioning of the internal computational system at work in (different) human language(s), a well-known aspect of linguistic research within the domain of cognitive sciences. At the same time, then, data are not clean nor does there exist an easy procedure available to the linguist to clean them up and understand what they mean, what they reveal of the formal properties of the I-language. A very general practice in the generative tradition since its beginnings has been that of taking so-called 'grammaticality judgments' given by native speakers as a privileged source of evidence to support or disconfirm general hypotheses and particular formal analyses. Various reasons explain the fortune of this quite widely adopted practice, mostly good ones. One such reason is that speakers' grammaticality judgments are relatively easy to obtain: The linguist must be smart enough to construct the appropriate examples to ask about and careful enough to clean them up in such a way that interfering factors do not obscure the relevant aspects of the hypothesis to be tested. In this sense, the theoretical linguist builds up experiments, and interfering factors and variables have to be controlled for exactly as in all experimental research. The examples to be presented to native speakers in order to get their grammaticality judgments, constitute, in a sense, the purest and simplest kind of experimental design that the linguist can build up: Neither machinery nor any special lab is needed for that. The easiness ends here, though: In order to construct the relevant examples to be judged, a very precise theoretical hypothesis is always presupposed. One further, and rather obvious, reason for the wide use of speakers' grammaticality judgments in linguistic research can be identified in the somewhat

trivial fact that native speakers belong to a category of experimental subjects that is very easy to find: They are numerous and since the experiments to be undertaken do not involve any special setting nor do they involve any potential danger for the speakers' health and they usually take relatively little time to be performed, native speakers are generally ready to take part in the experiments by providing their grammaticality judgments.¹ There is no deep reason, however, why grammaticality judgments should constitute the only source of evidence for linguistic theory. To make a parallel, consider, for instance, the important progresses that have become possible in theoretical syntactic studies within the P&P model once the comparative perspective has been seriously adopted as a general practice.² Until then, even abstracting away from the widespread prevalence of English as the language considered, different languages were typically analyzed as autonomous grammatical systems, and there was no systematic attempt to compare their properties with those of other languages, in particular of closely related languages. The comparative perspective, sometimes referred to as the 'new comparative syntax,' has allowed for substantial advancements in the understanding of UG and its possible parameters of variation. Thus, not only was there at the time no principled reason to limit the analysis to one single language, there turned out to be important reasons to extend it and adopt the comparative perspective. The careful study of the subtle variations instantiated by the different northern Italian dialects is an especially revealing case in point: As Kayne first put it, the numerous dialects provide an ideal laboratory for comparisons; small variations can often be neatly singled out, as other related properties are kept constant, since invariant (Kayne 2000, 2005c). Hence, the overall significance of the variation and its possible limits can be best appreciated. The parametric perspective to the study of language variation has provided a greatly innovative approach to this domain, and it has contributed to bringing dialectal studies to the fore of the cognitive approach to the formal study of language.³

More recently, language acquisition studies have started to play a somewhat similar role.⁴ As a matter of fact, the relation between these studies and the comparative approach to language variation is a very tight one. The detailed knowledge of different grammatical systems acquired through the comparative approach in formal theoretical studies provides a crucial device in understanding subtle developmental behaviors found in the acquisition of different languages. The cases in point are numerous; it suffices to mention here the pioneering acquisition study of this nature, namely Hyams' (1986) influential work on the acquisition of the null- or non-null-subject property of different languages, such as Italian and Spanish, on the one side, and English on the other. Subsequent studies in this same domain⁵ have significantly changed the original interpretive proposal by Hyams (1986), on the basis of the differences that emerged between the so-called null-subject phase in children acquiring a non-null-subject language and real null-subject languages (Rizzi 1993/1994, 2005). Without attempting to provide a summary of the

rich debate on the apparent similarities and important differences between adult and child null-subject, which would take us too far afield, it is worth underscoring here that it is only through the comparative approach to the study of linguistic variation that these important differences have become clearly detectable and have been teased apart: The kind of unpronounced subjects found in the child null-subject phase during development of a non-null-subject language such as English or German, turn out to be much closer to adult Topic-drop phenomena of the kind found in a language like German, than to real null-subjects of the Italian kind.⁶

If general linguistic theory can guide and illuminate the understanding of patterns of development in acquisition, as in the case just briefly reviewed, acquisition studies⁷ can in turn provide a special kind of evidence for linguistic theory. Linguistic theory and acquisition studies can thus feed each other fruitfully. General hypotheses can be shaped slightly differently according to the evidence coming from acquisition (or pathology, see note 8). Furthermore, different modes of acquisition, such as monolingual, bilingual, adult or child L2, and SLI acquisition can in turn provide an even more fine-grained kind of evidence for linguistic theory, in that subtle or otherwise invisible properties of different grammatical systems can become visible and can be better described and understood by taking into account data of this kind (Hamann and Belletti 2006).⁸ Thus, comparative acquisition studies can have far-reaching consequences for the overall general linguistic theory, where the comparison is undertaken both with regard to the acquisition of different languages and to different modes of acquisition.

The present work discusses three examples of this sort. The direct theoretical and general relevance of the acquisition data reviewed will be brought to light and will constitute the central focus of the discussion throughout. Given the background set so far, the three cases to be reviewed will be referred to as Evidence 1, Evidence 2, and Evidence 3, respectively. The three kinds of evidence are briefly introduced in 1.1; they will be analyzed and discussed in detail in sections 2, 3, and 4, respectively. Some general conclusive consideration will be developed in section 5.

1.1 Three Types of Evidence

The three types of evidence that will be reviewed can be outlined as follows:

- **Evidence 1:** One of the properties that has generally been assumed to correlate with the positive setting of the null-subject parameter, with its core property identified in the availability of null (referential) pronominal subjects, turns out not to be a necessary outcome of such a setting. This property is the so-called (free) subject inversion option, abbreviated sometimes here as (possibility of) VS. A weak correlation can rather be assumed to hold as schematized (i); the acquisition data

that contribute to support this claim are L2 acquisition data, as indicated in (ii):

- (i) *Weak correlation*: Availability of null (referential)-subject >> possibility of (free) subject inversion/VS
- (ii) (Adult) L2 acquisition data

Any analysis that deals with the VS option in terms of a weak correlation with the null-subject property receives support by these data. A detailed discussion of this evidence constitutes the focus of section 2.

- **Evidence 2**: Contrary to the preceding point, a peculiar shape assumed by the complementizer in subject extraction (e.g., subject relativization) contexts in French qualifies as a necessary outcome of the negative setting of the null-subject parameter. A strong correlation appears to hold along the lines in (iii), suggested by the comparison with Italian; data from bilingual French/Italian acquisition, as indicated in (iv), support the strong nature of the correlation. The significance of this correlation will be taken up in detail in section 3.

(iii) *Strong correlation*: *Que* > *qui* alternation in French versus lack of alternation in Italian

(iv) Bilingual acquisition data

- **Evidence 3**: Different error patterns in the way in which clitic pronouns may be positioned in different modes of acquisition (bilingual, adult and child L2, monolingual) and in different languages (French versus Italian) can be revealing both of properties of the different acquisition modes and, what is particularly crucial here, of the possibly different analysis that clitic pronouns can be more readily subject to in different languages. Data illustrating placement errors will be reviewed in (v); they are taken from different modes of acquisition that has appeared in the literature (vi). Section 4 will elaborate on the computational nature of these errors.

(v) Presence of placement errors of clitic pronouns in French versus absence of placement errors in Italian

(vi) Different modes of acquisition

The acquisition data that will be considered here in the light of their relevance for the general linguistic theory are taken from previous works. In particular, Belletti and Leonini (2004) will be the main source for Evidence 1, combined with more recent results obtained in Belletti, Bennati, and Sorace (2007). Belletti and Hamann (2004) provide the data on the bilingual acquisition of the *que* > *qui* alternation, crucial for Evidence 2. Finally, the main source of data concerning cliticization in different modes of acquisition, which will constitute the basis for Evidence 3, is drawn from Hamann and Belletti's (2006) review of the issue for the acquisition of clitic pronouns

in French, and from conclusions reached in work by Ferrari (2006) and Leonini (2006) for the acquisition of clitic pronouns in Italian.

2 ON EVIDENCE 1: NULL SUBJECTS AND (FREE) SUBJECT INVERSION/VS

Let us take Italian and English as two core instances of null- and non-null-subject languages respectively, widely discussed in the literature since the very beginning of the parametric approach.⁹ Italian and English minimally contrast in paradigms like (1) and (2): a null (referential) pronominal subject is allowed with no particular formal or contextual restriction in Italian, while this is not the case in English:¹⁰

- | | |
|-------------------------|--------------------------|
| (1a) Lui parlava | (2a) He talked |
| (1b) Parlava | (2b) *Talked |
| (1c) <i>pro</i> parlava | (2c) * <i>pro</i> talked |

As indicated in (1) c. and (2) c., the analysis adopted here assumes that a silent null personal pronoun *pro* is legitimate in the preverbal subject position in Italian, but it is not legitimate in English.¹¹ The availability of *pro* licencing is traditionally assumed to correlate with at least two other properties typically displayed in the two classes of languages:

- (i) subject inversion/possibility of VS
- (ii) subject extraction through an overt complementizer

illustrated in (3)–(6) for Italian and English; in (7) French examples are given showing essentially the same pattern as English:

- (3) Parlava Gianni/un ragazzo
- (4) *Talked John/a boy
- (5) Chi hai detto che—parlava?
- (6) *Who did you say that—talked?
- (7)
 - a. il/Jean parlait
he/John talked_{3s}
 - b. *parlait
talked_{3s}
 - c. *parlait Jean/un garçon
talked._{3s} John/a boy
 - d. *Qui as-tu dit que—parlait?
who have you said that talked_{3s}

Consider first property (i); property (ii) will be addressed in section 3.

The observation that the Italian type of subject inversion yielding VS is possible with any verb class and with any kind of lexical subject, with no overt element filling the preverbal subject position has primarily led to the conclusion that the possibility of VS is a typical null-subject property.

Indeed, in non-null-subject languages the order VS is lexically constrained (typically possible with some verb classes, e.g., unaccusatives), it is best realized when the postverbal subject is not a definite DP,¹² and the preverbal subject position must be filled with an expletive element. Examples (8) and (9) show the pattern for French and English; (10) illustrates the parallel example in Italian, showing no overt expletive in the inversion structure:

- (8) a. Il est arrivé plusieurs enfants
it is arrived many children
- b. plusieurs enfants sont arrivés
many children are arrived
- (9) a. there came many children
- b. many children came
- (10) a. sono arrivati molti bambini
are arrived_{MASC.PL} many children
- b. molti bambini sono arrivati
many children are arrived_{MASC.PL}

Hence, the general property holds that in null-subject languages (e.g., Italian) the extension of the phenomenon is wider. The classical proposal has thus been put forth that in all cases the preverbal subject position is filled by a silent element *pro*. In cases like (3) and (10) a. the empty pronominal is the unpronounced version of the overt expletives of languages such as French and English in (8) a. and (9) a.; in cases like (1) b. and c. it is a referential null personal pronoun.

Given the extension of the phenomenon, subject inversion/VS of cases like (3) has come to be known as *Free Inversion*.

However, more recent studies have brought to light the fact that inversion/VS is not free in null-subject languages, but that it is clearly ‘discourse related.’ This can be simply shown by taking into consideration question-answer pairs like those in (11) and (12) in Italian, discussed in detail in Belletti (2001b, 2004a, Chapter 6 of this volume):

- (11) a. Chi è partito / ha parlato ?
who has left_{MASC.SG}/ has spoken
- b. è partito / ha parlato Gianni
is left_{MASC.SG}/has spoken Gianni
- c. %Gianni è partito/ha parlato
Gianni is left_{MASC.SG}/has talked

- (12) a. Che cosa ha fatto Gianni?
 what thing has done Gianni
 b. è partito / ha parlato, Gianni
 is left_{MASC.SG} /has spoken, Gianni

As illustrated by (11) b., the postverbal subject functions as the focus of new information; this is indeed the most typical discourse interpretation of a postverbal subject. Notice, however, that in discourse intonationally appropriate conditions, suggested by the comma before the subject in (12) b., a postverbal subject can also function as topic/given information. Concentrating here on the focal interpretation of the postverbal subject, the clear contrast between (11) b. and (11) c. indicates that inversion/VS is not discourse free: the postverbal location of the new information subject is not just an option in the discourse conditions created by (11) a.; rather, it is a necessity.¹³

The discourse-related nature of subject inversion that yields the VS order can be explicitly expressed within the guidelines of the cartographic approach.¹⁴ As I have argued in detail in Belletti (2001b, 2004a, Chapter 6 of this volume), the low part of the clause can be assumed to contain a vP-periphery along the lines in (13):

- (13) [_{CP} . . . [_{TP} . . . [_{TopP} **Top** [_{FocP} **Foc** [_{TopP} **Top** . . . vP]]]]]

In (13) a discourse-related dedicated position for new information Focus is present and Topic positions for given information are also present in this low area of the clause, thus paralleling in important ways the clause-external Left Periphery.¹⁵ The specifier of the discourse-related new information Focus position can be assumed to host the postverbal subject. Thus, the new information interpretation comes as a consequence of the position where the postverbal subject ends up in the derivation of the VS order.¹⁶

According to this analysis, a sentence like (11) b. containing a postverbal focalized subject is thus associated with the following representation, where the subject 'Gianni' fills the low Spec/FocP, the verb (here a past participle) has moved to some higher head above it, and a silent *pro* fills the high subject position of the clause:

- (14) [_{CP} . . . [_{TP} *pro* . . . è . . . partito/ha parlato . . . [_{TopP} [_{FocP} Gianni
 [_{TopP} [vP . . .]]]]]]]

A crucial feature of this analysis is that subject inversion/VS structures involve two main factors: (i) availability/licencing of *pro* in the subject position of the clause; (ii) location of the subject in the dedicated position in the vP-periphery.

The analysis thus partly dissociates the two properties that are currently assumed to be tightly linked through the positive setting of the null-subject parameter in the following way:

Availability of *pro*, the crucial null-subject property, is a necessary but not a sufficient condition to allow for subject inversion/VS. Activation of the dedicated position in the vP-periphery is also necessary.¹⁷

The analysis just briefly summarized was based on a systematic description of the salient discourse properties of VS structures as they can be determined through the grammaticality judgments of native speakers.¹⁸ We may now ask whether independent evidence of a different nature can also be found. Here comes the crucial relevance of acquisition data. Adult L2 Italian contributes a peculiar kind of evidence that the split assumed by the analysis may be on the right track.¹⁹ Consider in this respect the experimental results presented in Belletti and Leonini (2004). The experimental design utilized in this work consisted in presenting to (non-advanced, intermediate) speakers of L2 Italian with different L1 backgrounds a number of short movies, all ending with a question on the subject that the L2 speakers were asked to answer with a whole sentence, expressing the verb. The experiment was designed to elicit VS structures, with S a new information focus subject. The elicited verbs belonged to different verb classes (see Belletti and Leonini 2004 for further details).

Tables 9.1 and 9.2 summarize the results and indicate the comparison with the very different behavior of a control group of native speakers of Italian. It is worth observing right away that the extremely consistent behavior of the native group is by itself a very clear indication that, on the one side, the experiment was well designed in that the expected structures were indeed elicited, on the other, the discourse conditions correlating with the postverbal location of the subject were properly identified: A postverbal subject is interpreted as a focus of new information and a new information focus subject is most typically located in the postverbal position. Some of the questions and the related expected answers of the elicitation test are given in (a) and (b), respectively. Since the experimental situation provides a pragmatically controlled setting, it is especially significant and welcome that the results on the control group conform to the hypothesis previously solely based on native speakers' grammaticality judgments.

Table 9.1 Vs/Null Subjects (Italian vs French)

<i>Control Group</i>	<i>VS</i>	<i>Null Subjects</i>
L1 Italian	98%	95%
	381/390	333/352
L1 French	21%	70%
	25/117	73/104

Table 9.2 Vs/Null Subjects (Italian vs German)

<i>Control Group</i>	<i>VS</i>	<i>Null Subjects</i>
L1 Italian	98%	95%
	381/390	333/352
L1 German	27%	55%
	167/626	313/574

- | | |
|--|--|
| <p>(a) — Chi ha telefonato?
 ‘Who phoned?’
 — Chi è partito?
 ‘Who left?’
 — Chi ha bevuto il mio caffè?
 ‘Who drank my coffee?’</p> | <p>(b) — Ha telefonato Francesco
 ‘has phoned Francesco’
 — E’ partito un ragazzo
 is left a boy
 — L’ha bevuto una ragazza
 it-has drunk a girl</p> |
|--|--|

Similar results have been obtained with the same experimental task with ‘near-native’ speakers of Italian, with L1 English (Belletti, Bennati, and Sorace 2007), as illustrated in Table 9.3 for VS.

The results are very sharp: The L2 speakers utilize the VS order to a much more limited extent than native speakers, given the very same discourse situation. The results on the so-called L2 near natives show that this behavior does not change significantly also at a fairly advanced level of attainment.

The L2 speakers differ as to the answering strategy they prefer to adopt to answer the questions in (a). This is also an interesting result by itself.²⁰ However, what is of interest here is that they systematically adopt VS to a significantly limited extent. The rate in the use of null subjects, on the other hand is very different. Tables 9.1 and 9.2 show that the L2 speakers utilize null subjects to a fairly high rate also at the non-advanced level of attainment.²¹ The same holds true even more significantly at the near-native level

Table 9.3 VS

	<i>VS</i>
L2 near natives	38%
	(192/510)
Controls	87%
	(209/240)

where the L2 speakers have performed really native-like in the use of null pronominal subjects in a spontaneous production experimental task. In this case there was no significant difference with respect to a control group: Null pronominal subjects have been utilized in 52 percent versus 59 percent of the cases by near natives and natives, respectively.²²

In conclusion, these (adult) L2 acquisition data indicate that the correlation between availability of null subject, interpreted here as *pro* licensing in the preverbal subject position, and free inversion/VS should be seen in a more fine-grained fashion. The former property should be treated as a necessary, but not as a sufficient condition to make the latter structure directly available. Other factors condition the availability of VS. The analysis summarized here identifies these factors in precise discourse conditions and the related structural positions that express them. These data can then be taken as evidence that a dissociation between the core null-subject property and VS is welcome and should be assumed. Thus, the correlation of properties should more appropriately be seen as a weak one, as claimed in 1.1. The formulation of the null-subject parameter and the analysis of subject inversion/VS structures should be able to express the partial dissociation of these properties. The analysis schematized in (13) has precisely these features.

3 ON EVIDENCE 2: *QUE* > *QUI*

Subject extraction across an overt complementizer appears to be generally possible in null-subject languages—where it is assumed to be indirectly performed from a low position in the clause (see Rizzi 1982 and the more recent discussion in Rizzi and Shlonsky 2007), an option available in null-subject languages where the preverbal subject position can be filled with a nonovert expletive *pro*.²³ Consider in this respect the Italian subject relative clause in (15) a. and the subject (long) interrogative in (5), repeated in (15) b.; (15) c. is an example of object relative clause: Note that the complementizer has the same shape in both (15) a. and (15) c., and it corresponds to the finite declarative complementizer *che*, present in (15) b. (the symbol ‘—’ indicates the approximate extraction site):

- (15) a. Maria mi ha segnalato un libro che *pro* uscirà—il mese prossimo
 Maria me has brought-to-my attention a book that *pro* will-come₃₅ out the month next
 ‘Maria has brought to my attention a book that—will come out next month.’
- b. Chi hai detto che *pro* parlava—?
 ‘Who have you said that *pro* talked₃₅?’

- c. Maria mi ha segnalato un libro che Jean recensirà—il mese prossimo su Le Monde.

Maria me has brought-to-my-attention a book that Jean will-review₃₅ the month next on Le Monde

'Maria has brought to my attention a book that Jean will review next month on Le Monde.'

The same subject extraction does not appear to be equally possible in non-null-subject languages. See as an illustration the impossibility of the English and French interrogatives in (6) and (7) d. repeated in (16) a. and b., and the French subject relative (16) c.:

- (16) a. *Who did you say that talked?

- b. *Qui as-tu dit que parlait?

who have you said that talked₃₅

- c. *Marie m'a signalé un livre que va paraître le mois prochain

Maria me has brought-to-my-attention a book that will appear₃₅ the month next

The examples in (16) a.–c. are known from the literature as typical illustrations of the so-called '*that*-trace effect' (Chomsky 1981; Kayne 1981; Rizzi 1990b).

Different non-null-subject languages repair the violation created by the extraction of the subject in different ways. French switches the complementizer *que* to the form *qui*, the so-called *que* > *qui* alternation, illustrated in (17) a., which minimally contrasts with (16) c. Note that no alternation in the form of the complementizer is manifested in the case of an object relative in French, as illustrated by (17) b., which minimally differs from (17) a. in this respect:

- (17) a. Marie m'a signalé un livre qui va paraître le mois prochain

Maria me has brought-to-my-attention a book that will appear₃₅ the month next

- b. Marie m'a signalé un livre que Jean va commenter le mois prochain dans Le Monde

Maria me has brought-to-my-attention a book that Jean will₃₅ comment the month next in Le Monde

Qui has been interpreted as a kind of agreeing form of the declarative complementizer *que*.²⁴ The switch is assumed to guarantee that the general formal constraint, ECP—and its successors—that is violated by direct subject extraction from the preverbal subject position, be thus satisfied.

As is clear even from this very brief summary of a long-standing debate, the *que* > *qui* alternation is a property of French that is tightly linked to the negative setting of the null-subject parameter. As noted, no similar

alternation is at work in Italian, as illustrated in (15). The Italian complementizer does not need to be involved in repairing a structure that does not need any repair to start with since *pro* can fill the high subject position in a null-subject language like Italian. The correlation between the non-null-subject nature of French and the operation of the *que* > *qui* alternation can thus be considered a strong, principled one.

Can acquisition data tell us something about the assumed strong status of the correlation? An interesting hint comes from the productions of the French/Italian bilingual child Lorenzo, discussed in detail in Belletti and Hamann (2004). Note first of all that, from the very beginning of data taking, the child had a rich and faultless use of pronominal subjects in his French productions of tensed clauses, as required by the non-null-subject nature of French.²⁵ Interestingly, it is also the case that the very first recordings contain instances of spontaneous productions of *que* > *qui* alternations. Lorenzo's productions in (18) suggest that the correlation established through the negative setting of the null-subject parameter is a strong, principled one. These data are particularly significant not only internally to French, but also in consideration of the fact that in the 'other' language of the bilingual child, Italian, no such alternation is present, as already seen in (15):

- (18) a. Non, c'est pas moi *qui* devrais l'amener. (Lorenzo 3;5)
 No, it's not me who should.₁₅ take-it-with-me
 b. Non, j'ai pas vu des voitures *qui* font comme ça. (Lorenzo 3;7)
 No, I have not seen any cars which make_{3p} like that
 c. C'est la maison *que* je habite. (Lorenzo 3;7)
 That's the house that I live
 d. Non. Je fait le papa *qui* fait la cuisine. (Lorenzo 3;7)
 No. I make the daddy who makes the kitchen
 e. Mais il y a quelque chose *qui* ne va pas dans celui là. (Lorenzo 3;8)
 But there is something which does not work in that one
 f. Oui . . . si tu dis que je fais les choses *qui* sont pas drôles tu
 sais qu'est ce que tu prends? (Lorenzo 4;4)
 Yes, . . . if you say that I do things that are not funny you
 know what you take . . .?
 g. Non, c'est un outil *qu'*on utilise, là. (Lorenzo 4;11)
 No, it's a tool which we use there
- (19) a. Oui, tu m'as dit *que* je ne pouvais pas faire comme ça alors (Lorenzo 4;4)
 Yes, you told me that I could not do like that then . . .
 b. Tu veux *que* je te fais rater, hein? (Lorenzo 4;11)
 you want that I you-make fail

Note the form *qui* of the complementizer in the subject relatives in (18) a.–b. and (18) d.–f., and the form *que* in the object relative (18) c. and the elided form in (18) g. also containing the overt subject pronoun *on*. The productions in (19) are also interesting in that they show the appropriate use of the unaltered form of the declarative complementizer *que*, introducing a declarative subordinate clause. On the complementizer status of *qui* in the *que* > *qui* alternation the following properties must be kept in mind:

- (i) It must be kept distinct from the relative pronoun *qui* that is only compatible with an animate relative head (Kayne 1974):

- (20) a. L'homme à qui je pense
the man to who I think
b. * la voiture à qui je pense
the car to who I think

The complementizer *qui* appearing in cases of subject extraction is perfectly compatible (and necessary) with an inanimate relative head:

- (21) Voilà la voiture qui partira demain
here is the car which will-leave₃₅ tomorrow

Note that the child's productions in (18) b. and (18) e. are particularly revealing in this respect of an appropriate use of the altered form of the complementizer.

- (ii) In French, the form *qui* of the complementizer also shows up in contexts of long subject extraction. Note that in these cases no relative pronoun would appear anyway (Kayne and Pollock 1978):

- (22) a. L'homme que Marie dit qui parle Français
the man that Marie says who speaks French
b. Le livre que Marie dit qui sortira demain
the book that Marie says that will-come-out₃₅ tomorrow

Going back to the acquisition data on the *que* > *qui* alternation, it should be noted that no similar alternation data are documented in the (smaller) Italian corpus of the same bilingual child.²⁶ This fact, besides constituting interesting subtle evidence for the so-called 'separate systems hypothesis' of bilingual development, has an impact that is of direct relevance for the main focus of the present discussion. The spontaneous productions of the bilingual child provide a sort of 'natural experiment' whereby the strong correlation between the shape of the complementizer and the (negative) setting of the null-subject parameter is very clearly manifested. It is simultaneously realized both 'positively' (in French, through mastering of the alternation) and 'negatively' (in Italian, through absence/no extension of the alternation) in the two languages involved.²⁷

4 ON EVIDENCE 3: OBJECT CLITICS

The acquisition of Romance-type object clitics has been repeatedly shown in the literature to be somewhat problematic. For instance, in French monolingual L1 acquisition subject (weak) pronouns have been shown to appear earlier than object clitics (Hamann, Rizzi, and Frauenfelder 1996 and subsequent work). However, as can be seen in the relevant literature, the difficulty can manifest itself differently according to the different modes of acquisition.²⁸ In particular, let us focus here on the following aspects:

- (i) *Placement errors* of object clitics have never been documented in monolingual acquisition.²⁹
- (ii) *Placement errors* of object clitics have been (repeatedly) documented in bilingual/ child³⁰ and adult L2 acquisition.

However, a difference emerges depending on the target (L2) language:

- (iii) *Placement errors* of object clitics in bilingual/child and adult L2 acquisition have been documented for French but not for Italian (neither in elicited nor in spontaneous production).³¹

Hamann and Belletti (2006) identify a typology of placement errors that have been reported in the literature on French. A sample is given in the following.³²

- (i) *Clitic in complement position:*

- (23) a. moi, j'ai trouvè le (Greg month 14, White 1996)
me, I have found-it
- b. alors, tu joue avec le (Elisa 4;2,
Belletti & Hamann 2004)
then, you play with-it
- c. non, on laisse le (Elisa 4;2)
no, one leaves-it
- d. je prends la (Anouk 3;03,23,Hulk 2000)
I take-her
- e. on prend le gaz et refroidir le (Karl, 8 months exposure,
Granfeldt and Schlyter 2004)
one takes the gaz and recool-it
- f. elle demande la (Petra, 5 months of exposure,
Granfeldt and Schlyter (2004))
she asks-her
- g. elle croit la
she believes-her

(ii) *Auxiliary—Clitic—Past Participle*:

- (24) a. ça a m'étranglé, (Elisa 5;5 repeated)
this has me-strangled
b. regarde, là j'ai m'étranglé (Elisa 5;5 repeated)
look, there I have myself-strangled
c. t'as le mis trop chaud (Anouk 3;06,25)
you have it-put too hot
d. après il a se réveillé (Ivar 3;02.14;
Crysmann & Müller 2000)
then he has himself-waken-up
e. vous avez la pris (Emma, 17;
Herschensohn 2004)
you have her-taken
f. il a les fini
he has-them finished
g. il a lui assis (Petra, adult;
7 months exposure)
he has him-finished
h. J'ai le vu (Karl, adult;
2,10 months exposure)
I have him-seen

(iii) *Clitic in 'isolation'*:

- (25) a. c'est moi le (Elisa 4;2)
this is mine it
b. le quoi? (Lorenzo 3;7)
it what
c. je la aussi mets dans la boîte (Anouk 3 ;10,07)
I her as well put in the box
d. tu peux le très bien faire (Anouk 4;06)
you can it very well do

Let us make explicit the basic analytical assumptions, schematically indicated in the following:

- (i) Pronouns are DPs.
- (ii) Clitics are the head of a pronominal DP (D).
- (iii) Three classes of pronouns can be distinguished: strong, weak, clitics (Cardinaletti and Starke 1999).
- (iv) Pronominal DPs move in the clause structure as XP-maximal projections (into some functional position dedicated to the different classes of pronouns).
- (v) Cliticization involves a further step in the movement of the pronominal DP: movement of the clitic pronoun as a head X^0 (into a dedicated

head position in the clause; the same ultimately also containing the finite verb).³³

Given these assumptions, the placement errors considered could receive the following interpretation: They could result from a misanalysis of the object clitic as a weak pronoun (or possibly as a strong pronoun for the 'Clitic in isolation' case), hence a DP/XP, rather than as a syntactic clitic, i.e., ultimately a D°/X°.

A number of questions arise here; the following two can be singled out as having particular relevance for the focus of the present discussion:

- (a) What should favor the weak (or strong) pronoun analysis in the bilingual/L2 setting also accounting for the lack of placement errors in monolingual acquisition?
- (b) What may explain the difference between French and Italian in this domain of acquisition, with placement errors (so far) undocumented in Italian?

The questions can be given the (preliminary) following answers, tentatively phrased here in terms of speculations.

Speculation 1: The weak pronoun analysis could be favored by the following two factors involving properties of both the target L2 language and the L1:

- (i) It could be prompted by the existence of weak pronominal subject pronouns (*je, tu, il, elle . . .*, which have been shown not to pose special acquisition problems) in the L2 target language French.
- (ii) It would also be more readily compatible with properties of the pronominal system of the other language of the acquirer (e.g., a Germanic language in the typical cases shown earlier) that lacks Romance-type clitics but has weak (and strong) pronouns in the pronominal system.

Hence, according to this hypothesis, both properties of the target second language and of the first language may influence the analysis adopted by the L2 acquirer, with the option shared by both languages being somewhat privileged, hence entertained at some initial stage of acquisition.

Speculation 2: The hypothesis in (i) of Speculation 1 could also provide a principled reason for the lack of placement errors in bilingual/child and adult L2 acquisition of object clitics in Italian: Since Italian lacks (conspicuous) instances of weak pronouns, factor (i) is not at work for the L2 acquirer of Italian.

The following *further speculations* may be added to complete the picture:

- (i) The weak pronoun/maximal projection analysis can be assumed to be more 'economical' overall, as it implies a simpler computation than the clitic analysis. This could provide a reason for the delay of acquisition of object clitics with respect to subject (weak) pronouns in French L1 acquisition, referred to at the beginning of the present section.
- (ii) On the other hand, lack of the second factor of Speculation 1, which identifies a crucial role of the grammatical system of the other language(s) involved in the acquisition process, might suggest a reason why placement errors are typically absent from monolingual, L1 acquisition of object clitics, with no difference between French and Italian in this respect. Overall, the bilingual/child-adult L2 setting provides an input that is at the same time richer and poorer than the monolingual one. On the one hand, there may be less input data for each single language. On the other hand, more UG options can manifest themselves through the input data of the two (or more) languages. In consequence, different UG hypotheses may be likely to be tried out more readily in these conditions of language acquisition, than in a monolingual situation.³⁴
- (iii) Furthermore, lack of (conspicuous instances of) weak pronouns in Italian makes the more economical analysis not a real option in monolingual acquisition of Italian anyway. *A fortiori*, no placement errors are expected in this mode of acquisition in Italian.³⁵

Besides their intrinsic interest as for what they can reveal as far as different modes of acquisition are concerned, the data presented in this section seem able to uncover subtle differences between two closely related languages such as French and Italian in the closely related domains of the syntax of personal pronouns and clitics. The pronominal systems of weak and clitic pronouns in French and Italian are made somehow more visible through the peculiar lens of bilingual/L2 acquisition. These acquisition data thus directly contribute a special kind of evidence for our general understanding of theoretically significant properties of the two different, though very closely related, grammatical systems in the area of personal pronouns.

5 CONCLUSION

The three kinds of evidence discussed in this chapter all share the common feature of considering data coming from (different modes of) language acquisition as a further, peculiar potential set of empirical arguments able to sustain, or refute, formal analyses independently formulated within the principles and computations of the general linguist theory. It has been argued that the partial dissociation between the core null-subject property (*pro* in preverbal high subject position) and the availability of (free) subject inversion/VS independently assumed in recent analyses (Belletti 2001b, 2004a,

Chapter 6 of this volume) appears to be systematically confirmed by adult L2 acquisition experimental data on elicited productions of VS structures. Thus, these data provide an indirect support to this type of analysis and, more generally, to any analysis that interprets the correlation between the (core) null-subject property and availability of VS as a weak correlation, dissociating the two properties to some extent. On the other hand, the French/Italian bilingual spontaneous production data reviewed here argue, in an original way, in favor of an interpretation of the *que* > *qui* alternation in French as a process tightly linked to the negative setting of the null-subject parameter, as proposed in the relevant cited literature. Thus, any analysis that interprets the alternation as strongly correlating with such a negative setting receives support by these data. Finally, as for the acquisition of object clitics, it should first of all be noted that the hypothesis that subject pronouns and object clitics in French, despite their very close resemblance, should be analyzed as belonging to the different classes of weak and clitic pronouns respectively, is clearly supported by the different developmental patterns that the two classes of pronouns give rise to in all modes of acquisition briefly reviewed here. Thus, any analysis that makes the appropriate distinction receives support by these data. Furthermore, on the comparative side that has constituted the main focus of the discussion in this domain here, the different error patterns that the bilingual/L2 acquisition of object clitics gives rise to in French and Italian could suggest that French object clitics may be more prone to an analysis as weak pronouns at some initial stage of acquisition than Italian object clitics. This can be interpreted in terms of a somewhat indirect influence of the overwhelming presence of weak pronouns in the French pronominal system, instantiated by subject weak pronouns. It has been speculated here that since overt weak pronouns are poorly represented in the Italian pronominal system, the misanalysis of object clitics may be typically not entertained by the acquirers of Italian. These comparative acquisition data thus reveal in a peculiar and somewhat unexpected way the subtle but grammatically relevant distinctions in the systems of personal pronouns of French and Italian. The different and unrelated domains explored here are just three relatively subtle examples of a potentially much wider database that linguistic theory can, and actually should, exploit in the search of support for formal analyses and general hypotheses entertained in explaining aspects of the internal grammars of natural languages.

10 Answering Strategies

New Information Subjects and the Nature of Clefts

1 INTRODUCTION

Different languages typically adopt different ways to answer the same question concerning the identification of the subject of the clause, when the answer is provided through a full clause. I will refer to these ways as different answering strategies.¹ Consider the following list in I. as an illustration:

- | | | | | |
|----|----|----|-------------------------------------|-----------------------------------|
| I. | A. | a. | Chi è partito / ha parlato ? | Italian: |
| | | b. | E' partito / ha parlato Gianni | VS ('free inversion') |
| | B. | a. | Qui est parti/ a parlé? | French: |
| | | b. | C'est Jean (qui est parti/ a parlé) | ((reduced) Cleft) |
| | C. | a. | Who came/spoke? | English: |
| | | b. | <i>John</i> came/spoke | SV/(<i>in situ</i> focalization) |
| | | c. | <i>John</i> did | |

The overwhelming preferred strategy in Italian has the new information focus subject located in the postverbal position (often referred to as 'free inversion' in the literature).² French speakers tend to typically adopt a reduced cleft sentence in their answers, while English speakers preserve the subject-verb order of declarative clauses; a special stress is attributed to the preverbal subject with a resulting prosody that is very different from that of simple declaratives, whose subject qualifies as the argument that the predicate is about.³ I refer to this strategy as focalization *in situ*. A possible suggestion on the *in situ* strategy will be briefly sketched out. In this chapter, however, I will mainly concentrate on the discussion of the VS and (reduced) cleft strategies, the relation between them, and the way in which it can be explicitly expressed through a cartographic analysis to be developed in detail. It will emerge that, despite their superficial difference, both strategies share a crucial property: They involve a postverbal subject in the

same position dedicated to new information focus in the vP-periphery of the clause.⁴

2 MORE LANGUAGES

If we look at more languages, also typologically different from each other and possibly diachronically unrelated, it emerges that the strategies identified in the list in I are those typically adopted.

These answering strategies appear to essentially exhaust the available options. Thus, there are languages behaving like Italian—a.o.: European Portuguese, Romanian, Paduan . . . —languages behaving like French—a.o. Japanese, Norwegian, Malayalam . . . —languages behaving like English—a.o. German, Hungarian,⁵ Basque, Gungbe . . . The list of parallel exchanges in II. illustrates using some of the languages mentioned:

II. European Portuguese:

Quem é que telefonou? ('Who called')

Who is it that called

Telefonou o Hans

Called Hans

Quem levou as flores? ('Who took the flowers away')

Levou (as flores) o João

Took (the flowers) João

Quem é que saiu (ontem)? ('Who left(yesterday)')

Who is it that left (yesterday)

(Ontem,) Saiu a Maria

Yesterday left Maria

Japanese

Dare-kara (denwa-ga kakatte kita no) ('Who called')

Who-from phone-NOM being made came Q

'From whom was the phone made?'

(Sore-wa) Hans-kara (desu)

it -TOP -from is 'It is from Hans'

Dare-ga hana-o motte itta no

who-NOM flower-ACC taking went Q

('Who took the flowers away?')

Okaasan-ga motte itta

Mom -NOM taking went 'Mom took (it) away.

Kinoo dare-ga dete itta no

yesterday who-NOM go out went Q ('Who left yesterday?')

(Sore-wa) Mary (desu)

it -TOP is Mary 'It's Mary.'

Norwegian

Hvem var det som rignte? ('Who called')

'who was it that called?'

Det var Hans.

'it was Hans'

Hvem er det som har tatt blomstene?

('Who took the flowers away?')

'who is it that has taken flowers-the' OR

Hvem har tatt blomstene?

'who has taken flowers-the'

Det er moder'n.

'it is mum'

Moder'n har tatt dem.

'Mum has taken them'

Hvem var det som (dro igaar)? ('Who left yesterday?')

'who was it that left yesterday?'

Det var Marit.

'it was Marit'

Hungarian

Ki telefonált? ('Who called')

Hans telefonált.

'Hans called'

Ki vitte el a virágot? ('Who took the flowers away?')

Who took particle the flower

Anyu vitte el a virágot.

'Anyu took the flowers'

Ki ment el (tegnap)? ('Who left yesterday?')

Who went away yesterday


Mari ment el (tegnap)

'Mari went away'

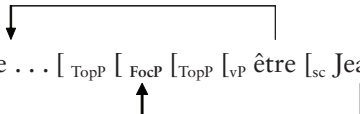
Two main descriptive comments are suggested by looking at the parallel question-answer pairs in II.: (i.) the way the question is formulated does not necessarily influence the kind of answer provided. This is illustrated in an especially interesting way by European Portuguese where the question is formulated through use of a cleft sentence—a very common questioning strategy across languages—but the answer has a postverbal subject and no cleft. Conversely, as in the case of French seen in I., the answer can contain a (reduced) cleft even if the question does not; this pattern is reproduced in Norwegian and Japanese in the list in II. (ii.) the (reduced) cleft answering strategy appears to alternate somewhat with the SV order. This is revealed by the Norwegian examples in the list, but it should be remembered that English-type SV is also adopted by French speakers, to some extent.⁶ Thus, there must be some reason that puts together the (reduced) cleft strategy and the SV strategy (see sections 3.2 and 4 for discussion).

3 THE CARTOGRAPHIC ANALYSIS OF POSTVERBAL SUBJECTS IN THE VS ORDER AND (REDUCED) CLEFTS

As thoroughly discussed in Chapter 6 and Chapter 8, the cartographic analysis of the VS order with a new information focus postverbal subject assumes that the postverbal subject fills the Specifier of a low focus position, reserved to host new information constituents. Thus, a sentence like I.Ab in Italian, an answer to a question like I.Aa, is analyzed along the lines illustrated in (1) b., assuming the vP-periphery in (1) a.:

- (1) a. $[_{CP} \dots [_{TP} \dots [_{TopP} \dots [_{FocP} \text{Foc } [_{TopP} \dots \text{vP}]]]]]$
 b. $[_{CP} \dots [_{TP} \text{pro} \dots \text{è} \dots \text{partito/ha parlato } [_{TopP} [_{FocP} \text{Gianni } [_{TopP} [_{vP} \dots]]]]]]]$
- 

A crucial feature of the analysis in (1) b. is that the postverbal subject moves to the vP-peripheral focus position where it is interpreted, while, much as in traditional analyses of ‘free inversion,’ a silent *pro* fills the preverbal subject position where, we may assume, an active EPP feature needs to be satisfied.⁷ Thus, a postverbal subject in this kind of inversion is only allowed if the language licences a silent *pro* in the preverbal subject position; in other words, if the language is a null-subject language. It is natural to assume that, if the language is not a null-subject language, a different computation must be implemented in order to exploit the new information focus position in the low periphery of the clause. The cleft strategy can precisely be the relevant structure. Let us illustrate the proposal with French. Assume the structure and derivation of the cleft answer in I.Bb along the lines in (2):

- (2) $[_{TP} \text{Ce} \dots [_{TopP} [_{FocP} [_{TopP} [_{vP} \text{être } [_{sc} \text{Jean } [_{CP} \text{qui a parlé}]]]]]]]]]$
- 

In (2) the copula *be* is inserted as a kind of dummy verb. In this function, *be* makes a vP-periphery available in a way compatible with the non-null-subject nature of French as the expletive-like subject ‘ce’ is also inserted in the preverbal subject position.⁸ As in current analyses,⁹ the copula takes a small clause (sc) as its complement. The small clause complement of the copula is a subject predicate structure, where the predicate is a (relative-like) CP that gets deleted in the reduced version of the cleft answer, as illustrated in (2).¹⁰

(1) b. and (2) share a crucial similarity: In both structures the new information focus subject fills the low focus position. This common feature expresses the reason why both structures can constitute two answering strategies to the same question concerning the identification of the subject

of the clause: Both strategies activate the same new information vP peripheral focus position. Note that while formal reasons exclude the possibility in French to directly activate this position in the way it gets activated in Italian, as French does not licence a null subject in the preverbal EPP position, no formal principle seems to exclude use of a (reduced) cleft answer in Italian. As mentioned in note 6 and discussed in some detail in the reference cited there, economy reasons may be at the source of the preference for the VS strategy in a null-subject language like Italian, and in null-subject languages of the same kind in general (Spanish, European Portuguese, the languages cited earlier . . .). Interestingly enough however, a (reduced) cleft, normally disfavored, is possible in Italian and may become the preferred option when either a cleft is contained in the question (3) b. or else with agentive predicates expressing a somewhat negative presupposition (3) d.:

- (3) a. Chi è (stato) che ha rotto il vaso?
Who is it that broke the vase
- b. E' (stato) Gianni
 it is (has been) Gianni
- c. Chi ha urlato?
 Who screamed
- d. E' stato Gianni
 it has been Gianni

I will not address the issue in further detail here. The reader is referred to Belletti (2007) for some discussion of the economy question that may arise, taken up in particular from the perspective of language acquisition.¹¹ The important point to be underscored here is that the subject in the (reduced) cleft should be considered a postverbal subject in disguise. As no formal principle is violated in the use of a cleft, it is to be expected that it be used to some extent also in a language where the VS option is the preferred strategy. The examples in (3) are cases in point from Italian. As is pointed out in the literature on the semantics of clefts, a cleft provides a unique exhaustive identification of the clefted constituent.¹² In those cases where a cleft is used as an answer then, the answer is (implicitly) providing a unique exhaustive identification of the new information constituent; in the cases under discussion such a constituent is the subject of the clause. Thus, if the answer aims at uniquely and exhaustively identifying the subject, it is not surprising that a cleft answer may count as appropriate also in a language where a postverbal subject would normally be the preferred option to express a new information subject. On the other hand, as formal reasons exclude direct use of the VS option in non-null-subject languages, it is to be expected that the only form of 'inversion' in these languages is a disguised one, compatible with the nature of the language: The cleft structure serves precisely this purpose.¹³

3.1 SV Answers

The English-type SV answer is the other strategy adopted by non-null-subject languages that do not licence a *pro* in the preverbal EPP position. I would like to propose that in this case focalization of the preverbal subject is brought about by activation of a DP internal (new information) focus position. A clear sign of DP internal focalization is the special prosody associated with the *in situ* focalization. Indeed, this special prosody is the only sign that the preverbal subject is a new information focus subject and not the characteristic subject of simple declaratives with which the predicate determines an aboutness relation.¹⁴ Note that the new information focus prosody of the preverbal subject is very different from the corrective/contrastive focalization illustrated in sentences like (4), which do not qualify as an appropriate answer of new information:

- (4) JOHN came (not Bill)

As discussed in Chapter 6, this kind of focalization corresponds to left peripheral focalization, where the active focus position is located in the articulated CP left periphery (Rizzi 1997), as in cases of object corrective/contrastive focalization like the one in (5):

- (5) JOHN I met (not Bill)

In the *in situ* focalization strategy, the low vP-periphery is not activated, according to the proposal just sketched out. It is a DP internal focus position that is active in this case. However, much as in Italian-type languages, in English-type languages the cleft French-type strategy can be resorted to in some cases as well, thus indicating that access to the low vP peripheral focus position is generally available across languages. (6) b. is a possible example of cleft answering in English:

- (6) a. Who is it at the door?
b. It's John (at the door)

In conclusion, overtly (VS) or disguised (cleft) postverbal subjects crucially involve the low discourse-related focus position in the vP-periphery of the clause. Preverbal new information subjects activate a DP internal focus position whose overt manifestation is a clear sign of prosodic nature. In section 3.4 the status of preverbal subjects as focus of new information will be devoted further attention and the analysis will be somewhat refined in the frame of the discussion of new information focus objects.

3.2 (Reduced) Clefts Tend to Alternate with SV

Recollecting judgments from native speakers the conclusion can be drawn that the cleft strategy tends to alternate with the SV strategy. Indeed, although there is a characteristic wide use of cleft answers of the type discussed, French speakers do not totally exclude SV answers of the English type:

- (7) a. Qui a parlé?
b. *Jean* a parlé

This fact is not surprising under the assumed analysis that interprets both the (reduced) cleft and the SV strategies as the ways in which new information subject answers are formulated in non-null-subject languages.¹⁵ This point will be readdressed in section 4 in the context of the discussion of data from BP.

3.3 No Comparable Strategies for Answers to Object Questions

A natural question to ask at this point is what the status of nonsubject, i.e., object answers, is across languages. Can different answering strategies also be detected for object questions? Since a crucial aspect of the proposed account capitalizes on the status of the language with respect to the null-subject option, the natural expectation is that no parallel different answering strategies should be expected for nonsubject questions. A first survey confirms this expectation. Indeed, all things being equal, Italian, French, and English, our first sample languages, do not manifest any difference in the context of object questions, when answers are provided with a full clause. Consider the pairs in (8) in this respect:

- (8) Italian
a. Che cosa hai comprato?
What have you bought
b. Ho comprato un libro
I bought a book
French
a. Qu'as-tu acheté /Qu'est-ce-que tu as acheté?
b. J'ai acheté un livre
English
a. What have you bought ?
b. I have bought a book

The natural assumption to make is that in all these cases the object fills the low focus position; as there is no interference with the higher part of the clause, the EPP subject position in particular, it is expected that no difference across the different languages should manifest itself. Thus, it is indeed

in the realm of subject answers that different strategies show up and are to be expected across languages. This has been our assumption throughout the discussion so far.¹⁶

3.4 The Parametrization of the New Information Focus Position and the Uniformity of Subject and Object Answers

Some new information focus subject answers with the order SV are not of the English type. It seems that a parametrization is at work, according to whether the new information focus position active in a given language is the vP peripheral one, as in the VS or cleft examples discussed for Italian and French as main illustrations, or else whether the new information focus position coincides with the left peripheral one, characteristically associated with contrast or correction in various languages, as was illustrated with the English example (5). An immediate expectation is created: if the new information focus position coincides with the left peripheral one, then not only SV answers should be the typical answer to a question on the identification of the subject, but OV answers should also be as typical as the answer to a question on the identification of the object. Two languages like Hungarian and Sicilian may precisely illustrate languages of this type. The pairs in (9) and (10) indicate that in both Hungarian and Sicilian, SV and OV are the typical orders of answers to subject and object questions:¹⁷

- (9) Hungarian
- a. Hans telefonált (SV, answer to: 'who called?')
 - b. Mit vett Mari?
What has Mary bought?
 - c. Mari egy "pulóvert vett (OV)
Mary a sweater bought
- (10) Sicilian
- a. Montalbano sono (SV, answer to: 'who
is on the phone?')
 - b. Chi scrivisti airi?
what did you write yesterday
 - c. N'articulu scrissi (OV)
an article I have written

Note that both Sicilian and Hungarian are SVO languages¹⁸ and both are null-subject languages. The first property excludes that the SV and OV order of the examples be the simple reflex of the head parameter. The latter property allows us to better spell out an important feature of the proposed analysis: The null-subject property is a necessary but not a sufficient condition to allow for answers containing a postverbal subject, displaying the order VS. The implication is a one-way implication. As the Sicilian and Hungarian cases confirm, the implication does not necessarily hold in the

other direction: If the language is a null-subject language, subject answers may contain a postverbal subject and display the order VS, only if the new information focus position active in the language is the low vP peripheral one. If the new information focus position is the high left peripheral one, SV is expected. Crucially, however, OV is then expected as well.

The contrast between (9) c. and (10) c. on the one side, and the English example in (8) b. on the other, is especially significant and revealing. It indirectly but strongly suggests that the SV order is not uniform in nature: It corresponds to what we labeled focalization *in situ* in the English case, but not in all cases in other languages, where left peripheral new information focalization may be involved.¹⁹

4 EXPERIMENTAL DATA: ACQUISITION AND LANGUAGE DESCRIPTION

The very existence of the different answering strategies introduced at the outset can be revealed through different methods of data taking. At least the following two can be mentioned: the standard practice making reference to grammaticality judgments by native speakers and results from experimental controlled elicited production. The latter method may constitute an important integration to the former since, by providing a controlled pragmatics, the obtained results are both totally explicit of what the answer is exactly an answer to, and directly comparable if the same experimental design is applied to different languages. While so far the discussion has been grounded on data from grammaticality judgments obtained on the basis of a questionnaire distributed to native speakers of different languages, some of which have been illustrated in the examples in I. and II., this section is devoted to the presentation of relevant experimental results.

In Belletti and Leonini (2004) an experimental design was created aiming at eliciting the production of postverbal subjects, focus of new information by non-advanced L2 speakers of Italian from various L1s, in particular German and French. The same design has then been extended to test near-native speakers of L2 Italian in the frame of a study on the syntax of subjects in near natives, conducted in Belletti, Bennati, and Sorace (2007). Besides the intrinsic interests of these studies for the acquisition issues they address,²⁰ their relevance in the frame of the present discussion is to be recognized in the fact that they first indirectly revealed the very existence of the different answering strategies discussed here. Specifically, in Belletti and Leonini (2004), the French and German strategy clearly emerged through L2 Italian data, in Belletti, Bennati, and Sorace (2007) the English strategy was confirmed at the near-native level of L2 Italian. The experimental design consisted in showing a number of short videos to the experimental subjects, each ending with a question asking for the identification of the subject who performed some action in the scene; more questions were then

(11)

Table 10.1

<i>L1</i>	<i>VS</i>	<i>SV</i>	<i>Cleft</i>
Italian (control)	98%	1%	—
French	21%	9%	69%
German	27%	68%	—

asked after each single video, some again concerning the identification of the subject plus a number of distractors.²¹ While the groups of control native speakers of Italian systematically answered with a postverbal subject, the English/German and the French groups answered differently: The former groups, even if their L2 Italian was at different levels (near-native versus non-advanced), answered with a preverbal subject realized with the prosody typical of their respective L1 in the vast majority of cases; the latter group overwhelmingly answered with a cleft. The relevant percentages are given in Table 10.1 (adapted from Belletti and Leonini 2004) and Figure 10.1 (from Belletti, Bennati, and Sorace 2007); for detailed discussion, see the references cited.

The interest of these L2 Italian data is that they illustrate in a peculiar and original way the very existence of the different answering strategies. They do so in an indirect way, as the L2 productions reproduce the L1 strategy. They also provide direct evidence on the preferred answering strategy of Italian through the extremely stable behavior of the Italian speakers acting as groups of control in the two experimental sessions (two different groups of Italian speakers in the two cases).

As noted, the same experimental design may also be utilized as a descriptive tool across languages. It suffices that it be realized in different languages.

(12)

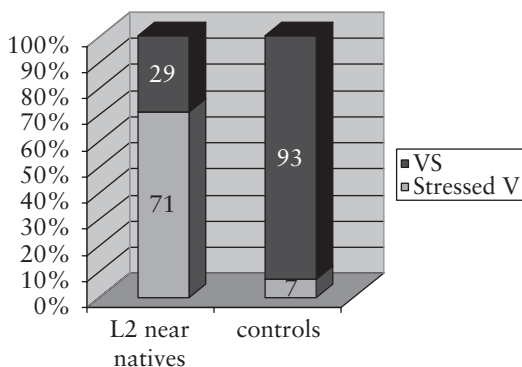


Figure 10.1

The advantage is that, in this way, the answers are provided by the speakers with respect to exactly the same pragmatic situation, thus keeping under reasonable control possible implicit presuppositions. By using the experimental design as a descriptive tool, the answering strategies adopted should emerge in different languages exactly as the Italian answering strategy did emerge in the behavior of the control groups in the L2 experiments just reviewed.

A first realization of the experiment eliciting subjects of new information in the question–answer pairs of the experiment discussed has been produced in BP by Guesser (2007b), who has first doubled the Belletti and Leonini (2004) experiment originally realized in Italian. Guesser (2007b) has administered the BP version of the experiment to a group of twenty native speakers of BP. The emerging picture is quite interesting. It is summarized in Figure 10.2 from Guesser (2007b) below.

Let us comment on (10.2) in some detail. The most interesting feature of the results shown in (10.2) is that the preferred subject answers provided by BP speakers split in two fundamental types: SV and Clefts. The plural on clefts indicates that the cleft answers are of different kinds. The examples in (13) from Guesser's corpus illustrate the various types.

- (13) (Question: Who spoke?)
Types of clefts answering:
- a. Foi um rapaz que falou
it was a boy who spoke
 - b. Foi um rapaz
it was a boy
 - c. Um rapaz que falou
a boy who/that spoke
 - d. Quem falou foi um rapaz
who spoke was a boy

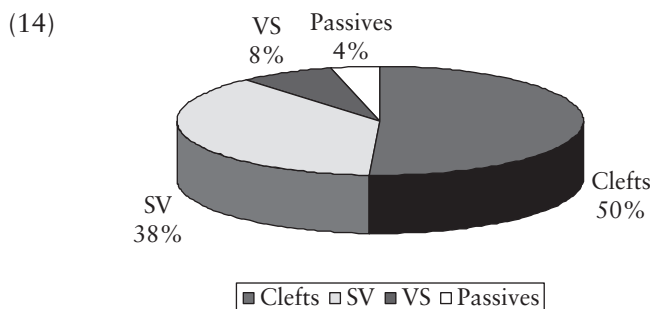


Figure 10.2 (From Guesser (2007))

All of the answers in (13) can be amenable to an analysis that makes explicit one essential feature that they all share: the fact of containing a new information subject in the vP-periphery of the clause. The hypothesis is that they are different types of clefts, with different sorts of reductions; (13) d. is a pseudocleft. The derivations are illustrated in (15). For ease of reference, I give a different name to each type, following Guesser (2007b).

(15) a. Cleft:

[_{TP} *pro(expl)* *Foi* ... [_{Top} [_{Foc} *um rapaz* [_{Top} [_{VP} [_{SC} [_{CP} *que falou*]]]]]]]]

b. Reduced Cleft

[_{TP} *pro(expl)* *Foi* ... [_{Top} [_{Foc} *um rapaz* [_{Top} [_{VP} [_{SC} [_{CP} *que falou*]]]]]]]]

c. Truncated Cleft

[_{TP} *pro(expl)* *Foi* ... [_{Top} [_{Foc} *um rapaz* [_{Top} [_{VP} [_{SC} [_{CP} *que falou*]]]]]]]]

d. Pseudocleft

[_{TP} [_{CP} *quem falou*] *foi* ... [_{Top} [_{Foc} *um rapaz* [_{Top} [_{VP} [_{SC} [_{CP} *que falou*]]]]]]]]

(15) a. is a full cleft analyzed along the lines discussed in (2); (15) b. is a cleft where the CP predicate of the small clause complement of the copula is reduced, as in the typical French answer. According to the analysis outlined in (15) c., in this case as well a reduction of the structure takes place, but of a different kind. Here, the matrix clause structure is reduced. In order to differentiate this case from (15) b., we can label the kind of reduction occurring here as ‘Truncation,’ adopting the same term and analysis proposed for early stages in acquisition where the option of utilizing smaller portions of the clause seems readily available to the child.²² In the context of a question–answer pair, a reduced answer may be somehow favored by the speakers to speed up the exchange and possibly avoid (partial) redundancy. (15) b. illustrates a possible way to implement a reduced answer through a reduced cleft. The proposal in (15) c. is that Truncation may constitute a suitable further form of reduction.²³ As for (15) d., the analysis proposed suggests that this is an instance of a pseudocleft derived through raising of the CP predicate into the subject position of the clause. In the final structural position, which is further away from the position of the subject of predication in the small clause, the relative predicate is realized as a free-relative, thus accounting for the change of the shape of the complementizer into the form ‘quem.’²⁴ The raising of the predicate in (15) d. implements the same kind of derivation discussed in Moro (1997), where the predicate *there* of the small clause complement of the copula is raised in existential *there* constructions

in English. I assume that this kind of derivation is fairly widespread and is characteristically involved in pseudoclefts. In summary, all the structures in (15) share some fundamental features: the same first merge of the different constituents; closely related derivations, possibly involving different kinds of reduction; and, crucially, the new information subject in the very same low focus position in all cases.

The fact that the answers given by the native speakers of BP are split into the two basic types of SV and (kinds of) clefts is coherent with the expectation of the analysis of new information subject answers proposed here. As noted, these two strategies are those typically adopted by non-null-subject languages. Several works on BP (Kato 2000; Duarte 2000) have reached the conclusion that this language has undergone a diachronic change over the last century, whereby the value of the null-subject parameter has shifted. BP used to be a null-subject language much as its ancestor European Portuguese, but it is basically now a non-null-subject language. The only kind of null subject rather freely admitted in BP is a null expletive (references cited, and Figueiredo 1996).²⁵ Indeed, it is precisely a null expletive *pro* that is assumed in the structures in (15) to be the null subject of the cleft sentence whose main verb is the copula. Thus, the structures in (15) are exactly as the one assumed for the French clefts, modulo the possibility of a null expletive in the main subject position in BP but not in French. As discussed, in the latter language the overt expletive (like) *ce* fills the subject position. Interestingly, BP appears to admit postverbal subjects in a way similar to Italian only with unaccusative verbs. The percentage of VS answers in Figure 10.2 refers precisely to examples involving an unaccusative verb. In (almost all) these examples it is also the case that the subject is an indefinite subject. It is natural to assume that these cases are treated as all focus sentences by the speakers, thereby leaving the postverbal subject in the merge position inside the VP. As discussed in Chapter 7, such a VP-internal argument is typically reserved to indefinite noun phrases.²⁶

A last remark on the BP experimental findings is in order. If the interpretation summarized here is on the right track, according to which the only null subject admitted in BP is the null expletive (see also Costa 2004), the natural conclusion must be that in the cases of postverbal new information subjects in Italian analyzed along the lines in (1)b the null *pro* in the preverbal subject position is not an expletive null *pro*, as traditionally assumed, but rather a referential null *pro*. In this way availability of so-called ‘free inversion’ and the positive setting of the null-subject parameter is directly captured in a novel way and the account of the limited instances of postverbal subjects in BP is preserved. This approach is developed in detail in Chapter 8 where presence of a referential null-subject *pro* in inversion structures is obtained by assuming a doubling derivation. When an unaccusative verb is present in Italian, the analysis could thus either involve a doubling derivation as well or assume an all focus interpretation with a null expletive

in the preverbal subject position and the postverbal subject internal to the verb phrase. The latter case should typically involve an indefinite subject as in the BP examples.²⁷

5 ON THE NATURE OF CLEFTS

The rest of this chapter is devoted to making the analysis of clefts assumed here more precise. In particular, the question of what the status of the small clause complement of the copula is will be carefully considered. The question is: How can the small clause/SC complement of previous examples of cleft sentences, repeated in (16) for convenience, be analyzed in more detail?

- (16) [TP . . . [Top [Foc [Top [vP *be* [sc DP [CP]]]]]]]

Based on the analysis of Moro (1997), the small clause complement of the copula *be* has a subject and a predicate, as all small clauses. The predicate of the sc is a (relative-like) CP; the subject of the predication is a DP (see Amritavalli and Jayaseelan 2005 for a related proposal). In all the examples seen so far, the focalized DP corresponds to the subject of the embedded CP. (17) illustrates the structure with further examples from Italian:

- (17) a. E' Maria [— [che ha parlato con Gianni]]
 it is Maria that/who has spoken with Gianni
 b. Sono i ragazzi [— [che hanno parlato con Gianni]]
 (they) are the boys that/who have spoken with Gianni

Notice, however, that a cleft can also involve focalization of an argument corresponding to the direct object or to a prepositional object of the embedded CP, as is illustrated in (18) and (19) with Italian examples:

- (18) E' Gianni [che (Maria) ha incontrato (Maria)—]
 it is Gianni that Maria has met—

In the example in (18) the focalized constituent corresponds to the direct object of the CP predicate.²⁸ In (19) it corresponds to a PP:

- (19) E' con Gianni [che Maria ha parlato—]
 it is with Gianni that Maria has spoken—

This section is devoted to a more refined analysis of the small clause complement and to the sketching out of a proposal. The following subsection 5.1 is concentrated on subject clefts of the kind in (17) first. In 5.2 the

outline of an analysis of nonsubject clefts, as those in (18) and (19), will be proposed (making abstraction from the possible account of the different Case-agreement patterns mentioned in note 28). The analysis will be developed by mainly considering data from Italian.

5.1 Subject Clefts. General Outline of the Analysis

The main question left open is a more precise analysis of the small clause complement of the copula. Let us assume the following statement in a.:

- a. Assume the sc complement of the copula to be a CP.

Given an articulated CP à la Rizzi (1997) and subsequent work, let us further propose that the articulated CP complement of the copula has the special property in b.:

- b. Assume the (articulated) CP to have an EPP feature to be satisfied.

I would like to propose that it is this feature that is responsible for the establishment of the typical *predication* relation obtaining within the small clause complement. Indeed, viewing the proposal in a more general perspective, it can be claimed that any category can have an EPP feature, and that a small clause is precisely a category with an EPP feature, different from a TP. Note that this view is very much in the spirit of Stowell's 'Subjects across categories' original idea for small clauses. It can actually be seen as an update of Stowell's (1983) analysis. The formal approach in terms of presence of an EPP feature allows us to explicitly express the fact that a CP can also be a small clause and that a CP can thus be 'small' in the relevant sense. In the structure of (16), the informal label sc then equals CP.²⁹

A CP with an EPP feature can be considered a defective CP (Chomsky 2001); in this sense it is a CP small clause, or a small CP, as we may call it. This small CP is a kind of hybrid category: at the same time a CP (categorically) and a clause where a predication relation is normally established between the subject and the predicate (as in TPs). Given its defective nature, the EPP subject position of a small CP has a somewhat special status. In particular, assume that it is not (necessarily) a criterial position in Rizzi's (2006b) sense. In general, a subject cannot be moved from the EPP position of full clauses as this position is a criterial position where a criterion, such as the Subject criterion, is satisfied.³⁰ However, defective TP complements allow for movement from their subject position. One instance is movement from the embedded subject position of the infinitival complement of raising verbs. The EPP subject position of the CP small clause can be considered of the same type, given the assumed defective nature of the CP. According to this analysis, the subject of a CP small clause can thus be moved from the

EPP position. The proposal is that one instance of this movement occurs in cleft sentences. Specifically, the subject of the CP small clause complement of the copula in cleft structures raises to the vP-peripheral focus position of the matrix clause containing the copula, yielding the new information focus interpretation discussed.³¹

If a proposal along these lines is on the right track, it essentially assimilates, in important respects, subject cleft sentences like (17) to so-called *pseudorelatives*, complement of perception verbs. Indeed, the analysis is very much in the spirit of Guasti's (1993) analysis of *pseudorelatives*. Guasti (1993) analyzes *pseudorelatives* in Italian, as indicated in (20) for the essential aspects relevant here:

- (20) Ho visto [_{CP} Maria . . . [che [_{pro} parlava con Gianni]]]
I have seen Maria that — was speaking with Gianni

Guasti (1993) argues that a predication relation is established between *Maria* and the relative (like) CP. This is precisely what we have argued for the relation between the subject in the EPP position and the CP predicate in the small CP complement of the copula in cleft sentences. Extending the earlier proposal, thus updating Guasti's original analysis, the establishment of the predication relation can be attributed to the presence of an active EPP feature in the CP (small clause) complement of the class of perception verbs, as in the case of the copula.

The copula seems to require focalization of the small clause subject (Moro 1997). We have seen in detail that in cleft sentences this is implemented in the low periphery of the main clause containing the copula. The perception verb does not seem to impose an analogous requirement. Rather, either the subject of the small clause or the whole CP complement can constitute the focus of new information, as witnessed by the following exchanges:

- (21) Q. Chi hai visto?
Whom have you seen
A. Ho visto Maria che parlava con Gianni
I have seen Maria that was speaking to Gianni
- (22) Q. Che cosa hai visto?
What have you seen
A. Ho visto Maria che parlava con Gianni

In both cases in (21) A and (22) A there is direct perception of *Maria* (Guasti 1993; Rizzi 2000a). However, in (21) A the focus of new information is the small clause subject 'Maria,' which answers the question in (21) Q on the identification of the subject; while in (22) A the focus of new information is the whole CP small clause as the sentence is an answer to question

(22) Q on the perception of the whole event. Following Guasti's discussion, this is very different from what happens in the epistemic reading of the same verb *vedere*, which takes a full CP as a complement. Consider the contrast in the following exchange in (23) and the ungrammaticality of (24) A as an answer to (24) Q; this makes the difference explicit and in minimal contrast with (21) and (22):

- (23) Q. Che cosa hai visto?
What have you seen
A. Ho visto che Maria parlava con Gianni
I have seen that Maria was speaking with Gianni
- (24) Q. Chi hai visto?
Whom have you seen
A. *Ho visto che Maria parlava con Gianni

The perception verb *vedere* in the epistemic reading takes a full CP as its complement. Hence, in (23) A the full CP is the focus of new information that answers the question in (23) Q on the identification of the whole event. As the epistemic reading does not imply direct perception of the subject of the clausal complement, (24) A cannot be a felicitous answer to question (24) Q, which precisely asks about the identification of the subject.

In conclusion, the small clause complement of the copula in subject cleft sentences can be analyzed as a CP small clause containing an active EPP feature. The rest of the CP introduced by the complementizer *che* functions as the predicate of the small clause. The whole CP is thus an articulated CP; it is not a small constituent in terms of its overall size. In general, then, the term 'small clause' is just a metaphoric shortcut that stands for any constituent, of variable size, with an active EPP feature.

5.1.1 *An Aside on French*

As discussed, a (reduced) cleft can be, and fairly typically is, the answer to a question on the identification of the subject in French:

- (25) Q. Qui a parlé?
Who has spoken
A. C'est Jean (qui a parlé)
It is Jean (who has spoken)

Suppose now that the subject of the small clause is itself modified by a relative clause. A reduced cleft answer would then take the shape of a sentence like (26) A, the answer to (26) Q in the following exchange. The exchange

is presented in Rialland, Doetjes, and Rebuschi (2002), who discuss it in similar terms:

- (26) Q. Qu'est-ce qui se passe?
What happens
A. C'est le petit qui est tombé dans l'escalier (qui se passe)
It is the kid who has fallen on the stairs (that happens)

The analysis suggested assumes that the relative clause present in (26) A is not the predicate of the CP small clause, which is reduced/deleted much as in (25) A. Rather, the relative clause of (26) A modifies and predicates a property of the subject of a reduced CP small clause.³²

5.2 On Nonsubject Clefts. Analysis and Open Questions

The similarity between clefts and *pseudorelatives* seems to end when the possibility of nonsubject clefts as in (18) and (19) is compared with the ungrammaticality of (27) and (28):

- (27) *Ho visto Maria che Gianni abbracciava
I have seen Maria that Gianni kissed
(vs: E' Maria che Gianni abbracciava = (18))
It is Maria that Gianni kissed
- (28) *Ho visto con Gianni che Maria parlava
I have seen with Gianni that Maria spoke
(vs: E' con Gianni che Maria parlava = (19))
It is with Gianni that Maria spoke

Let us outline the following lines towards an explanation of the contrast here, which may turn out to be ultimately only apparent. Suppose that the active EPP feature of the assumed defective CP complement of both the copula (for clefts) and the perception verb can only be satisfied by the subject of the (relative-like) predicate, corresponding to the rest of the CP small clause introduced by the complementizer. In terms of the A/A' distinction, this amounts to claiming that the EPP position in the CP small clause complement is an A-type position. Indeed, this assumption is once again very much in the spirit of Guasti's (1993) original analysis where the position of the DP head of the *pseudorelative* complement of the perception verb is treated as a SpecAgr position within the CP, as such an A position. If this assumption is made, the ungrammaticality of (27) and (28) is expected and the sentences may be directly ruled out as an RM violation induced by the intervention of the embedded subject on the path of the direct object or PP complement to the higher EPP position in the CP.

Since we have assimilated in essential respects the CP small clause complement of the copula to the CP small complement of perception verbs, the obvious question arises as to how the contrast between the ungrammaticality of (27) and (28) and the perfect status of (18) and (19) can be accounted for, which is precisely the starting point of the discussion of this section. Suppose that the contrast is in fact only apparent. More specifically, suppose that the possibility of (18) and (19) is only apparently in conflict with the ungrammaticality of (27) and (28), as (18) and (19) may be taken to involve a different kind of focalization than the one assumed so far for clefts: In the case of (18) and (19) it is not focalization in the low vP-periphery of the copula. Assume that it is instead left peripheral contrastive/corrective focalization within a full CP complement of the copula. Thus, no RM occurs in this case, as the object or the PP do not move to an A-type position of the CP complement, across the intervening subject. They move to the focus position in the left periphery, an A' position. The crucial steps in this proposal are: (i.) the idea that the copula may also take a full CP as a complement, not just the defective CP small clause containing the EPP feature assumed so far; (ii.) the idea that left peripheral focalization is allowed in the embedded CP complement of the copula. While the first possibility is not peculiar to the copula, as, e.g., a perception verb may also take either a CP small clause or a full CP complement in its *epistemic* reading—see the examples in (23) and (24)—the latter property is indeed a peculiarity of the copula. In general, left peripheral focalization is not felicitous in an embedded CP complement. The examples in (29) illustrate this impossibility with respect to a declarative CP and the full CP complement of a perception verb taken in its epistemic reading:

- (29) a. *Ho detto GIANNI che Maria ha salutato
 I have said Gianni that Maria has greeted
 b. *Ho visto GIANNI che Maria ha salutato
 I have seen Gianni that Maria has greeted

The ungrammaticality of the examples in (29) is directly accounted for assuming Rizzi's (1997) left peripheral map, whereby a complementizer like Italian *che* expresses the (declarative) Force of the clause and, as such, realizes the highest head position of the articulated CP. Hence, the left peripheral (contrastive/corrective) focus is hierarchically lower than the complementizer and it cannot linearly precede it. Assume now that the CP complement of the copula, also in cases where it is not a defective small clause with an EPP feature, is nevertheless more reduced—truncated in the sense referred to in section 4—than a declarative full CP. In particular, assume that the complementizer *che* does not express the (declarative) Force of the CP complement. As such, it should sit in a lower head of the articulated CP. If this complementizer head is lower than the left peripheral

focus position, a left peripheral (contrastive/corrective) focus should precede it. I would like to propose that (18) and (19) are precisely examples of this kind.³³ It may be argued that a semantic correlate of this analysis is that the CP complement of the copula, be it defective or not in the technical sense suggested, does not express an independent (declarative) Force. This could in turn be related to the nature of the copula as a dummy verb (many languages do not have a copula, as is well known); the declarative force is thus expressed by the whole sentence containing the copula, not just by its complement. This speculation is left at this stage here, just adding that it may lead to the conclusion that there is no real semantic difference between sentences like (18) and (19), repeated in (30) a. and b. and (30) c. and d., where the crucial distinction between the two pairs is that the latter instantiates left peripheral (contrastive/corrective) focalization in a root clause with no overt copula:

- (30) a. E' MARIA che Gianni abbracciava
It is Maria that Gianni kissed
- b. E' con GIANNI che Maria parlava
It is with Gianni that Maria spoke
- c. MARIA Gianni abbracciava
Maria Gianni kissed
- d. Con GIANNI Maria parlava³⁴
with Gianni Maria spoke

5.2.1 *Focalization in Nonsubject Clefts* *Is Not New Information Focalization*

One crucial feature of the analysis developed in section 5.2 is that, contrary to subject clefts, the focalization expressed by nonsubject clefts does not involve the new information low focus position in the vP-periphery of the copula, but rather the left peripheral focus position in the (full, but reduced/truncated) CP complement of the copula. Left peripheral focalization is typically linked to a contrastive/corrective interpretation, as noted in sections 3.1 and 5.2. An immediate prediction of this analysis is that a nonsubject cleft should be impossible as an answer to a question of information even in a language where (possibly reduced) clefts are typically used in these contexts. One relevant language to look at in this respect is French. Coherently with our expectation, a sharp contrast emerges in French in the domain of answering strategies in this connection. While, as discussed earlier, a (reduced) subject cleft is a characteristic answer for questions on the identification of the subject in French, a (reduced or not) nonsubject cleft is not a possible answer for questions on the identification of nonsubject constituents. This is indeed important evidence in favor of the distinction between the focalization involved in subject clefts versus nonsubject clefts.

The perfect status of the question–answer pair in (25) and the impossibility of the French pairs in (31) clearly illustrate the sharp distinction³⁵:

(31) Q. Qu'est-ce-que t'as acheté?

What have you bought

A. *C'est un livre

It is a book

(Belletti (2007))

Q. Avec qui es-tu sorti?

With whom did you get out

A. *C'est avec Jean

It is with Jean

If in nonsubject clefts the focalized constituent fills the focus position in the left periphery of the (full, but reduced/truncated) CP complement of the copula and not the new information focus position in the vP-periphery of the copula, the impossibility of the answers in (31) A is directly accounted for.

5.3 Clefts as Contrastive/Corrective Focalization

As often noted in the literature (Kiss 1998), the relation between clefting and contrastive/corrective focalization can be very tight. This is clear in a language like Italian where clefts are most typically, almost exclusively, used contrastively. This holds for both subject and nonsubject clefts, since new information subject answers typically involve a straight postverbal subject and not a (reduced) cleft in Italian, differently from French, as discussed.³⁶ Consider the cleft sentences in (32) as an illustration:

(32) a. E' MARIA che ha parlato con Gianni (non Francesca)

It is Maria that has spoken with Gianni (not Francesca)

b. E' MARIA che Gianni abbracciava (non Francesca)

It is Maria that Gianni kissed (not Francesca)

c. E' CON GIANNI che Maria ha parlato (non con Piero)

It is with Gianni that Maria has spoken (not with Peter)

(32) a. is a subject cleft, where the subject is contrastively/correctively focalized. It is linearly identical to the (reduced) French cleft in (25). However, while the latter has the subject in the vP-periphery of the copula, according to the proposed analysis, (32) a. has it in the left periphery of the (full, but reduced/truncated) CP complement of the copula. (33) schematically illustrates the analysis:³⁷

(33) E' [_{CP} [_{Foc} MARIA] . . . [che [*pro* ha parlato – con Gianni]]]

(34) a. and b. schematically illustrate the derivation of (32) b. and c., which follows the same pattern:

- (34) a. E' [_{CP} [_{Foc} MARIA] ... [che [*Gianni* abbracciava —]]]
- b. E' [_{CP} [_{Foc} con GIANNI] ... [che [*Maria* ha parlato —]]]

5.4 Conclusion of Section 5 and General Concluding Remarks

In conclusion, the proposal developed in section 5 assumes that contrastive/corrective clefts crucially involve the left peripheral focus position of the (full, but reduced/truncated) CP complement of the copula, while new information clefts involve the low new information focus position in the vP-periphery of the copula. While the former kind of clefts is typically found across languages and may affect all kinds of arguments, subjects, and non-subjects, the latter kind is more constrained, as it only affects subjects. Locality reasons are at the source of its more constrained nature as only subjects may fill the EPP position of the CP small clause complement of the copula, in analogy with what happens in *pseudorelatives*.

The different CPs assumed, small, full, full but reduced/truncated, are summarized in the schemas in (35) with their related derivations:

- (35) a.
- b. Full CP complement
-
- c. Full CP = CP without an EPP feature (as in b) but reduced/truncated
-
- Movement of S ok in all cases.

As to the nature of the complementizer 'che' in the small CP and in the full but reduced/truncated CP, it can be proposed that it is exactly the same

element filling a C position lower than Force in both cases. In more general terms, it can be assumed that a complementizer always originates in a low position in the CP map (possibly the lowest, Fin) and then it gets its (declarative) Force by moving into the high Force head.³⁸ Note that, under the copy-theory of traces, this has the immediate advantage that those cases in some languages where more than one C position can be overtly realized (note 33) in a complement clause, may be naturally interpretable as instances where more than one copy is pronounced of the same complementizer in its movement into the Force head.³⁹

The main conclusions and proposals of this chapter can be summarized in the following terms. New information constituents fill the low focus position in languages where the new information focus head is solely located in the vP-periphery of the clause. Subject clefts may crucially activate this position, as French and BP clearly show, and several other languages as well, some of which have been mentioned and illustrated here. However, the typology of answering strategies for the identification of the subject of the clause have indicated that new information subject clefts constitute a strategy to which non-null-subject languages appear to resort more readily than null-subject languages. In the latter languages, use of a new information postverbal subject qualifies as a typically preferred option in seemingly equivalent contexts. Subject clefts and nonsubject clefts implement different derivations, exploiting the focus position in the low vP-periphery of the copula or the left peripheral focus respectively and are characterized in part by the different CP complement that the copula can take, as schematically summarized in (35). The analyses developed in this chapter have assumed a use of the term ‘strategy’ that refers to formal options that are both grammatically and pragmatically constrained.

APPENDIX: A RELATED STRUCTURE.

Cleft structures may manifest themselves in various different shapes, a number of which have been discussed in this chapter. The typology of different kinds of clefts, however, is not exhausted by the kinds that have been presented here. The examples in (1) illustrate a related structure.

- (1) a. Il bello è [[che Maria non ha capito]—]
The funny thing is that Maria has not understood
- b. E’ [[che Maria non ha capito]—]
It is that Maria has not understood

It can be proposed that sentences like those in (1) should be analyzed as inverse copular sentences à la Moro (1997), where a DP/AP small clause

complement of the copula has a (CP) clause as its subject of predication. It is then the predicate DP/AP that is either raised to the subject position (a.), or possibly remains silent in the form of an expletive-like pronominal *pro* (b.), if the language is a null-subject language. If the language is not a null-subject language, an overt pronominal expletive appears, as indicated by the English glosses.

11 Pronouns and the Edge of the Clause

1 INTRODUCTION

The ultimate aim of the following pages is to explore the hypothesis that sentences containing a pronoun can be analyzed as involving a topic-pronoun doubling relation in a way that closely parallels the one overtly realized in CLLD and HT structures in Italian/Romance.¹ In a nutshell: when a pronoun is present in the clause, a silent doubled non-overt topic, a pronoun as well, can be assumed to be present at the *edge* of the clause. Hence, presence of a pronoun implies presence of a silent pronominal topic. Some principles of non-pronounceability of the *edge* of the clause along the lines proposed in Kayne (2005a) and Rizzi (2005, 2006a), account for lack of the overt realization of the topic. In this respect, the hypothesis shares significant similarities with the analysis proposed in Rizzi (2005, 2006a) for German cases of topic-drop of the kind illustrated in (1) (Ross 1982; Cardinaletti 1990), and is very much in the spirit of Huang's (1984) analysis of Chinese zero objects:

- (1) a. (Ich) habe es gestern gekauft
(I) have it yesterday bought
b. (Das) habe ich—gestern gekauft
(That) have I yesterday bought

The proposal developed here ultimately aims at making explicit one possible mechanism through which a pronoun looks for its antecedent: Reaching the CP *edge* from where, as a kind of probe, it looks for the appropriate available referential DP to which it can connect. It may be argued that one possible general impact of this proposal is that if a mechanism of this sort is indeed at work, one of the essential requirements of classical principle B of the binding theory may follow as a direct consequence.² The antecedent of a pronoun is necessarily external to the CP containing the pronoun, as a pronoun, doubled, in the core cases discussed here, necessarily looks outside the CP *edge*.³

The proposal originates by a close consideration of two well-known structures in Italian/Romance, CLLD and HT, which share some crucial similarities, but also display important differences (Cinque 1977, 1990b; Benincà 1988; Benincà and Poletto 2004; Alexiadou 2006). Examples of the two structures are given in (2) in Italian, for both direct and prepositional objects:

- (2) a. *Maria, la conosco da tempo*
Maria, I know her-cl for a long time
- b. *A Gianni, non (gli) ho ancora parlato*
 to Gianni, I (to him-cl) have not spoken yet
- (3) a. (Quanto a) *Maria, la conosco da tempo*
 (As for) Maria, I know her(cl) for a long time
- b. (Quanto a) *Gianni, non gli ho ancora parlato*
 (As for) Gianni, I to hom-cl have not spoken yet

The crucial similarity between CLLD and HT in (2) and (3) is that in both structures a topic is introduced and resumed by a clitic pronoun in the sentence following it, which predicates some of its properties.⁴ The crucial difference between the two structures is that while in the case of CLLD both direct and prepositional objects are admitted as dislocated topics, in HT only DPs can function as topics. Thus, while CLLD and HT may be hard to distinguish when the topic is a direct object, (2) a. and (3) a. are word-by-word identical, they are clearly distinguished when the topic corresponds to a prepositional object: In CLLD it is a PP, (optionally) resumed by the corresponding indirect clitic, as in (2) b.; in HT it is a DP, also resumed by the indirect clitic, as in (3) b. In order to make the comparison between the two structures explicit, topics corresponding to indirect objects will then be preferably considered. In general descriptive terms, the topic of CLLD structures is felt as more strictly connected to the following clause, while the hanging topic of HT structures has a somewhat more independent status.

In what follows, an explicit illustration of the main analytical assumptions will first be provided concerning the two structures and the computations that they involve (section 2). Then, an implementation of the proposal and of its empirical basis is sketched out (sections 3 and 4), followed by the presentation of some of its possible further empirical consequences (section 5).

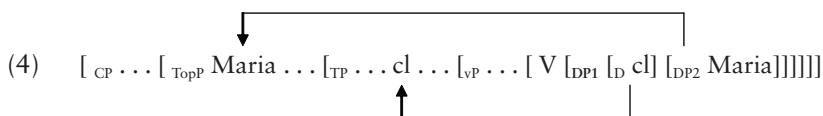
2 THE BACKGROUND ANALYSIS OF CLLD AND HT

2.1 CLLD

The point of departure is the analysis of CLLD in terms of a doubling derivation along the lines developed in Cecchetto (2000) and Belletti (2005a,

Chapter 8 of this volume). According to this analysis, an original single DP, sometimes referred to as ‘big DP,’ contains both the dislocated phrase and the pronoun. The dislocated phrase ends up into a topic position in the CP left periphery (Rizzi 1997; according to Cecchetto 2000, the big DP passes through a clause-internal vP peripheral topic position; assumed in Belletti 2004a, Chapter 6 of this volume). On the way into the topic position, the clitic pronoun remains stranded within the clause and then moves to the clause-internal position designated for clitics.

The main steps of the assumed derivation are schematized in (4) (details omitted; see Chapter 8 for related discussion):



For ease of reference, DP1 is the label for the big DP, containing both the clitic and the iterated DP projection, labeled DP2; the latter contains the constituent that reaches the left peripheral topic position.

The movement derivation of CLLD, assumed in (4), captures the movement properties of CLLD known from the literature since Cinque (1977). In particular, locality/island sensitivity, (5), and presence of reconstruction effects, (6):

—Locality/island sensitivity:

- (5) a. Gianni, temo [che lo arrestino]
 Gianni, I am afraid they will arrest him-cl
 b. ??Gianni, temo [la possibilità [che lo arrestino—]]
 Gianni, I am afraid of the possibility that they will arrest
 him-cl
- (6) a. A Gianni, sono sicura [che gli parleranno]
 to Gianni, I am sure that they will talk to-him-cl
 b. ?*A Gianni, sono sicura [del fatto [che gli parleranno—]]
 to Gianni, I am sure of the fact that they will talk to-him-cl

The better status of (5) b. as opposed to (6) b. can be a consequence of the fact that, as mentioned earlier, left dislocation of a direct DP object can be (re)interpreted as a case of HT, and, as such, it is (apparently) not sensitive to (strong) islands. The discussion of this point is taken up in section 2.2.

—Reconstruction:

- (7) L'opera prima di [uno scrittore]_i, pro_i la scrive sempre volentieri
 {L'opera prima di [uno scrittore]} (Cecchetto (2000))
 The first work of a writer, pro(he) writes it with pleasure

- (8) a. I suoi_i studenti, ogni_i professore li_i promuoverebbe [~~i suoi~~
studenti]
His students, every professor them-cl would pass
b. Al suo_i studente, ogni_i professore sarà autorizzato a parlargli_i
[al suo studente]
To his student, every professor will be authorized to him-cl
to talk

In (7) and (8) the copy + deletion analysis of reconstruction (Chomsky 1993, 1995) is assumed, indicating the relevant interpretation.

It is worth noting that another instance of the derivation in (4) can be found in the case of resumptive restrictive relative clauses. Assuming a raising derivation of relative clauses (Kayne 1994; Bianchi 1999), a gap is normally present in the Merge position of the relative head in a language like standard Italian, see example (9). A resumptive (clitic) pronoun, however, is admitted within the relative clause at a substandard level (10), a possibility standardly admitted in many languages and Italian dialects (Bianchi 2004; Boeckx 2003; Shlonsky 1992):

- (9) a. ... [Il[ragazzo] [che [tutti conoscono—]]] ...
The boy whom all of them know— ...
b. ... [Il[ragazzo] [che [tutti conoscono [~~il ragazzo~~]]]] ...
(10) (*?) Il ragazzo che tutti lo conoscono ...
The boy that all of them know him-cl

A resumptive relative is also available as a saving strategy, e.g., in strong island contexts (so-called ‘intrusive resumptive pronoun’; Bianchi 2002), as revealed by the contrast between the complete ungrammaticality of (11) and the better status of (12):

- (11) a. *L’uomo che temo [la possibilità [che arresteranno—]]
The man whom I am afraid of the possibility that they will arrest—
b. *L’uomo a cui sono sicura [del fatto [che parleranno—]]
The man to whom I am sure of the fact that they will talk—
(12) a. ?L’uomo che temo [la possibilità [che lo arresteranno—]]
The man whom I am afraid of the possibility that they him-cl will arrest
b. ?L’uomo che sono sicura [del fatto [che gli parleranno—]]
The man that I am sure of the fact that they to-him-cl will talk

The resumptive relatives in (10) and (12) can be amenable to a derivation closely parallel to the doubling derivation of CLLD, modulo the different landing site of the relative head in the CP left periphery, distinct from the topic position of the left dislocated element.⁵

2.2 HT

Despite their similarity, CLLD and HT are to be distinguished in various respects. As pointed out earlier: Most importantly, in HT only a DP is possible in the left peripheral position (cf. the discussion in Benincà 1988 and Benincà and Poletto 2004). In (3) b. and (13), the HT corresponds to an indirect object of the following clause:

- (13) (Quanto a) Gianni, non gli ho ancora parlato di questo
 problema
 (As for Gianni), I to-him-cl have not yet spoken of this problem

The traditional interpretation of this property is that HT, contrary to CLLD, does not involve movement and the HT is directly merged as a DP in the left peripheral position; some interpretive rule assures that the HT and the (clitic) pronoun present in the clause be related.

A partly revised interpretation of this traditional account can be proposed along the following lines, which try to make the close relation and similarity between CLLD and HT explicit. Suppose that in HT, the hanging topic DP is directly merged in the left periphery as currently assumed, and that a doubling derivation takes place inside the following clause, as in CLLD. Assume that the moved doubled element is an unpronounced (pronominal, section 3) constituent; some interpretive condition assures that it be interpreted as being identical to the HT. The derivation in (14) illustrates this kind of analysis, where DP2 is the moved part of the big DP, exactly as in (4). As a first approximation HT can be said to essentially include CLLD:

- (14) (Quanto a) Gianni, [_{CP} [... DP2 ... [_{TP} ... cl [_{VP} ... [V P [_{DP1} [D cl] [_{DP} DP2]]]]]]]
-

The peculiarity of HT is that of requiring the discourse identification of the unpronounced element, DP2 in (14), with the HT itself. In this proposal the relation between the HT and the clitic in the following clause is thus mediated by the silent DP2. An explicit detailed proposal on the position filled by HT in (14) is delayed until the following section (specifically section 3.1), as is the characterization of the moved unpronounced DP2, itself pronominal in nature.

Before developing these aspects, let us first look at the way in which the proposed analysis interprets the well-known lack of locality/island sensitivity of HT illustrated in (15), which distinguishes it from CLLD, while maintaining that CLLD is contained in HT. Consider first locality/island insensitivity of HT.

- (15) a. (Quanto a) Gianni, temo la possibilità che lo arrestino
(As for) Gianni, I am afraid of the possibility that they him-cl will arrest
b. (Quanto a) Gianni, sono certo del fatto che gli parleranno
(As for) Gianni, I am sure of the fact that they to-him-cl will talk

Lack of locality/island sensitivity of HT can be a consequence of the fact that the movement part of the derivation takes place within the island with no extraction from the island. On the other hand, the discourse relation that assures the identification of HT and DP2 is not sensitive to the (same) locality restrictions that, following a traditional distinction, crucially concern steps of a movement computation. (16) schematically summarizes the proposal:

- (16) a. (Quanto a) Gianni ... [la possibilità [che DP2 ... arrestino [lo DP2]]]
b. (Quanto a) Gianni ... [... il fatto [che DP2 ... parleranno [gli DP2]]]
-

As far as reconstruction is concerned, it is generally assumed that it is not available as no movement is assumed in HT, contrary to CLLD. Since the analysis in (16) assumes movement, as it includes CLLD within HT, the question may arise whether reconstruction might actually be possible in HT as well. Although the data are not clear-cut, for some speakers the following instances of quantifier binding under reconstruction are marginally acceptable in HT:

- (17) a. ?(?) (Quanto a) I suoi_i studenti, ogni_i professore li_i
promuoverebbe
(As for) His students, every professor would them-cl pass
b. ?(?) Quanto al suo_i studente, ogni_i professore sarà
autorizzato a parlargli_i
(As for) His student, every professor will be authorized
to-him-cl to talk

However, since the HT itself has never been actually moved from the clause-internal position under the assumed analysis, the unavailability of reconstruction, or its uncertain availability anyway, is not unexpected.⁶ The issue of HT and reconstruction may thus be left at this fairly uncertain stage, which reflects the empirical findings.

3 THE SILENT PRONOUN AT THE EDGE

Let us first consider the case of HT in non-embedded contexts, for many speakers the only available instance of the phenomenon.⁷ A detectable contrast emerges in (18):

- (18) a. Gianni, Maria *ne* parla sempre
 Gianni, Maria of-him-cl always talks
 b. ?* Lui, Maria *ne* parla sempre
 him, Maria of-him-cl always talks

(18) a. sounds much more natural than (18) b., for which speakers manifest varying degrees of uneasiness.⁸ The only difference between the two is that the HT is a lexical noun phrase in the former and a pronoun in the latter. Thus, a pronoun does not sound like a felicitous HT. The marginality of (18) b. can be made even clearer if the sentence is minimally contrasted with the perfect status of (19), a CLLD structure where the pronoun is contained in a prepositional phrase:

- (19) Di lui, Maria *ne* parla sempre
 of him, Maria of-him-cl always talks

The contrast between (18) b. and (19) unambiguously emerges since the pronominal topic corresponds to a prepositional complement in both cases, as revealed by the presence of the indirect clitic *ne*, but only in the CLLD case is it realized as a prepositional phrase. Recall that HT and CLLD are best distinguished precisely in this condition. Thus, a pronoun can be a felicitous left dislocated topic, but not a felicitous hanging topic. In consequence, the perfect status of (20) a. following, where the pronominal topic corresponds to the direct object of the following sentence, suggests that this case should be interpreted as an instance of CLLD; notice that no similar contrast to the one manifested in (18) arises in (20), where either a pronoun or a lexical noun phrase can be the left dislocated peripheral topic:

- (20) a. Lui, Maria lo conosce da tempo
 him, Maria him-cl knows for a while
 b. Gianni, Maria lo conosce da tempo
 Gianni, Maria him-cl knows for a while

The following question must then be asked: Why should a pronoun be an infelicitous HT? The question can be answered by making the following core proposal, which will be phrased in terms of phase theory (Chomsky 1995, 2005). Suppose that the impossibility of a hanging topic pronoun is due to the fact that the pronoun in HT necessarily fills the *edge* of the CP containing it. Suppose further that in the transfer of the relevant CP phase to spell out, a principle of pronunciation operates to the effect that the *edge* of the phase is not seen by the system. The operation of a principle of this kind has been independently proposed by Kayne (2005a) and Rizzi (2005, 2006a), in the way indicated by the following quotes in (21) and (22):

- (21) ‘... Spell out systematically and automatically “fails to see” phrases in the Spec of a phase ...’ (Kayne (2005a)) (i.e. the highest Spec = the *edge*)
- (22) ‘As soon as you hit a phase head (CP, vP), send its complement to spell out; ... The Spell out principle also has the consequence that the *edge* of the root phase is not sent to Spell out at all’ (Rizzi 2006a).

Rizzi’s principle refers to the root phase in privilege; Kayne’s principle does not exclude its application in embedded contexts as well. Rizzi’s principle is sufficient to account for the contrasts shown earlier that all concern root contexts. The case of embedded clauses will be taken up in section 4, for which the more general principle formulated by Kayne may be at stake. Thus, (18) b. is ruled out because the relevant spell out principle is not satisfied. If this is the reason of the impossibility of (18) b., then it must be the case that the same principle of pronunciation is satisfied both in (18) a., where a lexical noun phrase is present, and in (19), where a pronoun is a left dislocated topic. If, by assumption, the pronoun in HT is at the *edge* of the CP containing it, as the pronunciation principle solely concerns this position, then it must be case that the lexical noun phrase in (18)a and the left dislocated pronoun in (19) and (20) do not fill the *edge* position of the CP, but a lower position in the articulated CP (Rizzi 1997 and subsequent work). Let us look at the two cases in turn, in points a. and b.

a. The Lexical HT

If the account just sketched out suggests a possible straightforward explanation of the contrast in (18), the main question that arises is: Why should a lexical HT fill a position lower than the *edge* position in the CP? The answer to this question can be provided by the following core idea: This is so because a pronoun has to satisfy a further requirement that a lexical noun phrase does not have to; only a pronoun must reach the *edge* of the CP phase containing it as it is from this *edge* position that it looks for an

antecedent. Thus, the HT position may very well be high in the CP, but it is not the highest position at the *edge*; only a pronoun is forced to ultimately fill this position for the interpretive reason just mentioned. As noted, the interpretive requirement that a pronoun has to meet necessarily interacts in a crucial way with the pronunciation principle(s) in (21) and (22): The pronoun at the *edge* must remain silent. It cannot be pronounced in compliance with the principle(s) of pronunciation.

b. The Left Dislocated Pronoun in CLLD

Along similar lines to those seen in a., it can be proposed that the topic position of left dislocated elements in the CP is lower than the CP *edge*, an assumption perfectly in line with current analyses of the CP map.⁹ Hence, as far as the pronunciation principle(s) is concerned, a left dislocated phrase is pronounced. If the left dislocated phrase is a pronoun, it should be no exception. However, this type of account immediately opens up the following obvious question: Why is it that a pronoun is allowed not to reach the *edge* of the CP phase in CLLD? It is reasonable to propose that this is only apparently so. In fact, it can be assumed that CLLD structures, such as those in (19) and (20) a., besides the overt left dislocated pronoun also contain a further silent pronoun at the *edge*, which fulfills the interpretive requirement of personal pronouns. This latter pronoun is left unpronounced, following the principle(s) of pronunciation. The further assumed silent pronoun should originate within the same big DP where the left dislocated pronoun and the clitic in the following clause also originate, under the reasonable assumption that iteration of pronominal D positions within the big DP is an available option.¹⁰

Let us now look in more detail at the status of a CP containing an HT. In order to do so, let us consider a sentence like (23), where HT and CLLD are combined:

- (23) Gianni, di lui, Maria ne parla sempre
Gianni, of him, Maria of-him-cl always talks

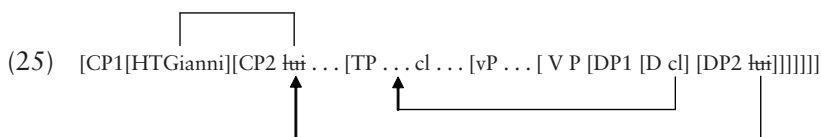
(23) combines an HT structure like (18) a. and a CLLD structure like (19). We have proposed in section 2.2 that in HT the topic phrase is directly merged in the peripheral position where it is pronounced; a CLLD structure follows it, containing a silent left dislocated phrase, DP2 of derivation (14)/(16). We have hinted on a few occasions at the pronominal nature of the silent DP. We can now claim that indeed the silent DP is a pronoun at the *edge* of the CP phase that contains the overt pronominal prepositional phrase in the left dislocated position. The silent pronoun will be a DP3 of the iterated original pronominal big DP. A reason is now provided as to why the pronominal DP is silent; the reason is the pronunciation principle(s) in (21) and (22). Similarly, a simpler sentence like (18) a., repeated as (24)

for convenience, will have a silent pronoun at the *edge*, the only difference between (23) and (18) a./ (24) is that, in the latter, no overt left dislocated pronoun is present; the original big DP is less iterated in (24) than in (23).

- (24) Gianni, Maria ne parla sempre
Gianni, Maria of-him-cl always talks

3.1 The HT CP

We now have to make explicit where exactly in the CP the overt lexical HT is located. If the assumption that the silent pronoun connected to the lexical HT fills the CP *edge* of the CP following the HT is correct, then the lexical HT must be located in an independent CP phase. Let us assume that this is indeed the case. In more general terms, let us propose that an HT constitutes a phase on its own that solely contains the HT itself; as such, a defective CP phase. The HT position¹¹ is dominated, and as such in a sense protected, by an unpronounced projection, in whose *edge* Spec an HT pronoun is forced to move for the interpretive requirement of pronouns discussed in b. of the preceding section 3. The defective CP/HT phase is followed by the full non-defective CP containing the CLLD derivation with the discussed silent pronoun reaching its *edge*. The derivation of (18) a./ (24) and the assumed interpretative relation between the HT and the silent pronoun is schematically represented in (25):



For ease of reference, in (25) the CP/HT defective phase is labeled CP1 and the full CP independent phase is labeled CP2. (23) should be analyzed exactly as (18) a./ (24), modulo presence of the overt pronoun in the left dislocation, non-*edge* position in the full CP2. The difference between (23) and (19) should be, in turn, uniquely identified by the lack of an explicit lexical HT in the latter. In this case, the silent pronoun looks for and finds its antecedent in the discourse context.

3.2 HT and Full Interpretation

If the proposal that a silent pronoun is present at the *edge* of the independent CP following a lexical HT is assumed, contrasts like the one in (26) may find a suitable explanation.

- (26) a. Quella ragazza_i . . . , Maria_j dice che tutti la_{i/j} conoscono
that girl . . . , Maria claims that everybody knows her

- b. Maria_j dice che tutti la_{j/k} conoscono
 Maria claims that everybody knows her

In (26) a., differently from (26) b., the antecedent of the pronoun present in the embedded clause cannot be the subject of the main clause ‘Maria,’ but must be the lexical HT ‘Quella ragazza’ and no ambiguity arises. The reason for this unambiguous interpretation may be found in the presence of the silent pronoun at the *edge* of the CP following the HT: From there the HT is the only available antecedent for the silent pronoun, hence for the pronoun that it doubles, according to the proposed derivation. It can be assumed that the silent pronoun reaches the main clause *edge* in (26) a. as a natural application of the principle of Full Interpretation that requires integration of the hanging constituent. As there is no such need in (26) b., the option of selecting the main clause subject as the antecedent for the pronoun is available, depending on discourse conditions. This interpretation may be obtained by moving a doubled pronoun to the *edge* of the subordinate CP clause; from this position it can look for its antecedent in the main clause. In this position the pronoun remains silent, for the familiar reason due to the operation of the pronunciation principle, in particular in Kayne’s version, as in (21). The option of moving to the *edge* of the main clause is clearly also available in (26) b. as it is in (26) a. Through this derivation, the second interpretation of (26) b. is obtained in which the pronoun selects its antecedent from the discourse context.¹²

4 EMBEDDED HT

The following paradigm in (27) is discussed in Benincà and Poletto (2004), who conclude, on its basis, that the position for an HT, (27) a., and the position for a left dislocated (LD) topic in CLLD, (27) c. versus b., is not the same in the articulated CP (see Bocci 2004 and Haegeman 2004 for similar conclusions). Their proposal is schematized in (28): The HT position is higher and thus precedes the complementizer; the LD position is lower and follows it. The ‘%’ symbol in (27) a. indicates the relatively marginal status of HT in a subordinate clause, which, as already mentioned, may be very strong for some speakers (up to pure unacceptability; Alexiadou 2006). Let us make abstraction from the marginality issue for a moment, and just consider how the analysis developed here may integrate Benincà and Poletto’s (2004) proposal:

- (27) HT: a. %Sono certa questo libro che non ne abbia mai
 parlato nessuno
 I am sure this book that nobody of-it-cl has
 spoken

- CLLD: b. *Sono certa di questo libro che non ne abbia mai parlato nessuno
I am sure of this book that nobody of-it-cl has spoken
c. Sono certa che di questo libro non ne abbia mai parlato nessuno
I am sure that of this book nobody of-it-cl has spoken

(28) [_{CP} HT [_{che} [_{TopP} LD [_{TopP} LD [_{FocP} [_{TopP} ... [_{TP} ...]]]]]]]

Consider further the contrast in (29):

- (29) a. %I professori hanno detto, quello studente che ne parleranno domani in consiglio
Professors said, that student that they of-him(cl) will speak tomorrow at the meeting
- b. * I professori hanno detto, lui che ne parleranno domani in consiglio
professors said, him that they of-him(cl) will speak tomorrow at the meeting

The stronger marginality of (29) b. as compared to (29) a. indicates that a pronoun is not felicitous as the HT of the subordinate clause; much less so than a lexical DP. Exactly the same conclusion reached in the root instances of HT, from which the discussion of section 3 started out. In terms of the proposed analysis, the reason for the contrast in (29) can be identified in the fact that the pronoun should be silent in (29) b., since it should fill the *edge* of the CP containing it, or alternatively, the *edge* of the main CP, as in the discussion on (26). In either case, in the *edge* position it could not be pronounced, due to the operation of the pronunciation principle (in particular adopting Kayne's version (21), as anticipated in 3.2). The perfect status of the minimally different (30) can precisely be interpreted as the result of leaving the pronoun unpronounced at the *edge*.¹³

- (30) I professori hanno detto, che ne parleranno domani in consiglio
professors said, that they of-him(cl) will speak tomorrow at the
meeting

That the offending element in (29) b. is the overt pronoun is confirmed by the paradigm in (31), which excludes that a possibly relevant factor modulating acceptability be the availability of an overt explicit antecedent for the pronoun, as the ill-formedness of (31) c. clearly indicates. A fact that the perfect status of (30) has already also implicitly indicated as well.

Thus, the sentences in (33) A, A' would informally correspond to those in (34), where the unpronounced pronominal topic is indicated in italics for the sake of clarity (and the lexical HT may or may not be overtly expressed):

- (33) Q: Hai incontrato Gianni?
Have you met Gianni
A: Sì, l'ho incontrato
Yes, I him-cl met
Q'. Hai parlato con Gianni?
Have you spoken with Gianni
A'. Sì, ci ho parlato
Yes, I with-him-cl have spoken
- (34) A. Sì, (*Gianni*) # *lui*, l'ho incontrato
Yes, Gianni/him, I him-cl have met
A'. Sì, (*Gianni*) # */lui*, ci ho parlato (/ho parlato con lui)
Yes, Gianni/him I with-him-cl have spoken (/have spoken
with him)

This idea is indeed very close to Kayne's (2005b) proposal according to which sentences like (35) a. (Hankamer and Sag 1976) should correspond, at some level, to (35) b.:

- (35) a. Watch out! He's got a knife
b. Watch out! That man, he's got a knife

In conclusion, independently of the overt presence of a lexical HT or of an overt left dislocated topic, presence of a pronoun should imply presence of a silent doubling pronoun at the CP *edge*. From this position, the silent pronoun relates to an antecedent. The overt pronoun within the clause to which it is related by virtue of the doubling relation is thus interpreted in turn.

As mentioned at the outset, if a mechanism of the type just described is assumed, the way in which a pronoun relates to its (discourse) antecedent is made explicit and from this mechanism, one crucial requirement of classical principle B of the binding theory module directly follows: The antecedent must be outside the CP containing the (silent) pronoun.¹⁵

II. Instances of topic-drop in German clauses of the type mentioned in (3) of the introduction are typically considered a root phenomenon. Following Rizzi (2005, 2006a), this is attributed to the fact that (colloquial) German, possibly more readily than other languages, allows for a reduced/truncated analysis of root clauses.¹⁶ This has the consequence that, in (colloquial) German root clauses, HT, or even lower left dislocated topics in a possibly even more reduced portion of the CP, can be found at the CP *edge*, and hence

left unpronounced, leading to the topic-drop phenomenon. Essentially, the condition in which the silent pronoun is found in the structures discussed throughout is precisely the condition in which the silent topic is found in German topic-drop clauses. The essential same mechanism is involved in the different cases, all ultimately triggering application of the pronunciation principle(s): A constituent at the CP *edge* is a silent constituent.

The following question naturally arises: Why should the silent pronoun assumed in the Italian examples require presence of a (further, doubled) clitic in the clause, if these cases are essentially assimilated to instances of topic-drop, as for the derivational and interpretive mechanisms they involve? In other words, how could a pronoun just be dropped in German (cf. (3), which contains no explicit pronoun; and, similarly, the case of zero objects in Chinese in note 12), while a clitic is anyway necessary in Italian, as witnessed by the impossibility of (36) a., an equivalent sentence to the German (3), in contrast with (36) b.?

- (36) a. *Ho comprato ieri
 I bought—yesterday
 b. L'ho comprato ieri
 I it(cl) bought yesterday

It can be suggested that, possibly given the different nature of the nominal system of German, a doubling derivation is not necessarily implied in this language, in contrast to what has been assumed for Italian sentences containing a clitic pronoun. Hence, a (weak or strong; Cardinaletti and Starke 1999) pronoun can directly reach the *edge* of the clause in the position of non-pronounceability in German but not in Italian, giving rise to a complete drop in the former language but not in the latter.

The nonreferential non-D-linked Italian operator *qualcosa* (masculine in gender) cannot be doubled by a clitic, if left dislocated, in contrast to referential *qualcosa* (feminine in gender). The following contrast from Cinque (1990b) holds:

- (37) a. Qualcosa prima o poi *la* farò
 something sooner or later I it (cl) will do
 b. *Qualcosa prima o poi *lo* farò
 anything sooner or later I it (cl) will do
 c. Qualcosa farò
 anything I will do

If doubling is exclusively compatible with referential DPs, no big DP is possible in presence of nonreferential *qualcosa*, whence the ungrammaticality of (37) b. and its contrast with the possibility of (37) c.; (37) a. is a regular instance of CLLD originating from a big DP containing both referential *qualcosa* and the clitic, following the general analysis assumed in (4). It is

tempting to analyze the following exchange in (38), where neither *qualcosa* nor a clitic pronoun is present in the answer to the preceding question, as involving an unpronounced *qualcosa* at the *edge*; ultimately, as a German-type topic-drop, whose availability would be limited in Italian to sentences containing nonreferential *qualcosa*.¹⁷

- (38) Q: Hai deciso qualcosa? /Hai comprato qualcosa?
 Have you decided anything/ Have you bought anything
 A: Sì, ho deciso / (?) Sì ho comprato
 Yes, I have decided/Yes I have bought

III. Consider the following often discussed contrast in German (Haider 1984, 2005; Travis 1984; Tomaselli 1990):

- (39) a. *Ihn habe ich gesehen
 Him have I seen
 b. IHN habe ich gesehen

While the stressed object pronoun is possible in clause initial position the unstressed version of the same pronoun in apparently the same position is not possible. The assumed articulated CP combined with the idea that topic pronouns move to the *edge* of CP provides a natural interpretation of this contrast. While the unstressed, topic pronoun would fill the *edge* position, and hence should be left unpronounced, the stressed pronoun would fill a lower position that can be identified with the Spec of the focus projection in the CP and it should consequently be pronounced. It can be further suggested that the quasi-deictic value of the left peripheral focus, typically associated with contrast/correction, is what opens up the possibility for the focused pronoun not to move to the *edge* of the CP phase, an otherwise necessary move given the assumed interpretive principle.¹⁸ The focused pronoun thus remains in the focus position where it is pronounced.

Note that the pronounceability of a clause initial focalized pronoun is a generally available option, across languages. (40) provides an example in Italian, to which the same analysis proposed for the German example in (39) b. can be directly extended:

- (40) LUI tutti conoscono (non lei)
 HIM everybody knows (not her)

Considering German again, in a similar fashion to what has just been suggested for the contrast in (39), if a (stressed) demonstrative object is taken to fill the left peripheral focus position differently from the unstressed weak object pronoun *es* that should fill the highest *edge* position, the following contrast, originally discussed in Tomaselli (1990), finds a natural account. *Es* should be unpronounceable in this position.

- (41) a. *Es (das Gras) hat das Pferd gefressen
 It (the grass) has the horse eaten
 b. Das (das Gras) hat das Pferd gefressen
 That (the grass) has the horse eaten

As for those cases of subject *es*, which is possible in clause initial position:

- (42) Es (das Pferd) hat das Gras gefressen
 It (the horse) has the grass eaten

it can be proposed that nominative *es* is analyzed as a clitic rather than as a weak pronoun (Cardinaletti and Starke 1999), in contrast with (41) a. (Tomaselli 1990). Subject *es* then cliticizes onto the Verb (in the relevant V2 position in the articulated CP), thus voiding the *edge* of the CP phase and allowing for satisfaction of the principle of pronunciation.

Possibly, object *es* can be attributed an intermediate status between a weak and a clitic pronoun in general; if it is analyzed as a weak pronoun, it should be left unpronounced, whence the discussed impossibility of (41) a. If it is analyzed as a clitic, no difference in distribution is expected between object and subject *es* since also object *es* would ultimately void the *edge* of the CP through cliticization into the verb, in the V2 position within CP. Indeed, unstressed object *es* can appear in clause initial position for many German speakers, if appropriately contextualized as in the following examples from Haider (2005). The tentative but natural proposal is that these could be analyzed as cases of clitic *es*, of the same kind as nominative *es* in (42).¹⁹

- (43) a. Ihr Geld is nicht verloren. *Es* hat jetzt nur jemand anderer
 Your money is not lost. It has now only someone else
 b. Dieses Schild können Sie genauso gut weglassen. *Es* hat
 ohnehin keener beachtet
 This sign could you just-as-well remove. It has anyway
 nobody observed

IV. Saito (1985), quoting an observation by Kuno, observes that the Case/Topic marker—*wa* can be left unpronounced in Japanese. Thus, a subject that is also a topic can have its Case marker—*wa* dropped, in contrast with the nominative Case marker—*ga* that must be necessarily pronounced. The Kuno/Saito analysis of (44), assumes presence of an unpronounced —*wa*:

- (44) John kita-no?
 John came-Q

Somewhat partly similar facts appear to hold in Korean, as recently discussed in Ahn and Cho (2006), who note that Caseless bare *wh*-phrases are possible in Korean when they are anteposed into the left periphery. Ahn and

Cho (2006) point out that in these cases the anteposed wh-word requires a D-linked interpretation, as illustrated by their example repeated in (45):

- (45) Nwukwu Yenghi-ka manna-ss-ni?
 who Yenghi-Nom meet-Past-Q
 ‘who is such that Yenghi meet (him)’

It is tempting to interpret the lack of an overt Case/Topic marker in Japanese and the lack of the Case marker in the anteposed D-linked wh-word of Korean as the manifestation of the same kind of *edge* phenomenon under the assumption that the highest indicator of topicality could fill the *edge* (as a head) of the left periphery in both cases and for this reason it is left unpronounced.²⁰

Notes

NOTES TO CHAPTER 1

1. In particular, Kayne's (1986) MIT Class Lectures; Pollock (1989). For some early proposals that I should split into two separate heads, see Moro (1988) and Rizzi (1987). See also Ouhalla (1988).
2. In these introductory remarks I will not review all the relevant data systematically (such as those concerning the parallel behavior of French and English with respect to movement of the auxiliaries, etc.) but just those directly relevant to the point at issue. As is often done, I will use the term 'lexical verb' to refer to verbs having a lexical import definable in terms of a Th-grid.
3. Auxiliaries continue to follow their own pattern, with verb movement applying across the board.
4. In fact more than two functional positions should probably be assumed. According to Pollock himself and other subsequent work such as Ouhalla (1988); Laka (1990); Zanuttini (1997); and Moritz (1989), the existence of a Neg-Phrase (NegP) should be assumed, at least for negative sentences. See also Kitagawa (1986) and Kayne (1989c) for some early proposals of the NegP hypothesis. A similar although differently executed proposal is also presented in Chomsky (1989). See also Shlonsky (1989) who proposes a more fine-grained split of the AGR node itself in its diverse features of Gender, Number, and Person, a distinction that plays a role in Hebrew verbal morphology. See the following for a presentation of the NegP idea and for the proposal that a 'positive' correlate of NegP should be postulated as well.
5. Baker (1985) formulates the Mirror Principle as follows: 'Morphological derivations must directly reflect syntactic derivations (and vice versa).'
6. That AGR is higher than T in the tree structure can also be assumed on other grounds: In (nominative) Case contexts AGR is the licenser of null subjects (*pro*), hence it should govern the subject position; AGR carries the agreement features of the NP subject and, again, the structural relation that allows the agreement process to obtain is generally identified with the relation of government (or Spec-Head agreement if this relation is not to be reduced to government; see Sportiche (1989), Roberts (1993b) for this view. See Chomsky (1989) for considerations of this sort. Notice, furthermore, that the same morphological argument just presented for Italian applies in exactly the same terms to French. This leads us to assume that the same structure that we are going to propose for Italian holds in French as well. This diverges from Pollock's (1989) hypothesis, which has the reverse respective order of the two functional heads, with T higher than AGR.

7. At least in part. As seen in 3.3, they have an exact correspondent in their literal French equivalents, which are a particular kind of VP/'lower' adverbs, as pointed out in Pollock (1989).

- (i) a. Maria *ancora* non rideva / *Maria *più/mai* non rideva
lit: Maria still not laughed / Maria anymore/ever laughed
- b. Il bambino *ancora* non parla / *Il bambino *più/mai* non parla
lit: the kid still not talks / the kid anymore/ever talks

A peculiar behavior of *ancora*, once again not shared by the other negative adverbs is also found in examples like:

- (ii) Hai visto l' ultimo film di Fellini? *Ancora* no/**Più/mai* no
have you seen the last movie directed by Fellini? Not yet/not anymore/
ever

In order to account for (i), and maybe shed some light on (ii), I tentatively suggest that *ancora* (contrary to *più* and *mai*) has the possibility of cliticizing onto the head of the NegP *non*. The sequence *ancora non* then forms a complex head and as such moves and adjoins to AGR, the position where V also moves. (This raising operation also rescues the ECP violation that would otherwise have been produced by the cliticization of *ancora*.) I speculate that an analysis along similar lines if adequately qualified could be suggestive also in (starting to) understand the distribution of adverbs in examples like the following (pointed out to me by R. Kayne):

- (iii) a. They always have been like that
- b. John still hasn't left
- c. He still isn't sure
- d. He almost didn't make it

8. The rule discussed in 3.2.2 in connection with the discussion of sentence adverbs and in section 5 dealing with *niente-tutto/rien-tout* could be interpreted as syntactic or LF rules of 'scope' movement, akin to QR or wh-movement-type processes.
9. See in particular Pollock (1989) and Moritz (1989) for this proposal relative to French *ne*. As R. Kayne points out, iteration of NegP should probably be allowed in order to account for French cases like:
- (i) Cette fois, il a promis de ne pas ne pas manger sa soupe
lit: this time he promised not not to eat the soup
10. The same kind of cliticization process would be at work with personal clitic pronouns in finite clauses (Chapter 5, this volume).
11. More precisely, this amounts to saying that AGR is morphologically subcategorized for a T category. Some refinements of this idea are in order for at least the following two reasons: If no qualification is added, a certain redundancy is created between the morphological subcategorization and the syntactic subcategorization of the AGR head; second, the fact that it is not just T (in fact it cannot be just T) that is morphologically subcategorized but rather V+T is not perspicuously represented by this simplified formulation. See the following for a discussion of Roberts' (1990) recent refinement of this proposal in terms of Selkirk's (1982) theory of word formation.
12. Moritz (1989) formulates his proposal in terms of Rizzi's (1990b) Relativized Minimality approach to the ECP. See also Chomsky (1989) for a discussion of the relevance of the HMC/ECP at the representational LF level, rather than at the level of syntactic derivations.

13. A somewhat more marked option for some speakers, especially those speaking northern varieties of Italian.
14. See Burzio (1986) and Kayne (1989a) on past participle agreement in Italian and again Kayne (1989c) for the AGRP idea in past participles. A morphological argument analogous to the one I have provided in the text in favor of a complex representation like (15) for past participles has been independently made by R. Kayne (Class Lectures, Université de Genève, 1990).

I assume that, in Italian, in any given structure the verb has to reach the AGR head position to produce a well-formed word (mangia-t-a/e/o/i; eaten fem:sing, fem:pl, masc:sing, masc:pl). In the case of past participles as well as in the case of tensed and infinitival clauses, languages vary as to whether the combination of the verbal root and the past participial inflectional endings are done through V-movement or through Affix Hopping. Italian and French, for instance, seem to differ in this respect, possibly as a function of their different behavior in infinitivals. See also the discussion in section 6.2.

15. In this structure I have disregarded the projection of Aux as well as the internal structure of the VP. The latter should also contain the D-structure position for the subject NP, following the proposal elaborated in detail by Koopman and Sportiche (1991; see the references cited there as well). Although I am assuming this hypothesis, I am making an abstraction from it in the present discussion and I will do so any time it will not play a direct role in the argumentation. I have also used the infinitival form of the auxiliary *avere* to express the non-inflected form.
16. I assume the VP-initial adverbs are adjoined to VP. I make the assumption that all adverbs modifying a major constituent are adjoined to this phrase. Adjunction expresses the 'modification' relation as in Sportiche (1988) (see Introduction).
17. See note 44 for possible qualifications concerning the precise level of attachment of *più* within the past participial projection.
18. Lonzi (1989) provides a typology of adverbs in Italian. This class is identified and called 'rafforzativi dell' asserzione.'

Lonzi (1990) points out the existence of a class of adverbs that only occur when Aux is present like Italian *meramente*. To account for the necessary cooccurrence Lonzi (1990) proposes that this kind of adverb can only fill the Spec of Aux position. Hence, this class is both different from the class under discussion and from the class of sentence adverbs, to be analyzed in the following.

19. *Pure* should not be confused with be homophonous adverb whose meaning is equivalent to *anche* (also).
20. At S-structure or at LF. See the discussion of (64) and (65). In Kayne (1989b) it is also proposed that a PosP might be present in some assertive clauses. He proposes that English *so* and *too* could be the head of such a phrase.
21. I leave open the question whether a PosP is present in all nonnegative clauses, independently of the presence of a realized specifier (i.e., an adverb of the discussed class). It is unclear what the empirical correlate of the two possible alternatives would be.
22. *Pure*, *già*, and *sempre* behave differently in that they can also follow the past participle, although this is a somewhat more marked location:

- (i) Gianni avrà risposto *pure*, *sempre*, *già*
Gianni will have answered truly, always, already

Their behavior is then more akin to that of a negative adverb like *più*, which, as we will see in section 3.3 can also fill a relatively low position in the clause structure beside the canonical Spec of NegP position.

23. A sentence like (28) containing *sempre* seems significantly more acceptable than the text examples. This suggests that *sempre* has wider distributional possibilities than the other positive adverbs. Notice that *sempre* is also eligible for an interpretation equivalent to that of the focalizing adverb *solo* (only). *Solo* can modify different phrases; hence, in the tree structure it can be adjoined to various maximal projections. I speculate that *sempre* has the same possible locations in the relevant interpretation.
24. The same punctuation is utilized by Jackendoff (1972).
25. At least adverbs that are not selected by the verb, as those under consideration. The reason should be the Th-criterion if pronominal clitics are always R-expressions with respect to Th-theory, while adverbs are not.
I leave open a detailed discussion of what position exactly the right dislocated position is. It is a peripheral position, the right equivalent of the left peripheral TOP position. This discussion being somewhat tangential to our main point of interest, I also leave open the details concerning the derivation involved. The parallelism with left peripheral constructions, on which see Cinque (1990a), is likely to be important.
26. I would assume the same analysis for the English equivalent of both (32) a. and (32) b. discussed by Jackendoff (1972). The equivalent of (32) a. is excluded in French. See the discussion following.
27. See (i), an illustration:
 - (i) a. *Nessuno/ognuno l'ho incontrato ieri
nobody/everybody, I saw him_{cl} yesterday
 - b. *A nessuno/ognuno, gli daranno il premio
to nobody/everybody, they will give him_{cl} the prize

Similar facts are discussed in Rizzi (1986a) and Belletti and Rizzi (1988). The proposed account rules out these structures at LF, where the quantifier would not be able to bind a well-formed variable due to the presence of the resumptive clitic.

28. The kind of topicalization process available in English does not require the focal intonation necessary in Italian (Roberts, Kayne, p.c.). Rather, topicalization is more closely correspondent to the so-called CLLD of Italian (Cinque 1990a), which is not available for indefinite quantifiers. Although the exact formal way in which the correlation holds is not easy to express, one might suggest that it is at the source of the fact that sentences equivalent to (35) are not acceptable in English. But see note 42 for a different explanation.
29. I assume this to be the case each time the adverb is interpreted as having sentential scope, as in the analyzed structures. But see also 3.2.2 for important qualifications concerning structures containing an aspectual auxiliary. There exist other possible positions for *probabilmente*-type adverbs that generally correlate with a different interpretation:
 - (i) a. In vita sua Gianni leggerà *probabilmente* molti racconti d'avventura
in his life Gianni will read probably many adventure novels
 - b. Maria discuterà la cosa *probabilmente* con molte persone
Maria will discuss the issue probably with many people

where the adverb has scope over the phrase immediately following it: an NP and a PP in (i) a. and b. respectively. A plausible analysis for these cases, which I will adopt here, assumes that the adverb is base generated immediately adjoined to the NP and PP. More generally, the adverb has the option of being generated adjoined to any argument or adjunct (see: 'Gianni partirà *probabilmente* domani' Gianni will leave probably tomorrow) more or less strictly connected to the verb. These would be further instances of the 'modification'

relation of Sportiche (1988). It should be pointed out that two adverbs of this class cannot cooccur in the same clause, one clause initial the other adjoined to some phrase:

- (ii) *Evidentemente Gianni parlerà probabilmente con Maria
evidently Gianni will talk probably with Maria

This is not expected under the proposed analysis with no further qualification. Possibly, the assumption should be made that all adverbs of this class undergo some interpretive process, presumably along the line discussed in 3.2.3, irrespective of the position where they are basically located. Some kind of interpretive incompatibility would arise in (ii).

30. This set of hypotheses leads Kayne to propose a significantly different analysis of the negation facts in English that I am not going to discuss here.
31. Left dislocation is available in French. The structure is not relevant, however, because it would involve a subject clitic in the sentence following the dislocated subject. Of course the resulting sentence is possible in French:

- (i) Jean, problemement il aime la linguistique

It is only in standard Italian where no overt subject clitic is available that the left dislocation and topicalization structures involve identical strings.

32. This is productively visible in V2 languages where movement of the inflected verb to the C° position is an obligatory process, triggered by some peculiar property of the CP system of these languages. See Platzack (1986); Rizzi (1990c); and Tomaselli (1990) for discussion.
33. Analogous data are observed in German, where contrasts like the following can be detected in V2 clauses where the subject is assigned nominative Case by the V in C°:

- (i) a. Johann hat wahrscheinlich ein Buch gelesen
Johann has probably a book read
b. *Ein Buch hat wahrscheinlich Johann gelesen
a book has probably Johann read

We might suggest that C° is always involved in assignment of nominative Case in German, independently of the occurrence of V2 given the almost parallel contrast in embedded clauses:

- (ii) a. Ich glaube dass Johann wahrscheinlich ein Buch gelesen hat
b. ??Ich glaube dass wahrscheinlich Johann ein Buch gelesen hat

In all the examples here and in the text I am making abstraction from the possible parenthetical intonation to be associated with the adverbial that seems to save almost any structure and allow for almost any reading.

In Kayne (1983) a connectedness-type interpretation is proposed to account for similar contrasts in English, as illustrated by the following pair:

- (iii) a. John probably won't be angry (Kayne (1983), (53)a : 215)
b. *Won't probably John be angry (Kayne (1983), (52)a : 215)

34. See Rizzi and Roberts (1989) and Roberts (1993b).
35. If topicalization is in adjunction to S (IP/AGRP) as proposed by Baltin (1982) and Lasnik and Saito (1989), its availability would be ruled out in the structures under discussion by word order considerations. See note 42 for the idea that topicalization might be in adjunction to IP-AGRP in English but not in Italian.
36. These sentences are acceptable only with a strong intonational break before the adverb, as instances of right dislocation [cf. (32)].

37. See section 7 for a possible formalization of the morphological factor triggering the movement of lexical verbs.
38. I will assume, as in Roberts (1990), that forms such as *has, is* ... should be considered suppletive forms.
39. A version of the AGRP recursion idea is also proposed by Cardinaletti and Roberts (1991). Cecilia Poletto (p.c.) points out that in some dialects of Northern Italy such as Trentino and northern varieties of Venetian, a subject clitic is obligatorily present only in cooccurrence with an auxiliary. Relevant contrasts are the following:
- (i) [Trentino]
 - a. *Nisun el riva
nobody *cl* arrives
 - b. Nisun l'è riva
nobody *cl* is arrived
 - (ii) [Cornuda, North Veneto]

a. Gian el magna Gianni <i>cl</i> eats	a' Gian magna Gianni eats
b. Gian l'a magnà Gianni <i>cl</i> has eaten	b' *Gian a magnà Gianni has eaten

(i) a. and b. indicate that while a subject clitic cannot appear with an indefinite subject (a), it *must* appear with the same indefinite subject if an auxiliary is present (b). (ii) a. and a' indicate that a subject clitic is optional in simple tenses; (ii) b. and b' show that it becomes obligatory in structures containing an auxiliary. Thanks to Cecilia Poletto for providing the relevant data. We could interpret this phenomenon by suggesting that these dialects systematically exploit the further AGR position that can be present with auxiliaries to host the subject clitic.

In Motapanyane (1989) it is shown that aspectual auxiliaries are the only verbs raising to the highest functional head in Romanian, which, following the present work, she assumes to be the AGR head. It is tempting to suggest that Romanian provides another case of overt evidence for a further AGR-type head in the clause structure that only auxiliaries can fill. See also Sorin (1989).

40. Notice the quasi-minimal contrast with the ungrammatical (46), discussed in connection with analysis B.
41. Assume that the negative quantifier adjoins to AGRP, much as in the operation performed by QR. The difference should be that only in the case of negative quantifiers does the created position count as an A'/Spec position, thus inducing a RelMin effect with respect to further movement of some other phrase to some higher A' position. In Rizzi (1990b) it is proposed that the subject position counts as an A' position *per se* when it is filled with a negative subject. Also under this hypothesis the data in (58) count as a RelMin violation once combined with the idea that the sentence adverb moves to Spec of CP.
42. Some English speakers find that a sentence like (i) is also very marginal:
- (i) ?*Nobody probably left

In 3.2 we analyzed the Italian well-formed equivalent, *Nessuno probabilmente sbaglierà* [cf.(49)], as involving topicalization of the negative subject and we proposed an extension of this analysis to cover English sentences displaying the same word order. Indeed, (ii) containing a referential subject is as perfect as the Italian translation:

- (ii) John probably left/Gianni probabilmente se ne è andato

Why should (i) be worse than (ii)? Suppose, as proposed in Lasnik and Saito (1989) and in Baltin (1982), that topicalization in English is adjunction to IP=AGRP. Suppose further that topicalization of the subject is necessarily involved in (i) exactly as in the Italian case. However, topicalization in Italian is not in adjunction to AGRP but rather involves a TOPP, much as in Chomsky's (1977) original proposal and as in Cinque (1990a). TOPP is outside the CP level. Hence, even if the topicalized *nessuno* subject needs to undergo the LF movement alluded to in the text, such a process would take place outside the domain where the LF movement of the sentence adverb would take place, i.e., the CP level. Hence, no interference is expected. On the other hand, if English topicalization is in adjunction to AGRP, the presence of the topicalized *nobody* necessarily interferes with the LF movement of the sentence adverb, much as in the cases discussed in the text, involving a complex tense and a post-auxiliary adverb. Given this line of reasoning then, the different status of (49) and (i) of this note follows from the different nature of the process of topicalization in the two languages, not from the different syntax of sentence adverbs, which remains exactly the same. That Italian topicalization and English topicalization are not alike is, on the other hand, relatively clear (see note 28). It is not unreasonable to set the difference in the processes involved in the derivation of the two constructions.

43. Of course, as for (61) a., we are disregarding the possibility of having a pause just before the adverb, which should be interpreted as a case of right dislocation of the adverb itself. As for (61) b., we are disregarding, as usual, the possibility of interpreting the adverb as modifying just the immediately following NP.
44. Lack of sentence like:

- (i) *il n'a mangé plus

would follow from the lack of V-movement within the past participial projection in French, which should in turn be interpreted as an instance of the general lack of V-to-AGR in French untensed clauses. This interpretation avoids the device of the NegP adjunction, discussed by Pollock to rule out these cases.

If the following (relatively subtle) contrast must be accounted for:

- (ii) a. ?? Il a lu souvent des romans
he has read often novels
- b. * Il n'a lu plus des romans
he has not read anymore novels

we might tentatively suggest the following. *Souvent* is a VP adverb and *plus*, when not in Spec of NegP, is an adverb lower than the T head in the clause structure. In the past participial AGRP *plus* can either be an AGRP or an ASPP modifier. Assume it is not easily a VP modifier in this situation. If we assume that V optionally raises to the ASP head much as it does with respect to the T head in infinitivals, the (marginal) possibility of (ii) a. is accounted for. *Plus* being higher than VP in the past participle by assumption, (ii) b. is not derivable. On the other hand, in clauses not containing any past participle, if *plus* is not in the Spec of NegP it can only be a purely VP adverb, no other location lower than T being available. This would account for the lack of contrast between *plus* and *souvent* in infinitivals like (iii), which would involve movement of V to T:

- (iii) a. Il dit ne manger plus du jambon
he says not to eat ham anymore
- b. Il dit manger souvent du jambon
he says to eat oftne ham

We leave the further development of a proposal along these lines open here, just pointing out one aspect of it that, we believe, is on the right track should the details turn out to be inadequate. It is the idea that the contrast between cases involving a past participle, (ii), and cases involving an infinitive, (iii), should derive from the fact that, as we assume, clauses with a past participle contain more structure than clauses involving an infinitive.

45. Notice that the negative adverb *mai* is allowed to modify the negative adverb *più*:

- (i) a. Maria *non* tornerà *mai più*
Maria will never come back anymore
- b. Maria *non è mai più* tornata
Maria has never come back anymore
- c. Maria *non è* tornata *mai più*
lit: Maria not is come back ever anymore

This could be analyzed with *mai* in the Spec of *più*, and *più* constituting a projection of its own. As (i) indicates, the sequence '*mai più*' has the regular distribution of negative adverbs. We then suggest that in (i) c. it is the whole sequence, in fact the whole phrase '*mai più*' that moves into Spec of NegP at LF.

46. I am not assuming that this analysis holds with respect to all elements that necessarily cooccur with negation. It just applies to negative adverbs. It does not apply to negative quantifiers like *niente*/nothing and *nessuno*/nobody (which, of course, cooccur in the same clause: *non ho detto niente a nessuno* lit: I did not say nothing to nobody). The validity of the constraint that no more than one element can fill the same position at LF might be questioned under the assumption that such a constraint should not hold at a level where phonetic linearization does not play any role such as LF. I will assume that the constraint is valid besides the linearization issue and that it can be 'violated' only if some supplementary process takes place. One such process would be for instance 'absorption' in multiple wh-constructions, in the sense of Higginbotham and May (1981).
47. As a research strategy I continue to avoid in principle to allow adverbs to have too many base positions. We already allowed two for the adverbs under investigation, and it would be desirable not to increase the number any more, if possible. Interestingly, the facts seem to favor the restrictive approach. See the discussion of (69)–(72). Given that the mapping of adverbs is not regulated by the Projection Principle in the sense that selection is (usually) not involved, it should be regulated by intrinsic lexical properties of the adverbs themselves. Thus, if an adverb has the lexical property of being a sentence adverb, it will always be projected in the sentence adverb position, and so forth. It then follows that all other positions that the adverb eventually fills are positions derived through the application of some general syntactic process.
48. Notice that parallel facts hold in French:

- (i) a. Souvent Marie se trompe/ Often Marie is mistaken
- b. *Complètement Marie se trompe/ Completely Marie is mistaken

where a relatively strong stress is required on the clause initial adverb. This suggests that a process like topicalization is available for adverbs as opposed to arguments in French. In fact, the process anteposing the adverb should be considered more akin to the process of 'PP-preposing' than to topicalization. And French has the PP-preposing process much as Italian does. On recent discussion on PP-preposing see Rizzi (1990b) and Cinque (1990a). Notice that French lacks the equivalent of the Italian (69) b.:

- (ii) *Marie souvent se trompe/ Marie often is mistaken

This follows from the analysis of (69) b. as involving left dislocation of the subject.

49. Thanks to Tarald Taraldsen for pointing out to me this implicit consequence of my analysis.
50. The impossibility of having more than one topicalized phrase in the same sentence mentioned in (73) in the text can be traced back to the same interpretation (besides informational incompatibilities that might also play a role in excluding these cases). The second Op movement involved in topicalization would cross too many barriers:

- (i) $[_{TOPP} YP [_{CP} [_{TOPP} XP [_{CP} OpI [_{AGRP} Op2]]]]]$
-

Here we have suggested that sentences containing a sentence-adverb and displaying the superficial word order 'NPsub *probabilmente* VP' also involve either left dislocation or topicalization of the subject. Hence, extraction should not work well in this case either. The following contrast seems to confirm this expectation:

- (i) a. Con chi pensi che probabilmente/evidentemente Gianni parlerà di questo problema?
with whom do you think that probably/evidently Gianni will talk about this problem
- b. ??Con chi pensi che Gianni probabilmente/evidentemente parlerà di questo problema?
with whom do you think that Gianni probably/evidently will talk about this problem

(ii) b. seems slightly better than the parallel data involving *spesso* presumably because a parenthetical reading of the adverb is more readily available in this case than in the case of *spesso*. The availability of the parenthetical reading, which would make the sentence acceptable, obscures the clarity of the data.

51. The position between the auxiliary and the past participle is not totally excluded if more material than just the past participle follows the adverb. Take the case of transitive verbs expressing the (long) direct object or of an intransitive verb expressing the indirect object(s) as the following:

- (i) a. ?Quel dottore ha *spesso* risolto i problemi che gli ponevano i pazienti
that doctor has often solved the problems that patients posed to him
- b. ?? Maria ha *spesso* parlato con Gianni di problemi di questo tipo
Maria has often talked with Gianni about problems of this kind

The necessity of a relatively long sequence formed by the past participle + other material makes one think that some kind of 'heavy VP shift' process is operating in structures with a VP-final *spesso* moving the sequence to the right of the adverb. Of course, the sequence is not any more a constituent excluding *spesso* once the verbal root has moved to the past participial AGR. Technically, the result might be obtained in various ways. Given that none of them is particularly revealing, I leave the question of how to derive the desired word order difference between heavy-VP and non-heavy-VP open.

52. Lonzi (1990) points out the existence of a class of adverbs that only occur when Aux is present, like Italian *meramente*. To account for the necessary cooccurrence Lonzi (1990) proposes that this kind of adverb can only fill the

Spec of Aux position. This class is then different from the case of *completamente* also discussed by Lonzi (1990).

53. This structural representation reflects the modification relation between the quantifier and the NP. We have already made use of adjunction to express the modification relation between adverbs and the phrase they modify, precisely in the spirit of Sportiche's article.
54. The superficial anaphoric behavior of the quantifier is an indirect consequence of the NP-trace relation that obtains between the moved NP and its D-structure position, i.e., the position where the quantifier is allowed to remain. This account shares the fundamental property of Belletti's (1982b) analysis of FQ and reciprocals in Italian, i.e., it does not interpret the anaphoricity of the quantifier as a primitive but as a property derived from an antecedent-trace relation created by movement. Of course the idea is executed very differently in that Sportiche's account is embedded in a wider theory concerning the D-structure position of subjects.
55. It should be pointed out that examples like those in (36) and also those in (81) seem to lead to the conclusion that if, as we are assuming following the references quoted, the D-structure position of subjects is VP-internal it should be on the left and not on the right of the VP, as sometimes proposed. This is so because the floated quantifier necessarily precedes the complement(s) of the verb.
56. For ease of presentation I am implicitly assuming that all the relevant Spec positions between the VP and the highest Spec of AGRP can count as A-specifiers. Of course, in order to make our point this strong assumption is not necessary: It is sufficient that one such position higher than the past participial AGR head have this possibility (besides, of course, the subject position).

Consider the possibility of the following sentence containing a causative construction:

- (i) Faranno leggere *tutti* quella pagina a Gianni
lit: they will made read all that page to Gianni
they will all make Gianni read that page

In (i) the FQ follows the infinitive. This word order possibility strongly indicates that incorporation of the infinitive within the causative *fare* occurs in the causative construction (at least optionally). Although not favored, (ii) is not impossible:

- (ii) ?Faranno *tutti* leggere quella pagina a Gianni
They will all read that page to Gianni

57. The various Spec positions that the subject NP finds in its movement to the highest Spec of AGRP position are, at least, the following: Spec of the ASPP, Spec of the past participial AGRP, and Spec of TP.

One might object that the possibility of (88) b. constitutes evidence against the obligatory V-movement to the past participial AGR head that we are assuming. The word order in (88) b. could in fact be obtained by leaving the verb in its base position and the quantifier in the subject base position. It is very unlikely that this interpretation of the data is correct, though; it would leave totally unexplained why the contrast with a VP adverb like *spesso* illustrated by (88) a. should exist at all.

58. Whose presence might be taken to be a disturbing interfering factor, due to its clitic nature (Rizzi 1982).
59. (95) b. can be judged as well-formed; but this is possible only with a different reading with *pur* reinforcing the matrix clause, as in the following paraphrase:

- (i) E' *pur* possible che Gianni abbia parlato
it is indeed possible that Gianni has talked

With this reading *pur* should be analyzed as the Spec of the matrix PosP.

60. The absence of contrast between:

- (i) Jean dit n'avoir pas parlé

and (92) b. is simply due to the fact that auxiliaries move out of VP in French as well.

61. Both marginally (i.e., a nonfavored reading) possible with the adverb construed with the matrix clause. In this case the derivation poses no problem: It is the matrix verb that moves out of its VP to the matrix AGR head, leaving the adverb and the complement clause behind.
62. (104) is well-formed under the irrelevant interpretation where *tutti* is construed with the matrix verb. In this case *tutti* is a constituent of the matrix clause; this is shown by the contrast in acceptability of the following cleft sentences:

- (i) a. (Quei medici) E' risolvere il difficile problema di quel paziente che potrebbero *tutti* (se solo volessero)
lit: (those doctors) it is to solve the hard problem of that patient that they could all (if they just wanted it)
- b. *(Quei medici) E' *tutti* risolvere il difficile problema di quel paziente che potrebbero (se solo volesse)
lit: (those doctors) it is all to solve the hard problem of that patient that they could all (if they just wanted it)

The ungrammaticality of (i) b. is due to the fact that *tutti* is here a constituent of the matrix clause. On the other hand, if *tutti* is a constituent of the infinitival clause, it must follow the infinitive. This is precisely the point made in the text discussion; the relevant sentence is given in (ii):

- (ii) (Quei medici) E' risolvere *tutti* il difficile problema di quel paziente che potrebbero (se solo lo volessero)
lit: (those doctors) it is to solve all the hard problem of that patient that they could (if they just wanted)

63. Otherwise the clitic nature of the infinitival complementizer would interfere with the presence of the adverb.
64. The sentence might not be considered completely out with a special stress on the adverb. This possibility could be accounted for assuming topicalization of *spesso* to be available.
65. The sentence is irrelevantly possible with 'phrasal' scope of the adverb on the direct object.
66. Present participles pattern with tensed clauses in French:

- (i) Ne travaillant pas, Pierre a echoué (Pollock (1989), (112)c)
lit: not working, Pierre did not succeed

In the spirit of the present discussion, this would suggest that they do contain Tense (as opposed to Aspect of Past Participle). See Pollock (1989) for a similar approach.

67. More facts are provided in Kayne (1975). A strong stress on *tout* (but not as well on *rien*) or a relative heaviness associated with the adverbs (although not exactly of the same type in the two cases) seems to allow for the possibility that the adverb follows the verb. Some of his examples follow:

- (i) a. ? Il a repris TOUT
- b. ?Il a repris presque tout
- c. ?Iln'a lu absolument rien

It could be assumed, as in Kayne (1975), that the rule moving the quantifiers is suspended in conjunction with stress or heaviness.

68. Impossibility of cooccurrence with other NegP specifiers is then immediately accounted for. Clearly a welcome result. In the preceding alternative this same result could be arrived at by assuming the LF version of this process. Notice that the possibility of sentences like:

- (i) Jean n'a plus rien vu

could be interpreted by treating *plus* as the specifier of *rien* (giving rise to its own projection) filling the Spec of NegP, much as in the analysis proposed for the sequence *mai più* in Italian. See note 45.

69. Something along these lines should probably be admitted anyway to account for the different behavior of French and English in this regard.
70. Thanks to L. Rizzi for pointing out to me this contrast.
71. The V and the direct object must qualify as old information. See Calabrese (1982) for discussion.
72. With *niente* some interfering factor is at work. Sentences as acceptable as those in (115) are obtained when also the inverted subject is a negative quantifier; otherwise the result is marginal:
- (i) a. Non ha comprato niente nessuno/?Gianni
 lit: not has bought nothing nobody/?Gianni
 - b. Non ha demo niente nessuno/?Gianni
 lit: not has said nothing nobody/?Gianni

73. Related to (115) consider also the following contrast suggested to me by R. Kayne:

- (i) a. ??Gianni ha fatto qualcosa bene/male
 lit: Gianni has done something well/wrong
- b. Gianni ha fatto tutto bene/male
 lit: Gianni has done all well/wrong

The marginality of (i) a. seems due to the fact that a (direct) object does not easily precede a manner adverb. However, as shown by the perfect status of (i) b., a similar constraint does not affect *tutto*. Again, the contrast is easily interpreted if *tutto* is assumed not to fill the canonical direct object position in (i) b.

74. An aspectual auxiliary cannot be found in the infinitival complement of a perception verb:

- (i) a. *Ho sentito [i bambini aver pianto]
 I heard the children have cried
- b. *Ho visto [i bambini aver corso]
 I saw the children have run

A possible interpretation of this fact could be that an aspectual auxiliary must necessarily combine with Tense, and that perception verb complements lack an independent projection, whence the impossibility of having an aspectual auxiliary. See Guasti (1989). Notice that the facts in (116)–(118) would continue to follow with V necessarily raising to the AGR head.

75. If small clauses of this sort are analyzed as APs, these data indicate that they should involve an adjoined (to AP) subject. The subject could not be in the

Spec of AP position here, as is assumed in Stowell's (1983) analysis of small clauses.

Notice that the situation in French with perception verb complements is the same as that of 'regular' infinitival clauses, with V raising to T at most.

76. We are then confirming a fairly common analysis of the causative complement of *make* as a VP, through verb syntax (cf. Stowell 1981; Burzio 1986). Of course, this analysis is also the one that best accounts for the lack of the infinitival marker *to* in this construction, assuming *to* to fill the position of a functional head such as, for instance, T. The same analysis is likely to extend to the complement of perception verbs in English. I will not pursue this issue here.

(121) b. contrasts with the more acceptable (i):

- (i) ? I believed my parents to be both happy

which patterns more along the lines of (120).

77. The other past participial construction involving transitive verbs (Chapter 2, this volume), is missing in French as well (*Conosciuta Maria . . . / *Connu Marie . . .*). We do not assume syntactic V to C° movement in this case in Italian, as we analyze this construction as involving object agreement. However, we do assume LF V to C° movement in this case. Hence, lack of this instance of the construction could be ultimately reduced to the different verb syntax also.
78. This is how, in Pollock and Chomsky's approach, the result is obtained that movement of the auxiliaries is always possible: Auxiliaries do not have any Th-role to assign. Supplementary assumptions are then necessary to account for its obligatoriness in French and English tensed clauses and its optionality in infinitivals. See also Roberts (1985) for a similar approach in the interpretation of the historical development of English modals.
79. Although some qualifications are necessary to allow for optional V-movement (to T) in French infinitivals, possible with lexical verbs.
80. Hence, the French/Italian contrast is different from the contrast arising within Scandinavian languages, studied in Holmberg and Platzack (1988).
81. These constraints should be derivable from more general principles of morphology that I will not try to formulate here.
82. As far as T is concerned, we should assume that it can be optionally represented as in (125) b. in French. This would characterize optional V to T movement in French infinitives. Alternatively, it could be that V to T movement is guided by independent principles.

According to Motapanyane (1989), V-movement stops at the T head in Romanian tensed clauses and does not reach any higher head, such as AGR. Given the proposed system, this could be characterized as having just the T head represented as in (125) b. but not the AGR head.

83. Possibly this uniform nature of AGR morphology is somehow linked to (or even responsible for) another fundamental property of Italian, i.e., its null-subject nature. If this were the case, the proposed characterization of the triggering factor of V-movement would turn into a real explanation: Two crucial properties of Italian would turn out to be strictly linked to each other. However, as mentioned in Pollock (1989) and as is discussed in Kayne (1991), the correlation between a generalized occurrence of V-movement and the null-subject nature of a given language, if it exists at all, is not of a simple kind. As shown in Kayne (1991), the consideration of various Romance dialects leads to this conclusion. And the analysis of Romanian developed by Motapanyane (1989), summarized in the preceding note, leads to the same conclusion given the null-subject nature of this language. So, we will leave the possibility of

an account along these lines open, keeping in mind its potential explanatory impact.

NOTES TO CHAPTER 2

1. But see section 5 for some qualification.
2. See Belletti (1990 and Chapter 1 of this volume) for a detailed discussion of the topic. This hypothesis differs from the proposal in Pollock (1989), who has T as the head of the sentence and AGRP as its complement. Chomsky (1989) also proposes the order AGR . . . T. For the idea that INFL should be split into two separate heads, see also Rizzi (1987); Moro (1988); and Ouhalla (1988).
3. Whether all SPEC positions are present or not does not concern us here. Assume for concreteness that they are, unless otherwise specified.
4. See also Belletti (1990 and Chapter 1 of this volume) for the proposal that past participles are AGR phrases. We can suppose, for concreteness, that AGRP-O does not have a SPEC position, and that a SPEC-like position can be created by adjoining material to it. This will eliminate problems that could possibly arise with respect to the minimality condition (in particular the relativized version proposed in Rizzi 1990b). Further details should not concern us in the present context. In particular, I leave here open the obvious question whether the AGR-O projection is always present even when no past participle is present, as in noncompound tenses in full clauses.
5. This departs from Koopman and Sportiche (1991). However, this is not a crucial assumption. I also leave untouched the issue whether the VP-internal subject position should be found to the left or to the right of the V head in a language like Italian.
6. Unless it does not overtly move by some syntactic process like cliticization or WH-movement. These movements may first adjoin NP₂ to AGR-O, creating a SPEC-like position triggering agreement with AGR-O, i.e., past participle agreement. This follows Chomsky's (1988) adaptation of Kayne's original (1989a) proposal.
7. A significant further empirical indication that past participial clauses are 'partial' clausal projections along the lines represented by (5) is provided by the fact that they do not allow for the presence of negation:

- (i) **Non arrivata* *Maria*, . . .
not arrived(FEM-SG) *Maria*
- (ii) **Non conosciuta* *Maria*, . . .
not known(FEM-SG) *Maria*

If in full clauses negation fills a position between the AGRP(S) and the TP projection, this fact is immediately expected under the hypothesis in (5). See Pollock (1989) for the proposal that negation fills such a position, higher than the position filled by other adverbials; see also Belletti (1990 and Chapter 1 of this volume) for Italian and for a detailed discussion of the negation data. See also Zanuttini (1991).

8. I am assuming that the AGR projection of past participial clauses is in a sense 'neutralized' between the AGR-S and AGR-O projections of full clauses. However, the issue is potentially more complex. The shape of the French construction, which more closely corresponds to the Italian one (*Une fois Marie arrivée*, . . . 'once Marie [had] arrived') where the order NP-Past Participle is displayed, might indicate that the constructions could be better understood as an AGRP-O projection in Italian and as an AGRP-S projection in French

(with some extension of the nominative Case assignment procedure of full clauses, in the French case, as discussed in Viner's work). Then, lack of the order Past Participle-NP (* *arrivée Marie*) could be considered a consequence of the general lack of verb movement to AGR-S in nonfinite clauses in French, as proposed in Belletti (1990 and Chapter 1 of this volume). Finally, the (marginal) possibility of the order Past Participle-NP when the clause is introduced by adverbs of the kind *une fois* can be interpreted as an instance of the stylistic inversion process, as suggested by R. Kayne (personal communication). I leave the comparative issue open here.

9. I leave open for the time being the issue concerning the precise structure resulting from incorporation of V to AGR, which presumably is an adjunction process as assumed in Baker (1988) and Chomsky (1988), where no change in the nature of the head is produced.
10. In a slightly substandard Italian, the nominative/accusative distinction is neutralized, with the 'accusative' form of the second person singular pronoun. So *Arrivata te*, . . . is not completely ruled out, although it has the typical slightly substandard flavor associated with using *te* as a nominative. No such neutralization is ever at work with the first person singular.
11. That is, it is a head, presumably a T-type aspectual operator. See Raposo (1987).
12. This is easily shown in a language with rich inflectional features, such as Italian, where presence of nominative Case always correlates with agreement in finite clauses.
13. This departs somewhat from Rizzi's and Raposo's analyses in various ways but still preserves the fundamental insight of both of them: The verb moves to COMP for Case-theoretic reasons, i.e., to satisfy the requirement of Case-marking the lexical subject.
14. A question implicitly raised by the text discussion is why the process of nominative Case assignment has exactly the general property of taking place under feature agreement. I speculate that this might be due to the fact that AGR is in fact always the 'target' of nominative Case assignment by T or by some temporal operator (which would include the nominative assigner in C°). Hence, the only way for a lexical NP to be marked with nominative Case consists of being in an agreement relation with a nominative AGR; the SPEC-head relation is presumably the only such relation for head equal to AGR. If this is correct, it would have the consequence that in the unaccusative past participial clauses under discussion, nominative Case would be assigned in C° to the past participial morphology (and then, to the lexical NP agreeing with it). This would make the Case assignment processes taking place in both unaccusative and transitive past participial clauses (to be discussed in the following) identical with an agreeing Case-marked past participial morphology. The main difference between the two cases would be the way in which the agreement relation is established. See section 4 for detailed analysis of the transitive case.
15. It should be noted, incidentally, that the ungrammaticality of (13) b. and (13) d. is not at all related to the fact that the clitic is attached to the past participle. This is a perfectly available option in Italian (contrary to other Romance languages), as (ii) and (iv) show with respect to reduced relative clauses:

(i) *La lettera che gli è stata dettata da Gianni è sul tavolo.*
The letter which to him_{cl} was dictated by Gianni is on the table

(ii) *La lettera dettatagli da Gianni è sul tavolo.*
The letter dictated-to him_{cl} by Gianni is on the table

(iii) *Il pacco che gli è stato inviato ieri è sul tavolo.*
The package which to him_{cl} was sent yesterday is on the table

- (iv) *Il pacco inviatogli ieri è sul tavolo.*
 the package sent-to him_{cl} yesterday is on the table

16. On the question why (18) should be impossible with a derivation corresponding to a representation like (10), see the following.
17. Lack of c-command would rule out the NP embedded under the *by*-phrase. But the fact that it is not its presence that creates ungrammaticality indicates that the 'argumental' past participial morphology would not qualify anyway.
18. For the sake of clarity I abstract away from the movement of PRO from its assumed D-structure position inside VP, presumably necessary to escape government from V, as in Koopman and Sportiche (1991).
19. The arbitrary reading for PRO is not easily available, as is generally the case in adverbial clauses. It is not excluded though, as shown by the possibility of sentences like (1), which perhaps involve control from an arbitrary implicit Experiencer of *piacevole*:

(i) *Finito un lavoro, è piacevole prendersi una vacanza.*
 finished a task it is nice to take a vacation
20. See Hoekstra (1984) for a similar idea.
21. Following Baker's (1988) hypothesis, I assume that the government domain of the verb is preserved after it incorporates into the participial inflection in the AGR position. Notice that no strategy equivalent to the one described in the text is operative with the passive past participial morphology. This should be due to its 'argumental' nature, which entails the necessity of retaining accusative Case. See the discussion of (32a) in the following.
22. Although the head-complement agreement strategy would in principle also be available within the VP (or rather, the AGRP) of unaccusative past participles, its occurrence would not be of any help. There would still be no Case to Case-mark the direct object. There would still be no Case to Case-mark the direct object, because unaccusatives do not assign accusative Case. For this reason, movement to C° must obtain, in the way discussed. On the other hand, the inherent (partitive) Case that unaccusative verbs assign to their internal argument (according to Belletti 1988) would not be of any use either. Inherent Case is only assigned at D-structure, so it cannot be assigned after incorporation of V into the past participial morphology has obtained. (Given its status as a syntactic movement process, incorporation occurs after D-structure.) Finally, the internal argument of unaccusative past participles could not simply be marked with partitive Case by the verb, for the same reasons that rule out this possibility in infinitival full clauses, as discussed in Belletti (1988).
23. In transitive full clauses containing an auxiliary and a past participle, I assume that the past participial morphology is marked with accusative Case by the auxiliary, of which it is the complement. This entails that it cannot also take over the accusative Case of the verb through incorporation; the verb is then able to Case-mark the direct object NP. The assumed marked nature of the agreement resulting from the head-complement relation accounts for the fact that it is not this strategy that is adopted in transitive full clauses to Case-mark the direct object NP in standard Italian [**Ho conosciuta Maria* 'I have known(FEM-SG) Maria']. It should be noted, however, that there are dialects of Italian (especially in the South), and older stages of Italian, where agreement between the past participle and the direct object takes place also in full clauses, thus indicating a wider use of the head-complement agreement strategy. This is illustrated by (i) and (ii), from Rohlf's (1969):

- (i) a. *Ho presi i marchi.*
 he has taken(MASC-PL) the money (Novellino, 13th century)
 b. *Aveva rubati danari.* (Machiavelli, 16th century)
 he had stolen(MASC-PL) the money
 c. *Lucia aveva avute due buone ragioni.* (Manzoni 19th century)
 Lucia had had(FEM-PL) two good reasons
- (ii) a. *A' vinnute l'ova.* (Salentino)
 He has sold(FEM-PL) the eggs
 b. *Avimo trovata na borza.* (Campano)
 we have found(FEM-SG) a purse
24. It can be claimed that Burzio's generalization is at the origin of this; i.e., if a verb has an external θ -role, it has the ability to assign accusative Case. This capacity is often instantiated by the possibility of admitting different sorts of 'cognate objects.' See, for instance (i) and (ii).
- (i) a. *Hanno appena telefonato una brutta notizia.*
 they have just telephoned a (piece of) bad news
- (ii) b. *Il malato ha dormito un sonno tranquillo.*
 the patient slept a sleep quiet
25. A further problem is posed by this representation: the licensing of the *ec/pro* in the [SPEC, AGRP] position. It is not clear that the past participial morphology would be an adequate licenser for (an expletive) *pro*. Related to this is the fact that a lexical NP is also impossible in this position (**Maria telefonato, ...*). Another related fact is provided by the possibility (marginal for some speakers, fully acceptable for others) of intransitive past participial clauses with a nonlexical subject, controlled by some NP in the following main sentence, as in (i).
- (iii) *Telefonato a Gianni, Maria uscì di casa.*
 telephoned to Gianni Maria went out of the house.

Participial clauses of this kind can be analyzed with PRO in the [SPEC, AGRP] position and the past participle in AGR; compare the previous analysis of transitive past participial clauses and the following discussion of passive past participial clauses.

NOTES TO CHAPTER 3

1. Part of the material discussed here is elaborated in full detail in Belletti (1990, Chapter 1 of this volume).
2. Conceptual and morphosyntactic arguments in favor of the ordering of the functional projections are provided in Belletti (1990, Chapter 1 of this volume) and will not be reconsidered here.
3. See also the work by Ouhalla (1988); Zanuttini (1991); Laka (1990); and Chomsky (1991) for the proposal of a NegP.
4. Phonologically this is certainly the case given that *non* is always attached to the following verb or is part of the clitic cluster. This is particularly clear in northern Italian dialects where *non* intervenes between the subject and the object clitics.
5. There the hypothesis was developed in terms of I. Notice that, if clitics move and finally adjoin to AGR with a head-to-head movement independently of

the verb, the well-formedness of the resulting representation could be given the same account developed for *non* cliticization, i.e., the antecedent-government relation is preserved in each link of the chain whose head is indexed with all the indexes.

6. Although this is clearly a very strong tendency of preverbal negative markers, Zanuttini observes that it is not exceptionless: In a variety of Piemontese spoken in Cairo Montenotte, described in Parry (1985), the preverbal negation reorders with object clitics depending on the person of the pronominal object. She provides the following pair.
 - (i) a. U n li sent nent
he neg him hears neg/he cannot hear him
 - b. U min sent nent
he me-neg hears neg/he cannot hear me
7. Zanuttini's strong conclusion is that *non* is then not a syntactic clitic at all. She builds up a proposal according to which there should be more than one NegP in the clause, one containing preverbal negative markers like *non*, which are heads crosslinguistically, and one containing postverbal negative markers, which are not heads crosslinguistically. The first one is higher in the clause structure, the second is lower, as superficial linear order considerations overtly suggest. I will not discuss this proposal here in any detail, but it has the merit of drawing an important typological distinction; this would be beyond the scope of the present discussion. I will just note that the proposal seems to have a number of problems, at least of execution, still associated with it: The subject position should be sometimes identified with the Spec of NegP position and sometimes with Spec of AGRP; the relation between TP and the lower NegP is not straightforwardly expressed through the selection relation as Zanuttini assumes. On this last point see also Grimshaw (1991).
8. See also Cardinaletti and Roberts (1991) for an analogous proposal. In Roberts (1993a) the highest AGR is taken to be the location of subject clitics in null-subject languages, as first proposed by Rizzi (1987).
9. AGR(2) is the position containing the verbal agreement inflectional endings. For the representation to still be compatible with the HMC/ECP I will assume that AGR(1) and AGR(2) bear the same set of indexes. Alternatively, one might assume that passing over a head of the same kind as the landing site head, the AGR(2) and AGR(1) respectively, does not constitute a violation of HMC/ECP. A further alternative would be to admit a limited possibility of excorporation so that *non* could first move to AGR(2) and then to AGR(1), by excorporating from AGR(2) (see Roberts 1991 on excorporation). I leave open the choice among the different alternatives here.
10. The Piemontese variety of Cairo Montenotte can be descriptively accounted for by assuming that the preverbal clitic negation has two possible landing sites, AGR(1) and AGR(2), as everywhere, but that the choice varies depending on the person of the object clitic with no general preference for the AGR(1) head, as is typologically the case (see Zanuttini 1997). Here, with first person object clitics it tends to be AGR(2), hence the possibility of following rather than preceding the object clitic with which it forms a syntactic clitic cluster. In the typologically more common languages where the clitic negation tends to move to AGR(1), I will assume that a clitic cluster is only formed with other object clitics at the phonological level.
11. I shall not discuss why the two possible orders in (11) should be available within one language while this does not generally occur with respect to object clitic clusters, where the ordering is fixed within any given language. This is probably due to the nature of the syntactic operation performed by cliticization

that might not be exactly the same in the case of negation and object clitics. I will continue to assume that they both are instances of adjunction.

12. The by now standard terminology from Chomsky (1991).
13. I assume that adverbs are generally adjoined to the projection they modify. This is a fairly common assumption; see in particular Sportiche (1988) and his notion of 'modification relation.'
14. Gerunds in French rather behave as finite verb forms, according to the data in Pollock.
15. And, consequently, the AGR projection as well.
16. Contrary to Italian, where it reaches the AGR_O head always.
17. The other half of the argument cannot be given with FQ *tutti* in that the following is a rather well-formed word order:
 - (i) Loro hanno *tutti* riso

I attribute this to the syntax of FQs proper rather than to verb syntax. See Belletti (1990, Chapter 1 of this volume) for detailed discussion.

18. Maybe, as in Laka (1990), both PosP and NegP are just the realization of what she refers to as the Σ -projection, i.e., a modality projection that might be present in every clause.
19. See, for instance, the discussion in Moritz (1989) and Rizzi (1990c).
20. The distributional complementarity of PosP and NegP is then the formal correlate of their substantial semantic opposition. A sentence like (26) containing *sempre* is significantly more acceptable. We conclude that *sempre* has wider distributional possibilities than the other positive adverbs. In particular, *sempre* is also eligible for an interpretation equivalent to that of the focalizing adverb *solo* 'only.' *Solo* can modify different phrases; hence, in the tree structure it can be adjoined to various maximal projections. I assume that *sempre* has the same possible locations in the relevant interpretation. *Già* and *sempre* can also assume a negative interpretation; this suggests that they can also be NegP specifiers:

- (i) a. Maria non parlava *già/sempre* di lui
lit.: Maria not talked already/always of him
- b. Maria non ha *già/sempre* parlato di lui
lit.: M. not has already/always talked of him

For *pur* and *ben* the same possibility is not available:

- (ii) a. Maria non parlava *pur/ben* di lui
lit.: Maria not talked indeed . . . of him
- b. Maria non ha *pur/ben* parlato di lui
lit.: M not has indeed . . . talked of him

21. No clitic appears in the left-dislocated version of the subject because there are no subject clitics in standard Italian.
22. He should then presumably assume that the clause-initial position is either derived through some process moving the adverb or is a further base location that the adverb has available to it.
23. Although it might not be exactly the same kind of process in the two languages. This is suggested by the fact that structures involving topicalization of some argument are intonationally and pragmatically different in the two languages. See Belletti (1990, Chapter 1 of this volume) for a discussion and some speculations on this point.
24. It should be noted, however, that Kayne's proposal could still be maintained for the English paradigm. The English data could follow from his hypothesis that auxiliaries move lower in English than in French combined with the idea

that sentence adverbs fill a position between the first two functional heads. The Italian facts, on the other hand, derive from the subject topicalization analysis we have proposed. Hence, the French data would derive both by the lack of a topicalization process in this language and, adopting Kayne's point of view, by the nonoccurrence of verb movement moving the auxiliary to a head position higher than in English. Of course, left-dislocation would also be irrelevantly available. In this case a resumptive pronoun would be present; as we mentioned earlier, this does not make a difference in standard Italian, where there are no (resumptive) subject clitics:

(i) Jean, probablement il aime la linguistique

25. The subject could not be Case-marked in subject position once the auxiliary is in C. Notice that an auxiliary can fill the C position in a language like Italian in at least the so-called Aux-to-C construction. The proposal under examination would generalize this possibility. Notice that Aux in C is unable to nominative Case-mark the subject in tensed clauses (i.e., Italian has no nominative Case-assignment under government). Furthermore, even in the Aux-to-C construction Case-marking is not occurring properly if the sentence adverb intervenes to break the necessary adjacency. (i) a. and b. illustrate these points:

- (i) a. *Ha Gianni sbagliato
has Gianni made mistakes
b. ?Avendo *probabilmente* Gianni sbagliato ...
having probably Gianni made mistakes ...

26. Especially in English. See Friedemann (1990) for an analysis of French interrogatives involving a *pro* expletive subject. An analysis in terms of topicalizing the subject would not be viable since the subject position would not be a Case position (see note 25), hence not a variable position; hence the operator involved in the topicalization process would not bind any variable. This interpretation is certainly adequate for Italian. One might object that in English and French nominative can be assigned under government (under limited circumstances in French) and hence there should not be Case problems. I assume that, should this point turn out to be correct, we could assume that movement of Aux to C is not free in these languages where it only occurs in interrogative clauses. Hence, the problem would here be related to movement of the auxiliary rather than to the Case-marking of the subject.
27. Where 'empty' is intended to mean 'empty of verbal inflectional features.' I leave open the important question of what properties of auxiliaries allow them to have this wider possibility; see Pollock (1989) for a proposal.

NOTES TO CHAPTER 4

1. To the extent that agreement is also seen as a possibly long-distance process (Chomsky 2001), the relevant Agr positions should be identified with (some of) those filled by V+agr features. In what follows there will be no attempt to try to translate the more traditional Kaynean approach into the long-distance procedure.
2. See Burzio (1986) for the first systematic presentation and account in GB terms of the Italian and French paradigms, linking presence of past participle agreement to the geometry of the tree requiring/allowing it in the presence of an antecedent-trace relation between the moved agreeing argument and its original position within the VP. Part of more recent accounts inspired by Kayne's approach, summarized in section 1, preserves Burzio's intuition, which was

phrased within a functionally impoverished clause structure. See in particular Sportiche (1998) for a most thorough development of Kayne's approach. See also Perlmutter (1989) and La Fauci (1994) for treatments of the phenomenon of past participle agreement pursued in Relational Grammar terms, and for a fine-grained typology in the same perspective taking into account different Romance languages, see Loporcaro (1998).

3. Both under cliticization and under passive morphology past participle agreement is preserved with complex predicates as those arising from causativization and restructuring (Rizzi 1982; Burzio 1986; Guasti 1993, among others).

- (i) Maria è stata fatta assumere
Maria has been made (Fem, Sing) to assume
- (ii) Mario li ha voluti conoscere
Mario them (CL) has wanted (Masc, Pl) to know

As for the interaction of agreement and unaccusatives in restructuring contexts, consider the following contrast, discussed in Burzio (1986):

- (iii) a Noi avremmo voluto/*i andare
We would have wanted/*(Masc, Pl) to go
- b Noi saremmo voluti/*o andare
We would be wanted (Masc, Pl)/*– to go

In (iii) b. restructuring has taken place, as signaled by use of *essere* as aspectual auxiliary with the matrix verb *volere* (taking *avere* otherwise), conditioned by the presence of the unaccusative *andare* in the embedded infinitival. Past participle agreement is consequently obligatory as it usually is with unaccusatives.

4. The gloss 'NonAgr' here stands for nonagreeing. The nonagreeing form of the past participle also corresponds to the masculine singular ending. Thus, a sentence like (4) a. is grammatical if the clitic is a masculine singular third person pronoun. The past participle ending is then interpreted as masculine singular.
5. Normative grammars indicate agreement as obligatory in both cases, which appears to be in fact optional in colloquial French (with some possible consequences in the interpretation to be discussed in section 4.3).
6. On ASC see Belletti (1990, 1992, Chapters 1 and 2 of this volume); Kayne (1989a); and Belletti (1999b, Chapter 5 of this volume) in the context of the discussion of cliticization and enclisis. See also Eagerland (1996) who studies the construction in old Italian, where it was more widespread with partially different properties, probably due to presence of a richer functional structure, as in Eagerland's account.
7. With the difference between Italian and French according to whether the relation is established in every single past participle projection including those of the auxiliaries (Italian) or not (French) [cf. (3) and (9)]. The difference could stem from an impoverished functional structure of the French past participle projection for auxiliaries. The question would then be whether this difference relates to other differences between the two languages. See Burzio (1986) who relates it to the differences in the selection of the aspectual auxiliary, and, more recently, Richards (1998).
8. This is compatible with Sportiche's (1996) indirect-movement analysis of cliticization where the moving element is not directly the clitic projection generated in the final clitic position, but a silent *pro* agreeing with it originating in the argument position inside the VP.
9. Hence, Italian would also manifest an amount of optionality in verb movement, normally obscured and undetectable in other domains. Given the

proposed account, one might expect to find different distributions in the location of some adverbs according to whether past participle agreement occurs or not with first and second person clitics. However, differences do not appear to be detectable. It seems likely that agreement projections, in general, should not contain adverbial modifiers internal to the projection, as they should not count as possible modification domains. The idea that first and second person clitics could be higher in the Agr past participle internal structure can be supported by the observation that first and second person clitics are usually more external (hence, higher) than third person clitics in clitic clusters. Compare the examples in (i) and (ii).

- (i) Mi ti ci manda
to me/you (CL) there (CL) (he) sends
- (ii) Ce lo manda
there (CL) him (CL) (he) sends

See also Zanuttini (1997) for converging evidence from Italian dialects showing the different distribution of negation and first and second person clitics, on the one side, displaying the order CL+NEG, and third person clitics, on the other, displaying the order NEG+CL.

10. DP movement with passives and unaccusatives gives rise to obligatory past participle agreement in French. Possibly, there exists a low DP-related position internal to the past participial projection that DPs pass through (but not necessarily clitics); the verb should be taken to move to the head of this position obligatorily in French as well. This position could be the same one that quantified noun phrases must pass, given the obligatory nature of past participle agreement under quantifier floating combined with cliticization, detected by some speakers of French:

- (i) Il les a toutes prises/*-
He them (Fem, Pl, CL) has all (Fem, Pl) taken (Fem, Pl)

In this case the usual optionality of past participle agreement under cliticization would otherwise (surprisingly) be suspended. Hence, there seems to be a portion of obligatory V-movement with the nonfinite past participle in French as well. This portion concerns a very low area, possibly the lowest in the past participial projection.

11. Déprez (1998); Sportiche (1998); and Rizzi (2000b). In Kayne (1989a) a different assumption is made, which will be partly reviewed in section 4.1.
12. See the discussion in Lepschy and Lepschy (1977) and Kayne (1989a), and the overview in Loporcaro (1998). Past participle agreement with (apparently) unmoved direct objects is also attested in early stages in the acquisition of standard Italian (cf. in particular Antinucci and Miller 1976; Borer and Wexler 1992; McKee and Emiliani 1992; Schaeffer 1996).
13. It could be a perfective aspectual head with enough morphological attracting capacity. See section 5 on that and the presentation of Cinque's (1999) evidence, possibly relevant in this respect.
14. Cf. Richards (1998) for a suggestion on past participle agreement that seems to exclude the possibility of languages of the latter kind in principle, a possibly not desirable conclusion.

The picture could also be more complex in that object agreement does not seem to necessarily correlate with agreement under overt syntactic movement, for example, wh-movement. See Kayne (1989a) and his reference to Calabrese's judgments on Salentino, and Miremont (1976) on Occitan. Kayne (2000c) observes that optionality of agreement with first and second person

clitics becomes almost an impossibility under restructuring. In the spirit of the hypothesis suggested in the text, this could indicate that modals have a less richly articulated past participle functional structure. See Kayne (2000c) for a different proposal.

15. The construction has several peculiarities that are not all relevant here. See the references cited, and also the discussion in Kayne (1989a) and the observations in Cinque (1990a).
16. See Belletti (1992, Chapter 2 of this volume) for an implementation of this idea according to which accusative case would here be assigned through agreement. The hypothesis can be phrased in the following terms: The past participle morphology blocks the case assignment ability of V; the direct object is then case-licensed through agreement. In full clauses containing a (transitive) auxiliary and a past participle a crucial role in the assignment/availability of accusative case should then be attributed to the auxiliary, whence, lack of obligatory past participle agreement. When the direct object is a clitic, past participle agreement in ASC takes place as it always does also in full clauses. However, the clitic is an enclitic on the past participle in ASC [cf. (16)], contrary to full clauses, where it is a proclitic on the auxiliary. This indicates that further processes are at work in ASC; see Belletti (1999b, Chapter 5 of this volume) for discussion on enclisis and proclisis in this area.
17. Compare section 3.3 for object agreement and the cases of agreement under cliticization and *wh-* movement discussed in sections 3.1 and 3.2 for cases of the former type. Compare the Altamura dialect, described in Loporcaro (1998), for cases of the latter type.
18. See Belletti and Rizzi (1996); Déprez (1998); Sportiche (1998); and section 3.2 of this chapter.
19. Compare Icelandic where agreement never arises with quirky subjects. But see the parametrization hypothesis in the following.
20. There seems to be some variation among speakers as to the impossibility of past participle agreement in (29). Some speakers optionally allow agreement here. This might suggest that *en* is not necessarily taken to realize (partitive) inherent case by these French speakers. It could be analyzed as a possible realization of (structural) accusative as well. Note that no variation is ever found among Italian speakers in this domain.
21. Under Belletti and Rizzi's (1988) analysis the object of this class of psych verbs is inherently Case-marked with accusative case. Interestingly, when the verb *surprendre* is used in its non-psych interpretation, but as a regular transitive verb with the object marked with structural accusative, past participle agreement becomes possible again:

- (i) Cette fille, le proviseur l' a surprise en train de
 This girl, the director her (CL) has surprised (Fem, Sing) while
 fumer
 smoking
 'The director surprised the girl while she was having a smoke'

As for the impossibility of agreement with *falloir* [cf. (27)c], the account implies that the accusative available with this verb is an inherent accusative (cf. *Il me le faut*). A plausible assumption since *falloir* would otherwise constitute an isolated exception to Burzio's generalization.

22. See Kayne and Pollock (2001) for a new analysis of this type of structure where *au conflit* is taken to fill the subject position (as a quirky subject) and no (covert) expletive is assumed to be present. The proposal is framed within the general analysis of Stylistic Inversion (SI) as involving Remnant IP movement across the (here quirky) subject. As J.Y. Pollock has pointed out (p.c.),

past participle agreement becomes possible in SI sentences similar to (33) if the postverbal subject is made heavier:

- (i) Le jour où a été mise au conflit la fin que tout le monde espérait
The day where has been put to the conflict the end that everybody
hoped

Note that the postverbal subject *la fin* contains an overt definite determiner in (i). I take this to suggest that it should not be analyzed as being inherently Case-marked. Agreement here could follow from the familiar mechanisms discussed: The heavy DP moves from the original object position to the preverbal subject position where it is assigned nominative case, as in regular passive structures. The processes at work yielding SI structures would then take place (e.g., Remnant IP movement across the subject as in Kayne and Pollock 2001; but note that here *au conflit* would not be treated as a quirky subject). As the noun *fin* is inherently Case-marked in the idiomatic reading, no past participle agreement should anyway take place in (33) by assumption (regardless of the adopted analysis of SI).

Note that no improvement is brought about by heaviness in subject inversion structures containing expletive *il*. Compare (32) with the equally bad (ii):

- (ii) *Il arriveront trois des plus belles filles que j'ai jamais rencontrées
it will arrive (Pl) three of the most beautiful girls I have ever met

In the analysis adopted here, this is due to the fact that the postverbal subject has only access to inherent (partitive) Case-marking in these structures.

23. It could realize a KP level; see, for example, Giusti (1993). A possible partially different implementation of the parametrization proposal could focus on the way in which inherent case is realized in Italian and French. It could systematically be a PP in French (with an empty P) and an NP/DP in Italian, explaining lack of agreement in French. This implementation could receive support from the fact that partitive case involves presence of preposition *de* with the indefinite quantifier *beaucoup*, which could be the overt trace of a general PP realization. This alternative is left as an open option here.
24. This adapts part of the spirit of the Déprez (1998) discussion, formulated in terms of different sites of reconstruction for the two *wh*-phrases, with the agreeing one being reconstructed outside the VP and the nonagreeing one inside it, assuming Diesing's (1992) Mapping Hypothesis.
25. In the dialect referred to in note 17, *avere* should be allowed to select a past participle like (39). A possible characterization of French, where *avoir* is often the auxiliary with unaccusatives, and past participle agreement is nevertheless never realized in these cases, could be that a whole VP projection is always selected by *avoir* and that the nominal argument fills the highest (Spec) position of the VP projection. Hence, in its movement to the preverbal subject position it does not pass through the specifier of the past participle projection. The difference with respect to intransitive VPs should stem from the fact that the argument in this case must be assumed to fill this highest position derivatively, after moving from the VP-internal (object) position. This is the source of the unaccusativity of the VP. Crucially, the assumption should be that this movement be presyntactic or lexical (Hale and Keyser 1993). As for Spanish, which lacks past participle agreement under cliticization, *wh*-movement, and with unaccusatives, and that does not have auxiliary alternation (Lois 1990), it could be assumed that the AgrPstPrt projection is altogether absent

VP-internally. Interestingly, past participle agreement is solely manifested in Spanish with the passive auxiliary *ser* that, in the spirit of the proposal sketched out here, should select a past participle analyzed as in (39).

26. This could be linked to the presence of *essere*, which is always the designated auxiliary in structures involving a reflexive clitic.
27. Note that the ungrammaticality of (i), also pointed out in Burzio (1986), could be due to a violation of strict cyclicity under the proposed account:
 - (i) a. *Maria se li è lavata
(Maria (to) herself them (CL) is whashed (Fem, Sing))
 - b. *Maria se lo è letta
(Maria (to) herself it (CL) is read (Fem, Sing))

Movement of the subject (activating the upper agreement projection) should be completed before object cliticization (which activates the lower agreement projection). This could provide a reason for the hierarchy of past participle agreement suggested and left unexplained by Burzio (1986). Furthermore, some principle of morphological well-formedness should be assumed to rule out the possibility of activating the higher Agr projection with different phi-features than the lower one, when the latter is activated (i.e., through object movement). Thus, a derivation not violating strict cyclicity would be ruled by the principle of morphological well-formedness as well. The principle should be limited to operate within the set of Agr heads belonging to the same morphological checking domain, here the domain of AgrPstPrt heads.

28. This amounts to assuming that both the impersonal and reflexives determine selection of *essere* in Italian, independently of the shape of the past participial projection.
29. The idea shares some similarities with the proposal in Collins and Thráinsson (1993), which also assumes an Agr-type projection generated VP-internally. However, the kind of Agr projection is different in the two cases. In Collins and Thráinsson (1993) it is crucially related to case assignment/checking; in the proposal in the text it is assimilated to Voice, see further the main text.
30. Which, according to Cinque's proposal, must be related to a perfect head, located higher in the clause functional structure. A proposal compatible with the hypothesis in the text, although not necessary. A movement of the same sort should be allowed, without it being obligatory, for the passive past participle as well, if the also possible order in (i) is to be derived through V-movement:
 - (i) Questo genere di spettacoli è sempre stato accolto bene
This kind of show is always been received well

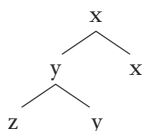
NOTES TO CHAPTER 5

1. Clitics from Western Romance, in Uriagereka's (1995) terminology, seem to have partially different properties. In particular they seem to move higher in the clause structure, much as in Uriagereka's account.
2. Note that Agr itself is just a label referring to a collection of features. It is conceivable that this collection of features is brought together through a series of movements. I simplify the matter by continuing to make reference to the familiar functional head Agr.
3. This is clearly a simplification. It is well known that some further position is needed to check nominative in what surfaces as a postverbal subject in both Italian and French and languages of this kind. I disregard this issue here.

4. Clauses not containing any auxiliary will have the lexical VP immediately lower AgrO. This is in fact a slight simplification in that some functional head is likely to appear between AgrO and the verbal projection anyway. We will assume that for infinitives and imperatives in section 4.2. For ease of exposition we can maintain the basic validity of (2).
5. For arguments in favor of the dissociation of AgrO and AgrPstPrt and for the location of the latter lower than the former in Romance, see Friedemann and Siloni (1997). Empirically, the dissociation is immediately justified by the obvious observation that accusative is available independently of the presence of a past participle in the clause.
6. See Cardinaletti (1993); Cardinaletti and Starke (1999); Belletti (1993a); Corver and Delfitto (1992); Uriagereka (1995). Corver and Delfitto and Uriagereka assume that the clitic D° has an NP complement much as the real determiner does, but the NP complement is pro for DO = cl. I will not make this assumption, although I will make reference to it further in this chapter. The main reasons for not assuming the presence of a pro complement are: a) if pronouns are generally assimilated to a functional category (such as D), it is not clear why pro should belong to the lexical category N; b) if N corresponds to a lexical nominal head it is not clear what the status of an empty noun would be.

I mainly concentrate on third person clitics. First and second person clitics should presumably be provided with a slightly richer structure also containing an explicit person head.

7. The locative and genitive/partitive inflections should correspond to a slightly different structural representation where the clitic would be the head of a KP (or PP) rather than being a straight DP. Apart from this natural characterization of the different categorial status, all clitics share the same 'strength' of the relevant Case feature that accounts for their equivalent overt syntax. For a discussion of some possible empirical reflex of this different categorial status having to do with particular binding behaviors see Belletti (1993a). See also Belletti and Rizzi (1996) for a discussion of past participle agreement with clitic *ne*.
8. In languages where D° overtly carries a Case feature, such as German, one could think that syntactic movement of the strong D° should also take place (leaving NP behind), which is clearly not the case. Suppose that D° cannot move in syntax in this case: Since the complement NP moves to its Spec in LF to check number and gender features, D° must be present at this level. Hence, the Case feature is checked through XP-movement to Spec/AgrO of the DP as a maximal projection. This could correspond to the phenomenon generally known as syntactic scrambling. See Sportiche (1996) for an analysis correlating scrambling and cliticization. See also Cecchetto (1994).
9. I slightly simplify the picture by illustrating the problem with respect to Agr-type heads (AgrPstPrt, AgrO). The decision is based on the consideration that it will thus be clear that the derivation is problematic even if the relativized minimality expressing the HMC (Rizzi 1990b) were to be further relativized so that only heads of the same 'type' were to count in the computation of intervening heads. Hence, in the case at issue, the counting heads are Agr-type heads since the landing site would be AgrO and the first head found by the clitic is AgrPstPrt.
10. (ii) implies that rather than having several adjunctions to the very same head, in cases of apparent multiple adjunctions each new head is adjoined to the last adjoined head. In the following schema, the apparent multiple adjunction to x is in fact adjunction to x and further adjunction to y:



See Kayne (1994), although his approach to cliticization differs from ours.

11. Then banning against excorporation is the fundamental reason excluding step-by-step movement of the clitic D. However, the problem created for the morphological checking procedure described in I is still to be assumed since it appears to play a role in other cases to be discussed here as well.
12. Passing through Spec/Aux, if this position is present and depending on the assumption of note 10.
13. The intuition behind this approach is that a clitic in AgrO would count as a dangling, unassociated affix. This in turn attributes to cliticization the status of a phenomenon crucially driven by PF factors: first, the strong nature of the clitic Case feature; then the nonstrong nature of AgrO, which must be empty by PF.

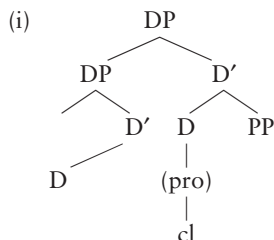
The point of view that the ‘dangling affix’ status of the clitic DP is the only reason accounting for cliticization altogether seems too extreme. For instance, it is very hard to figure out what such a view could propose to account for the fact that cliticization is sometimes procliticization and sometimes encliticization. A more fine-grained account, which essentially splits the phenomenon in two major parts, movement to AgrO and from AgrO, seems more likely to provide an explanation of the different outputs of cliticization and of the variation that can occur among languages in this regard. See section 4 in particular.

14. (Pro)cliticization is then ‘verbal’ in this approach since the verb is the only head where the clitic can incorporate without any constraint being violated.

Notice that movement of the clitic onto the verb in T has the effect of rescuing the HMC violation produced by the derivation of the verb skipping the AgrO head. I assume that, to the extent that the violation can be representationally recovered, as it is in the case here, the derivation can be considered legitimate. See also note 26.

15. A recent version of the base generation approach is developed in Sportiche (1996). Sportiche’s proposal is particularly interesting in that it is able to also simultaneously capture the movement properties of cliticization by having some null argument (pro) move to the Spec position of the clitic projection, Sportiche’s ‘clitic voice,’ base generated in a high position in the clause. So, the movement properties of cliticization are attributed to movement of the null argument, not directly of the clitic. In doubling structures, the doubled lexical argument moves to the Spec of the clitic voice in LF. Although very interesting, Sportiche’s proposal has a number of problems (location of the clitic voice in the clause structure; shape of the clause structure in absence of overt clitics; relation between the clitic voice and Case . . .); see Siloni (1994) for a detailed discussion of them. Moreover, the LF nature of the movement of the doubled argument seems also problematic. See the discussion in the text following, around the examples (19)–(20).
16. The text proposal is given in its most straightforward version that coincides with the one independently formulated in Kayne (1994) in the context of his analysis of right dislocation. In Kayne (1994) this construction is essentially assimilated to an instance of clitic doubling in the same terms of the analysis presented here. The idea that the stranded doubled argument fills the base

complement position could be too strong and might lead to wrong predictions. In particular, it seems incompatible with the proposal of section 2, according to which the clitic DP first moves as a maximal projection and only subsequently as a head. It appears to be the case that the doubled argument cannot be stranded in intermediate positions (contrary to, e.g., floated quantifiers in Sportiche's 1988 analysis). Cf. Kayne (1994, 81) for converging evidence. On the other hand, we have provided principled reasons excluding direct movement of the clitic as a head. A possible way of reconciling the two contradictory desiderata could be to have the clitic DP as the specifier of a DP with the shape of (13) b. whose head is empty (presumably *pro*, see the discussion of the following note). The DP containing the clitic could then move in the way discussed in section 2, and the doubled argument could be stranded in the base position:



For the sake of simplicity I will continue to present the hypothesis in the straightforward version of the text, keeping the qualification of the present note in mind.

17. Note that Kayne's generalization is not taken into account in Kayne's (1994) recent analysis of right dislocation. A natural suggestion is that, in the lack of the preposition, the complement is not overt. This comes close to Uriagereka's (1995) proposal that the clitic D° always takes a *pro*-NP complement. Although attractive in this respect, the idea that *pro* should categorially correspond to an NP does not appear natural once pronominal elements are generally assimilated to a functional category (such as D/DP) rather than to a lexical category (such as N/NP). A possible variant of this idea would consist in making the hypothesis that *pro* is also a D/DP, and that the clitic takes it as its complement. The consequences of this version of the idea remain rather complex, since *pro* would here play the role of the clitic in our original proposal. Given the amount of rather unclear complexities, I will remain somewhat agnostic with respect to the issue whether a *pro* complement should always be assumed for a clitic D° , and I will continue to assume the analysis in the text. It should be noted, however, that the proposal would have the merit of making the structure of a doubling DP completely parallel to that of a non-doubling DP, an important conceptual advantage.

Uriagereka (1995) also defends an approach to doubling conceptually close to ours (and Kayne 1994). A crucial difference holds between the two approaches, though. According to the proposal developed here the doubled argument is the complement of the clitic D; according to Uriagereka's proposal it is the specifier. In the latter proposal the (necessary) presence of the preposition is completely unexpected, which is not the case in the former. Furthermore, the potential parallelism with non-doubling clitic DPs discussed earlier also remains in principle unexpressible.

For a recent proposal on doubling see also Torrego (1995).

18. See, among others, Borer (1983) and the references cited there.

19. If there are cases where the clitic moves as an XP to Spec/AgrOP (see section 4.2 on French), still it seems natural to assume that this position should not be available for another DP to move to in LF (even if it has been emptied by PF).
20. See Poletto (1996) for a thorough investigation on the nature of subject clitics in various northern Italian dialects.
21. Sportiche (1996) captures the movement properties of cliticization through the assumption that a silent *pro* moves to the Spec position of the 'clitic voice' in syntax. However, doubling structures crucially do not involve any syntactic movement: The doubled lexical argument (not a *pro* in this case) moves to the Spec of the 'clitic voice' at LF. Hence, the data in (21) remain as residue in that approach. A similar remark applies to the solution proposed by Siloni (1994).
22. We proposed that the clitic adjunction takes place already when V fills T.
23. If it is plausible to assume that all functional heads are present in all clause structures, the hypothesis considered in the text should be taken to mean that the Inf head is 'actively' present in infinitival clauses, where 'actively' refers to the fact that the head in question takes part in some morphological checking.
24. See Rizzi (1993) for the first formulation of a generalization linking enclisis to the fact that, in his terms, the 'verb is morphologically complete below the cliticization site.' In the terms developed in the text, 'morphologically complete' would correspond to a verb having performed its (overt) morphological checking.

Notice that a derivation where the verb adjoins to AgrO and moves further and the clitic substitutes in AgrO move further and adjoin to the verb is excluded in the present system through the ban against excorporation, discussed in section 2. This is a welcome result since such derivation would produce proclisis.

25. The assumption is crucial in order to prevent a derivation like the one taking place in finite clauses that yield proclisis.

The step-by-step derivation is the one expected under shortest movement/economy considerations. If our account is on the right track, this is not the option taken in finite clauses since it would be incompatible with the appropriate checking of verbal morphology. Morphological checking is then taken to be the fundamental principle governing the syntactic computation. The system, as is formulated here, tolerates 'violation(s)' of the HMC in the course of the derivation if this helps in performing an adequate morphological checking and if the output representation is well-formed. See also the discussion in note 15.

26. For a recent discussion on the different amount of cohesion between V and cl in proclisis versus enclisis see Cinque and Benincà (1993).
27. First and person singular strong pronouns are the pronominal forms that overtly manifest accusative Case.
28. See also Starke (1995) for the idea that the CP level is likely to be necessarily assumed as the root of all kinds of small clauses.
29. This point is discussed in detail in Rizzi (1993/1994) in the context of the discussion of the so-called 'root infinitives' stage identified in language acquisition.
30. Necessity of this further movement to (T and) C is presumably to be related to reasons of Case licensing. This is the attack I took in a preminimalist frame of discussion. See also Kayne (1989a). A detailed development of this idea in terms of Case checking can be undertaken. However, since the point is not directly relevant to the present discussion and to the topic under investigation, the development will not be undertaken here.

31. Belletti (1990, 1992, Chapters 1 and 2 of this volume), modulo introduction of the AgrPstPrt projection in the structure.
32. Since we are assuming that an empty auxiliary position is present in the absolute small clause structure, we must admit that the past participle is allowed to pass through it. Of course, this possibility could not extend to cases where Aux contains a lexical auxiliary.
33. To the extent that it is correct to assume a rich structure for absolute small clauses, as the one we are assuming, the possibility of the word order in (i) does not weaken the argument based on paradigm (31):

- (i) *Gianni ha risolto completamente il problema*
Gianni has solved completely the problem

If (i) must be analyzed with the adverb in some (Spec) position lower than AgrPstPrt, one could relate the impossibility of (31) c. to the word order in (i) only by assuming that the structure of absolute small clauses solely contains the past participial projection. But this conclusion does not seem plausible on the grounds of the general considerations sketched out in the text and discussed in the references cited on the topic that assume more structure for absolute small clauses than just the past participle projection.

34. See in particular Kayne's (1991) extensive overview including the consideration of different Italian dialects.
35. The literature on French unstressed subject pronouns is quite extensive; see, most recently, Friedemann (1995).

Following the traditional analysis, we propose that subject clitics of (some of) the northern Italian dialects are heads at the AgrS level. Hence, they are not weak pronouns, following the present terminology. Evidence in favor of this conclusion can be found in Brandi and Cordin (1981), where French unstressed subject pronouns and the subject clitics of some northern Italian dialects are shown to behave differently in coordinate structures:

- (i) a. *El canta e el bala*
He(CL) sings and he(CL) dances
b. **El canta e bala*
c. *Il chante et danse*
d. *El Mario canta e bala*

While the subject clitic of Trentino must be repeated in a coordination, the same does not hold for the unstressed subject pronoun of French [(i) a., b., and c.]. The latter behaves, in coordinate structures, like any other lexical subject. This is not the case for the Trentino subject clitic [(i) c., d., and e.]. These data can be interpreted by assuming that coordination can occur at a level of clause structure that excludes the subject position, but not the AgrS head.

36. In other words, the analysis of object clitics as weak pronouns is not favored in standard Italian. According to our proposal, it is not adopted.
37. An idea similar to that proposed in Kayne (1991).
38. An assumption also made by Zanuttini (1991), who quotes a similar point of view expressed by Kayne.

We can consider the person affected by the imperative a second person that can be singular or plural (see the following discussion in the text on the singular number) and that may or may not include the speaker.

39. Although truncation is not obligatory, its possibility is coherent with the impoverished nature of the morphology corresponding to the imperative.
40. Infinitives with an imperative interpretation seem to contradict the general claim that imperatives are root clauses and hence cannot be embedded:

- (i) a. *(Ti) Dico di non farlo*
I say you not to do it(CL)
- b. I say not to do that

It seems, however, that these infinitival clauses should not be considered real imperatives, but rather declaratives associated with an interpretation of 'command/order.' As observed by A. Moro (p.c.) this is illustrated by the fact that the negative infinitival that is present in (i) a. could not easily be realized in the form unambiguously corresponding to a negative imperative that is expressed through use of a negated infinitive in Italian and that, in the unique case of the sort in this language, can display proclisis onto the infinitive. The ungrammaticality of (ii) a. contrasting with the non-embedded negative imperative (ii) b. and the grammaticality of (i) a. illustrates this point:

- (ii) a. **(Ti) Dico di non lo fare*
I say (you) not it(CL) to do
- b. *Non lo fare!*
not it(CL) to do

41. We might assume the existence in the clause structure of an Imp head located in the same position as the Inf head of the infinitives. Presumably, 'Mode' would be the appropriate label for such a head, but I will not elaborate further on this point.
42. For the sake of simplicity I will just use the label CP. Recent work shows, however, that this is a dramatic simplification since the A' periphery of the clause involves a much more articulated skeleton of functional projections. See in particular Rizzi (in progress, 1997) on the issue.
43. That imperatives should involve movement of the verb to C has already been proposed. See in particular Rivero (1991). See also Rooryck (1992); Rizzi (1993); Laenzlinger (1994) for analyses that try to relate the process to the occurrence of enclisis, as in the discussion in the text, although in different ways.
44. In those dialects where subject clitics are heads at the level of AgrS (or some relevant head) the enclisis occurring in interrogative structures involving V to C can receive an identical treatment. The issue is more complex for French inversion structures and will not be taken up here.
45. Some accounts such as Rizzi (1993) and Laenzlinger (1994) assume that T (and AgrS) is not present at all in imperatives. I rather assume that it (they) is (are), and that indeed it can serve as a landing site for the clitic.

NOTES TO CHAPTER 6

1. With 'topicalization' of an element I refer here to the process through which that element is dealt with as a/the 'topic' of discourse, the 'given' information. In the literature the term 'topicalization' often indicates the process that here we refer to as 'focalization': the singling out of an element of the clause as the 'new' or 'contrastive' information. This terminological distinction should be kept in mind to avoid potential confusion.

I make use of the labels Focus and Topic here as commonly done in the current literature, but these labels are just a first approximation to a more adequate way of expressing aspects of the relation between discourse and syntactic configuration. The issue of the appropriateness of the labels arises here in a way comparable to the similar issue concerning the appropriateness of

labels for Th-roles. In both cases it concerns the expression of the relation between formal syntax and the interpretive interface.

2. I am using the term *Spec* in a traditional fashion incorporating classical *X'* terminology. The proposal to be developed here can also be phrased in a bare phrase structure frame.
3. See also Brody (1990) and the references cited earlier. For a first formulation of a similar proposal assuming the presence of a clause-internal focus position see Belletti and Shlonsky (1995); see also Ndayiragije (1999) and Jayaseelan (2001).
4. As for the topic interpretation, it is conceivable that it is uniform in both peripheries and is assimilated to 'given,' 'known,' 'non-focus' interpretation. Although the notion 'topic' no doubt requires further refinements on both semantic and pragmatic grounds (see Buring 1997), in what follows I am going to assume the general interpretation mentioned earlier, as 'given' information.
5. Throughout this work the term 'postverbal' is used in purely descriptive terms to refer to a subject that appears after the verb. Most of the data in this section concerning Italian are presented in more detail in Belletti (2001b).
6. The literature is extensive in GB. See, among others, Burzio (1986); Rizzi (1982), and the references cited therein.
7. Given the subtlety of some of the data discussed in this work, I am sure to control for the relevant pragmatic and intonational variables involved only in Italian. Given the appropriate intonation and pragmatic situations assumed throughout, the conclusions to be reached should extend to the Romance area more generally. See Costa (2000) for a recent discussion of closely resembling data. The label FI is used here in pretheoretical terms to distinguish this type of inversion from French SI; as we will see, inversion structures containing a postverbal subject in French correspond to a peculiar interpretation, distinct to those of structures containing a preverbal structure. In this respect 'inversion' is not all 'free' but is only compatible with the interpretations to be discussed later in this chapter.
8. On the potentially misleading effect of the term 'inversion,' see Belletti (2001b).
9. A silent doubling subject clitic remains inside the IP, thus accounting for the 'stylistically' rather marked status of the construction.
10. This characterization, which needs further qualification, creates the expectation that other XP complements may be allowed to intervene between the verb and the postverbal subject in SI but not as easily in FI. The question is complex, but, as the discussion in Kayne and Pollock suggests, this could only be a partially correct conclusion, as VOS and VPPS seem possible orders in French SI, at different levels of acceptability and with constraints regarding the interpretation of the object (preferably idiomatic). However, as discussed in section 5 (see also the previously cited work of mine), VO/PPS is not possible in Italian FI unless the VO sequence receives a particular topic-like interpretation/intonation, which we will precisely interpret as involving the topicalization of a remnant constituent, although to a clause-internal rather than to a clause-external position.
11. On the impossibility for a direct object to follow the postverbal subject, see section 4.
12. As discussed in more detail later in this chapter, the external Focus position, which one might want to suggest to be the position hosting the postverbal subject (combined with IP remnant movement), appears to always carry a corrective or contrastive interpretation or intonation that is completely absent in the examples discussed in (3) and (4), as noted in the text. This strongly suggests that an analysis with the postverbal subject located in the left peripheral

position and movement of the remnant IP across it is not revealing and should be dismissed for these cases of subject inversion. I limit this kind of analysis to those cases where the postverbal subject is indeed contrastively or correctively focused and that also display various differentiating behaviors with respect to the noncontrastively or noncorrectively focused postverbal subject under analysis here. See sections 3.1, 3.2, and 5.1 in particular for discussion.

13. See Nicolis (2000) for recent discussion.
14. Or the whole IP, if S had moved out of the IP as in French SI, according to Kayne and Pollock (2001).
15. In other words movement of *tutto* puts it further away from the position of the postverbal subject while 'low adverbs' remain closer to it, with V in its final functional position in both cases. This hierarchical distinction would be lost under a remnant movement analysis.

A reviewer claims that French SI appears to give rise to contrasts analogous to those in (3) and (4). If so, this might shed doubts on the overall analysis of SI as involving movement of the remnant IP across the left peripheral subject, developed by Kayne and Pollock. Since they do not explicitly discuss this point, I assume that their analysis of French SI can be maintained, pending further evidence.

16. On which see Belletti (2001b). See also Saccon (1993) and Pinto (1994).
17. Extraction remains bad with wh-interrogatives (actually worse than with relatives):

- (i) *?Di che cosa/di quale giornale ha telefonato il direttore al presidente?
Of what/of what journal has telephoned the director to the president

As I argue in section 6, the postverbal subject fills a different position in wh-interrogatives than in declaratives. The evidence indicates that both positions are impossible or very marginal extraction domains.

One could try to relate the general impossibility of extraction out of a postverbal subject to the same impossibility of extraction out of the preverbal subject position, an instance of the operation of a 'leftness constraint.' To obtain the desired word order, however, such a reductionist attack—potentially attractive and taken for instance in Longobardi (2000)—would necessarily require the postulation of a derivation including a wider use of remnant movement than the one admitted here, given the adopted guidelines. Moreover, extraction appears to be worse when it takes place from the preverbal subject position than from the postverbal one. We could use diacritics ranging from * to ????. Thus, if (ii) is a clear *, (iii) and the examples in the text can be judged as slightly more acceptable:

- (ii) *la ragazza di cui il fratello ha telefonato alle 5.
the girl of whom the brother called at 5
- (iii) ??la ragazza di cui ha telefonato il fratello alle 5.
the girl of whom called the brother at 5

See Belletti and Rizzi (1988) for a possible account phrased in terms of CED/subagency and differences in the number of crossed barriers in the two extraction sites.

Such a distinction could not be easily expressed within the reductionist approach that identifies the extraction site in the two cases. I do not attempt a precise update of the mentioned previous account for the distinction here.

18. Kayne and Pollock (2001) point out that not all cases of wh-extraction are equally well-formed for different speakers, but they assume that essentially wh-extraction should be considered possible.

19. This is true in some of the most typical cases discussed here and in previous work. But see later in this chapter for cases in which the postverbal subject receives the topic (given, old information) interpretation. As for possibility of extraction, no difference seems to be detectable as to whether the postverbal subject is focus or topic. See also note 17.
20. The A versus A' distinction is probably not refined enough to provide an adequate characterization of the notion relevant for CED. For the sake of the discussion the matter is simplified in the text and is left open here.

In those cases in which V (or part of the clause containing V as in remnant-type derivations; see section 5) is in focus or topic the clause-internal focus and topic positions must be considered transparent domains for extraction of V to undertake morphological checking. See also Belletti (2001b).

21. For the sake of simplicity, I disregard here the important conclusions reached in Cardinaletti (1997, 2004) that there is more than a single preverbal subject position in the clause.
22. The focalized status of the postverbal subject is further indicated by pairs like the following, also pointed out and discussed in some detail in Belletti (2001b). See also Moro (1997) for a detailed discussion of (ii).

- | | | | |
|-----|---|------|---|
| (i) | a. (Pronto, chi parla?)
(Hello, who speaks?) | (ii) | a. (Chi è?)
(who is (there)?) |
| | b. Parla Gianni.
speaks Gianni | | b. 1 Sono io
am I = it's me |
| | c. *Gianni parla.
Gianni speaks | | 2 Sono Gianni.
am Gianni = it's Gianni |
| | | | 3 E' Gianni.
It's Gianni |
| | | | c. *Io/Gianni sono/è
I/Gianni am/is |

23. A possible alternative according to which the postverbal subject remains in its original position internal to the verb phrase, assumed for instance in Cardinaletti (2001), is not viable in the restrictive approach adopted here according to which (both) the interpretation (and the intonation) should optimally be read off the syntactic configuration directly.
24. In these *non ... che* sequences the total omission of the article is more or less felicitous, depending on conditions yet to be understood and properly described. Although interesting in itself, I will not undertake a systematic description here, which will take the discussion too far afield.

Kayne and Pollock (2001) seem to implicitly assume that the French *ne ... que* construction is not submitted to the same kind of c-command requirement of *ne* over the *que* phrase that we are proposing for Italian. They allow for an extension of their analysis of SI to cases like the following, their examples (175) and (176):

- (i) Ne sont venus que Jean et Marie.
Are not come that Jean and Marie
- (ii) Ne sont venus qu'eux.
Are not come that they

However, we think that c-command can still be taken to be the relevant notion here and that the facts in (i) and (ii) call for a better explanation. As they also indicate, these instances of SI are very peculiar and demand readjustments in their system anyway.

25. Similar facts hold with the NPI *alcunché*:

- (i) a. Questi esperimenti non mostrano alcunché.
these experiments do not show anything
- b. Da questi esperimenti non risulta alcunché.
from these experiments does not follow anything
- c. *Alcunché (non) risulta da questi esperimenti.
anything does not follow from these experiments

In these cases and, more generally, with indefinite subjects of unaccusative verbs, the subject is likely to remain VP-internal (Belletti 1988, 2001b).

26. Note furthermore that, as is well known, the negative marker *non* normally disappears when *nessuno* is a preverbal subject in Italian:

- (i) Nessuno (*non) ha parlato
Nobody has (*not) spoken

With the described analysis it would not be obvious how to force presence of *non* when the subject appears in the postverbal position, in fact a concealed preverbal position normally excluding presence of *non*.

27. A reviewer points out that paradigms similar to (12)–(14) appear to hold in French SI as well. If this is the case, it is an open question how the analysis of SI proposed by Kayne and Pollock could analyze them in a way coherent with the interpretation provided for the relevance of the examples in (15). Possibly, not all cases of SI should be uniformly analyzed as involving IP remnant movement to the left periphery, as I am assuming, following Kayne and Pollock's proposal. I leave the question open, once again pending further evidence on the relevant SI data.
28. It is also difficult to understand the interpretation associated to VOS structures, which is reviewed in section 5. See Kiss (1998) for a clear distinction of the two types of focuses.
29. One might suggest that, contrary to the text proposal, a new information Focus position could also be available in the left periphery and that whenever it is activated, remnant IP movement is always required. In this view one should also explain why this is the case for new information Focus but not for contrastive/corrective Focus. How could the relevant distinction be expressed? Moreover, all the evidence discussed in the text pointing to the 'low' location of the postverbal subject in FI would be lost under any approach locating the postverbal subject in a 'high' position, in the left periphery.
30. It is possible that those languages with a particular focus particle might make the relation between Focus and Case look more plausibly strict.
31. If one were to assume that once the preverbal subject is interpreted as a topic (Solà 1992 and Ordoñez 1997 on Spanish) it fills an external topic position, here too the reflex on the outcome would be a special interpretation. On preverbal subject positions see Cardinaletti (2004). See also note 40 for a possible alternative.
32. For reasons of space, I do not address the Case issue on the postverbal subject here. See Belletti (2001b, 2005a, Chapter 8 of this volume) for a proposal.
33. Clauses behave essentially like PPs: The order VSCP appears to be possible although with some complications hinted at in Belletti (2001b), which I will not further discuss here:
- (i) ha detto la mamma di andare a letto.
has said mom to go to bed
 - (ii) ha detto la mamma che ha telefonato Gianni.
has said mom that has telephoned Gianni

34. This Case-related head is identifiable with the original AgrO head of Chomsky (1993). In the implementation proposed in the text it is assumed that the Case feature has to be related to small 'v,' the head only present in transitive (and intransitive) VPs (not in unaccusatives). In (21) this is obtained through movement of small 'v' to Acc.
35. The argument is a fortiori valid if S were to remain in VP. The relation between the Case-assigning/checking head and O is the Agree relation of Chomsky (2001, 2004).
36. If the whole VP is in focus, the fact that *ne* extraction out of S remains systematically impossible in VSPP suggests that location in focus remains responsible for this anyway, independently of whether a bigger constituent than S is located in Focus.
37. This could possibly be related to the fact that, in this way, S could be stressed through the Nuclear Stress Rule, allowing it to carry the prominence that seems to fit well with focus (usually interpreted as the result of a focus alignment operation; see Cinque 1993; the important work by Zubizarreta 1998 in this perspective; and current unpublished work by Guasti and Nespor). With PP following S and being also interpreted as part of the new information focus, prominence must be spread in a way that is felt less than perfect.
38. See Cecchetto (1999) for convincing evidence that the topic position involved in right dislocation is indeed low in the clause structure. On the possibly 'extended' analysis of doubling structures see Belletti (2005a, Chapter 8 of this volume).
39. I assume that RM is not violated by the movement of the clitic to the appropriate Case/head projection.

Assume that movement of S to Focus frees O, here clitic, to move outside VP without RM being violated. On the intermediate VOS stage involved in this type of derivation, I assume that it is admitted as movement of the clitic continues. The assumption here is that if O does not move outside VP (and then further up) the Agree relation with the v+Acc head cannot be properly established if S intervenes, as in the discussion of (21). See section 5 for more on VOS.

Past participle agreement holds in these structures, (24) Ba, as in the general case. This further suggests that the first portion of the movement of the clitic to the Case-assigning head is performed as XP-movement (a widely assumed hypothesis—see Belletti 1999b, Chapter 5 of this volume, and the references cited there).

Finally, if sentences like (i) (discussed in Belletti 2001b, n. 21) could have a derivation involving (clause-internal) remnant topicalization of V+O to the Topic position above the Focus phrase followed by movement of the clitic projection (producing no violation of RM, as discussed in the reference cited), the same derivation could not extend to (ii)—equivalent to (24) b. in the text—as the topicalized direct object follows the new information postverbal subject:

- (i) L'ha comprato Maria.
It(cl) bought Maria
- (ii) L'ha comprato Maria, il giornale.
It(cl) bought Maria, the newspaper

Thus a different derivation must also be allowed along the lines suggested earlier, with movement of the clitic projection directly starting out of the topicalized direct object, below the focalized subject, with no remnant VO topicalization stage involved in this case.

40. We can assume that it is sufficient that one of the two elements involved in the doubling construction (the clitic) fills a Case position for the structure to

be well-formed (for more on doubling see Belletti 2005a, Chapter 8 of this volume).

41. The notation (S) and (O) is simply meant to indicate that the intervention of S is obtained independently of whether the position relevant to determine it is the VP base position or the derived clause-internal focus position.
42. With the relevant intonation, sentences with the VSO order containing a contrastively focalized S and a topicalized O do not easily admit an NPI subject of the type illustrated in (12), as expected under the proposed analysis:

- (i) ?*Non hanno detto che (i/ dei) LINGUISTI la verità.
have 'not' said the truth 'that' (the/some) linguists the truth

The judgment improves if the object is right dislocated and a clitic is present, as expected:

- (ii) Non l'hanno detta che (i/dei) linguisti, la verità.
It(cl) have 'not' said 'that' (the/some) linguists the truth

As is clear from the proposed account, I agree with Cardinaletti's (2001) insight that right dislocation and *emarginazione* should be given a different analysis, but the way to set the distinction is different. According to Cardinaletti (2001), the direct object remains in the VP-internal position when it is 'marginalized' and does not fill a topic position, while it does fill such a position in right dislocation. According to the analysis proposed here, in both cases the direct object fills a topic position, although a different one in the two cases, the clause-internal one in (24) Ba and the peripheral one in (24) Bb.

43. It would seem that the interpretation probably does not force this step, as IP would be interpreted as topic also *in situ*. The plausible assumption seems to be that the topic interpretation can either be read off the structure or come from a negative definition: 'non-focus.' See also Rizzi (1997).
44. Such sentences are slightly more marginal than the sentences analyzed as (26) (whence the '?'), a fact that we leave unexplained for now.
45. Presumably, it would be a variable. As the topicalized phrase is not an operator, it would not qualify as an adequate binder for it. Whence the impossibility. The fact that a real operator cannot be a topic either (to be contrasted with *NESSUNO ho visto*, where the operator is in focus) could receive different accounts:

- (i) *nessuno ho visto.
nobody I have seen

See Cinque (1990b). Descriptively, we can state that there seems to be an intrinsic incompatibility between the operator status and the topic position.

46. Of course the perfect sentence (i) is a regular instance of left peripheral focalization that, as such, never requires a clitic:

- (i) IL LIBRO ho dato a Gianni.
The book I have given to Gianni

47. One possibility could be to say that the special topic construction we are dealing with is in fact selected by focus (Rizzi, personal communication). Alternatively, if the role of focus in licensing the low topic consists in making the operator-vbl interpretation available for the topic (normally excluded, see preceding note 45), it could be tempting to say that in the excluded Topic-Focus order, Focus would interfere in establishing the relevant relation between topic and the IP internal vbl. No interference arises with the other order, Focus-Topic.
48. Similar contrasts are also presented in Benincà (1988) and Cecchetto (1999).

49. It could be that the partial similarity of the Italian and French paradigms reflects the operation of an ultimately similar constraint. I do not pursue this question further here. See Alexiadou and Anagnostopoulou (2001) for recent discussion, which also gives a central role to Case.
50. As also rediscussed in Torrego (1998), the doubling clitic only shows up in the dative in Peninsular Spanish.
51. Thanks to A. Roussou for pointing this out to me.
52. This could be due to the fact that Italian is not an Object shift language; although the object shift position is probably not to be identified with the object Case position. On the necessity to empty the object Case position see also Belletti (1999b, Chapter 5 of this volume). See also the recent discussion in Chomsky (2000, 2001) in connection with the analysis of Object shift.
53. See Belletti (2001b) for further elaboration on this point. In what follows I eliminate the '??' diacritics on VOS for the ease of the discussion. It should be kept in mind though, and it will be stressed throughout the text, that VOS is systematically marginal in status, as discussed here.
54. This could be due to the fact that the remnant-type process involved is used here as a kind of 'parasitic' savaging strategy.
55. Cardinaletti (2001) agrees on the ungrammaticality of (46) b. in the text, while finding the following (i) grammatical (see also Ordoñez 1998, on Spanish) with the anaphor more deeply embedded:
 - (i) Ha visitato Gianni un collega della propria moglie.

Cardinaletti suggests that, for yet to be understood reasons, embedding of the reflexive anaphor improves the judgment. We believe that when the grammatical functions of the two nominals are clearly differentiated through agreement, further embedding of the anaphor do not produce any amelioration:

- (ii) *Hanno salutato Gianni i genitori della propria moglie.

Similar data hold for quantifier binding:

- (ii) *Hanno salutato ogni ragazzo i suoi genitori.
56. Of course, if contrastive focus could also be clause-internal, we would not necessarily expect any degradation in (51) as opposed to (49). This constitutes further indication that contrastive focus is to be limited to the left peripheral area.
57. I will not make any concrete hypothesis as to what the correct analysis of a corrective clause should be. I assume that hierarchical relations are preserved in this kind of clause as in simple declaratives.
58. See Rizzi (1996) and the references cited there; see also Poletto (2000).
59. This may possibly concern the whole clause.
60. This suggests that the core notion of focus is one and the same for both kinds of focuses identified. See Rooth (1992) for a formalization of what might be taken to be the core semantics of (any) focus. Answers to multiple questions are usually brought up as examples of sentences containing multiple foci. However, this is probably an oversimplification and, possibly, a not refined enough view of the interpretation of these kinds of pairs. A detailed discussion of this topic would take us too far afield. I postpone to other work in progress a closer discussion of multiple question-answer pairs. For now, I just assume that the case of multiple questions can be put on the side, and that real cases of multiple foci do not exist.
61. Any kind of focus induces WCO violations, so there is no difference in status depending on whether the focalized element is either contrastively focused or

is new information focus, as the postverbal subject in (51) a. and (i) is equally impossible:

- (i) *?Attualmente in un suo_i appartamento vive GIANNI_i.
At present, in his own apartment leaves Gianni

62. In a sentence like (i) with the focus of new information on the verb and the postverbal S interpreted as topic, no WCO appears to arise:

- (i) Attualmente, nel suo_i appartamento *dorme*, Gianni_i.
At present, in his own apartment sleeps Gianni

63. The Case issue is also taken up in Belletti (2005a, Chapter 8 of this volume) within the larger context of the analysis of doubling structures.

NOTES TO CHAPTER 7

- Contrary to Belletti and Shlonsky (1995), I make the assumption that, as in the uniform base of Kayne (1994), the direction of the location of the Specs is uniformly on the left of the head projection. I have made the same change as for the location of the Specifier of the Focus projection. With respect to the proposal in Belletti and Shlonsky, the hierarchical organization of the arguments is readapted here. See also Larson (1988), and the representation adopted in section 2 of this chapter for unaccusatives.

[The notation of the VP structure is left in the original formulation in terms of X'-theory. It can easily be rephrased in more recent terms including the little "v" hypothesis within a bare phrase structure conception. Nothing seems to crucially depend on this choice for the arguments to go through, so the original notation is maintained for ease of cross-reference. I also leave open a closer discussion on the possible hierarchically different order of the merging of the arguments, which would take the discussion too far afield here. (AB)]

- [Chapter 6, sections 4 and 4.1. (AB)]
- [In the vP-periphery. Chapters 6, 8, and 10. (AB)]
- The usual feeling of redundancy and slight unnaturalness is associated with (6) B. A more natural answer would not repeat the lexical PP, but would utilize a dative pronoun:

- (i) le ho restituito le chiavi
(I) to-her+gave back the keys

The crucial observation here does not concern this relatively subtle fact, but the sharp contrast between (6) B versus (6) B'.

- The auxiliary should fill its regular position within the relevant inflectional head that normally hosts it. If checking of the past participle features needs to take place, we could assume that the relevant heads (Asp, at least) should immediately dominate the VP before the Topic-Focus phrases. Alternatively, movement to the checking head could start out from the Topic phrase, as already assumed for the direct object in VOS.

[Chapter 6 for related comments. (AB)]

- Note that an alternative answer to (7) A could be:

- (i) Gianni ha restituito le chiavi # a Maria
Gianni has given back the keys #to Maria

with a clear interruption between the direct object and the following PP. (The pause can be enriched with contrastive stress on the direct object, but contrast

is not necessary here). (i) involves topicalization/marginalization of the PP. [Chapter 6, section 3.2 and 3.2.1. (AB)] Given the organization of the information structure of the clause, I assume the object to be in the specifier of the low Focus phrase also in this case.

7. As in Rizzi's articulated CP structure, the Topic phrase is found below the relative complementizer, which is the highest C level.
8. More generally, every clause allows for just one constituent to be focalized (Calabrese 1992). Thus, not only can clause-internal focalization involve one constituent at most, but clause-external focalization as well:

- (i) *IL LIBRO; A MARIA, Gianni non ha ancora dato
THE BOOK, TO MARIA, Gianni hasn't given yet

Interestingly, clause-internal and clause-external focalization cannot combine either:

- (ii) *IL LIBRO, le darà Gianni
THE BOOK to-her+will give Gianni

where 'Gianni' should be construed as new information focus and 'il libro' as contrastive focus. This might suggest that at the interpretive level, clause-internal and clause-external focalizations are indeed a unified phenomenon, despite the differences that they manifest in their distribution as well as their informational pragmatics. In the spirit of Chomsky (1977), one could suggest that, at LF, all instances of focalization are reduced to one single process. I will not attempt to provide a formalization of this idea here. See Rizzi (1997) for relevant discussion.

[See also Chapter 6, section 5, for relevant considerations. (AB)]

9. [The licencing function of focus is not central given the more recent approach developed in Chapter 6. (AB)]
10. O cannot independently move to its (Case) checking position since this position is higher than both the Topic phrase and the Focus phrase, by assumption.
[The assumption here is that smaller chunks than a maximal projection (such as V') are not seen by movement, in X' theoretic terms. This assumption, however, does not seem necessary: if the analysis in Chapter 6, section 3.1, is adopted, according to which S cannot intervene between the object and its vP-external Case assigner, the impossible order in (11) is ruled out anyway. (AB)]
11. The peak of the intonation is on S here.
12. Possibly, all unaccusatives do in fact select a prepositional argument that can remain silent. See also the discussion in Moro (1997).
13. Maybe such a VP-internal, as such inherent (partitive?) Case position, is systematically available for (certain) indefinite objects. This updates Belletti's (1988) analysis.

According to Longobardi (2000), unmodified bare plural subjects in the existential interpretation are allowed to remain VP-internal with both unaccusative and intransitive verbs. We could speculate that they should qualify for VP-internal licencing through the VP-internal Case, which severely limits the choice of possible DPs.

As a general approach, I assume that verbal agreement is obtained through the relation with the associate expletive in the preverbal subject position. See note 18 in this connection. [See also the discussion in Chapter 8 of this volume, for a different approach in terms of doubling. (AB)]

14. [The analysis referred to here is developed in the preceding sections of the article, not reproduced here, according to which the subject fills the specifier

of the low focus position and the PP remains VP-internal. See Chapter 6 for relevant discussion. (AB)]

15. Note that the last constituent is often also the most embedded one, hence the one receiving Nuclear stress. This makes it the most prominent one. There seems to be a tendency/preference to have matching between Focus and prominence. See, in this connection, Cinque (1993) and the line of research in Zubizarreta (1998).
16. These data illustrate the so-called DE that has often been reported to give rise to a relatively subtle and often difficult violation where different factors come into play related to the interpretation, the informational organization of the clause, and the intonation. This is at the source of a complex gradation in the grammaticality judgments associated to the relevant sentences. Note that the marginality of (16) is a bit stronger than that of (15). This could be related to the fact that the first/unmarked location for the postverbal subject of unaccusatives is the VP-internal one. Since this position is only compatible with indefinite subjects, this requires that sentences like (16) be reanalyzed as involving not a VP-internal, but a VP-external, focused subject.
17. Comparable to the status of the same cliticization process out of a direct object of a transitive verb (Burzio 1986; Belletti and Rizzi 1981). At least for indefinite direct objects we can assume the same structural analysis as the one assumed for the postverbal subject of unaccusatives. See note 13.
18. It gives rise to a CED-type effect (see the discussion in B & S). I assume that the specifier of the Focus phrase is an impossible extraction site since it is a derived not L-marked position. On the other hand, similarly to the preverbal subject position, it can be considered an A position (differently from the clause-external Focus phrase). This is suggested both by the fact that DPs are licenced there according to the proposed analysis and by the empirical phenomenon of verbal agreement, which holds with a focalized inverted subject (through the relation with the associate expletive in the preverbal subject position; see note 13).
19. This is because we are systematically interpreting reordering as focalization in the specifier of the low Focus phrase. This assumption excludes the possibility of leaving the indefinite subject in the VP-internal position in this case.
20. [The same amelioration would affect (20) a. and b. (AB)]

The adverb can also follow the quantifier:

- (i) ne ho dato a Gianni uno solo
(I) of-them+have given to Gianni one only

to be probably analyzed as involving head movement of the quantifier into a higher head (of the same extended projection) past the adverb filling the Spec position of the QP projection. This movement triggers agreement on the adverb as shown by examples like the following:

- (i) Ne ho data a Gianni solo una
(I) of-them+have given to Gianni only one(FS)
- (ii) Ne ho data a Gianni una sola
(I) of-them+have given to Gianni one(FS) only(FS)

21. The phrase whose specifier is filled by 'solo' constitutes an appropriate checking domain (possibly through some version of 'dynamic' agreement in the sense of Rizzi 1996). This is what allows for the *in situ* process of focalization.
22. The term 'scrambling' is used here in purely descriptive terms. Possibly the process involves movement of the PP to the specifier of one of the clause-internal Topic phrases. ['Scrambling' could also affect a larger chunk of the verb phrase containing both V and PP. This updating is left open here. (AB)]

NOTES TO CHAPTER 8

1. See Anagnostopoulou (1999) for Greek. See also Schmitt (1998) and Cecchetto (2000) for a closer comparison between CLD and CLLD.
2. The assumption is that the Th-role associated with the position of the big DP reaches all its internal constituents up the first possible further Th assigner that could be found DP internally. For example, if the head N of the lexical projection NP, inside the DP, takes a complement this complement will be assigned a Th-role by N, not through the position filled by the big DP. This result is directly obtained through standard minimality. Furthermore, NP internally, the distribution of Th-roles should function in the way described in various articles on the topic (cf. Bernstein 2000 for an overview), with the identification special NP internal relations (such as the relation R expressing possession and so on). See Kayne (2002) for a partly different view.
3. Thus, if the lexical part remains in the 'complement' position as is presumably the case in the classical Spanish examples, the preposition appears following language specific constraints discussed in Torrego (1998). No extra Case marker would show up in other kinds of positions, such as the position of left dislocated arguments.
4. Of course, as it remains very general, the brief summary does not do justice to any single proposal referred to in the text. This is not the aim here, though. I think that the summary does do justice to the spirit of the various proposals.
5. Due to their non-referential status.
6. As usual, the term 'construction' has no theoretical status *per se* and it is just used to speed up reference to the relevant structures and computations.
7. For FQ to involve direct objects extra material seems necessary within the original vP, a fact often noted in the literature (Sportiche 1988 and references cited there):

- i. Ho incontrato i miei amici tutti al cinema
(I) have met my friends all at the movie theater
- ii. Ho chiamato i ragazzi tutti nello stesso momento
(I) have called the boys all at the same moment

Impossibility of FQ involving a P:

- iii. *Ho parlato con i giornalisti tutti della stessa notizia
(I) have talked with the journalists all about the same news

could receive different interpretations. A traditional one attributes the impossibility to lack of c-command between the DP embedded within the PP and the position to which the DP should be related within the original big constituent containing the stranded FQ. With an analysis of Prepositions as always belonging to the clause functional structure as in Kayne's (2004) analysis of Prepositions *à* and *de*, other reasons should be found to exclude cases like iii. I will not pursue the issue any further here.

8. I assume a movement analysis of CLLD. See Cinque (1977, 1990b).
9. Also other possible combinations only containing a lexical part of a noun phrase as part of the split constituent are excluded:
 - i. *I miei amici andranno genitori al cinema
my friends will go parents to the movies
10. McCloskey (2000) discusses doubling constructions of Western Irish where one part is constituted by a wh-phrase:

- i. a **What** did you get **all** for Christmas?
 b **What** do they claim **all** (that) we did?

As can be seen in (i) b., the construction displays the very peculiar property of allowing for stranding within the CP periphery.

Recently, Poletto and Pollock (2004b) and the references cited there) have pointed out the existence of *wh*-doubling structures in some Italian dialects for which they also assume a 'big DP'-type analysis involving 'movement + stranding,' where the original big DP is [+*wh*] in all its components (examples from Poletto and Pollock 2004b):

- ii a. S' a-lo fat che?
 What has he done what
 'What has he done?'
 b. Ndo e-lo ndat endoe?
 Where is he gone where
 'Where is he gone?'

11. See also Belletti (1999a) and Cardinaletti (1999).
12. See Belletti (1982b) for a systematic discussion.
13. This is typically done, especially in better studied CLD and CLLD and RD. For a recent proposal that must introduce some special interpretive device to this effect, see Frascarelli (2004); see also Cinque (1990b).
14. Cardinaletti (2004).
15. These are just labels attributed for convenience. Nothing special hinges on these particular labels. The only important point here is the identification of positions in the *vP*-periphery associated with different discourse-related interpretations. See the works cited for some discussion on this point within the more general frame of the cartographic studies (Rizzi 2004 and references cited there; see also Chomsky 2002 for some discussion).
16. Rizzi (1997, 2004a) and related works, a.o. See Benincà and Poletto (2004), and references cited therein, on the detailed cartography of the clause-external area.
17. I assume that not only clitics (and weak pronouns) but also strong pronouns leave the position where they are originally merged (see Cardinaletti 1998; Cardinaletti and Starke 1999). I assume temporarily that the position where they end up is one of the *vP* peripheral ones of Topic and Focus, which takes care of their interpretation. For further qualification on the strong pronoun landing site see the discussion of the data in section 2.1.
18. This interpretive character of the preverbal subject does not necessarily imply that the subject is located in a Topic position in the left periphery of the clause, as it is assumed in some studies (Barbosa 2000; Solà 1992; Poletto 2000; among others). An idea that is convincingly criticized in other works, in particular in Cardinaletti (2004), where various preverbal subject positions are identified clause-internally. However, the very marginal status of sentences like the following i., where the subject is the negative quantifier 'nessuno,' might indicate that in the SPD construction the preverbal subject actually fills the left peripheral Topic position:

- i. *?Nessuno verrà lui
 Nobody will come he

The impossibility of i. could then be reduced to the same reasons excluding CLLD involving a (negative) quantifier, a well-known fact discussed in detail in Rizzi (1986b) and Cardinaletti (2004).

19. Note that it would be perfectly in the spirit of the present approach to also interpret the relation between an adverbial expression like 'in person' and the DP it refers to as once again a case of doubling, where the doublee could be merged within the Adverbial PP projection that should be located in the Specifier of the relevant functional projection according to Cinque's (1999) hierarchy. The adverbial expression would function as the doubler. The doublee would then move to an argument position in the clause, e.g., to the subject position.
20. The question mark in (16) reproduces the judgment in Belletti (2001b, 2004a, Chapter 6 of this volume). See the discussion there.
21. Notice that this makes explicit through the tools of the present approach a generalization that was already essentially noted in Burzio (1986). This conclusion will be refined momentarily, taking into account the pronominal nature of the postverbal doubler/subject. See the following discussion surrounding examples (18) and (19).

The PP can be assumed to remain in the vP-internal position; where it is interpreted as non-Focus by default; alternatively, it could be assumed to move into the lower Topic position. I leave open the decision between the two alternatives, difficult to distinguish at the level of current understanding.

22. In this type of example the PP is naturally interpreted as a further Topic (then, filling either an iterated Topic phrase or the position where it is originally merged within the vP as pointed out in the previous note). This 'iteration' of Topics expresses the 'marginalization' phenomenology originally identified by Antinucci and Cinque (1977). See also Cardinaletti (2001) for recent discussion. Given the assumed vP-periphery, the possibility of associating to it a Focus interpretation opens up, assuming the doubler strong pronoun (17) a. or the postverbal subject (17) b. to fill the higher Topic Phrase (See Belletti 2004a, Chapter 6 of this volume for discussion concerning the presence of a higher Topic phrase in the vP-periphery). It is not straightforward to imagine what the pragmatic situation would be that should favor this interpretation. One possibility could be the following exchanges:

- i. A: Hanno deciso a chi parleranno?
'Have they decided to whom they will talk?'
B: Maria parlerà, lei, al dottore; lo sai com'è fatta.
Maria will talk, she, to the doctor; you know the way she is.
Gli altri non so a chi parleranno.
The others I don't know to whom they will talk
'As for Maria, she will talk to the doctor, you know the way she is.
The others I don't know to whom they will talk.
- ii. A: Ha deciso Maria a quale messaggio risponderà?
'Has Maria decided to which message she will answer?'
B: Risponderà, Maria, alla lettera
Will answer Maria to the letter
'Maria will answer to the letter, as far as she is concerned'

23. A reviewer suggests that lack of interference here might be a consequence of the doubling computation along the lines schematized in the following schema (22). The pronoun could be taken not to interfere here for Case purposes as 'Maria' fills a Case position in (18). This line of explanation sounds rather reasonable and much in the spirit of the present work, even if it requires a rather subtle notion of (Case) interference. However, since (strong) pronouns are likely to move from their base position (see note 18), as the contrast in (20)

strongly suggests, the alternative presented in the text should probably play a role anyway in accounting for the pattern in (18) and (19).

24. Much as clitics have their derivational history due to their clitic nature, so also do strong pronouns have theirs. According to the discussion in the text, the pronominal area of the clause is higher than the vP-periphery. But, as noted in the examples (9) and (10) in the text, this position is still lower than one of the possible positions for FQs.
25. I assume that in CLLD, DP₂ moves through the clause-internal Top phrase. See Cecchetto (2000) for this idea.

Possibly, the well-known fact that left dislocated PPs do not require the clitic in the clause following them

- i. Con Gianni non ho ancora parlato
With Gianni not have yet spoken
'With Gianni I have not yet spoken'

could be reduced to Case-theoretic reasons: The preposition introducing the dislocated DP can suffice for its Case licencing, thus making the presence of the clitic unnecessary. The fact that the clitic can be present might suggest a different structure for the original big constituent:

- ii. Con Gianni non ci ho ancora parlato
With Gianni not (I) with him(cl) have yet spoken
'With Gianni, I have not spoken with him yet'

In cases like (ii.) the original DP is richer in structure than in cases like (i.), involving the iteration of DP projections typical of doubling configurations (see Cecchetto and Chierchia 1999 for arguments against the existence of 'big PPs'). The slightly more substandard flavor associated with sentences like (ii.) as opposed to CLLD sentences involving a direct object:

- iii. Gianni non lo ho ancora conosciuto
Gianni not (I) him (cl) have yet known
'Gianni, I have not met him yet'

might be related to the fact that (ii) involves a less economical structure than the one that would suffice for an adequate computation. No violation of grammatical principles being involved, (ii.) is not ruled out, but it is just ranked at a lower level of acceptability. I leave this speculation at this stage now.

As briefly mentioned in section 1.1, it could be that in CLD of the Spanish kind the direct object is not moved to the Top phrase, but is left in the complement position where it realizes its Case through preposition *a*.

26. To the extent that a small silent 'pro' could be licenced in the postverbal position, it could be proposed that sentences containing a preverbal subject involve raising of the overt part of the big DP and stranding of 'pro,' the mirror image of the derivations in (24) and (25):

- i. Gianni parlerà [pro . . .]
Gianni will speak

See Barbosa (2000) for a proposal that could share some similarity with (i.). I leave open here a detailed discussion of the plausibility of a proposal along these lines, just noticing that it seems to be problematic given the (very) 'weak' nature of 'pro' and the fact that a weak subject (e.g., *egli*; Cardinaletti and Starke 1999) cannot in general be stranded in the postverbal position. Thus, I assume that sentences with a preverbal subject (either overt or non-overt) do not involve a doubling analysis.

The Agree relation of Chomsky (2004) can still be assumed to be operative for the identification of the 'goal' (the big DP). The assumption is also maintained that the clause has an EPP feature triggering movement of the relevant portion of the big DP (the portion corresponding to 'pro').

27. Languages may vary as to the status of 'pro' in the nominative position of inversion structures. In some languages, or in some cases in some languages (see BP, to be discussed in the following note), it could be an 'expletive.' We could relate the occurrence or nonoccurrence of phi-feature agreement within the original big DP to the personal versus expletive nature of 'pro.' In those cases where 'pro' has an expletive status, and it is thus assimilated to French *il*-type expletive, verbal agreement would not obtain with the postverbal subject. A possibility that is well known to occur in several languages/dialects. I assume without further discussion that 'there' type expletives constitute a different case along the lines of Moro's (1997) analysis.
28. Postverbal subjects are typically possible with unaccusatives in BP. It can be suggested that in this case, for reasons yet to be understood, the expletive version of 'pro' is more readily available in BP, as it is overtly the case in French (with expletive *il*). Note that, according to Figueiredo (1996), the much preferred option here does not have phi-feature verbal agreement:
 - i. *chegou os livros que eu pedi*
arrived the books that I asked
'The books that I asked for arrived'
29. And in French as well:
 - i. *Moi, je l'adore*
Me, I her(cl) love
'As for me, I love her'
 - ii. *Lea, elle viendra*
Lea, she will come
'As for Lea, she will come'
30. That nominative can be a default Case in Italian is suggested by various facts. Consider, for instance, the following sentences where the pronoun is pronounced in isolation or inserted in contexts with no available Case; particularly revealing is the comparison with French and English where, in similar contexts, accusative is utilized instead of nominative, accusative functioning as the default Case in these languages:
 - i. A: *Chi ha detto questo?*
'Who said that?'
B: *Io*
I
'Me'
 - ii. A: *Who said that?*
B: *Me*
 - iii. *Io fare questo? Tu scherzi!*
I to do that? You kidding
'I should do that? You must be kidding'
 - iv. *Moi faire ça? Tu rigoles!*
Me to do that? You kidding
'I should do that? You must be kidding!'

31. Carlos Miotto, p.c. The construction in (31) should be kept distinct from the one involving an inflected infinitive, complement of verbs like 'lamer' (Raposo 1987).
32. The Focus (Topic) position hosting a postverbal subject must be 'active' in the language in order for it to be made use of. This is the case in BP, as infinitival clauses like (31) suggest. In languages like English or French, on the other hand, the (clause-internal) position is not active (in general); hence, although PRO is certainly available in the subject position of infinitival clauses, still no (overt) subject pronoun can appear in the postverbal position in a way comparable to (29) and (31). We might speculate that activation of the clause-internal Focus (Topic) position is more readily available in null-subject languages. Then, if the possibility of (31) in BP is a sign of the activation of the relevant position, this could be a trace of the once productive null-subject nature of the language.
33. Although (32) b. and c. are totally out, (32) a. may improve if a clear intonational break intervenes between the lexical subject and the following PP. As a reviewer interestingly points out, in this case the sentence might be amenable to a different analysis than the one suggested in (32) a., along the lines in (i) following:

(i) *pro* pensa [*di* PRO parlare] Gianni, *di* questo problema

with 'Gianni' filling the clause-internal Focus position of the matrix clause, doubling the preverbal '*pro*' in subject position (the PP should fill the lower Topic position and the complement infinitival clause possibly the other assumed higher Topic position surrounding the low Focus).

34. On the partly different status of inversion structures in this respect see note 37.
35. This, incidentally, is the one that most closely resembles CLD, with a strong pronoun instead of a clitic.
36. As we have proposed that subject inversion structures are doubling structures involving a personal small '*pro*' moved to the preverbal subject position, the proviso must be added to the discourse constraint in (39) that it only refers to 'overt' constituents.

Note that in order for (37) a. to be derivable, the DP containing the lexical noun phrase must vacate the big DP, as a reviewer appropriately underscores. According to our analysis, this implies that it ends up in either Focus or Topic position in the vP-periphery. The point that a constraint along the lines in (39) tries to make explicit is the reason why the result is only acceptable if the second option is taken. The constraint also has a rather broad scope of application in that it carries over the cases discussed in the following examples (40) through (45).

37. The comma is utilized here to indicate the pause + downgrading intonation typically associated with phrases in the left peripheral Topic position.
38. As suggested by the status of (42) e., a strong pronoun is 'richer' than a clitic in the sense relevant for the constraint. A hierarchy emerges for the features computed by the constraint: lexical noun phrase, strong pronoun, clitic. According to Cardinaletti and Starke (1999) an 'animacy' feature distinguishes clitics from strong pronouns. If quantifiers are added, they are at the lowest position in the hierarchy. See the examples in (44) in the text.
39. As I have assumed throughout, the topic interpretation can be characterized in a negative way as 'non-focus.' Hence, we can assimilate to topic also the interpretation of the FQ in the position reserved to quantifiers (and not available to pronouns) such as the one between the Aux and the PstPrt.

40. On the centrality of the 'person' feature in determining various syntactic constraints across languages and hierarchies of the type suggested in note 38, see recent work by Bianchi (2006).
41. The total impossibility of (i) a. is probably due to the fact, discussed in Cardinaletti (2001), that the weak pronoun *egli* can never appear in a postverbal position (independently of its interpretation as topic or focus):
 - (i) a. *Lui parlerà egli
 he (strong) will talk he (weak)
 - b. *Parlerà(,) egli
 will talk he (weak)

Note that the obsolete use of the subject pronoun 'egli' makes sentences like (45) b. rather peculiar in current standard Italian. Interestingly, the contrast in acceptability judgment between (45) a. and (45) b. is, nevertheless, clearly detectable.

42. I leave on the side a potential case of SPD involving a PP in that various independent factors might be responsible for its nonexistence, ultimately related to the presence of a preposition. See note 7 for related considerations for FQ.
43. 'Maria' is understood as a kind of 'afterthought.' We can speculate that an 'afterthought' is closer to a Topic than to a Focus interpretation, given our typology of positions/interpretations; whence the improvement of (46) b. over (46) a.
44. Note that the split is not always necessary: All conditions being equal, the following German examples discussed by Grewendorf (2002) might precisely illustrate the big DP in the unsplit form, possibly due to the different nature of the article/pronoun *den* in German from Romance-type clitics and strong pronouns:
 - i a. Ich habe den Depp den hinausgeworfen (Grewendorf (2002))
 I have the jerk the kicked out
 'I have kicked out that jerk'
 - b. Ich kann den Kerl den nicht mehr ertragen
 I can the character the no longer stand
 'I cannot stand the character any longer'

According to Grewendorf (2002) the expressions *den Depp den*, *den Kerl den* can be analyzed as a big DP where internal movement to its specifier takes the place of the DPs *den Depp* and *den Kerl*, respectively. Possibly, the English examples to be briefly discussed at the end of this work might be amenable to a comparable analysis.

45. For left peripheral Focused phrases we can assume the traditional analysis dating back to Chomsky (1977) and propose that there is a Case-marked variable in the clause-internal argument position to which the focused constituent is linked, whence no need of a clitic pronoun in the case of focalization. For clause-internal focus as a similar process could be assumed to hold at the level of LF interpretation.
46. Note that we are not comparing the doubling versus non-doubling derivations, but just the 'economy' of the initial Lexical Arrays from which the computation starts out.
47. Or topic, depending on the intonation associated to it.
48. The following is also possible:
 - i. I ragazzi risultarono loro, aver risposto alla domanda
 The boys turned out they to have answered the question
 'The boys themselves turned out to have answered the question'

The difference between (47) in the text and (i.) is that (i.) has the pronoun interpretable as either focus or topic in the usual sense, located in the vP-periphery of the matrix clause, as suggested by the necessary associated intonation (suggested by the comma).

49. In constructions involving a clitic the comparative issue necessarily takes a different shape depending on whether the languages considered have clitic pronouns or not.
50. The activation of the vP-periphery seems to correlate with the setting of the null-subject parameter in the way discussed in some detail in Belletti (2004a, Chapter 6 of this volume). See also note 32.

It should be noted that sentences like those in (i.), following from Ronat (1979), appear to be possible in French:

- i
 - a. Je viendrai moi
I will come me
 - b. J'ai moi rencontré Pierre à la campagne
I have me met Pierre at the countryside

These cases of subject doubling might illustrate a limited activation of the vP-periphery in French in a way analogous to Italian. This might in turn imply a less direct relation to the null-subject parameter. The issue would require a deeper analysis of the French data that cannot be pursued here.

NOTES TO CHAPTER 9

1. Sometimes they are even ready to imagine reasons and interpretations for their linguistic behavior. This is certainly in the experience of any linguist, who must then be very careful in appropriately valuing the comments, as no direct introspective access to the mechanisms responsible for their linguistic behavior can be available to the speakers.
2. For some reference on the comparative perspective in theoretical linguistic research, in the area of formal syntax in particular, see Haegeman (1997); Rizzi (2000); Chomsky (2002); and the recent contributions in Cinque and Kayne (2005).
3. See, in this particularly rich domain, the work by Benincà; see also Belletti (1993b); Poletto (2000); Manzini and Savoia (2005), among many others, for theoretically guided dialectal studies in the Romance domain.
4. See Rizzi (2005) for recent discussion and an overview.
5. See Rizzi (1993/1994); Wexler (1994); and Hamann (2002), in particular, and the references cited therein.
6. See the references cited in the text and in the preceding note for detailed discussion and partly different approaches to the developmental issue raised by the child null-subject phase.
7. As well as studies of pathologies of different sorts, for that matter.
8. Linguistic data from other kinds of pathologies than SLI, such as Down and Williams syndromes, are currently being studied intensively. In the same spirit presented in the text, they constitute further potential sources of evidence.
9. Chomsky (1981) and Rizzi (1982).
10. Where null pronominal referential subjects are marginally possible only in particular registers, e.g., in the diary style discussed in Haegeman (1990).
11. This traditional account should be updated following Cardinaletti's (2004) proposal according to which various preverbal, high subject positions are present in the clause structure and one such position is precisely dedicated to host *pro*. Licencing of *pro* should depend on some formal feature of the

relevant functional head with which *pro* is merged. This assumes, as in Chomsky (1995, 2004), that parameters reduce to different features of functional heads in general, and that syntactic structures are built up through the general compounding operation Merge.

12. The so-called 'definiteness effect' (Milsark 1977; Belletti 1988; Moro 1997; among others).
13. Whenever the answer is expressed through a whole clause, containing the verb. See the works cited for detailed discussion.
14. Cinque (2002); Rizzi (2004b); Belletti (2004b).
15. See Rizzi (1997), and subsequent literature.
16. V-movement to some high inflectional head yields the final linear order.
17. Hence, the possibility opens up of a null-subject language that does not 'freely' allow for VS. The point is addressed in Belletti and Leonini (2004) and Belletti (2005a).
18. As well as on a close comparison with French partly related Stylistic inversion structures as they are analyzed in Kayne and Pollock (1978, 2001), also based on native speakers' grammaticality judgments.
19. Interesting converging evidence from various Creole languages is also discussed in Nicolis (2005).
20. See Belletti (2005a, and also Chapter 10 of this volume) for discussion of this aspect. Note that the question opens up how and why the answering strategy adopted by the L2 speakers differs from the native one and seems to depend on the different L1s, at least in part.
21. In Belletti and Leonini (2004) the calculation was done by counting the number of null pronominal subjects spontaneously utilized by the L2 speakers in an independent experimental task.
22. See Belletti, Bennati, and Sorace (2007) for a detailed presentation.
23. Rizzi and Shlonsky (2007) conjecture that extraction from a low, postverbal position is systematically felicitous only in languages that avail themselves of a nonovert expletive *pro* in the preverbal subject position. Null-subject languages are typically languages of this type. See Nicolis (2005) for converging evidence from Creoles. See Belletti (2005b, Chapter 8 of this volume) for a partly related discussion involving doubling structures.
24. Incorporating a cliticized 'expletive-like' 'i,' as in the analysis of Taraldsen (2001).
25. The reader is referred to Belletti and Hamann (2004) for a closer discussion of this point.
26. Null pronominal subjects are overwhelmingly instantiated in the Italian corpus.
27. The following sentence produced by Lorenzo indicates the appropriate use of unaltered form of the Italian complementizer *che*:
 - (i) Grazie, signore che mi avete dato un palloncino (Lorenzo 3;7)
 thank you sir that me-have._{2P} given a small-balloon
28. The discussion here is based on Hamann and Belletti (2006); see the references cited there for different aspects of the acquisition of cliticization in different modes of acquisition.
29. Nor in SLI acquisition, according to Hamann and others (2003).
30. As discussed in Hamann and Belletti (2006), it is worth differentiating between bilingual acquisition (two languages acquired from birth; Meisel 1990) and child L2 acquisition (second language acquired early on in infancy). While the former typically develops faultlessly, apart from some minor possible manifestations of contacts in some areas (Hulk 2000), and does not have developmental phases distinguishable from those manifesting themselves in the monolingual

acquisition of the two (or more) languages, the latter typically displays patterns of adult L2 acquisition, although a quick development occurs, making the acquirer's linguistic behavior soon virtually undistinguishable from that of an early bilingual. The spectrum of subtle variations between these two border cases is potentially quite wide as it involves conditions both internal and external to the acquirer. The matter will not be pursued any further here.

31. See Leonini and Belletti (2004); Ferrari (2006); and Leonini (2006).
32. See Hamann and Belletti (2006) for further detail. Although the placement errors reviewed here are never very frequent in the L2 acquisition of French, nevertheless they are systematically documented. This is not the case for the L2 acquisition of Italian in this domain.
33. The analysis can also be phrased in terms of Sportiche (1996). For concreteness, I am assuming the analysis in Belletti (1999b, Chapter 5 of this volume); see this work for further reference on the computations involved in cliticization.
34. This point is discussed in Hamann and Belletti (2006) with reference to the issue of cliticization. See also Belletti, Bennati, and Sorace (2007) for related considerations in the domain of the discourse properties of VS, discussed in section 2.
35. It is occasionally claimed that object clitics appear earlier in Italian than in French in monolingual acquisition. If this is indeed the case, the present consideration could suggest a reason for the shorter delay.

NOTES TO CHAPTER 10

1. Part of the material addressed in this chapter reconsiders the discussion in Belletti (2007) where more detailed attention is devoted to the acquisition issues raised by the existence of the answering strategies. (L2) acquisition data will only be briefly mentioned here, serving as an independent illustration.
2. Specifically, the standard literature on the null-subject parameter; see Rizzi (1982) and Burzio (1986). As the discussion in the text indicates, inversion is not 'free' at all in these cases, but discourse related: a new information subject is postverbal in a null-subject language like Italian. See Chapters 6, 7, and 8 for detailed discussion of this aspect.
3. On the aboutness relation between a preverbal subject and the predicate of the clause see Rizzi (2006b) and relevant references cited there. See also Cardinaletti (2004) for a cartography of preverbal subject positions.

SV is also the preferred order utilized in a language like German, thus indicating that the relevant focalization strategy is preserved under V2.

4. See Chapter 6 for the proposal on the low periphery of the clause, and Chapter 8 for an illustration of possible uses of the vP-periphery.
5. On the SV order in languages like Hungarian in contrast with English see the analysis in section 3.4 in the context of the discussion of the possible parametrization of the location of the new information focus position.
6. See Belletti (2007) and the discussion in terms of economy as the leading principle towards the adoption of the preferred strategy in different languages.
7. On the possibly expletive or referential nature of the preverbal subject *pro* in structures like (1) b. see the discussion in Chapter 8 and section 4 of this chapter.
8. See the discussion in Belletti (2007) on the nature of 'ce' as, possibly, a predicate as well, based on Moro (1997), also related to Munaro and Pollock's (2005) analysis of the fixed expression 'est-ce-que.' I will not discuss this aspect any further here.

9. From Stowell (1983); Burzio (1986); and especially Moro (1997).
10. See also Amritavalli and Jayaseelan (2005) for a similar analysis of clefts. See also Belletti (2005a, 2007) for previous discussion and Costa and Duarte (2007) for related discussion.
11. Also addressed in Belletti, Bennati, and Sorace (2007) in the frame of a wider discussion of properties of subjects in L2 acquisition. See also (11) and (12).
12. See Kiss (1998) and Abels and Muriungi (2005) for discussion.
13. It also automatically provides unique, exhaustive identification, which is probably not necessarily implied by the simple postverbal subject. Cf. the following exchange utilizing the 'for example' test presented in Abels and Muriungi (2005), incompatible with exhaustiveness:
 - i. a. Chi ha parlato al congresso?
Who talked at the conference?
 - b. Ha parlato Gianni, per esempio
has spoken Gianni, for example
14. According to the proposal in the text, activation of the new information DP internal focus position is considered compatible with the aboutness interpretation of the preverbal subject. See the references in notes 1 and 11 for more detailed discussion on the DP internal focalization; see also Aboh (2004) for a related proposal.
15. With clefts also implying uniqueness and exhaustiveness. See earlier in the text and notes 12 and 13.
16. In all focus sentences, presumably the whole verbal chunk fills the low focus position (assuming that further morphological checking of the verb inflections is allowed from this position; see Chapter 6). Note that the subject is preferably postverbal in all focus sentences like the following in Italian:
 - i. a. Che cosa è successo?
What happened
 - b. Ha parlato Gianni/un ragazzo // E' arrivato un ragazzo/Gianni
has spoken Gianni/a boy // Is arrive Gianni/ a boy

Should the subject be preverbal, some presupposition on it is necessarily implied. The postverbal location of the subject in i.b. may be obtained with a derivation where the lexical subject remains in the low focus position and the verb moves above it, exactly as in cases where the subject is itself the (narrow) focus of new information, discussed so far.

However, the overall picture is more complex: If a further complement is present, the postverbal location of the subject does not seem to be equally necessary. Note that the complement has to be a PP since VSO is excluded in Italian (recall the discussion from Chapter 6; see also iii. following). In this case, the subject can either be preverbal or postverbal Cf. ii.:

- ii. a. Che cosa è successo?
- b. Un ragazzo ha parlato con Gianni//Gianni arrivato da Roma
a boy has spoken with Gianni//Gianni is arrived from Roma
- c. Ha parlato un ragazzo con Gianni//E' arrivato Gianni da Roma
has spoken a boy with Gianni//Is arrived Gianni from Roma

If the predicate is transitive, as VSO is excluded in Italian, the subject is necessarily preverbal in these cases:

- iii. a. Che cosa è successo?
- b. Gianni/un ragazzo ha rotto un vaso
Gianni/a boy has broken a vase
- c. *Ha rotto Gianni/un ragazzo un vaso

These observations indicate that in all focus sentences the subject can leave the low focus position to reach the high subject EPP position. However, this possibility is limited to cases where the predicate contains a complement. No option is available in Italian if the lexical complement is a direct object: In this case the subject has to be preverbal and VSO is excluded. As I assume, in accord with cartographic guidelines, that optionality is only apparent when word order issues are at stake, the optionality in ii.b. and c. should be no exception and be only apparent. Subtle interpretive differences must distinguish ii.b. and ii.c.; a closer discussion is, however, left open for the time being, as it would take us too far afield. See Calabrese (1992) for relevant discussion.

17. The Sicilian variety is the one described in Cruschina (2004) where the examples in (10) are given.
18. See Cruschina (2004) and Puskas (2000).
19. It is a natural expectation, given the suggested parametrization, that there should be languages where both new information focus and contrastive/corrective focus be realized in the low periphery of the clause. Such languages would be the mirror image of Hungarian and Sicilian.
20. The reader is directly referred to these studies for a closer discussion especially concentrating on the acquisition questions arising in this domain.
21. The questions were of the type: 'Who called?' 'Who took the flowers?' 'Who left?' as in the examples in the lists I. and II. from the questionnaire. The questions were formulated with respect to the scene the experimental subjects had just seen in the video and contained transitive, intransitive, and unaccusative verbs. See the references cited for further details on the experimental setting.
22. Rizzi (1993/1994, 2006a). See also Friedmann (2002) for a closely related proposal in the domain of language pathology.
23. Resorting to Truncation rather than to reduction of the CP predicate in the cleft structure seems fairly widespread in BP. More so than, for example, in French, according to the data collected so far. However, corpus data might turn out to be revealing in this domain. I leave this aspect for further study.
24. This is not a peculiarity of BP, but a general property of pseudoclefts; the following pair illustrates with Italian:
 - i. Cleft: E' Maria *che* ha parlato (it is Maria *that* (who) spoke)
 - Pseudocleft: *Chi* ha parlato è Maria (*who* spoke is Maria)
25. See Guesser (2007a) and references cited there for the analysis of the limited possibility of referential null subjects in embedded contexts in BP.
26. The reference here is to the so-called DE, on which see Belletti (1988); Milsark (1977); and some discussion in Chapter 7 of this volume. The few cases of VS with non-unaccusative verbs in the BP data are all VOS examples, which Guesser (2007b) treats as instances of topicalization of the [VO] verbal portion in the low periphery and focalization of the new information subject in the same area, as in the derivation discussed in Chapter 6 for the same word order in Italian. The few cases of definite postverbal subject with an unaccusative verb are analyzed as instances of the classical exception to DE, giving rise to the so-called 'uniqueness' interpretation, compatible with the low focus position. See Guesser (2007b) for a detailed discussion of all of the few cases of VS found in her corpus.
27. The possible special status of unaccusatives in this domain is also addressed in Belletti, Bennati, and Sorace (2007) in the context of the analysis of L2 Italian near-native data.
28. As i. illustrates, focalization of the object shows the availability of an interesting Case-agreement pattern in Italian. The pattern deserves an attention that I leave open for further investigation.

- i. a. Sono i ragazzi [— [che (Maria) ha incontrato (Maria)—]]
(they) are the kids that Maria has met—
a' E' i ragazzi che Maria ha incontrato
it is the boys that Maria has met
b. Sono io che Maria ha incontrato
(I) am that Maria met
b' E' me che Maria ha incontrato
it is me that Maria has met
29. In Starke (1995), the proposal is formulated that a CP level is always present in all types of small clauses (also assumed in Chapter 2 of this volume, for the analysis of past participial small clauses). The proposal presented here is that a CP can count as a small clause if an EPP feature is present at the level of CP, as discussed in the text.
30. See Rizzi and Shlonsky (2007) for further detail on the proposal.
31. The proposal is compatible with a derivation where the subject of the small clause in the EPP (predication) position is raised to this position from inside the relative clause predicate, as in the raising analysis of relatives (see Bianchi 1999 and Kayne 1994 for the relation between clefts and relatives). I leave this aspect of the analysis open. Alternatively, a silent *pro* may fill the subject position of the (relative) predicate as in the analysis of *pseudorelatives* reviewed in (20).
32. Rialland, Doetjes, and Rebuschi (2002) also discuss sentences like the following in French:
 - i. a. C'est il y a quelque mois seulement que les galibis ont adopté un alphabet
it is just a few months that the gabilis have adopted an alphabet
b. C'est avec plaisir que je vous reçois
it is with pleasure that I receive you
c. C'est ma sœur qui va rigoler!
It is my sister that is going to laugh

Interestingly, the authors claim that these sentences have a different prosodic pattern than 'regular' clefts and are '... not used to answer questions,' thus implicitly recognizing that clefts are indeed used as answering strategies in French, as claimed here. According to the authors, these sentences are broad focus sentences. Thus, in the frame of our analysis, it can be proposed that they are instances where the whole CP small clause complement of the copula is in the low focus position. The sentences in i. could be the analogue of the answer in (22) A where the CP *pseudorelative* complement of the perception verb *vedere* is involved. The proposal is left here at the stage of a suggestion, open to further investigation.
33. The possible existence of more than one position, beside the Force head, hosting a complementizer in the articulated CP, exploited in various languages, is argued for in Benincà and Poletto (2004). The possibility is also exploited in BP, as Miotto (2003) discusses, illustrating instances of both left peripheral focalization and wh-questions where the focused element or the wh-phrase is linearly followed by the complementizer (hence, it is hierarchically higher; examples from Miotto 2003):
 - i. a. [_F O João] que a Maria disse que encontrou no cinema
The J. that the M. said that—met at the movie theatre
b. [_F Aquele carro] que o João comprou
that car that the J. bought

i.a. thus contrasts with the truncated subject cleft in (14) and (15) c. in BP.

34. This is not say that left peripheral focalization and cleft focalization in the left periphery are interchangeable. A presupposition of existence is implied in the focalization by means of a cleft, which is contributed by the presence of the copula. Thus, while the indefinite quantifier “nessuno” is perfectly compatible with contrastive-corrective focalization in the left periphery, it is not possible in a (left peripheral) cleft (thanks to Paola Benincà for pointing out the contrast):

- i. a. NESSUNO ho incontrato
Nobody I met
- b. *(Non) E' NESSNO che ho incontrato
It is (not) nobody that I met

35. Recall that the ill-formed answers in (31) could not be obtained through focalization in the vP-periphery of the copula moving from the EPP position of the defective CP complement as this derivation would violate RM. See the discussion in the text surrounding the examples (27) and (28).

Similarly, an embedded subject behaves as the object in (31): It is equally impossible in new information (reduced) clefts in French, for the same locality reason. Thanks to Kensuke Takita for noticing the prediction and to Dominique Sportiche for the relevant judgments on French:

- i. Q. Qui crois-tu qui est venu
Who do you think came
- A. a. * C'est Jean (=C'est Jean (que je crois qui est venu))
b. Je crois que c'est Jean

36. Recall the limited instances in (3) in Italian.

37. I assume in (33) that the subject moves to the high focus position from a postverbal position, as in the traditional analysis of subject extraction in Rizzi (1982). See Rizzi and Shlonsky (2007) for more recent discussion. On the possible referential or expletive status of *pro* in these structures, see the discussion in the references cited and in Chapter 8. The issue is tangential for the argument developed here.

38. See Rizzi and Shlonsky (2007) for a related proposal.

39. The proposed analysis of clefts in (35) is also compatible with a situation where a language would distinguish the shape of the lower complementizer of clefts from that of the complementizer expressing (declarative) Force. If such a language exists, one should assume that the lower complementizer would not reach the Force head in this language, an empirical issue worth checking in closer detail.

NOTES TO CHAPTER 11

1. The pronouns considered are third person singular personal pronouns.
2. I will not extend the analysis to the DP *edge* for the time being here, although the essential idea may naturally extend to the DP domain.
3. As it will be pointed out in section 5, the proposal is somewhat close to the spirit of Kayne (2005b), although the kind of doubling computation exploited here is different, in particular for those aspects related to Th-role assignment. See Chapter 8 for some discussion on this point. I thank V. Bianchi and D. Lillo-Martin for pointing out the possible connection with classical principle B. A detailed articulation of this general consequence is, however, left for further future development.

4. As is well known, in the case of HT, but not in CLLD, a strong pronoun or an epithet may also resume the topic. See note 5 for some considerations on this point.
5. Both (5) b./(6) b. and (12) are marginal, as they both involve an island violation. However, (12) compares to totally unacceptable structures as those in (11), whence the impression of an amelioration. In (5) b./(6) b. no similar comparison is available, whence the prevalent impression of a degraded status. The amelioration effect in (12) can come as a consequence of the fact that deletion of the copy of the relative head in the Merge position may be taken not to be complete, as it is in (11), but partial. A partial copy of the raised relative head would still be present within the strong island, thus movement out of the local domain does not affect the whole original big DP in (12) (see Belletti 2006 for a more detailed presentation of this proposal).

A close discussion of what counts as an island configuration goes beyond the aims of the present discussion. Schematically, it can be assumed that movement always targets the closest Spec position. If Spec/NP is not an accessible Spec for the relative raising head (possibly an extended sense of ‘improper movement’), the Complex-NP violation of the examples in the text follows. This is close to the standard interpretation of CNPC in terms of Subjacency, where Spec/NP could not count as a possible ‘escape hatch’ (Chomsky 1973).

6. Moreover, movement is not the only factor determining the existence of reconstruction. So, the overall issue is more complex. Since it is not central to the present discussion, it will not be developed any further (see Sportiche 2007 for a recent approach to reconstruction; see Aoun, Choueiri, and Hornstein 2001 for related discussion).

A further difference between CLLD and HT is that in HT, but not in CLLD, the topic can be resumed by a strong/topic pronoun or an epithet, rather than a clitic:

- i.
 - a. Di Giorgio, ne hanno parlato bene/*hanno parlato bene di lui
Of Giorgio, of-him-cl they have spoken well/ have spoken well of him
 - b. Giorgio, hanno parlato bene di lui/ di quel furbacchione
(Benincà (1988; 60 a, b)
Giorgio, they have spoken well of him/ of that artful guy
 - c. (Quanto a) Gianni, ho parlato con lui, (e mi è parso convinto)
(As for) Gianni, I have spoken with him (and he looked convicted)
 - d. (Quanto a) Gianni, ho parlato con lui, in persona
(As for) Gianni, I have spoken with him, personally

Both resumption with a strong pronoun and with an epithet may be compatible with the doubling analysis assuming an original big DP containing the epithet [DP quel furbacchione di [DP]], or the strong pronoun [DP lui [DP]] (see Chapter 8 for the analysis of strong pronoun doubling involving structures of the latter type). It may be somewhat tentatively proposed that both an epithet and a strong pronoun seem to imply a deictic feature (of contrast?) that is incompatible with the pure topic status of a left dislocated constituent but not with a hanging topic; whence the impossibility of a resumptive epithet or strong pronoun in CLLD. This could in turn be related to the more independent status of a hanging topic in contrast to a left dislocated constituent mentioned in the introduction and to be formally expressed through the analysis in (25).

7. But see Benincà and Poletto (2004) and section 4.

8. Possibly, speakers may try to accept (18) b. on the basis of the possibility of CLLD closely related structures to be discussed momentarily in (19) and (20). Whence the ' ?* ' diacritics as a way to characterize uneasiness.
9. For relevant cartographic analyses in this connection see Rizzi (1997); Roussou (2000); Benincà and Poletto (2004); Haegeman (2004); and Bocci (2004).
10. On the possibility of iteration see Chapter 8; but see current work by V. Bianchi for critical discussion.

CLLD structures like those in (2) and (20) b., where the left dislocated phrase is a lexical noun phrase, can still be analyzed as in (4). When the pronoun and its lexical antecedent are components of the same original big DP, there should be no need of a further silent pronoun at the CP *edge*. The interpretive requirement can be satisfied by the pronoun DP internally, given the very nature of the big DP.

11. Spec of a zero topic head, in a language like Italian.
12. I do not address here the interesting issue as to how the antecedent can be selected by the pronoun in discourse where some locality-type regulating principle is likely to be operative. See Frascarelli (2007) for relevant considerations concerning the selection of the antecedent for a null subject.

The proposed account is close to the spirit of Huang's (1984) analysis of zero objects in Chinese, in terms of an *ec* bound by a (possibly silent) topic; cf. the similarity of (26) a. and i. following:

- i. a. Zhangsan shuo [Lisi bu renshi *ec*]
Zhangsan says [Lisi not know (him)]
b. neige ren, Zhangsan shuo [Lisi bu renshi *ec_i*]
that man, Zhangsan says [Lisi not know (him)]

13. I assume that a big DP cannot be freely generated. In particular, it is not available in the HT position with the effect that a silent doubler at the *edge* cannot be available in this case; hence it is the HT pronoun itself that must reach the *edge*, where it remains silent. An iterated big DP is solely merged clause-internally, to ultimately serve discourse or licensing requirements. None is needed in the peripheral HT position. Hence the DP does not need to be iterated; it is consequently not iterated.
14. As there is no further intervening Force head, due to the defective nature of the HT/CP, no formal locality RM-type principle is violated. This might explain why the structure is not simply ruled out by everybody.
15. If a similar mechanism is involved at the DP *edge*, by considering DP an independent phase, it would be responsible for DP-related binding conditions (Gianni apprezza [sua sorella])/John likes his sister). As mentioned in note 2, the precise extension of the proposal to DPs is left open for further future development.
16. Similarly to the attested developmental stage in acquisition that leads to the Root Infinitive and Child Null-Subject phenomena; see Rizzi (2006a) and Hamann (2002) and references cited there.
17. At this suggestive level, the reasons for this limitation will not be explored further here, nor will its precise scope.
18. The quasi-deictic value of the contrast/correction involved in left peripheral focalization should constitute an alternative mechanism through which the pronoun gets connected to its antecedent. A proposal that certainly needs further development, but which I tentatively assume here.
19. See also Meinunger (2007) for further examples and the identification of the relevant discourse and structural conditions permitting clause initial object *es*.

20. Whenever the topic marker is pronounced, it should then be taken to fill a lower position than the edge position. That several topic positions may be present in the Japanese left periphery is a plausible assumption to make (Saito, p.c.). The detection of different conditions associated to the different positions (as has been done for the distinction between HT and CLLD in Italian) cannot be addressed in adequate detail here.

According to Ahn and Cho's (2006) analysis, the *wh*-word in Korean can be moved into the LD position in the left periphery through a doubling derivation, stranding a silent pronoun in the clause-internal position. Adapting their proposal, it could be assumed that the relation between the high silent topic marker of the *wh*-word and the (also silent) clause-internal pronoun, is responsible for the D-linked interpretation in a way closely parallel to what has been assumed for CLLD in Italian in (19); the silent pronoun at the *edge* in Italian and the silent topic head marker at the *edge* in Korean would assure the relevant discourse connected, hence D-linked interpretation.

Bibliography

- Abels, K., and P. Muriungi. 2005. "The Focus Particle in Kĩtharaka." *ZAS Papers in Linguistics* 42:219–239.
- Aboh, E. 2004. "Topic and Focus Within D." Eds. L. Cornips and J. Doetjes. Special issue, *Linguistics in the Netherlands* 21:1–12.
- Ahn, H. D., and S. Cho. 2006. "Unpronounced Cases on Wh-Phrases in Korean: Implications for D-linked Wh-interpretation and Left—Dislocation." Manuscript, Konkuk University and Sungkyunkwan University.
- Alexiadou, A. 2006. "Left Dislocation (Including CLLD)." In *The Blackwell Companion to Syntax*, vol. I–V, ed. M. Everaert and H. van Riemsdijk. Oxford: Blackwell, 668–699.
- Alexiadou, A., and E. Anagnostopoulou. 2001. "The Subject-In-Situ Generalization and the Role of Case in Driving Computations." *Linguistic Inquiry* 32:193–231.
- Amritavalli, R., and K. A. Jayaseelan. 2005. "Scrambling in Cleft Construction in Dravidian." In *The Free Word Order Phenomena*, ed. J. Sabel and M. Saito, 137–162. Berlin: Mouton De Gruyter.
- Anagnostopoulou, E. 1999. "Conditions on Clitic Doubling in Greek." In *Clitics in the Languages of Europe*, ed. H. van Riemsdijk, 761–798. Berlin: De Gruyter.
- Antinucci, F., and G. Cinque. 1977. "Sull'ordine delle parole in italiano. L'emarginazione." *Studi di grammatica italiana* 6:121–146.
- Antinucci, F., and R. Miller. 1976. "How Children Talk About What Happened." *Journal of Child Language* 3:167–189.
- Aoun, J., L. Choueiri, and N. Hornstein. 2001. "Resumption, Movement and Derivational Economy." *Linguistic Inquiry* 32:371–403.
- Badan, L. 2007. "High and Low Periphery: A Comparison between Italian and Chinese." Doctoral diss., University of Padua.
- Baltin, M. 1982. "A Landing Site Theory of Movement Rules." *Linguistic Inquiry* 13:1–38.
- Baker, M. 1985. "The Mirror Principle and Morphosyntactic Explanation." *Linguistic Inquiry* 16:373–415.
- . 1988. *Incorporation: A Theory of Grammatical Function Changing*. Chicago: University of Chicago Press.
- Baker, M., K. Johnson, and I. Roberts. 1989. "Passive Arguments Raised." *Linguistic Inquiry* 20:219–251.
- Barbosa, P. 2000. "Clitics: A Window Into the Null Subject Property." In *Portuguese Syntax*, ed. J. Costa, 31–93. Oxford: Oxford University Press.
- Belletti, A. 1981. "Frase ridotte assolute." *Rivista di Grammatica Generativa* 6:3–33.
- . 1982a. "Morphological Passive and Pro-drop: The Impersonal Construction in Italian." *Journal of Linguistic Research* 2.4:1–34.

- . 1982b. "On the Anaphoric Status of the Reciprocal Construction in Italian." *The Linguistic Review* 2:101–137.
- . 1988. "The Case of Unaccusatives." *Linguistic Inquiry* 19:1–35.
- . 1990. *Generalized Verb Movement: Aspects of Verb Syntax*. Torino: Rosenberg and Sellier.
- . 1992. "Agreement and Case in Past Participial Clauses in Italian." In *Syntax and the Lexicon*, vol. 26, ed. T. Stowell and E. Wehrli, 21–44, New York: Academic Press.
- . 1993a. "Case Checking and Clitic Placement: Three Issues on (Italian Romance) Clitics." *GenGenP* 1 (2): 101–118.
- , ed. 1993b. *Syntactic Theory and the Dialects of Italy*. Turin: Rosenberg and Sellier.
- . 1994. "Verb Positions: Evidence from Italian." In *Verb Movement*, ed. N. Hornstein and D. Lightfoot, 19–40. Cambridge: Cambridge University Press.
- . 1999a. "'Inversion' as Focalization and Related Questions." *Catalan Working Papers in Linguistics* 7:9–45.
- . 1999b. "Italian/Romance Clitics: Structure and Derivation." In *Clitics in the Languages of Europe*, ed. H. van Riemsdijk, 543–579. Berlin: De Gruyter.
- . 2001a. "Agreement Projections." In *The Handbook of Contemporary Syntactic Theory*, ed. M. Baltin and C. Collins, 453–510. Oxford: Blackwell.
- . 2001b. "'Inversion' as Focalization." In *Inversion in Romance and the Theory of Universal Grammar*, ed. A. Hulk and J. Y. Pollock. New York: Oxford University Press, 60–90.
- . 2004a. "Aspects of the Low IP Area." In *The Structure of CP and IP. The Cartography of Syntactic Structures*, vol. 2, ed. L. Rizzi, 16–51. Oxford: Oxford University Press.
- , ed. 2004b. *Structures and Beyond. The Cartography of Syntactic Structures*, vol. 3. New York: Oxford University Press.
- . 2005a. "Answering With a Cleft. The Role of the Null Subject Parameter and the vP Periphery." In *Proceedings of the XXX Incontro di Grammatica Generativa*, ed. L. Brugé, G. Giusti, N. Munaro, W. Schweikert, and G. Turano, 63–82. Venezia: Cafoscarina.
- . 2005b. "Extended Doubling and the vP Periphery." *Probus* 17 (1): 1–35.
- . 2006. "Extending Doubling to Non Local Domains: Complete vs Partial Copying + Deletion and Related Reconstruction Issues." In *Form, Structure and Grammar*, ed. P. Brandt and E. Fuss, 129–136. Berlin: Akademie Verlag.
- . 2007. "Answering Strategies. A View from Acquisition." In *Romance Languages and Linguistic Theory 2005*, ed. S. Baauw, F. Drijkoningen, and M. Pinto, 19–38. Amsterdam/Philadelphia: Benjamins Publications.
- Belletti, A., E. Bennati, and A. Sorace. 2007. "Theoretical and Developmental Issues in the Syntax of Subjects: Evidence from Near-Native Italian." *Natural Language and Linguistic Theory* 25:4, 657–689.
- Belletti, A., and C. Hamann. 2004. "On the L2/Bilingual Acquisition of French by Two Young Children with Different Source Languages." In *The Acquisition of French in Different Contexts*, ed. P. Prévost and J. Paradis, 147–174. Amsterdam/Philadelphia: John Benjamins.
- Belletti, A., and C. Leonini. 2004. "Subject Inversion in L2 Italian." In *Eurosla Yearbook*, vol. 4, ed. S. Foster-Cohen, M. Sharwood Smith, A. Sorace, and M. Ota, 95–118. Amsterdam/Philadelphia: John Benjamins.
- Belletti, A., and L. Rizzi. 1981. "The Syntax of *ne*: Some Theoretical Implications." *The Linguistic Review* 1:117–154.
- . 1988. "Psych Verbs and Th-Theory." *Natural Language and Linguistic Theory* 6:3, 291–352.

- . 1996. "Su alcuni casi di accordo del participio passato in francese e in italiano." In *Italiano e dialetti nel tempo. Saggi di grammatica per Giulio Lepschy*, ed. P. Benincà, G. Cinque, T. De Mauro, and N. Vincent, 7–22. Roma: Bulzoni.
- Belletti, A., and U. Shlonsky. 1995. "The Order of Verbal Complements. A Comparative Study." *Natural Language and Linguistic Theory* 13:489–526.
- Benincà, P. 1988. "L'ordine degli elementi della frase e le costruzioni marcate." In *Grande Grammatica Italiana di Consultazione*, vol. 1, ed. L. Renzi, 129–194. Bologna: Il Mulino.
- . 1994. *La variazione sintattica: studi di dialettologia romanza*. Bologna: Il Mulino.
- Benincà, P. 2001 "Syntactic Focus and Intonational Focus in the Left Periphery." In *Current Studies in Italian Syntax Offered to Lorenzo Renzi*, ed. G. Cinque and G. Salvi, 39–64. Amsterdam: North Holland.
- Benincà, P., and C. Poletto. 2004. "Topic, Focus and V2: Defining the CP Sublayers." In *The Structure of CP and IP. The Cartography of Syntactic Structures*, vol. 2, ed. Rizzi, 52–75. New York: Oxford University Press.
- Bernstein, J. 2000. "The DP Hypothesis: Identifying Clausal Properties in the Nominal Domain." In *Handbook of Contemporary Syntactic Theory*, ed. M. Baltin and C. Collins, 536–561. Oxford: Blackwell.
- Bianchi, V. 1999. *Consequences of Antisymmetry: Headed Relative Clauses*. Berlin: Mouton de Gruyter.
- . 2002. "Headed Relative Clauses in Generative Syntax—Part II." *Glott International* 6 (8): 1–13.
- . 2004. "Resumptive Relatives and LF Chains." In *The Structure of CP and IP. The Cartography of Syntactic Structures*, vol. 2, ed. L. Rizzi, 76–115. New York: Oxford University Press.
- . 2006. "On the Syntax of Personal Arguments." *Lingua* 116:2023–2067.
- Bobaljik, J. 2002. "Realizing Germanic Inflection: Why Morphology Does Not Drive Syntax." *The Journal of Comparative Germanic Linguistics* 6:129–167.
- Bobaljik, J., and D. Jonas. 1996. "Subject Positions and the Role of TP." *Linguistic Inquiry* 27:195–236.
- Bocci, G. 2004. "Contrastive Focalization on Topics and Preverbal Subjects in Italian." *Rivista di Grammatica Generativa* 29:3–59.
- Boeckx, C. 2003. *Islands and Chains. Resumption as Stranding*. Amsterdam/Philadelphia: John Benjamins.
- Borer, H. 1983. *Parametric Syntax*. Dordrecht: Foris.
- Borer, H., and K. Wexler. 1992. "Bi-Unique Relations and the Maturation of Grammatical Principles." *Natural Language and Linguistic Theory* 10:147–189.
- Brandi, L., and P. Cordin. 1981. "Dialetti e italiano: un confronto sul parametro del soggetto nullo." *Rivista di Grammatica Generativa* 6:33–87.
- . 1989. "Two Italian Dialects and the Null Subject Parameter." In *The Null Subject Parameter*, ed. O. Jaeggli and K. Safir. Dordrecht: Kluwer, 111–142.
- Brody, M. 1990. "Some Remarks on the Focus Field in Hungarian." *UCL Working Papers* 2:201–225.
- Buring, D. 1997. "The Great Scope of Inversion Conspiracy." *Linguistic and Philosophy* 20: 175–194.
- Burzio, L. 1986. *Italian Syntax. A Government-Binding Approach*. Dordrecht: Reidel.
- . 1992. "The Role of the Antecedent in Anaphoric Relations." In *Current Issues in Comparative Grammar*, ed. R. Freidin. Dordrecht: Kluwer.
- Calabrese, A. 1982. "Alcune ipotesi sulla struttura informazionale della frase in italiano e sul suo rapporto con la struttura fonologica." *Rivista di Grammatica Generativa* 7:3–78.

- . 1992. "Some Remarks on Focus and Logical Structures in Italian." *Harvard Working Papers in Linguistics* 1:19–27.
- Cardinaletti, A. 1990. "Pronomi nulli e pleonastici nelle lingue germaniche e romanze." Doctoral diss., University of Venice.
- . 1993. "On the Internal Structure of Pronominal DP's." *The Linguistic Review* 11:3–4, 195–219.
- . 1997. "Subjects and Clause Structure." In *The New Comparative Syntax*, ed. L. Haegeman, 33–63. New York: Longman.
- . 1998. "On the Deficient/Strong Opposition in Possessive Systems." In *Possessors, Predicates and Movement in the Determiner Phrase*, ed. A. Alexiadou and C. Wilder. Amsterdam: Benjamins, 17–53.
- . 1999. "Italian 'Emphatic' Pronouns are Postverbal Subjects." *University of Venice Working Paper in Linguistics* 9:59–92.
- . 2001. "A Second Thought on *emarginazione*: Destressing vs 'Right Dislocation.'" In *Current Studies in Italian Syntax. Essays Offered to Lorenzo Renzi*, ed. G. Cinque and G. P. Salvi, 117–135. Amsterdam: North Holland.
- . 2004. "Towards a Cartography of Subject Positions." In *The Structure of IP and CP. The Cartography of Syntactic Structures*, vol. 2, ed. L. Rizzi, 115–165. New York: Oxford University Press.
- Cardinaletti, A. and G. Giusti (1991) "Partitive *ne* and the QP Hypothesis", in *Venice Working Papers in Linguistics* 4, 1–19.
- Cardinaletti, A., and I. Roberts. 1991. "Levels of Representation of Agreement." In *Principles and Processes: The Structure of Grammatical Representations*, ed. W. Chao and G. Horrocks. Berlin: Foris/de Gruyter.
- . 2002. "Clause Structure and X-Second." In *Functional Structure in DP and IP: The Cartography of Syntactic Structure*, vol. 1, ed. G. Cinque, 123–166. Oxford: Oxford University Press.
- Cardinaletti, A., and M. Starke. 1999. "The Typology of Structural Deficiency. A Case Study of the Three Classes of Pronouns." In *Clitics in the Languages of Europe*, ed. H. van Riemsdijk, 145–233. Berlin: De Gruyter.
- Cecchetto, C. 1994. "A Semantic Trigger for Scrambling." *Rivista di Grammatica Generativa* 19:33–69.
- . 1999. "A Comparative Analysis of Left and Right Dislocation in Romance." *Studia Linguistica* 53 (1): 40–67.
- . 2000. "Doubling Structures and Reconstruction." *Probus* 12 (1): 93–126.
- Cecchetto, C., and G. Chierchia. 1999. "Reconstruction in Dislocation Constructions and Syntax/Semantics Interface." In *WCCFL XVII Proceedings*, ed. S. Blake, E. Kim, and K. Shahin, 132–146. Stanford: CSLI Publications, Stanford University.
- Chomsky, N. 1957. *Syntactic Structures*. Berlin: Mouton.
- . 1973. "Conditions on Transformations." In *A Festschrift for Morris Halle*, ed. S. Anderson and P. Kiparsky, 232–286. New York: Holt, Rinehart, and Winston.
- . 1977. "On Wh-Movement." In *Formal Syntax*, ed. A. Akmajian, P. Culicover, and T. Wasow, 71–132. New York: Academic Press.
- . 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- . 1986a. *Barriers*. Cambridge, MA: MIT Press.
- . 1986b. *Knowledge of Language: Its Nature, Origin and Use*. New York: Praeger.
- . 1989. "Some Notes on Economy of Derivation and Representation." *MIT Working Papers in Linguistics* 10:43–75.
- . 1991. "Some Notes on Economy of Derivation and Representation." In *Principles and Parameters in Comparative Grammar*, ed. R. Freidin. Cambridge, MA: MIT Press, 417–454.
- . 1993. "A Minimalist Program for Linguistic Theory." In *The View from Building 20*, ed. K. Hale and S. J. Keyser, 1–52, Cambridge Mass: MIT Press.

- . 1994. "Bare Phrase Structure: MIT Occasional Papers in Linguistics." In *Government and Binding and the Minimalist Program*, ed. G. Webelhuth, 385–439. Oxford: Blackwell.
- . 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.
- . 2000. "Minimalist Inquiries: The Framework." In *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, ed. R. Martin, D. Michaels, and J. Uriagereka, 85–155. Cambridge, MA: MIT Press.
- . 2001. "Derivation by Phase." In *Ken Hale: A Life in Language*, ed. M. Kenstowicz, 1–52. Cambridge, MA: MIT Press.
- . 2002. "On Nature and Language." In *Introduction and Interview on Minimalism*, ed. A. Belletti and L. Rizzi. Cambridge: Cambridge University Press, 1–44.
- . 2004. "Beyond Explanatory Adequacy." In *Structures and Beyond. The Cartography of Syntactic Structures*, vol. 3, ed. A. Belletti, 104–131. New York: Oxford University Press.
- . 2005. "On Phases." In *Foundational Issues in Linguistic Theory*, ed. R. Freidin, C. Otero, and M. L. Zubizarreta. Cambridge, MA: MIT Press.
- Cinque, G. 1977. "The Movement Nature of Left Dislocation." *Linguistic Inquiry* 8:397–411.
- . 1990a. "Ergative Adjectives and the Lexicalist Hypothesis." *Natural Language and Linguistic Theory* 8 (1): 1–40.
- . 1990b. *Types of A'-Dependencies*. Cambridge, MA: MIT Press.
- . 1993. "A Null Theory of Phrase and Compound Stress." *Linguistic Inquiry* 24:239–298.
- . 1999. *Adverbs and Functional Heads*. New York: Oxford University Press.
- , ed. 2002. *Functional Structure in DP and IP. The Cartography of Syntactic Structures*, vol. 1. New York: Oxford University Press.
- . 2005. "Deriving Greenberg's Universal 20 and its Exceptions." *Linguistic Inquiry* 36:315–332.
- Cinque, G., and P. Benincà. 1993. "Su alcune differenze tra enclisi e proclisi." In *Omaggio a Gianfranco Folena*. Padova: Editoriale Programma, 2313–2326.
- Cinque, G., and R. Kayne. 2005. *The Oxford Handbook of Comparative Syntax*. New York: Oxford University Press.
- Cocchi, G. 1995. *La selezione dell'ausiliare*. Padua: Unipress.
- Collins, C., and Þráinsson, H. 1993. "Object Shift in Double Object Constructions and the Theory of Case." *MIT Working Papers in Linguistics* 19:131–147.
- Cornulier, B. 1974. "Pourquoi et l'inversion du sujet non clitique." In *Actes du Colloque Franco-Allemand de Grammaire Transformationnelle*, vol. 1, ed. C. Rohrer and N. Ruwet, 139–163. Tübingen: Niemeyer.
- Corver, N., and D. Delfitto. 1992. "Feature Asymmetry and the Nature of Pronoun Movement." Manuscript, University of Tilburg and University of Utrecht.
- Costa, J. 2000. "Focus In Situ: Evidence from Portuguese." *Probus* 12 (2): 187–228.
- . 2004. *Subject Positions and Interfaces*. Berlin: Mouton de Gruyter.
- Costa, J., and I. Duarte. 2007. "Cleft Strategies in European Portuguese. A Unified Approach." Manuscript, University of Lisbon.
- Cruschina, S. 2004. "Il Focus di nuova informazione e la periferia sinistra: la struttura informativa della frase in Siciliano." Tesi di Laurea Specialistica, University of Siena.
- Crysmann, B., and N. Müller. 2000. "On the Non-Parallelism in the Acquisition of Reflexive and Non-Reflexive Object Clitics." In *The Acquisition of Scrambling and Cliticization*, ed. S. Powers and C. Hamann, 207–236. Dordrecht: Kluwer.
- Déprez, V. 1998. "Semantic Effects of Agreement: The Case of French Past Participle Agreement." *Probus* 10:1–65.
- Diesing, M. 1992. *Indefinites*. Cambridge, MA: MIT Press.

- Duarte, M. E. 2000. "The Loss of the Avoid Pronoun Principle in Brazilian Portuguese." In *Brazilian Portuguese and the Null Subject Parameter*, ed. M. Kato and E. Negrão, 17–36. Frankfurt am Main: Vervuert.
- Eagerland, V. 1996. *The Syntax of Past Participles. A Generative Study of Nonfinite Constructions in Ancient and Modern Italian*. Lund: Lund University Press.
- Emonds, J. 1976. *A Transformational Approach to English Syntax*. New York: Academic Press.
- . 1978. "The Verbal Complex V'-V in French." *Linguistic Inquiry* 9:151–175.
- Ferrari, I. 2006. "Acquisition of Object Clitics in Italian by Two German/Italian Bilingual Children." In *Language Acquisition and Development: Proceedings of GALA 2005*, ed. A. Belletti, E. Bennati, C. Chesi, E. Di Domenico, and I. Ferrari, 173–183. Newcastle, UK: Cambridge Scholars Publishing.
- Figueiredo, C. 1996. *A Posição Sujeito no Português Brasileiro: Frases Finitas e Infinitivas*. Campinas, SP: UNIPICAMP.
- . 2000. "Main and Embedded Null Subjects in Brazilian Portuguese." In *Brazilian Portuguese and the Null Subject Parameter*, ed. M. Kato and E. Negrão, 127–146. Frankfurt: Vervuert.
- Frascarelli, M. 2000. *The Syntax-Phonology Interface in Focus and Topic Constructions in Italian*. Dordrecht: Kluwer.
- . 2004. "Dislocation, Clitic Resumption and Minimality: A Comparative Analysis of Left and Right Topic Constructions in Italian." In *Romance Languages and Linguistic Theory 2002*, ed. R. Bok-Bennema, B. Hollebrandse, B. Kampers-Manhe, and P. Sleeman, 99–118. Amsterdam/Philadelphia: John Benjamins.
- . 2007. "Subjects, Topics and the Interpretation of Referential *pro*." *Natural Language and Linguistic Theory* 25:4, 691–734.
- Friedemann, M. A. 1990. "Le pronom interrogatif *que*." *Rivista di Grammatica Generativa* 15:123–139.
- . 1995. "Sujets syntaxiques." Doctoral diss., Université de Genève.
- Friedemann, M. A., and T. Siloni. 1997. "Agr_{obj} is Not Agr_{participle}." *The Linguistic Review* 14:69–96.
- Friedmann, N. 2002. "Question Production in Agrammatism: The Tree Pruning Hypothesis." *Brain and Language*, 160–187.
- Friedmann, N., and Y. Grodzinsky. 2000. "Split Inflection in Neurolinguistics." In *The Acquisition of Syntax*, ed. M. A. Friedemann and L. Rizzi, 84–104. London: Longman.
- Giusti, G. 1993. *La sintassi dei determinanti*. Padua: Unipress.
- Granfeldt, J., and S. Schlyter. 2004. "Cliticisation in the Acquisition of French as L1 and L2." In *The Acquisition of French in Different Contexts*, ed. P. Prévost and J. Paradis, 333–369. Amsterdam/Philadelphia: John Benjamins.
- Grevisse, M. 1986. *Le Bon Usage*. Paris/Gembloux: Ducolot.
- Grewendorf, G. 2002. "Left Dislocation as Movement." In *Georgetown University Working Papers in Theoretical Linguistics*, ed. S. Manck and J. Mittelstaedt, Georgetown 31–81.
- . 2005. "The Discourse Configurability of Scrambling." In *The Free Word Order Phenomena*, ed. J. Sabel and M. Saito, 75–136. Berlin: Mouton de Gruyter.
- Grimshaw, J. 1991. "Extended Projections." Manuscript, Rutgers University.
- Guasti, M. T. 1989. "Romance Infinitive Complements of Perception Verbs." *MIT Working Papers in Linguistics* 11:41–79.
- . 1993. *Causative and Perception Verbs. A Comparative Study*. Torino: Rosenberg and Sellier.
- Guasti, M. T., and L. Rizzi. 2002. "Agreement and Tense as Distinct Syntactic Positions: Evidence from Acquisition." In *Functional Structure in DP and IP: The Cartography of Syntactic Structures*, vol. 1, ed. G. Cinque, 167–194. Oxford: Oxford University Press.

- Guesser, S. 2007a. "Il soggetto nullo incassato del Portoghese Brasiliano." *Rivista di Grammatica Generativa* 32:39–64.
- . 2007b. *Soggetto nullo e focalizzazione del soggetto in Portoghese Brasiliano*. Master's thesis, Università di Siena.
- Haegeman, L. 1990. "Understood Subjects in English Diaries." *Multilingua* 19:157–199.
- . 1992. "Negation in West Flemish and the Neg Criterion." In *Proceedings of the NELS Conference 22*. Delaware Ed. K. Broderick.
- , ed. 1997. *The New Comparative Syntax*. London: Longman.
- . 2004. "Topicalization, CLLD and the Left Periphery." In *Proceedings of the Dislocated Elements Workshop ZAS Berlin, November 2003*, ed. B. Shaer, W. Frey, and C. Maienborn, 12 and 35. Berlin: ZAS.
- . 2006. "Argument Fronting in English, Romance CLLD, and the Left Periphery." In *Crosslinguistic Research in Syntax and Semantics*, ed. R. Zanuttini, H. Campos, E. Herburger, and P. Portner, 27–52. Washington DC: Georgetown University Press.
- Haider, H. 1984. "Topic, Focus and Verb Second." *Gröninger Arbeiten zur Germanistischen Linguistik* 25:1–48.
- . 2005. "How to Turn German into Icelandic—and Derive the OV–VO Contrast." *Journal of Comparative Germanic Linguistics* 8:1–53.
- Hale, K., and S. J. Keyser. 1993. "On Argument Structure and the Lexical Expression of Syntactic Relations." In *The View from Building 20: Essays in Linguistics in Honor of Sylvian Bromberger*, ed. K. Hale and S. J. Keyser, 53–109. Cambridge, MA: MIT Press.
- Hamann, C. 2002. *From Syntax to Discourse: Pronominal Clitics, Null Subjects, and Infinitives in Child Language*. Dordrecht: Kluwer.
- Hamann, C., and A. Belletti. 2006. "Developmental Patterns in the Acquisition of Complement Clitic Pronouns. Comparing Different Acquisition Modes with an Emphasis on French." *Rivista di Grammatica Generativa* 31:39–78.
- Hamann, C., S. Ohayon, S. Dubé, U. Frauenfelder, L. Rizzi, M. Starke, and P. Zesiger. 2003. "Aspects of Grammatical Development in Young French Children with SLI." *Developmental Science* 6:151–158.
- Hamann, C., L. Rizzi, and U. Frauenfelder. 1996. "The Acquisition of Subject and Object Clitics in French." In *Generative Approaches to Language Acquisition*, ed. H. Clahsen, 309–334. Amsterdam/Philadelphia: John Benjamins.
- Hankamer, J. and I. Sag 1976. "Deep and surface anaphora." *Linguistic Inquiry* 7: 391–426.
- Herschensohn, J. 2004. "Functional Categories and the Acquisition of Object Clitics in L2 French." In *The Acquisition of French in Different Contexts*, ed. P. Prévost and J. Paradis, 207–242. Amsterdam/Philadelphia: John Benjamins.
- Higginbotham, J. and R. May 1981. "Questions, Quantifiers and Crossino." *The Linguistic Review* 1, 41–79.
- Hoekstra, T. 1984. *Transitivity: Grammatical Relations in Government and Binding Theory*. Dordrecht: Foris.
- Holmberg, A. 1991. "The Distribution of Scandinavian Weak Pronouns." Eds. L. Rizzi and H. van Riemsdijk. Special issue, *Eurotyp Working Papers* 1:155–175.
- Holmberg, A., and C. Platzack. 1988. "The Role of AGR and Finiteness in Germanic VO Languages." *Working Papers in Scandinavian Syntax* 43:51–76.
- . 1995. *The Role of Inflection in Scandinavian Syntax*. New York: Oxford University Press.
- Huang, J. 1982. "Logical Relations in Chinese and the Theory of Grammar." PhD diss., MIT.
- . 1984. "On the Distribution and Reference of Empty Pronouns." *Linguistic Inquiry* 15:4.

- Hulk, A. 2000. "L'acquisition des pronoms clitiques en français par un enfant bilingue français-néerlandais." *Canadian Journal of Linguistics* 45:97–117.
- Hyams, N. 1986. *Language Acquisition and the Theory of Parameters*. Dordrecht: Reidel.
- Jackendoff, R. 1972. *Semantic Interpretation in Generative Grammar*. Cambridge, MA: MIT Press.
- Jaeggli, O. 1982. *Topics in Romance Syntax*. Dordrecht: Foris.
- Jayaseelan, K. A. 2001. "IP-Internal Topic and Focus Phrases." *Studia Linguistica* 55 (1): 39–75.
- Kampers-Manhe, B. 1998. "‘Je veux que parte Paul.’ A Neglected Construction." In *Romance Linguistics, Theoretical Perspectives*, ed. A. Schwegler, B. Tranel, and M. Uribe-Extebarria, 129–141. Amsterdam: John Benjamins.
- Kato, M. 1999. "Strong Pronouns, Weak Pronominals and the Null Subject Parameter." *Probus* 11:1–37.
- . 2000. "The Partial Pro-Drop Nature and the Restricted VS Order in Brazilian Portuguese." In *Brazilian Portuguese and the Null Subject Parameter*, ed. M. Kato and E. Negrão. Frankfurt am Main: Vervuert, 223–258.
- . 2003. "The Interpretation and Derivation of *wh*-in-situ Constructions in Brazilian Portuguese." Manuscript, UNICAMP.
- Kayne, R. 1974. "French Relative *que*." In *Current Studies in Romance Linguistics*, ed. F. Hensey and M. Lujan, 255–299. Washington DC: Georgetown University Press.
- . 1975. *French Syntax*. Cambridge, MA: MIT Press.
- . 1981. "Two Notes on the NIC." In *Theory of Markedness in Generative Grammar: Proceedings of the 1979 GLOW Conference*, ed. A. Belletti, L. Brandi, and L. Rizzi, 317–346. Pisa: Scuola Normale Superiore.
- . 1983. *Connectedness and Binary Branching*. Dordrecht: Foris.
- . 1985. "L'accord du participe passé en français et en italien." *Modèles Linguistiques* 7:73–91.
- . 1989a. "Facets of Romance Past Participle Agreement." In *Dialect Variation and the Theory of Grammar*, ed. P. Benincà, 85–103. Dordrecht: Foris.
- . 1989b. "Notes on English Agreement." In *CIEFL Bulletin*, 1: 40–67. India: Hyderabad.
- . 1989c. "Null Subjects and Clitic Climbing." In *The Null Subject Parameter*, ed. O. Jaeggli and K. Safir, 239–261. Dordrecht: Kluwer.
- . 1991. "Romance Clitics, Verb Movement and PRO." *Linguistic Inquiry* 22:647–686.
- . 1993. "Toward a Modular Theory of Auxiliary Selection." *Studia Linguistica* 47:3–31.
- . 1994. *The Antisymmetry of Syntax*. Cambridge, MA: MIT Press.
- . 2000. *Parameters and Universals*. Oxford: Oxford University Press.
- . 2002. "Pronouns and their Antecedents." In *Derivation and Explanation in the Minimalist Program*, ed. S. Epstein and D. Seely, 133–166. Oxford: Blackwell.
- . 2004. "Prepositions as Probes." In *Structures and Beyond. The Cartography of Syntactic Structures*, vol. 3, ed. A. Belletti, 192–212. New York: Oxford University Press.
- . 2005a. "On Parameters and on Principles of Pronunciation." In *Organizing Grammar. Linguistic Studies in Honor of Henk van Riemsdijk*, ed. H. Broekhuis, N. Corver, R. Huybregts, U. Kleinhenz, and K. Koster, 289–299. Berlin: Mouton De Gruyter.
- . 2005b. "Pronouns and Their Antecedents." In *Movement and Silence*, 105–135. New York: Oxford University Press.

- . 2005c. "Some Notes on Comparative Syntax, with Special Reference to English and French." In *The Oxford Handbook of Comparative Syntax*, ed. G. Cinque and R. Kayne, 3–69. Oxford: Oxford University Press.
- Kayne, R., and J. Y. Pollock. 1978. "Stylistic Inversion, Successive Cyclicity, and Move NP in French." *Linguistic Inquiry* 9:595–621.
- . 2001. "New Thoughts on Stylistic Inversion." In *Inversion in Romance and the Theory of Universal Grammar*, ed. A. Hulk and J. Y. Pollock, 107–162. New York: Oxford University Press.
- Kiss, K. E. 1998. "Identificational Focus Versus Information Focus." *Language* 74 (2): 245–273.
- Kitagawa, Y. 1986. "Subjects in Japanese and English." PhD diss., University of Massachusetts.
- Klima, E. 1964. "Negation in English." In *The Structure of Language: Readings in the Philosophy of Language*, ed. J. Fodor and J. Katz, 246–323. New York: Prentice Hall.
- Koopman, H., and D. Sportiche. 1991. "The Position of Subjects." *Lingua* 85:211–258.
- Koopman, H., and A. Szabolcsi. 2000. *Verbal Complexes*. Cambridge, MA: MIT Press.
- La Fauci, N. 1994. *Objects and Subjects in the Formation of Romance Morphosyntax*. Bloomington: Indiana University Linguistics.
- Laezlinger, C. 1994. "Enclitic Clustering: The Case of French Positive Imperatives." *Rivista di Grammatica Generativa* 19:71–104.
- . 1997. *Comparative Studies in Word Order Variations: Pronouns, Adverbs and German Clause Structure*. Amsterdam: John Benjamins.
- Laka, I. 1990. "Negation in Syntax: On the Nature of Functional Categories and Projections." PhD diss., MIT.
- Larson, R. 1988. "On the Double Object Construction." *Linguistic Inquiry* 19:335–391.
- Lasnik, H., and M. Saito. 1989. "Move α ." Manuscript, University of Connecticut. (Published in 1992, Cambridge, MA: MIT Press.)
- Leonini, C. 2006. "Object Clitics and Determiners in the Acquisition of Italian as L2 and L1." In *Language Acquisition and Development: Proceedings of GALA 2005*, ed. A. Belletti, E. Bennati, C. Chesi, E. Di Domenico, and I. Ferrari, 343–348. Newcastle, UK: Cambridge Scholars Publishing.
- Leonini, C., and A. Belletti. 2004. "Adult L2 Acquisition of Italian Clitic Pronouns and Subject Inversion Structures." In *Proceedings of Gala 2003*, ed. J. van Kampen and S. Baauw, 293–304. Utrecht: LOT.
- Lepschy, A. L., and G. C. Lepschy. 1977. *The Italian Language Today*. London: Hutchinson.
- Lois, X. 1990. "Auxiliary Selection and Past Participle Agreement in Romance." *Probus* 2:233–255.
- Longobardi, G. 2000. "'Postverbal' Subjects and the Mapping Hypothesis." *Linguistic Inquiry* 31 (4): 691–702.
- Lonzi, L. 1989. "Il sintagma avverbale." In *Grande Grammatica Italiana di Consultazione* 2, ed. L. Renzi and G. P. Salvi, 341–412. Bologna: Il Mulino.
- . 1990. "Quali avverbi in Spec di VP?" Manuscript, Milano.
- Loporcaro, M. 1998. *Sintassi comparata dell'accordo participiale romanzo*. Torino: Rosenberg and Sellier.
- Mahajan, A. 1990. "The A/A' Distinction and Movement Theory." PhD diss., MIT.
- Manzini, M. R., and L. M. Savoia. 2005. *Morfosintassi delle varietà italiane e romance*. Alessandria: Edizioni Dell'Orso.
- McCloskey, J. 2000. "Quantifier Float and Wh Movement in an Irish English." *Linguistic Inquiry* 31:57–84.

- McKee, C., and M. Emiliani. 1992. "Il clitico: c'è ma non si vede." *Natural Language and Linguistic Theory* 10:415–437.
- Meinunger, A. 2007. "About Object es in the German *Vorfeld*." *Linguistic Inquiry* 38:3, 553–563.
- Meisel, J., ed. 1990. *Two First Languages. Early Grammatical Development in Bilingual Children*. Dordrecht: Foris.
- Milsark, G. L. 1977. "Toward an Explanation of Certain Peculiarities of the Existential Construction in English." *Linguistic Analysis* 3 (1): 1–29.
- Mioto, C. 2003. "Focalização e quantificação." *Revista Letras* 61:169–189.
- Miremont, P. 1976. *La Syntaxe Occitane*. Aurillac: Gerbert.
- Moritz, L. 1989. "Aperçu de la syntaxe de la negation en francais et en anglais." *Memoire de Licence*, Université de Genève.
- Moro, A. 1988. "Per una teoria unificata delle frasi copolari." *Rivista di Grammatica Generativa* 13:81–110.
- . 1997. *The Raising of Predicates*. Cambridge: Cambridge University Press.
- Motapanyane, V. 1989. "La position du sujet dans une langue à l'ordre SVO/VSO." *Rivista di Grammatica Generativa* 14:75–103.
- . 1995. *Theoretical Implications of Complementation in Romanian*. Padova: Unipress.
- Munaro, N., and J. Y. Pollock. 2005. "Qu'est-ce que (*qu*)-est-ce-que? A Case Study in Comparative Romance Interrogative Syntax." In *The Oxford Handbook of Comparative Syntax*, ed. G. Cinque and R. Kayne, 542–606. New York: Oxford University Press.
- Ndayiragije, J. 1999. "Checking Economy." *Linguistic Inquiry* 30 (3): 399–444.
- Nicolis, M. 2000. "L-tous, Restructuring, and Quantifier Climbing." *Rivista di Grammatica Generativa* 26:63–84.
- . 2005. "On Pro Drop." Doctoral diss., University of Siena.
- Obenauer, H.G. 1976. *Études de Syntaxe Interrogative du Français*. Tübingen: Max Niemeyer.
- . 1992. "L'Interpretation des Structures WH et l'Accord du Participe Passé." In *Structure de la Phrase et Théorie du Liage*, ed. H. G. Obenauer and A. Zibri-Hertz, 169–193. Paris: Presse Universitaire de Vincennes.
- . 1994. "Aspects de la Syntaxe A." Doctoral diss., University of Paris 8.
- Ordoñez, F. 1997. "Word Order and Clause Structure in Spanish and Other Romance Languages." PhD diss., CUNY.
- . 1998. "Postverbal Asymmetries in Spanish." *Natural Language and Linguistic Theory* 16 (2): 313–346.
- Ouhalla, J. 1988. "The Syntax of Head Movement. A Study of Berber." PhD diss., London: University College.
- Parry, M. M. 1985. "The Dialect of Cairo Montenotte." PhD diss., University of Wales.
- Perlmutter, D. 1989. "Multiattachment and the Unaccusative Hypothesis: The Perfect Auxiliary in Italian." *Probus* 1:63–119.
- Picallo, C. 1998. "On the Extended Projection Principle and Null Expletive Subjects." *Probus* 10:219–241.
- Pinto, M. 1994. "Subjects in Italian: Distribution and Interpretation." In *Linguistics in the Netherlands*, ed. R. Bok-Bennema and C. Cremers, 175–186. Amsterdam: John Benjamins.
- Platzack, C. 1986. "COMP, INFL and Germanic Word Order." In *Topics in Scandinavian Syntax*, ed. L. Helan and K. K. Christensen, 185–234. Dordrecht: Reidel.
- Poletto, C. 1996. "Three Types of Subject Clitics and the Theory of *pro*." In *Parameters and Functional Heads*, ed. A. Belletti and L. Rizzi, 269–300. New York: Oxford University Press.

- . 2000. *The Higher Functional Field in the Northern Italian Dialects*. Oxford: Oxford University Press.
- Poletto, C. (2006) "Parallel Phases: a Study on the High and Low Left Periphery in Old Italian", in M.- Frascarelli ed., *Phases of Interpretation. Studies in Generative Grammar* 91, Mouton de Gruyter, Berlin, 238–261.
- Poletto, C., and J. Y. Pollock. 2004a. "On the Left Periphery of Some Romance Wh-Questions." In *The Structure of CP and IP. The Cartography of Syntactic Structures*, vol. 2, ed. L. Rizzi, 251–296. New York: Oxford University Press.
- . 2004b. "On Wh-Clitics, Wh-Doubling in French and Some North Eastern Italian Dialects." *Probus* 16 (2): 241–272.
- Pollock, J. Y. 1989. "Verb Movement, Universal Grammar, and the Structure of IP." *Linguistic Inquiry* 20:365–424.
- Powers, S., and C. Hamann, eds. 2000. *The Acquisition of Scrambling and Cliticisation*. Dordrecht: Kluwer.
- Puskas, G. 2000. *Word Order in Hungarian: The Syntax of A' Positions*. Amsterdam/Philadelphia: John Benjamins.
- Raposo, E. 1987. "Case Theory and INFL-to-COMP: The Inflected Infinitive of European Portuguese." *Linguistic Inquiry* 18:85–111.
- Rialland, A., J. Doetjes & G. Rebuschi 2002. "What is focussed in *C'est XP qu'il/que* Cleft sentences in French", Speech Prosody 2002, ISCA Archive.
- Richards, N. 1998. "The Principle of Minimal Compliance", *Linguistic Inquiry* 29, 4, pp. 599–629.
- Rivero, M. L. 1994. "Clause Structure and Verb Movement in the Languages of the Balkans." *Natural Language and Linguistic Theory* 12 (1): 63–120.
- Rizzi, L. 1982. *Issues in Italian Syntax*. Dordrecht: Foris.
- . 1986a. "Null Objects in Italian and the Theory of *pro*." *Linguistic Inquiry* 17:501–557.
- . 1986b. "On the Status of Subject Clitics in Romance." In *Studies in Romance Linguistics*, ed. O. Jaeggli and C. Silva-Corvalan, 391–419. Foris: Dordrecht.
- . 1987. "Three Issues in Romance Dialectology." Talk given at the GLOW Colloquium, Venice, Italy. (Published in 2000, *Comparative Syntax and Language Acquisition*, 80–95. London/New York: Routledge.)
- . 1990a. "On the Anaphor-Agreement Effect." Manuscript, Université de Genève. (Published in 2000, *Comparative Syntax and Language Acquisition*, 158–173. London/New York: Routledge.)
- . 1990b. *Relativized Minimality*. Cambridge, MA: MIT Press.
- . 1990c. "Speculations on Verb Second." In *Grammar in Progress*, ed. J. Mascaro and M. Nespor, 375–386. Dordrecht: Foris.
- . 1991. "Residual Verb Second and the Wh Criterion." In *Technical Reports in Formal and Computational Linguistics*. Genève: Université de Genève.
- . 1993. "Some Notes on Romance Cliticization." Manuscript, Université de Genève. (Published in 2000, *Comparative Syntax and Language Acquisition*, 96–121. London/New York: Routledge.)
- . 1993/1994. "Some Notes on Linguistic Theory and Language Development: The Case of Root Infinitives." *Language Acquisition* 3:371–393.
- . 1996. "Residual Verb Second and the Wh-Criterion." In *Parameters and Functional Heads*, ed. A. Belletti and L. Rizzi, 63–90. New York: Oxford University Press.
- . 1997. "The Fine Structure of the Left Periphery." In *Elements of Grammar*, ed. L. Haegeman, 281–337. Dordrecht: Kluwer.
- . (2000) *Comparative Syntax and Language Acquisition*. London/New York: Routledge.
- . 2000a. "Direct Perception, Government and Thematic Sharing." In *Comparative Syntax and Language Acquisition*, 189–210. London/New York: Routledge.

- . 2000b. "Some Notes on Romance Cliticization." In *Comparative Syntax and Language Acquisition*, 96–121. London/New York: Routledge.
- . 2004a. "Locality and the Left Periphery." In *Structures and Beyond. The Cartography of Syntactic Structures*, vol. 3, ed. A. Belletti, 223–251. New York: Oxford University Press.
- , ed. 2004b. *The Structure of CP and IP. The Cartography of Syntactic Structures*, vol. 2. New York: Oxford University Press.
- . 2005. "On the Grammatical Basis of Language Development: A Case Study." In *The Oxford Handbook of Comparative Syntax*, ed. G. Cinque and R. Kayne, 70–109. New York: Oxford University Press.
- . 2006a. "Grammatically-Based Target-Inconsistencies in Child Language." In *The Proceedings of the Inaugural Conference on Generative Approaches to Language Acquisition—North America (GALANA)*, UCONN/MIT Working Papers in Linguistics, ed. K. U. Deen, J. Nomura, B. Schulz, and B. D. Schwartz, 19–49. Cambridge, MA: MIT Press.
- . 2006b. "On the Form of Chains: Criterial Positions and ECP Effects." In *WH-Movement Moving On*, ed. S. Cheng and N. Corver, 97–134. Cambridge, MA: MIT Press.
- Rizzi, L., and I. Roberts. 1989. "Complex Inversion in French." *Probus* 1:1–30.
- Rizzi, L., and U. Shlonsky. 2007. "Strategies of Subject Extraction." In *Interfaces + Recursion = Language?* ed. U. Sauerland and H. M. Gärtner, 115–160. Berlin: Mouton De Gruyter.
- Roberts, I. 1985. "Agreement Parameters and the Development of English Modal Auxiliary." *Natural Language and Linguistic Theory* 3 (1): 21–58.
- . 1987. *Implicit and Dethematized Subjects*. Dordrecht: Foris.
- . 1990. "L'accord et les auxiliaires dans l'histoire de l'anglais." Talk given at the Séminaire de recherche, Université de Genève, 1990.
- . 1991. "Excorporation and minimality." *Linguistic Inquiry* 22: 209–218.
- . 1993a. "The Nature of Subject Clitics in Franco-Provençal Valdôtain." In *Syntactic Theory and the Dialects of Italy*, ed. A. Belletti, 319–353. Torino: Rosenberg and Sellier.
- . 1993b. *Verbs and Diachronic Syntax*. Dordrecht: Kluwer.
- Rohlf, G. 1969. *Grammatica storica della lingua italiana e dei suoi dialetti; sintassi e formazione delle parole*. Torino: Einaudi.
- Ronat, M. 1979. "Pronoms typiques et pronoms distinctifs." *Langues Françaises* 44:106–128.
- Rooryck, J. 1992. "Romance Enclitic Ordering and Universal Grammar." *The Linguistic Review* 9 (3): 220–250.
- Rooth, M. 1992. "A Theory of Focus Interpretation." *Natural Language Semantics* 1:75–116.
- Ross, J. R. 1982. "Pronoun Deletion Processes in German." Presented at the LSA meeting, San Diego, California.
- Roussou, A. 2000. "On the Left Periphery. Modal Particles and Complementizers." *Journal of Greek Linguistics* 1: 65–94.
- Rouveret, A. 1989. "Cliticisation et temps en portugais européen." *Revue des Langues Romanes* 2:337–371.
- Ruwet, N. (1982) *Grammaire des insultes et autres études*, Paris, Seuil.
- Saccon, G. 1993. "Post-verbal Subjects." PhD diss., Harvard University.
- Saito, M. 1985. "Some Asymmetries in Japanese and Their Theoretical Implications." PhD diss., MIT.
- Schaeffer, J. 1996. "Clitic Omission and Past Participle Agreement." In *Grammatical Theory and Romance Languages*, ed. K. Zagona, 219–228. Amsterdam: Benjamins.

- Schmitt, C. 1998. "Lack of Iteration: Accusative Clitic Doubling, Participial Absolutes and Have+Agreeing Participles." *Probus* 10:243–300.
- Selkirk, U. 1982. *The Syntax of Words*, *Linguistic Inquiry Monograph* 7. Cambridge, MA: MIT Press.
- Shlonsky, U. 1989. "The Hierarchical Structure of Agreement." Manuscript, University of Haifa.
- . 1992. "Resumptive Pronouns as a Last Resort." *Linguistic Inquiry* 23:443–468.
- . 2004. "The Form of Semitic Noun Phrases." *Lingua* 114:1465–1526.
- Siloni, T. 1994. "Noun Phrases and Nominalizations." Doctoral diss., Université de Genève. (Published in 1997, *Noun Phrases and Nominalizations. The Syntax of DPs*. Dordrecht: Kluwer.)
- Solà, J. 1992. "Agreement and Subjects." Doctoral diss., Universitat Autònoma, Barcelona.
- Sorin, C. 1989. "Auxiliaries and Sentence Structure in Romanian." Manuscript, Paris 7.
- Sportiche, D. 1988. "A Theory of Floating Quantifiers and its Corollaries for Constituent Structure." *Linguistic Inquiry* 19:425–449.
- . 1989. "Conditions on Silent Categories." Manuscript, UCLA.
- . 1995. "French Predicate Clitics and Clause Structure." In *Small Clauses, Syntax and Semantics*, vol. 28, ed. A. Cardinaletti and M. T. Guasti, 287–324. New York: Academic Press.
- . 1996. "Clitic Constructions." In *Phrase Structure and the Lexicon*, ed. J. Rooryck and L. Zaring, 213–276. Dordrecht: Kluwer.
- . 1998. *Partitions and Atoms of Clause Structure*. London/New York: Routledge.
- . 2007. "Division of Labor Between Merge and Move." Manuscript, UCLA.
- Starke, M. 1995. "On the Format of Small Clauses." In *Small Clauses, Syntax and Semantics*, vol. 28, ed. A. Cardinaletti and M. T. Guasti, 237–269. New York: Academic Press.
- Stowell, T. 1981. "Origins of Phrase Structure." PhD diss., MIT.
- . 1983. "Subjects Across Categories." *The Linguistic Review* 2 (3): 285–312.
- Taraldsen, K. T. 2001. "Subject Extraction, the Distribution of Expletives and Stylistic Inversion." In *Subject Inversion in Romance and the Theory of Universal Grammar*, ed. A. Hulk and J. Y. Pollock, 163–182. New York: Oxford University Press.
- Tomaselli, A. 1990. *La sintassi del verbo finito nelle lingue germaniche*. Padova: Unipress.
- Torrego, E. 1995. "On the Nature of Clitic Doubling." In *Evolution and Revolution in Linguistic Theory*, ed. H. Campos and P. Kempchinsky, 399–418. Washington, DC: Georgetown University Press.
- . 1998. *The Dependencies of Objects*. Cambridge, MA: MIT Press.
- Travis, L. 1984. "Parameters and Effects of Word Order Variation." PhD diss., MIT.
- Tsai, D. 2007. "Self & Wh: A View from Left Periphery and Middle Earth." Manuscript, National Tsing Hua University.
- Uriagereka, J. 1995. "Aspects of the Syntax of Clitic Placement in Western Romance." *Linguistic Inquiry* 26 (1): 79–123.
- Vikner, S. 1997. "V to I Movement and Inflection for Person in all Tenses." In *The New Comparative Syntax*, ed. L. Haegeman, 189–213. London: Longman.
- Vikner, S., and R. A. Sprouse. 1988. "Have/be-Selection as an A-Cain Membership Requirement." *Working Papers in Scandinavian Syntax* 38:1–48.
- Wexler, K. 1994. "Optional Infinitives, Head Movement and the Economy of Derivations in Child Grammar." In *Verb Movement*, ed. N. Hornstein and D. Lightfoot, 305–350. Cambridge: Cambridge University Press.

- White, L. 1996. "Clitics in L2 French." In *Perspectives on Language Acquisition*, ed. H. Clahsen, 335–368. Amsterdam/Philadelphia: John Benjamins.
- Williams, E. 1981. "Argument Structure and Morphology." *Linguistic Review* 1:81–114.
- . 1991. "Syntactic Properties of Sentential Negation. A Comparative Study of Romance Languages." PhD diss., University of Pennsylvania.
- Zanuttini, R. 1996. "On the relevance of tense for sentential negation". In *Parameters and Functional Heads: Essays in Comparative Syntax*, ed. A. Belletti and L. Rizzi, 181–207. New York: Oxford University Press.
- . 1997. *Negation and Clausal Structure*. Oxford: Oxford University Press.
- Zubizarreta, M. L. 1998. *Prosody, Focus and Word Order*. Cambridge, MA: MIT Press.

Author Index

A

Aboh, E. 336n14
Abels, K. and P. Muriungi 336n12
Ahn, H.D and S. Cho 342n20
Alexiadou, A. 267, 276
Alexiadou, A. and E. Anagnostopoulou 322n49
Amritavalli, R. and K.A. Jayaseelan, 255n5, 336n10
Anagnostopoulou, E. 322n49, 326n1
Antinucci, F. and R. Miller 306n12
Antinucci, F. and G. Cinque 174, 196, 328n22
Aoun, J., Choueiri, L. and N. Hornstein 340n6

B

Badan, L. 8
Baltin, M. 289n34, 291n42
Baker, M. 15, 17–8, 72, 285n5, 299n9, 300n21
Baker, M., K. Johnson, and I. Roberts 81
Barbosa, P. 327n18, 329n26
Belletti, A. 1, 3, 6, 7–8, 10, 78–9, 98, 105, 109–10, 115, 119, 121–2, 146–8, 161, 164, 171, 182, 190, 197, 199, 202, 206, 210, 229–30, 240, 246, 262, 267–8, 254n54, 298n2, 298n4 n7, 298n8, 300n22, 301nn1–2, 303n17, 303n23, 305n6, 307n16, 310nn6–7, 314n31, 316n5 n8, 317n16, 318n20 n22 n25, 319nn32–33, 320nn38–39, 321n40, 322nn52–53, 323n63, 324n13, 327nn11–12, 328n19 n22, 333n50 n3, 334n12 n14

n20 n23, 335n31 n33, 335n1 nn7–8, 336n10, 337n26, 340n5
Belletti, A., E. Bennati, and A. Sorace 8, 227, 232, 250–1, 334n22, 335n34, 336n11, 337n27
Belletti, A., and C. Hamann 227, 235, 334n25
Belletti, A., and C. Leonini 227, 231, 250–2, 334n17
Belletti, A., and L. Rizzi 78, 103, 122, 124, 288n27, 302n18 n21, 310n7, 317n17, 325n17
Belletti, A., and U. Shlonsky 7, 193, 316n3, 323n1
Benincà, P. 94, 161, 267, 270, 313n26, 321n48, 333n3, 339n34, 340n6
Benincà, P., and C. Paletto 11, 161, 267, 270, 276, 327n16, 338n33, 340n7, 341n9
Bernstein, J. 326n2
Bianchi, V. 269, 332n40, 338n31, 339n3, 341n10
Bobaljik, J. 4
Bobaljik, J., and D. Jonas 165
Bocci, G. 276, 341n9
Boeckx, C. 269
Borer, H. 312n1
Borer, H., and K. Wexler 306n12, 314n35
Brody, M. 316n3
Buring, D. 316n4
Burzio, L. 78, 83, 111, 113–4, 120–1, 126, 204, 287n14, 297n76, 301n24, 304n2, 305n3 n7, 307n21, 309n27, 316n26, 325n17, 328n21, 335n2, 336n9

C

- Calabrese, A. 64, 296n71, 306n14,
324n8, 336n16
- Cardinaletti, A. 3, 6, 10, 110, 164, 175,
210, 266, 310n6, 318n21 n23,
319n31, 321n42, 322n55,
327n12 n14 nn17–18,
328n22, 333n11, 335n3
- Cardinaletti A. & G. Giusti 122
- Cardinaletti, A., and I. Roberts 105,
146, 302n8
- Cardinaletti, A., and M. Starke 10, 151,
238, 280–2, 310n6, 327n17,
329n26, 331n38
- Cecchetto, C. 10, 175, 202–3, 208,
267–8, 310n8, 320n38,
321n48, 329n25
- Cecchetto, C., and G. Chierchia
325n25
- Chomsky, N. 1–2, 4–5, 11, 15–18, 24,
31, 38, 41, 68, 72–3, 78, 86,
92–3, 97, 109–10, 121, 126,
131, 134, 162, 172, 195, 234,
256, 269, 273, 285n4 n6,
286n12, 290n40, 297n78,
298n2, 298n6, 299n9, 301n3,
303n12, 304n7, 320nn34–35,
322n52, 324n8, 327n15,
329n26, 332n45, 333n2 n9
n11, 340n5
- Cinque, G. 1–3, 5–6, 11, 32, 38, 103,
109, 129, 149, 164, 195–6,
201, 210, 267–8, 280,
288n25 n28, 290n42 n48,
306n13, 307n15, 309n30,
320n37, 321n45, 325n15,
326n8, 327n13, 328n19,
334n14
- Cinque, G., and P. Benincà 313n26
- Cinque, G., and R. Kayne 2, 333n2
- Cocchi, G. 128
- Collins, C., and H. Thráinsson 309n29
- Cornulier, B. 180
- Corver, N., and D. Delfitto 310n6
- Costa, J. 9, 254, 316n7
- Costa, J., and I. Duarte 336n10
- Cruschina, S. 337nn17–18
- Crysmann, B., and N. Müller 238

D

- Déprez, V. 125, 306n11, 307n18,
308n24
- Diesing, M. 308n24
- Duarte, M. 254, 336n10

E

- Eagerland, V. 305n6
- Emonds, J. 2, 15, 17, 20, 33, 47, 91

F

- Ferrari, I. 228, 335
- Figueiredo, C. 213, 254, 330n28
- Frascarelli, M. 175, 327n13, 341n12
- Friedemann, M. A. 38, 132, 304n26,
310n5, 314n35
- Friedemann, M. A., and T. Siloni. 110,
132, 310n5
- Friedmann, N., and Y. Grodzinsky 8

G

- Giusti, G. 122, 308n23
- Granfeldt, J. and S. Schlyter 237
- Grevisse, M. 122
- Grewendorf, G. 8, 332n44
- Grimshaw, J. 302n7
- Guasti, M. T. 11, 115, 257–9, 296n74,
305n3
- Guasti, M. T., and L. Rizzi 115
- Guesser, S. 9, 252–3, 337nn25–26

H

- Haegeman, L. 2, 11, 156, 276, 333n2
n10, 341n9
- Haider, H. 281–2
- Hale, K., and S. J. Keyser 308n25
- Hamann, C. 10, 333n5, 334n29,
341n16
- Hamann, C and A. Belletti 226–7, 235,
237, 334n25 n28 n30, 335n32
n34
- Hamann, C., L. Rizzi, and U. Frauen-
felder 237
- Hankamer, J. and I. Sag 279
- Herschensohn, J. 238
- Higginbotham, J. and R. May 292n46
- Hoekstra, T. 300n20
- Holmberg, A. 4, 151, 287n80
- Huang, J. 143, 273, 341n12
- Hulk, A. 237, 334n30
- Hyams, N. 8, 225

J

- Jackendoff, R. 30, 288n24 n26
- Jaeggli, O. 139, 201
- Jayaseelan, K. A. 255, 316n3, 336n10

K

- Kampers-Manhe, B. 181
- Kato, M. 8, 213–4, 254

Kayne, R. 2-4, 11, 33, 40, 61-2, 72,
93-4, 103-4, 110, 114-5,
118-9, 121-3, 127-8, 130,
135-6, 139-41, 145-7, 153,
201-2, 225, 234, 236, 266,
269, 273, 276, 279, 285n1
n4, 286n7 n9, 287n14 n20,
288n28, 289n30, 289n33,
295n67, 296n73, 297n83,
298n6 n8, 303n24, 304nn1-2,
305n6, 306nn11-12 n14,
307n15, 310n10, 311n16,
312n17, 313n30, 314n34
nn37-38, 316n10, 317nn14-
15 n18, 318n24, 319n27,
323n1, 326n2 n7, 333n2,
338n31, 339n3

Kayne, R., and J. Y. Pollock 123, 163-6,
166-7, 169-71, 180-1, 236,
307n22, 316n10, 317nn14-
15, 318n24, 319n27, 334n18

Kiss, K. E. 262, 319n28, 336n12

Kitagawa, Y. 285n4

Klima, E. 91

Koopman, H., and D. Sportiche 54,
73, 75, 126, 287n15, 298n5,
300n18

Koopman, H., and A. Szabolcsi 3

L

La Fauci, N 304n2

Laezlinger, C. 6, 315n43 n45

Laka, I. 285n4, 301n3, 303n18

Larson, R. 323n1

Lasnik, H., and M. Saito 289n35,
290n42

Leonini, C. 228, 250, 335n31

Leonini, C., and A. Belletti 235n31

Lepschy, A. L., and G. C. Lepschy 124,
306n12

Lois, X 308n25

Longobardi, G 317n17, 324n13

Lonzi, L. 28, 100, 287n18, 293n52

Loporcaro, M. 304n3, 307n17

M

Mahajan, A. 124

Manzini, M. R., and L. M. Savoia
333n3

McCloskey, J 326n10

McKee, C., and M. Emiliani 306n12

Meinunger, A. 341n19

Meisel, J. 334n30

Milsark, G 334n12, 337n25

Miremont, P 306n14

Moritz, L. 22, 29, 45, 93, 285n4,
286n9, 286n12, 303n12

Moro, A. 254, 257, 264, 285n1, 298n2,
314n40, 318n22, 324n12,
330n27, 334n12, 335n8,
336n9

Motapanyane, V. 106, 181, 290n39,
297nn82-83

Munaro, N., and J. Y. Pollock 335n8

N

Ndayiragije, J. 316n3

O

Obenauer, H.G. 116-18, 125

Ordoñez, F. 181, 319n31, 322n55

Ouhalla, J. 285n1 n4, 298n2, 301n2

P

Parry, M. M. 302n6

Perlmutter, D. 304n2

Picallo, C. 181

Pinto, M. 317n16

Platzack, C. 4, 289n32, 297n80

Poletto, C. 6, 8, 106, 161, 290n39,
313n20, 322n58, 327n18,
333n3

Poletto, C., and J. Y. Pollock 161,
326n10

Pollock, J. Y. 1-2, 6, 15, 17-20, 24, 28,
33, 45, 47, 57-8, 62, 66-8,
72, 91-3, 99, 109, 115, 152,
285n1, 285n4 n6, 286n7 n9,
291n44, 295n66, 297n68 n83,
298n2 n7, 303n14, 304n27,
307n22

Puskas, G. 337n18

R

Raposo, E. 4, 76, 299n11 n13, 331n31

Rialland, A., J. Doetjes and G. Rebuschi
259, 338n32

Richards, N. 305n7, 306n14

Rivero, M. L. 315n43

Rizzi L. 4-6, 8, 11, 21, 29, 37-8, 42,
60, 76, 78, 83, 103, 109, 110,
116-8, 122, 143, 156, 161,
166, 177, 188, 213, 225, 233-
34, 247, 257, 260, 266, 268,
273, 279, 285-86, 288n27,
289n32, 290n41, 292n48,
294n58, 296n70, 298n2 n4,
299n13, 302n8, 303n19,

- Rizzi L. (*continued*)
 305n3, 306n11, 310n9,
 313n24 n29, 315nn42–43
 n45, 306n16, 317n17, 321n43
 n47, 322n58, 324n8, 325n17,
 325n21, 327nn15–16 n18,
 333n2 nn4–5 n9, 334nn14–
 15, 335nn2–3, 337n22,
 339n37, 341n9 n16
- Rizzi, L., and I. Roberts 21, 38,
 289n34
- Rizzi, L., and U. Shlonsky 233, 334n23,
 338n30, 339nn37–38
- Roberts, I. 4, 21, 69–70, 81, 105–6,
 110, 285n6, 288n28, 289n34,
 290n38, 297n78, 302nn8–9
- Rohlf, G. 300n23
- Ronat, M. 333n50
- Rooryck, J. 315
- Rooth, M. 322n60
- Ross, J. R. 266
- Roussou, A. 322n51, 341n9
- Rouveret, A. 110, 202
- Ruwet, N. 122
- S**
- Sacson, G. 317n16
- Saito, M. 282, 289n35, 290n42,
 342n20
- Schaeffer, J. 306n12
- Schmitt, C. 326n1
- Selkirk, U. 69
- Shlonsky, U. 3, 269, 285n4
- Siloni, T. 143–4, 310n5, 311n15,
 313n21
- Solà, J. 319n31, 327n18
- Sorin, C. 290n39
- Sportiche, D. 3–5, 110, 115, 122, 129,
 163, 202, 285n6, 287n16,
 288n29, 303n13, 304n2,
 306n11, 307n18, 310n8,
 311n15, 326n7, 335n33,
 339n35, 340n6
- Starke, M. 163, 313n28, 338n29
- Stowell, T. 37, 297n76, 336n9, 293n49,
 334n24
- T**
- Tomaselli, A. 281–2, 289n32
- Torrego 182, 202, 322n50, 326n3
- Travis, L. 281
- Tsai, D. 8
- U**
- Uriagereka, J. 202, 310n6, 317n12
- V**
- Vikner, S. 4
- Vikner, S., and R. A. Sprouse 128
- W**
- Wexler, K. 8, 306n12, 333n5
- White, L. 237
- Williams, E. 73, 333n8
- Z**
- Zanuttini, R. 5, 94, 109, 148, 285n4,
 298n7, 301n3, 302nn6–7 n10,
 305n9, 314n38
- Zubizarreta, M. 181, 320n37, 325n15

Subject Index

A

- acquisition
 - adult L2 8, 227, 233, 237, 239, 240, 241, 334n30, 335n1, 336n11
 - bilingual 8, 227, 240, 334n30
 - child L2 334n30
 - monolingual 237, 239, 240, 306n12, 334n30, 335n35
 - of clitics 10, 227–8, 237, 241, 334n28
 - of *que/qui* alternation 227, 336
 - of the null/non-null-subject property 225
- A/A' distinction 259, 318 n20
- adjacency 38, 44, 304n25
 - condition 37, 107
- adjective 66, 121
- adjunct 144, 97, 288n29
- adjunction 157, 287n16, 289n35, 291n42, 294n53, 299n9, 303n11, 310n10
 - left 21, 25, 136, 138, 145–6
 - multiple 136, 310n10
 - NegP 291n44
 - of clitic 139, 145, 313n22
 - TP 53
- adverb 5, 15, 17, 20, 26–8, 31–3, 91, 164
 - ASPP adverb 99
 - clause-initial 42, 49, 292n48
 - clause-internal 39
 - different classes of 5, 15, 55, 65, 91, 109
 - low 5, 20, 47, 52–3, 55–6, 58–9, 129, 164, 168, 179, 184, 210, 286n7, 317n15
 - manner 29, 101, 296n73
 - movement 15, 20, 33, 36, 43, 103
 - negative 5, 17–8, 20–1, 23–4, 25–9, 36, 39–40, 44, 46–7, 52, 55–8, 65, 92–3, 96–8, 100, 104, 286n7, 287n22, 292n45
 - positive 28–9, 92, 100–1, 104, 288n23, 303n20
 - sentence 5, 20, 30, 33–7, 39–41, 43–4, 47, 49, 55, 60–1, 92, 102–6, 286n8, 287n18, 290nn41–42, 292n47, 293n50, 304nn24–25
 - VP 20, 44, 46, 52–6, 58–9, 61–2, 65, 99–100, 286n7, 290n42 n44, 294n57
 - VP final 52–3, 101
 - VP initial 52–4, 287n16
- affix 4, 17, 19, 69, 76, 311n13
- Affix Hopping 17, 70, 287n14
- agreement
 - features 16, 19, 23–4, 72, 97, 106–7, 124, 136, 285n6
 - morphology 4, 68, 154
 - object 85, 110, 114, 119, 297n77, 306n14, 307n17
 - past participle 3, 86, 109, 110–135, 287, 298, 304, 305–30
 - projections 24, 72–3, 109, 117, 122, 306
 - relation 4, 46, 110, 156, 161, 299n14
 - spec/head 45, 109, 114, 134, 285n6
 - subject 110, 154, 155
- AGRO 97–9, 104, 106, 110, 132–58, 310nn4–5 nn8–9, 311nn13–14, 323n19 n24, 320n34
- AGRP
 - modifier 35, 104
 - subject position 32, 37, 39
 - recursion 41, 290n39

- AGRS 92, 95, 97–100, 104–7,
131–4, 137–8, 142, 143–8,
152–3, 155, 157, 314n35,
315nn44–45
- anaphor 83, 84, 294n54, 322n55
- ancora* 20–1, 24, 26, 28, 44, 56, 58,
92, 98, 195, 267, 270, 286n7,
324n8, 329n25
- ASC: *see* Absolute Small Clauses
- ASPP: *see* Aspectual Phrase
- Aspectual Phrase 24, 31, 68, 97–9,
100, 132, 135–6, 147, 149,
291n44, 294n57, 295n66,
325n5
- Aux-to-Comp 5, 37, 42
- auxiliary 36, 104, 105, 107, 108, 111,
114, 120, 127, 128, 129, 132,
133, 135, 147, 150, 185, 195,
205, 238, 287n15, 300n23,
304n24n25n26, 308n25,
309n26, 310n4, 314n32,
323n5
- aspectual 23, 31, 44, 73, 90, 112–3,
120–1, 288n29, 290n39,
293n51, 296n74, 305n3 n7,
307n16
- B**
- Basque 243
- beaucoup* 117–8, 308n23
- ben(e)* 29, 309n30, 340n6
- Brazilian Portuguese 2, 8–9, 213–5,
248, 252, 254–5, 264,
330nn27–28, 331n32,
337nn23–24 n26, 338n33
- by*-phrase 89, 300n17
- C**
- cartography/cartographic 1, 6–7, 11,
161–2, 190, 230, 242, 245,
327nn15–16, 335n3, 336n16,
341n9
- case
- accusative 81, 83, 85–6, 88–90, 120,
125, 132, 148, 300n21 n23,
301n24, 307n16 n21, 323n27
- agreement-system 5
- assignment 37, 75–7, 107, 181,
299n8n14, 307n16, 309n29
- as non local process 172, 179
- under government 37
- case less positions 222
- checking 131, 141–3, 152, 323n30,
324n10
- dative 113, 124, 133, 139–40, 144,
322n50, 323n4
- filter 75
- inherent 122, 124–5, 300n22,
307n20, 308n23, 324n13
- marking 36, 85–6, 88, 125, 182,
211–2, 304nn25–26, 308n22
- nominative 36–7, 42, 73, 75–8, 86,
90, 191, 206, 211–2, 214, 282,
285n6, 289n33, 299n8 n12
n14, 304n25, 308n22
- null 214–5
- positions 38, 86, 88, 182–4, 211,
304n26, 320n40, 322n52,
328n23
- theory 90, 202
- Catalan 181
- c-command 95, 97, 167, 169–70, 184–
86, 300n17, 318n24, 326n7
- CED: *see* Constraint on Extraction
Domain
- chain 22, 86, 89, 93 302n5
- che* 30, 32, 50–1, 81, 102, 103, 116,
124, 155, 164, 167–71, 181,
185–8, 194–5, 207–8, 228,
230, 233–4, 246, 248, 255–64,
268–71, 275–8, 293nn50–51,
295n59 n62, 299n15, 319n33,
321n42, 327n11, 334n27,
336n16, 337n24, 338n28,
339n34
- clauses
- assertive 28–9, 287n20
- full 3, 72–3, 80–3, 85, 90, 97,
147–50, 163, 242, 248, 256,
298n4 nn7–8, 300nn22–23,
307n16
- imperative 155–7
- infinitival 2, 15, 41, 55, 57, 59,
62–3, 65, 122, 214, 216, 222,
287n14, 296n62, 296n75,
314n40, 331nn32–33
- matrix 85, 215–16, 253, 257,
294n59, 295nn61–62,
331n33, 332n48
- past participial 4, 16, 67, 71–75,
77, 79–87, 90, 298nn7–8,
299n14, 301n25
- root 36, 279, 261, 279, 314n40
- tensed 18, 20, 23, 50, 53, 55–6,
58–60, 62, 66, 69, 235,
287n14, 291n44, 295n66,
297n78 n82, 304n25
- untensed 66, 291n44

CLD *see* Clitic Doubling Structures
 cleft 1, 9, 11, 51, 101, 242, 244–9,
 251–5, 257, 259–60, 262–4,
 295n62, 336n10 n15,
 337nn23–24, 338nn31–32,
 339n34 n39
 nonsubject 256–8, 261–2, 264
 pseudocleft 9, 253, 337n24
 reduced 242, 244–6, 248, 253, 258,
 261–2, 339n35
 subject 7, 9, 255, 259, 261–2, 264,
 338n33
 truncated 253
 CLLD: *see* Clitic Left Dislocated
 Constructions
 Clitic Left Dislocated Constructions
 10–1, 142, 201, 203, 205–6,
 211, 221, 266–8, 270–72,
 274–77, 280, 288n28, 226n1,
 226n8, 227n13, 327n18,
 329n25, 340n4 n6, 341n8
 n10, 342n20
 clitic
 accusative 135, 148
 dative 133, 139, 144, 322n50
 ne 78, 272, 310n7
 negation 95–6, 98 302n10
 nominative 133
 non as a 95
 object 94–8, 110–1, 113–5, 142–3,
 148, 151–2, 157, 182, 237,
 239–41, 301n4, 302nn10–11,
 309n27, 324n36, 335n35
 pronoun 130, 134, 137–8, 151–2,
 202, 227–8, 238, 240–1,
 267–70, 280–2, 286n10,
 332n45, 333n49
 reflexive 84, 113, 126–8, 309n26
 reflexive/reciprocal 84, 111, 113,
 126–8, 309n26
 resumptive 142, 269, 288n27
 silent 38, 119
 subject 5, 38, 95–7, 106–7, 128,
 134, 142–3, 152, 189–90,
 212, 289n31, 290n39, 302n8,
 303n21, 304n24, 313n20,
 324n35, 315n44, 316n9
 voice 311n15, 313n21
 cliticization 10, 64, 110–12, 114–6,
 119, 124, 130–1, 135, 139–40,
 143–5, 151, 153, 157–8,
 183, 203, 211, 227, 282,
 286n7n10, 298n6, 302n5
 n11, 305n3 n6, 306n10,

 307n17, 308n25, 309n27,
 310n8, 311nn10–11 n13 n15,
 313n21 n24, 325n17, 334n28,
 335nn33–34
 CP
 articulated 109, 161, 247, 256,
 258, 260–1, 273, 276, 281–2,
 324n7, 338n33
 edge 10–1, 266, 274–5, 278–80,
 341n10
 reduced 147–8, 259–63, 279
 split 6, 161–2
 truncated 261–3
combien 116–8, 121, 125, 166–7
 Constraint on Extraction Domain: 143–
 4, 166–7, 317n17, 318n20,
 325n18
 complement reordering 7, 193–5, 200
 complementizer 10, 43, 56, 59, 227–8,
 233–6, 254, 258–61, 263–4,
 276, 278, 295n63, 324n7,
 334n27, 338n33, 339n39
 control 65, 85
 coordination 94–7, 314n35
 CP left periphery 11, 171, 207, 247,
 268, 270

D

DE *see* Definiteness Effect
 definiteness effect 79, 334n12
 dislocation
 left 10, 32, 38–9, 49–51, 102–3, 105,
 268, 275, 289n31, 292n48
 n50, 303n24
 right 31, 33, 102, 174–5, 189–90,
 201, 289n36, 291n43,
 311n16, 312n17, 320n38,
 321n42
 doubling 139, 206, 211, 216, 221,
 216, 254, 311n15, 323n63,
 320n38, 327n10, 331n36,
 334n23
 clitic 6, 10, 131, 139–44, 175, 182,
 201–2, 311n16
 D structure 17, 20, 25, 35, 50, 53–4, 58,
 73, 75, 78–80, 83, 88, 287n15,
 294n54n55, 300n18 n22

E

ECP *see* Empty Category Principle
emarginazione 174–5, 177–8, 321n42
 Empty Category Principle 15, 17, 19,
 22, 36, 67, 78, 93, 107, 234,
 286n7 n12, 302n9

- enclisis 131, 134, 145–7, 150–1, 154,
156–7, 305n6, 307n16,
313n24 n26, 315nn43–44
- English 2, 5, 9, 17, 29, 33, 34–5, 39, 41,
66, 68–70, 91, 101, 103–6,
131, 156, 205, 222–3, 225–6,
228–9, 232, 234, 242–4,
247–51, 254, 265, 285n2,
287n20, 288n26 nn28–29,
289n30 n35, 290n42, 296n69,
297n76 n78, 303n24, 304n26,
330n30, 332n32 n34, 335n5
- EPP *see* Extended Projection Principle
- es* 121, 123, 266, 281–2, 341n19
- European Portuguese 9, 243–4, 246,
254
- excorporation 136, 139, 302n9,
311n11, 313n24
- Extended Projection Principle 11, 172,
245, 246–8, 256–60, 263,
330n26, 337n16, 338n29,
339n35
- extraction 166–7, 271
 en 167
 ne 79–80, 199, 320n36
 subject 227–8, 233–4, 236, 339n37
- F**
- features
 agreement 16, 19, 23–4, 72, 97,
 106–7, 136, 285n6
 gender 71, 310n8
 inflectional 18, 72, 299n12, 304n27
 morphological 109
 number 70, 73, 115
 person 70, 73, 115, 220, 332n40
 phi-features 124, 213
 tense 16
- FI: Free Subject Inversion *see* inversion
- Finiteness 109, 161, 264
- Fiorentino 189
- focalization
 clause-external 178, 324n8
 clause-internal 188, 191–2, 194–5,
 324n8
 corrective/contrastive 247
 DP internal 247, 336n14
 in situ 199, 200, 242, 250
 left peripheral 188, 247, 260–1,
 338n33, 339n34, 341n18
- focus 6–7, 70, 111, 181, 194–201,
207, 209–11, 217–22,
226–7, 236–7, 239, 241–3,
245–50, 254–5, 261, 281,
308n23, 325n1, 316nn3–4,
318n19 n20, 319nn28–30,
320nn36–37 n39, 321n41
n43 n45, 321n47, 323n1 n5,
324n6 nn9–10, 325nn14–16
nn18–19, 327n17, 328nn21–
22, 331nn32–33 n36 n39,
332n41n43n45, 333n48,
338n32n33, 339n37
- contrastive 103, 162, 170, 175–6,
179, 186–9, 247, 260–3,
315n1, 316n12, 319n29,
322n56 n61, 324n8, 337n19,
339n34
- new information 167–8, 171, 174–6,
183, 186, 189, 192, 194, 207,
222, 230–1, 242–3, 245–7,
249–50, 254, 257, 261–4,
319n29, 320n37 n39, 323n62,
324n8, 335n2 n5, 336n14
n16, 337n19 n26
- Force 109, 161, 260–1, 263–4, 278,
338n33, 339n39, 341n14
- FQ *see* Floating Quantifiers
- French: 2–5, 7, 9–10, 15, 17–8, 20–2,
28–9, 33–5, 38–43, 45, 57–8,
61–3, 67–70, 91–4, 98–101,
103–6, 111–2, 115–9, 121–5,
128–31, 133–4, 150–4, 156–7,
163, 166, 180, 205, 227–9,
231, 234–7, 239–51, 253–4,
258, 261–2, 264, 285n2 n6,
286n7 n9, 287n14, 288n26,
289n31, 291n44, 292n48,
295n60, 296n69, 297n75 n77,
297nn78–79 n80 n82, 298n8,
303n14 n24 n26, 304n2,
305n5 n7, 306n10, 307n20,
308n23 n25, 309n3, 313n19,
314n35, 315n44, 316n7 n10,
317n14, 318n24, 319n27,
322n49, 330n27 nn29–30,
331n32, 333n50, 334n18,
335n32 n35, 337n23, 338n32,
339n35
- Full Interpretation 275–6
- functional heads 5, 15–6, 19, 40–1, 67,
72, 92, 147, 285n6, 303n24,
313n23, 333n11
- G**
- German 2, 8, 226, 232, 239, 243,
250–1, 266, 279–82, 289n33,
310n8, 332n44, 335n3

gerund 37, 76–7, 157, 303n14
 già 28, 30, 100–2, 287n22, 303n20,
 303n20

Greek (modern) 182, 326n1
 Gungbe 243

H

HMC *see* Head Movement Constraint
 Head Movement Constraint 22, 36,
 67, 93, 107, 135, 139, 157,
 286n12, 302n9, 310n9,
 311n14, 313n25

Hindi 124

Hanging Topic 10, 219, 267, 270,
 272–3, 340n6

Hungarian 243–4, 249, 335n5,
 337n19

I

Icelandic 165, 182, 307n19
 imperative 154–7, 310n4, 314nn38–40,
 315n43 n45

incorporation 18, 21, 26–8, 38, 44,
 85–6, 88, 90, 98, 137–8,
 294n56, 299n9, 300nn22–23

inflection/Infl 24, 62, 69, 72, 75, 86, 92,
 109, 133, 298n2, 300n21

inflectional head 3, 15, 17, 20, 55–6,
 91, 145, 334n16

interface 162–3, 315n1

interpretation

ARB interpretation 216
 contrastive/corrective interpretation
 170, 176, 179, 186–7, 261,
 326n12

discourse interpretation 7, 230,
 327n15

focus interpretation 161, 168, 170,
 174, 209, 210–1, 230, 254,
 328n22, 332nn41–42

new information focus interpre-
 tation 170, 175, 193, 210–1,
 230, 257

imperative interpretation 155,
 314n40

negative interpretation 30, 46,
 303n20

LF/PF interpretation 332n45, 137

presuppositional (D-linked) interpre-
 tation 125, 283, 342n20
 non presuppositional (D-linked)
 interpretation 125

topic interpretation 161, 167,
 171–2, 183–4, 193, 207, 217,

316n4 n10, 318n19, 321n43,
 331n39, 332nn41–42

‘uniqueness’ interpretation 337n26

intonation 32, 38–9, 64, 103, 162,
 164–5, 167, 170 173–6,
 179, 181, 186–8, 190, 194,
 196, 208, 218, 230, 288n28,
 289n33 n36, 303n23, 316n7
 n10 n12, 318n23, 321n42,
 324n11, 325n16, 331n31 n37,
 332nn47–48

inversion

free subject 163–4, 167–8, 170–2,
 180–1, 213, 226–8, 240, 254,
 316n7 n10, 319n19

stylistic inversion 120, 123,
 163–4, 166, 168–71, 180–1,
 299n8, 307n22, 316n7 n10,
 317nn14–15, 318n24, 319n27
 334n18

subject inversion 64, 123, 163,
 190–5, 206, 212–3, 215,
 226–31, 233, 240, 308n22,
 317n12, 331n36

island 43, 268–9, 271, 340n5

Italian 2–10, 15–6, 19–21, 24, 29,
 32–4, 39–40, 42, 44, 50, 53,
 55, 57–8, 61–73, 75–9, 81,
 83, 85–7, 89–95, 97–102,
 103–7, 110–16, 118–21,
 123–4, 126–35, 137, 139,
 141–3, 145–7, 149, 151–7,
 163–5, 167, 170, 179–83,
 187, 189–90, 201, 205–6,
 211–2, 222–3, 225–9, 231–3,
 235–7, 239–43, 245–52,
 254–7, 260, 262, 266–7, 269,
 280–1, 285n6, 287nn13–14,
 287n18, 288n28, 289n31
 n35, 290n42, 292n48,
 293n52, 294n54, 296n68,
 297n77 n80 n83, 298n5,
 299n10 n15, 300n23, 301n4,
 303n16 n21, 304nn24–26,
 304n2, 305nn6–7, 305n9
 n12, 307n20, 308n23,
 309n, 313n20, 314nn34–36,
 314n40, 316n5 n7 n10,
 318n24, 319n26, 322n49
 n52, 326n10, 330n30,
 332n41, 333n50, 334nn26–
 27, 335n32 n35 n2, 336n13,
 337n24 n26, 337nn27–28,
 339n36, 341n11, 341n20.

J

Japanese 243–4, 282–3, 342n20

K

Korean 282–3, 342n20

L

LA *see* Lexical Array

LF 22, 38, 43, 46, 63, 121, 131, 140–1, 143, 162, 286n8 n12, 287n20, 288n27, 291n42, 292nn45–46, 296n68, 297n77, 310n8, 311n15, 313n19n21, 324n8, 332n45

left periphery 6, 11, 114, 161–2, 164, 171, 178, 187–8, 191, 195, 207, 219, 230, 247, 260, 262, 268, 270, 282–3, 319n27 n29, 327n18, 339n34, 342n20

Lexical Array 172, 222, 332n46

locality 263, 268, 271, 339n35, 341n12 n14

M

Malayalam 243

mai 20–1, 23–6, 28, 44, 46–7, 56–8, 92, 96–8, 102, 148, 276–7, 286, 292n45, 296n68

Minimalist Program/minimalism 1, 4, 109–10, 131, 163, 172, 211

Mirror Principle 18, 285n5

modifier 35, 53–4, 100–1, 104–5, 117, 291n44

morphology 4, 21, 77, 115, 150, 297n83

morphological checking 115, 130–1, 139, 145–6, 149–50, 152, 309n27, 311n11, 313nn23–25, 318n20, 336n16

participial 3, 54, 73–4, 77–8, 81, 86, 88–90, 110, 115–7, 128, 148, 299n14, 300n17 nn22–23, 301n25

passive 111–2, 120, 129, 305n3

verbal 3–4, 16–7, 19, 69, 109, 136–8, 145–7, 152, 154–8, 285n4, 313n25

movement 2–5, 15–21, 26, 33–4, 36, 41, 43, 46–7, 50, 52–6, 58–60, 62–3, 66–70, 72, 75, 77–8, 81, 88, 90–1, 93–5, 98–105, 107, 110, 112, 115–21, 127–8, 130–46, 131, 149–53, 156–8, 161, 164–7, 169, 176–9, 195–6,

200, 203, 211–3, 238, 256–7, 263–4, 268, 270–1, 285nn2–3, 287n14, 289n32, 290n37 nn41–42, 291n44, 293n50, 294n54 n57, 297nn77–79 nn82–83, 298nn6–7, 300n17 n22, 303n24 n26, 305nn8–9, 306n10 n14, 307n22, 308n25, 309n27 n30 n2, 310n8, 311n11 nn13–16, 313n21 n25 n30, 315n43, 316n12, 317n15 n17, 319n27 n29, 320n34 n39, 323n5, 324n10, 325n22, 328n8 n10, 332n44, 334n16, 340nn5–6

head 2–5, 15, 19, 21–2, 36–7, 67, 75, 91, 135–6, 138, 146, 301n5, 325n20

improper 117–8, 122, 340n5

multiple questions 292n46, 322n60

N

ne 17–8, 20–1, 28, 41, 45, 57–8, 62, 78–82, 85, 92–3, 98–100, 106, 112, 122–4, 134 166, 286n9, 290n42, 295n66, 310n7, 318n24, 320n36, 325n20, 340n6

negation 6, 15, 20–3, 26, 28, 33, 40, 45–7, 55–7, 59, 66, 91–8, 100–1, 104, 148, 185–6, 195, 289n30, 292n46, 298n7, 302n6 nn10–11, 305n9

negative head 5, 93

negative criterion 156

NegP hypothesis 285n4

negative particle *ne* 92*niente* 61–3, 286n8, 292n46, 296n72*nessuno* 32, 38–9, 43, 49, 103, 169–70, 185–7, 276–7, 288n27, 290n42, 292n46, 296n72, 329n26, 321n45, 327n18, 339n34*non* 20–8, 30, 36, 44–7, 56–8, 61–2, 65, 92–8, 101–2, 104–5, 148, 162, 169–71, 180, 185–7, 195, 208, 235, 237, 262, 267, 270, 276–7, 281, 286n7, 292nn45–46, 293n51, 296n72, 298n7, 301nn4–5 n9, 303n20, 314n40, 318nn24–25, 319n26, 321n42

Northern Italian Dialects 5–6, 106, 142, 189, 212, 225, 269, 301n4,

- 305n9, 313n20, 314nn34–35,
327n10
- Norwegian 243
- NP 16, 19, 21–3, 25–8, 31–3, 35–9,
42, 45, 49–51, 53–5, 66,
68, 71, 75–90, 92, 94–5,
102–3, 106, 108, 205,
285n6, 287n15, 288n29,
291n43, 294nn53–54 n57,
298n8, 299n14, 300n17 n23,
301n25, 308n23, 310n6n8,
326n2, 340n5
- Nuclear Stress Rule 320n37
- null-subject
- languages 9, 95, 155, 163, 225,
229, 233–4, 246–7, 249, 264,
302n8, 331n32, 334n23
- parameter 10, 215, 226–7, 230,
233–6, 241, 254–5, 333n50,
335n2
- O**
- object
- direct 31, 47–8, 50, 64, 75, 78–83,
84–6, 88–90, 102, 111–4,
117–20, 125–7, 132–3, 140,
169, 172–5, 177–9, 181–4,
189, 194–6, 199–200, 209–10,
220–1, 255, 259, 267, 272,
293n51, 295n65, 296n71,
300nn22–23, 307n16,
316n11, 320n39, 321n42,
323nn5–6, 325n17, 329n25,
336n16
- indirect 113, 126–8, 140, 267, 270,
293n51
- marginalized 196
- prepositional 173, 193, 199, 255,
267
- operator 38, 51, 155–6, 280,
299n11n14, 304n26, 321n45
n47
- P**
- Paduan 243
- passive 71, 81–3, 87–90, 111–2, 114,
119–20, 126, 129, 252,
300n21, 301n25, 305n3,
307n22, 308n25, 309n30
- periphery
- CP 11, 207, 247, 268, 270, 315n42,
326n10, 163
- Left/clause external 6, 11, 114,
161–2, 164, 171, 178, 187–8,
191, 195, 219, 230, 260, 262,
282–3, 319n29, 327n18,
339n34, 342n20
- vP/clause internal 7–8, 10, 163, 171,
175, 191–2, 201, 204, 206–7,
210, 212–3, 217, 223, 230–1,
243, 245, 247, 253, 260–4,
323n3, 327n15, 328n22,
329n24, 331n36, 332n48,
333n50, 335n4, 337n18 n26,
339n35
- PF 131, 134, 137–8, 141, 153, 158,
311n13, 313n19, 319n27
- phases 162, 278, 334n30
- PP 30, 66, 79, 89, 101, 124, 140–1,
144, 165, 172–4, 180, 187,
193–7, 200, 207, 209, 255,
259, 263, 267, 288n29,
292n48, 308n23, 310n7,
312n16, 320n37, 323n4,
324n14, 325n22, 326n7,
328n19n21, 331n33, 332n42,
336n16
- position
- A'/A position 117, 121–2, 259–60,
263, 290n41, 325n18
- C° position 36, 67, 289n32
- canonical subject 37–8, 42, 152
- clause initial 31–2, 34, 36, 43,
281–2, 303n22
- clause-internal 7, 61, 142, 168,
171, 179, 186, 211, 268, 272,
316n3n10, 318n20, 320n39,
321n41, 322n56, 324n8,
329n25, 331n32, 332n45,
342n20
- clause-peripheral 105
- criterial 256
- left peripheral 31, 103, 152, 203,
218, 270
- L-marked 325n18
- preverbal 9, 214, 39n26
- right peripheral 31
- TOP position 31, 38, 42, 288n25
- topicalized 108
- VP adjoined 54
- VP internal 73, 128, 198, 200,
321n42, 325n19, 328n21
- Positive Phrase 29, 100–2, 287nn20–
21, 295n60, 303n18 n20
- pas* 17–8, 20–1, 28–9, 41, 45,
57–8, 71, 92, 98–101,
106, 122, 170, 235,
286n9, 295n60

- past participle 23–4, 25–6, 31, 33–6,
44, 52, 54–6, 58, 62–3,
67, 69, 71, 73, 75–6, 78,
81–2, 84–6, 88, 90, 97–101,
104–5, 109–129, 132, 135–6,
147–8, 150, 205, 230, 238,
287n14n22, 291n44, 293n51,
296n66, 298n4 n7, 300n23,
301n25, 304n2, 305 nn4–9,
310n6 n12 n14, 307n16
nn20–21, 308n25, 309n27
n30, 310n5n7, 318nn32–33,
320n39, 323n5
- più* 20–30, 36, 39, 44–6, 56–8, 65,
92–4, 96, 98–102, 148, 286n7,
287n17, 292n45, 296n68
- pragmatics 207, 231, 250, 264, 303n23,
324n8
- principle C 215–6
- PRO 84–5, 90, 120, 206, 214–5, 300
nn18–19, 301 n25, 331n33
- pro* 38–9, 105, 212–6, 228–31, 233,
235, 240, 245–7, 254, 257,
262, 265, 268, 285n6, 301
n25, 304n26, 305n8, 310n6,
311nn15–17, 313n21,
329n26, 330nn27–28,
331nn32–33 n36, 333n11,
334n23, 335n7, 338n31,
339n37
- probabilmente* 30–2, 34–44, 49, 60–1,
102–7, 288n29, 290n42,
293n50, 304n25
- proclisis 131, 134, 145–7, 150–3, 157,
307n16, 313nn24–26, 314n40
- projection
maximal 110, 134–8, 151, 240,
310n8, 311n16, 324n10
Σ-projection 303n18
- Projection Principle 292n47
- pronouns 1, 5, 10, 76, 84, 130, 134,
137–8, 151–2, 157, 179, 182,
202, 205, 208, 210–2, 216,
218, 220, 222, 227–8, 237–41,
266, 274–5, 281, 286n10,
310n6, 313n27, 323n4,
324n35, 327n17, 328n23,
329n24, 331nn38–39,
332n44, 333n49, 339n1
- pseudorelatives* 257, 259, 263, 338n31
- Q**
- quantifiers 10, 15, 17, 20, 38, 49, 53,
61–4, 103, 202, 205, 288n28,
290n41, 292n46, 295n67,
311n16, 331nn38–39
- que/qui* 10, 227, 234–6, 241
- R**
- raising 69, 215, 222, 253, 256, 269,
286n7, 290n39, 296nn74–75,
329n26, 338n31, 340n5
- RD: *see* Right Dislocation
- reconstruction 185, 268–9, 271–2,
308n24, 340n6
- recursion 41, 97, 105–7, 290n39
free recursion 41, 105
- relative clause 22, 160, 122, 233,
258–9, 269, 299n15,
338n31
- pseudorelatives* 257, 259, 263,
338n31
- Relativized Minimality 43, 117–8,
173–4, 259–60, 263, 286n12,
310n9, 320n39, 339n35,
341n14
- rien* 61–2, 286n8, 295nn67–68
- RM *see* Relativized Minimality
- Romanian 106, 139, 181–2, 201, 243,
290n39, 297nn82–83
- S**
- scope 3–6, 15, 17, 30, 33, 43, 62–3, 68,
70, 91, 94–5, 97, 103, 286n8,
288n29, 256n65, 302n7,
331n36, 341n17
- scrambling 200, 310n8, 325n22
- sempre* 28, 30, 100–1, 129, 218–9, 268,
272, 274–5, 287n22, 288n23,
303n20, 309n30
- si*
impersonal 120–1, 127–8
ergative 111, 113
reflexive 113, 147, 150
- SI: *see* Stylistic Inversion
- Sicilian 249, 337n17
- SLI: *see* Specific Language Impairment
- small clause 11, 65–7, 119, 122, 147–8,
245, 253, 255–60, 263–4,
314n32, 338n29 n32
absolute small clauses 147–8, 150,
314
- souvent* 17–8, 58, 99–100, 291n44,
292n48
- Spanish 2, 139, 144, 181–2, 201, 203,
225, 246, 308n25, 319n31,
322n50, 326n3, 329n25
- SPD: *see* Strong Pronoun Doubling

- spesso* 26, 46–53, 55, 59–61, 65, 100,
118, 134, 293nn50–51,
295n64
- Specific Language Impairment 8, 226,
333n8, 334n29
- stranding 140, 175, 203, 326n10,
329n26, 342n20
- strong pronoun doubling 203–7, 209,
211–2, 214, 216–7, 220–2,
327n18, 332n42, 340n6
- S structure 26, 46, 53–5, 63, 73, 83, 93
287n20
- substitution 21, 46, 70, 121, 136–7,
157
- subjacency 51, 317n17, 340n5
- subject 7, 9, 19, 31–4, 36–43, 47–51,
53–5, 57, 64, 67, 73, 76–7,
85, 87–9, 90, 95, 102–3,
105–6, 108, 113, 119, 121,
126, 128, 131, 134, 142–3,
152, 155, 164–72, 174, 176,
178–82, 187–9, 192, 194–8,
198, 207, 212–3, 215–7, 220,
226–9, 230–3, 235–7, 239–42,
245–51, 253–65, 276, 282,
285n6, 287n15, 289n31 n33,
290n39 nn41–42, 292n48,
293n50, 294n55 n57, 296n75,
297n83, 299n13, 301n25 n4,
303n21, 304nn25–26, 307n19
n22, 309n27, 314n35, 316n5,
318n25, 319n26, 320n39,
321n42, 324nn13–14, 325n16
nn18–19, 327n18, 329n26,
331nn32–33, 332n41,
333nn10–11, 334n21 n26,
336n11 n16, 337n25, 338n31,
339n35 n37, 341n12
- subject criterion 256
- expletive 121, 304n26
- indefinite 40, 103, 192, 198, 254–5,
290n39, 319n26, 325n16 n19
- lexical 7, 76–7, 87–8, 142–3, 152,
172, 194, 212, 215, 220, 229,
299n13, 314n35, 331n33,
336n13
- new information 1, 7, 230, 246–8,
253–4, 262, 264, 335n2,
337n26
- non lexical 301n25
- position 36, 86, 108, 120–1, 152,
155, 179, 181–2, 203, 212–5,
222, 230, 235, 240, 248,
253–6, 265, 285n6, 290n41,
294n56, 302n7, 304nn25–26,
307n22, 314n35, 328n19,
331nn32–33, 333n11, 338n31
- postverbal 78–9, 82–3, 119, 123,
164–76, 179, 181, 184–90,
193, 196, 198–9, 209–13, 219,
229–31, 242, 244–6, 249–51,
254–5, 262, 264, 307n22,
309n3, 316n7 nn11–12,
317n15 n17, 318nn22–23,
319n29 n32 n39, 322n61,
325nn16–17, 328n22,
330n27, 331n32, 336n13,
337n26
- preverbal 31, 75, 78, 80, 110, 114–5,
126, 128 163, 169–70, 172,
178, 187, 194–6, 204, 206–7,
217, 220, 228–9, 233–4,
242, 245, 247, 251, 254,
308n22 n25, 317n17, 318n21,
319n26 n31, 324n13, 325n18,
327n18, 329n26, 331n36,
334n23, 335n3 n7, 336n14
- pronominal 179, 226, 228, 233, 235,
239, 334n21 n26
- null 7, 128, 155, 178, 213, 226,
231–3, 246, 254, 285n6,
334n17, 337n25, 341n12
- subjunctive 163, 181
- T**
- there* 253, 330n27
- topic 6–7, 10, 115, 133–4, 142, 148,
161–3, 168, 171–8, 181–4,
187, 189–92, 195–6, 203,
206–11, 217–22, 226, 230,
266–8, 270, 272–4, 276,
278–9, 281–3, 298n2, 313n30,
324n33, 315n1, 316n4
n10, 318nn19–20, 319n31,
320nn38–39, 321nn42–43
n45 n47, 322n60, 323n62 n5,
324n7 n10, 325n22, 326n2,
327nn17–18, 328nn21–22,
331nn32–33 nn36–37 n39,
332n41 n43 nn47–48, 340n4
n6, 341nn11–12, 342n20
- topic drop 226, 266, 279–81
- topicalization 6, 32–4, 38–9, 42, 48–50,
102–4, 161, 171, 177, 183–5,
191, 194–6, 200, 288n28,
289n31 n35, 290n42, 292n48,
293n50, 298n48, 295n64,
303nn23–24, 304n26, 315n1,

topicalization (*continued*)
 316n10, 320n39, 323n6,
 337n26

tout 61–3, 180, 286n8, 295n67,
 307n22

Trentino 96, 106, 133–4, 142, 189,
 290n39, 314n35

truncation 253, 314n39, 337n23

tutto 61–4, 83, 165–6, 184, 286n8,
 296n73, 317n15

U

UG *see* Universal Grammar

unaccusative/ergative hypothesis 196

Universal Grammar 6, 15, 41, 86, 105,
 225, 240

V

Venetian 106, 290n39

verb movement 3–5, 15, 17, 33–4,
 50, 53–4, 63, 91, 98–9, 101,
 103–4, 115, 119, 137, 146,
 285n3, 298n8, 303n24

verbal morphology 3–4, 16–7, 19, 69,
 109, 136–8, 145–7, 152, 154–
 8, 285n4, 313n25, 323n25

verbal root 17–8, 21, 54, 56, 70,
 287n14, 293n51

verbs

inflected 15, 19–20, 23, 53, 55,
 91–5, 189, 289n32

causative 66–7, 294n56, 297n76

ergative 97, 111, 113, 196

intransitive 73, 75, 87–8, 208,
 293n51

matrix 59, 278, 295nn61–62, 305n3

lexical verbs 5, 17, 33, 58, 107,
 290n37, 297n79

perception verbs 11, 16, 65, 257,
 260, 297n76

psych verbs 122–3, 307n21

transitive 47, 64, 71, 80–1, 90,
 119–20, 126, 196, 293n51,

297n77, 307n21, 324n13,
 325n17

unaccusative 74–5, 79–80, 112, 119,
 191–2, 199, 254, 300n22,
 318n25, 337n21 n26

unergative 126, 197–8

Voice 109, 129, 309n29, 311n15,
 313n21

VP 17–28, 31–6, 41, 44–7, 49–59,
 61–70, 72–5, 77–9, 84,
 87–94, 97–102, 110, 117–21,
 125–9, 132, 142–3, 149, 163,
 171, 173, 175–6, 181–3, 185,
 190, 192, 196, 198–200, 209,
 254, 286, 287nn15–16, 291,
 293nn50–51, 294nn55–57,
 295n60–61, 297n76, 298n5,
 300n18 n22, 304n2, 305n8,
 308nn24–25, 309n29, 310n4,
 316n16, 318n25, 320nn34–
 36 n39, 321nn41–42, 323n7
 n5, 324nn13–14, 325n16
 n19

VP internal subject hypothesis 142

vP periphery 7–8, 10, 163, 171, 175,
 192, 201, 204–7, 210, 212–13,
 217, 223, 230–31, 243, 245,
 247, 253, 260–4, 323n3,
 327n15, 328n22, 329n24,
 331n36, 333n50, 335n4,
 339n35

W

WCO: *see* Weak Crossover

weak crossover 190, 322n61, 223n62

wh

criterion 156

extraction 50–1, 122, 144, 166–7,
 317n18

movement 112, 114, 116, 118–9,
 143–4, 167, 298n6, 306n14,
 307n17, 308n25