CLITIC DEPENDENCIES IN MODERN GREEK

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Vorwort

Einen der hauptsächlichen Schwer- und Anziehungspunkte des Interesses der Linguistiktheorie in den letzten Jahren bildete die Entwicklung einer adäquaten Clitisierungstheorie, wodurch man das volle Spektrum der Clitickonstruktionen in den Sprachen der Welt zu erfassen vermag. Sowohl die unwahrscheinlich weitgestreute Variation unter den Sprachen der Welt als auch die Beschaffenheit der pro- und enklitischen Pronomina ("Clitics") , die über eine Anzahl von Eigenschaften verfügen, durch welche sie sich deutlich von Phrasen, Wörtern und Affixen abheben, machen diesen Gegenstand der syntaktischen Forschung zu einem Gebiet mit besonderen Herausforderungen. Die Clitisierung ist ein komplexes Phänomen, das nicht zufriedenstellend beschrieben werden kann, wenn nicht phonologische, syntaktische und semantische Faktoren gebührend berücksichtigt werden. Das Studium der Clitisierung fördert neue Daten zutage, die Hinweise über Möglichkeiten enthalten, wie die verschiedenen Komponenten der Grammatik miteinander interagieren. So hoffen wir, daß eine erfolgreiche Clitisierungstheorie zu einem besseren Verständnis der internen Organisation der Grammatik beitragen kann.

In den frühen 80er Jahren setzten sich zahlreiche Arbeiten im Rahmen der Rektions- und Bindungstheorie (Government and Binding Theory) mit der Streitfrage der "Komplementarität bzw. Nichtkomplementarität" zwischen "Clitics" und "Argument-NPs" auseinander. Die Beobachtung, daß die "Clitic Doubling"- Abfolgen in einigen Sprachen äußerst produktiv sind, während sie in anderen wiederum vollständig fehlen, führte zu diversen Versuchen, eine "Clitic"-Theorie zu formulieren, die diese Asymmetrie aufgrund von Prinzipien erklären könnte. Der Grund, warum diese Frage soviel Aufmerksamkeit auf sich gezogen hat, liegt auf der Hand. Bedeutende theoretische Entscheidungen hinsichtlich der Analyse des Phänomens der Clitisierung hängen entscheidenderweise von (der geeigneten gerechten) einer adäquaten Formulierung des Parameters des Clitic Doubling ab. Das Vorkommen des "Clitic-Doubling" in einigen Sprachen scheint die Annahme zu unterstützen, daß die "Clitics" Affixe sind. Andererseits läßt sich die offenkundige Ungrammatikalität von "Clitic Doubling" in anderen Sprachen am besten mit der Betrachtungsweise der "Clitics" als Argumente vereinbaren. Unmittelbar mit dieser Frage hängt die Analyse der "Clitic"-Setzung zusammen. Werden die "Clitics" basisgeneriert in ihrer Oberflächenposition oder bewegen sie sich aus einer zugrundeliegenden Argumentposition heraus? "Clitic-Doubling" scheint die Basisgenerierungshypothese zu begünstigen. Andererseits können die eindeutig bewegungsspezifischen Eigenschaften nicht problemlos untergebracht werden, es sei denn, die Clitisierung wird als ein Bewegungsprozeß aufgefaßt.

Teilweise werden die spezifischen Antworten auf diese Fragen durch unsere ursprüngliche Hypothese bezüglich Einheitlichkeit der "Clitic"-Konstruktionen bestimmt. Stellen die "Clitics" in verschiedenen Sprachen oder innerhalb einer einzigen Sprache einen einheitlichen Konstruktionstyp dar, der einem einzigen Prinzip oder einer Anzahl von miteinander interagierenden Prinzipien unterworfen ist? Oder wäre es richtiger vorzuschlagen, daß Clitisierung lediglich ein Terminus ist, der sich auf eine Reihe von mit einander nicht verwandten, heterogenen Erscheinungen anwendet, die unterschiedlichen sprachspezifischen oder konstruktionsspezifischen Einschränkungen unterliegen? Wenn die Einheitshypothese richtig ist, dann ist die Streitfrage *Komplementarität vs. Nichtkomplementarität* eine echte

Frage, kein Scheinproblem. Wenn sich andererseits die Einheitshypothese als falsch erweist, dann könnten wir den Versuch unternehmen, das Problem zu trivialisieren, indem wir annehmen, daß die "Doubling-Clitics" Affixe sind, während die "Nicht-Doubling-Clitics" Argumente sind. Lernbarkeitsüberlegungen begünstigen die erste Anschauung, die klarerweise die attraktivste und stärkste Hypothese darstellt. Andererseits läßt sich durch eine gründliche Untersuchung der einschlägigen Daten die Einheitshypothese in ihrer strengsten Form nur äußerst schwierig aufrechterhalten. Wir mögen vorläufig annehmen, daß es eine empirische Frage ist zu entscheiden, ob die Einheitshypothese haltbar ist, und wenn ja in welchem Ausmaß.

Heutzutage haben wir einen starken theoretischen Rahmen zur Untersuchung der "Clitics", der uns viel mehr Möglichkeiten bietet, als im Grammatikmodell der 80er Jahre vorhanden waren. Die Entwicklung einer ausgereiften Theorie von funktionalen Projektionen, die abstrakte Repräsentationen erlaubt, die schwer falzifizierbar sind, hat entscheidend dazu beigetragen. Trotzdem bleiben die grundlegenden Fragen bestehen. Die Antwort auf das Problem "base generation" oder "movement" und letztendlich auf die Streitfrage der Einheitshypothese ist noch ausständig.

Was sich in den letzten wenigen Jahren dramatisch geändert hat, ist die Annahme, daß die Syntax der "Clitics" ausschließlich von ihren besonderen morphophonologischen Eigenschaften abhängig ist. Immer mehr Aufmerksamkeit wird der Tatsache geschenkt, daß die interpretationalen Eigenschaften der "Clitics" syntaktische Reflexe aufweisen. Es wurde behauptet, daß diese Eigenschaften die "Clitic"-Setzung steuern bzw. daß sie die "Clitic"-Konstruktionen lizensieren. Die semantische/pragmatische Beschaffenheit der "Clitics" wird besonders transparent, sobald wir einen näheren Blick auf die unterschiedlichen Typen von Abhängigkeitsrelationen zu werfen, die zwischen "Clitics" und vollen XPs gebildet werden und wenn wir versuchen die Rolle der Clitics in diesen Abhängigkeitsrelationen genau zu identifizieren. Es ist klar, daß eine grundlegende Verbindung besteht zwischen der Funktion, die durch die "Clitics" in jeder dieser Konstruktionen erfüllt wird, und den semantischen Typen von DPs, mit denen sie übereinstimmen bzw. von denen sie abhängig sind. Weniger offenkundig allerdings ist wie man diese Relation durch syntaktische Mittel ausdrückt. Der Analysetyp, der sich als der passendste für Erscheinungen dieser Art qualifizieren würde, wird im großen und ganzen vom allgemeineren Kriterium determiniert hinsichtlich der Art und Weise, wie semantische und pragmatische Begriffe und Unterscheidungen möglicherweise in der Syntax kodiert werden. Was für Typen von semantischen Merkmalen z.B. spielen eine direkte Rolle in der syntaktischen Komponente und wie direkt ist diese Rolle? Wie läßt sich die syntaktische Struktur als pragmatische und Informationsstruktur übersetzen? Oder widerspiegeln die Mismatches, die wir zwischen Oberflächenformen und semantischen Formeln feststellen, eine abgesicherte Realität? Die Beschaffenheit und genaue Natur der "Clitics" kann nicht völlig transparent gemacht werden, es sei denn, wir haben einige vernünftige Antworten auf diese Fragen. Wie es wohl bekannt ist, hat das Verhältnis zwischen Form und Bedeutung eine der umstrittensten Streitfragen gebildet.

Diese Studie fokusiert auf eine Menge von Konstruktionen des Neugriechischen, die die Betrachtungsweise der Clitics als Elemente mit interpretationalen Gewicht untermauern, und versucht Möglichkeiten auszuforschen, wie diese Idee detaillierter ausgedrückt werden kann. Es soll klar sein, daß ich mich diesem Problem von einem syntaktischen Gesichtspunkt aus annähern werde. Das bedeutet, daß ich überhaupt keinen Versuch unternehmen werde, semantische Intuitionen zu formalisieren; ich werde einige informale Beschreibungen bieten, und Daten präsentieren, die sie veranschaulichen. Die Eigenschaften dieser Konstruktionen

hängen unmittelbar mit den Streitfragen zusammen, die wir bis jetzt angeschnitten haben: Es ist nicht möglich eine Analyse vorzuschlagen, ohne die Frage der Einheitshypothese oder Syntax-Semantik-Schnittstelle zu stellen. Die zur Diskussion stehenden Strukturen sind (i) "Direct Object Clitic Doubling" (ii) "Clitic Left Dislocation" und (iii) "Wh-Fragen" die durch eine "D-linked Wh-Phrase" eingeleitet werden: Wie wir feststellen werden, setzt ihre adäquate Beschreibung die Bezugnahme auf Begriffe wie "familiarity", "specificity" oder "Discourse-Linking" voraus. Ich werde eine Analyse für jede dieser Konstruktionen vorschlagen, die ihre syntaktischen Eigenschaften erfassen wird, die Einschränkungen, denen sie unterliegen, die spezifischen Funktionen, die die "Clitics" wahrnehmen, ihre Ähnlichkeiten und ihre Unterschiede, und die Eigenschaften, die sie mit ihren Entsprechungen aus den romanischen und germanischen Sprachfamilien gemeinsam haben. Ich werde anregen, daß die romanischen und die neugriechischen "Clitic Doubling"-Konstruktionen gemeinsam mit den germanischen "Scrambling Object Shift"-Konstruktionen analysiert werden sollen, während die neugriechische "Clitic Left Dislocation" die Entsprechung der deutschen und der holländischen "Contrastive Left Dislocation" bildet. Ich werde versuchen, meine Behauptungen zu rechtfertigen aufgrund von konzeptuellen und formalen Argumenten, indem ich Möglichkeiten ausforsche, wie sich die Asymmetrien einerseits zwischen "Clitic-Doubling" und "Scrambling" und andererseits zwischen "Clitic Left Dislocation" und "Contrastive Left Dislocation" von einfachen parametrischen Unterschieden ableiten lassen; z.B. aus Unterschieden im Lexikon. Die etwas unerwünschte Konsequenz dieser Vorschläge besteht darin, daß sie einen gewissen Grad der Lockerung der Einheitshypothese mit sich bringen. Die möglichst starke Form der Einheitshypothese wäre vorzuschlagen, daß "Clitic Doubling" und "Clitic Left Dislocation" sich ähneln, weil sie das gleiche Phänomen darstellen. Ich werde hier nicht diese Position verfechten. Eigentlich werde ich dagegen argumentieren. Weiters wenn sich die Parallelität zwischen "Clitic Left Dislocation" und "Contrastive Left Dislocation", für die ich plädieren werde, auf dem richtigen Weg befindet, dann erscheint das "Clitic" der neugriechischen "Clitic Left Dislocation" als die Entsprechung des "D-Wort-Operators" der germanischen "Contrastive Left Dislocation". Das wirft viele Fragen bezüglich der Repräsentation der "Clitics" im Lexikon auf, die ich nicht imstande sein sein werde, hier ausführlich und eingehend zu behandeln. Aber der theoretische Vorteil dieses Ansatzes ist, daß dadurch eine Anzahl von Erscheinungen zusammenzuführt werden können, die vergleichbare syntaktische, distributionelle und semantische/ pragmatische Eigenschaften aufweisen, und suggeriert, daß diese Ähnlichkeiten nicht zufällig sind. Anders ausgedrückt, nimmt diese Studie die Hypothese ernst, daß die Sprachen ähnlich zueinander sind und zeigt daß eine Anzahl von oberflächlich nicht verwandten Konstruktionen in eine restringierte Anzahl von Schemata untergebracht werden kann. So erhalten wir nicht lediglich die Möglichkeit, interessante interlinguistische Verallgemeinerungen hinsichtlich der Art und Weise, wie eine Familie von Operatoreigenschaften syntaktisch sichtbar werden, auszudrücken, sondern es wird auch möglich zu zeigen, daß diese Merkmale einen echten empirischen Inhalt haben. Es sind nicht bloß notationelle, künstliche Entitäten, die für die Beschreibung einer besonderen Konstruktion in einer gewissen Sprache notwendig sind.

Die vorliegende Studie ist, wie folgt, aufgebaut: in Kapitel 2 werde ich die Eigenschaften der neugriechischen "Direct Object Clitic Doubling"-Konstruktion behandeln und ich werde Argumente zugunsten der Analyse von Sportiche 1992/3 anführen. In Kapitel 3 werde ich zeigen, daß "Clitic Left Dislocation" und "Contrastive Left Dislocation" denselben Typ von "non-L-related chain" realisieren und ich werde Evidenz gegen die These vorbringen, daß die "Left Dislocated XP" von der "Clitic Doubled"- Stelle bewegt worden ist.

Schließlich in Kapitel 4 werde ich eine Analyse für das Phänomen der obligatorischen Inversion des Neugriechischen entwerfen; unter dieser Analyse kann die systematische Korrelation zwischen der Abwesenheit von "Obligatory Inversion" und der fakultativen Anwesenheit von A'-abhängigen "Clitics" in "D-linked"-Fragestrukturen erfaßt werden.

Der Zweck dieser Kapitel ist, Evidenz aus dem Neugriechischen zu liefern, die gegen die einheitliche Analyse aller Typen von "Clitic"-Abhängigkeiten auf der Basis von "Spec-Head"-Lizensierung. Die theoretische Konsequenz für die Theorie besteht darin, daß die semantischen Restriktionen, die die "Clitic"-Konstruktionen charakterisieren, nicht immer auf eine Version des "Feature-Checking" reduziert werden können. Meiner Meinung nach ist dieses Resultat positiv, da es zu wünschen ist, die Benutzung einer arbiträre Anzahl von Merkmalen zu vermeiden, deren genaue Natur wir kaum verstehen. Wenn meine Interpretation sich auf dem richtigen Weg befindet, dann ist die Annahme daß alle "Clitic"-Konstruktionen Instanzen von "Spec-Head licensing" sind als zu vereinfachend zu verstehen.

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1

Introductory Remarks

One of the major foci of linguistic interest during the last years has been the development of a solid theory of cliticization that is able to account for a full range of cliticization facts across languages. The vast amount of variation characterizing clitic constructions crosslinguistically, as well as the intriguing nature of clitics, which have properties that distinguish them from phrases, words and affixes, make this topic a syntactic area with special challenges. Cliticization is a complex phenomenon which cannot be satisfactorily described unless phonological, morphological, syntactic and semantic factors are taken into account. The study of cliticization constantly reveals interesting new data indicating ways in which the various linguistic components can be assumed to interact with one another. Thus, we hope that a successful theory of cliticization might contribute to a better understanding of the internal organization of the grammar.

In the early eighties, a lot of work within the framework of Government and Binding Theory was concerned with the *complementarity vs. lack of complementarity* between clitics and argument XPs. The observation that in some languages clitic doubling sequences are very productive while in others they are completely unattested led to various attempts to build a general theory of clitics that will be capable of accounting for this asymmetry in a principled manner. The reason why this issue has been attracting so much attention ever since is quite clear. Important theoretical decisions concerning the overall treatment of cliticization crucially depend upon the proper formulation of the clitic doubling parameter. For example, the existence of doubling in some languages appears to support the view of clitics as *affixes*. On the other hand, the sharp ungrammaticality of clitic doubling in other languages can be naturally accounted for under the hypothesis that clitics are *arguments*. Related to this issue is the question concerning the analysis of clitic placement. Are clitics *base-generated* in their surface position or do they *move* there from an underlying argument position? Clitic doubling appears to support the base generation hypothesis. On the other hand, the movement properties characterizing clitic-constructions cannot be straightforwardly accommodated unless cliticization is a movement process.

In part, the specific answers to these questions are determined by our initial hypothesis concerning the uniformity of clitic constructions. Is cliticization across languages or even

within the same language a *unitary phenomenon* subject to a single Principle or a single set of a few interacting Principles? Or is it more correct to propose that "cliticization" is a cover term applying to a number of partially unrelated syntactic processes subject to various language-specific and/or construction-specific conditions? If the Uniformity Hypothesis is correct then the complementarity vs. lack of complementarity issue is a real one. If, on the other hand, the Uniformity Hypothesis turns out to be wrong then we could even attempt to trivialize the problem by suggesting that doubling clitics are affixes while their non-doubling counterparts are arguments. Learnability considerations clearly speak in favor of the former view, which is certainly the strongest and most attractive hypothesis. On the other hand, a thorough investigation of the relevant data often shows that it is quite difficult to maintain the Uniformity Hypothesis in its rigid form. We may tentatively conclude that it is an empirical matter for us to decide whether or not the Uniformity Hypothesis is correct and to what extent.

Nowadays we have a powerful framework to deal with clitics that gives us many more possibilities than the model of grammar assumed in the eighties. The development of an articulated theory of functional projections which permits abstract representations that are sometimes difficult to falsify empirically has contributed to that. Nevertheless, the basic questions remain the same. We still have to address the *base generation vs. movement issue* and, ultimately, the *Uniformity Hypothesis*.

What has changed quite dramatically in the past few years is the view that the syntax of clitics depends exclusively upon their special morpho-phonological properties. More and more attention is drawn to the fact that clitics have *interpretational import*; they are *specific*, *d-linked* or *definite*. These properties have recently been claimed to have a number of *syntactic* consequences: some people have argued that they drive clitic placement or that they license clitic constructions in the first place. The semantic/pragmatic nature of clitics becomes particularly transparent once we start looking at the various types of *dependencies* formed between clitics and full XPs and we try to determine the role of clitics in them. It is quite evident that there is a fundamental connection between the *function* performed by the clitics in each of these constructions and the *semantic types* of DPs they can agree with or depend upon. What is less obvious is how to express this connection by syntactic means. The type of analysis that would qualify as the most suitable for phenomena of this sort is by and large determined by the more general criterion concerning the way in which semantic and pragmatic notions and distinctions can be assumed to be encoded in the syntax. For example, what types of semantic features play a direct role in the syntactic component and how "direct" is this role? How does syntactic structure "translate" into pragmatic and information structure? Is there a straightforward mapping process of syntactic structures into logical representations? Or do the mismatches we detect between surface forms and semantic

formulae reflect a reality that we shouldn't twist? The nature of clitics cannot become fully transparent unless we have some reasonable answers to these questions and, as is well known, the relation between structure and meaning has always been one of the most controversial matters.

This study focuses on a set of Modern Greek phenomena which support the view of clitics as elements with interpretational import and tries to explore ways in which this idea can be spelled out in more detail. It should be made clear that I will approach the problem from the side of the syntactician. This means that I will not attempt to formalize semantic intuitions at all; I will just provide some informal descriptions, presenting data that illustrate them. The properties of these constructions are directly relevant to the issues presented so far: it is not possible to propose an analysis for them without touching on the Uniformity Hypothesis or the syntax-semantics intreface. The structures in question are *(i) direct object clitic doubling, (ii) clitic left dislocation* and *(iii) wh-questions introduced by D-linked wh-phrases*: as we shall see, their proper description systematically requires reference to notions such as *"familiarity", "specificity"* or *"Discourse-Linking"*. I will propose an analysis for each one of these constructions which will capture their syntactic properties, the restrictions they are subject to, the specific functions clitics perform within them, their similarities and differences, and the properties they have in common with a number of related structures found in the Romance and Germanic language families. I will suggest that Romance and Greek clitic doubling should be analysed on a par with Germanic scrambling/object shift, while Romance and Greek Clitic Left Dislocation (CLLD) is the counterpart of German and Dutch Contrastive Left Dislocation (CLD). I will try to justify my claims on conceptual and formal grounds, exploring ways in which the asymmetries between doubling and scrambling on the one hand and CLLD and CLD on the other can be made to follow from simple parametric differences; for example, differences in the lexicon. The somewhat undesirable consequence of these proposals is that they introduce a certain amount of relaxation of the Uniformity Hypothesis. The strongest possible form of the Uniformity Hypothesis would be to suggest that clitic doubling and clitic left dislocation *look* similar because they *are* similar. I will not defend this position here: in fact, I will argue against it. Moreover, if the parallel between CLLD and CLD I will argue for is on the right track, then the CLLD-*clitic* comes out as the Modern Greek counterpart of the CLD-*d-word operator*. This raises a number of questions concerning the representation of clitics in the lexicon which I will not be able to thoroughly investigate here. However, the theoretical advantage of this approach is that it manages to link together a number of phenomena that have comparable syntactic, distributional and semantic/pragmatic properties suggesting that these similarities are not accidental. In other words, this study takes seriously the hypothesis that languages are similar and shows that a number of superficially unrelated constructions can be accommodated under

a restricted number of very general schemata. In this manner, not only is it possible to express interesting crosslinguistic generalizations concerning the way in which a family of operator-properties are made syntactically visible in natural languages, but it is also possible to show that there is real empirical content to these features. They are not just notational devices necessary for the description of a particular construction in a particular language.

This study is organized as follows. In chapter 2, I will discuss the properties of Modern Greek direct object clitic doubling and I will argue in favor of Sportiche's (1992/3) analysis. In chapter 3, I will argue that Romance and Greek CLLD and German and Dutch CLD instantiate the same type of non-L-related chain, and I will present evidence against the view that the left dislocated XP in CLLD has been moved from an underlying clitic doubled position. Finally, in chapter 4 I will propose an analysis for the phenomenon of Obligatory Inversion (OI), as found in Modern Greek; under this analysis, the systematic correlation between the absence of OI and the optional presence of A' dependent clitics attested in D-linked interrogatives can be captured. The purpose of these chapters is to present evidence from Modern Greek against a uniform treatment of all types of clitic dependencies, in terms of spec-head licensing. The theoretical consequence of the specific analyses proposed in chapters 3 and 4 is that the semantic restrictions characterizing clitic constructions should not always be reduced to some version of feature checking. In my view, this is a welcome result as it is desirable to avoid making use of an arbitrary number of features we don't fully understand. Let me now provide a rough outline of the conclusions reached in the following chapters.

Chapter 2 starts by pointing out that Modern Greek clitic doubling has three differences from Romanian and Porteño Spanish doubling: (i) it does not fall under Kayne's Generalization, (ii) it shows insensitivity to animacy and (iii) it does not encode specificity. Nevertheless, Modern Greek doubling is a genuine instance of *doubling* in the sense that, arguably, the doubled NP occupies an *argument position* and the doubling clitic has a *semantic function*. More specifically, I will identify three types of, superficially related but formally distinct, constructions, namely *right dislocations* (where the "doubled" NP is not in an A position), *object agreement structures* (where the "doubled" NP is in an A position but the agreement marker doesn't have a semantic function and is able to co-occur with NPs of virtually any semantic type) and *clitic doubling* (in which the doubled NP occupies an A position, the clitic has a semantic function and it is able to co-occur with only certain types of NPs). I will demonstrate that Modern Greek doubling constructions are formally identical to their Romanian and Spanish counterparts with respect to the proposed criteria. I will suggest that the property expressed by Modern Greek doubling is "Prominence" in the sense of Heim (1982): the construction under discussion is licensed with definite DPs which are necessarily used *anaphorically* under doubling, in the sense that they resist *accommodation*

(Lewis (1979)). I will argue that clitic doubling constructions should be represented along the lines of Sportiche (1992/3). According to Sportiche, clitic constructions are formally identical to wh-constructions: the clitic is the head of its own functional projection to the specifier of which the doubled NP moves overtly or covertly in order to be licensed for *Specificity*. Under this view, doubling, clitic left dislocation, simple cliticization and Germanic scrambling should be given a uniform characterization in terms of Specificity. Obviously, the Modern Greek data question the idea that the property licensed by accusative clitics is Specificity. Furthermore, a closer investigation of the various patterns of clitic doubling and a comparison between doubling and scrambling will show that the language-particular restrictions on clitic-doubling reflect a *"definiteness hierarchy"* which depends upon either the feature specification of doubling clitics which may vary from language to language or general mapping principles of the type discussed in Diesing and Jelinek (1993). Finally, it will be pointed out that the *animacy restrictions* on Spanish and Romanian doubling seem to challenge the hypothesis that doubling clitics and their non-doubling counterparts must be analysed in a uniform way. This can be viewed as the first serious problem for the Uniformity Hypothesis.

The main point of chapter 3 will be to show that Clitic Left Dislocation (CLLD) and Contrastive Left Dislocation (CLD) are analytically similar. Both involve base-generation of the left-dislocated phrase in an adjunction position. The LDed phrase is associated with an operator-variable chain contained inside the constituent to which it is adjoined. The differences between CLLD and CLD lie partly in the different adjunction sites of the LDed phrase (to CP in CLD; to IP in CLLD) and partly in the fact that the resumptive operator is an X^{max} in CLD and a clitic (X^{max} and X^{min} simultaneously) in CLLD. Both constructions express *aboutness*, thus qualifying as topicalization structures. The left dislocated phrase can be *anything*, provided that it can be pragmatically interpreted as denoting individuals or sets. That the LDed phrase in CLLD is base-generated in an A' position is apparently contradicted by the *connectivity* and *island sensitivity* properties of CLLD. However, the observation that CLLD escapes *Principle C-violations* and is *selectively sensitive to islands* strongly supports the base-generation approach. This analysis challenges the Uniformity Hypothesis in its rigid form because it shows that CLLD does not originate from an underlying clitic doubling structure. The clitic doubling analysis makes incorrect predictions with respect to *reconstruction* and *island sensitivity*. Furthermore, under the clitic doubling analysis, it is not explained why there are semantic types of NPs that are allowed to undergo CLLD but no doubling. It is still possible to maintain a more relaxed version of the Uniformity Hypothesis: the clitic doubles a covert phrase VP-internally. Nevertheless, if it is correct that the *resumptive d-pronoun* and the *resumptive clitic* should be viewed as determiners endowed with intrinsic operator qualities which enable them to act as *vacuous operators* in certain null-

operator constructions, it is not clear even that a more relaxed version of Sportiche's original proposal can be preserved. I will not attempt to go further than that in this thesis.

In chapter 4, I will propose an analysis for the phenomenon of *"triggered"* or *"obligatory" inversion (OI)* which characterizes Modern Greek interrogatives. I will argue against the view that the *linear adjacency* between certain types of wh-phrases and the verb is *structural adjacency*. I will propose that OI should be treated as a locality effect: preverbal subjects in Modern Greek are topics and, for this reason, they interfere with wh-movement. Under this view, the wh-constructions that have been independently claimed in the literature not to involve movement are correctly predicted to be insensitive to OI. In Modern Greek, D-linked wh-phrases systematically escape the effects of OI; furthermore, they may license clitics IP-internally. In order to account for these facts, I will adopt Cinque's (1990) proposal that there exists an alternative to movement strategy involving base generated A' chains with a *small pro* instead of a variable. Accordingly, the clitic can be viewed as lexical realization of the A' bound object pro. The D-linking requirement can be reduced to the general conditions under which *pro* can be licensed. For example, if we adopt recent proposals in the literature according to which the notion of *D-linking* should be replaced by the *individual-variable vs. higher order-variable distinction*, we can account for the fact that the base generation startegy is permitted only with wh-phrases that range under individual variables by appealing to the *Principle of Full Interpretation*. Pronominal variables necessarily translate into logical individual variables (Heim (1987)); hence, chains consisting of wh-phrases ranging over higher-order variables and pro are uninterpretable. Once again, it will be pointed out that the clitic may co-occur with some wh-phrases which cannot be characterized as *definite*. The asymmetry between clitic-doubling constructions, which are licensed only with definite DPs, and D-linked interrogatives, which do not have to obey the definiteness requirement, is not predicted by the clitic doubling alternative analysis.

To conclude, this study will be concerned with the more general question of why syntactic phenomena are sensitive to the interpretation of arguments. It will be shown that the answer to this question is fairly complex. On the one hand, there are semantic and pragmatic aspects of meaning that are directly encoded in syntax as features triggering certain processes, and clitic doubling constructions provide an argument in favor of this view. On the other hand, there are syntactic phenomena for which a feature-checking approach turns out to be inadequate. For example, in Modern Greek interrogatives, the clitic does not license a D-linked interpretation on its associated wh-phrase, but rather the effect of d-linking is reduced to a well formedness condition on Chains: the semantic types of syntactic variables must not be incompatible with the semantic types of their antecedents. If the way I have interpreted the Modern Greek data is on the right track, then the view of all clitic constructions as instances of spec-head licensing turns out to be too simplistic.

2

Clitic Doubling, Prominence and the Question of Parametric Variation

2.0. Introduction

The purpose of this chapter is to discuss the facts of Direct Object Clitic Doubling in Modern Greek, and to address some questions having to do with parametric variation in clitic doubling constructions. Accusative clitic doubling presents a number of puzzles for universal grammar. As stated previously, the initial puzzle may be why clitic doubling appears at all, but in this study I will not really focus on this question. Another puzzle has to do with the nature of clitic doubling constructions: there are certain similarities between *doubling* and *object agreement phenomena*, but there are also crucial differences between the two that have to be taken into account. Accusative doubling clitics always seem to have interpretational import, but at the same time clitic doubling constructions are subject to various idiosyncratic constraints across languages that make it difficult to describe the function of doubling clitics in terms of a single semantic-feature such as "specificity".

What I will first of all try to do here is to justify the claim that Modern Greek doubling is a genuine instance of doubling rather than a right dislocation phenomenon. This conclusion has two immediate consequences. (i) It questions the validity of Kayne's Generalization: the prepositional elements "a" and "pe" in Spanish and Romanian respectively can be no longer treated as dummy Case assigners but rather as animacy markers, in accordance with Suñer (1988). (ii) It suggests that clitic doubling phenomena are determined by a number of semantic and/or morphological factors, which are beyond *Specificity*, contrary to recent claims in the literature. I will argue that the similarities between the various clitic doubling phenomena can be captured if we assume with Sportiche (1992/3) that clitic doubling languages are alike in that they license a syntactic position Cl_{acc} by which doubled DPs are licensed. However, it will be pointed out that the property relevant for clitic doubling is not just *Specificity* but rather a family of related properties such as the *Weak-Strong* distinction (Milsark 1974 and related literature), *Familiarity* or *D-linking* as defined in Heim (1982) and Pesetsky (1987) respectively. Finally, I will discuss the relation between Sportiche's Cl_{acc} and AgrO showing that there might be good reasons to unify them. The attempt to reconcile Chomsky's (1992) "checking" theory with some version of "mapping" (cf. Diesing 1992, de

Hoop 1992, Adger 1993b) raises a number of non trivial questions some of which will be addressed at the end of this chapter.

2.1. Pronominal Clitics in Modern Greek: Overview

Before entering into the specific problem of Modern Greek doubling, it might be helpful to briefly summarize the main properties of pronominal clitics in Greek.

Object pronominal clitics in Greek bear distinct morphological inflection for accusative or genitive Case (which corresponds to the Romance dative). Third person clitics have a form identical to the corresponding definite articles. The possibility of clitic climbing never arises in Modern Greek, which is a language that lacks infinitives and never has gerunds in the complement position of verbs.[1] Clitics must always precede the finite verb in embedded and matrix contexts, thus displaying behavior similar to their Romance (Italian, Spanish, French) counterparts. They must follow imperatives and gerunds. The relative order of clitics, like Italian and unlike French, is IO-DO (cf. Rivero (1988), Drachman (1991), (1993) Philippaki-Warburton (1993), Terzi (1992) among others). Finally, Modern Greek has productive direct and indirect object clitic doubling, something which has received much attention in the Modern Greek literature (cf. Drachman (1983, 1985), Theophanopoulou-Kontou (1986-1987), Philippaki-Warburton (1987), Fykias (1988), Iatridou (1990), Tsimpli (1992), Agouraki (1993) among others).

Some examples illustrating the position and relative order of Modern Greek argument clitics are given below:

(1) a. tu to exo dhosi
to-him$_{gen}$ it$_{acc}$ have-1sg given
"I have given it to him"

b. I Maria theli na to dhiavasi
The Mary$_{nom}$ want-3sg PRT$_{subj}$ it$_{acc}$ read-3sg
"Mary wants to read it"

c. I Maria ipe oti tha to dhiavasi
The Mary$_{nom}$ said-3sg that PRT$_{fut}$ it$_{acc}$ read-3sg
"Mary said that she will read it"

[1] Rivero (1988) and Terzi (1992) convincingly show that Modern Greek should be analysed on a par with the other Balkan languages in that respect and they offer alternative analyses as to why clitic climbing is entirely absent across all Balkan languages.

d. Diavase to! / Exe to grapsi!
Read-2sg it_{acc}/ Have-2sg it_{acc} written!
"Read it!/Have it written"

e. Dhinontas tu to
$Giving_{gerund}$ $to\text{-}him_{gen}$ it_{acc}
"Giving it to him"

f. I Maria tu to edhose tu Jianni to vivlio
The $Mary_{nom}$ $to\text{-}him_{gen}$ it_{acc} gave-3sg to-the $Janni_{gen}$ the $book_{acc}$
"Mary gave John the book"

Sentence (1a) illustrates the relative order of clitics (IO-DO), as well as the fact that they immediately precede the fully inflected verbal form (with an aspectual auxiliary in this case). (1b) shows that clitics precede the finite verb also in subjunctive clauses (introduced by the modal particle "na" in Greek), while (1c) indicates that clitics are immediately adjacent to the verb in cases in which it is preceded by the future particle "tha". The fact that Modern Greek clitics follow true imperatives and gerunds is exemplified through (1d) and (1e) respectively. Finally, (1f) instantiates IO and DO clitic doubling, which will be extensively discussed in the next sections.

2.2. Modern Greek Clitic Doubling: A Comparison to Romanian and Spanish

In this section I will examine Modern Greek direct object clitic doubling from a crosslinguistic point of view. Greek doubling will be compared to the well studied patterns of Romance doubling displayed in Romanian and Porteño Spanish. I will argue that, although the two types of doubling are in certain respects distinct, a uniform structural analysis may nevertheless account for a number of properties they have in common.

First, it can be convincingly demonstrated that doubled DPs in Modern Greek are not in a dislocated position. This is one formal criterion according to which Modern Greek qualifies as fundamentally similar to Romanian and Spanish as opposed to, for instance, Italian, French or Catalan. In languages of the former type, DPs doubled by clitics are allowed to occupy the complement position of verbs, an option which is not available in languages of the latter type.

Second, Modern Greek doubling clitics pattern together with Spanish and Romanian clitics in having: (i) *restricted distribution* (i.e. they are allowed to co-occur only with certain types of DPs, namely definites) and (ii) *interpretational import* (i.e. they mark their associate DPs as *familiar*). On the assumption that these are major reasons for distinguishing the syntax of doubling clitics from the syntax of pure object agreement morphemes (in languages

like Basque), we shall once more conclude that Modern Greek and Spanish/Romanian clitic doubling constructions fall under one and the same general schema, despite their superficial differences.

2.2.1. Optional doubling of full DPs; the properties of Modern Greek clitic doubling.

Let us first consider the differences between Modern Greek and Romance clitic doubling constructions one by one:

(a) First of all, it is well known that Greek doubling violates Kayne's Generalization:

(2) a. Ton_i idha ton Petro_i Greek
$\text{Him}_{\text{cl,3sg,masc,acc}}$ saw-1sg $\text{the}_{\text{def.art,sing,masc,acc}}$ $\text{Peter}_{\text{sing,masc,acc}}$
"I saw Peter"

b. La_i oían *(a) la niña Spanish
Her_{acc} listened to-3pl *(a) the girl_{acc}
"They listened to the girl"

c. L_i-am văzut *(pe) Ion Romanian
him_{acc}-have-1pl seen *(pe) John
"I have seen John"

Example (2a) shows that in Modern Greek, doubled DPs need not be preceded by prepositions, contrary to Spanish and Romanian where doubling crucially depends on the presence of the elements *a* and *pe* (cf. (2b) and (2c) respectively).[2]

(b) Furthermore, semantic features of the type [± animate] or [± human] pose no restrictions whatsoever on Modern Greek doubling, contrary to Romanian (sensitivity to the feature *human*, cf. Borer (1984), Dobrovie-Sorin (1990) among others) and Spanish (sensitivity to *animacy*, according to Jaeggli (1982, 1986), Borer (1984), Suñer (1988), etc.). Some examples illustrating this point are given below:

(3) a. Tin_i vlepo tin gata_i
$\text{Her}_{\text{cl,3sg,fem,acc}}$ see-1sg $\text{the}_{\text{def.art,sg,fem,acc}}$ $\text{cat}_{\text{sg,fem,acc}}$
"I see the cat"

[2] Actually, in Modern Greek doubling of prepositional DPs is ungrammatical, as discussed in Drachman (1985) and Fykias (1988). They use IO doubling in order to demonstrate this point: indirect objects in Modern Greek can either have morphological genitive Case or be prepositional, and doubling is allowed only with the former.

b. I anthropi den ton_i agapun ton $polemo_i$
The $people_{nom}$ not $him_{cl,3sg,masc,acc}$ like $the_{def.art,sg,masc,acc}$ $war_{sg,masc,acc}$
"The people (here) don't like the war / Men don't like war"

c. To_i diavasa afto to $arthro_i$ xtes
$It_{cl,3sg,neut,acc}$ read-1sg $this_{dem,sg,neut,acc}$ $the_{def.art,sg,neut,acc}$ $article_{sg,neut,acc}$ yesterday
"I read this article yesterday"

d. tus_i /tis_j /ta_k pira
$them_{cl,3pl,masc,acc}$ /$them_{cl,3pl,fem,acc}$ /$them_{cl,3pl,neut,acc}$ took-I
tus $markadorus_i$ /tis $karekles_j$ /ta $potiria_k$
$the_{def.art,pl,masc,acc}$ $pencils_{pl,masc,acc}$ /$the_{def.art,pl,fem,acc}$ $chairs_{pl,fem,acc}$ /$the_{def.art,pl,neut,acc}$ $glasses_{pl,neut,acc}$
" I took the pencils, the chairs, the glasses "

In (3a), a [-human], [+animate] DP is doubled. This sentence would be grammatical in Spanish and ungrammatical in Romanian. The remaining sentences all instantiate doubling of *inanimates*, which is generally ruled out in both Romanian and Spanish.[3]

(c) Finally, while Romanian and Spanish doubling constructions are subject to *specificity*, their Modern Greek counterparts are subject to *definiteness*.[4] While [-definite], [+specific] DPs can be doubled in Romance, doubled DPs in Greek must be preceded by the definite article:[5]

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[3]Except for some marginal cases of Porteño Spanish doubling not conforming to Kayne's generalization, which are reported by Suñer (1988) and to which I return below.

[4] Kazazis & Pentheroudakis (1976) are, to my knowledge, the first to discuss some apparent cases of Modern Greek clitic doubling where the associate DPs are indefinite. One such example is given below:

(1) **to** pino efxaristos **ena ouzaki**
it drink-I with pleasure **a** **ouzo**
"I would gladly have an ouzo"

According to them, a parallel construction can be found in Albanian.

At first sight, sentences like (1) seem to contradict the view that Modern Greek doubling is subject to definiteness. Notice, however, that the indefinite "doubled" DP in this example cannot be claimed to be specific either. Utterances like (i) have a clear modal reading, the verbal form used is subject to various aspectual restrictions (imperfective aspect is systematically chosen: this type of aspect is typical of conditionals) and the clitics in them seem to have a kind of "sentential" function. These constructions are interesting because the function of the clitics in them is not clear. However, they are, in many respects, different from the doubling constructions of the type examined here and, from this point of view, beyond the scope of the present discussion (for discussion of aspectual properties of doubling clitics in Spanish, cf. Schmitt 1993). The fact that either the predicate or the adverbial element "efxaristos" must be heavily stressed seems to indicate that structures like (1) are right dislocations (cf. the discussion of right dislocation of the Catalan type below). Furthermore, keep in mind that examples of this type are only possible in limited contexts. For example, the following sentence is ungammatical:

(2) *tin katalaveno mia gineka
*her understand-I a woman

[5]Roussou and Tsimpli (1993) argue that there is no one-to-one mapping between the overt realisation of the definite article and the semantic notion of definiteness: they argue that generic constructions constitute evidence that the definite article in Modern Greek does not necessarily denote definiteness. According to their proposal, Noun Phrases with a generic interpretation in Modern Greek can only satisfy Visibility if the D-head is filled by an overt determiner, which is interpreted as an expletive element rather than saturating the NP in the sense of Higginbotham (1985). For the time being I abstract

(4) a. *Kathimerina tin_i akugan [mia gineka pu traguduse rebetika]$_i$
*Daily, her_i listened-3pl [a woman that sang-3sg rebetika]$_i$
"Every day they listened to a woman who sang rebetika"

b. Diariamente, la_i escuchaba [a una mujer
Daily, her_i listened-3sg ["a" a woman
que cantaba tangos]$_i$
who $sang_{Indic}$ tangos]$_i$
"Every day they listened to a woman who sang tangos"

(4) provides a minimal pair from Greek and Spanish. The ungrammaticality of (4a), without a pause between the doubled DP and the verb, shows that the wellformedness of doubling is not determined by *specificity* in Greek, contrary to Spanish where such sentences are grammatical (compare to 4b). More cases of the same type are given in (5). Note that by adding material V-finally we control the possibility that these cases are interpreted as right dislocations:[6]

(5) a. O $Jannis_j$ tha ton_i evgnomoni [ton anthropo pu tha
The $John_{j,nom}$ FUT him_i be-grateful-to-3sg [the man that Fut
ton_j voithisi]$_i$ jia oli-tu tin zoi
him_j help-3sg]$_i$ for all-his the life
"John will be grateful to the man who will help him, for his whole life"

b. *O $Jannis_j$ ton_i prodose [enan anthropo pu ton_j voithise]$_i$ mono
*The $John_{j,nom}$ him_i betrayed [$a_{indef,acc}$ man that him_j helped]$_i$ only
jia na vgali lefta parapano
for PRT_{subj} make-3sg money more
"John betrayed a man who had helped him, only to make more money"

Furthermore, the examples under (6) clearly illustrate the ungrammaticality of unambiguously specific indefinites: (6a) contains an *overt partitive* and (6b) a DP headed by the element *"merika"*, which is associated with partitive readings:[7]

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away from complications of this sort-see below for some discussion of generics in Modern Greek.

[6] For the same reason, the examples under (6) and (7) below all have extra material following the doubled DPs. As will be shown in the next section, it is possible to "double" specific indefinites when these are right dislocated. In this case though, the "doubled" DPs are uttered with a broken intonation curve, they necessarily follow the adverbial material VP-finally, and they feel like true appositions.

[7] It is clear from the literature on specificity that overt partitive DPs are unambiguously [+ specific]. This is presumably due to the fact that the modifying partitive expression provides an overt "familiar" restriction on the "novel" set introduced by the determiner heading the DP or a restriction on the set which the head of the DP quantifies over, in the case of weak determiners like "some". There are various possible ways to structurally represent this semantic relation, but I cannot go into this now. Enç's (1991) formal treatment of the semantics of specificity is an attempt to represent specific indefinites as covert partitives. In this way she derives their linking to previously established members of discourse on the basis of an indexing mechanism. However, Juan Uriagereka (p.c.) points out that the view of overt partitives as unambiguously specific DPs is challenged by the fact that in Spanish "a" may or may not introduce overt partitives: *"vi (a) algunos de los hombres"*.

(6) a. ?*O jiatros$_j$ tus$_i$ eksetase [dio apo tus asthenis]$_i$ sto
?*The doctor$_{j,nom}$ them$_i$ examined-3sg [two of the patients]$_i$ in-the
nosokomio simera to proi
hospital today in-the morning
"This morning the doctor examined two of the patients in the hospital"

b. ?*O daskalos tus$_i$ rotise [merikus mathites]$_i$
?*The teacher them$_i$ asked [some/several students]$_i$
an elysan tin askisi
if solved-3pl the exercise
"The teacher asked some (of the) students if they had solved the problem"

Examples (4)-(6) provide some formal criteria to determine whether the doubled indefinites are specific or not. However, these criteria are not absolute. For example, the presence of a restrictive relative clause which contributes to the descriptive richness of the predicate, thus increasing the availability of a specific reading, does not necessarily guarantee specificity (cf. Heim (1982) among others for discussion). Since the only thing about "specificity" that seems to be generally agreed upon is that *"...specific readings always entail widest scope existential readings"* (Heim 1982), a true demonstration of the fact that specificity is not enough for Modern Greek doubling would be to show that NPs qualifying as specific according to this semantic criterion are nevertheless ungrammatical when preceded by doubling clitics. For this reason, what I will try to do next is to construct examples where weak NPs qualify as specific by having unusually wide scope relative to modal or intensional verbs, and relative to universal quantifiers. Then, I will test the acceptability of doubling clitics with them.

(7) a. [Kathe politis s' aftin tin poli] psaxni [enan palio gnosto mu]
[Every citizen in this the town] is looking for [an old acquaintance]
jia tin dolofonia tu Athanasiadi
for the murder the$_{gen}$ Athanasiadis
"Every citizen in this town is looking for somebody I used to know for the murder of Athanasiadis"

b. [Kathe astinomikos] theli na sillavi [enan Jermano klefti kosmimaton]
[Every policeman] wants SUBJ arrest [a German thief jewelry]
apo xtes to proi [$_{CP}$ pu exi adiasi ta kosmimatopolia tis polis]
since yesterday the morning [$_{CP}$ that has emptied the jewelry-shops the town]
"Since yesterday morning every policeman is looking for a German jewelry thief who has emptied all the jewelry-shops in this town"

It seems that the expression with "a" introduces specific indefinites within the context of the partition, while the expression without "a" introduces unspecific indefinites in the same context.

In (7a) the preferred (perhaps the only possible) reading on the indefinite *"enan palio gnosto mu"* is the specific one: the indefinite here behaves like a referring expression of the sort of a deictic pronoun, except that the hearer is not able to identify the referent (Fodor and Sag (1982)). The descriptive richness of the predicate, especially the presence of the first person possessive pronoun *"mu"*, are factors making the narrow scope reading very unnatural. Note that the predicate is an intensional verb (*"psaxno"*) which has the universally quantified NP *"kathe politis s'aftin tin poli"* as subject. Similarly, in (7b), the most salient reading is that every policeman wants to arrest a particular individual designated by *"enan Jermano klefti kosmimaton"*; hence, the indefinite is preferably not construed as being within the scope of the modal verb *theli* and the universal QP *every policeman*. A relative clause and various other modifying expressions have been used to force the specific reading on the indefinite. In order to ensure that the object is really in complement position, the relative clause is extraposed;[8] otherwise the whole DP would have to undergo heavy NP shift, in which case the doubling test would not be reliable. Note that the example (7b) is stronger than (7a) because the indefinite occurs in the object position of the embedded clause, thus qualifying as specific by having *unusual wide scope* over the universally quantified subject of the main clause by virtue of the fact that QR is standardly assumed to be clause bound:[9]

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[8]The fact that the relative clause is extraposed in this example seems to contradict a generalization according to which, extraposition from NP requires that the NP be an indefinite with a non-specific interpretation (Diesing & Jelinek (1993:34) and references cited there). However, it seems to me that relative clause extraposition in Greek is not always subject to this constraint:

(1) a. Vlepo mia fili mu ston kipo pu ixa kero na tin do
See-I a friend my in-the garden that had-I time to her see
"I see a friend of mine in the garden that I haven't seen for a long time"

b. Nostalgo tous gonis mu tora teleftaia tous opious den exo dhi edo kekeo
Miss-I the parents my now recently the which not have seen now and the
I miss my parents lately, which I haven't seen for a long time"

Henk van Riemsdijk (p.c.) pointed out to me that relative clause extraposition out of definites or proper names is also possible in German.

[9]The claim that the specific reading is not a "wide scope" reading in this case is reinforced by the observation that a universal QP in object position cannot have scope over an existential in the subject position of the matrix clause:

(1) Kapjos astinomikos theli na silavi kathe Jermano klefti kosmimaton
Some policeman wants to arrest every German jewelry thief
apo xtes to proi
since yesterday the morning

In this example, the existential QP cannot be referentially dependent upon the universal: we are talking about a particular policeman who wants to arrest every thief.

(8) a. *[Kathe politis s' aftin tin poli] **ton**-psaxni [enan palio gnosto mu]
*[Every citizen in this the town] **him**-is looking for [an old acquaintance of mine]
jia tin dolofonia tu Athanasiadi
for the murder the$_{gen}$ Athanasiadis

b. *[Kathe astinomikos] theli na **ton**-sillavi [enan Jermano klefti kosmimaton]
*[Every policeman] wants SUBJ **him**-arrest [a German jewelry thief]
apo xtes to proi [$_{CP}$ pu exi adiasi ta kosmimatopolia tis polis]
since yesterday the morning [$_{CP}$ that has emptied the jewelry-shops in the town]
"Since yesterday morning every policeman is looking for-him a German jewelry thief who has emptied all the jewelry-shops in this town"

As indicated, clitic doubling is ungrammatical in these contexts, a fact verifying our initial conclusion that the notion "specificity" is not appropriate to describe Modern Greek doubling.[10] Before closing this section, I would like to present one more uncontroversial example illustrating the same point. It is based on sentences like the following (from Fodor and Sag 1982):

(9) a. [If each friend of mine from Texas had died in the fire], I would have inherited a fortune
b. [If a friend of mine from Texas had died in the fire], I would have inherited a fortune

(9a) and (9b) are classical examples illustrating the *island escaping behavior of indefinites*. Despite the wide scope preference of *each*, it cannot be interpreted as taking wide scope over the matrix sentence in contexts like (9a), namely when it occurs within a conditional clause island. Thus, (9a) cannot mean that each friend of the speaker is such that if he had died the speaker would have inherited a fortune. On the other hand, (9b) may be understood as being about a particular friend of the speaker, rather than about all of his friends in Texas. For this reason, the following sentence is consistent with (9b), though it wouldn't have been if the indefinite would fall under the scope of *"if"*:

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[10]It should be noted at this point that, according to a widely accepted view in the clitic doubling literature, direct object clitics block movement of their associated DPs (cf. Jaeggli (1982), Iatridou (1990) among others; for a related though substantially different view, cf. Dobrovie-Sorin (1992)). On the basis of the assumption that *move a* (Quantifier Raising) is involved in Scope Assignment, the fact that clitics are not allowed to double quantificational NPs is accordingly treated as a locality effect. Under the further assumption that the specific readings in (7) can be analysed in terms of relative quantifier scope (i.e. by placing an existential quantifier outside the scope of the verb and the subject) the ungrammaticality of the examples in (8) could be derived along similar lines. As will become apparent later on, this line of analysis will not be adopted in this paper. The main reason for this position is that wh-movement is generally not blocked by the presence of a doubling clitic: wh-doubling constructions exist provided that the language-particular conditions on doubling are observed (cf. chapter 4 for discussion). But even if it was true that doubling clitics interfere with movement, the present argument would still not be affected because, as Fodor and Sag (1992), Heim (1982), Enç (1991) and Ruys (1992) among others have shown, it is incorrect to claim that specific readings are obtained via QR. The main argument against QR as the source of specificity is that weak NPs can take local scope or exceptionally wide scope but not intermediary scope. Hence, the ungrammaticality of the examples in (8) cannot be attributed to a constraint on movement.

(10) But if his brother, who is also from Texas and a friend of mine, had died instead, I wouldn't have inherited anything

Let me now construct a Modern Greek sentence on this pattern:

(11) a. [CP An ixa skotosi [NP enan filo mu apo to Texas] otan mu
[CP If had-I killed [NP a friend my from the Texas] when I
dothike i evkeria, tha ixa mia periusia tora
had the chance, MOD had a fortune now
"If I would have killed a friend of mine from Texas when I had the chance I would have had a fortune now"

b. *[CP An **ton**-ixa skotosi [NP enan filo mu apo to Texas] otan mu
*[CP If **him**-had-I killed [NP a friend my from the Texas] when I
dothike i evkeria, tha ixa mia periusia tora
had the chance, MOD had a fortune now
"If I would have killed-him a friend of mine from Texas when I had the chance, I would have had a fortune now"

The indefinite *"enan filo mu apo to Texas"* in (11a) necessarily refers to a particular individual that the speaker did not kill when he had the chance to, thus qualifying as specific according to the semantic criterion of having unusual wide scope over a scope island; and as (11b) shows, doubling is once again ungrammatical.

To summarize, in this section we have demonstrated that Modern Greek direct object clitic doubling differs from Romanian and Spanish with respect to three properties: (a) violation of *Kayne's Generalization*, (b) insensitivity to the *feature [+animate]* and (c) insensitivity to *specificity*.[11] These differences have led to proposals according to which the phenomenon described so far is not a genuine instance of clitic doubling but rather some kind of right dislocation.[12] The main objections against such a view are presented next.

2.2.2. Against the Right Dislocation Hypothesis

The position of the doubled DP has been the subject of substantial debate, not only for Modern Greek but also for other languages. In order to preserve the movement analysis for clitics, it has often been claimed that the doubled phrases are actually adjuncts rather than

[11] On "specificity" in Romanian doubling constructions, cf. Borer (1984), Dobrovie-Sorin (1990), and some examples given in a section below.

[12] cf. Philippaki-Warburton (1987), Tsimpli (1990, 1992) among others.

complements of verbs. For example, Hurtado (1984) proposed that the doubled NP occupies the position of right dislocated phrases in Spanish, Rivero (1986) argued that this is the case in Old Spanish and Philippaki-Warburton (1987) had the same view on Greek. A variant of this idea can be found in Aoun (1981), followed by Drachman (1983) for Modern Greek. Jaeggli (1986) argued convincingly against the right dislocation hypothesis for Spanish and most of his arguments are applicable to Modern Greek too. Here, I will first present some arguments of Jaeggli's, which are the strongest in my view, and then I will move on to discuss some empirical arguments which can be constructed specifically for Greek. Finally, since the violation of Kayne's Generalization has been viewed as the strongest piece of evidence against the genuine doubling analysis for Modern Greek clitic doubling constructions, I will discuss this argument in detail showing why I think it is not valid.

First of all, Jaeggli (1986) pointed out that, while right dislocations are set off from the rest of the sentence with a sharp intonational break, sentences involving clitic doubling require no such pause in Spanish. If all instances of clitic doubling involve right dislocation, this contrast would remain extremely puzzling (cf. Jaeggli (1986:33) for a detailed exposition of this argument). This observation also holds for Modern Greek where, as will be pointed out below, there are semantic types of DPs which may undergo right dislocation but no doubling, a difference indicating that the relevant DPs occupy two separate positions in the tree. Furthermore, as again observed by Jaeggli (1986:33), if clitic doubled constituents are dislocated constituents in Spanish (and Romanian, Greek), this makes it impossible to describe the differences between languages like French/Italian on the one hand and languages like Spanish/Romanian/Greek on the other. It is well known that languages of the former type freely allow dislocated constituents, as the following French example (from Jaeggli 1986) indicates:

(12) Je l' ai vu, l' assassin
I saw him, the murderer

The French sentence in (12) is ungrammatical without the right dislocation intonation, contrary to Spanish, Romanian and Greek, where sentences like (12) may have both a right dislocation and a clitic doubling intonation.[13]

As stated above, a related argument applies specifically to Greek. While specific indefinite DPs cannot be doubled in Modern Greek, they are quite acceptable as right

[13]Marcel den Dikken (p.c.) points out that although the intonational facts constitute an argument against the analysis of doubling as a right dislocation, they are not necessarily an argument against an analysis of doubling in terms of adjunction (see below). For example, den Dikken (1992) analyses right peripheral DP placement in Dutch imperatives in terms of base generation of the DP in an adjoined position: this DP is not set off from the rest of the clause by an intonation break.

dislocations (expressing "afterthoughts"). In particular, oppositions like the following are attested:

(13) a. *I dopji ipan oti to$_i$ idhan [ena Egleziko karavi]$_i$
*The natives said that it$_i$ saw [an English ship]$_i$
na pernai prin apo dio meres
SUBJ go by before of two days
"The natives said that they saw-it an English ship go by a couple of days ago"

b. ?I dopji ipan oti to$_i$ idhan na pernai prin apo dio
?The natives said that it$_i$ saw-3pl SUBJ go by before of two
meres## [ena Egleziko karavi]$_i$
days## [an English ship]$_i$
"The natives said that they saw it go by a couple of days ago## an English ship

Under the right dislocation hypothesis for doubling, the facts in (13) are quite mysterious. If the DP *"ena Egleziko karavi"* occupies the same kind of position in both sentences, then at least three questions cannot be straightforwardly answered: (i) why is (13a) ungrammatical while (13b) is acceptable? (ii) why does the second example require a sharp break (indicated by #) in order to be grammatical?[14] (iii) why are sentences on the pattern of (13b) also attested in French and Italian while sentences like (13a) (with the appropriate DPs) are not?[15]

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[14]The sentence (13a) can improve if *ena Engleziko karavi* is preceded by a sharp intonational break. In that case, a second break must occur between *karavi* and *na perna....*, otherwise, the sentence is ruled out (cf. Jaeggli (1986:33) for some discussion of similar intonational facts in Spanish).

[15] It has often been observed that some ungrammatical instances of clitic doubling become almost acceptable when the *cl+Verb* complex is heavily stressed. One straightforward such case is the classical example due to Kazazis and Pentheroudakis (1976) *to-pino ena ouzaki* ("I will definitely/gladly have an ouzo") mentioned in fn 4. A systematic comparison of *Modern Greek* to *Catalan* (as has been described by Vallduví (1990, 1992b)) might clear up the problem and show that Greek has *clitic doubling* and *right "detachment"*, the second construction being a *focus/open-proposition marking construction* in the sense of Vallduví (1990, 1992b).

Let me first of all start with the observation that Catalan has a construction which Vallduví calls "right detachment"; the informational task of this construction is to focus not a complement or an argument of V^0 (as focus preposing does), but V^0 itself or a projection of V^0 (cf. Vallduví (1992b) for details and examples). In other words, this construction looks like doubling but it isn't doubling, as Catalan clearly shows: the "doubled" object in Catalan cannot occur in an argument position (among other things, it cannot surface to the left of VP-final locatives or adjunct XPs). Vallduví, furthermore, points out that the construction known as *focus-preposing* and the type of *right-dislocation* he describes stand in complementary distribution. Focus preposing takes care of the instances where the focus is non-verbal and right-dislocation takes care of the cases where the focus is V^n. This analysis predicts that any type of DP may undergo right detachment in Catalan and, indeed, this is what we find:

(1) els$_i$ té molts amics la Núria
Cl$_i$ has many friends the Núria
"Núria has many friends"

(1) illustrates right detachment of a potentially strong DP which is the object of possesive *have*. As is well known (cf. the next sections for discussion), this is a typical *Definiteness-Restriction* context, i.e. a context in which the QP *molts amics* cannot possibly qualify as strong. Yet the sentence is grammatical (with the appropriate intonation contour).

We might conjecture that the Greek facts mentioned above should be analysed in a similar manner. In other words, it is not unlikely that instances of *doubling* in which the complex *cl+V* is heavily stressed involve right-

A strong piece of evidence against the right dislocation hypothesis for doubling is the fact that doubled phrases in Greek may occur in positions where adjuncts do not seem to be tolerated, in particular as Subjects of Small Clauses and ECM complements.[16] Two such examples are given under (14):

(14) a. O Jannis tin-perimeni [[tin Maria] na paraponethi]
The John Cl_{acc}-expects [[the $Mary_{acc}$] SUBJ complain]
"John expects-her Mary to complain"

b. O Jannis den tin-theori [tin Maria] eksipni
The John not Cl_{acc}-considers [the $Mary_{acc}$] clever
"John doesn't consider-her Mary clever"

The facts presented so far, especially (14), strongly suggest that Modern Greek doubling is different from right dislocation. From this, however, it does not yet follow that the doubled DP occupies the complement position of the verb. It could be an adjunct in a position much lower than a right dislocated DP (for example, the doubled DP could be (left or right) adjoined to VP while right dislocation could involve right adjunction to some higher

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detachment of the Catalan type, this being the reason why the speakers sometimes accept "doubled" indefinites provided the complex cl+verb is intonationally the most prominent position in the sentence. Furthermore, it is possible to construct an argument showing that this analysis might be on the right track. Vallduví's proposal appears to make an interesting prediction for Greek, namely that focus preposing and right detachment should not be able to co-occur since they are in complementary distribution from the point of view of information structure (note that multiple foci are impossible in Greek and it is impossible to focus simultaneusly the verb and an XP). We would thus expect that in Modern Greek, clitic "doubling" of indefinites is impossible when an XP has undergone "Focus preposing". On the other hand, if clitic doubling of definites is not "right detachment" it should always be permitted under focus preposing. Both parts of the prediction are borne out, as the following Modern Greek sentences indicate:

(2) a. *O JANNIS to pini ena ouzaki
*The $John_{FOCUS}$ it drinks an ouzo
"It is John that would drink-it an ouzo"

b. O JANNIS to pini to ouzaki
THE JOHN it drinks the ouzo
"It is John that drinks-it the ouzo"

(3) a. ?TOUS-IDHA merikous
?Them-saw-I some (of them)
"I indeed saw them-some of them"

b. *XTES tous-idha merikous
*YESTERDAY them-saw-I some (of them)
"It was yesterday that I saw-them some of them"

c. XTES tous-idha tous filous mu
YESTERDAY them-saw-I the friends my
"It was yesterday that I saw-them the friends of mine"

Vallduví's work was brought to my attention recently and for this reason I haven't been able to process it entirely. It might offer some explanation for the intonational facts. Alternatively, if the proposal that doubling is the counterpart of scrambling is taken seriously (cf. below) the intonational complications are not unexpected since it is well known that focus interferes with scrambling as well.

[16]These facts constitute the basis of Sportiche's argument against doubling as right dislocation (1992:10) and they have also been discussed in the Modern Greek literature.

functional projection). Little can be said with certainty at this point, especially since it is not at all clear how exactly right-peripheral phenomena (DP-placement, CP-placement etc.) should be analysed in view of the ideas of Kayne (1993a) and related work (Kaan (1992), Koster (1993), Zwart (1993)). These questions are certainly valid but it is not possible to address them in this work. With respect to the adjunction vs. generation in A-position issue, one potential test has been suggested to me by Marcel den Dikken (p.c.). The suggestion is that extraction across a doubled DP containing a pronoun coindexed with the extractee might help us decide whether the doubled DP occupies an A-position (complement) or an A'-position (adjunct), provided that we assume that WCO effects arise only if the c-commanding DP containing the coindexed pronoun finds itself in an A-position.Marcel den Dikken points out that this assumption might gain support from the difference between the following two sentences (Postal 1993:549):

(15) a. *Which lawyer$_i$ did his$_i$ client hate t$_i$?
b. Which lawyer$_i$ did even his$_i$ clients hate t$_i$?

Under the hypothesis that focused phrases undergo QR at LF the difference between the two sentences with respect to WCO could be accounted for if only container DPs in A-position trigger WCO. If this line of reasoning is on the right track, then cases like the following can be seen as a formal argument in favor of the analysis of doubled DPs as complements:

(16) *Me pjon$_i$ theoris tin mitera tu$_i$ erotevmeni t$_i$?
*With whom$_i$ consider-2sg the mother his$_i$ in love t$_i$?
"With whom do you consider his mother in love?"

(17) *Me pjon$_i$ tin$_j$ theoris [tin mitera tu$_i$]$_j$ erotevmeni t$_i$?
*With whom$_i$ her$_j$ consider-2sg [the mother his$_i$]$_j$ in love t$_i$?
"With whom do you consider-her his mother in love?"

As we can see, the presence of a doubling clitic in (17) does not affect the status of the sentence with respect to WCO. This might be taken to suggest that the doubled DP occupies an A position given the reasoning presented above. Nevertheless, it is very unclear whether this argument is really valid because WCO effects are poorly understood: to my knowledge, it is not even clear what the correct generalizations for WCO are (cf. Ruys (1994b) for a review of this problem).

One final remark on Kayne's Generalization. In previous stages of the GB theory, the availability of dummy prepositional elements was held to be the most fundamental property of clitic doubling constructions and the source of the Clitic Doubling Parameter, for reasons that will be outlined in more detail in section 2.3.1.: these elements were assumed to act as

Case assigners allowing for the doubled NPs to surface, thus preventing clitic doubling constructions from violating the Case Filter. Under this view, the fact that Modern Greek doubling does not fall under Kayne's Generalization is indeed a serious anomaly that any theory of clitic constructions must solve and, from this point of view, is a strong argument in favor of the right dislocation hypothesis for Modern Greek doubling.

However, later research has shown that it is misleading to stress the importance of Kayne's Generalization over the other characteristic properties of clitic doubling constuctions, and to interpret *pe* and *a* as Case Filter devices. First of all, Suñer (1988:399-400) provides some examples from Porteño Spanish, where direct object clitic doubling may take place with the prepositional element *a* missing. This fact is of particular interest, because in this language Kayne's Generalization seems to be generally operative: if clitic doubling in Spanish is even marginally possible with the object NPs being assigned Case directly from the verb, then it is questionable whether the requirement for the preposition should be linked to the Case Filter at all. Secondly, the prepositional elements *pe* and *a* are linked to semantic features such as [±animate], [±human] and [±specific], as is wellknown. This entails that, in those languages where Kayne's Generalization is operative, doubling is subject to semantic restrictions posed by the *animacy* and the *specificity* of the doubled NPs. The traditional literature on clitic doubling has considered the correlation between *doubling* and *animacy / specificity* as a more or less accidental fact. However, the growing theoretical interest in the various ways in which *specificity* can be grammaticalized crosslinguistically (cf. Diesing (1992) for German, Enç (1991) for Turkish, de Hoop (1992) for Dutch, Mahajan (1990) for Hindi, among others) has shown that a detailed investigation of the semantic restrictions on doubling might prove to be a fruitful direction to take. Many recent treatments of clitic doubling seek to capture these facts in a more principled way and provide interesting new insights into the conditions under which doubling is licensed or required.[17] In addition to the empirical problems raised for the traditional Case Filter types of approaches towards Kayne's Generalization (Modern Greek and the Porteño Spanish cases reported by Suñer), we may conclude that the idea that dummy prepositions constitute a necessary and sufficient syntactic condition for doubling is not correct. Some speculations on the nature of Kayne's Generalization, not as an intrinsic feature of each single doubling pattern but rather as a diagnostic property of *certain instances of clitic doubling*, might be worthwile mentioning at this point. The cases from Porteño Spanish clitic doubling, which Suñer used as empirical

[17] cf. Mahajan (1990, 1991), Sportiche (1992), Uriagereka (1992) among others.

evidence against interpreting the preposition *"a"* as a Case assigning element, are the following:[18]

(18) a. Yo **lo** voy a comprar **el diario** justo antes de subir.
"I am going to buy **it-the newspaper** just before coming up"
b. Yo **la** tenia prevista **esta muerte.**
I had foreseen **it-this death.**
c. Ahora tiene que seguir usándo**lo el apellido**
Now she has to go on using **it-the surname.**

Interestingly enough, these particular examples are very close to the Modern Greek pattern of clitic doubling: the doubled DPs are [-animate] and [+definite] in all cases.[19] It would be interesting to find out whether the exceptional cases of doubling displayed in Spanish systematically involve [+definite] rather than [+specific] DPs. If this turns out to be the case, then we might be led to a different descriptive generalization, according to which doubling is not always characterized by the presence of dummy prepositions, but rather the properties: *(i) presence vs. absence of prepositions, (ii) sensitivity vs. insensitivity to animacy, (iii) specificity vs. definiteness* systematically fall together.[20] The reason for this particular clustering of properties is unclear to me.[21]

2.2.3. Modern Greek direct object doubling has semantic properties.

So far, we have focused on the differences between Greek and Romanian/Spanish doubling. Let us now come to a semantic property that makes the former look very similar to the latter from a formal point of view. In particular, it can be demonstrated that Greek doubling clitics

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[18]cf. Suñer (1988:399-401) for arguments that these cases are not right dislocations.

[19]They have to be inanimate, otherwise "a" can't be missing (cf. Suñer 1988) for details.

[20]This generalization, at first sight, appears to be confirmed by the Slavic data (cf. Bulgarian, Mila Dimitrova-Vulchanova, p.c.).

[21]At this point, there seem to be further complications which were brought to my attention by Juan Uriagereka (p.c.). First of all, according to Moll (1993) the DPs in (15) are focused. If this is true, then the parallel between these cases and the Modern Greek ones under (3) breaks down because doubled DPs can never be focused in Greek, a fact which is expected, I believe, if the Prominence Condition (to be presented below) is correct (on focus and doubling, cf. Drachman (1983, 1985), Iatridou (1991a) among others). Secondly, there seem to be some dialects (the Cordoba and Tucuman dialects of Argentina) where doubling of inanimates is allowed but "a" is still used. These facts might be taken to suggest that Kayne's generalization is always observed in clitic doubling constructions, in the sense that the doubles are always visibly realised (they have "a" or focus or morphological Case (in Greek)). However, in the absence of a worked out theory on the differences between abstract structural Case and morphologically realised structural Case I don't see what exactly the theoretical consequences of this particular interpretation of Kayne's generalization would be.

identify their associated definite DPs as unambiguously *familiar*: from this point of view they qualify as operator-type elements rather than pure Object Agreement markers and in this respect they strongly resemble their counterparts from Romanian and Spanish.[22]

The function of direct object doubling clitics in Greek is not entirely transparent. They feel like emphatic elements of some sort: in fact there is a syntactic proposal (Agouraki (1993)) according to which doubling arises when the cluster [cl-V] moves to a Focus Projection. However, clitic doubling is not necessarily related to predicate focus and this is one of the reasons why I think that this analysis is not well founded empirically (cf. fn 15).

According to a long tradition, doubling clitics are topicalization markers.[23] The commonly attested view in the Modern Greek literature, that clitic doubling and clitic left dislocation are two different variants of one and the same syntactic configuration, can be seen as an attempt to express this idea in structural terms. While there are good reasons to believe that clitic doubling and CLLD are formally distinct (cf. chapter 3), I think that the intuition underlying this approach is basically correct in so far as it implies that doubled DPs necessarily denote "old information". Doubling suppresses *novel readings of definites*, as we shall see immediately.

At first sight, the claim that definite DPs may ever denote new information seems surprising, especially in view of a formal treatment of definiteness like the one proposed in Heim (1982). According to this dynamic semantic approach, *definites* and *indefinites* are similar in having no quantificational force on their own: they differ with respect to the *Familiarity-Novelty Condition*, which states that definites are genuinly *familiar*, in that their referents are necessarily present in the context of discourse (*".....every use of a definite NP requires that there already be an appropriate card in the file..."* (Heim 1982:370)), while indefinites are *novel* per definition, which means that they systematically introduce new discourse referents. However, as noted by Heim herself, there are many uses of definite descriptions that do not fit this theory, in that they seem to violate the Familiarity Condition.[24] In order to include these *novel definites* in her system, Heim uses a mechanism which Lewis (1979) discussed under the name "accommodation": *"...when a new file card is introduced under accommodation, it has to be linked by crossreferences to some already*

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[22] For arguments that doubling clitics have operator properties in Romanian and Spanish, cf. Uriagereka (1988) and Dobrovie-Sorin (1992) among others.

[23] From Tzartzanos (1963) to Drachman (1985), who stresses the fact that the doubled DP has an appositional character in Greek (note, incidentally, that according to Uriagereka (1992b) and references cited there, Spanish doubled DPs are also understood as appositional), and Theophanopoulou-Kontou (1986-7) among others.

[24] She refers to Hawkins (1978) who lists eight usage types, only two of which obey the familiarity-novelty condition.

present file card... " (Heim 1982:373). One such case of apparent violation of the Familiarity Condition is instantiated through the so called *associative anaphoric use* of definites:

(19) John read [a book about Schubert]$_i$ and wrote to **the author**$_j$

(19) can be characterized as a self contained text not presupposing contextual salience or previous mention of an author. The way "accommodation" works for this particular example is described by Heim as follows: *".....By the time "the author" comes along, the file already contains a card i describing a book about Schubert that John read, but it does not contain any card describing an author. One adds a card j with the elaborate entry "is author of i", and not simply "is an author". Therefore, [(19)] is clearly felt to convey more information than [(20)]"* (Heim, op.cit:372-373):

(20) John read a book about Schubert and wrote to **an author**

These examples are significant, not only because they show that definites can be novel (cf. 19), and that novel definites are semantically distinct from true indefinites (compare (19) to (20)), but also because they illustrate a striking asymmetry between the referential properties of *pronominal elements*, as opposed to *definite descriptions*. Compare (19) to (21) below:

(21) # John read a book about Schubert and wrote to **him**
(i.e. **him** = **Schubert**)

Unlike the DP *the author* in (19), *him* in (21) cannot be *novel*: its referent has to be present in the discourse file, and, for this reason, it is understood as linked to the proper name *Schubert*, which leads to an infelicitous use. This means that not all kinds of definite DPs are alike in their felicity conditions: for example, while definite descriptions can be saved by accommodation in a context like the one discussed here, this option is unavailable for pronouns. In order to capture these facts Heim proposed that pronouns obey a constraint of their own, which she labeled the *"Prominence Condition"*. Informally speaking, the "Prominence-Condition" is more radical than the "Familiarity Condition": while the Prominence Condition states that the corresponding definite DPs must be familiar in a strict sense (necessarily anaphoric), the elements falling under the Familiarity Condition may be novel ("saved" by the adjustment mechanism outlined above).[25] In other words, definite

[25] The Prominence Condition is originally used by Heim (1982) to account for the following opposition:
(i) John is married. #She is nice.
(ii) John is married. His wife is nice.

DPs are potentially ambiguous with respect to familiar and novel readings, whereas pronouns are unambiguously familiar by virtue of the Prominence Condition.

The intuitive idea that doubling is used to denote "old information" can be made precise along the lines discussed so far. Doubled definite DPs resemble pronominals in that they cannot be understood as novel, a fact which further suggests that they obey the Prominence Condition:

(22) a. O Jannis diavase [ena vivlio jia ton Arthur Miller$_i$]$_j$, enthusiastike,
ke thelise na gnorisi **ton sigrafea$_k$** apo konta.
John read [a book about Arthur Miller$_i$]$_j$, he got very enthusiastic,
and he wanted to get to know **the author$_k$**.
the author: (i) Arthur Miller himself (k=i)
(ii) The author of the book (k related to j "accommodation")

b. O Jannis diavase [ena vivlio jia ton Arthur Miller$_i$]$_j$, enthusiastike,
ke thelise na **ton$_i$** gnorisi **ton sigrafea$_i$** apo konta.
John read [a book about Arthur Miller$_i$]$_j$, he got enthusiastic,
and he wanted to get to know the author$_i$.
the author: necessarily the already established member of discourse
(i.e. the doubled DP cannot be "novel").

In (22a), the undoubled definite *ton sigrafea* (the author) is ambiguous: under a familiar reading, its referent is already present in the context of discourse (**k=i**); under an "associative anaphoric use", it introduces a novel referent, namely *the author of the book about Arthur Miller that John read* (**k** is linked by crossreferences to the already present file card **j**). On the other hand, the presence of the clitic in (22b) suppresses the second option: the mechanism of *accommodation* is unavailable for its associated DP which is therefore necessarily linked to the previously mentioned proper name (cf. the indices in (a) and (b)). One more case exemplifying this difference is the so called "Immediate situation use" (cf. Heim 1982 for discussion):

(23) a. Prosexe! tha xtipisis ton pezo!
Watch out! FUT hit-2sg the pedestrian!
"Watch out! you will hit (with the car) the pedestrian!"

b. Prosexe! tha ton$_i$ xtipisis ton pezo$_i$!
Watch out! FUT him$_i$ hit-2sg the pedestrian$_i$!
"Watch out! you will hit-him (with the car) the pedestrian!"

While (23a) (without doubling) is appropriate when the hearer is not aware of the presence of the pedestrian in the street, its counterpart (23b) (with doubling) indicates shared knowledge by speaker and hearer that the referent is present in discourse (i.e. perceptual

salience). To conclude, one clear semantic-pragmatic property of Modern Greek doubling clitics can be tested, namely their function as "familiarity-markers". Doubled DPs, like pronouns and unlike ordinary DPs, fall under the Prominence Condition.

2.2.4. Extensions[26]

The Prominence Condition leads to a number of predictions with respect to the (im)possibility of clitic doubling with certain types of definites. In particular, we would expect direct object doubling with necessarily non-familiar definites to be ungrammatical or at least odd. In this section, first of all I will show that this prediction is by and large borne out, a fact which strengthens our previous conclusion that the definiteness condition on Greek doubling is not simply a morphological requirement that the doubled DPs must be preceded by the definite article, but rather a semantic-pragmatic requirement. Then I will show how this condition could be made to include/exclude the various grammatical and ungrammatical instances of clitic doubling attested in Greek, and finally, I will present some cases that are potentially problematic in this respect.
Fiengo (1986) discussed the following oppositions attested in English:

(24) a. Who did you see **a good** picture of?
b. *Who did you see **the good** picture of?
c. Who did you see **the best** picture of?

The first two sentences illustrate a well known fact, namely that definites are opaque to extractions while indefinites are not. More generally, the observational generalization stated in Fiengo and Higginbotham (1981) is that there may be no occurrences of anaphors or variables free within definite/specific NPs, a phenomenon to which various explanations have been offered in the literature since then. Example (24c) is a clear counterexample to this generalization, since wh-extraction out of a definite NP doesn't lead to ungrammaticality. Another instance of a definite singular non-opaque NP is given below:

(25) He burned the picture of himself that I like most

[26] I am indebted to Eddy Ruys for pointing out to me the implications of the Prominence Condition with respect to the impossibility of doubling with narrow scope definites, for providing me with the relevant literature on the topic, and for valuable suggestions. Also, I would like to thank Anastasia Giannakidou for her intuitions and for theoretical discussion.

Apparently, the relative clause in (25) (like the presence of *best* in (24c)) opens the definite NP to binding. These constructions, which are problematic for the *Specificity Constraint* of Fiengo and Higginbotham (1981), Fiengo (1986) proposed to treat by assuming that the non-opaque definites under consideration are *novel definites* in the sense of Heim (1982). That this treatment is on the right track is supported by the observation that such definites have the distributional properties of true indefinites in some contexts (Ruys 1992:44)[27]:

(26) a. *John has **the** brother
b. John has **a** brother
c. John has **the best** brother (in the world)
d. John has **the brother he deserves**

(26a) & (26b) show that in English, the objects of possessive "have" are subject to the Definiteness Restriction. (26c) & (26d) indicate that non opaque definites behave like indefinites rather than true definites in this context.

Similar facts with respect to the Specificity Constraint can be observed in Modern Greek. The sentences below show that anaphora is possible across an indefinite (27a) but it cannot take place across a definite (27b) unless the definite is a *novel definite* in the sense of Fiengo (27c), (27d):

(27) a. Distixos o Jannis ekapse [mia orea fotografia
Unfortunately the $John_j$ burned [a nice picture
[tu eaftu tu]]
[the self $his_{gen}]_j$]
"Unfortunately John burned a nice picture of himself"

b. ?*Distixos o Jannis ekapse [tin orea fotografia
?*Unfortunately the $John_j$ burned [the nice picture
[tu eaftu tu]]
[the self $his_{gen}]_j$]
"Unfortunately John burned the nice picture of himself"

[27]These definites are completely ungrammatical in there-existentials:
(1) a. *There is the best brother (in the world) in the garden
b. *Exi ton kalitero aderfo tou kosmou ston kipo
*Has(3sg) the best brother the $world_{gen}$ in-the garden
"There is the best brother in the world in the garden"

c. Distixos o Jannis ekapse [tin oreoteri fotografia
Unfortunately the $John_j$ burned [the nicest picture
[tu eaftu tu]]
[the self $his_{gen}]_j$]
"Unfortunately John burned the nicest picture of himself"

d. Distixos o Jannis ekapse [tin fotografia
Unfortunately the $John_j$ burned [the picture
[tu eaftu tu] pu mu aresi perissotero]
[the self $his_{gen}]_j$ that I like most]
"Unfortunately John burned the picture of himself that I like most"

Given the Prominence Condition discussed in the previous sections, it comes as no surprise that in Modern Greek such *novel definites* are not allowed to undergo clitic doubling:

(28) a. Kathe pedhi psaxni tin kaliteri fotografia tu eaftou tu
Every child is looking for the best picture the_{gen} self his
jia na tin kremasi ston tixo
for SUBJ it hang on-the wall
"Every child is looking for the best picture of himself to put it on the wall"

b. *?Kathe pedhi **tin**-psaxni tin kaliteri fotografia tu eaftou tu
*?Every child **it**-is looking for the best picture the_{gen} self his
jia na tin kremasi ston tixo
for SUBJ it hang on-the wall
"Every child is looking for-it the best picture of himself to put it on the wall"

(29) a. *O Jannis exi ton aderfo
*The John has the brother
"John has the brother"

b. O Jannis exi (enan) aderfo
The John has (a) brother
"John has a brother"

c. O Jannis exi ton aderfo pu tu aksizei
The John has the brother that Cl_{gen} deserves
"John has the brother that he deserves"

d. *O Jannis **ton**-exi ton aderfo pu tu aksizei
*The John **him**-has the brother that Cl_{gen} deserves
"John has-him the brother he deserves"

(28a) is a sentence containing a non familiar definite in object position. The fact that anaphora is possible in this context shows that this definite is non-opaque. In addition to that, the NP *tin kaliteri fotografia tu eaftu tu* is forced into non-familiarity by being in the scope of the universally quantified subject NP (the anaphor inside the object necessarily receives a bound variable interpretation by being bound by the subject QP). The ungrammaticality of

(28b) is correctly predicted by the Prominence Condition: doubling is not licensed with *non familiar definites*.[28] The examples under (29) again illustrate this point. As indicated by the opposition between (29a) and (29b), the objects of the main verb *exo* in Greek, as their English counterparts, must be indefinite. On the other hand, the wellformedness of (29c) convincingly shows that the definite *ton aderfo pu tu aksizei* is novel and, as expected, doubling is ruled out (29d). Other cases where *definites* are grammatical as objects of possessive "have" include *inalienable possession* (T. Hoekstra, lecture notes-Fall 1993):[29]

(30) a. *O Jannis exi **tin** miti
*The John has **the** nose
"John has the nose"

b. O Jannis exi **miti**
The John has **nose**
"John has a nose"

c. O Jannis exi **tin** miti tu patera tu
The John has the nose the$_{gen}$ father$_{gen}$ his
"John has his father's nose"

d. *O Jannis **tin**-exi **tin** miti tu patera tu
*The John **it**-has the nose the$_{gen}$ father$_{gen}$ his
"John has-it his father's nose"

Inalienable possession NPs are generally considered to be non opaque (cf. Vergnaud and Zubizarreta (1992) among others) and, as indicated by the contrast between (30a) and (30b),

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[28]Juan Uriagereka suggested to me an alternative line of explanation for these facts which can be based on the view of these novel definites as expressions of kinds. On the assumption that expressions of kind in general (unlike generics) do not undergo doubling, the ungrammaticality of these examples can be accounted for along similar lines:

(1) (*lo) vimos al lobo
(*it) saw-we the wolf
"we saw-it the wolf(kind)

(2) (los) odio a los americanos
(them) hate-I "a" the americans
"I hate-them the americans"

However, I am not convinced that expressions of kind are not allowed to undergo doubling in Greek. It is just difficult to force kind readings on singular DPs in object position. To the extent that this is possible, doubling is allowed:

(3) *(*ton) idhame ton liko
*(*him) saw-we the wolf
"we saw-*(*it) the wolf (kind)"

(4) O ANTHROPOS (ton) eksontose ton liko
The man(Focus) (him) exterminated the wolf
"It is the human race that is responsible for the extermination of the wolf (kind)"

(5) O anthropos (tin) theori tin falena thilastiko
The man (her) considers the whale mammal
"Human beings consider-(it) the whale(kind) mammal"

[29]The example (30d) is one case where the speakers react saying: "I don't accept it but if "*tin-exi*" is heavily stressed then I can accept it", cf. the discussion of "right detachment" of the Catalan type.

body part expressions as objects of possessive "have" must be indefinite, preferably determinerless in Greek (but still morphologically accusative). Nevertheless, expressions like *tin miti tu patera tu* are legitimate objects of "have" (30c). Still, these predicative definites are not allowed to undergo clitic doubling, as the ungrammaticality of (30d) indicates. Obviously, this result is predicted by the Prominence Condition: NPs like *tin miti tu patera tu* in this context are certainly non-familiar.

Furthermore, Woisetschlaeger (1983:142) discussed some definite expressions that are allowed to occur in existential sentences, thus escaping the Definiteness Constraint. Two of his examples are repeated below:

(31) a. There was the smell of pot all over the apartment
b. There was the wedding picture of a young black couple among his papers

It is interesting to test clitic doubling with such NPs. For this purpose, let us first try to construct some Modern Greek examples where definites are permitted in existential sentences:

(32) a. Ixe (*ta) pontikia se olo to diamerisma
Had$_{3sg}$ (*the) mice$_{pl\text{-}acc}$ in all the apartment
"There were (*the) mice all over the apartment"
b. Ixe tin mirodia xasisiou se olo to diamerisma
Had$_{3sg}$ the$_{acc}$ smell$_{acc}$ pot$_{gen}$ in all the apartment
"There was the smell of pot all over the apartment"

(33) a. Anamesa sta xartia mu ixe *tin/mia fotografia
Among in-the papers my had$_{3sg}$ *the/a picture
"There was *the/a picture among my papers"
b. Anamesa sta xartia mu ixe
Among in-the papers my had$_{3sg}$
tin fotografia tu gamou enos nearou zevgariou filon mu
the picture the wedding$_{gen}$ a young couple$_{gen}$ friends$_{gen}$ my
"There was the wedding picture of a young couple of friends of mine among my papers"

Examples (32) and (33) are the Modern Greek counterparts of (31). (32a) and (33a) are existential sentences: the impersonal "have" (*exi-3rd singular*) is followed by an indefinite expression carrying accusative case and definites are generally ruled out, as the stars indicate. The grammaticality of (32b) and (33b) corresponds to the grammaticality of (31a) and (31b) observed by Woisetschlaeger; the Prominence Condition furthermore predicts that doubling will be ungrammatical with these definites, and this is indeed what we find:

(34) a. ***tin**-ixe tin mirodia xasisiou se olo to diamerisma
***it**-had$_{3sg}$ the$_{acc}$ smell$_{acc}$ pot$_{gen}$ in all the apartment
"There was-it the smell of pot all over the apartment"

b. *Anamesa sta xartia mu **tin**-ixe tin fotografia tu gamou enos nearou zevgariou filon
*Among in-the papers my **it**-had$_{3sg}$ the picture-the wedding$_{gen}$-a young couple$_{gen}$ friends$_{gen}$
"There was-it the wedding picture of a young couple of friends among my papers"

Finally, the strict familiarity requirement on Greek direct object doubling expressed through the Prominence Condition would lead to the prediction that definites as parts of idioms are not allowed to undergo doubling. Such definites are presumably non referential and, for this reason, the Prominence Condition cannot possibly be observed with them.[30] Some idiomatic expressions containing definite NPs in object position are *"xano **ta** avga ke **ta** pasxalia"* (I loose the eggs and the eastern devices--"I loose my control"), *"xano **to** fos mu"* (I loose my light--"I loose control-I am amazed"), *"vrika/idha **ta** skura"* (I found/saw the darks--"I was in difficulty"), *"pira **to** tharros ke.."* (I took the courage and...). As the oppositions below indicate, it is indeed impossible to double such definites:

(35) a. Otan idha tin askisi **tin** thimithika **tin lisi**
When saw-I the excercise **it** remembered-I **the solution**
"When I saw the excercise I remembered it--the solution"

b. *Otan idha tin askisi **ta** exasa **ta avga ke ta pasxalia**
*When saw-I the excersise **them** lost-I **the eggs and the eastern devices**
"When I saw the excersise I lost-it my control"

(36) a. Opote vlepo tin thalassa **tin** nostalgo **tin Ellada**
Whenever see-I the sea **it** miss-I **the Greece**
"Whenever I see the sea, I miss-it Greece"

b. *Opote vlepo tin thalassa **to** xano **to fos mu**
Whenever see-I the sea **it** loose **the light my**
"Whenever I see the sea I loose control"

[30]These cases could be independently excluded on the basis of the assumption that objects of idioms are generally not allowed to move to some VP-external position and the presence of a doubling clitic forces them to do so at LF. Nevertheless, there seems to be a great deal of variation in the domain of idiomatic expressions with respect to the (im)possibility of movement to VP-external positions. Thus, while **The bucket was kicked* is ungrammatical, *Advantage was taken of John* is fine (Marcel den Dikken, p.c.). This variation indicates that it is not a priori clear whether or not idioms are allowed to undergo LF movement. This suggests furthermore that the Prominence Condition is correctly employed to account for the cases below.

(37) a. O Jannis **tin** akouse **tin dialeksi** ke efige
The John **it** listened to **the lecture** and left-he
"John listened to the lecture and left"

b. *O Jannis **ta** idhe **ta skoura** ke efige
*The John **them** saw-he **the darks** and left-he
"John was in difficulty and he left"

(38) a. Otan katalava ti egine **tin** pira **tin Maria** ke efiga
When realised-I what happened **her** took **the Mary** and left-I
"When I realised what had happened, I took-her Mary and left"

b. *Otan katalava ti egine **to** pira **to tharros** ke efiga
*When realised-I what happened **it** took-I **the courage** and left-I
"When I realised what had happened, I took-it the courage and left"

Recapitulating, so far we have seen that the Prominence Condition on Greek doubling may correctly exclude doubling of: *(i) non opaque definites* of the type analysed by Fiengo (1986) in terms of *novelty*, *(ii) inalienable possession definite body part expressions* which are allowed to occur as objects of possessive "have", in apparent violation of the Definiteness Restriction, *(iii) the definite expressions* discussed in Woisetschlaeger (1983) that are allowed to appear in existential sentences, and *(iv) definite objects of idioms* that do not have independent reference.

In what follows, I will briefly try to show how the [+prominent] restriction on Greek doubling can be made to accommodate the grammatical and ungrammatical instances of direct object doubling attested in Greek, and then, I will discuss some problematic cases:
(i) **Pronouns:** in Modern Greek stong pronominal elements are usually found in the following types of environments:[31]

(39) *-Pjon* idhe?
-Whom saw-he
"Who did he see?"

a. Idhe *emena*
Saw-he *me*
"He saw ME"

b. *#Me* idhe
#Me(cl) saw
"He saw me"

[31] In Modern Greek there is no special form for 3rd person personal pronouns: the same lexical element may have either personal or deictic function.

(40) *-Pjon antra* protimas?
-Which man prefer-you?
"Which man do you prefer?"
a. Protimo *afton*
Prefer-I *him*
"I prefer HIM"
b. *#Ton*-protimo
#Him-prefer-I
"I prefer him"

The examples (39a) and (40a) show that strong pronominal elements typically occur in novelty contexts, i.e. as answers to wh-questions and/or as focused elements. They carry heavy (contrastive or emphatic) stress. In the same contexts pronominal clitics are excluded (39b), (40b) and clitic doubling seems odd[32]:

(41) a. *Pjon antra* protimas?
Which man prefer-you?
b. *#Ton* protimo *afton*
#Him prefer-I *him*
"Him-I prefer him"

On the other hand, it is clear from Heim's discussion of the Prominence Condition presented in section 2.2.3 above, that pronominal elements are generally subject to a strict familiarity requirement, in that they are never understood as novel. One might then wonder how Modern Greek strong pronouns would behave in, for instance, *associative anaphoric use* contexts:

(42) a. ?*O Jannis diavase [ena vivlio jia ton Arthur Miller$_i$]$_j$, enthusiastike,
ke thelise na gnorisi **afton**$_i$ apo konta.
?*John read [a book about Arthur Miller$_i$]$_j$, he got very enthusiastic,
and he wanted to get to know **him**$_i$.

[32]My impression is that clitic doubling of first and second personal pronouns in these contexts is better than clitic doubling of third pesron pronouns. This probably relates to the fact that for the third person deictic pronouns are used.

b. O Jannis diavase [ena vivlio jia ton Arthur Miller$_i$]$_j$, enthusiastike,
ke thelise na **ton$_i$** gnorisi **afton$_i$** apo konta.
John read [a book about Arthur Miller$_i$]$_j$, he got enthusiastic,
and he wanted to get to know-him him$_i$.
him: necessarily the already established member of discourse
(i.e. the strong pronoun cannot be "novel").

(42) shows that "accommodation" is unavailable for strong pronominal elements in Greek as is for pronouns in English. *"Afton"* in (42a) cannot be novel (i.e. it cannot refer to the author of the book about Arthur Miller that John read), a fact indicating that strong pronominal elements do not challenge Heim's (1982) analysis. Furthermore, in a context like (42) the undoubled *afton* is actually not acceptable. As was stated in section 2.2.3., (42) is a self contained text, hence the only possible discourse referents for the pronoun would be either the *implicit author* or *Arthur Miller*. Since accommodation is excluded the only other available option is linking to *Arthur Miller*. As we can see, this can be achieved only via *doubling* (42b), something which is predicted by the *Prominence Condition*. In view of the facts in (39)-(42) we may conclude that Modern Greek strong pronominal elements can be licensed either under *heavy stress* (in *novelty* contexts) or via *clitic doubling* (in cases where they have to be *familiar*, i.e. linked to already established discourse referents).[33] This bifurcation is clear in the following cases:

(43) a. ?*(ton) idha afton
?*(him) saw-I him
"I saw him"

b. I mathites mu ?*(**me**) katalavenoun **emena**
The students$_{Nom}$ my ?*(**me**) understand-3pl **me**$_{full\ pronoun}$
"My students understand me"

c. O Petros ?*(**to**) katalaveni **afto**
The Peter$_{Nom}$?*(**it**) understand-3sg **it/this**
"Peter understands it/this"

In (43) the clitics are not optional. They are obligatory unless *afton* is focused (thus being understood as *novel*, e.g. as an answer to a wh-question).

(ii) **Epithets:** definite descriptions functioning quasi-pronominally, that is, with linguistic antecedents are commonly characterized in the literature as *epithets*. Epithets like *the bastard* are typically found in examples like the following:

[33]Thanks to Denis Delfitto for discussing strong pronouns with me.

(44) I tried to visit *John* last week, but I was unable to persuade *the bastard* to see me

Doubling is expected to show up in these cases and, as the examples in (45) indicate, this is indeed what we find:

(45) a. Prospathisa na episkefto *ton Janni* tin perasmeni evdomada
Tried-I to visit *the John* the past week
alla den boresa na *??(ton)* piso *ton malaka* na me dhi
but not able-I to *??(him)* persuade *the jerk* to me see
"I tried to visit *John* last week, but I was unable to persuade *the jerk* to see me"

b. *O Jannis* tha poulage akoma ke tin mana tu alla i Maria
The John would sell even and the mother his but the Mary
par' ola afta **(ton)* agapai *ton typo*
despite all this **(him)* loves *the guy*
"*John* would sell even his own mother, but nevertheless Mary loves *the guy*"

In (45a) the expression *ton malaka* doesn't have to undergo doubling but this is the strongly preferred option. On the other hand, example (45b) is ungrammatical without doubling (on the intended reading). These facts immediately follow from the Prominence Condition and they show that it is not entirely correct to consider Modern Greek doubling as "optional". In cases where a definite description has to be used anaphorically doubling is strongly preferred or even obligatory.

(iii) **Proper Names and Function Definites** (Loebner 1987): proper names may freely undergo doubling in Modern Greek, as many examples in the course of this paper indicate. It is not immediately obvious how these cases are accommodated under the Prominence Condition. Proper Names are clearly referential, but what about familiarity? In particular, there appears to be one significant asymmetry between definite descriptions and proper names, namely that the latter can be used without previous introduction in cases where the former are ruled out (see Loebner 1987 for theoretical discussion). To give one such example, let us consider the following context:

(46) -Xtes to vrady egine kati parakseno:
-Yesterday night something strange happened:

a. Idha **mia** skia/morphi ston ipno mu....
Saw-I **a** shadow/creature in-the dream my....
"I dreamt of a shadow/creature...."

b. #Idha **tin** skia/morphi ston ipno mu....
#Saw-I **the** shadow/creature in-the dream my....
#"I dreamt of the shadow/creature...."

c. Idha **ton** Papandreou ston ipno mu....
Saw-I **the** Papandreou in-the dream my....
"I dreamt of Papandreou...."

d. Idha **tin** **mitera tou Shakespeare** ston ipno mu
Saw-I **the** **mother of Shakespeare** in-the dream my
"I dreamt of the mother of Shakespeare...."

(46) is a context forcing the object NPs in the sentences (a)-(d) into non-familiarity; for this reason, the use of an indefinite *"mia skia/morphi"* in (46a) is felicitous while the corresponding definite *"tin skia/morphi"* in (46b) is entirely odd (as indicated by #). On the other hand, the proper name *"ton Papandraeou"* and the definite *"tin mitera tou Shakespeare"* can be used without problem in this context, as the wellformed examples (46c) and (46d) show. This means that these types of definites can be freely licensed in *novelty*-contexts, a fact which in turn implies that they have different felicity conditions than definite descriptions of the usual type: the former unlike the latter can be used without previous introduction in discourse (assignment of a familiar index or accommodation not required). If this reasoning is correct, we might furthermore wonder how exactly doubling is licensed in these cases, given that the Prominence Condition presupposes familiarity. I think that the observation that doubling is not licensed in contexts like (46) might provide an answer to this question:[34]

(47) -Xtes to vrady egine kati parakseno:
-Yesterday night something strange happened:

a. #**ton**-idha **ton** Papandreou ston ipno mu....
#**him**-saw-I **the** Papandreou in-the dream my....
"I dreamt of Papandreou...."

b. #**tin**-idha **tin** **mitera tou Shakespeare** ston ipno mu
#**her**-saw-I **the** **mother of Shakespeare** in-the dream my
"I dreamt of the mother of Shakespeare...."

[34]Of course, it is always possible to accept the doubling sentences if they are parts of a larger context where *Papandreou* or *the mother of Shakespeare* have been previously mentioned, but definites are also licensed under the same conditions in (46).

Furthermore, doubling constructions including proper names are inappropriate as answers to object wh-questions or even as answers to questions of the type *"what happened"*:

(48) a. Pjon idhes?
Whom you-saw?
"Who did you see?"
b. -#Ton idha ton Petro
-#Him saw-I the Peter
"I saw-him Peter"

(49) a. Ti egine?
"What happened"?
b. -#Ton idha ton Petro
-#Him saw-I the Peter
"I saw-him Peter"

What (47), (48) and (49) indicate is that doubling with *proper names* can be described in terms of *familiarity*: doubled names are inappropriate in *novelty-contexts*.[35] To conclude, the Prominence Condition originally stated for definite descriptions is not being contradicted by proper names.

(iv) **Attributive Definites**: a well known property of definite DPs is that they are ambiguous between a referential interpretation (probably the default interpretation) and an attributive interpretation (Donnellan 1977). In Modern Greek, undoubled definite DPs can be ambiguous between referential and attributive readings. On the other hand, doubled DPs are necessarily interpreted as referential:

(50) a. Spania xaidevo tin mikroteri gata
Seldom pet_{1sg} the smallest cat
"I seldom pet the smallest cat"
b. Spania **tin** xaidevo **tin** **mikroteri** **gata**
Seldom **$Cl_{3sg,fem,acc}$** pet_{1sg} **the** **smallest** **cat**
"I seldom pet the smallest cat"

In (50a) it is possible to assign an attributive interpretation (*"whichever cat is the smallest in several events containing different groups of cats one of which is the smallest"*) to the object DP *tin mikroteri gata*, given an appropriate context (though, admittedly, the referential

[35] As Juan Uriagereka (p.c.) points out, in Asian languages the first occurence of a (non-prominent) name is introduced by a non-topic marker; successive occurences, though, force a topic marker, or else we get obviation. It is easy to see that proper name clitic doubling in languages like Greek strongly resembles proper name topic marking in, for instance, Japanese. It would be interesting to compare the two phenomena in a more systematic way, .

reading is far easier to get). The attributive reading is impossible in (50b) where the doubled *tin mikroteri gata* must refer to a particular cat (from a particular group of cats in a particular event).[36] Similarly, doubling suppresses the attributive reading option in cases like the following:

(51) a. O dikastis katadikase ton dolofono tu Athanasiadi
The judge condemned the murderer of Athanasiadis
se thanato brosta ston Elliniko lao, opios ke an ine aftos o dolofonos
in death in front of the Greek people, whoever this murderer is

b. #O dikastis ton-katadikase ton dolofono tu Athanasiadi
The judge condemned the murderer of Athanasiadis,
se thanato brosta ston Elliniko lao, opios ke an ine aftos o dolofonos
in death in front of the Greek people, whoever this murderer is

The effect of doubling in (51b) is not that strong, presumably because the attributive reading is difficult to get even in (51a). Still, the expression *"opjos ke an ine aftos o dolofonos"* (whoever is the murderer) sounds more odd in (51b) than in (51a), a fact once more pointing towards the conclusion that doubling is incompatible with attributive readings on definites. The connection between the Prominence Condition and the impossibility of attributive readings on definites could follow from the assumption that attributive definites have quantificational force, hence are non familiar, on a par with quantified NPs.

(v) **Generics**: up to now, it looks as if the Prominence Condition may take care of all possible instances of Greek doubling, grammatical or ungrammatical. However, there are some doubling constructions that cannot be straightforwardly accounted for along these lines, thus questioning the correctness or, at least, the completeness of our present conclusions:

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[36]It is interesting to note that we get a similar effect when the definite determiner is used recursively DP internally:

(1) a. Spania xaidevo tin mikroteri gata
Rarely pet-I the smaller cat
"I rarely pet the smaller cat" (ambiguous)

b. Spania (tin)-xaidevo tin mikroteri tin gata
Rarely (her)-pet-I the smaller the cat
"I rarely pet the smaller the cat "(unambiguous)

In (1b) the attributive interpretation is impossible: I can only talk about a particular cat. Doubling seems to be the unmarked option with DPs of this type. The observation that clitic doubling has a function comparable to determiner "doubling" in these cases is in itself interesting; furthermore it might be of some relevance with respect to the acquisition of the conditions licensing clitic doubling in Greek. It is not implausible to assume that the phenomenon of D^0 recursiveness DP internally provides an additional source of information for the (morphological and semantic) conditions controlling the Modern Greek pattern of clitic doubling.

(52) a. Genika (ta) antipatho **ta provlimata**
Generally **(them)** dislike-I **the problems**
"Generally, I dislike problems"

b. I anthropoi den **(ton)** apodexonte **ton polemo**
The men not **(him)** accept **the war**
"Men don't accept war"

As (52) shows, generics may freely undergo doubling in Modern Greek. According to my intuitions, the presence of a doubling clitic is entirely optional in these cases. The condition on doubling of generic DPs is the presence of a definite article, and the grammaticality of these examples could be viewed as a counterexample to the Prominence Condition because, although generic DPs can be claimed to be *referential* in the sense that they express *reference to kinds*, they cannot be claimed to obey the familiarity condition. At first sight then these cases seem to indicate that Greek direct object doubling is subject to more complex conditions than assumed so far. However, there is evidence showing that the Prominence Condition is not being contradicted by generics[37]:

(53) -Tora teleftea mu simveni kati parakseno:
"Lately something strange is happening to me:"

a. Agapo ton polemo
Like-I the war
"I like war"

b. #Ton agapo ton polemo
#It like-I the war
"I like-it the war"

Example (53) presents a generic statement within a novelty context, on the pattern of (47) for proper names. The fact that (53b) is odd (cf. #) indicates that doubling with generic DPs is not optional after all: it looks as if it takes place under conditions similar or identical to those licensing doubling with proper names.

(54) -Pja zoa sixenese?
Which animals detest-2sg
"What animals do you detest?"

a. Sixenome tis araxnes
Detest-I the spiders
"I detest spiders"

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[37]Thanks to Eddy Ruys for drawing my attention to the parallel between proper names and generics and to Norbert Corver for his useful suggestions.

b. #Tis sixenome tis araxnes
#Them I-detest the spiders
"I detest-them the spiders"

(54) illustrates the same point: in a question context doubling of generic objects is ruled out as is doubling of proper names. These observations are well understood under the view of generics as *"Proper Names for kinds"* (cf. Carlson (1977) for all generics, Zwarts (1993) for definite generics, among others). Generics and proper names have similar distribution (i.e. they don't require previous mention in order to be felicitous), comparable doubling options (doubling uniformly excluded in novelty contexts) and identical form: both (i.e. proper names and generics, the latter when not occuring as objects of some stage level predicates preceded by adverbs of quantification like *panta* (always), in which case they may have the form of bare plurals) are ungrammatical without the definite determiner. To conclude, generic NPs seem to challenge the strict familiarity condition on Greek doubling, but we can overcome the problem quite easily by resorting to certain considerations concerning *novelty* as well as by appealing to the semantic, morphological and distributional similarities between proper names and generics.

(vi) **Partitive and Specific Weak NPs**: at this point, I don't think it is necessary to provide any further examples illustrating the ungrammaticality of Greek doubling with these NPs, as they have been extensively discussed in a previous section. If I understand the issue correctly, there is no agreement whatsoever in the literature on the exact semantic characterization of such readings. Heim (1982) viewed specific weak NPs as a problem for her semantic account of definite and indefinite noun phrases because they instantiate an intermediate case that cannot be straightforwardly accommodated within her binary system of *familiar vs. novel* indices. Nevertheless, it seems clear that the Prominence Condition implies familiarity in its strictest possible sense and, from this point of view, we would not expect specific or partitive indefinites to undergo doubling in Greek, because, *"...after all, they are indefinite in some respect. At least their felicity conditions differ systematically from those of genuine definites.."* (Heim 1982:224). More specifically, even if we accept the proposal of Enç (1991) that partitiveness and specificity always implies linking to previously established discourse referents there still is a clear difference between definiteness and specificity which is responsible for their distinct felicity conditions. Enç (1991) suggests that there are various possible ways in which linking to previous discourse can be accomplished and that, while definiteness involves a strong link, that of identity of reference, specificity involves a weak link, that of being a subset of or standing in some recoverable relation to a familiar object. Since the Prominence Condition implies the strongest possible link to familiar objects it will always be violated by partitives and specifics.

(vii) **"every"/ "most"/"all"/"the every"/**: doubling is impossible with universally quantified NPs headed by the element *"kathe"* (every) in Greek, as the following examples show:

(55) a. ***Ton** idha **kathe** **andra**
***Him** saw-I **every** **man**
"I saw every man"

b. ***Ton** idha **kathe** **andra** **eki mesa**
***Him** saw-I **every** **man** **there**
"I saw every man there"

c. ***Ton** idha **kathe** **enan** **apo** **tus andres**
***Him** saw-I **every** **one** **of** **the men**
"I saw every one of the men"

The ungrammaticality of these sentences is compatible with the Prominence Condition on Greek doubling: quantified NPs do not refer to entities, hence the strict familiarity condition on Greek doubling can not be observed in cases like (55). Notice that the status of doubling does not improve when the universal quantifies over contextually relevant sets as in (55b) and (55c). Even if we treat the latter QPs as *D-linked* following Enç (1991) their ungrammaticality can be dealt with on a par with partitives and specifics (cf. above).

Unfortunately, strong determiners are not altogether unproblematic for the Prominence Condition. In particular, there appear to be two counterexamples to our analysis so far:

(56) O Jannis (tous) apoxeretise tous perissoterous filous tu
The John (them) said goodbye the most friends his
apo xtes
from yesterday
"John already said goodbye to most of his friends yesterday"

(57) O Jannis (tous) apoxeretise olous tous filous tu
The John (them) said goodbye all the friends his
apo xtes
from yesterday
"John already said goodbye to all of his friends yesterday"

In Modern Greek, there is no special word for *"most"*: its meaning is expressed through the comparative form *"perissoteros"* (more) preceded by the definite article. As we see in (56), direct object doubling is grammatical. Similarly, (57) shows that it is possible to double NPs headed by the element *"ola"* which corresponds to *"all"*. The conditions under which doubling is allowed in these two cases seem identical to those licensing doubling of proper names or generics, namely *familiarity* of the *sets* which these elements quantify over. On the reasonable assumption that expressions like *"tous perissoterous filous tu"* and *"olous tous*

filous tu" correspond semantically to the English strong QPs *"most-N"* and *"all-N"*, respectively, the acceptability of the structures (56) and (57) questions the explanatory value of the Prominence Condition with respect to the impossibility of doubling with strong quantified NPs in sentences like (55). What the relevant strong QP data seem to show is a clear bifurcation depending on the form of the QPs: doubling is grammatical with phrases headed by the "definite" determiner (cf. (56), (57)) and ungrammatical otherwise (55).[38]

At first sight then, it looks as if (56) and (57) would strongly suggest that the condition on doubling of strong quantificational NPs in Modern Greek is not a semantic one, as originally proposed, but rather a morphological one, namely the presence of the definite article (presumably this element should be analysed as a strong NP-marker rather than a true definiteness marker). However, the ungrammaticality of the following example seems to indicate that this would be a premature conclusion:

(58)	O	Jannis	(?*ton)	apoxeretise	ton kathe	filo	tu apo	xtes
	The	John	(?*him)	said goodbye	the every	friend	his from	yesterday

"John already said goodbye to each of his friends yesterday"

Intuitively speaking, the Modern Greek expression *"o kathe-N"* (the every N) corresponds to English *"each-phrases"*: once again, the determiner is not obviously used to express definiteness. In this case doubling is ruled out and this clearly shows that the presence of the determiner is not a sufficient condition in order for strong QPs to undergo doubling: the ungrammaticality of (58) can be accounted for in terms of the Prominence Condition without problem. Cases like (58) thus constitute the conclusive piece of empirical evidence indicating that *referentiality* is a relevant factor for Modern Greek doubling. As for the grammaticality of (56) and (57), we would have to stipulate that DPs headed by the elements *"ola"* and *"ta perissotera"* act as names for sets rather than real quantified NPs, at least in the doubling constructions under discussion. That this suggestion is not completely ad hoc is supported by a number of considerations:[39]

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[38] Strictly speaking, there is a structural difference between *"tous perissoterous N"* and *"olous tous N"*: the definite determiner seems to be the head of the former DP, while this is not so obvious for the latter. However, we could maintain the idea that the definite determiner is the head of the doubled DP *"olous tus filous"* if analysed "olous" either as a specifier or as an adjunct (following Sportiche 1988).

I would like to point out that this type of doubling (i.e. with strong universal QPs) is very difficult with focus preposing. This could be taken to suggest that these cases are cases of "right detachment" and not true doubling-examples. However, since I don't detect any heavy stress on the verbal complex in examples like (55) and (56) I will try to discuss them as if they were cases of true doubling. Obviously, if it turns out that these cases are instances of "right detachment" the problem for the Prominence Condition disappears.

[39] This traetment and the scope argument have been suggested to me by Craig Thiersch (personal communication).

First of all, we can show that unlike *"kathe-N"* or even *"ton kathe-N"* which may enter into scope ambiguities, sentences containing *"tus perissoterous-N"* and *"olous tous-N"* are unambigous:

(59) a. Kapjo pedhi arxiothetise kathe arthro
Some child filed every article
"Some child filed every article"

b. ∃x, ∀y, such that x filed y

c. ∀y, ∃x, such that x filed y

(60) a. Kapjo pedhi arxiothetise to kathe arthro
Some child filed the every article
"Some child filed every article"

b. ∃x, ∀y, such that x filed y

c. ∀y, ∃x, such that x filed y

(61) a. Kapjo pedhi arxiothetise ola ta arthra
Some child filed all the aticles
"Some child filed all the articles"

b. ∃x, ∀y, such that x filed y

(62) a. Kapjo pedhi arxiothetise ta perissotera arthra
Some child filed the most articles

b. ∃x, for *most* y, such that x filed y

Examples (59) and (60) seem to have a reading in which for every article there is some child who filed it, i.e. a reading in which the object QP has wider scope than the subject.[40] The wide scope reading is impossible to get in (61) and (62). This opposition can be taken to indicate that the object NPs in (61) and (62) are not regular quantified expressions. If it is right that scope relations in Greek are not in accordance with c-command relations (as (59) and (60) indicate) then the fact that (61) and (62) are unambiguous shows that DPs headed by *"ola"* and *"ta perissotera"* behave in a peculiar way with respect to whatever mechanism underlies scope assignment: for instance, they are not allowed to undergo QR.[41] [42]

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[40]My impression is that *"kathe-N"* and *"o kathe-N"* correspond to "every" and "each" in the sense that (59b) is the preferred reading for (59a) and (60c) is the preferred reading for (60a).

[41]For this argument to work we have to assume crucially that the wide scope readings are possible in (59) and (60). I think that this is correct, but the judgements are rather subtle. This is also the case in English where for a sentence like *"some man loves every woman"* the wide scope reading for the universal is usually assumed to exist, though this claim has also been denied in the literature (for more details, cf. Ruys (1992, 1994b) among others).

[42]However, cf. Beghelli (1993) who argues that only distributive quantifiers provide real evidence for movement at LF. According to Beghelli (1993), quantifiers that don't move take scope over just their S-Structure c-command domain: as quantifiers, however, they are fully capable of making c-commanded QPs referentially dependent. Beghelli (1993) does not consider the possible readings of QPs headed by strong determiners like "all" or "most". He only discusses modified numeral QPs like "fewer than six men", "more than six men" etc. Obviously, if he is right, then the argument provided here is irrelevant to the point I am trying to make.

Secondly, *most-QPs* behave in a peculiar way in other respects too. For example, *"most"* is associated with the definite determiner in many other natural languages, even in languages that don't make systematic use of the definite determiner in the semantically obscure manner instantiated through (58). This seems to justify the view that (53) is not enough to challenge the validity of the Prominence Condition for Greek doubling. Furthermore, Porteño Spanish *"all the-Ns"* like their Greek counterparts can be claimed to also have exceptional properties with respect to clitic doubling (Suñer 1988:410-411):

(63) a. Aunque ya terminó de entrevistar*las*
Even though already finished-3sg interviewing-*them*$_{fem}$
a *todas las candidatas* aún no se decidió por una
a *all the candidates* yet not was decided on one
"Although he already finished interviewing all the candidates, he has not yet decided on one

b. **Lo* entrevistaron a *cada candidato* por media hora
**Him* interviewed-3pl a *each candidate* for half hour
"They interviewed each candidate for half an hour"

Suñer (1988) observes that *todo* in (63a) co-occurs with the definite determiner and proposes to treat this QP as *"specific"* on a par with *partitive DPs*. Her treatment is supported by the fact that in structures where *todo* is [-count] (i.e. not allowed to co-occur with the determiner, cf. Suñer 1988 for details), doubling is ruled out. On the other hand, the Modern Greek facts show that it is not clear whether we can semantically assimilate *"all the Ns"* to *"overt partitives"* because direct object doubling is allowed with the former but disallowed with the latter, as we have seen. The alternative, namely that *"all the-N"* expressions are names for sets rather than true QPs, has the advantage that it can successfully account for the data from both languages. Finally, consider floated quantifier constructions as in (64):

(64) a. Marie *les* a *tous* pris
Mary *them* has *all* taken
"Mary took them all"

b. I Maria *tous* pire *olous*
The Mary *them* took *all*
"Mary took them all"

Sportiche (1992) analysed these constructions as involving a doubled QP of the form [Q[$_{DP}$pro]. In French this QP is assumed to raise to the [SPEC,Cl$_{acc}$] position, whence it may

undergo further movement (arguably of the A'type). In this way, Sportiche can account for quantifier climbing structures:[43]

(65) a. Il a *tous* fallu [que Louis *les* lise]
It was *all* necessary [that Louis *them* read]
"It was necessary that Louis read them all"

b. Itan *ola* aparaitito [na *ta* diavasi]
Was-3sg *all* necessary [SUBJ *them* read]
"It was necessary to read them all"

If Sportiche is right, the fact that [Q[$_{DP}$pro] has to be doubled in Greek, as in many other non doubling languages, shows that the element *ola* has exceptional properties with respect to its ability to undergo doubling. However, the doubling analysis for these constructions would clearly raise a number of non trivial questions. For example, why is this the only permissible instance of "doubling" in languages like French? Why is "doubling" with stranded quantifiers always obligatory in Greek, even in *novelty contexts*? These objections question the correctness of Sportiche's analysis. Nevertheless, the very existence of these constructions can be taken as a further piece of evidence that the quantifier *ola* has peculiar properties.

To conclude, in this section I have demonstrated that the Prominence Condition qualifies as a descriptively adequate device for the characterization of direct object doubling of definites in Greek, because it makes correct predictions with respect to the impossibility of doubling with the various types of novel definites discussed in the literature. Furthermore, I systematically went through the doubling options of different classes of noun phrases in Greek showing that the Prominence Condition may correctly accommodate most of them. Finally, I pointed out some data which are problematic for the Prominence Condition and apparently contradictory: definite generics and *"most"/"all"*-strong quantified NPs do not seem to be familiar or referential, yet they may undergo doubling. The problem posed by generics has been successfully dealt with on the basis of considerations concerning their similarities to proper names; as for the problems posed by strong quantified NPs, I had no satisfactory solution to offer, except noticing a number of peculiarities that might justify their treatment as irregular QPs.

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[43]As we can see, quantifier climbing constructions exist in Modern Greek as well. These constructions are interesting because it is not clear what type of movement they instantiate. Sportiche argues that quantifier climbing can not be head movement since the complementizer does not constitute a relativized minimality barrier for it and it is also not NP-movement because NP movement out of a tensed clause is forbidden in French; hence it is A'movement. The analysis of quantifier climbing constructions has important implications with respect to the analysis of clitic climbing constructions (as NP movement or head movement) because in Greek clitic climbing is entirely absent while quantifier climbing is very productive. Sentences like (70a) and (70b) challenge the analysis of quantifier stranding proposed in Sportiche (1988) because if the stranded Q gets stranded by movement of the doubled DP (XP* in Sportiche's terms) out of the QP, the raised QP will contain an unbound trace.

2.2.5. Summary: differences and similarities between Greek, Romanian and Spanish

Summarizing so far, in this section we looked at Modern Greek direct object doubling constructions, focusing on the differences and similarities between Greek and Romanian/Spanish. The two types of doubling are clearly distinct, with respect to *(i) Kayne's Generalization*, *(ii) Animacy Restrictions*, *(iii) Definiteness vs. Specificity*. However, a uniform analysis for both is strongly supported by the following properties they have in common:

(i) *Distributional properties of doubling clitics as opposed to object agreement markers.* While true object agreement morphemes in languages like Basque are free to co-occur with DPs of any semantic kind, doubling clitics are not. This can be viewed as one formal criterion according to which doubling clitics can be assumed to structurally differ from pure object agreement markers. In Modern Greek, [-definite] DPs cannot be doubled, similarly to Romanian/Spanish, where doubling of [-specific] DPs is ruled out. Hence, from the point of view of their distribution, Modern Greek doubling clitics pattern together with Romanian and Spanish clitics.

(ii) *Operator-like properties of doubling clitics.* Furthermore, Modern Greek clitics have interpretational import: they force their associated definite DPs to fall under the Prominence Condition, which states that certain types of definite NPs (prototypically pronominals) are radically familiar. This is another major formal difference between doubling clitics and object agreement affixes; hence, the conclusion that the syntax of Modern Greek doubling shares crucial properties with the syntax of Romanian and Spanish doubling seems justified, especially since the right dislocation alternative for Greek doesn't really work, as we saw.

2.3. Questions of Representation

This section focuses on the problem of the syntactic representation of Modern Greek clitic doubling constructions. I will attempt to propose an analysis for Modern Greek clitic doubling that takes into consideration the similarities and differences between Modern Greek and Romanian/Spanish. In particular, I will explore two questions: (i) how can we account for the properties Modern Greek, Spanish and Romanian have in common? and (ii) what is the most plausible way in which the language-particular properties of clitic doubling constructions can be derived?

A preliminary remark on *question (i)*: the view adopted here is that the similarities between the three tokens of doubling can be captured if their syntax is assumed to be uniform. As was pointed out in section 2, there are clear differences among three

superficially related phenomena, namely (a) Doubling Constructions of the Spanish, Romanian type, (b) Right Dislocations (c) Object Agreement Phenomena of the Basque type. Given that the Modern Greek cases described above share crucial properties with the well established (Spanish and Romanian) structures of type (a) the idea that the kind of analysis ascribed to Modern Greek doubling is identical to that of its Romanian/Spanish counterparts is worth pursuing.

The more general problem of the proper representation of clitic doubling constructions is not settled at all and is therefore of major importance for the present discussion. I will initially argue that Sportiche's (1992) theory has certain empirical and conceptual advantages that justify an analysis of doubling along these lines. However, as I will demonstrate later on, this theory, as it stands, fails to predict the various idiosyncratic properties of clitic doubling constructions crosslinguistically. I will conclude that a reformulation of Sportiche's (1992) original proposal is necessary in order for parametric variation to be captured. The notion "Specificity" which is crucial for Sportiche's overall analysis will be investigated in more detail. First of all, some terminological problems having to do with the often confusing way *Specificity* is used in the literature will be pointed out. The idea that scrambling and doubling are two different variants of one and the same basic configuration will be preserved, and the fact that clitic doubling is subject to more restrictions than scrambling will be added to the problems that should be solved. The conclusion of this section will be that scrambling and doubling are similar from a syntactic and an interpretational point of view. Both constructions, however, are problematic for current syntactic theory, because they are, to a certain extent, optional. The question of optionality makes it very difficult to express the correlation between syntax and interpretation in a straightforward manner (i.e. to postulate a single morphological and/or semantic feature which triggers syntactic placement).

2.3.1. Some preliminary observations on the Movement vs. Base Generation issue

Before discussing specific theories on doubling, let us briefly summarize the *movement vs. base generation* problem raised by clitic constructions, which is crucial for the evaluation of these theories.

The complementarity vs. lack of complementarity between object clitics and full DPs is a well known puzzle in the literature. The nature of clitics cannot be fully understood unless their syntactic status becomes more transparent: are they affixes base generated outside VP or argumental elements projected in the canonical object position and then moved higher up? The question is almost as old as the study of clitics within generative grammar (cf. Sportiche 1992 for a review).

At a purely descriptive level, its seems natural to conclude that the characterization of clitics as affixes or argumental elements in a particular language depends on the availability of doubling in this language. In doubling languages, clitics are affixes and for this reason they are allowed to co-occur with argument DPs; on the other hand, in non-doubling languages, clitics are arguments and this is the reason why they are not allowed to co-occur with full DPs.

Things are not as simple as that, however. First of all, a non-movement analysis in the traditional sense should explain why these clitics often appear on a host to which they bear no lexical relation.[44] Furthermore, a base generation analysis of clitic doubling constructions cannot capture the fact that clitics and doubled phrases are in a possible movement relationship, as has been pointed out by Sportiche (1992) and Uriagereka (1994a) among others. Finally, it is well known that the form and the syntactic properties of doubling clitics are identical to those of their non-doubling counterparts, up to the doubling property of the former.[45] Therefore, the strongest and most attractive hypothesis would certainly be to maintain a uniform analysis for both, rather than treating the former as different syntactic elements than the latter.

According to a widely accepted view in the traditional generative literature on clitics, a unitary theory of cliticization is not challenged by the *complementarity vs. lack of complementarity* between clitics and full DPs: the language-particular properties of, for instance, Romanian and French with respect to this aspect of cliticization can be accounted for in an elegant way by appealing to Kayne's Generalization.

Kayne's Generalization has always been considered as the most fundamental property of clitic doubling constructions, precisely for this reason: it seemed promising to try to derive what may be labelled as the "Clitic Doubling Parameter" from the availability of dummy prepositional Case assigners in some languages, but not in others. This was, for example, Jaeggli's (1982) original proposal: clitics were assumed to absorb Case, and doubling constructions were accordingly ruled out as Case Filter violations unless the NPs in object position could be Case licensed by means of an independent device.[46] The prepositional

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[44]But, cf. Emonds (1993) for a spelled out theory of clitics as affixes that accounts for this problem.

[45]But cf. the discussion at the end of this section which shows that it is not clear whether we can fully assimilate doubling clitics to their non doubling counterparts.

[46]For a spelled out theory of clitic doubling along these lines, cf. Borer (1984): she viewed clitics as overt instantiations of the Case features of Verbs. For an interesting attempt to account for the Modern Greek doubling facts within the general Case-absorption framework, cf. Drachman (1983, 1985): he used the hypothesis that, in Modern Greek, a local Case Copying Rule is available, which allows for clitic doubling constructions to emerge, in apparent violation of Kayne's Generalization (and cf. Fykias 1988 for extensions on this core idea). Also, cf. Jaeggli (1986) for a revision of the original proposal of Jaeggli (1982), and Dobrovie-Sorin (1990), who adopted this view on doubling and proposed further for Modern Greek that the reason for the violation of Kayne's generalization is the fact that accusatives in Greek are morphologically marked, and morphological inflections count as explicit Case markers: in this way, she essentially assimilated morphological

elements *pe* or *a* in Romanian and Spanish respectively were assumed to serve as such "dummy Case assigners" allowing for the doubled NPs to surface. On the other hand, the general unavailability of such prepositional elements in Italian or French was considered to be responsible for the lack of clitic doubling in those languages. However, as we saw in section 2.2., there are many reasons why one would like to question this particular interpretation of Kayne's Generalization. This means that the problem of the Clitic Doubling Parameter is still open. Two recent general syntactic proposals on the underlying representation of clitics are presented next, namely Torrego (1988)/Uriagereka (1988, 1992, 1994) and Sportiche (1992). Both try to provide some principled answers to the questions presented above, aiming at a unified account of clitic constructions, and for this reason they are both worth considering.

2.3.2. Alternative Representations of Spec-Head Agreement.

Clitic doubling is a form of agreement between an X^0 and an XP: the clitic-head and the doubled DP agreeing in phi-features. The most natural device for expressing such relations in Principles and Parameters theory is *Spec-Head agreement*. Two recent analyses explore alternative ways in which this core idea might be implemented further:

(a) Uriagereka (1988, 1992b, 1993, 1994a), basing himself on unpublished work by Torrego, proposed that doubling clitics start as transitive determiners selecting for zero pronominal elements (pros) as their complements and having the doubled DPs as specifiers.[47] Languages are assumed to differ with respect to whether their syntax allows

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cases to dummy prepositions. However, the fact that in Greek Accusative is overt does not mean that is not structural; passivization proves this point:

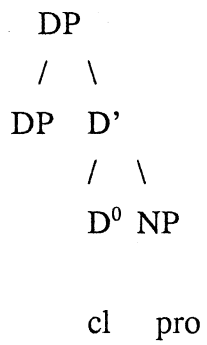
(i) I Maria tu to edhose tu Janni to vivlio
The Mary to-him it gave to John the book
(ii) To vivlio tu dothike tu Jianni apo tin Maria
The book to-him was given to John by Mary

Since nothing in the theory predicts that overt structural Case should be treated differently from Abstract Case, Dobrovie-Sorin's approach to Greek doubling will not be considered here any further. The fact that there is no need for a preposition in Greek direct object clitic doubling constructions is viewed as counterevidence to Kayne's Generalization (many thanks to Joe Emonds for making this point clear to me).

[47]Corver and Delfitto (1993) have proposed independently an analysis of cliticization which crucially depends on the view of pronouns as determiners. They propose for non doubling constructions that the DPs headed by clitics are forced to undergo overt (early) movement to AgrO (and later higher up) for reasons having to do with the semantic defectiveness of clitics, as opposed to strong pronominal elements. This analysis does not intend to address the question of the Clitic Doubling Parameter. In fact, clitic doubling constructions are not considered at all.

for such complex DPs to be generated or not.[48] The classical *movement vs. base generation* dilemma for clitic constructions is solved in quite an elegant way: all clitics are assumed to uniformly vacate their VP-internal position for the same reason;[49] in addition to that, clitic doubling languages have the language-particular property that they are able to generate complex DPs like those illustrated below:

(66)



The main advantage of this proposal, which goes back to Postal's (1966) formal treatment of pronominal elements in general, is that it captures the morphological similarity between clitics and some determiners: on this view, clitics look like determiners because they are actually determiners, the different syntactic properties of the two types of elements being attributed to independent factors (i.e. the type of complement they select). This structure will not be adopted here for reasons that will be discussed immediately.[50]

It has been convincingly argued for by Roberts (1992) and Sportiche (1992) among others that clitic-movement processes should be decomposed into two further substeps: the first step has the properties of XP movement (in particular NP-movement) and the second step is Head movement. The arguments in favor of this analysis are largely based on the blocking effects of intervening subjects on clitic placement, participle agreement facts and the similarity

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[48]Strictly speaking, this is an oversimplification. Languages are also different as to whether F is syntactively active or not, whether AgrO or F is involved in overt cliticization, etc. (cf. Uriagereka (1994a) for details).

[49] In earlier work Uriagereka has argued that clitics undergo X^0 movement to some VP-external discourse-interface position F due to their nature as [+ specific] elements (cf. Uriagereka (1988), (1992b)). In more recent work (1993, 1994a) Uriagereka argues that clitic placement involves an intricate syntax with a stake in PF linearization and LF valuations of reference. The former prevents clitic elements in standard complement positions, and the latter targets an F position, a site which is involved in point of view. There are several strategies of cliticization depending on whether F is syntactically active or not. When not, AgrO is involved. The NP-movement properties of cliticization (cf.below) are derived since the pro complement of D moves to [Spec, AgrO] in languages like French (Uriagereka (1994a) assumes that the NP-movement properties can be derived for doubling constructions as well).

[50] I would like to emphasize that I do not necessarily reject Uriagereka's syntax but only (66) as an underlying structure. I find it hard to evaluate Uriagereka's overall proposal because his system is very complex and the predictions made for a language like Greek are unclear to me. Uriagereka and Sportiche address similar questions and the specific answers they provide are not necessarily incompatible with each other. The source of "specificity" is different though. Also, it seems to me that under Sportiche's proposal proposal the similarities between scrambling and doubling (cf. below) can be accommodated in a straightforward manner.

between long NP movement and clitic climbing in restructuring contexts (Roberts (1992), Sportiche (1992)):

First of all, it is well known that NP movement over an intervening subject position gives rise to strong ungrammaticality:

(67) *John seems that it is likely to win

Sportiche (1992) following Kayne (1975) argues that contrasts like the one illustrated in (68) can be accounted for along similar lines.

(68) a. Jean a laisse Pierre parler a Marie
Jean has let Pierre speak to Marie
"Jean let Pierre speak to Marie"

b. Jean l'a laisse lui parler
Jean him-has let to-her speak
"Jean let him speak to her"

c. *Jean lui a laisse Pierre parler
*Jean to-her has let Pierre speak
"Jean to-her let Pierre speak"

Example (68c) can be treated as a SSC violation on a par with (67): the clitic cannot reach the main clause over the subject of the embedded clause. This can be viewed as one piece of evidence that clitic placement displays NP-movement properties.

A second argument is based on participle agreement facts in languages like French and Italian: the participle may or must agree with its accusative direct object when the object precedes the participle. Agreement is ruled out when the object follows:

(69) a. *Jean a peinte la porte
*Jean has painted$_{agr\text{-}o}$ the door
"Jean painted the door"

b. La porte que Jean a peinte t
The door that Jean has painted$_{agr\text{-}o}$ t
"The door that Jean painted"

c. Jean l'a peinte
Jean it-has painted$_{agr\text{-}o}$
"Jean has painted it"

Under the assumption that Participle-Object agreement is the reflex of the relation between a head and its specifier, the data in (69) can be accounted for as follows. In (69b) and (69c) there is an intermediate specifier through which the wh-phrase and clitic have moved. On the

other hand, in (69a) agreement is excluded because the object doesn't move overtly. That this approach is on the right track is supported by the observation that in languages like French and Italian the participle obligatorily agrees with the subject of unaccusatives (cf. Sportiche (1992), Kayne (1993b) among others). Given that unaccusative constructions involve NP-movement, the fact that clitic placement patterns with XP movement (NP-movement, WH-movement) in being able to trigger agreement can be straightforwardly explained under the hypothesis that clitic placement also involves XP movement.[51] To summarize so far, if participle agreement is triggered by Spec-Head agreement, then the clitic must have undergone XP-movement into the specifier of the participle.

The observation that clitic climbing behaves like long object preposing in restructuring contexts (Rizzi (1982), Burzio (1986), Sportiche (1992), Roberts (1992)) strongly supports the idea that clitic placement involves NP-movement. More specifically, the two phenomena are subject to identical constraints, a fact indicating that both display the same type of movement. The examples under (70) and (71) below illustate this point. Note that clitic climbing and long NP-movement may take place across a wh-phrase (70a), (71a) but not across a wh-head (70b), (71b). At first sight, under a head-movement analysis for clitic climbing the opposition in (70) can be accounted for in terms of the Head Movement Constraint (HMC). However, this analysis cannot be extended to (71). On the other hand, if both processes instantiate NP movement which presupposes restructuring, and if restructuring is incorporation of a head from the lower clause to a head in the higher clause, the similarity between (70) and (71) follows (restructuring can not take place due to the intervening head *"se"*).[52]

(70) a. ?Mario, non *lo* saprei a chi affidare
?Mario, not *him* know-I to whom to entrust
"Mario, I would not know to whom to entrust him"

b. *Su questo problema, non *lo* saprei se consigliare
*On this problem, not *him* know whether to advise
"On this problem, I would not know whether to advise him"

(71) a. ?*Certe riposte* non si sanno mai come dare
?*Certain answers* not si knows never how to give
"One never knows how to give certain answers"

---

[51]Note that this argument is not immediately compatible with the "Obligatory Case Parameter" proposed by Bobaljik (1992) and Chomsky (1992). Here I follow Laka (1993), (1994) who reformulates the Obligatory Case Parameter in such a way that the present argument can be maintained. Furthermore, I assume that in unnacusative constructions AgrO may check the agreement features of the argument despite the fact that Tense is responsible for its Case. Lasnik (LOT AIO-courses winter 1994) has reached a similar conclusion for there-sentences.

[52]cf. Sportiche (1992) and Roberts (1992) for arguments that restructuring phenomena always involve NP-movement rather than head movement (contra Kayne 1989).

b. *Certe riposte non si sanno mai se dare
*Certain answers not si knows never whether to give
"One never knows whether to give certain answers"

The analysis of clitic movement as involving a phrasal movement step has one major advantage, namely it reconciles the view of clitic placement as head movement with the Head Movement Constraint. Note that under a rigid X^0-movement analysis of cliticization, the clitic cannot leave its VP-internal position to move to its surface position without violating the HMC. Of course, it is always possible to relativize the HMC in one way or other but it would be desirable to avoid such relaxations of the HMC if possible.[53] On the other hand, the NP-movement analysis allows us to maintain the view of X^0-cliticization as a highly local process, thus dispensing with most of the problems posed by the HMC. Furthermore, there is strong empirical evidence that clitic climbing involves NP-movement as far as [Spec,AgrO] of the higher clause. Clitic-climbing triggers agreement on the participle of a restructuring verb:

(72) Maria *li* ha volu*ti* prendere
Maria *them* has wanted-*agr* take
"Maria wanted to take them"

If participle agreement is analysed as described above, then the clitic must have undergone XP movement into the specifier position of the participle of the higher clause.

To conclude, there are reasons for analysing clitic placement as a process involving NP-movement followed by local X^0 movement.[54] The question is whether the underlying structure (66) would allow for such an analysis of clitic doubling constructions.

First of all, let me point out that it is quite evident that doubled DPs in clitic doubling languages do not occupy some position higher in the tree. For example, they are not allowed to precede past participles:

(73) *Ton exo *ton diefthinti* sinantisi
*Him have-I *the director* met
"I have met-him the director"

---

[53] cf. Roberts (1991), Haverkort (1993) among others.

[54] Uriagareka (1994a) analyses cliticization as a process in which X^0 movement and XP movement take place simultaneously. This accounts for the NP movement properties of cliticization. The HMC is not discussed. Norbert Corver (p.c.) points out that a possible way of retaining the intuition that doubling clitics are determiners without giving up the idea that cliticization involves an initial XP movement step would be to analyse the double not as specifier but as an adjunct to the clitic phrase which remains stranded. I am ignoring this possibility here.

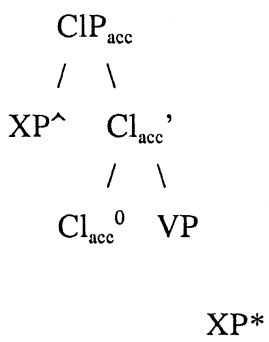
Example (73) can be taken to indicate that doubled DPs (like their undoubled counterparts) do not undergo overt movement. On the other hand, in (73) the clitic precedes the aspectual auxiliary. This means that the clitic has undergone overt X^0 movement. Recall from the discussion above that there are reasons to propose that the X^0 movement step of clitic placement is highly local and takes place after XP movement. This would imply that first the whole complex DP (66) moves to [Spec, AgrO] and then the clitic-head moves higher up. However, (73) is expected to be grammatical under this analysis, a prediction contrary to the fact. In other words, if it is correct that doubling clitics have identical syntax to their non doubling counterparts (cf. Sportiche 1992 for conceptual arguments in favor of this view) and if the two-steps analysis of cliticization is on the right track, then the structure (66) has the problem that it cannot express this similarity in a straightforward manner. Although it can be maintained that doubling constructions display XP-movement properties (cf. fn 55) it cannot be maintained that X^0 cliticization is a highly local process following XP movement.

Nevertheless, I would like to stress that most arguments in favor of an XP movement step are largely based on phenomena which take place in non-doubling languages and are therefore problematic for (66) only to the extent that the Uniformity Hypothesis for all clitic constructions is maintained. For example, clitic doubling languages do not show participle agreement; hence, the type of movement displayed in doubling constructions cannot be directly tested on the basis of participle agreement phenomena. However, by the Uniformity Hypothesis, an XP movement-step through the specifier of the participle must be postulated for doubling constructions as well. Otherwise, we implicitely give up the idea that doubling constructions have identical syntax to their non-doubling simple cliticization counterparts, an assumption which might turn out to be correct, but which is nevertheless not the strongest and most attractive hypothesis. One final point. A potential empirical argument against the X^0-right-at-the-beginning analysis of cliticization in clitic doubling languages might be based on the observation that there are good reasons to analyse clitic climbing as XP-movement rather than X^0 movement (cf. above). Given that clitic climbing does seem to occur in Spanish doubling constructions (cf. Uriagereka 1988), we would have one direct piece of evidence that doubling constructions also display NP-movement properties.

(b) Sportiche (1992) proposed a uniform account of clitic constructions which is technically more easy to implement with respect to the issues presented so far. According to this analysis, clitics are functional heads heading their own projection: they license a particular property on a designated argument with which they agree in phi-features (i.e. the "doubled DP" in cases of doubling). Explanatory adequacy is claimed to be the main conceptual motivation for this type of approach. Since clitic constructions arguably show properties of XP-movement, and given that, within the checking theory of Chomsky's (1992) and subsequent work, any type of XP movement always involves the same type of structural

analysis, namely movement demanded by specifier-head licensing, the idea that the kind of analysis ascribed to clitic constructions is identical to all other types of movement configurations corresponds to the null hypothesis.

(74)



In figure (74), the (overt or covert) XP* related to the clitic has to move to the XP^ position at some point (overt syntax or LF). In this way, the agreement between Cl and XP* is sanctioned. Under this analysis, the agreement relation between the clitic and the XP* is derived as a spec/head relation, and the locality relation between the Clitic and the corresponding XP* follows from the necessary movement relationship between the XP* and the XP^. Clitic doubling minimally differs from non-doubling in that the XP* is overt in the former and covert in the latter. In this way, the syntax of clitics is fully assimilated to that of other functional heads.

From a theoretical point of view, under the general schema (74) it is not only possible to analyse all types of clitic constructions in a uniform way, but it is also possible to assimilate the syntax of clitics to that of any other type of movement construction. From a technical point of view, this account has the advantage that it is compatible both with the *base generation* and with the *movement* theories of clitics, each of which is supported by strong arguments.[55] Sportiche manages to offer an interesting way out of the *movement vs. base generation* problem which correctly derives the XP-movement properties displayed by clitic-constructions. The idea that clitics are base generated in pre-existing slots is actually a restatement within the current framework of the base generation approaches towards clitics

[55] Two problems arise from this view on clitics, which will not be addressed here: (a) the striking similarity (in fact, identity in Modern Greek) between clitics and determiners is left unaccounted for: from this point of view, the alternative analyses proposed by Torrego, Uriagereka, Corver and Delfitto among others are certainly preferable. Note however, that first and second person clitics behave like their third person counterparts with respect to many aspects of cliticization: the determiner/clitic similarity issue does not arise in this case. (b) As pointed out to me by Anna Cardinaletti, in Sportiche's theory the actual landing site of the clitic (left adjunction to the highest functional node, or incorporation to an empty functional head like Uriagereka's F, or Cardinaletti and Roberts' (forthcoming) Agr1°) is not really discussed. Furthermore, the technical details concerning the process and the motivation of local cliticization higher up in the tree are not really addressed (cf. the very tentative discussion in Sportiche 1992: 41-43). This shows that Sportiche's theory cannot be the whole story.

proposed by Jaeggli (1982, 1986), Borer (1984), Suñer (1988) among others, which were based on the lack of complementarity between clitics and full XPs displayed in clitic doubling structures. On the other hand, the proposed XP-movement part constitutes an important improvement upon these theories because it directly accounts for the fact that clitic constructions show XP-movement properties which are subject to locality conditions characteristic of movement.

Finally, the fact that direct object (doubling) clitics have different properties from ordinary object agreement markers, as was pointed out in section 2.2., seems to justify a separate structural representation of the two (the former under a Clitic-node which has semantic properties, the latter under an AgrO-node which is purely morphological in nature). Moreover, Sportiche's proposal allows us to capture the similarities between clitic doubling and Germanic scrambling/object shift, as will be pointed out later on. For these reasons, we may conclude that Sportiche's view on clitic constructions is conceptually and empirically well motivated and try to handle the crosslinguistic properties of clitic doubling constructions along these lines.

2.3.3. The Generalized Licensing Criterion and the Clitic Doubling Parameters

In figure (74), the XP* has to move to the XP^ position at some point (overt syntax or LF). The obvious question to ask is what motivates this movement. In order to answer this question, Sportiche pushed further the parallel between the syntax of clitics and that of movement. Under the assumption that wh-movement is motivated by the Wh-criterion,[56] he attributes the XP*-to-XP^ movement to the so called *clitic criterion*:

(75) Clitic Criterion

At LF

a. A clitic must be in a spec/head relationship with a [+F] XP

b. A [+F] XP must be in a spec/head relationship with a clitic

Later on, (75) is replaced with (76):

(76) Generalized Licensing Criterion (Sportiche 1992:68)

At LF

a. A [+F] head must be in a spec/head relationship with a [+F] XP

b. A [+F] XP must be in a spec/head relationship with a [+F] head

[56] cf. Rizzi (1991) and others; also Chomsky (1992) for a restatement of this idea in the Minimalist framework.

In (76), [±F] stands for a set of properties such as *Wh, Neg, Focus,* etc. which trigger movement. As for accusative clitic constructions, it is proposed that the clitic-Head licenses *Specificity* on its associated DP. In this way, accusative clitic doubling is assimilated to scrambling, up to a number of superficial differences. The clitic parameters are given in (77):

(77) Clitic Constructions Parameters (Sportiche 1992:32)
a. Movement of XP* to XP^ occurs overtly or covertly
b. Head is overt or covert
c. XP* is overt or covert

By (77) the following cases are predicted:
(i) Undoubled clitic constructions as in French, Italian, Dutch arise when a covert XP* moves overtly or covertly to XP^ with H overt.
(ii) Clitic doubling constructions as in Spanish, Romanian arise when an overt XP* moves covertly with H overt.
(iii) Scrambling constructions as in Dutch and German arise when an overt XP* moves overtly with H covert.

The question of the inter and intra linguistic distribution of clitic doubling is not thoroughly answered by Sportiche. There is an attempt to derive the facts from a Filter similar to the doubly filled COMP filter:

(78) Doubly Filled Voice Filter (Sportiche 1992: 28)
*$[_{HP}$ XP [H...]]
where H is a functional head licensing some property P
and both XP and H overtly encode P

From (78), it might follow that clitic doubling arises in a language precisely when XP* movement may be delayed until LF, since this is the only way of preventing a violation of (78) with an overt XP* in the presence of an overt clitic. Obviously, a filter like that is rather ad hoc; the deep fact underlying the Clitic Doubling Parameter thus remains unclear.

2.3.4. Questions for the property F and Specificity

We saw in section 2.2. that Modern Greek accusative doubling clitics can be argued to have operator properties because they force their associated DPs to fall under the *Prominence Condition*. Recall that doubled DPs in Modern Greek differ semantically from their non

doubled counterparts: the former are necessarily *familiar*, while the latter have the option of being ambiguous between *familiar and novel* readings. It follows that these clitics should be treated as operator-type elements within Sportiche's framework.

Nevertheless, what we also saw during the previous discussion is that Modern Greek doubling is semantically more restricted than Romanian and Spanish doubling: only the *definiteness/prominence* of a DP may guarantee the grammaticality of true doubling in Modern Greek. *Specificity* is not enough, except for cases with properties typical of right dislocation. This simple consideration immediately raises some problems for Sportiche's Generalization concerning accusative doubling. Various crosslinguistic considerations reinforce this conclusion and show that the problem posed by the Modern Greek data is a real one. A more careful look into the Romanian and Porteño Spanish facts, which are supposed to be well behaved languages, in the sense that clitic doubling could be claimed to fall under *Specificity* in both of them, shows that there are finer distictions to be drawn for these languages too. The notion "Specificity" must be understood in a much broader sense for Romanian doubling than for Porteño Spanish: in the second case, accusative clitic doubling is legitimate only when the full DP is unambiguously D-linked (compare Dobrovie-Sorin (1990) to Suñer (1988)). We thus end up having to deal with a three way distinction, at least:

(a) In Romanian, any indefinite can be doubled. Only necessarily nonspecific indefinites are ruled out:

(79) a. **O** caut **pe** **o secretară**
Her I-look(for) **"pe"** **a secretary**
"I look for a certain secretary"

b. **L-** am păcălit **pe** **mulţi** **copii,** dar pe tine n-am reuşit
Them- have-I fooled **pe** **many** **children,** but *pe* you not-have-I succeeded
"I have fooled many children, but I have not succeeded to fool you"

c. ***Îl** caut **pe** **un** **elev** care **să** **ştie** englezeşte
***Him** look-I (for) **"pe"** **a** **student** which speaks$_{subj}$ English
"I look for a student who can speak English"

(b) Porteño Spanish displays a much stricter pattern: doubling is basically restricted to partitives, as indicated by the following examples:

(80) a. ***Los** entrevistaron **a** **muchos / varios** **candidatos** por media hora
***Them** interviewed-3pl **"a"** **many / several** **candidates** for half hour
"They interviewed many / several candidates for half an hour"

b. El médico **los** examinó **a** **muchos / varios** **de** **los** **pacientes.**
The doctor **them** examined **"a"** **many / several** **of** **the** **patients.**

The Romanian and Spanish examples *(79a and 79b) vs. (80a)*, respectively, constitute the crucial minimal pair, showing that the term *Specificity*, without further modifications, is inappropriate to capture parametric variation.

(c) Finally, Modern Greek doubling is subject to the strictest conditions because even overt partitives are ungrammatical, as indicated by the example (6a), repeated below for convenience. The Greek facts are particularly problematic for Sportiche because they cannot be accommodated under *Specificity*:

(81) ?*O jiatros$_j$ tus$_i$ eksetase [dio apo tus asthenis]$_i$ sto
?*The doctor$_{j,nom}$ them$_i$ examined-3sg [two of the patients]$_i$ in-the
nosokomio simera to proi
hospital today in-the morning
"This morning, the doctor examined two of the patients in the hospital"

I conclude that while Sportiche is right in claiming that doubling clitics, unlike pure Object Agreement markers, have *interpretational import*, we have to become more explicit with respect to the property F, which is supposed to motivate movement: otherwise, the parametric similarities and differences described here cannot be accounted for.

2.3.5. Towards replacing Specificity

In the previous section, we saw that Sportiche's proposal that *Specificity* is the relevant feature for doubling would fail to accommodate the Greek facts where clearly *Definiteness* (in particular *Prominence*) is the most crucial factor involved. In addition to that, we showed that *Specificity* cannot straightforwardly capture the differences between Romanian and Porteño Spanish either. It is intuitively clear that the three phenomena are closely related to each other from an interpretational point of view. The question is whether we can find a way to express their common properties and derive their differences within Sportiche's schema. This section is an attempt to investigate this question. It will be proposed that a more adequate characterization of clitic doubling might be given in terms of the *Weak-Strong* properties of Noun Phrases (Milsark 1977 and related work), a modification that will allow us to capture the generalization that doubling phenomena crosslinguistically necessarily involve strong NPs. Under this view, clitic doubling is one more syntactic construction which is sensitive to the semantic properties of Noun Phrases (together with Germanic Scrambling, Hindi Participle Agreement, etc.), while *Familiarity, D-Linking* and *Prominence* are just additional constraints posed by the *pronominal* nature of the clitic heads (cf. section 2.3.6).

Diesing (1992), de Hoop (1992), Adger (1993b), (1994) and Runner (1993) among others investigated a range of empirical phenomena in various natural languages where the syntactic form of a sentence directly reflects possible interpretations of Noun Phrases; furthermore, they explored alternative ways in which this syntax-semantics relation can be captured. The well known semantic fact underlying their discussion is that *indefinites* (i.e. NPs preceeded by *"a"* in English), *bare plurals*, and more generally *weak NPs* (i.e. NPs introduced by quantifiers such as *some, many, few, three,* etc.) can have different readings, one of which can be characterized as *strong*, the other one as *existential* or *weak*. The empirical observation is that this general *weak/strong* ambiguity of certain types of NPs is resolved in a number of *syntactic contexts*. More specifically, there are environments favoring or forcing strong readings upon weak NPs and environments where only weak readings are possible. Furthermore, in those contexts where such strong readings are triggerred, any *strong DP* may freely occur (i.e. definite descriptions, proper names, pronouns, strong quantificational NPs, namely NPs introduced by strong quantifiers like *every, most*), while such *strong NPs* are excluded from contexts where only the *existential* or *weak* interpretation is allowed (prototypically existential sentences). Object "scrambling" in German and Dutch is treated by all of these authors as one of the most characteristic syntactic phenomena of this type: weak NPs in a pre-adverbial position typically receive strong readings, and strong NPs of any kind (definite or quantificational) may freely undergo scrambling. The following Dutch examples (de Hoop 1992:33-51) illustrate the various strong readings triggerred on weak NPs when they precede certain adverbial elements:[57]

(82) *referential reading:*

dat	de politie	een	kraker	gisteren	opgepakt	heeft
that	the police	a	squatter	yesterday	arrested	has

(*een kraker*: reference to a specific individual, for instance *John*, cf. Fodor and Sag 1982)

(83) *partitive reading*:

dat	de politie	twee	krakers	gisteren	opgepakt	heeft
that	the police	two	squatters	yesterday	arrested	has

(*twee krakers*: synonymous with *two of the squatters*, cf. Enç 1991)

[57]The Dutch examples and the characterization of the readings is taken from de Hoop (1992). The term *"referential reading"* reflects the view of Fodor and Sag on "specificity" which de Hoop agrees with. The main argument in favor of this treatment is that *"...indefinites which violate scope constraints always must take the very widest possible scope, a fact which is not predicted by a theory that simply allows for violations of scope constraints by indefinites, regardless of whether that theory treats indefinites as quantifiers or as variables..."*(Heim 1982:223). However, this analysis is not universally agreed on, and, therefore, the term *"specific"* might be more appropriate than *"referential"* in this context, since it would not commit us to a particular semantic view on "specificity". The suggestion that only NPs with indefinite *"a"* can be "referential" is also adopted by de Hoop (1992). However, *some, three,* and many other monotone increasing weak determiners can also be *"referential/specific"*.

(84) *generic reading*:

dat	de	politie	krakers	altijd	oppakt
that	the	police	squatters	always	arrests

(*krakers*: generic reading, cf. Carlson 1977)

(85) *generic collective reading*:

dat	de	politie	tien	krakers	altijd	oppakt
that	the	police	ten	squatters	always	arrests

(*tien krakers*: the NP as a whole gets a strong, generic reading, while the numeral gets a weak, cardinal ("adjectival") reading, Hoeksema 1983, Partee 1988)

A terminological issue arises at this point. The label "specificity", as found in Enç (1991), to a large extent coincides with the term "strong reading" used by de Hoop (cf. above) and "presuppositionality", as defined in Diesing (1992), Diesing and Jelinek (1993).[58] However, there are several reasons why the term "specificity" is inappropriate in this context. First of all, as pointed out by de Hoop (1992), there are syntactic correspondences between Enç's *specificity* on the one hand and *genericity* on the other that Enç fails to capture. Secondly, as again pointed out by de Hoop (1992), there are differences between *partitivity* and *"referentiality"* (i.e. "specificity") that are lost if the two are assigned the same label. Since scrambling induces generic, partitive, referential and generic collective readings on weak NPs, the terms *strong reading* (de Hoop 1992) or *presuppositional* (Diesing 1992) may describe this phenomenon in a more adequate way than *specificity*. Finally, Enç characterizes *strong quantificational NPs* as *"unambiguously specific"* and proposes that they are always represented as covert partitives.[59] But there is an intuitive difference between the readings characterized as *referential* and *partitive* by de Hoop on the one hand, and the readings of, for instance, *strong distributive quantifiers* like "every" on the other: the former have clear referential properties and can thus be viewed as implying linking to familiar discourse-referents in one way or other; for this reason, the formalization Enç proposes for them, as covert partitives, can be seen as one possible way of expressing this. The latter though do not obviously count as referential: they express quantification over sets that are not

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[58]Enç's specificity does not cover the generic readings of bare plurals (cf. de Hoop's criticism below). Also, Eddy Ruys points out that Enç's "specificity" coincides with "strong" *extensionally*, in the sense that the same classes of NPs and their interpretations are covered by these terms. The terms represent widely different analyses *intensionally*.

[59]The reason why Enç is proposing this is the fact that that universally quantified NPs in Turkish are necessarily marked with accusative Case, when in object position:

(i)	Ali	her	kitab-i	okudu.
	Ali	every	book-Acc	read
(ii)	*Ali	her	kitap	okudu.

On the hypothesis that overt accusative morphology in Turkish always implies "specificity", these facts can be accounted for if universally quantified NPs are unambiguously "specific". I think that these facts suggest that accusative morphology in Turkish is a marker of "strong" NPs, not a marker of "specific" NPs. Universally quantified NPs are always strong, hence they always have an accusative marker.

necessarily contextually defined (i.e. it is not relevant whether these sets are present in previous discourse or not).[60] This distinction is lost if both types of NPs are assigned the same label.[61] With this discussion in mind, we can now easily formulate a generalization which correctly describes the properties Romanian, Spanish and Greek clitic doubling structures have in common, as well as the similarities between scrambling and doubling:

(86) *Empirical Generalization for Direct Object clitic doubling*
Accusative doubled DPs have to be *strong/presuppositional*
(in Greek, Romanian, Spanish)

Looking at things from this perspective, we may furthermore conclude that Sportiche's attempt to assign the same underlying structure to *Romanian and Spanish clitic doubling* and *Germanic scrambling* (cf. Mahajan (1990, 1991) for a similar proposal) is attractive.[62] Doubling, like scrambling, is a clear case where a connection between the syntax and the interpretation of direct object NPs is established, and clitic doubling structures are certainly relevant to the general mapping issue addressed by the authors mentioned above. Furthermore, the two constructions are subject to comparable *locality restrictions* (i.e. both are not unbound phenomena), and they are both, to a certain extent, *optional* (in the sense that unscrambled and undoubled strong NPs are not ungrammatical). It is therefore tempting to treat scrambling and doubling on a par, thus preserving Sportiche's original proposal. Restricting the discussion of doubling to Modern Greek definites, there is also empirical evidence supporting the idea that doubling is similar to scrambling (for more arguments, cf. fn 64). De Hoop (1992) identified a class of definite DPs that are interpreted as part of the

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[60]In other words, if scope readings are defined as readings that establish referential dependencies between the QPs in the clause (cf. Beghelli 1993), then the "referential-specific" readings of weak NPs can be characterized as absolutely (or "relatively", cf. Ruys (1992)) independent (= widest scope readings). On the other hand, the strong distributive "every" presupposes that the set "every" quantifies over is non empty, but this does not mean that the QP has a quasi referential interpretation (the fact that the two types of NPs behave differently is clearly illustrated with respect to scope islands, cf. section 2.2. above).

[61]The view that either the partitive readings or the referential readings of indefinites can be characterized as linking to familiar discourse-referents is not generally agreed on. There are counterexamples to both claims, which were brought to my attention by Eddy Ruys, but I am ignoring them here due to space limitations.

[62]Implicit in the present discussion is the assumption that scrambling is an instance of Move-alpha. This is not an uncontroversial view. For arguments that scrambling should not be analysed in terms of movement, see Neeleman (1990, 1993), Bayer & Kornfilt (1990, to appear) among others. Also, van Riemsdijk (1989) and van Riemsdijk (lecture notes, Vienna 1991). Note that Zwart's (1993) proposal for Dutch is comparable to these analyses in being incompatible with the view on scrambling adopted here: he argues that all kinds of DPs in Dutch and German uniformly vacate the VP in syntax for independent reasons having to do with the strength of the N-features of Agr^0 in Dutch (Chomsky 1992) and that the "scrambling" interpretational effects depend on the relative position of the adverbs (i.e. whether these are adjoined to VP or AgrOP). He then has to find a way of excluding sequences of type *[Weak NP-Adv], and he uses focus considerations in order to do so. Here I maintain a Mahajan, Sportiche, Diesing, de Hoop, Koster type of approach to scrambling because I think that these analyses allow for interesting crosslinguistic generalizations with respect to the way the weak-strong distinction can be made syntactically visible in various languages (scrambling languages, doubling languages, Turkish, Finnish, Hindi etc.).

predicate and are not allowed to undergo scrambling. Koster (1993) presented more such cases, where the part of the predicate reading excludes scrambling. The definite expressions discussed are like French *regarder la télé* ("watch (the) television") and Dutch *de was doen* ("do the laundry"). In Modern Greek it is also possible to construct examples where definite DPs are interpreted as part of the predicate; doubling is strictly incompatible with such readings:

(87) a. omdat Paul zondag de was gaat doen — Dutch
because Paul Sunday the wash goes do
"because Paul is going to do the laundry Sunday"

b. Kano to spiti tora, min me enoxlis — Greek
Do_{1sg} the house now, not me $bother_{2sg}$
"I clean the house now, don't bother me"

(88) a. omdat Paul de was zondag gaat doen — Dutch
because Paul the wash Sunday goes do

b. *To kano to spiti tora, min me enoxlis — Greek
*It do_{1sg} the house now, not me $bother_{2sg}$

According to de Hoop (1992:112), in (87a) the preferred reading is one in which *de was* is understood as part of the activity "do the laundry" that is going to happen on Sunday. Example (87b) is constructed in such a way that only the part of the predicate reading on *to spiti* is possible: the speaker asks the hearer not to bother him during his "cleaning the house" activity. On the other hand, in (88a) only a strong, referential reading is available for the scrambled *de was* and, since the referential reading is generally unavailable for *to spiti* in this particular Modern Greek sentence, doubling yields ungrammaticality (88b). The similarity between Dutch and Greek with respect to cases like this is not surprising if the two phenomena have the same analysis.[63]

To summarize, the weak-strong distinction, although semantically determined, is syntactically significant and clitic doubling, like object scrambling, is a phenomenon in which the notions of strength and weakness play an important role. In the literature, there are

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[63]It would be interesting to find out whether scrambling of definites has effects similar to those of doubling, with respect to the *familiarity-novelty* ambiguity. Corver and Delfitto (forthcoming) argue that this is indeed the case: they apply the diagnostics developed in section 2.2. above for Greek doubling to Dutch scrambling of definites and they show that we get similar results, namely preferred scrambling in familiarity contexts and infelicitous or ungrammatical scrambling in novelty contexts (cf. below for some discussion).

Furthermore, there appears to be a straightforward syntactic argument in favor of the structural similarity between scrambling and doubling: in Modern Greek, direct object clitic doubling is almost obligatory with the objects of "inverse-linking" predicates of the "preoccupare" and "piacere" classes. As pointed out by A. Kratzer (LOT-AIO courses, Winter 1994), scrambling in German is also the strongly preferred option with predicates of this type. Interestingly enough, in Hindi participle agreement shows up with objects of psych predicates (cf. Mahajan 1991:265). The similarity between the three constructions is expected under the approach developed here. However, since I haven't systematically investigated the properties of these constructions I prefer not to elaborate more on the topic here.

various proposals trying to explain how syntactic structure affects or is affected by semantic interpretation. All of them concentrate on weak NPs. The questions discussed are twofold: (a) what is the actual source of the "weak-strong" ambiguity? and (b) why is it that readings of canonically ambiguous indefinites are blocked in certain syntactic environments? As far as I can see, both issues are highly controversial. More specifically, the actual nature of the weak-strong ambiguity is unclear, particularly in terms of how to semantically characterize the strong reading. One possibility is to treat it as arising from the interpretation of the NP as a generalized quantifier. For example, De Hoop (1992) following Partee (1987) suggested that NPs may shift their semantic type between, for instance, <e> ("referential"), <e,t> ("predicative) and <<e,t>,t> ("quantificational"). Weak NPs are assumed to be either of type <<e,t>,<e,t>> (predicate modifiers) or of type <e> and they become of type <<e,t>,t> on their strong reading. Another possibility is to treat strong readings as the result of restricted quantification.[64] For example, Diesing (1992) proposes to link the ambiguity of weak NPs to the notion of "presuppositionality".[65] Weak determiners on their cardinal reading are functioning as cardinality predicates introducing variables which are given existential force by existential closure. On their presuppositional reading they behave like strong quantifiers: they are raised to IP by QR and they form a tripartite quantificational structure of the sort developed in Kamp (1981) and Heim (1982). Another possibility is to treat weak determiners as unambiguous semantically. For example, Adger (1993b) argues that they are always interpreted as cardinality predicates. However, when the set they predicate over is forced to be a presupposed or familiar set the proportional reading arises, and this may happen either syntactically or pragmatically. Finally, Beghelli (1993) proposes that weak determiners are ambiguous: they are either cardinality predicates or quantifiers over individuals. However, according to this proposal, the quantifier reading obtains only when the determiner is focused inside the QP. Under the quantificational (proportional) reading, weak NPs take scope *in-situ* (i.e. they are not allowed to have wider scope than their actual c-command domain). Only as cardinality predicates are weak determiners able to take *widest scope* (i.e. the reading characterised by all previously mentioned authors as *strong*). This is so, because weak NPs on their cardinal reading contain a free variable position which may receive existential closure at the *sentential level* (CP), and this type of unselective binding results to a *specific reading* (in the sense of Enç 1991). It might be

[64]For an overview of the similarities and differences between the theory of Generalized Quantifiers and the theory of Restricted Quantification, cf. Berman (1991:13).

[65]Eddy Ruys (p.c.) points out that the idea that strong readings have to do with presuppositionality is certainly not new and that restricted quantification is not the only way to achieve Diesing's result. For example, de Jong & Verkuyl (1987) proposed a (Generalized Quantifier) analysis of strength in terms of presuppositionality that doesn't really depend on syntax. A feature [± PRESUP] is sufficient.

worthwhile mentioning at this point that Ruys (1992) proposed an analysis for specifics via unselective binding by a wide scope existential which was ment to capture precicely those specific readings which can not be characterized as D-linked, namely *unusually wide scope* readings which are yet within the scope of a higher quantifier. As we can see, the semantics underlying the weak-strong ambiguity are less than clear and none of the proposals mentioned so far is without problems.[66] Nevertheless, I would like to assume for the moment that Sportiche's (1992) Cl_{acc}^{0} is an element which encodes the property underlying the *weak-strong* distinction described so far. In particular, Cl_{acc}^{0} might be thought of as the head which is able to host in its specifier (in the overt syntax or LF) NPs with strong interpretation, presumably because it may license this property on the relevant NPs. The *Empirical Generalization concerning Accusative Doubling (86)* is immediately captured if doubling clitics from all three languages are treated as heads that can only be inserted in a position where strong/presuppositional NPs are licensed. The feature F licensed by Cl_{acc}^{0} might be purely semantic in nature, as Sportiche proposed; in that case we may call it *presuppositionality*, in accordance with Diesing (1992), Jelinek (1993), Diesing and Jelinek (1993). Another possibility might be that the feature F hosted in CL_{acc}^{0} is a certain type of Case, assigned to *strong* NPs or *weak* NPs on their *strong* reading. This would be in line with proposals of Mahajan (1990, 1991: different types of NPs are licensed via different modes of Case assignment), de Hoop (1992: weak NPs have D-structure Case (*"weak Case", structural default Case*) and are interpreted as part of the predicate; strong NPs bear S-structure Case (*"strong Case"*) which functions as a type shifter), Laka (1993: strong Case is Case mediated through Agr, while weak Case is bare C_V), Koster (1993: there are two Case positions for object NPs: the features located in the lower position called *PredP* license weak objects, while the features in the higher position, *AgrOP*, license strong NPs). The latter proposals

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[66]For example, de Hoop (1992) is forced to assume that definites and referential NPs are not of type <e>, unlike indefinites which are of type <e> (on their weak reading). Diesing (1992) can not provide a principled motivation as to why definites (which in her system are like weak indefinites in not being considered as quantificational) tend to occur in the same positions as quantificational weak NPs (cf. Diesing and Jelinek (1993) for discussion). Furthermore, from a methodological point of view, it is not clear whether it is desirable to introduce two completely seperate mechanisms in order to deal with indefinites. Finally, the proposal that weak NPs on their strong reading are quantificational is not immediately compatible with the fact that there are good reasons to assume that weak NPs do not undergo QR (cf. Fodor and Sag (1982), Heim (1982), Ruys (1992) among others). On the other hand, under the proposal of Adger (1993b), it is not clear how the generic and generic collective readings of bare plurals induced by scrambling can be accounted for, and the claim that strong quantifiers always quantify over familiar sets is too strong. Finally, the proposal of Beghelli (1993), namely that unselective binding by a sentential operator results to D-linking has the problem that there are cases where indefinites can be interpreted outside the scope of a scope island, yet inside the scope of another quantifier (Ruys 1992:109-111):

(1) every professor$_i$ will rejoice if a student of his$_i$ cheats on the exam

As Ruys points out, the indefinite *a student of his* in (1) can be interpreted outside the scope of the adjunct (i.e. via unselective binding by an operator at the CP level in Beghelli's terms), yet within the scope of *every professor* (*his* is interpreted as a variable bound by every professor). Apart from the fact that it is not very clear where the unselective binder for the indefinite is placed in this case, it is not at all obvious that this "relatively specific" indefinite is D-linked.

can be viewed as an extension of the idea that there is a link between Case theory and the (in)definiteness of NPs, explored by Safir (1982) and, especially, Belletti (1988) for existential sentences, to comparable object phenomena.

The plausibility of such syntactically orieneted approaches towards the syntactic effects of the "weak-strong" distinction is reinforced by the fact that the adequacy of altenative, purely semantic accounts of, for instance, the Definiteness Restriction has been questioned many times. To only mention one example, Reuland and ter Meulen (1987:13) point out: *"...We must conclude that all the properties of Existential sentences have still not been adequately explained and moreover that at least two analyses are in apparent conflict. Consider the fact that the NP "introduced" by an E-sentence is subject to a DR. On one level this follows from the discourse function or force of E-sentences. But from this it does not yet follow that a clause with the structure of an E-sentence but with a definite NP substituted for the indefinite one should be illformed or even odd. It follows only that such a clause could not have the force of an E-sentence...."* We might call the idea that difference in NP distribution systematically corresponds to an abstract Case difference the *"Case Hypothesis"*, in order to differentiate it from Sportiche's more semantic view which might be characterized as the *"Operator Hypothesis"*. For the time being we don't have to choose between the two alternatives, since nothing much in the present discussion seems to depend on this. For convenience, let us call this feature *Strong [S]*, a term which should not be confused with *strong-weak* as used by Chomsky (1992) and related work. In scrambling languages, the heads encoding this property are covert, while in doubling languages these heads can be lexicalised. In this way the observed similarities between scrambling and doubling can be expressed. In both cases the [+S] feature of object NPs is checked by the same functional head, which in doubling languages may have overt realisation under certain language-specific conditions. In principle, it is possible to extend this type of analysis to all languages displaying similar phenomena.

2.3.6. Scrambling vs. Doubling and Parametric variation

There are also important differences between scrambling and doubling which should be kept in mind. In particular, while strong (or potentially strong) NPs of any kind may scramble, only certain classes of NPs are allowed to undergo clitic doubling, with variation from language to language. This observation leads to a revision of the *Empirical Generalization (86)* along the following lines:

(89) *Empirical Generalization for Direct Object clitic doubling*

a. Accusative doubled objects have to be *strong/presuppositional* (in Greek, Romanian, Spanish)

b. Accusative objects that cannot undergo doubling are not necessarily *weak/existential* (with further parametric variation among Greek, Romanian, Spanish)

The question then arises how to account for the second clause of (89). One way of solving this problem would be to capitalize on the most obvious difference between scrambling and doubling, namely the *absence vs. presence of an overt head.*[67] More specifically, we could appeal to the semantic and morphological feature specification of clitics following proposals of Suñer (1988) and Laka (1993) respectively.

Suñer (1988) suggested that doubling clitics are listed in the lexicon with their features specified there.[68] They have "meaning" attached to them, in the sense that they may be inherently specified as [+definite], [+specific] etc. The various restrictions on doubling can be derived on the basis of parametric differences in the feature make-up of clitics in combination with (90), which states that there can be no clash in features between the clitic-heads and the agreeing XPs:

(90) *Matching Principle* (based on Suñer 1988)
Cl_{acc}^{0} and XP* must agree in features

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[67]Many thanks to Joe Emonds and Riny Huybregts for suggestions and discussion on this point.

[68]Maranz (lecture notes, LOT AIO courses, Summer 1993) suggested that a possible source of parametric variation within the Minimalist Program might be the characterization of a head as [±lexical]. The assumption that Cl_{acc0} can be [±lexical] might be related to the fact that scrambling involves overt movement while doubling does not (cf. Sportiche's Filter). For example, we could propose that the N-features of AgrO are weak in doubling languages, and when the Case feature of Verbs is strong, clitics are inserted in AgrO in order to check this feature at S-structure. This line of analysis would presuppose that we draw a sharp distinction between the strength of the N-features of Agr^0 (phi-features) and that of the N-features of Verbs or Tense (Case-features). It could be the case that in a particular language the N-features of Agr^0 are invariably weak, but the C_V or C_T is strong or weak, corresponding to the interpretation of the relevant DPs. There seems to be some independent evidence that in doubling languages the [Spec, AgrO] position is never used in the overt syntax: participial agreement with object clitics or wh-phrases never takes place, participle agreement with unaccusatives is also absent and there is no "avere-essere" alternation (i.e. doubling languages invariably use "have"). Kayne (1993b) has proposed an analysis of auxiliary selection, where languages that always use "have" and lack participial agreement systematically use the participial AgrS to externalise the unaccusative argument; he suggests that this might have to do with the properties of the auxiliary "be" in these languages. One could explore an alternative hypothesis, according to which, this depends on the fact that [Spec, AgrO] cannot be used in the overt syntax for reasons having to do with the strength of its N-features (this analysis would imply a reformulation of Bobaljik's (1992) "Obligatory Case Parameter" along the lines of Laka (1993), cf. den Dikken (1993) for a comparable conclusion). I leave these speculative remarks open for further research. Some differences between doubling and object agreement could be treated along these lines: if object agreement constructions involve a [-lexical] head (which is to say that $AgrO^0$ is the host of agreement-features in the sense of Chomsky 1992, rather than affixal elements), while doubling constructions invole a [+lexical] head (i.e. they host clitics which are similar to inflectional affixes of previous frameworks), this might explain why object DPs in Basque move overtly (cf. Laka 1993) while in Greek, Spanish and Romanian presumably not. For a related idea on parametrization, in a pre-minimalistic framework, cf. Contreras (1992): he proposes, following ideas of Fukui and Speas, that [+ lexical] functional heads do not license a specifier.

Under this view, direct object clitics in Modern Greek must be assumed to be positively specified for the feature [+familiar] (in the sense of Heim (1982)), because they are only allowed to combine with [+familiar] DPs (i.e. definites). On the other hand, Spanish clitics are underspecified for the feature [±familiar] since they are able to co-occur with [+familiar] and [-familiar] DPs (recall that in Heim's system only definites can have a familiar index; indefinite specifics and partitives are basically *novel* although they could be claimed to be *D-linked*). In order to ensure that Spanish doubling clitics are only allowed to combine with DPs which are *overtly linked to previously established discourse referents* (i.e. partitives, indefinites modified by relative clauses etc.), we would have to assume that Spanish clitics are inherently specified for a certain feature which Suñer (1988) called "[+specific]".[69] As for Romanian clitics, it looks as if they can combine with almost any potentially strong DP: definites, non partitive universally quantified NPs, partitives, indefinite specifics etc. (cf. Dobrovie-Sorin 1990, 1992). They can thus be viewed as mere instantiations of the feature *Strong Case* or *Presuppositional* hosted in Cl_{acc} without carrying any further inherent semantic specifications.[70] More generally, it looks as if there are no further semantic conditions on coindexation in Romanian doubling constructions, contary to Greek and Spanish doubling where *Familiarity* or *D-linking* play an important role. Romanian DPs do not need to be inherently linked to Discourse or have intrinsic referential properties in order to be able to combine with clitics, while in Greek and Spanish this is a necessary condition in order for doubling to take place. A possible way of expressing this difference between Romanian and Greek/Spanish would be to appeal to a feature [±pronominal]. The requirement that Greek and Spanish doubled DPs should have inherent referential properties while Romanian doubled phrases only have to be strong might follow from this difference (cf. Mahajan 1991 for a similar idea).[71]

This type of analysis to a large extent reduces parametric variation to language-particular differences in the lexical content of doubling clitics, an approach to parametrization that looks relatively clear. An alternative view on parametric variation would be to adopt the proposal of Diesing and Jelinek (1993) that the semantic property of definiteness/specificity induces a hierarchical ranking of arguments: pronouns > quantified NPs > indefinites. The basic idea underlying this approach is the proposal made in Diesing (1992) regarding the manner in which syntactic representations are "mapped" onto logical representations. Diesing claims

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[69] We might want to avoid using this term because the semantic literature uses *specific* to refer to wide scope indefinites that are not always linked to discourse. An alternative feature might be [+partitive] or [+D-linked].

[70] Note that the proposed characterization for Romanian clitics ends up being very close to the proposal of Borer (1984) that clitics are Case features overtly realized (but without the Case absorption implications).

[71] Note, however, that it is not clear what the content of such a feature really is (in binding theory [± p] just means "free" in a particular binding domain).

that the semantic representation of a sentence is derived by splitting the syntactic tree into parts of quantificational structure of the sort developed by Heim (1982), where the VP is the domain of default existential closure (cf. Diesing 1992 for details). There is a general syntactic process of *"presupposition accommodation"* which redistributes arguments in the clause at S-structure or LF (Berman 1991); this leads to a simplification of the existential closure operation by getting arguments "out of the way" of existential closure.[72] The claim is that the various constraints on the distribution of arguments in the syntax across languages are consistent with, and motivated by the definiteness/specificity hierarchy presented above. On this view, there is a distinction to be drawn between, for instance, the quantification related cases of scrambling and the scrambling of definites/specifics and pronouns. Among other things, this hierarchy would predict that a language allowing for quantificational NPs to be mapped overtly outside the VP necessarily allows for definites to undergo similar processes, but not vice versa; this prediction seems to be borne out, as we see. Note that the doubling cases we discuss here seem to indicate that overt partitives (weak or strong) are placed higher in this hierarchy than strong quantificational NPs, a distinction that Enç (1991) doesn't make. On the additional hypothesis that parametric variation in the hierarchical distribution of arguments in the syntax of various languages is determined by this definiteness hierarchy, the differences between German, Romanian, Spanish, Greek, English can be successfully derived (in German reordering may always take place overtly, in Greek only partial such reordering is possible by means of doubling, in English reordering is always delayed till LF etc.). This analysis looks simpler than the one based on feature specification of clitics. However, while hierarchies are poorly understood, it is quite plausible that idiosyncracies like those characterizing doubling depend on idiosyncratic lexical information. Furthermore, the "hierarchy" proposal presupposes that there is direct mapping from syntactic structure onto logical representation, an approach which de Hoop (1992: 118-125) and others argue convincingly against. This issue requires further research.

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[72]Diesing (1993) assumes that Existential closure is unselective, in the sense that it binds all free variables in its scope. Since definites introduce familiar variables, they have to move out of the scope of existential closure (VP), in order for inappropriate existential binding to be avoided. On the other hand, quantificational NPs in object position induce "type mismatches" that are resolved by raising of these NPs to create a clausal predicate of the following type:

(i) $[_{IP2}\ QP_i\ [_{IP1}\ NP_{subj}\ [_{VP}\ V\ t_i\ ]$

In (i), the raised QP creates the predicate IP1, in which the trace of QP acts as a variable. The idea is that failure to conform to these conditions results to a "crashed" derivation, and this is the reason why we get this hierarchical ranking of arguments depending on their semantic properties. Note that Diesing (1993) uses presupposition accommodation differently from Berman (1991) in certain respects. Berman (1991) following Heim (1983) assumes that there are two types of accommodation, namely "local accommodation" and "global accommodation". A presupposition via "local accommodation" does not necessarily survive as a presupposition of a sentence as a whole, while a presupposition via "global accommodation" does. Berman (1991) suggests that definites fall under the second type, because the presuppositions of (especially singular) definites always reach the discourse level and they are not confined to the domain of the next highest quantifier. This seems to suggest that presupposition accommodation for definites is not a local process, hence it is plausibly not represented at LF. If Berman (1991) is right, then the analysis of Diesing and Jelinek (1993) and Diesing (1993) for scrambling of definites is challenged.

A further striking asymmetry between scrambling and doubling concerns bare plurals: doubling of bare plurals is consistently unavailable in all languages I know about. This issue is especially relevant for Romanian, because, although it looks as if Romanian doubling can be characterized exclusively in terms of the feature [S], doubling of bare plurals is still not attested in this language (at least not according to what I have seen in the literature). This is quite unexpected if our claim that Romanian clitics are just the overt counterparts of scrambling heads is correct. I would like to suggest that the ban on doubling of bare plurals depends on structural rather than purely interpretational factors.[73] In particular, I would like to appeal to the presence of an overt head in doubling structures following proposals of Uriagereka (1994b) and Laka (1993) for Basque. Laka argues that only DPs may occupy the [Spec, Agr] in Basque, and that this is a morphological rather than semantic requirement.[74] Under the hypothesis that bare NP arguments lack a DP projection, the fact that they must remain VP-internal results from the condition that only categories headed by D are allowed to be in [Spec, Agr]. This analysis is heavily based on a proposal of Uriagereka (1994b) within the complex DP hypothesis presented above. What I would like to adopt from Uriagereka's treatment of Basque is the idea that Inflectional Agreement necessarily involves DP constituents when an Agr^0 head hosts an element of category D. If clitics are defined in the lexicon as elements of category D^0 and bare plurals lack a DP projection, then the incompatibility of doubling clitics with generic bare plurals can be made to follow from a morphological condition on Spec-Head agreement.[75] [76] Alternatively, it could be proposed

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[73] A possible objection might be that these structural factors ultimately reduce to interpretational factors, because bare plural generic NPs can be viewed as *weak* in the sense that they are *predicational* (the reading is strong but the NP as such is weak; according to Wilkinson (1986), Krifka (1987), Diesing (1988), Kratzer (1988), generic bare plurals are just predicates with a variable that is being unselectively bound by a generic operator): still, bare plurals may undergo scrambling in Dutch but no doubling in Romanian, a difference that we have to account for.

[74] As demonstrated at length by Laka (1993), this is not a semantic requirement because the DP constituents under consideration need not be [+specific], [+definite] etc. The moved objects must have the appropriate form, irrespectively of how they are interpreted.

[75] The idea that clitics are elements of category D is strongly supported by the morphological similarity between clitics and determiners. The fact that we adopt the analysis of Sportiche implies that we do not treat doubling clitics strictly speaking as determiners, the way Uriagereka, Corver and Delfitto etc. do. One could imagine however that lexical elements of the same type are inserted under two distinct functional nodes (Cl_{acc}^0 and D^0), which are both Case-related [+K] or they both encode the same kind of semantic information (definiteness, specificity etc.): it can be furthermore argued that the only difference between these two positions is the fact that they belong to different extended Projections: the former belongs to the extended Projection of Verbs, and the latter to the extended Projection of Nouns (arguably, AgrPs are also present in DPs: the difference between Cl_{acc}^0 and D^0 is, on this view, comparable to Agr^0 as a verbal or nominal projection). Henk van Riemsdijk (p.c.) suggests that, on this view, clitics and determiners must be assumed to be underspecified for categorial features like [±V], [±N]; he furthermore points out that the problem with this approach is the fact that clitics are similar but not identical to determiners.

that bare plurals are incompatible with clitics because bare phrases are defective for phi-features (in the sense that certain features, for example *person*, lack overt morphological realisation) while clitics are fully specified for them[77]. It is justified to propose that the presence of accusative clitics imposes morphological restrictions similar to those posed by agreement markers in Basque, quite independent of the fact that accusative clitics have additional consequences for the interpretation of the agreeing noun phrases, which pure agreement affixes may lack.[78]

Before closing this section, I would like to discuss the animacy restrictions on Romanian and Spanish doubling which constitute a third major asymmetry between scrambling and doubling.[79] Recall that, in Romanian, only [+human] DPs can be doubled, while the standard cases of Porteño Spanish doubling discussed in Suñer (1988) systematically involve [+animate] DPs. Can an account based on either the lexical specification of clitics or the definiteness hierarchy equally deal with this aspect of parametric variation? I am afraid that the answer to this question is negative. At first sight, the idiosyncratic nature of the animacy restrictions on doubling seems to constitute a major argument in favor of the view on parametrization based on lexical specification of clitics. The additional fact that morphemes other than doubling clitics display similar variation seems to provide further evidence in favor of this approach. For example, Baker (1988:143) discussed the fact that the antipassive morpheme does not have the same meaning in all languages it occurs in: in Tzotzil it means

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[76]Roussou & Tsimpli (1993) following Longobardi (1992) and many others (cf. Zwarts 1993) assume that bare phrases must always be DPs; otherwise, they cannot function as arguments. The idea then is that bare argumental nouns have a null D-head which is subject to a lexical government requirement and which receives the default existential interpretation. However, the claim in de Hoop (1992) is that NPs on their weak interpretation can be regarded as part of the predicate rather than independent arguments. On this view, the conceptual argument motivating Longobardi's postulation of a DP projection for bare Nouns would be removed, and we could follow the proposal of Laka (1993), which is strongly supported by the Basque data (notice, however, that the data Laka discusses cover a much more limited set of cases, namely only the overt argument of unergatives). For generic bare plurals we would have to assume that they undego a type shifting operation that would lead to their interpretation as generalized quantifiers (independent of them being bare NPs: I guess that on this analysis, bare plural generics cannot be assumed to be "predicational" in the sense discussed above)

[77]cf. Adger (1993a) for a similar proposal with respect to measure phrases.

[78]The same account is extendable to the ungrammatical cases of doubling of bare quantifiers in Romanian that are discussed in details by Dobrovie-Sorin (1990, 1992). One such example is given below:

a.	*Ion	l_i-a	examinat	pe	oricine$_i$
	*John	him-has	examined	"pe"	anyone$_i$

Dobrovie-Sorin argues that the difference underlying bare quantificational elements that may undergo doubling in Romanian and their ungrammatical counterparts is a structural one: the former are in [Spec, NP] position, the latter are exhaustively dominated by the NP. This proposal translated into the DP hypothesis could mean that the former are heads or specifiers of a DP while the latter are bare NPs/QPs (i.e. they lack a DP projection).

[79]On the view adopted here, the prepositions "a" and "pe" are animacy markers as Suñer (1988) proposes for Spanish, or they jointly denote "specificity" and "animacy", as the following observation in Dobrovie-Sorin (1992: 229 fn 16) seems to suggest: "...This indicates that it is not true to say that direct object pronouns marked [+ human] are obligatorily preceded by *pe*. We may then wonder what the real generalization is...".

"human and animate thing", while in Chamorro it has a more general meaning.[80] Interestingly enough, antipassive constructions are also relevant to the *weak-strong distinction* (de Hoop 1992). Given the hypothesis that doubling clitics and antipassive morphemes can be both specified in the lexicon as [+animate], their common idiosyncratic properties with respect to the feature of animacy would be accounted for in a similar manner. Unfortunately, such an analysis for Romanian and Spanish doubling clitics would have some negative consequences. First of all, we saw some marginal cases of doubling in Porteño Spanish where the animacy condition does not apply. These cases would be incorrectly ruled out by the Matching Principle. A more severe problem is due to the fact that a major property characterizing strong pronominal elements, as opposed to their clitic counterparts, is the fact that the former typically refer to humans or animates, while the latter can be [±human]. Thus, in many natural languages, strong pronouns cannot serve to denote inanimate objects and the clitic forms have to be used instead.[81] If doubling clitics in Romanian and Spanish were to be characterized as inherently [+animate] we would expect them to retain this specification in nondoubling contexts. Under the reasonable assumption that doubling constructions and their undoubled counterparts have uniform syntax, undoubled pronominal clitics in doubling languages would always have to refer to animate objects, a prediction contrary to the fact. The only possible way out I can see within this approach would be to postulate two distinct lexical entries, one for doubling clitics and another for their non doubling counterparts, a solution which would be undesirable from the point of view of the Uniformity Hypothesis (however, cf. Torrego (1994) for a similar conclusion).[82]

The recent literature on clitic doubling (e.g. Mahajan (1991), Sportiche (1992), Uriagereka (1994a)) focuses on specificity and does not address the problem of animacy. For

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[80]Baker interprets this fact as an indication that the antipassive morphemes are nouns with lexically associated nounlike meanings, thus supporting a noun incorporation analysis of antipassives, like the one he proposes. He further suggests (1988: 457, fn 44), that the mechanism underlying doubling, like the mechanism underlying antipassives, can be treated in terms of a noun incorporation analysis (i.e. a Hurtado (1984) type of approach towards doubling, where the doubled DP is not the true object of the verb). However this analysis of doubling constructions would face the problems of the right dislocation analysis of doubling discussed in section 2.

[81]cf. Corver & Delfitto (1993), who discuss this fact from a crosslinguistic point of view and analyse it in an interesting way.

[82]Lars Hellan (p.c.) suggests that the animacy constraints on doubling can be stated as follows: First of all, we must accept that each doubling language uses doubling to signalize something about (i) aspectual properties of the construction, (ii) properties of the full NPs, where these two types of properties form a natural family (on the relevance of aspect for Slavic doubling, cf. Dimitrova-Vulchanova & Hellan (1991). Technically, we might represent the doubling relation through coindexing: a condition on this coindexing might be that in Spanish and Romanian the full NPs are specific and animate . The coindexing transmits the feature [+ animate] to the, otherwise unspecified for animacy, clitics, and this is why we get the difference between non doubling and doubling clitics with respect to animacy. Of course, this is just a way to state the problem, not a solution to it, but it could be seen as a way out at this point (an alternative suggested by T. Hoekstra (lecture notes, Leiden, Fall 1993) is that in languages where Kayne's Generalization is operative this is due to the fact that this coindexing is only licensed with prepositional accusatives, in order for the doubling clitic not to violate Principle B at LF, namely at the point where a non prepositional DP would have to raise to [Spec, AgrO] in order to be checked for Case : I see no obvious way to account for languages not subject to Kayne's Generalization within this approach).

example, Sportiche's (1992) attempt to relate *Dutch and German scrambling* to *Romanian and Spanish clitic doubling* is interesting but as far as I can see, within his system there is no obvious way to account for the fact that Germanic DP scrambling is insensitive to animacy while certain instances of clitic doubling are not. The "definiteness hierarchy" proposal of Diesing and Jelinek (1993) would have exactly the same problem. As stated above, this is a general problem for all recent theories on doubling which concentrate on specificity and overlook animacy.

It might be worthwhile mentioning at this point that the earlier theories didn't have to deal with this problem because the animacy restrictions were assumed to be a side effect of the independent requirement for a preposition with the function of a Case licenser. Under this view, animate DPs were the only ones to be doubled because they were the only ones to be preceded by these prepositions. Their inanimate counterparts being incompatible with *a* and *pe* were accordingly ruled out by the Case filter. Given that the traditional approaches to clitic doubling were more successful than the recent analyses with respect to this it would be desirable to somehow retain the intuition that the *animacy constraints* follow from something else, namely specificity (the term loosely used). The first thing that comes to mind is to suggest that the specificity and animacy restrictions on clitic doubling of the Romanian and Spanish type are reminiscent of the "animacy" and "specificity" hierarchies found in many ergative languages with case "splits" (especially morphological ergativity). It looks as if the two properties are closely linked together, formally expressed through distinct Case and Agreement specifications in other grammatical systems as well. Silverstein (1976) proposed that NP splits can be accounted for in terms of a hierarchy of noun phrases based on their "inherent lexical content": some noun phrases can function as agents or patients in a "semantically more natural way" than others. Interestingly enough, the Romanian and Spanish doubling facts could also be accommodated under Silverstein's pragmatically based explanation for the properties determining ergative NP splits despite the fact that split ergativity and clitic doubling seem to have very different syntax. Of course, nobody would like to seriously entertain a pragmatic/anthropological hypothesis like the one proposed by Silverstein.[83] However, in view of the fact that case and/or agreement specifications clearly depend on features like *animacy, specificity, definiteness* in ergative languages, the fact that doubling is sensitive to a combination of strikingly similar features is not a problem specifically related to doubling constructions any longer but rather a more general mystery of natural languages. It seems that *animacy* plays a role in determining the "degree" of *definiteness* of NPs for reasons that are not entirely clear. For example, Singh (1992:199) points out: *"In Hindi,* ***animate direct objects*** *are marked with a postposition, "ko".*

[83]For arguments against Silverstein's (1976) account, cf. Jelinek (1993).

*Traditionally, the use of "ko" is said to be optional. As observed by Keenan, however, this marker is **absent** if the NP is **indefinite** and **present** if the NP is **definite**".* It is easy to see that there are striking similarities between the element "ko" in Hindi and the elements "pe" and "a" in Romanian and Spanish.[84] This concludes the present discussion.

Summarizing, in the last two sections I argued in favor of treating doubling and scrambling as two different variants of one and the same underlying configuration and I attempted to show how the semantic conditions on clitic doubling can be made to fall under the general conditions licensing scrambling. On the hypothesis that Cl_{acc} does not host *Specificity* but rather the feature *S* (meaning either *Strong Case* or *Presuppositionality* in the sense of de Hoop (1992) and Diesing (1992) respectively), not only we can provide a principled explanation for the properties the two constructions have in common, but we can also maintain the view that the various doubling phenomena are basically uniform despite their superficial differences. Furthermore, I explored alternative ways in which the language-particular restrictions on doubling can be derived. I showed that these restrictions reflect a "definiteness hierarchy" which depends either on *lexical information* (feature specification of the clitics) or on general *mapping principles* such as the process of "presupposition accommodation". I proposed that the systematic gap concerning clitic doubling of bare plurals is due to morphological factors. Finally, I pointed out that there is one crucial aspect of doubling that can not be captured within the analysis developed so far, namely the animacy constraints displayed in Porteño Spanish and Romanian. The animacy constraints can be taken to indicate that the Uniformity Hypothesis is incorrect. This is an issue I would prefer to leave open at this point.

2.4. Speculations and Open Questions

In this chapter I followed the tradition according to which the semantic notions of weakness and strength are syntactically significant and I proposed that a number of, superficially different, syntactic phenomena such as Romanian, Spanish and Greek doubling, Germanic scrambling, probably Turkish accusative case marking etc. can be given a unified characterization in terms of Sportishe's (1992/3) syntax where the functional head Cl_{acc} encodes the feature underlying *strength*, possibly [+PRESUP] or [+STRONG CASE]. I derived the language-particular restrictions on doubling on the basis of the hypothesis that

[84]Singh (1992) argues that the link between definiteness and animacy can be established in terms of Dowty's (1991) notions of "Proto-Agent" (definite) and "Proto-Patient" (indefinite). A "Proto-Agent" exists independently of the event named by the verb while a "Proto-Patient" does not. Interestingly enough, Juan Uriagereka (p.c.) suggests on independent grounds that doubled DPs are always event participants unlike their undoubled counterparts. This might be a direction to go.

doubling clitics are not just the spell-out of the feature [+S] but rather they are lexical elements with meaning attached to them. In a similar manner, I assumed that the *pragmatic presuppositionality* effects showing up in Modern Greek clitic doubling constructions can be linked to the nature of clitics which can be characterized as *prominent/anaphoric* in the sense that they cannot undego Lewis-accommodation (cf. section 2.2). The potentially prominent [+familiar] DPs which depend on them also become prominent via agreement or coindexing. In this section, I will consider some alternative paths of inquiry which have not been pursued here pointing out a number of interesting consequences they might have.

The Greek doubling facts clearly show that there is a distinction to be drawn between "semantic" and "pragmatic" presuppositionality because, although definites are usually said to carry the presupposition that there exists one entity satisfying their descriptive content, felicitous doubling of definites may take place only when their referent is salient and explicit in the domain of discourse. As was mentioned above, Corver and Delfitto (forthcoming) demonstrate that Dutch scrambling of definites is very similar to the Modern Greek clitic doubling of definites as has been described here. In particular, they show that scrambling is odd in novelty contexts and that scrambled definites qualify as "prominent", according to the criteria developed in section 2.2. On the basis of these facts they furthermore propose that, contrary to what is standardly assumed in the relevant literature on scrambling, the feature encoded in scrambling constructions is not [+PRESUP] in the sense of Diesing, but rather *Discourse-Linking* in the sense of Pesetsky (1987). Corver and Delfitto claim that *Discourse-Linking* is sufficient to characterize the presuppositional effects on scrambled weak NPs because, whenever the extension of the N' ("NP" in current terms) is forced to be present in the discourse, presuppositionality (and also strength) is guaranteed (see Adger (1993b) for a similar proposal motivated differently).[85] They suggest that the two notions of presuppositionality can be given a unified characterization if the presupposition of existence of the extension of NP (N' in more traditional terms) is relativized to the context in which the DP occurs. This line of analysis incorporates recent suggestions of Uriagereka (1993) according to which, there is a site F in the clause that encodes the point of view of a given subject and predicates must be either asserted or presupposed by a responsible judge; otherwise Full Interpretation is violated.[86] If it turns out that Corver and Delfitto are right,

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[85] Lappin and Reinhart (1988) and Reinhart (1993) very convincingly show why adding an existential restriction to the N' set of weak NPs will turn them into strong NPs: the weak Determiner does no longer satisfy the *symmetry*, *intersection* and *existential* conditions.

[86] According to Uriagereka (1993), "responsible judge" is not just the speaker but any subject with a point of view. Uriagereka assumes that all nominal expressions include nominal predicates holding of a variable. LF movement to F is triggerred in order for presupposed predicates to be licensed (they have to be in the minimal domain of a given "judge/subject"). The result is very similar to the system of Diesing but the motivation is claimed to be syntactic. I would like to point out that, to the extent that I understand these proposals, it seems to me that Uriagereka's F doesn't encode specifically D-linking but rather any form of presuppositionality, while Corver and Delfitto are inclined to propose that the

then the Prominence Condition on Greek doubling is possibly not due to the presence of a clitic, as suggested here, but rather due to the fact that Sportiche's Cl_{acc} encodes *D-linking* (which should be interpreted differently than in Enç (1991) because in Corver and Delfitto's terms *D-linking* subsumes *Prominence*). The advantage of such an approach is obvious: the interpretational effects of doubling of definites and scrambling of definite and weak NPs can be reduced to one and the same property.[87]

I think that this line of analysis might turn out to have an important conceptual advantage as well. Barwise and Cooper (1981) noted that there is a discrepancy between the classical interpretations of logical expressions and the way in which these expressions are actually used in the natural language:

(91) a. All American Kings lived in New York
b. Every cosmonaut at our party got drunk

"...Given that there have never been any American Kings [....] and that no cosmonauts attended our party, speakers of English do not generally react to these sentences in the way one should expect, given their semantic analysis. On the interpretations assigned to these sentences in classical logic, they are both true. Sentences with universally quantified subjects are represented as containing implications within the scope of the universal quantifier. If the antecedent is false for every value of the variable, the entire implication is true. In fact, speakers tend to regard these sentences as undefined. This suggests that they are instances of presupposition failure, and that use of the subject NP presupposes that the extension of the common noun is nonempty." (Lappin & Reinhart 1988: 1021). De Jong and Verkuyl (1987) proposed to solve the problem by incorporating into the semantic interpretation of every strong determiner an existential restriction to the N' set of the strong NP, and the Diesing (1992) and Berman (1991) approach towards the properties of strength and weakness are alternative ways in which such presuppositional effects are built into the system of natural language semantics. Lappin and Reinhart (1988), however, argue on the basis of sentences like the following that presuppositional semantics lead to too strong results:

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crucial feature syntactically encoded in F is D-Linking since they want to account for the familiarity-novelty ambiguity of definites.

[87] As far as I can see, clitic doubling of definites, weak NPs, partitives etc. in languages like Romanian and Spanish should also be considered in context. On the other hand, doubling in Spanish and Romanian presents addittional complicating factors such as the animacy restriction, Kayne's Generalization, etc. which we do not fully understand (Denis Delfitto, p.c.). A problem for the D-linking approach would be scrambling of bare plurals: it is hard to see how generic and generic collective readings can be characterized in terms of D-linking. Nevertheless, generics are also a problem for Presuppositionality in Diesing's terms (cf. de Hoop 1992 for criticism).

(92) a. Every unicorn is a unicorn
b. Every unicorn is not a unicorn
c. Every unicorn has exactly one horn

The presuppositional approach entails that the implicational interpretation of universal quantifiers is not represented as part of the semantic knowledge of native speakers. However, this would lead to the prediction that sentences like (92) will not be judged according to the logical truths and implications of classical logic. Thus, (92a) will not be true but undefined because the set denoted by "unicorn" is empty, hence the sentence will not be true in every model. In a similar way, (92b) will not be false, but undefined and (92c) will not be interpreted as an implication which is true in every world in which unicorns exist. Nevertheless, the intuitions of native speakers reflect the classical logical interpretations of these sentences, contrary to what the presuppositional approaches to semantics would predict. The opposition between (91) and (92) is significant because it leads to the following generalization. *"...All presuppositional effects of universal quantifiers, and strong determiners in general, show up only when sentences are subject to empirical assessment. When there is no need to match a sentence to the actual world, as in the case of logically true (or false) propositions, or definitions, the sentences behave as predicted by their standard interpretation..."* (Lappin and Reinhart 1988:1027). In other words, the presuppositional properties of strong (and weak) determiners only show up in empirical contexts. The phenomena we discussed in this chapter seem to show that strength and presuppositionality play an important role in a number of syntactic constructions in natural languages. It thus seems justified to modify somehow the classical semantics of logical expressions in order for these phenomena to be accommodated, contrary to what Lappin and Reinhart (1988) suggest. Nevertheless, if Corver and Delfitto are right it might be possible to acount for the discrepancy between (91) and (92) without giving up the classical interpretation of determiners. A site like F as viewed by Corver and Delfitto can be active only in empirical contexts like (92): if presupposition of existence is relativized to the context the difficulties pointed out by Lappin and Reinhart could be avoided. In my view, this is a particularly wellcome result. This issue will not be discussed here any further since it is beyond the scope of the present study. For a thorough discussion of the issues involved the reader is referred to Corver and Delfitto (forthcoming).

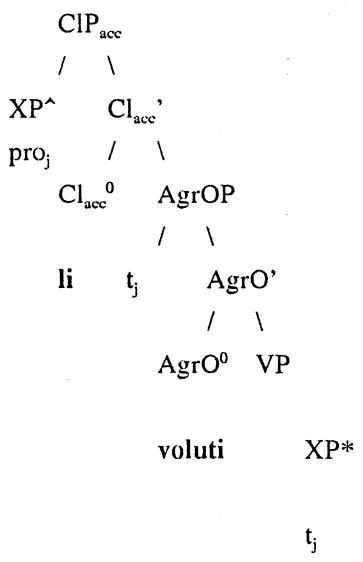
The last issue I would like to address is the relation between Sportiche's Cl_{acc} and AgrO. Recall that a number of people have analysed scrambling and/or doubling as involving overt or covert movement to an AgrO position (Vanden Wyngaerd (1989), Mahajan (1990), (1991), Zwart (1993) among others). On the other hand, Sportiche (1992) postulates two distinct functional nodes within the IP-domain, AgrO and Cl_{acc} both of which relate to the

same argument position. As far as I can see, the main reasons for this more articulated structure seem to be the following.

(i) Sportiche (1992) like many others adopts the proposal of Chomsky's (1991) based on Kayne (1989) that participial agreement morphology is located in AgrO. On the other hand, by hypothesis clitics are base-generated in some VP-external position. Thus, a sentence like (93) below must be assumed to have a representation as in (94) (abstracting away from the fact that the clitic in (93) has undergone further movement to some higher position):

(93) Maria *li* ha voluti prendere
Maria *them* has wanted-*agr* take
"Maria wanted to take them"

(94)



Under the assumption that "voluti" is in $AgrO^0$ the clitic can only be generated somewhere else given standard views on phrase structure.

(ii) A second argument in favor of adopting a structure like (94) for clitic-constructions has to do with the fact that doubling clitics, unlike object agreement markers, have interpretational import. Under the hypothesis that AgrO is a Case/Agreement checking position while Cl_{acc} is the locus of Specificity (in Sportiche's terms) this difference can be naturally accounted for.

(iii) There might be some additional theory-internal reasons for (94). For example, Sportiche (1992) wants to account for the intra linguistic distribution of clitic doubling on the basis of the Doubly Filled Voice Filter. This means that the XP* in Italian and French must be assumed to move overtly, unlike ordinary object NPs (participial agreement facts indicate that this is indeed the case). This would be quite unexpected if Italian and French XPs* had the

properties of ordinary direct objects. Under (94) this discrepancy can be accounted for on the basis of the proposed similarity between clitic constructions and, for instance, wh-constructions (wh-phrases in both languages may move overtly). Nevertheless, the Doubly Filled Voice Filter seems ad hoc, as I pointed out above. Hence, any potential arguments related to the Doubly Filled Voice Filter will not be taken into account any further.

It seems to me that Sportiche's (1992/3) Cl_{acc}-proposal has the theory-internal advantage that it is compatible with the Minimalist Framework. It can thus be viewed as a way in which Diesing's (1992) Mapping Hypothesis can be reconciled with the Checking Theory of Chomsky's (1992). There are certain assumptions in Diesing's (1992) proposal which are not in accordance with current views on syntax. For example, movement is related to interpretation and not to morphology, the level of Representation in which "tree-splitting" occurs is subject to arbitrary parametrization (S-structure in German, LF in English), and, furthermore, if Chomsky (1992) is right that all objects must move at LF, then the Mapping Theory would, strictly speaking, predict that no object may receive an existential-weak interpretation, a prediction trivially contrary to the fact (cf. Runner (1993) for discussion). Sportiche's proposal can be viewed as an elegant way out. The insights of Diesing can be captured under the assumption that presuppositionality (in Diesing's terms) is a morphological feature licensed by Cl_{acc}. In addition, a major advantage of Sportiche's Cl_{acc} as opposed to Mahajan's (among others) AgrO has to do with the fact that Cl_{acc} can be viewed as a non L-related position. Recall that scrambling and doubling are optional operations and optionality of pre-Spell out derivation to an L-related position is not desirable in the Minimalist Framework.

On the other hand, there are some empirical facts which can be more naturally accounted for if the general phenomenon discussed here is a Case phenomenon. The Case Hypothesis is strongly supported by languages in which the weak/strong distinction systematically shows up overtly, as difference in Case morphology. For example, transitive verbs in Turkish mark their strong NP-objects (as well as strong readings on weak NP objects) with an accusative Case marker, while weak NPs lack such overt morphology (cf. Enç 1991 among others); in Finnish, strong NPs carry accusative and weak NPs partitive (cf. de Hoop 1992, compare to Belletti 1988), etc. Obviously, the AgrO proposal can accommodate these facts in a more satisfactory manner than the Cl_{acc} alternative. One possible way out would be to abandon Cl_{acc} and adopt a proposal made by Branigan and Collins (1993) and Collins and Thráinsson (1993) that optional movement phenomena like scrambling and object shift indicate that the N features of AgrO (or V) can be *optionally strong* (this proposal could be generalized to

doubling, accusative case marking, etc.).[88] Given that this type of optionality always has interpretational effects, we could propose furthermore that the morphologically strong N features postulated by these authors correspond to the semantically strong readings discussed in, especially, de Hoop (1992) and Diesing (1992), and their weak counterparts correspond to weak readings. This might be a wellcome result since the idea that certain N or V features can be optionally strong seems too unconstrained otherwise. However, this potential analysis has a number of problems. One problem is that the properties *Weak* and *Strong* are given different substantial content depending on the language. For example, why is it that *strong N features* (of Tense) in English never have interpretational import while, for instance, in German they do? A more severe problem is due to the fact that unscrambled and undoubled NPs may have a strong reading. This suggests that *weak N features* do not necessarily correspond to semantic "weakness". I conclude that Cl_{acc} is to be preferred.

Nevertheless, I do think that there might be one argument against Sportiche's (1992) Cl_{acc} and, if Adger (1993b), (1994) is right, also against Chomsky's (1992) proposal that objects always move to AgrO at LF. This argument is based on Adger (1993b), (1994) and it will be briefly presented here. Adger notices that there is a strong correlation between the available readings and the obligatoriness of what might be viewed as movement to AgrSP and AgrOP. More specifically, in Dutch, objects may scramble or not-if they do they are interpreted as familiar. In Spanish, clitic doubling is optional, with the doubled DP being interpreted as familiar. In a similar manner, accusative case marking in Turkish is optional: when it is present, the object is necessarily interpreted as strong. In French, extracted objects may induce agreement on a participle or not-when they do they are obligatorily strong. We could add Greek clitic doubling of definites to this list; when doubling takes place the DP is necessarily prominent. Conversely, English subjects are obligatorily in [Spec,AgrS] and they are ambiguous. Scottish Gaelic objects are also obligatorily in [Spec,AgrO] and are ambiguous. In French passives, where agreement with the participle is obligatory, the element inducing agreement is ambiguous. Interestingly enough, Pinto (1994) appears to confirm this correlation. Italian subjects are not allowed to undergo "inversion" (the term used pre-theoretically) with transitives and certain unergatives. In these cases, the preverbal subjects (in [Spec,AgrS]) are ambiguous between weak and strong (d-linked non d-linked) readings. On the other hand, inversion may optionally take place with certain unergatives (the *telefonare*-type verbs) and with all *unaccusatives*. In the latter cases, the subject in preverbal position necessarily receives a *strong* (or d-linked) reading. To conclude, there is a striking correlation between optionality in derivation (or agreement/case marking) and obligatoriness

[88]For an alternative, cf. Koster (1993): he proposes that there are two Case positions, one for weak readings (PredP) and one for strong readings (AgrOP).

of strong or familiar readings. It is interesting to note that the interpretational differences between clitic doubling phenomena in languages like Greek and object agreement phenomena in, for instance, Basque can be subsumed under Adger's Generalization. Object agreement in Basque is obligatory and there are no interpretational effects on the agreeing DP. On the other hand, clitic doubling is optional, with the doubled argument being necessarily familiar. I am not sure whether an analysis in terms of Cl_{acc} is able to capture this correlation in a straightforward manner.[89]

Adger provides an interesting answer to this question which I will summarize here without discussing it further. He essentially adopts Diesing's LF-reconstruction proposal, though he reformulates the Mapping Hypothesis (for Adger, DPs qualify as Familiar if they are in [Spec,AgrP], DRSs are sensitive to the LF position of the DPs in spec AgrP or not in spec AgrP). He furthermore retains the idea of Mahajan and others that there can be two types of agreement relation, one mediated by the specifier head relationship and the other by a government relationship. In languages where movement to AgrP is obligatory, the right LFs are obtained either by leaving the argument in [Spec,AgrP] or via reconstruction (as in Diesing 1992). This gives us the ambiguity cases. However, if a language allows an alternative derivation to derive the representation that leads to the non familiar reading then the option of deriving this reading via reconstruction is ruled out since it will involve a lengthier derivation. In other words, if there exists in a language an alternative derivation for the non-familiar interpretation of an argument then the reconstruction option is ruled out on grounds of economy. In this way, the observation that languages with constructions that involve optional movement to [Spec,AgrP] allow only a familiar interpretation when the object is in spec AgrP is derived. This type of economy is very similar to the notion of "Global Economy" explored by Reinhart (1993a), (1993b) and Ruys (1994a) among others (though it has been independently proposed). We might ask ourselves the question Reinhart and Ruys address, namely why is it that the longer "optional" derivation is not altogether ruled out in the languages under consideration given that there exists an alternative shorter derivation. The answer seems be that the two LFs are non equivalent (cf. Reinhart (1993a), (1993b), Ruys (1994a) and references cited there).

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[89] It seems to me that we would have to assume that whenever AgrO is not active or visible syntactically in a particular language or in certain constructions it so happens that Cl_{acc} can be syntactically active. On the other hand, when AgrO is active Cl_{acc} is not. This is, clearly, a suspicious situation. The additional fact that we seem to get essentially the same results with subjects makes the problem even worse. For optional subject movement we would also have to postulate a site comparable to Cl_{acc} given the reasoning presented above and again we would fail to express this correlation in a principled manner.

2.5. Summary

To conclude, in this chapter I examined Modern Greek direct object clitic doubling from a crosslinguistic point of view and I attempted to answer some questions having to do with the interpretational and syntactic properties of this construction. Initially I argued that, although Modern Greek doubling differs from Spanish and Romanian doubling in certain respects, it is not a right dislocation phenomenon. I proposed to express the traditional idea that Modern Greek doubling clitics are topicalization markers in terms of the Prominence Condition (Heim 1982) and it turned out that under this condition the various grammatical and ungrammatical instances of clitic doubling can be successfully derived. In the second part I suggested that the properties of clitic doubling can be expressed in a straightforward manner within the minimalist framework (more specifically, checking theory) in terms of Sportiche's (1992/3) proposal. A closer investigation of various instances of clitic doubling and a comparison between clitic doubling and scrambling showed that, although this theory seems conceptually attractive and empirically well motivated, it is somewhat vague with respect to the parametric differences involved. Clitic doubling phenomena are characterized by a considerable amount of idiosyncratic properties that make the picture we get far more complicated than it is standardly assumed. I explored some ways in which the differences can be accounted for without giving up the idea that the constructions under discussion have a uniform syntax. Further study on a number of topics is certainly needed. It is quite clear that I haven't been able to give firm answers to all syntactic questions; however, I hope that I have managed to show what lines of explanations are open to us and what their respective merits and drawbacks are. One of the most intriguing and interesting questions raised by the phenomena under discussion is whether or not it makes sense to assume that notions such as "reference" or "d-linking", which seem to belong to the systems of use, are directly built into the genetically defined and thus mechanic syntactic module (Reinhart 1993b). A promising direction to go might be to take into account the type of meaning which is beyond truth-conditional semantics, the meaning called "information packaging" or "informational meaning" (Vallduví (1990)). It is quite clear that there are interactions between the scrambling, doubling types of phenomena described above and focus-topic structures (cf. de Hoop's "Principle of Contrastiveness" and several remarks throughout the text). Partee (1991) has tried to pursue a line of inquiry in which the possibility of relating the formation of tripartite quantification structures to notions such as focus and topic is taken seriously with interesting results (cf. also Williams (1994)). I hope that in future work I will be able to address these issues in a more satisfactory manner.

3

Clitic Left Dislocation and Cinque's Paradox

3.0. Introduction

Van Haaften, Smits and Vat (1983) pointed out that the two varieties of Left Dislocation known as *Contrastive Left Dislocation (CLD)* and *Clitic Left Dislocation (CLLD)* pattern more or less together and that both contrast with the so called *Hanging Topic Left Dislocation (HTLD)*.[1] The former qualify as movement constructions with respect to a number of connectedness criteria, the latter does not.[2] While it is rather uncontroversial that CLD should be treated in terms of movement, the analysis of CLLD is not a trivial matter, as is well known. The most straightforward way in which the movement properties of CLLD could be derived would be to suggest that CLLD originates from an underlying clitic

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[1]Some examples of CLLD, CLD and HTLD are the following:

(1) a. Ton Janni den **ton** ksero — **CLLD**
The John not CL know-I
John, I don't know

b. Die man, **die** ken ik niet — **CLD**
That man, that-one know I not
"That man, I don't know

c. Die man, ik ken **die** niet — **HTLD?**
That man, I know that-one not
"That man, I don't know him"

d. Die man, ik ken **hem** niet — **HTLD**
That man, I know him not
"That man, I don't know him"

The status of the construction (1c) is somewhat unclear. According to van Haaften, Smits and Vat (1983:47), *"...the presence of the starnded d-pronoun sometimes facilitates the connectedness reading to a certain extent, despite the fact that it occurs in the HTLD..."* . I will return to this issue later in the text.

[2]The terms "Contrastive Left Dislocation" and "Clitic Left Dislocation" are due to Zaenen (1980) and Cinque (1977) respectively. The construction known as "Hanging Topic Left Dislocation" (the term due to Alexander Grosu) is sometimes also called "Left Dislocation" (cf. Ross (1967), Cinque (1990) among others), but I will avoid using this term here because it might be confusing. Van Haaften, Smits and Vat (1983: 45) point out: *"...It would appear, then, that CLD and CLLD pattern more or less together, and that both are in contrast with HTLD. Pretheoretically, we may note that whatever analysis we eventually choose, CLD and CLLD are similar in that they have a gap in the argument position that corresponds to the left dislocated constituent, while HTLD has a lexical pronoun in that position."* As is well known, the most significant difference between CLD/CLLD and HTLD is that the former two constructions show certain forms of connectedness (cf. van Riemsdijk and Zwarts (1974), Cinque (1977)) which are entirely absent in HTLD (cf. Cinque (1990, ch2) for a detailed overview).

doubling structure. On the other hand however, under a clitic doubling analysis it would be hard to maintain the view of CLLD as the Romance (and Greek) counterpart of Germanic CLD, a view which I think is on the right track. Apart from this, there are also several other empirical and conceptual arguments against reducing CLLD to Clitic Doubling. Cinque (1990) and Iatridou (1991a) discuss a number of them. Some additional arguments against unifying CLLD with Clitic Doubling will be presented at the end of this chapter.[3]

What I would like to do here is to abstract away from the "CLLD as Clitic Doubling" issue referred to above and present a view of CLLD rooted in the traditional idea that it is a Left Dislocation variant; then I will try to show how under the minimal assumption that the resumptive-clitic in CLLD plays a role essentially analogous to that of the d-word in CLD (cf. Demirdache (1991:205-206)), most of the asymmetries between CLLD and CLD can be accounted for. In other words, I will explore the hypothesis that *CLD* and *CLLD* should be analysed on a par except that the feature [topic] is present on a (resumptive) *d-pronoun* in the former and a (resumptive) *clitic* in the latter. From this minimal lexical difference almost everything else can be made to follow.

The second part of this chapter addresses Cinque's Paradox. If it is correct that CLLD involves base generation, then how are we going to account for reconstruction and island sensitivity? Cinque's (1990) answer to this question was to suggest that *"connectivity"* and *"sensitivity to strong islands"* are properties of Chains, regardless of the origins of these Chains; i.e. whether they are created via movement or not. On the other hand, Iatridou (1991a) and Demirdache (1991) have tried to show that the *island sensitivity* problem is only apparent because CLLD does involve some movement after all. But even if they are right, the *connectivity problem* still remains unsolved because there doesn't seem to be any feasible way in which connectivity can be reduced to movement within this general line of analysis. For this reason, connectivity could be viewed as the major theoretical argument in favor of the clitic doubling analysis of CLLD (and the "Vergnaud Raising" analysis of CLD), especially if the *copying theory for traces* re-introduced by Chomsky (1992) is taken into account. Interestingly enough however, there appears to be some evidence suggesting that the base generation approach to CLLD is the correct one. Within the view of movement as a *copying process*, it is possible, I think, to show that CLLD does not involve actual movement of a full XP. As for the island sensitivity issue, things are less straightforward, as we shall see. First of all, Modern Greek shows that Cinque's (1990) classification of *strong* vs. *weak islands* is not entirely correct. This observation will lead to a slightly

[3]At the end of this chapter I will provide some arguments against a movement analysis of CLLD based on reconstruction and selective island sensitivity. In the Appendix I will summarize the arguments of Cinque's and Iatridou's and I will present some additional arguments from Modern Greek based on certain contrasts between CLLD and Clitic Doubling with respect to the Prominence Condition (cf. ch 2).

different classification of islands into three main categories depending on two factors: (i) their "strength" and (ii) their generality. It will be shown that CLLDed XPs are completely insensitive to those islands which can be most straightforwardly accommodated within Chomsky's (1992) "Shortest Steps" Condition. This result can be taken to support Cinque's proposal for CLLD, but not necessarily so since the analyses of both Iatridou (1991a) and Demirdache (1991) are not incompatible with the way the Modern Greek facts will be interpreted here. Nevertheless, there are some independent reasons for not adopting the proposal by Iatridou, and there are some technical problems raised by Demirdache's analysis if we attempt to restate it in terms of a treatment of cliticization as X^0 movement. The tentative conclusion of this part of the discussion will be that Cinque's proposal is the easiest to implement technically, though Demirdache's alternative is probably the most attractive from a conceptual point of view.

3.1. CLLD and CLD: differences and similarities

Contrastive Left Dislocation is a typical Germanic construction. It is different from Left Dislocation in English in that it contains a special pronoun (the d-pronoun) which is moved to a position next to the left dislocated constituent:

(1) Marie die kust Jan niet
Mary that kisses John not
"Mary, John doesn't kiss"

The structure of CLD is fairly uncontroversial. The d-pronoun is standardly assumed to have moved to the [Spec,CP] position triggering Verb Movement to Comp.[4] Given that the left dislocated XP must be adjacent to the d-word, it is justified to propose that it is adjoined to the CP the specifier of which is occupied by the d-pronoun:

(2) $[_{CP}\ XP_{LDed}\ [_{CP}\ \textbf{d-word}_i\textbf{-V}\ [_{IP}\ldots\ldots t_i\ ]]$

Following most of the analyses mentioned in fn 4, I will assume that the left dislocated phrase is base generated in its surface position. The alternative proposed by van Haaften, Smits and Vat (1983), namely that both the pronoun and the XP have moved (*Vergnaud-*

[4] cf. Riemsdijk & Zwarts (1974), Koster (1978), Zaenen (1980), van Haaften, Smits and Vat (1983), Weerman (1989), Haider (1990), Kosmeijer (1993), Zwart (1993), Neeleman (1994), Wiltschko (1994) among others. It is less obvious how Germanic Topicalization should be analysed. Most of the authors mentioned here have argued that topicalization is the exact counterpart of CLD except that the d-pronoun is null (i.e. a null operator construction). I will return to this issue later.

Raising), will not be considered further. Taking the correctness of structure (2) for CLD for granted, I will attempt to show that essentially the same structure underlies CLLD, for principled reasons. Before entering into this part of the discussion we must first of all provide a detailed overview of the differences and similarities between CLLD and CLD. The differences between CLLD and CLD can be summarized as follows:
(i) In CLLD the *resumptive element* must be a *clitic* (i.e. not a tonic pronoun). In CLD the *d-word* can be *stressed* and can be replaced by a *phrasal category*:

(3) a. Ton Janni den ton ksero
The Jannis$_{acc}$ not CL$_{acc}$ know
"John I don't know (him)"
b. *Ton Janni den ksero afton
*The Jannis$_{acc}$ not know PRON$_{acc}$
"John I don't know (him)"

(4) a. *Ton Janni$_j$ [tus gonis-tu$_j$] den ksero
*The Jannis$_j$ [the parents-his$_j$] not know
"John, I don't know his parents"
b. Jan, [die z'n ouders] ken ik niet
John [that his parents] know I not
"John, I don't know his parents"

The Modern Greek examples under (3) show that the pronominal element in CLLD must be a clitic (3a), it cannot be a full pronoun (3b). Example (4a) shows that the clitic cannot be replaced by a phrasal category in CLLD while this option is available in CLD, as the Dutch example (4b) indicates (from Zwart (1993)).
(ii) In CLLD the *clitic* can be clause internal, whereas the *d-word* must be the first element after the LDed phrase (triggering V-fronting). Witness the following examples:

(5) a. Ton Janni ton kseri i Maria
The John$_j$ CL$_j$ know-3sg the Mary$_{NOM}$
"John, Mary knows (him)"
b. Ton Janni i Maria ton kseri
The John$_j$ the Mary$_{NOM}$ CL$_j$ know-3sg
"John, Mary knows (him)"
c. *Jan, die ik ken niet
*John, that I know not
d. Jan, ik mag hem niet
John, I may him not
"John, I don't like him"

As the first two sentences in (5) show, the clitic can be adjacent to the left dislocated phrase in CLLD but this is not a necessary condition. This can be taken to suggest that the clitic occupies some IP-internal position (i.e. it is not in Comp or some other left peripheral position). On the other hand, the d-pronoun not only has to be next to the dislocated XP, but it also triggers V-2, as the ungrammaticality of (5c) indicates. For a standard analysis of Germanic Verb Second (e.g. den Besten (1983)) this is clear evidence that the d-pronoun is in [Spec,CP]. As for (5d), where the resumptive pronoun is IP-internal, this should not be assimilated to (5a) and (5b) as this construction has the diagnostic properties of Hanging Topic Left Dislocation. As Cinque (1977), (1990) and others have shown, there are very important differences between the "movement" and the "non movement" variants of Left Dislocation.[5]

(iii) A third major difference between CLLD and CLD is that the former may involve a stacking of fronted elements, while this is impossible in the latter. Witness the examples below:

(6) a. Tis Marias to vivlio tis to edosa
The $Mary_{IO}$ the $book_{DO}$ CL_{IO} cl_{DO} gave-I
"To Mary, the book, I gave it to her"

b. *Jan, op school, die daar zag ik niet
*John, at school, that there saw I not
"John, at school, I didn't see him there"

Cinque (1990) pointed out that there is no (theoretical) limit to the number of phrases that may undergo CLLD and the Modern Greek sentence (6a) exemplifies this property. On the contrary, CLD allows no more than one left dislocated phrase and, therefore, the Dutch example (6b) is ungrammatical.[6]

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[5]The differences between HTLD and CLD are discussed in detail in van Haaften, Smits and Vat (1983). They can be summarized as follows (cf. van Haaften, Smits and Vat for discussion and examples):
(a) Idiom chunks are found in left dislocated position in CLLD and CLD but not in HTLD.
(b) Bound anaphors can occur embedded in a larger left dislocated constituent in CLLD and CLD but not in HTLD.
(c) Bound (pronominal) variables can occur within a left dislocated constituent in CLLD and CLD but not in HTLD.
(d) Case Connectedness is obligatory in CLLD and CLD but not in HTLD.
The classical interpretation of these differences is that syntactic connectedness presupposes movement, hence HTLD does not involve movement while CLD and CLLD do.

Anticipating the discussion below, I would like to point out that the properties (b) and (c) are problematic for the approach that will be developed in section 3.3. which is based on reconstruction with respect to Principle C. The properties (b) and (c) seem to indicate that, if the base-generation analysis towards CLLD (and CLD) argued for in this chapter is on the right track, then Cinque is right, that connectedness is a property of chains and not a property of movement per se. Alternatively, we might try to explain away the properties (b) and (c), for example by appealing to Williams' (1994) theory of pronominal variable binding and to Reinhart and Reuland's (1991) theory of reflexivity and logophoricity.

[6]Henk van Riemsdijk (p.c.) points out that examples of the following type are grammatical in Dutch:
(1) Jan ## op school, daar zag ik hem/*die niet
John## at school, there saw I him/*that one not
"As for John, at school, I didn't see him there"

(iv) CLLD displays "selective island sensitivity" in the sense that long distance CLLD freely violates wh-type islands. For example, (7) is completely well formed:

(7) To forema den ksero pu na to valo
The dress not know-I where to it put
"The dress, I don't know where to put"

On the other hand, CLD is sensitive to all islands, as is well known.
(v) Finally, the left dislocated phrase in CLLD can occur at the front of almost any subordinate clause type. On the other hand, CLD basically occurs in root contexts and, marginally, at the front of the CP complement of only very few verbs (actually, for many speakers of Dutch, embedded CLD and embedded topicalization are both out).

(8) a. ...oti ton Janni den ton ksero
...that the John not him know
"...that John, I don't know him"
b. ...epidi ton Janni den ton ksero
...because the John not him know
"...because John, I don't know him"
c. ...o opios ton Janni ton kseri
...the which the John him knows
..."which John, he knows"

(9) a. *..dat Jan (die) ik niet ken
*..that John (that) I not know
b. %..dat Jan (die) ken ik niet
%..that John (that) know I not
"...that John, I don't know him"

Contrary to embedded CLLD, which is always well formed (8), CLD (as well as Topicalization) is severely limited in embedded clauses. First of all, CLD and Topicalization are absolutely impossible without verb movement (9a). Secondly, the only way to create embedded topicalization and CLD is by inserting the LDed element after the complementizer selected by bridge verbs, in which case embedded V-2 is triggered (9b) (cf. Zwart (1993) for Dutch, Wiltschko (1994) for German). According to Zwart (1993:249), this yields a kind of anacolouthon, which can be observed quite frequently in spoken Dutch. According to

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The sharp break between *Jan* and the rest of the clause indicates that the first phrase is left dislocated under HTLD (*op school* is CLDed). This example is interesting because it seems to indicate that the HTLD variant with the stranded *d-word* doesn't qualify as true HTLD (witness the opposition between *hem* and *die* in (1): *die* is ungrammatical). Alternatively, we could suggest that this example shows that multiple *d-topicalizations* are ungrammatical in Dutch, unlike multiple *wh-questions*.

Iatridou & Kroch (1992) who cite de Haan and Weerman (1985) and Vikner (1991), embedded V-2 is productive mainly in Frisian, Danish and the other Mainland Scandinavian Languages.[7] To conclude, a very clear difference between CLLD and CLD is that the former is not restricted to root contexts while the latter is basically a main clause phenomenon.

Having presented the differences between CLLD and CLD, let us now turn to the properties these constructions have in common:

(i) First of all, as was pointed out by van Haaften, Smits and Vat (1983), CLD and CLLD are similar in that they have a *gap* in the argument position which corresponds to the left dislocated constituent, while HTLD has a lexical pronoun in that position (or a full DP-*"epithet"*). In other words, in both constructions there is a dependency between a *left dislocated XP* and a *resumptive chain* (the d-word chain in CLD and the clitic chain in CLLD).

(ii) Secondly, the fronted XP in *CLD* is an *adjunct* and its *CLLDed* counterpart has also been treated as an *adjunct* (cf. Iatridou (1991a), Demirdache (1991), Tsimpli (1992), Vallduvi (1992b)).

(iii) Furthermore, CLLD like CLD is unbounded. Compare the Modern Greek CLLD structure in (10a) to the Dutch CLD structure in (10b):[8]

(10) a. Ton Janni skeftika oti o Petros ipe oti ton ide
The John$_j$ thought-I that the Peter said that him$_j$ saw
"John, I thought that Peter said that he saw him"

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[7]Some clarifications are necessary at this point. First of all, this instance of embedded V-2 should not be confused with the much more productive type of embedded V-2 which takes place in Yiddish and Icelandic (cf. Diesing (1990) and Iatridou and Kroch (1992) among others for discussion). Secondly, it is generally assumed (cf. the references in footnote 4) that CLD and Topicalization have exactly the same distribution; this is one of the reasons why it is usually assumed within the German and Dutch literature that CLD and Topicalization are one and the same construction, the only difference being that Topicalization contains an empty operator while CLD contains its overt counterpart (cf. Zwart (1993) and Neeleman (1994) for more discussion and references). In other words, under this view, the d-pronoun is the "spell-out" of the empty operator contained in Topicalization. Nevertheless, Henk van Riemsdijk (p.c.) has pointed out to me that, according to his intuitions, embedded Topicalization is marginally possible in Dutch (in the environments discussed in the main text) while embedded CLD is never possible. Other speakers, however, don't make this distinction (for example, Hans Broekhuis (p.c.) rejects both constructions in any embedded context, and Marcel den Dikken (p.c.) points out that embedded focus scrambling (Neeleman (1994)) is very productive, while embedded topicalization and embedded CLD are equally marginal). If Henk van Riemsdijk is right then either this is a counterexample to the unified analysis of CLD and Topicalization or there is some other reason why some speakers tend not to use the overt operator in embedded contexts.

[8]Marcel den Dikken (p.c.) points out that the unboundedness of Dutch CLD contrasts markedly with the boundedness of relativisation with d-words. While (10b) is perfect, a relative clause construction like the following is not felicitous:

(1) ?? een man die ik dacht dat Piet zei dat hij gezien had
?? a man "die" I thought that Piet said that he seen had
" A man that I thought that Peter said that he had seen"

The difference between CLD and relativisation is interesting in the light of the fact that the very same *d-words* are employed in the two construction types. It seems to indicate that it would not be entirely correct to say that CLD and relativization are structurally identical, up to the v-2 property of the former.

b. Jan, die dacht ik dat Piet zei dat hij gezien had
John, that thought I that Peter said that he seen had
"John, I thought Peter said he saw"

(iv) Both constructions are sensitive to islands:

(11) a. *Tin Maria gnorisa ton andra pu tin pantreftike
*The Mary$_j$ met-I the man that her$_j$ married
"Mary, I met the man that married her"

b. *Jan, die vertelde Piet het verhaal dat hij t verslagen had
*John, that told Peter the story that he t beaten had
"John, Peter told the story that he had beaten"

The ungrammaticality of the Modern Greek long-distance CLLD example in (11a) is due to a violation of the CNPC of the relative clause type while the Dutch sentence (11b) is ruled out as a violation of the CNPC of the noun-complement type.

(v) In CLLD as well as in CLD there is "Connectivity" (the term from Cinque) between the left dislocated phrase and the IP-internal position. One such case is Connectivity with respect to Binding Theory:

(12) a. zichzelf, daar praat Jan niet over
himself, there talks John not about

b. ton eafto tu$_i$ o Jannis$_i$ ton$_i$ aporriptei
the self his$_i$ the John$_i$ him$_i$ rejects

(12a) and (12b) show that it is possible for an anaphor to occur in a left dislocated position in both CLD and CLLD.[9] "Connectivity" can thus be viewed as one more formal criterion according to which CLD and CLLD qualify as fundamentally similar, as opposed to HTLD where there is no kind of connectedness between the left dislocated phrase and the IP-internal pronoun.

(vi) In both constructions the fronted XP is understood as "topic", i.e. *"...the sentence is used to assert something about its referent"* (Reinhart (1982:9)). This means that CLLD and CLD can be used appropriately only in certain contexts; the left dislocated expression tends to qualify as the "sentence topic", i.e. as the expression whose referent the sentence is about. The fact that in CLLD and CLD the notion "Pragmatic Aboutness" is expressed by syntactic means is one more property they have in common (for some illustration of the fact that

[9] However, there is a difference between Greek CLLD and, for instance, Dutch CLD. In Dutch, it is generally not the case that an anaphor is allowed to occur in a left dislocated position. What is allowed, is an anaphor *contained* within a larger phrase in a left dislocated position (cf. fn 5). This issue will be discussed in section 3.3.

CLLD syntactically encodes "aboutness" and not so much "old information" or "d-linking", cf. the appendix).

(vii) Finally, there are similar restrictions as to what types of elements may occur in the CLLDed and the CLDed position. It is standardly assumed that "D-linking" or "referentiality" are the most crucial factors involved (cf. Cinque (1990) and Iatridou (1991a) for CLLD and Zwart (1993) for CLD). For example, bare quantifiers as in (13a) and (14a) are ungrammatical while restricted QPs as in (13b) and (14b) are not:[10]

(13) a. *Iedereen die ken ik
*Everyone that know I
"Everyone, I know"

b. Iedereen in de tuin die kende ik
Everyone in the garden that knew I
"I knew everyone in the garden"

(14) a. *Kathenan ton ksero
*Everyone him know-I
"Everyone I know"

b. ?Kathenan s-ton kipo ton iksera
?Everyone in-the garden him knew-I
"I knew everyone in the garden"

These restrictions are expected if CLLD and CLD express "topichood" (cf. above) since it is well known that *"...the choice of a noun phrase as the topic expression in a sentence is sensitive both to the semantic properties of the NP itself and to its semantic relations with the sentence..."* (Reinhart (1982:11)). In particular, quantified NPs can serve as topics only if they can be interpreted (pragmatically) as denoting sets, so that the sentences which contain them can have the function of asserting something about their sets or their members. It is plausible to propose that bare distributive QPs resist such referential uses while restricted QPs do not, thus accounting for the contrasts in (13) and (14).[11]

Summarizing so far, in the second part of this section I have established the similarity between CLLD and CLD with respect to a number of syntactic and pragmatic criteria. Both

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[10]Hans Broekhuis (p.c.) points out that the Dutch (13b) is only marginally acceptable. Nevertheless, there is a contrast between (13a) and (13b).

[11]Hans Broekhuis (p.c.) points out that QPs are generally more acceptable in a topicalized position than in a CLDed position. If Topicalization and CLD are structurally identical, this asymmetry is quite unexpected. Furthermore, this difference shows that it is an oversimplification to say that CLD and Topicalization have an identical function, namely they express "aboutness". Apparently, the presence of an overt resumptive element poses additional restrictions on the semantic type of its antecedent. I would like to point out that, as far as I know, Topicalization and Left Dislocation in English display a similar opposition. Both express "aboutness" (cf. Reinhart (1981/2), but QPs are generally more acceptable in a topicalized position than in a left dislocated position. It is a well known fact that overt A' bound elements are subject to more semantic restrictions than their covert counterparts, for reasons that are not fully understood.

constructions express *"topichood"* (i.e pragmatic aboutness) and, arguably, this is the reason why in both only certain classes of XPs are allowed to occur in the LDed position. Furthermore, they are both *unbounded* and they both show properties typical of movement, namely *island sensitivity and connectivity*. Finally, both have a *gap* in the argument position that corresponds to the fronted constituent and, in both, the relation between the gap and the LDed XP is mediated through a special type of pronominal element, the *d-pronoun* and the *clitic* respectively. This is strong evidence, I think, in favor of maintaining the view of van Haaften, Smits and Vat (1983) that CLD and CLLD are the Germanic and Romance instances of the one major type of Left Dislocation identified by Cinque (1977), namely the *movement variant*. As we saw, there are also differences between CLD and CLLD. However, these differences are quite systematically related to the fact that CLD makes use of a *d-pronoun* with XP-properties while in CLLD the mediating element is a *clitic* with X^0 properties. In the next section I will try to spell out this idea in more detail.

3.2. CLLD and CLD: a difference in adjunction sites

In this section, I would first like to argue that Modern Greek CLLD should be analysed in terms of adjunction to IP, contrary to the proposals of Iatridou (1991a) and Demirdache (1991).[12] The analysis of CLLD as adjunction to IP may provide a principled explanation as to why CLLD is possible in all embedded environments while CLD is not. Then I will suggest that the difference in adjunction sites between CLLD and CLD doesn't have to be stipulated: it follows from general conditions under which Chains of this type are licensed. There are various possible ways in which this core idea may be implemented further; it should be noted that whatever analysis we eventually choose, the *clitic* and the *d-pronoun* must be assumed to have a similar function. The idea that the clitic in CLLD is the counterpart of the d-pronoun in CLD is not new; it has been suggested by Demirdache (1991). What I would like to show here is that by taking her proposal seriously not only can we account for the properties CLLD and CLD have in common, but we can also derive most of their differences. It is well known that *clitics* have different morphological, syntactic and phonological properties than *bare XPs*: it is, therefore, not surprising that the presence of a clitic instead of a phrasal element has a number of syntactic consequences. As far as I can see, this analysis has the advantage that it reduces parametric variation to a difference in the lexicon. However, it raises several non-trivial questions. For example, given that Germanic

[12] I would like to point out that Sabine Iatridou (p.c.) has informed me that she has independently reached the same conclusion on the basis of a similar reasoning.

languages also have clitics, why is it that they systematically lack CLLD? Another question has to do with the relation between CLLD, Clitic Doubling and Simple Cliticization. At the end of this section I will address these questions in more detail and try to suggest some potential approaches to them. A more complete discussion of the CLLD vs. Clitic Doubling issue will be included in the Appendix of this chapter.

Before proceeding, a few remarks on the framework adopted here. The analysis of clitic doubling presented in the previous two chapters was by and large "framework independent" in the sense that it was compatible with the Principles and Parameters Theory as well as the Minimalist Program. As will become apparent soon, the technical devices I will use here are not always compatible with Chomsky's (1992) system. More specifically: (i) I will abstract away from highly articulated structures where the various features tend to correspond to separate functional projections and I will only use CP and IP as "labels" for the clausal and sentential domain respectively. In other words, I will not resort to "intermediate" projections such as PolP (cf. Culicover (1991)), TopP (cf. Zwart (1993)), FP (cf. Uriagereka (1992)) or Sigma (cf. Laka (1990)) because I think that, at this point, the use of such projections might obscure the general picture we get. It is possible to "translate" everything into more articulated structures of this kind, but this would imply that in a language like Greek TopP must be defined as an IP-type of projection while in German it is part of the CP system: it is not entirely obvious why this should be so.[13] (ii) Unlike Kayne (1993), I will assume that there is a distinction between adjuncts and specifiers and I will also allow for multiple adjunctions (cf. Zwart (1993) who reformulates Kayne (1993) so as to maintain the distinction between adjuncts and specifiers and to allow for multiple adjunctions). (iii) I will make use of indexing (unlike Chomsky (1992)). (iv) It is an open question whether reconstruction effects can be fully reduced to copying (cf. section 3.3. for more discussion). (v) The notion of Government has a formal status within my analysis (recall that Chomsky (1992) attempts to eliminate government).[14] (vi) Finally, although I generally assume some version of Feature Checking (cf. chapter 2), I am not committed to the view that syntactic licensing always reduces to feature checking.

The reason for placing my analysis within the traditional GB system is that it is not yet clear whether it is worthwhile giving up a number of well defined notions and distinctions

[13]In other words, if Topicalization, CLLD, CLD etc. in both German and Greek make use of an extra functional projection such as TopP, then we cannot account for the root vs. non-root character of the phenomena under consideration unless we make some additional assumptions.

[14]cf. chapter 2 for some disccusion of the role of government in Case Theory.

such as, for instance, the difference between specifiers and adjuncts.[15] The recent papers by Chomsky (1992, 1994) and Kayne (1993) are highly programmatic and, despite the fact that we already seem to have some interesting results based on some of the ideas expressed there, there are several questions which are still open and technical devices which will have to be worked out in more detail. Nevertheless, although the analysis I will propose is not "minimalistic", it is not necessarily "antiminimalistic" in the sense that it should be possible to restate everything in terms of Chomsky's (1992) framework (cf. section 3.2.4.). Furthermore, the Minimalist Program is generally taken into consideration. For example, in sections 3.3. and 3.4. certain locality notions introduced or re-introduced by Chomsky (1992) and related work will be discussed, in particular the *Copying Theory* of traces and the *Shortest Steps Condition* on movement.

3.2.1. Embedded Root Phenomena and a Theory of CP-recursion

I will take as a point of departure the analysis of CP-recursion proposed by Iatridou and Kroch (1992).[16] They provide a detailed description of the licensing conditions of CP-recursion which allows us to distinguish between two major types of embedded topicalization phenomena: those involving CP recursion which are limited to contexts where there is government of a semantically vacuous CP by a higher verb and those not involving CP-recursion as indicated by the fact that embedded topicalization is free to apply everywhere, regardless of whether or not there is government by a higher verb. The gist of their proposal is that CP-recursion requires a special licensing mechanism and, for this reason, it is allowed to take place only under certain conditions. In what follows, I will provide an overview of the main points of this analysis.

First of all, Iatridou and Kroch (1992) argue that "if-then" conditionals in English involve a CP-recursion structure of the following type (cf. Iatridou and Kroch (1992:11-14) for more details):[17]

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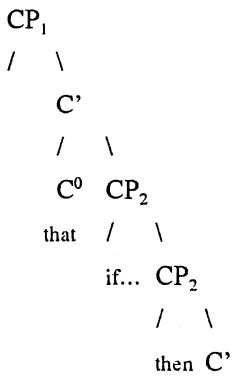
[15]Note, for example, that at the end of chapter 2 I mentioned that the somewhat "antiminimalistic" proposal of Adger (1993, 1994), which is based on the idea of Mahajan (1990), that there are two types of structural Case, Case under Government and Case under Agreement, might have certain advantages over Sportiche's (1992) alternative which is much more compatible with the Minimalist Program.

[16] This analysis is based on Iatridou (1991b).

[17] In order to show that "then" should be analysed as a specifier (i.e. contained in the XP (CP/IP) - selected by "that") rather than an adjunct, Iatridou and Kroch (1992) discuss contrasts like the following:

(1) a. Every boy wonders [if his mother comes [what he will do]]
b. *Every boy wonders [if his mother comes [then what he will do]]

(15)



Having argued in favor of (15) as the correct representation for conditionals with "then", Iatridou and Kroch go on to demonstrate that CP-recursion is licensed only in a very limited range of environments. In other words, they use conditionals with "then" as a diagnostic for CP-recursion. The advantage of this proposal is that it provides an independent test context according to which, only certain classes of embedded topicalization phenomena can be claimed to involve CP-recursion:

(16) John believes [$_{CP1}$ that [$_{CP2}$ if it rains [$_{CP2}$ then 0[$_{IP}$ the party will be cancelled]]

On the assumption that the if-clause in (1a) is adjoined to the CP introduced by "what", the grammaticality of (1a) is taken to indicate that adjunction to CP is possible because the adjoined XP does not block the government relationship between the matrix verb and its [+WH] CP-complement. On the other hand, whenever "then" is added the status of this sentence changes drastically (cf. (1b)). I&K claim that the ungrammaticality of (1b) indicates that the presence of "then" blocks government of the embedded clause by the higher verb (in turn, this is taken to suggest that "then" is the specifier of a "recursive" CP). It seems to me though that this argument is not necessarily valid. The ungrammaticality of (1b) does not uncontroversially show that "then" blocks the government relationship between the matrix verb and its complement CP. For example, if "then" is an adjunct then (1b) can be excluded on the basis of the hypothesis that double adjunction to CP is disallowed in English (Marcel den Dikken (p.c.) points out that examples like *"Honestly, to Mary, what should we give?"*, which are marginally acceptable in English, seem to indicate that double adjunction to (root) CPs is not impossible). Furthermore, Iatridou and Kroch seem to imply that adjunction to (argument) CPs is generally possible, a claim which is not immediately compatible with the "ban on adjunction" to arguments proposed by Chomsky (1986) (of course, Chomsky (1986) appealed to this prohibition only because he wanted to exclude adjunction via movement, not base generated adjunction, and relative clauses seem to indicate that base generated adjunction to arguments is allowed; still, as we shall see later on, it is not clear whether free adjunction to CP is generally possible). At the end of the next section it will be pointed out that in Modern Greek, the counterparts of (1b) have a strikingly similar distribution to the distribution of CLLD in a pre-complementizer position: both constructions are subject to several restrictions. This seems to suggest that the structure of (1a) is not as simple as Iatridou and Kroch assume (at least not in Modern Greek). Despite these complications, I will assume that (15) is correct for two reasons. (i) As I&K (1992:14) and Marcel den Dikken (p.c.) point out, languages like German and Dutch show that "dan(n)" ("then") should be analysed as a specifier given that it triggers V-2:

(2)	a.	Ik	denk	dat	als	Jan	komt,	ik	ook	kom
		I	think	that	if	Jan	comes,	I	also	come
	b.	*Ik	denk	dat	als	Jan	komt,	dan	ik	ook kom
		*I	think	that	if	John	comes,	then	I	also come
	c.	?Ik	denk	dat	als	Jan	komt,	dan	kom	ik ook

While (2c), with v-2 following the als-clause, is marginally possible in spoken Dutch (in bridge contexts), (2b) which lacks v-2 is completely ungrammatical. This contrast seems to indicate that it must be really the *dan* which triggers v-2 in these constructions, thus qualifying as specifier (many thanks to Marcel den Dikken for providing me with this argument).
(ii) Secondly, the CP-recursion structure (15) is plausible because it provides an immediate explanation for the fact that the syntax of "if-then" conditionals is similar to the syntax of embedded V-2 clauses in Frisian, Danish, etc., an otherwise mysterious correlation (cf. Iatridou & Kroch (1992), Zwart (1993) for more details).

(17) Adverbial adjunct
*Mary is happy, now that if she does a good job then she gets recognition

(18) Sentential subject
*That if John is angry then he yells at Bill bothers Mary

(19) Complex NP
??John reported the rumor that if it rains then the party will be cancelled

(20) Extraposition
?? He admitted it that if it rains then the party will be cancelled

(21) Topicalized sentence
*That if John is angry then he yells at Bill Mary knows

(22) Relative clause
*I saw the man who if it rains then my mother gives shelter to

(23) Negative verb
*I regret/doubt/am surprised that if it rains then the party will be cancelled

(24) Negated verb
?? I don't think that if it rains then the party will be cancelled

(25) Irrealis verb:
*I insist that if you are questioned then you answer honestly

(26) WH-complement
??He asked whether if it rains then the party will be cancelled

The ungrammatical examples (17)-(22) indicate that the second CP (CP_2) cannot be licensed if the first CP (CP_1) is not immediately governed by the matrix verb. Furthermore, CP-recursion is prohibited when CP_1 is a complement to a negative or negated verb or a verb that takes an irrealis or wh-complement, as the examples (23)-(26) show. These facts lead to the generalization under (27):[18]

(27) *a. CP-recursion is possible only under CPs that are governed by a verb*
b. CP-recursion is possible only under CPs selected by bridge verbs

It is significant that a number of related phenomena, such as embedded V-2 in Frisian, Danish and the other Mainland Scandinavian languages (cf. I&K (1992) for references), embedded Topicalization and CLD in colloquial Dutch and German (according to Zwart (1993) and Wiltscko (1994) respectively) and double "que" in Iberian Romance, display the same distributional restrictions. Two such examples are given below:

[18] cf. Authier (1992) for a comparable generalization with respect to Engish Topicalization (and negative inversion). English Topicalization will not be discussed systematically here because it presents some extra complications for the Iatridou and Kroch analysis. I will return to this issue later on.

(28) Danish (I&K (1992) citing Vikner (1991))

a. Peter troede at den film havde Maria ogsa set
Peter thought that this film had Mary also seen
"Peter thought that that film, Mary had also seen"

b. *Peter benegtede at den film har Maria set
*Peter denied that this film has Maria seen
"Peter denied that this film, Maria had seen"

(29) Galician (I&K (1992) citing Uriagereka (p.c.))

a. Di *que*, dado que a terra e redonda, *que* non e posible circundala.
(he) says *that* since the earth is flat, *that* it is not possible to circumnavigate it

b. ?*o rumor de *que*, dado que a terra e redonda, *que* e posible circundala
?*the rumor *that*, since the earth is round *that* it is possible to circumnavigate it

Given this parallelism, Iatridou and Kroch conclude the following: *"....Just those environments in which CP-recursion with conditional "then" is licensed in English are also those in which embedded v-2 is licensed in Danish and Frisian. [..] Therefore, we have provided evidence to support the CP-recursion analysis of embedded v-2 for Danish and Frisian and, at the same time, to reject it for Yiddish and Icelandic* [(i.e. the languages where embedded topicalization is free to take place everywhere (the comment is mine)]. *The exactness of the parallel between the behavior of embedded conditional "then" in English and embedded v-2 in Danish/Frisian shows that there is real empirical content to the notion of CP-recursion. It is not just a notational device for reconciling exceptional cases with the standard analysis of Germanic v/2."* (Iatridou and Kroch (1992:16)).

Before proceeding, two additional remarks on the properties of CP-recursion:
(i) It has been noted (de Haan and Weerman (1986), Authier (1992), Iatridou and Kroch (1992)) that CP-recursion occurs in just those environments, and with just those verbs, that allow deletion of the overt complementizer. This correlation strongly supports the view that a necessary condition for CP-recursion is government by a local L-marking verb (on the syntax of complementizer deletion, cf. Stowell (1981) and subsequent work).
(ii) The islandhood of embedded V-2 structures is usually viewed as a further diagnostic criterion for the presence or absence of CP-iteration. Consider the following cases (from I&K):

(30) Frisian embedded v-2

a. Hokker oersetting sei hy [$_{CP}$ dat net maklik lest]
Which translation said he that not easily reads

b. *Hokker oersetting sei hy [$_{CP}$ dat [$_{CP}$ t lest net maklik]
*Which translation said he that reads not easily

(31) English conditionals

a. What does John think that if his mother comes the guests will eat?

b. *What does John think that if his mother comes then the guests will eat?

(32) Yiddish embedded v-2

Vos hot er nit gevolt az in shul zoln di kinder leyenen

What has he not wanted that in school should the children read

(30) and (31) show that extraction out of CP-recursive structures is blocked. The fact that the Frisian v-2 example (30b) patterns exactly with the English one in (31b) containing a "then"-conditional confirms the proposal of Iatridou and Kroch (1992) that these two, apparently unrelated, constructions are nevertheless subject to the same structural analysis. Example (32) indicates that embedded v-2 in Yiddish does not create an island for extraction (from Santorini (1989)). Iatridou and Kroch attribute the contrast between Frisian and Yiddish with respect to extraction to the presence of CP-recursion in the former but not in the latter: *"...CP-recursion has always been considered a marked phenomenon; and since it introduces additional structure, it has the potential to add barriers to extraction"* (I&K (1992:10)). Although I agree that, according to what I have seen in the literature, extraction out of CP-recursion environments uniformly gives bad results, I would like to stress that embedded topicalization of the *unrestricted type* doesn't always give good results either. For example, extraction out of embedded v-2 sentences in Icelandic usually gives bad or marginal results and, according to Borer (1992), preverbal/postcomplementizer topics in Hebrew create an absolute barrier to extraction despite the fact that these structures don't qualify as instances of CP-recursion according to the distributional criterion. Nevertheless, the main point of Iatridou and Kroch (1992) is still valid: CP-recursion always adds barriers to extraction (cf. chapter 4, section 4.2.3. for discussion).[19]

Iatridou and Kroch propose that the generalization under (27) can be captured under the hypothesis that the second CP (CP_2) must be licensed by the matrix verb. This licensing is possible only when the higher CP (CP_1) does not constitute a barrier for licensing. Government by a [+V] category is assumed to void the barrierhood for licensing much like government by a [+V] category voids the barrierhood for extraction (on the relevance of government by a [+V] category, see Cinque (1990)). In this way, it is ensured that CP-recursion is allowed only under government by a verb. This gives us the first clause of the

[19] I would like to point out that the English facts are especially problematic for the correlation between iteration of CPs and the ban on extraction. Authier (1992) shows very convincingly that embedded topicalization and negative inversion in English should both be analysed as instances of movement to a (recursive) CP: in this way, the distributional properties of these constructions can be accounted for. On the other hand, there appears to be an asymmetry between topicalization and affective inversion structures with respect to extractions: according to Culicover (1991), only the former block extractions, the latter do not. This failure of parallelism between embedded topicalization on the one hand and embedded negative inversion on the other is not expected under this account.

generalization (27): the lower CP can be licensed only if the higher one is transparent (i.e. it does not block relations across it). I&K interpret this CP_1 "transparency" as *deletion at LF* (the plausibility of this proposal is reinforced by the observation that CP-recursion is possible in the contexts of Complementizer deletion). Under the hypothesis that contentful complementizers cannot delete (they satisfy the selection requirements of the matrix verb which are checked at LF; therefore, deletion is not possible and the lower CP cannot be licensed), the second part of the generalization in (27) is also derived.[20]

As far as I can see, this analysis has many advantages. It elegantly links together a number of, superficially unrelated, facts such as embedded v-2, extractability, complementizer deletion, licensing of "then" conditionals. It applies to languages as diverse as English, Galician and Danish and it makes very clear predictions: there is a principled reason why CP-recursion may apply only once at a time and only in certain environments. On the other hand, there is no reason to expect analogous limitations whenever CP-recursion is not involved. Finally, it is quite natural to expect that government by a [+V] category may play a special role in the theory of licensing via selection given that the role of government by a [+V] category is instrumental within the theory of locality (as will be pointed out in section 3.4., a device capturing "strong islands" is still needed within the minimalist framework: even if we avoid *government* we will still have to resort to a similar notion, possibly based on the *head-complement* relation). For these reasons, I will adopt this proposal with some further modifications which will be introduced immediately.

There are some residual questions Iatridou and Kroch do not address in their article: What forces CP-recursion to apply in the languages where it does? Furthermore, why couldn't embedded topicalization in Dutch and German have a form similar to the form of indirect questions, namely topic fronting without v-2? Here I would like to suggest a partial answer to these questions. The reader is referred to Zwart (1993) and Müller and Sternefeld (1933) for two recent proposals.[21]

Wiltschko (1994) points out the following problem. On the one hand, it is possible to show that Topicalization and CLD in Austrian German do not always require v-2:

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[20]The somewhat undesirable consequence of this analysis appears to be that certain types of complementizers must be treated as semantically empty, a consequence which may be too strong. For this reason, Iatridou and Kroch suggest an alternative way in which (27b) can be captured: CP_1 is allowed to delete only if its content is recoverable from the content of CP_2. CPs are assumed to be interpreted as *"affirmative-indicative"* by default. Hence, CP_2 will always be interpreted as *affirmative-indicative*, this being the reason why CP-recursion is limited to the context of *affirmative indicative* complementizers.

[21]These proposals are not compatible with one another. Here I am basing myself on Zwart (1993) who essentially follows Iatridou and Kroch (1992). Müller and Sternefeld (1993) offer an analysis of embedded topicalization that doesn't make a difference between languages like Frisian and languages like Icelandic or Yiddish. This distinction, however, is crucial because extraction across recursive CPs gives worse results than extraction across TopPs which can occur in any embedded environment (cf. chapter 4 for discussion).

(33) a. %Den Frosch, dass sie gekuesst hat, glaube ich dem Martin nicht
%The frog, that she kissed has, believe I the Martin not
"As for the frog, I don't believe Martin that she has kissed it"

b. %Den Frosch, den dass sie gekuesst hat, glaube ich dem Martin nicht
%The frog, pron that she kissed has, believe I the Martin not
"As for the frog, I don't believe Martin that she has kissed it"

On the other hand, however, topicalization and CLD of the type illustrated in (33) are generally impossible unless the complement clause occurs in a topicalized position:

(34) *Ich glaube dem Martin nicht den Frosch (den) dass sie gekuesst hat
*I believe the Martin not the frog (pron) that she kissed has
"As for the frog, I don't believe Martin that she has kissed it"

These cases are interesting because they show a number of things. First of all, the examples in (33) can be taken to indicate that Topicalization and CLD are, in principle, possible without v-2. This seems to suggest that it would be incorrect to propose for this dialect of German, that the marginality of embedded topicalization/CLD is due to the fact that topicalization may only take place under v-2 which, in turn, may occur only in root CPs. In other words, the sentences in (33) can be viewed as evidence that d-fronting does not presuppose v-fronting; in turn this implies that it is the requirement for CP-recursion that forces v-fronting and not vice versa. Furthermore, the grammaticality of (33a) and (33b) shows that we cannot account for the ungrammaticality of (34) on the basis of the hypothesis that the overt or covert topic-operator is not allowed to co-occur with the complementizer *dass* ("that"). It is the adjoined phrase that seems to cause the problem. Zwart (1993) has reached a similar conclusion for Dutch (his reasoning, however, is different).[22]

Basing myself on these Austrian German data, I would like to propose that the reason for the ungrammaticality of examples like (34) in all dialects of German and Dutch and for the obligatoriness of CP-recursion (for the speakers who accept embedded CLD/Topicalization) is the same. More specifically, I would like to attribute the ungrammaticality of (34) as well as the obligatoriness of CP-recursion to the following constraint:

[22]These sentences are absolutely impossible in Dutch, as Hans Broekhuis, Marcel den Dikken and Henk van Riemsdijk have informed me. They are also impossible in standard German (Henk van Riemsdijk p.c.). In view of the fact that the complementizer system of Southern German is different from the complementizer systems of Standard German and Dutch, it could be proposed that the asymmetric behavior of these languages/dialects with respect to the data in (33) has something to do with this difference: for example, Craig Thiersch (p.c.) points out that many speakers of German accept doubly filled Comp violations with *w-words* (i.e. sequences like *"wen daß"*), while Bavarians also accept sequences like *"dem wo"*, i.e. violations with *d-words*. Zwart's arguments in favor of the idea that the impossibility of embedded topicalization is due to the impossibility of adjunction to embedded CPs are conceptual.

(35) Don't adjoin to subordinate CPs

(35) says that it is impossible to adjoin to subordinate CPs in general, regardless of whether these CPs are arguments or adjuncts.[23] It is only possible to left-adjoin to CPs in root position (and probably also to CPs which are preposed, maybe as an instance of pied piping, as Wiltschko (1994) suggests).[24] (35) can be viewed as a filter, which is descriptively sufficient in the sense that it captures the contrast between (33) and (34). Alternatively, Zwart (1993:248) attempts to account for the ungrammaticality of embedded-topicalization structures in Dutch by appealing to the general ban on adjunction to arguments, as proposed in Holmberg (1986) and Chomsky (1986). However, under this approach it is not explained why topicalization is excluded also in adjunct clauses, as Zwart himself points out. Furthermore, the general well formedness of relative clauses shows that it might be incorrect to extend Chomsky's (1986) proposal to LD (recall that there are many similarities between the structure of relative clauses and the structure of left dislocations).[25] For these reasons, I propose to adopt (35) instead.

Although (35) might seem *ad hoc*, its correctness is supported by a number of considerations. First, as pointed out by Iatridou & Kroch (1992:12), it is rather hard to find elements adjoined to an embedded clause in English. We do find sequences like *"he said only that John is sick"* where *only* could be analysed as an adjunct to the CP introduced by *that*, but these cases constitute the exception rather than the rule. Furthermore, as Marcel den Dikken and Craig Thiersch (p.c.) point out, there is a question whether *only* in this case is really an adjunct. The opacity of *only-CPs* to extraction seems to indicate that *only* is a specifier rather than an adjunct, an analysis which would be compatible with the operator status of elements like *only* or *even*. One might wonder why there is a contrast between matrix environments, where adjunction to CPs is acceptable, and embedded environments, where adjunction to CPs is generally not attested.[26] Furthermore, it is rather uncontroversial that HTLD in English involves adjunction to CP; and, as the following HTLD examples indicate, there is an asymmetry between root and embedded HTLD (from Ross (1967)):

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[23]cf. Müller and Sternefeld (1993) who propose that adjunction to CP is a parameter, and Germanic languages don't have this option while, for example, Russian does.

[24]If CP-preposed clauses are base generated in a left peripheral position, then at no point in the derivation would these CPs occupy a subordinated position.

[25]Recall that Chomsky (1986:16) explicitely states that his principle applies only to movement-adjunction. Nevertheless, the deep reason underlying the ban on adjunction to arguments proposed by Chomsky is unclear.

[26]Recall from fn 17 the existence of sequences like : *Honestly, to Mary, what should we give?* which are never excellent, but often marginally acceptable in English (Marcel den Dikken (p.c.), Pesetsky (1989)).

(36) a. *The traffic light on the corner of Murk street*, the man my father works with in Boston is going to tell the police that that traffic expert has set *it* far too slow.
b. I said that *my father, he* was tight as a hoot-owl
c. *I acknowledged that *my father, he* was tight as a hoot owl
d. *My father*, that he's lived here all his life is well known to the cops.
e. *That *my father*, he's lived here all his life is well known to those cops.
f. *I said *my father* that *he* was tight as a hoot-owl[27]

The sentences in (36) are instances of HTLD in English (as indicated by the presence of the pronominal element IP-internally). (36b) shows that HTLD is licensed in embedded contexts. The contrast between (36b) and (36c) can be taken to indicate that embedded HTLD (like embedded topicalization) requires CP-recursion since it can only occur in bridge contexts. The requirement for CP-recursion can be taken to indicate that (i) HTLD always involves adjunction to CP (otherwise, (36c) would be grammatical as adjunction to IP) and (ii) adjunction to CP is not free to apply everywhere. On the other hand, (36a) and (36d) are grammatical: these sentences show that in root contexts, adjunction to CP is freely allowed.[28] The asymmetry between (36d), which is well formed, and (36f), which is not, can be taken to indicate that the adjunction to preposed CPs is permitted (provided that *my father* in (36d) can be analysed as being adjoined to the "that-clause"). Finally, the contrast between (36d) and (36e) can be accounted for in terms of (35) in combination with the conditions on CP-recursion proposed by Iatridou and Kroch.

One final remark. Iatridou and Kroch (1992:12) have proposed that "if"-clauses as in (37) should be analysed as CP-adjuncts:

(37) Every boy wonders if his mother comes what he will eat

If they are right, then (37) is a counterexample to (35). One possible way out would be to say that this example involves a parenthetical structure, as suggested by the authors themselves. Iatridou and Kroch (1992) claim that the presence of the quantifier in the matrix clause binding a variable inside the if-clause rules out this possibility; however, since we don't know much about the syntactic position of parentheticals it is not clear that their test is valid. Furthermore, constructions like (37) have a severely limited surface distribution (Marcel den Dikken (p.c.), Henk van Riemsdijk (p.c.), Craig Thiersch (p.c.). As will be shown later on, the Modern Greek counterpart of (37) is licensed only under certain

[27]The last example is not due to Ross.

[28]Note that (36d) is ambiguous: the LDed phrase could be adjoined either to the CP containing the "that-clause" or to the "that-clause" itself.

conditions which cannot be straightforwardly accommodated under a simple analysis in terms of adjunction to CP. The contexts in which structures like (37) are licensed are identical to those licensing CLLD in a pre-complementizer position in Greek. For these reasons, I don't think that (37) is a real problem for the constraint (35).

Summarizing so far, in this section I have provided a detailed outline of the theory of CP-recursion proposed by Iatridou and Kroch (1992) and I have argued that it is plausible to analyse German and Dutch embedded CLD (as well as Topicalization) in terms of CP-recursion. I proposed to account for the fact that left dislocated phrases are not allowed to precede *that* on the basis of the hypothesis that adjunction to a CP is allowed only under certain (poorly understood) conditions and I attempted to derive the requirement for CP-recursion in embedded clauses from this hypothesis. The implication of this discussion is that adjunction to a recursive CP is allowed, a suggestion which might gain support from the English facts concerning embedded HTLD discussed above, in particular the grammaticality of sequences like (36b) (cf. Zwart (1993) for a similar proposal).[29] It is tempting to suggest that (35) is a PF constraint, hence adjunction to a recursive CP is possible only because the deletion of the higher CP takes place at LF.

3.2.2. Greek CLLD does not involve adjunction to CP

In the previous section I argued that the constraints on the distribution of embedded Topicalization and embedded CLD in German and Dutch can be captured if we assume that the fronted XP is adjoined to CP. Under the hypothesis that adjunction to embedded CPs is severely limited, the requirement for CP-recursion can be accounted for. The structures in (38) and (39) summarize this proposal:

(38) *V $[_{CP}$ XP $[_{CP}$.....

(39) V $[_{CP1}$ that $[_{CP2}$ XP_{LDed} $[_{CP2}$.....

In this section, I will show that embedded CLLD in Modern Greek is free to apply everywhere, hence it does not require CP-recursion. The distribution of CLLD can be accounted for under the hypothesis that the left dislocated XP is adjoined to IP, contrary to

[29]We can account for the intuitions of the German and Dutch native speakers who reject these structures entirely either by appealing to the marked nature of CP-recursion or by disallowing adjunction even to recursive CPs.

what Iatridou (1991a) and Demirdache (1991) have proposed.[30] Consider the following grammatical Modern Greek sentences:

(40) Adverbial Adjunct

I Maria ine xaroumeni tora pu ton Janni ton paratise
The Mary is happy now that the John him left-3sg
"Mary is happy now that she left John"

(41) Sentential Subject

(To) oti tin Ellada tin kritikaroun sinexia enoxli tin Elena
(The) that the Greece it criticize-3pl always bothers the Elena
"That Greece is always being criticized bothers Elena"

(42) Complex NP

Akousa tin eidhisi oti tin Lena tin epiasan jia fono
Heard-I the rumor that the Lena her arrested-3pl for murder
"I heard the rumor that Lena has been arrested for murder"

(43) Extraposition

To paradexome oti tin diatrivi mu tin egrapsa viastika
It admit-1sg that the dissertation my it wrote-1sg in a hurry
"I admit it that I wrote my dissertation in a hurry"

(44) Relative Clause

Gnorisa ton anthropo pu tin Maria katafere na tin kani eftixismeni
Met-1sg the person that the Mary managed to her make happy
"I met the person that managed to make Mary happy"

(45) Negative Verb

Metanjono pu to party to mataiosa
Regret-1sg that the party it cancelled-1sg
"I regret that I cancelled the party"

(46) Negated Verb

Den nomizo oti to party tha to mataioso an vreksi
Not think-I that the party FUT it cancel if rain-3sg
"I don't think that I will cancel the party if it rains"

(47) Irrealis Verb

Epimeno oti tin erotisi prepi na tin apantisis eilikrina
Insist-1sg that the question must SUBJ it answer honestly
"I insist that you must answer the question honestly"

(48) WH-Clause

Anarotieme giati ton Janni ton sinelave i astinomia
Wonder-1sg why the John him arrested the police
"I wonder why the police arrested John"

[30]Recall, however, that in Iatridou (in progress) the CP-adjunction proposal is revised.

Examples (40)-(48) show that the left dislocated phrase of CLLD can occur at the front of any subordinate clause. In other words, the conditions on CP-recursion are systematically violated in the case of embedded CLLD. This clearly suggests that the complement of C^0 in these cases is not CP but rather IP and, therefore, the LDed phrase must be adjoined to IP.[31] The proposed structure is given in (49):

(49) C^0 [$_{IP}$ XP_{LDed} [$_{IP}$.....]]

If this is the correct structure for CLLD, then it is possibly not the correct structure for English Topicalization (cf. Authier (1992) contra Lasnik and Saito (1992)). Authier's proposal provides an immediate explanation for the distributional asymmetries between CLLD and Topicalization; under Lasnik and Saito's alternative the reason for the observed asymmetries remains unclear. If (49) is correct, then one difference between CLLD and CLD follows straightforwardly, namely the *difference (v)* presented in section 3.1.: CLD is a root phenomenon because the left dislocated phrase must be base generated as an adjunct to CP. Given that adjunction to subordinate CPs is severely limited, as I have attempted to show above, the only other alternative is CP-recursion, which may take place only under certain conditions. CP-recursion creates a pseudo-root environment which is the only embedded context in which adjunction to CP is allowed. On the other hand, CLLD does not presuppose adjunction to CP and, for this reason, embedded CLLD is always well formed. For the time being, it looks as if this difference in adjunction sites has to be stipulated. In the next section, however, I will show how we can derive it.

Recall that Iatridou (1991a) and Demirdache (1991) have treated Modern Greek CLLD in terms of adjunction to CP. According to this analysis, embedded CLLD always implies CP-recursion; however, if Iatridou and Kroch (1992) are right, then Iatridou (1991a) and Demirdache (1991) must be wrong, at least with respect to the sentences (40)-(48). The

[31]Strictly speaking, this is a rather arbitrary conclusion. For example, it could be suggested that the LDed phrase is the specifier of some intermediate projection, say TopP. Nevertheless, the adjunction analysis is consistent with the facts described so far. Furthermore, recall that I have decided to use no other functional projections at this point than just CP and IP. This narrows down the number of potential alternatives to the proposed adjunction structure. Finally, the most important reason for the IP-adjunction analysis has to do with the discussion in section 3.1. Recall that CLLD and CLD have many properties in common which can be straightforwardly accommodated under the hypothesis that CLLD is the counterpart of CLD. Given that the LDed phrase in CLD is a base generated adjunct, the hypothesis that the LDed phrase in CLLD is also a base generated adjunct is actually the null hypothesis. Ideally, it would be desirable to reduce A' movement to substitution for feature checking and A' base generation of the type described here to adjunction licensed by some other mechanism (predication might be a plausible candidate) but I am not sure whether this can be done. For arguments that the LDed phrase in CLLD is base generated in its surface position, cf. Cinque (1990), Iatridou (1991a) as well as the discussion in section 3.3. and in the Appendix of this chapter. That the distinction between adjuncts and specifiers becomes very unclear the moment we start postulating several additional abstract functional projections is clear from Kayne's antisymmetry proposal (1993) (also see van Riemsdijk (1994) for an interesting discussion on the more general *adjunction vs. substitution* issue and for an attempt to work out a constrained theory of movement-adjunction based on the notion of adjacency).

reason why Iatridou and Demirdache have proposed this is the well formedness of the following Modern Greek structures (cf. Zwart 1993 for similar cases in Middle Dutch):

(50) a. ?Ipe ton Petro oti ton agapai poli
?Said-3sg the Peter that him love-3sg much
"She said that Peter, she loves very much"

b. Anarotieme ton Janni jiati i Maria ton paratise
Wonder-1sg the John why the Mary him left
"I wonder why John, Mary loves"

Although (50a) and (50b) look similar, they differ in a particular point: (50a) is grammatical in Greek but ungrammatical in most other CLLD languages I know of, while (50b) is grammatical in many other languages as well (for example, it is well formed in Catalan and Spanish, cf. Solà (1992) among others). Here I will concentrate more on sentences like (50a) because the treatment of (50b) presupposes a thorough discussion of the syntax of wh-phrases in Greek, an issue which will be extensively investigated in chapter 4. Obviously, this kind of data are compatible with Iatridou's (1991a) and Demirdache's (1991) proposal while, at the same time, they appear to contradict the constraint on adjunction to subordinate CPs discussed in the previous section. More specifically, in (50a) the LDed phrase *ton Petro* precedes the complementizer *oti* ("that"). This means that *ton Petro* is either the specifier of CP or adjoined to it. It is certainly not adjoined to IP. Similarly, in (50b) the XP_{LDed} cannot be adjoined to IP and, moreover, if *jiati* ("why") occupies [SPEC, CP] then *ton Petro* must be adjoined to CP.[32] It thus looks as if the sentences in (50) should be represented as in (51):

(51) V^0 $[_{CP}$ ton Petro $[_{CP}$ .....]]

Suppose for a moment that (51) is correct. This would mean either that the filter (35) proposed in section 3.2.1. is incorrect or that it is a language-specific condition. In the event that (35) turns out to be wrong, our account for the differences between CLD and CLLD will not be challenged. It is fairly clear that CLD involves CP-recursion while CLLD doesn't.

[32]Let me briefly point out that it has often been argued that the WH-phrases in languages like Greek, Catalan and Spanish are not in [SPEC,CP] but rather in some lower position, namely [SPEC,IP] (cf. chapter 4 for discussion and references). The fact that in main and embedded interrogatives the subject is not allowed to intervene between the wh-phrase and the verb has been viewed as the most important argument in favor of this approach. If this proposal is correct, then structures with the LDed element preceding the wh-phrase do not necessarily constitute a problem for the adjunction to IP analysis of CLLD because the wh-phrase, arguably, occupies [SPEC, IP]. However, in chapter 4 I will provide some evidence against this analysis of wh-phrases. Independently of that, note that in (50b) the subject does occur between the wh-phrase and the verb (adjunct wh-phrases do not require Subject-Verb "inversion" of the type described above). This seems to suggest that *jiati* in (50b) is not in [Spec,IP] and, therefore, *ton Petro* cannot be adjoined to IP. It is clear from this discussion that sentences like (50b) present some additional complications. For this reason, I will abstract away from these cases for the moment. I will concentrate on (50a), which is a construction peculiar to Greek.

This difference still implies that the LDed phrase in the former construction is necessarily adjoined to CP while its CLLDed counterpart can be base generated as an adjunct to IP. As we shall see in the next section, there is no formal reason for preventing the CLLDed phrase from being base generated as an adjunct to CP. There is, however, a reason why the CLDed phrase cannot be adjoined to a position lower than CP. Hence, a structure like (51) would not constitute a problem for our analysis. However, if (35) is altogether false, then we lose our explanation not only for CP-recursion and the problem pointed out by Wiltschko (1994), but also the asymmetries between root and embedded HTLD in English discussed in the previous section. I conclude that (35) should be retained. The alternative, namely that (35) is a language specific condition is not implausible. We know that there are language-particular constraints on adjunction, a fact which suggests that base generated adjunction is subject to parametric variation. For example, Zwart (1993:249) points out that, while adverbs can occur between the complementizer and the subject in Dutch, in West Flemish they cannot; yet the two languages pattern alike in most other relevant respects. Similarly, the fact that some languages are strictly v-2 while others are not can be taken to suggest that the option for adjunction to the matrix CP or IP is much more limited in the former than in the latter.

Nevertheless, there are some independent reasons for not adopting (51) as the underlying structure of the instances of pre-complementizer CLLD discussed here. Under an analysis in terms of adjunction to CP, it is hard to account for the distributional properties of these constructions:

(52) "That" complements to bridge verbs

?Ipe tin Maria oti tin idhe sto cinema
?Said-3sg the Mary that her saw-3sg in-the cinema
"He said that he saw Mary in the cinema"

(53) WH-complements

Anarotieme tin Maria an tin agapas pragmatika
Wonder-1sg the Mary if her love-2sg really
"I wonder if you really love Mary"

(54) "Oti"(that)-complements to factive verbs

?Ksero/thimame tin Maria oti tin ixa dhi sto Parisi
?Know-1sg/remember-1sg the Mary that her had seen in Paris
"I know/remember that I have seen Mary in Paris"

(55) Irrealis verb

?Epimeno tin Maria oti prepi na tin sinantisis
?Insist-1sg the Mary that must SUBJ her meet
"I insist that you should meet Mary"

(56) Negated verb

?Den nomizo tin Maria oti/na tin exo sinantisi pote
?Not think-I the Mary that/SUBJ her have met ever
"I don't think I have ever met Mary"

(57) "That" complements to non bridge verbs

*?O Jorjos psithyrise tin Maria oti tin apelisan
*?The George whispered the Mary that her fired
"George whispered that Mary was fired"

(58) "Pu" factives

*Metaniono tin Maria pu tin proskalesa
*Regret-1sg the Mary that her invited
"I regret that I invited Maria"

(59) Adverbial adjunct

*I Katerina ine xaroumeni tin Maria tora pu tin proskalese
*The Katerina is happy the Mary now that her invited
"Katerina is happy now that she invited Mary"

(60) Extraposition

?*To paradexome to paper oti to exasa
?*It admit-I the paper that it lost-I
"I admit it that I lost the paper"

(61) Complex NP

?*O Jannis anefere tin eidisi tin Maria oti tin epiasan jia fono
?*The John reported the rumor the Mary that her arrested for murder
"John reported the rumor that they arrested Mary for murder"

(62) Relative Clause

*Gnorisa ton anthropo tin Maria pu katafere na tin iremisi
*Met-I the person the Mary that managed to her calm down
"I met the person that managed to calm down Mary"

(63) Subject Clause

*Akousa oti tin Maria to oti tin apelisan anisixi ton Janni
*Heard-I that the Mary the that her fired-they worries the John
"I heard that the fact that Mary was fired worries John"

These examples show that CLLD in a pre-Comp position is subject to several restrictions. First of all, even the grammatical sentences (52), (54)-(56) are no better than marginal.[33] If adjunction to CP is freely allowed in Modern Greek, then why is there a clear preference for the IP-variant (post-Comp) of embedded CLLD? A more serious problem has to do with the ungrammaticality of the sentences (57)-(63). As we can see, this type of CLLD is not

[33]Except for (53) which is well formed, cf. fn 32 and the references to Catalan and Spanish earlier in the text. This supports our previous conclusion that these cases should not be treated on a par with the other instances of pre-complementizer CLLD such as (50a).

permitted in contexts where long distance wh-movement is disallowed, i.e. with CP-complements to non-bridge verbs (57) and with CPs not governed by the verb (58)-(63).[34] If adjunction to subordinate CPs is generally possible in Greek, unlike German, Dutch, English, Italian etc., why is there a contrast between adjunction to IP, which is free to apply everywhere in Greek, and adjunction to CP, which can only occur only under certain conditions? Moreover, how are we going to account for the opposition between (52)-(56) which are wellformed and (57)-(63) which are not? I conclude that the *adjunction to CP-hypothesis* cannot be maintained as it stands.

What is interesting about the contrast between (52)-(56) on the one hand and (57)-(63) on the other is that it looks as if there is a system in it. CLLD is possible only at the front of CPs that are selected by verbs allowing for long-distance wh-movement. This leads to the following generalization:

(64) *Pre-complementizer CLLD is (marginally) possible when the CP is governed by the Verb (with or without semantic content)*

The only case which is not uncontroversially compatible with the generalization in (64) is the ungrammatical example (58), where the left dislocated phrase precedes the special complementizer *pu* introducing a factive CP. Factive clauses are usually treated as complements, yet pre-Comp CLLD is sharply ungrammatical. However, Varlokosta (1994) argues that "pu-factives" in Modern Greek are not governed by the verb. The ungrammaticality of (58) can be viewed as one more piece of evidence supporting her conclusion: it is clear from the data above that *pu-factives* do not behave like all other verbal complements with respect to this type of CLLD.[35]

Notice that if it is correct that Chomsky's (1986) ban on adjunction to arguments applies also to left dislocations, then (64) can be taken to indicate that the CP-adjunction analysis for this type of CLLD is wrong. Under Chomsky's proposal, we would expect exactly the reverse from what we actually find. Notice, furthermore, that languages which seem to permit adjunction to subordinate CPs in violation of (35) tend to conform with the ban on adjunction to arguments: attachment to the left of a complementizer is allowed when the CP

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[34]Note that ordinary CLLD is allowed with non bridge verbs:

(1) O Jiorgos psithyrise oti tin Maria tin apelisan
The George whispered that the Mary her fired-3sg
"George whispered that Mary was fired"

[35]For discussion of factives in Modern Greek, cf. Christidhis (1986), Roussou (1992), Varlokosta (1994). Varlokosta provides evidence that "pu-factives" should not be analysed as CP-complements of the verb with an operator in [Spec,CP] and the data presented here are fully compatible with her analysis. They are also compatible with Christidhes' analysis based on Kiparsky and Kiparsky (1970).

is an adjunct and disallowed when it is an argument (Russian might be such a language, cf. Yadroff (1994)). This could be viewed as indirect evidence that Modern Greek only apparently violates the filter (35).

Given that the CP-adjunction analysis cannot really account for the pattern exemplified in (52)-(63), I will attempt to explore some alternative possibilities which would be compatible with the hypothesis that the filter (35) is operative in Modern Greek as well. Apart from the fact that this would amount to the null hypothesis, it would also be the most interesting direction to take:

(a) CLLD to the left of Comp could be analysed in terms of a CP-recursion structure involving an empty complementizer selecting for a second CP to which the LDed element is adjoined. As we saw in the previous section, adjunction to recursive CPs is the only embedded context in which CP-adjunction can apply in languages where the filter (35) is operative. Under the hypothesis that the empty complementizer can be licensed only if it incorporates into a higher head (Pesetsky 1992), the generalization (64) can be derived: this type of CP-recursion takes place under government because, otherwise, some version of the HMC is violated. This accounts for the facts in (52)-(63). The fact that pre-Comp CLLD is disallowed with non bridge verbs like *psithyrizo* ("whisper") appears to support this analysis in the sense that the postulated empty complementizer can be claimed to belong to the subcategorization frame of only certain classes of verbs. The plausibility of this analysis for Modern Greek is reinforced by the observation that there is some independent evidence for the existence of empty complementizers in this language: subjunctive CPs in Modern Greek are introduced by the particle *na* which is, arguably, not a complementizer but rather a mood-marker (an M^0 element, cf. Philippaki (1987), (1992), Drachman (1990), (1991), (1992), Terzi (1992), Alexiadou (1993), Varlokosta (in progress) among many others); it is, therefore, not implausible to suggest that subjunctive complement CPs in Modern Greek are headed by empty complementizers. This solution would have one additional advantage, as far as I can see: it would capture the intuitions native speakers have about pre-complementizer CLLD. For most speakers (including myself), this construction feels like a kind of *"anacolouthon"*, it is a highly marginal structure which occurs only in spoken Greek. These are exactly the properties Zwart (1993) attributes to embedded CLD, properties which are expected if CP-recursion is a marked phenomenon, as Iatridou and Kroch (1992) have pointed out. What about the constraints on CP-recursion discussed in the previous section? Why is it that this construction doesn't fully conform to them? The answer appears to be that in this type of CP-recursion, the higher CP is necessarily transparent because the complementizer is empty (or because it ultimately incorporates into the verb). Of course, this analysis would be quite problematic from the point of view that the postulated CP-recursion structure raises several questions concerning the proper selection mechanism involved. It is,

therefore, not clear whether or not such a structure makes sense, apart from the fact that it solves a number of technical problems.

(b) A more promising direction to take would be to suggest that the XP_{LDed} has been moved into the functional domain of the matrix clause instead of being adjoined to the embedded CP. Zwart (1993:200, 247) has proposed the same for similar constructions in Modern Dutch (involving adverbs) and for Middle Dutch. This amounts to saying that sentences like (52)-(56) are instances of long distance scrambling, a solution which is appealing because the pattern exemplified in (52)-(63) can be straightforwardly accounted for: government by the verb is required simply because movement is involved (recall that movement may take place only across XPs that are governed by a [+V] category, as Cinque (1990) has shown).

This analysis might be plausible for Dutch but it is not clear whether it can work for Modern Greek as well. An immediate problem has to do with the fact that, while it is fairly uncontroversial that Dutch has productive short distance scrambling, it is standardly assumed that Modern Greek doesn't have scrambling at all. In fact, I argued in the previous chapter that the Modern Greek counterpart of scrambling is clitic doubling which doesn't involve overt movement of the object DP to some higher position. But even if there is some kind of short distance scrambling in Modern Greek, the existence of long distance scrambling is highly improbable.[36] It is possible to show that if the cases of pre-complementizer CLLD were to be reanalysed as instances of scrambling we would have to assume that this "scrambling" targets a very low position (in fact, the postulated movement would have to be completely vacuous since nothing is allowed to intervene between the element in Comp and the "left dislocated" XP). Witness the following opposition:

(65) a. O Jannis ipostirikse me megali pistikotita ton Petro oti ton epiasan
The John claimed very convincingly the Peter that him arrested
"John claimed very convincingly that Peter was arrested"

b. *O Jannis ipostirikse ton Petro me megali pistikotita oti ton epiasan
*The John claimed the Peter very convincingly that him arrested
"John claimed very convincingly that Peter was arrested"

Example (65b) seems to provide clear evidence against the treatment of precomplementizer CLLD as long distance scrambling, something which we would actually expect under the hypothesis that Modern Greek lacks scrambling. Thus, sequences like (65b) seem to exclude the "scrambling" alternative analysis for pre-complementizer CLLD. Nevertheless, I would

[36]For example, it could be argued that VOS orders involve some kind of scrambling if Kayne's (1993) "antisymmetry" proposal is taken into account (cf. Ordoñez (1994) for VOS orders in Spanish).

like to point out that this reasoning is valid only if we stick to the more traditional framework adopted here. If Kayne's (1993) "antisymmetry" proposal is taken into account then (65) doesn't show anything significant. The manner adverb must be assumed to be left adjoined to some XP (for example, to the VP) or be the specifier of some functional head inside or outside VP, in which case there is still place for *ton Petro* to move to (some relatively low functional position VP-internally, for instance). I conclude that the scrambling alternative for pre-Comp CLLD is very unlikely to be correct but that this possibility is not altogether excluded if Chomsky's (1994) and Kayne's (1993) proposals are taken into account.

(c) The most plausible alternative would be to suggest that these sentences do not really involve left dislocation. The fronted XP is actually the complement of an empty preposition expressing "aboutness" which belongs to the higher clause:

(66) Ipe $[_{PP}$ gia/0 [tin Maria $[_{CP}$ oti.....
"He said about Mary that...."

The clitic is forced to refer to the XP for whatever reason coreference is forced upon *subject pro* and *object clitics* in the following examples:[37]

(67) a. O Jannis$_i$ ipe oti pro$_{i/j}$ tha erthi
The John$_i$ said that pro$_{i/j}$ FUT come
"John said that he would come"

b. O Jannis$_j$ ipe jia tin Maria$_i$ oti pro$_{i/*j/*k}$ tha erthi
The John$_j$ said about the Mary$_i$ that pro$_{i/*j/*k}$ FUT come
"John said about Mary that she would come"

(68) a. O Jannis$_i$ ipe oti ton$_{i/j}$ egkatelipse i Maria
The John$_i$ said that cl$_{i/j}$ deserted the Mary
"John said that Mary left him"

b. O Jannis$_i$ ipe jia ton Kosta$_j$ oti ton$_{j/*i/*k}$ egkatelipse i Maria
The John$_i$ said about the Kostas$_j$ that cl$_{j/*i/*k}$ deserted the Mary
"John said about Kostas that Mary left him"

Under this approach both the pragmatic properties of these constructions and obligatory coreference would be immediately derived in a very convincing manner.
Unfortunately, there appear to be some problems with this approach despite its elegance: (i) The *gia* ("about")-paraphrase is not always appropriate in contexts where pre-complementizer CLLD takes place. For example, (69) below is ungrammatical while (55) above is fine:

[37] cf. Uriagereka (1994b) for an interesting analysis of obligatory coreference in such cases.

(69) *Epimeno jia tin Maria oti prepi na tin sinantisis
*Insist-I about the Mary that must SUBJ her meet
"I insist about Mary that you must meet her"

(ii) A second problem is that this analysis leaves unexplained the generalization in (64); there is no obvious reason why the complement CP must be governed by the matrix verb in order for the postulated aboutness phrase to be licensed.

As for the first objection, it is not really clear that this is a real problem because there are other aboutness paraphrases which are grammatical in contexts like (69). For example, (70) is well formed:

(70) Epimeno sxetika me tin Maria oti prepi na tin sinantisis
Insist-I about with the Mary that must SUBJ her mmet
"I insist about Mary that you must meet her"

With respect to the second objection, one possibility might be to account for the pattern in (52)-(63) by appealing to Case theory.[38] Under the hypothesis that the zero *"about"* preposition has no Case to assign, it is reasonable to propose that the verb must provide the empty preposition with Case. If the verb doesn't have a Case feature to assign, ungrammaticality will arise. It is quite possible that most grammatical and ungrammatical instances of precomplementizer "CLLD" can be accounted for along these lines. For instance, the verbs in (52), (53), (54) and (56), arguably, have a Case feature to assign (i.e. they may license bare NP complements); this feature remains unassigned since they select for CP-complements in these examples. Hence, they can provide the zero preposition with Case, this being the reason why these constructions are well formed. On the other hand, verbs like *metanjono/lipame (regret)* may never license bare NPs.[39] This can be taken to indicate that they don't have a Case feature to assign. In a similar manner, it could be argued that the verb in (57) takes a "cognate object" NP complement (i.e. *whisper* is actually "give

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[38] I want to thank Hans Broekhuis and Marcel den Dikken for their very useful comments. The discussion presented here is entirely based on their suggestions.

[39] Some examples are given in (1) and (2):

(1) a. *Metanjono kati
*Regret-I something
b. Metanjono jia kati
Regret-I for something
(2) Ipe/Thimithike kati
Said/Remembered-he something

Note that a verb like *epimeno* ("insist") would a problem for this approach. It doesn't license a bare NP-complement but it permits pre-complementizer CLLD.

a whisper"), this being the reason why (57) is ungrammatical. In (60)-(62) the verb has already assigned its Case feature (to the expletive in (60), to the NPs in (61) and (62)). Finally in (63) there is no Case feature to be assigned; in fact, it is not even clear that a verb like *anisixi* (worries) can assign structural Case. In other words, most of the relevant cases can be accounted for under this hypothesis. I conclude that the "aboutness" approach towards precomplementizer CLLD is conceptually the most convincing and technically not untenable.

Interstingly enough, the distribution of "if-clauses" in a precomplementizer position in Modern Greek is identical to the distribution of the pre-complementizer type of CLLD. Some examples illustrating this point are given below:

(71) ?Nomizo an vreksi oti to party tha mataiothi
?Think-I if rains-it that the party FUT cancelled
"I think that if it rains the party will be cancelled"

(72) ?Epimeno an erotithis oti prepi na apantisis eilikrina
?Insist-I if be asked-2sg that must SUBJ answer-2sg honestly
"I insist that if you are questioned you must answer honestly"

(73) Anarotieme an erthi i mitera mu ti tha fao
Wonder-I if comes the mother my what FUT eat
"I wonder if my mother comes what I will eat"

(74) *Lipame an vreksi pu tha mataiothi to party
*I am sorry if rains-it that FUT cancelled the party
"I am sorry that if it rains the party will be cancelled"

(75) *Gnorisa tin kopela an iparksi doulja pu tha tin proslavoun sto department
*Met-I the girl if there-is job that FUT her hire in the department
"I met the girl that if there is a job the department will hire her"

(76) *Ime xaroumeni an paro tin doulia tora pu tha exo lefta
*I-am happy if get-I the job now that FUT have money
"I am happy now that if I get the job I will have some money"

This observation is related to a problem pointed out earlier, namely that if grammatical sequences like *"every boy wonders if his mother comes what he will eat"* involve adjunction to CP, as Iatridou and Kroch (1992) have suggested, then we have a counterexample to the filter (35) which prevents adjunction to CP in embedded contexts. Although it is not clear how these sequences should be analysed, I think that their Modern Greek counterparts (71)-(76) indicate that an analysis in terms of CP-adjunction is not sufficient to account for the restrictions such constructions are subject to, given the reasoning adopted in this section. This issue requires further research.

To summarize, in this section I have argued that one major difference between CLD and CLLD, namely the *root vs. non root* asymmetry presented in section 3.1., is due to the fact that adjunction to IP is never possible in CLD but is always possible in CLLD. I showed

that, given the theory of CP-recursion discussed in the previous section, we must conclude that embedded CLLD does not involve adjunction to CP because CLLD to the right of Comp freely occurs in any embedded context. Then I investigated the distribution of CLLD to the left of Comp, showing that there are several problems with the hypothesis that adjunction to embedded CPs is allowed in Modern Greek. Finally, I explored some alternative ways in which the distributional properties of this type of CLLD can be derived. These alternatives would be consistent with the hypothesis that Modern Greek patterns with German and Dutch in not permitting adjunction to subordinate CPs.

3.2.3. On the differences between CLD and CLLD

Up to now, I have demonstrated that there is a difference in adjunction sites between CLD and CLLD which is responsible for their distributional asymmetries. In this section, I will attempt to show that we don't have to stipulate this difference. It follows from general conditions under which Chains of this type are licensed. More specifically, I would like to propose that CLD and CLLD are both represented along the following lines:

(77) $[_{FP}\ XP_{LDed}\ [_{FP}\ldots OP_{[+\ topic]}\ldots\ldots t..]]$

(77) instantiates an operator-variable chain properly contained within a propositional functional domain FP (CP or IP) to which the left dislocated phrase is adjoined.

As for CLD, it is fairly straightforward that the operator-variable chain is formed by the *d-pronoun* which is moved overtly to [Spec,CP]. Following Demirdache (1991), I propose to extend this analysis to CLLD as well, assuming that in this construction the operator-variable chain is formed by the *clitic* which moves overtly to some other position, namely the *clitic position*. Demirdache (1991) put forward a generalized treatment of *resumptive pronouns* as *syntactic operators* that move overtly or covertly. By adopting this line of analysis we can express the similarities between CLD and CLLD and we can also account for their differences.

There are various ways in which chains of this type can be described. One possibility is to treat the *d-word* and the *clitic* as vacuous operators with a logical translation equivalent to "such that" bound by an external antecedent (the left dislocated phrase).[40] In this manner,

[40]My account here is based on Lasnik and Stowell's (1991) discussion. It is interesting that most "weakest crossover", null operator constructions in Modern Greek systematically make use of resumptive clitics. In Parasitic Gaps, clitics are optional but strongly preferred. In "easy-to please" constructions, resumptive pronouns are obligatory. Finally, in appositive relatives, resumptive clitics are also obligatory. Given that the use of resumptive clitics in "null operator", "weakest crossover" environments is so systematic in Modern Greek, it is plausible to assume that in these cases the clitic is the

the fact that CLD and CLLD express "aboutness" would follow straightforwardly. Under this treatment, it is clear why there is this difference in adjunction sites between CLD and CLLD. In CLD the operator is in [Spec,CP] and, therefore, its antecedent can be no lower than [Spec,CP]; hence, it must be adjoined to CP. On the other hand, in CLLD the operator is the clitic which is licensed IP-internally in the clitic position. It follows that the left dislocated phrase can be adjoined to IP. Under the reasonable assumption that IP is not a barrier, its antecedent can also be adjoined to CP, but it doesn't have to be. An alternative way of looking at things would be to adopt the proposal of Iatridou (1991a). According to her, CLLD is a predication construction. The CLLDed element is the subject of predication and the rest of the clause is the predicate, the clitic chain being the predicate variable in the sense of Williams (1980), i.e. the open position which permits S (CP or IP) to behave as a predicate. Accordingly, the predicate variable in CLD would be the d-pronoun chain. Under this formulation, the difference in adjunction sites between CLD and CLLD can be derived in terms of restrictions on Predication given the definitions in, for instance, Williams (1980), Rothstein (1985) and Iatridou (1991a). In CLLD, IP may qualify as the predicate because it properly contains the predicate variable chain (i.e. the clitic chain). For this reason, the subject of predication can be adjoined to IP. On the other hand, IP cannot be the predicate in CLD because it does not properly contain the predicate variable chain (recall that the d-pronoun is in [Spec,CP]). Hence, the subject of predication cannot adjoin to IP.

I don't really want to go deeply into the question of how exactly chains of this type are licensed. For my purposes, it is sufficient to note that the adjunction site of the left dislocated element can be made to depend upon the surface position of the special pronominal element which in some way or other signifies topichood. This gives us the difference in adjunction sites between CLD and CLLD which, in turn, gives us one major difference between CLD and CLLD, namely the *root vs. non-root asymmetry*.

The stipulation that the *clitic* is the syntactic operator rather than the syntactic variable, which reflects the traditional idea (Huybregts (p.c.), Aoun (1981), Sportiche (1982), Drachman (1983) and others) that clitics are A' binders, requires some more discussion. For the time being, it is just the consequence of the hypothesis that CLD and CLLD differ minimally from each other, a hypothesis which seems motivated, as we saw in section 3.1. We have to take this step if we wish to pursue a unified analysis of CLD and CLLD. The extra advantage of this stipulation is that it may offer an explanation for the differences between CLD and CLLD presented in section 3.1.: *(i) phonological and syntactic properties of resumptive d-pronouns, as opposed to resumptive clitics, (ii) d-word placement vs. clitic*

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syntactic operator (in other words, the clitic could be viewed as the "spell-out" of a null operator which in some constructions must be overt). This would support our analysis of CLLD. I will not pursue this here.

placement, (iii) stacking of fronted elements in CLLD but not in CLD and *(iv) selective island sensitivity of CLLD vs. non selective island sensitivity of CLD*. More specifically:

(i) The *clitic* cannot be stressed or replaced by a phrasal category because it has the internal structure (syntax, morphology, phonological properties) of a clitic. *D-pronouns*, on the other hand, resemble *wh-phrases* in being able to carry stress and permitting pied-piping. Note that the clitics wouldn't be the only syntactic operators that systematically resist pied-piping: *null operators* have exactly the same property (on pied-piping and empty Operators, cf. den Dikken (1992a), Ruys (1994a) among others). At this point, it is rather unclear whether or not the similarity between clitics and null operators with respect to pied-piping is accidental. On the one hand, it is plausible to suggest that the clitics cannot be replaced by phrasal categories because of their defective internal structure. On the other hand, however, it is intriguing that in languages like Modern Greek, resumptive pronouns of the type discussed here are systematically employed in null operator constructions, as was pointed out in fn 27. I will leave this matter open for further research.

(ii) Special *clitics* have different landing sites than (even bare) XPs. The clitic-position is always a special syntactic position, despite the fact that different types of clitics in different languages or even within the same language may have very different landing sites. As far as I can see, the proper treatment of clitic placement is one of the most puzzling problems for syntactic theory and the actual landing site for clitics is not clear at all. Given that in the previous chapter I proposed to represent clitic doubling along the lines of Sportiche (1992), I would like to point out that resumptive clitics may differ structurally from doubling clitics. Although I argued that Sportiche's (1992) uniformity hypothesis for clitic constructions is conceptually satisfactory, I also pointed out that there are some problems related to it. Thus, I am not commited to the view that simple clitics, doubling clitics and resumptive clitics are necessarily represented in the same way.[41] In fact, Delfitto (1994) and Torrego (1994) assume that doubling clitics are different syntactic objects from simple clitics, and they might be right. Of course, a unified analysis of clitic constructions would be desirable, especially from a learnability point of view, but there are many reasons in favor of dissociating CLLD from clitic doubling which are forcing us towards the conclusion that doubling clitics are different syntactic objects than resumptive clitics.[42] Despite the fact that clitic placement is

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[41]Recall that I argued that "animacy" is particularly problematic for the uniformity hypothesis. Interestingly enough, Torrego (1994) arrives independently at a similar conclusion, namely that clitics which are [+animate] in Spanish are different syntactic objects than their [-animate] counterparts.

Although I don't intend to discuss simple cliticization in this thesis it is plausible to suggest that non doubling clitics and resumptive clitics are similar in that both originate in a theta position (they are argumental, as Torrego (1994) puts it). On the other hand, doubling clitics are Agr/Case/D-linking "markers", i.e. they start as Agr^0 or $Cl_{acc}{}^0$ heads (functional heads which belong to the extended projection of verbs).

[42]From this point of view, it is puzzling that the landing site of clitics is always the same, regardless of their function; but for the time being, I see no better alternative.

very unclear, it is fairly straightforward that clitics end up being licensed in head-like positions (possibly an empty functional node, $AgrS^0$ or T^0). In Greek, as in many Romance languages, this position is somewhere lower than Comp, as indicated by the fact that there is systematic proclisis in this language and that clitic placement doesn't display any root-embedded asymmetries.[43] On the other hand, d-pronouns are licensed in [Spec, CP] which is a typical Operator position for XPs. It follows that the *d-pronoun* must be the first element after the left dislocated phrase; the fact that the *clitic* is licensed IP-internally implies that it doesn't have to be adjacent to the left dislocated phrase (as will be shown in chapter 4, the orders SVO, VSO and XPVSO are invariably attested in Modern Greek). Thus, the asymmetry between d-"resumptive" placement and clitic-"resumptive" placement can be made to depend upon the asymmetry *"XP vs. X^0"*, which is a consequence of either the *internal structure* or the *morphological properties* of the elements under discussion.

Before proceeding, I would like to consider briefly the difference between *d-pronouns* and *clitics* from the viewpoint of Chomsky's (1994) "bare phrase structure".[44] Chomsky (1994) suggests that, in principle, there are two kinds of pronominal elements, weak ones that are morphologically marked as affixes and must cliticize and strong ones with internal structure, which do not cliticize (cf. previous proposals along similar lines). It seems reasonable to adopt a variant of this idea in order to account for the difference between resumptive clitics and resumptive d-pronouns. In particular, it could be suggested that both clitics and d-pronouns are maximal and minimal, but clitics are morphologically marked as affixes while d-pronouns are not. This means that the former must cliticize while the latter cannot. For this reason, d-pronouns raise to some X^{max} position. As a result, the whole d-pronoun chain gets interpreted as being maximal due to chain uniformity. On the other hand, clitics are affixes and they adjoin to inflectional heads retaining their X^{max}/X^{min} ambiguity for the reasons outlined in Chomsky (1994:20).[45] The implication of this analysis would be that the

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[43] For discussion of the implications of enclisis, proclisis and root-embedded asymmetries for the syntax of clitic placement, cf. Roberts (1994) and Uriagereka (1992, 1994a) among others.

[44] I would like to thank Riny Huybregts and Craig Thiersch for discussion.

[45] Alternatively, we could perhaps propose that the two types of resumptive pronouns/operators have different syntactic properties and, therefore, they target different positions. Both are determiners D but the former are weak while the latter are strong, maybe along the following lines:

(1) a. DP
tin

b. DP
/ \
d- pro/{f_1,f_2...f_n}

The structural difference between (1a) and (1b) can be considered responsible for the fact that resumptive clitics share XP and X^0 properties qualifying as minimal and maximal at the same time, while d-pronouns behave as if they are unambiguously X^{max}. However, given that d-words show up as determiners (i.e. heads selecting for NP-complements) with a demonstrative force it is rather unlikely that they have a structure as in (1b) (thanks to Hans

syntactic representation of resumptive clitics differs from the syntactic representation of doubling clitics, a consequence which is not necessarily undesirable, as I pointed out above.

(iii) A well known difference between CLLD and CLD is that multiple dislocations are permitted in CLLD but not in CLD. I propose to link this difference to the observation that *clitics* are allowed to form *clusters* while *d-words* are not. The latter require a unique [SPEC,CP] position in order to be licensed. Notice that it would be difficult to account for the third asymmetry between CLD and CLLD by appealing to the left dislocated phrases themselves because there is no visible contrast between the left dislocated elements in CLD and their CLLD-counterparts. In both constructions the LDed element can be any XP and, arguably, is a base generated adjunct. Under the assumption that multiple adjunctions are generally possible (while the option for having multiple specifiers is either completely unattested or subject to parametric variation), the easiest way to exclude multiple adjunction would be to appeal to some locality constraint (cf. Lasnik and Saito (1992) for English Topicalization). But as the left dislocated phrase is clearly base generated in CLD, we cannot rule out multiple CLD on the basis of a condition on movement. The alternative possibility, namely that multiple left dislocations are generally possible provided that there is a resumptive operator for each phrase, is not unreasonable. It raises, however, the question as to how adverbial and predicative left dislocated elements are licensed in CLLD. This is not a problem for Italian CLLD because adverbial and predicative "resumptive" clitics do occur (though not obligatorily, cf. Cinque (1990) for discussion). As for Modern Greek, we would have to propose that this language has null adverbial and predicative clitics.

There is one additional question we need to address at this point.[46] Given that we allow for multiple left dislocations on the condition that there is multiple operator fronting why is it that the number of base generated phrases depends on overt movement? In other words, why is it impossible for a second left dislocated phrase in German to be licensed via LF movement of a *d-pronoun* which remains in situ before Spell-Out? We could attempt to answer this question by suggesting that Comp-related movement can only be syntactically performed (adopting Chomsky's (1992) proposal); *d-fronting* qualifies as Comp-related movement, hence it cannot take place covertly. Altrenatively, we could reduce this question to the more general question concerning an asymmetry between *wh-operators* and *d-operators* in German and Dutch. While it is quite clear that *w-phrases* can be licensed in situ under a question interpretation it is not so clear that *d-phrases* in situ can have an operator function. We saw that Left dislocation with a *d-pronoun* in situ has the properties of HTLD. If this is

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Broekhuis for discussion).

[46]This question was raised by Hans Broekhuis during a workshop on Left Dislocation organized by H. van Riemsdijk and F. Zwarts, Tilburg, May 1994.

correct, then we will never be able to check whether or not LF-movement of a d-operator in situ may license a second left dislocated phrase because there is no covert movement of d-operators in the first place. Alternatively, we could claim that, for some reason, *multiple CLD-d-words* are impossible in German/Dutch, unlike multiple *Question-w-words*. The following sentence (Henk van Riemsdijk, p.c.) seems to support this point:

(78) Jan##op school daar zag ik hem/*die niet
Jan##at school there saw I him/**die* not
"John, at school, I didn't see him there"

The fact that in (78) a *d-pronoun* in situ cannot co-occur with a fronted *d-pronoun* suggests either that the HTLD variant with a d-word in situ actually is a CLD construction or that multiple d-pronominalization is impossible. In view of the fact that the connectedness effects displayed by this variant of "HTLD" are never that strong (cf. van Haaften, Smits and Vat (1983)), it is justified to propose that this variant of HTLD is at most ambiguous between a HTLD and a CLD structure. If this conclusion is correct, then it is not clear why *die* in (78) is ruled out, while its pronominal counterpart is grammatical. It could thus be suggested that the reason for this is that *die* is not allowed to co-occur with *daar* in this example. This could provide an answer to the question mentioned previously.

(iv) There is one more difference between CLD and CLLD we need to address at this point. CLD is sensitive to wh-islands while CLLD is not. Given that section 3.4. is devoted to the selective island sensitivity property of CLLD, I would like to avoid discussing here in detail this asymmetry and its implications. It is enough to note that wh-islands are ideal candidates for the "minimal link condition" (MLC) on non-L-related movement (cf. the discussion in Chomsky (1992) and Chomsky (1994) which goes back to Frampton's (1991) interpretation of Rizzi's (1990) Relativized Minimality). Given that d-pronouns are licensed in [Spec,CP] while clitics are not, we expect the former to be sensitive to an occupied [Spec,CP] position and the latter not. Things are actually not as simple as that, as we shall see later on; for the time being, however, this very general point should be sufficient.

To conclude, in this section I have argued that the similarities between CLLD and CLD can be accounted for if we assume that both are Chains consisting of a base generated phrase adjoined to a propositional functional domain which is defined over a resumptive operator chain (either a vacuous operator chain or a predicate-variable chain) created by a pronominal element which moves overtly. As for the asymmetries between CLLD and CLD, I proposed that they ultimately reduce to a difference in the lexicon which has several syntactic consequences: in CLLD the Operator-Variable chain is formed by the *clitic* which may qualify as X^{min} and X^{max} simultaneously while in CLD it is formed by the *d-pronoun* which

is unambiguously an XP. Under this approach, the differences between CLD and CLLD follow. Independent evidence that CLLD should not be analysed as a movement construction will be presented in sections 3.3. and 3.4. and in the Appendix of this chapter. The consequence of this analysis might be that doubling clitics and resumptive clitics should not be analysed on a par. That this conclusion is on the right track is supported by the observation that in Modern Greek, resumptive clitics are systematically employed in null operator, "weakest crossover" configurations (cf. fn 40). It would be hard to maintain a clitic doubling analysis for all of these constructions (especially problematic would be a doubling analysis for parasitic gap constructions and easy-to-please constructions).

3.2.4. Why is CLLD impossible in German and Dutch?[47]

The analysis presented so far appears to create a problem. In view of the fact that simple cliticization exists in German and Dutch, it looks as if we may incorrectly predict the existence of CLLD in these languages. The left dislocated phrase could adjoin to an F(unctional)P properly containing the clitic-variable chain created by the movement of a simple clitic such as *"'m"* (him) or *"'r"* (in Dutch) to the clitic position. Yet such sequences are completely unattested in German and Dutch, as is well known. Although I don't have a full answer to this question, I would like to consider some potential solutions to it.

As far as I can see, an answer might be given within a checking approach towards Topicalization. We would have to slightly reformulate our analysis so far and suggest that left dislocation of the type discussed here involves checking of a feature [+topic] which is hosted in Comp in languages like German and Dutch but in some lower position in CLLD languages (cf. Zwart (1993) for German and Dutch). Alternatively, we could suggest that the feature [+topic] is always hosted on a functional node Top^0/F^0 which is syntactically inactive in the languages described here, in the sense that it is able to neither trigger movement nor license a specifier (I follow Uriagereka's (1992), (1994) discussion on F^0, cf. chapter 2). In principle, there are two possible ways in which the feature [+topic] can be checked in such a language:[48] Top^0 may either cliticize onto Comp or select for an appropriately specified Agr^0. We could propose that the choice between one of the two options depends upon the properties of the lexical element which may function as the topic operator. If *d-words* are specified for the feature [+topic] in German and Dutch while *clitics* have this specification

[47]Both Henk van Riemsdijk (p.c.) and Riny Huybregts (p.c.) have asked me this question. I would like to thank them for pointing out this problem to me and for discussion.

[48]cf. Uriagereka (1992, 1994) and Delfitto (1994).

in Greek and Italian it follows that the d-word can only be licensed in [Spec,CP] while the clitic can not be licensed in this position (presumably because it is morphologically specified as being an affix). Thus, the movement option is chosen in German and Dutch while the selection option is chosen in Greek and Italian. It seems to me that something like this might solve the problem, but in a rather arbitrary way. We would have to stipulate that clitics cannot be specified as [+topic] in German and Dutch though they can be specified as [+topic] in Greek and Italian; it is not obvious why this should be so. On the other hand, some arbitrariness is always involved in the lexicon; it characterizes even closed class elements of the type described here. For example, I see no deep reason as to why *"w-words"* can be ambiguous between an *interrogative* and an *indefinite* reading in German while this is never the case with Greek *p/t-words*, as the following examples show:

(79) a. Was willst du?
What want you?
"What do you want?"
b. %Ich will was
%I want what
"I want something"

(80) a. Ti thelis?
What want-2sg?
"What do you want?"
b. *Thelo ti
*Want-1sg what
"I want something"

One way to describe the facts in (79),(80) would be to suggest that *w-words* in German are always specified as [+WH] but can be underspecified for the feature [±Q]. Interrogatives as in (79a) are [+WH,+Q], while indefinites as in (79b) are [+WH,-Q].[49] For some reason, the second possibility is never realised in Greek. The problem we are dealing with here is of a similar nature. Under the assumption that there is a minimal difference in features between resumptive clitics of the type described here and simple clitics (the former are specified as [+topic] while the latter are not), the assumption that in German and Dutch the specification [+topic] corresponds to a particular lexical D item is not unreasonable. In other words, German and Dutch choose to morphologically realise the feature [+topic] while Greek and Italian do not. Notice that a similar problem arises under an analysis of Germanic argumental clitics as determiners because Germanic clitics are not morphologically identical

[49]These characterizations are not compatible with the standard assumption that wh-movement is triggered by the [+WH] feature which is indistinguishable from the [Q] feature, but it is not clear that this interpretation of wh-movement is correct (cf. Pesetsky (1994) for arguments against this approach; I will come back to this in the next chapter).

to determiners, contrary to their Romance and Greek counterparts. Delfitto (1994) suggests that the discrepancy between Germanic clitics and Romance clitics with respect to this property can be accounted for if argumental clitics are analysed as definite determiners endowed with a particular discourse feature triggering cliticization which he calls [+F] (this feature signifies context sensitivity). Under the hypothesis that clitics differ minimally from definite determiners in that they are Ds with an F feature ($D_{[+F]}$), we can correctly account for the, so called, "homonymy problem": clitics may be homonymous with definite articles but some languages choose to have a distinct morphological realization for the items which are inherently specified for the feature [+F]. In a similar manner, we can account for the difference between Romance topic operators and their Germanic counterparts along the lines suggested above.[50]

There is a second alternative possibility which I find more interesting; it would lead us too far afield to explore it here in detail because it seems to imply that Romance clitics are fundamentally different from their Germanic counterparts. Interestingly enough, there appears to be an one-to-one correspondence between the elements used as the Left Dislocation *operators* and the elements used as *determiners*. In particular, Romance and Modern Greek CLLD *"clitics"* are identical to the *definite articles* in these languages. Similarly, in Dutch the CLD *"d-pronouns"* morphologically coincide with *demonstratives* which can be used as *definite determiners* with a special deictic force (in German, as far as I know, demonstrative pronouns morphologically coincide with definite articles and d-pronouns morphologically coincide with both). I would like to suggest that this similarity is not accidental. Under the assumption that definite determiners signify "uniqueness" in the traditional sense (i.e. the presence of a iota operator), it is not implausible to suggest that the items used as definite determiners in a particular language are the ones which may also function as *"topic-Operators"* because they are intrinsically endowed with operator properties. Given that d-determiners are *morphologically strong* (the fact that d-determiners never act as phonological clitics can be used as evidence for that) while their Greek and Romance counterparts are *morphologically weak* (for example, in Modern Greek, the definite article is a phonological clitic), it is predicted that the topic-operator in German and Dutch will have the properties of an independent word while its Greek and Italian counterpart will behave like an affix. The advantage of this analysis would be that we would avoid stipulating that the feature *topic* or, more generally, the *operator properties* characterizing a particular lexical item are arbitrarily linked to *clitics* in Romance and Greek and to *d-words* in German and Dutch; furthermore,

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[50]Marcel den Dikken points out that it is not clear why a scrambled *d-word* does not license CLLD, given that scrambling has properties of operator-variable constructions. My answer to this question would be to capitalize on the differences between scrambling/doubling on the one hand and CLLD/CLD on the other. It is clear that both construction types have semantic properties. However, the features they check are very different and this is reflected on the fact that the former type is clause-bound while the latter is unbounded (see the introductory chapter of this dissertation).

this analysis would enable us to provide a principled explanation for the systematic correlation between topic-operators (vacuous operators) and definite determiners in the languages under discussion. The consequence of this analysis appears to be that Germanic clitics do not have intrinsic Operator properties, contrary to what Sportiche (1992) and Delfitto (1994) have suggested; furthermore, under this approach Germanic clitics can be no longer viewed as having the semantics of definite articles. The further implication of this analysis would be that the correlation between resumptive clitics and simple clitics in languages like Greek and Italian is no longer clear; if Germanic and Romance/Greek clitics have identical syntax and semantics and if Germanic clitics do not have operator properties then it follows that Romance/Greek clitics have no operator properties either. Alternatively, it could be suggested that Romance/Greek clitics differ from their Germanic counterparts in a very fundamental way. This latter possibility might not be unreasonable in view of the syntactic, morphological and semantic differences between Germanic and Romance clitics (for example, they have different landing sites, Romance clitics are homonymous with definite articles while Germanic clitics are not and, finally, there are absolutely no cases of object clitic doubling in German, Dutch etc. while object clitic doubling is quite common within the paradigm of Romance and Balkan languages). Obviously, this issue requires a much more careful investigation, something which is beyond the scope of the present analysis, but it might be a promising direction to take.

3.3. Cinque's Paradox (i): Connectivity and Reconstruction

Since we analyse the left dislocated XP of CLLD as being base generated in its surface position we have to address *"Cinque's Paradox"*; namely the fact that CLLD displays Connectivity and Island Sensitivity. In this section, I will discuss Connectivity with respect to Binding from the point of view of Chomsky's (1992) copying theory of traces. I will argue that under a view of movement as a process consisting of one or more copying operations, it is possible to show that the CLLDed phrase has not been moved from an IP-internal argument position. This is a wellcome result, not only because Connectivity is at first sight problematic for the view on CLLD adopted here, especially if the Minimalist Program is taken into account, but also because we can show that there is independent syntactic evidence in favor of the approach to CLLD adopted here and against the Clitic Doubling alternative.

Chomsky (1992) notes that reconstruction is a problematic operation, especially when it is assumed to take place after LF-movement, thus restoring material that has been moved covertly. A technical device that can be used instead is the copy theory for movement: under this view, the trace left behind is a copy of the moved phrase that is deleted by a PF deletion

operation, which is probably a subcase of a broader principle that applies in ellipsis and other constructions. At LF, the copy remains, providing the materials for "reconstruction". If reconstruction effects presuppose a copying process of the type described here, then the following CLLD examples are problematic for our analysis:

(81) a. *[Ton eafto tu]$_j$ O Jannis$_j$ lei oti pote den ton$_j$ skeftomaste
*[The self his]$_j$ the John$_j$ says that never not CL$_j$ think-1pl
"John says that we never think of himself"

b. [Ton idhio]$_j$ O Jannis$_j$ lei oti pote den ton$_j$ skeftomaste
[The self]$_j$ the John$_j$ says that never not CL$_j$ think-1pl
"John says that we never think of himself (LD)"

c. [Ton eafto tu]$_j$ o Jannis$_j$ den ton$_j$ skeftete
[The self his]$_j$ the John$_j$ not CL$_j$ thinks

d. *[Ton idhio]$_j$ o Jannis$_j$ ton$_j$ skeftete
*[The self]$_j$ the John$_j$ CL$_j$ thinks

Modern Greek has two anaphoric elements, a short-distance anaphor *o eaftos mu* and a "long distance" anaphor *"o idhios"* (cf. Iatridou (1986), (1988), Hornstein and Varlokosta (1993), Varlokosta (in progress) and Anagnostopoulou (1993c) among others for a detailed investigation of the properties of *"o eaftos mu"* and *"o idhios"*). The element *"o eaftos mu"* behaves as a complex anaphor of the *"himself"*-type as described by Koster and Reuland (1991), Everaert (1991) and Reinhart and Reuland (1991) among others: it is a non-subject oriented anaphor which can never violate the Specified Subject Condition or the Tensed-S Condition.[51] On the other hand, *"o idhios"* must be bound across a sentence boundary (i.e. it systematically violates SSC and the Tensed-S Condition) but only under certain conditions, as Hornstein and Varlokosta have shown. I call *"o idhios"* an anaphor because it must have an antecedent and a "long-distance anaphor" because it does not obey the locality restrictions characteristic of anaphors. However, *"o idhios"* is not an LD anaphor of the type described in Koster and Reuland (1991); for an interesting analysis, see Hornstein and Varlokosta (1993) and Varlokosta (forthcoming). The examples in (81) show that the clitic left dislocated elements *o eaftos mu* and *o idhios* behave with respect to Binding as if they would occupy the position of the clitic-gap IP-internally. More specifically, (81a) is ungrammatical because *"ton eafto tu"* cannot be linked to the DP *o Jannis* which is the subject of the matrix clause, presumably a *Condition A* violation. On the other hand, in (81b) the clitic left dislocated phrase *ton idhio* is interpreted as being bound by the matrix subject *o Jannis*; the result is grammatical for whatever reason grammaticality arises whenever *ton idhio* is the object in

[51]The anaphor "o eaftos mu" differs from "himself" in being able to occur as the surface subject of inverse linking psychological predicates, cf. Anagnostopoulou (1993) for an analysis.

an *oti* ("that")-CP complement to a matrix verb which projects to a clause containing its antecedent. Conversely, (81c) is grammatical apparently because Principle A is obeyed and (81d) is ungrammatical for whatever reason the non emphatic *"ton idhio"* would be ruled out in object position. Thus, the Modern Greek examples in (81) show that (i) CLLD qualifies as a *movement* construction w.r.t. *reconstruction* with respect to Principle A and (ii) CLLD qualifies as an *A' movement* construction with respect to *reconstruction* (cf. the discussion on Scrambling, Mahajan (1990) etc.).

Connectivity is problematic for a base generation approach towards CLLD, especially if reconstruction is necessarily dependent upon the existence of a copy of a moved phrase. If the left dislocated phrase has not been moved at all why is reconstruction possible? Cinque (1990) suggested that CLLD shows that connectedness is a property of *binding chains* of the type he described in detail, regardless of whether these chains are base generated or not. Here I would like to provide empirical support in favor of his proposal showing that there are two types of reconstruction effects: full reconstruction effects presuppose movement which leaves behind a layered trace. On the other hand, CLLD does not exhibit full reconstruction effects. This can be taken to suggest that there is no layered trace, presumably because there is no movement of a full XP. Connectivity characterizes CLLD because there is a chain which permits transmission of features relevant for Binding Theory.[52]
Consider the following Modern Greek examples:

(82) a. *[O Jannis] tis_j epesterpse [to vivlio [tis $Marias_j$]]$_i$
*[The John] IO_j gave back [the book [the_{gen} $Mary_j$]]$_i$
"John gave her_j back [the book of $Mary_j$]$_i$

b. *[TO VIVLIO [TIS $MARIAS_j$]] tis_j epestrepse o Jannis
*[THE BOOK [THE_{Gen} $MARY_j$]] IO_j gave back the John
"John gave her_j back [the book of $Mary_j$]]$_i$ (focus)

c. [To vivlio [tis $Marias_j$]]$_i$ [o Jannis] tis_j-to_i epesterpse
[The book [the_{gen} $Mary_j$]]$_i$ [the John] IO_j-DO_i gave back

In (82a), the indirect object genitive clitic is coindexed with the possesive genitive DP *"tis Marias"* inside the direct object phrase. Under this interpretation, the sentence is ruled out as a Condition C violation. (82b) is also bad, as we can see. In this case, the direct object phrase has been moved under *focus-fronting*. As Iatridou (1991a) and Tsimpli (1992) among others have argued, focus-fronting involves actual movement of the fronted XP. The status of (82b) and (82a) are identical; it is, therefore, plausible to suggest that (82b) cannot escape

[52]As stated in fn 5, section 3.1., there are some instances of Connectedness that cannot be accommodated within the approach developed in this section.

the Condition C violation. On the other hand, (82c) is acceptable under the relevant interpretation. The genitive *tis Marias* contained within the CLLDed direct object phrase can be coreferential with the inderect object clitic IP-internally. I conclude that there is no Condition C effect in this case. Essentially the same contrast can be reproduced with subject pro, as in the following examples:

(83) a. *pro$_i$ perimene oti tha dimosiefsoun [tis fotografies [tou Andrea$_i$]]
*he$_i$ expected that FUT publish-3pl [the pictures [the Andreas$_i$]]
"He expected that they would publish the pictures of Andreas'"

b. *[TIS FOTOGRAFIES [TU ANDREA$_i$]] pro$_i$ perimene oti-tha-dimosiefsoun t
*[THE PICTURES [THE ANDREAS$_i$]] he$_i$ expected that-FUT-publish t
"He expected that they would publish [the pictures of Andreas'(focus)"

c. ?[Tis fotografies [tou Andrea$_i$]] pro$_i$ perimene oti tha tis-dimosiefsoun
?[The pictures [the Andreas$_i$]] he$_i$ expected that FUT them-publish-3pl
"The pictures of Andreas he expected that they would publish"

Once again there is a contrast between CLLD on the one hand (83c) and Focus movement (83b) or non-movement (83a) with respect to Condition C. Actually, I find the coreference reading in (83c) a bit harder to get, but we can force it by using a benefactive clitic in (83c), while it is still impossible to have coreference in (83a) and (83b), even with a benefactive clitic:

(84) a. *pro$_i$ perimene oti tha tu-dimosiefsoun [tis fotografies [tou Andrea$_i$]]
*he$_i$ expected that FUT to him-publish-3pl [the pictures [the Andreas$_i$]]
"He expected that they would publish for him the pictures of Andreas'"

b. *[TIS FOTOGRAFIES [TU ANDREA$_i$]] pro$_i$ perimene oti-tha-tu-dimosiefsoun
*[THE PICTURES [THE ANDREAS$_i$]] he$_i$ expected that-FUT-to him-publish
"He expected that they would publish for him [the pictures of Andreas'(focus)"

c. [Tis fotografies [tou Andrea$_i$]] pro$_i$ perimene oti tha tu-tis-dimosiefsoun
[The pictures [the Andreas$_i$]] he$_i$ expected that FUT to him-them-publish
"The pictures of Andreas, he expected that they would publish them for him"

It remains to be shown that this type of coreference is impossible with a clitic doubled DP in object position. This is not easy to demonstrate because it is always possible to reanalyze the possessor as the indirect object-goal which is then understood as being coindexed with the IO clitic under clitic doubling:

(85) a. O Jannis tis-to epesterpse to vivlio tis Marias
The John IO-DO gave back the book the$_{gen}$ Mary

Example (85) is ambiguous between a reading in which the genitive *tis Marias* is understood as the possessor and a reading where *tis Marias* is understood as the IO-goal under clitic doubling. Coreference forces the second reading (I assume as a strategy to avoid the Condition C effect). The reason why the clitic doubling reading does not preferably emerge in (87a) is that the order CL_{IO}-V-DO-$IO_{doubled}$ is marked. The preferred orders are either CL_{IO}-V-$IO_{doubled}$-DO or CL_{IO} CL_{DO}-V-$DO_{doubled}$ $IO_{doubled}$, as the examples below indicate:

(86) CL_{IO}-V-DO-$IO_{doubled}$: marked order (the IO is usually reanalysed as the possessor)
%Tis edosa to vivlio tis Marias
%CL_{IO} gave the $book_{DO}$ the $Mary_{IO}$

(87) CL_{IO}-V-$IO_{doubled}$-DO: natural order (the possessor reading impossible)
Tis edosa tis Marias to vivlio
CL_{IO} gave the $Mary_{IO}$ the $book_{DO}$

(88) CL_{IO} CL_{DO}-V-$DO_{doubled}$ $IO_{doubled}$: natural order (ambiguity between goal and possessor reading)
Tis to edosa to vivlio tis Marias
CL_{IO} CL_{DO} gave the $book_{DO}$ the $Mary_{IO}$

To the extent that it is possible to suppress the clitic doubling reading in (85), a Condition C violation arises again. A more convincing minimal pair can be constructed on the basis of slightly more complicated examples as in (89) and (90):

(89) [Tin fotografia [tu aderfou tou $Jianni_i$] tu_i tin epestrepsa
[The picture [the brother the $John_i$] IO_i it gave back-I
"The picture of $John's_i$ brother, I gave it back to him_i"

(90) *Tu_i tin epesterpsa [tin fotografia [tu aderfou tou $Jianni_i$]
*IO_i it gave back-I [the picture [the brother the $John_i$]
"I gave it back to him_i, the picture of $John's_i$ brother"

In (89) coreference is possible between the DP *"tu Janni"*, which is more deeply embedded (it occurs inside the possessor phrase *tu aderfou* ("of the brother")), and the indirect object. On the other hand, this reading is excluded in (90): note that in this particular case, the phrase *tu Janni* couldn't possibly be coreferential with the IO clitic under clitic doubling even if the possessor was reanalyzed as the goal (the phrase *tu Janni* is contained within the larger possessor-DP which would be reanalysed as the goal).

So far we have seen that there is a difference in status between CLLD and Focus movement with respect to Condition C violations. There are no Condition C effects in CLLD which, arguably, does not involve actual movement of the left dislocated XP; on the other hand, Focus Fronting cannot escape the Condition C violation, presumably because the fronted XP has been moved. As have been shown, the Condition C effects are not cancelled

by Clitic Doubling. This is important for two reasons. (i) It suggests that it is not possible to explain away the absence of Condition C effects in CLLD by appealing to Clitic Doubling: for instance, it cannot be claimed that, for some reason, it is the presence of a direct object clitic per se which is responsible for the suppression of Condition C effects. (ii) If the argument to be presented immediately is correct, then the asymmetry between CLLD and Clitic Doubling with respect to Condition C can be viewed as evidence against reducing CLLD to Clitic Doubling.

A straightforward way in which the facts described so far could be accounted for would be to assume that Focus-Fronting constructions contain layered traces (cf. Chomsky (1992)) while CLLD constructions do not. This is consistent with the base generation approach towards CLLD. The LDed NP is a base-generated adjunct, hence the gap in object position has no internal structure. The absence of the Condition C violation is predicted. On the other hand, the focused NP has been moved leaving behind a copy. On the assumption that Focus-Fronting involves Full Reconstruction at LF, the Condition C effect can be correctly accounted for. Furthermore, the asymmetry between CLLD and Clitic Doubling discussed above can be taken to indicate that the left dislocated phrase has not been moved from a clitic doubled position. If this was the case then the difference in status between (89) and (90) or (83c) and (85) would not be predicted (under the hypothesis that these constructions involve Full Reconstruction at LF). To conclude, if correctly interpreted, the facts presented so far can be viewed as evidence that (i) CLLD does not involve movement, (ii) CLLD and Clitic Doubling are not transformationally related to each other and (iii) reconstruction effects ("connectivity" effects) cannot always be reduced to copying. There are some complications for the analysis presented so far posed by Chomsky's (1994) proposal about the conditions under which Full Reconstruction takes place. I will return to this issue after I have provided a brief outline of the way I would account for connectivity of the type presented in (81).

Without reconstruction and copying, the facts in (81) can be derived along the following lines. Assume the existence of BT-features such as **[p]**, **[a]**, maybe **[r(eferential)]**, etc. and assume that these features are transmitted from the left dislocated phrase to the A-position via the clitic under the condition that there is some version of feature compatibility. Unlike Iatridou (1988) who assumes that clitics are specified as **[+p,-a]** and following Rivero (1997a, 1993), I will assume that the clitic itself is irrelevant for XP-Binding.[53] Furthermore, I will follow Rivero who argues that clitics in Modern Greek are underspecified for features such as [±a], [±p], in the sense that they can be coindexed with XPs of any BT-

[53]This means that in the examples from (81)-(90), every time I use an index on a clitic, this index actually characterizes the A position to which the clitic is connected. In other words, my assumption is that XP-Binding only affects the foot of a clitic chain, not its head or the chain as a whole.

type (anaphors, pronominals, R-expressions).[54] In this respect, Modern Greek differs from Dutch, as the following Dutch examples indicate (from Zwart 1993:259-260):[55]

(91) a. ??Hem die ken ik
??Him that know I
"Him, I know"

b. *Zichzelf die herkent Jan niet
*Himself that recognizes John not
"Himself, John doesn't recognize"

c. Piet/hem/zichzelf daar praat Jan niet over
Peter/him/himself there talks John not about

Zwart proposes to account for the ungrammaticality of (91a) and (91b) by hypothesizing that the d-word *die* does not match the features of *hem* and *zichzelf* respectively. On the other hand, he points out that the grammaticality of (91c) shows that pronouns and anaphors are not in principle incompatible with resumptive d-words. He furthermore concludes that d-words with the feature [+R] *"apparently [...] have features that match with all these categories"*. I take the Dutch facts in (91), especially (91c), as indirect evidence that my proposal for the Modern Greek examples in (81) is on the right track.[56]

Before closing this section, I would like to come back to Full Reconstruction as discussed in Chomsky (1994). Chomsky points out that there is a difference in status between (92a) and (92b):

(92) a. Pictures of John's brother he never expected that you would buy
b. Which pictures of John's brother did he expect that you would buy?

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[54]This raises the question of why simple argument clitics always behave like pronouns (from a BT-perspective). I believe that it is quite easy to solve the problem once we adopt Everaert's (1991) revision of the Binding Theory which is further developed in Anagnostopoulou (1993c). According to this proposal, pronominal elements can be underspecified for the features [± p] and [± a] which are not assumed to be in complementary distribution (an element which is [+p] must be free in its Minimal Governing Category (MGC) and an element which is [+a] must be bound in its governing category (GC), in the sense of Chomsky (1986) which goes back to Chomsky's original Pisa approach to Binding (see also Huybregts (1979)). Within this system, a pronominal element unmarked for [p] will qualify as [+p] if it is θ-marked. If an element is [+p], then it must be free in its MGC. Given that the position linked to, for instance, a direct object clitic is θ-marked it will qualify as [+p] in this system (cf. Everaert (1991), Anagnostopoulou (1993c) for details).

[55]It looks as if some native speakers disagree about these facts. Hans Broekhuis (p.c.) has pointed out to me that he doesn't share Zwart's judgements given in (96). More specifically, he doesn't make a distinction between (96a) and (96c). Both are well-formed.

[56]The fact that *"o eaftos mu"* and *"o idhios"* appear to have a double status with respect to BT (i.e. as I have argued for in Anagnostopoulou (1993c), *"o eaftos mu"* behaves as an anaphor and an R-expression simultaneously; Hornstein and Varlokosta (1993) have proposed something similar for *"o idhios"*) appears to create some additional complications which are beyond the scope of the present discussion.

(92a) is a Condition C violation (*he* cannot co-refer with *John*), while (92b) escapes the violation presumably because there is no Full Reconstruction at LF. It is assumed that both cases involve movement. Chomsky (1994:21) proposes to account for this difference in terms of a principle of economy of deletion for non-uniform chains which forces LF deletion of intermediate traces in cases of successive cyclic movement, as well as deletion of adjuncts and full reconstruction at LF with the consequence that A' "scrambling" (of the Japanese type) is permissible only if it is "semantically vacuous" (cf. Chomsky (1994) for more details). The same principle predicts the contrast between (92a) and (92b): under the assumption that English Topicalization is movement-adjunction as proposed by Lasnik and Saito (1992) among others, (92a) will not be allowed to override Condition C because at LF the fronted adjunct will be eliminated entirely and Full Reconstruction will be forced. On the other hand, (92b) escapes the violation because the head of the Chain is not an adjunct.

This discussion is related to the argument presented in this section because it shows that the contrast between CLLD and Focus Preposing (FP) with respect to Condition C is not necessarily an argument in favor of a non-movement analysis of CLLD. Following Chomsky (1994), we could propose that the head of the CLLD Chain is not an adjunct, hence Full Reconstruction does not take place, while the head of the FP Chain is an adjunct and, for this reason, Full Reconstruction is forced. First of all, let me point out that Chomsky's discussion of (92) does not necessarily challenge our analysis. It might also be the case that CLLD-chains do not involve layered traces because they do not involve actual movement, quite independently of the fact that within the paradigm of movement chains there are structures involving Full Reconstruction and structures which do not (depending on whether the head of the chain is an adjunct or not). Secondly, I think that it is possible to argue that if we attempt to account for the Modern Greek reconstruction facts described so far along the lines of Chomsky (1994), we will end up with problems.

Assume for the moment that CLLD is a movement construction escaping the Condition C violation because Full Reconstruction does not take place. This implies that the head of the chain is not an adjunct but rather a specifier. This would mean that CLLD is either L-related movement or non-L-related movement triggered by the need for feature checking. It is quite clear that CLLD cannot be L-related movement because (i) it is unbounded and (ii) it is characterized by connectivity. It follows that CLLD would be non-L-related movement of either a doubled DP or a non-doubled DP. Under both analyses, the agreement between the clitic and the fronted DP would imply that, at some point, the clitic and the left dislocated phrase are in a Spec-Head agreement relationship; in turn this would mean that the CLLD movement is triggered by some version of Sportiche's (1992) Clitic Criterion. If this reasoning is correct, then the fact that the clitic and the left dislocated phrase are not necessarily adjacent is problematic. The problem can be solved quite easily if we assume that

CLLD involves two steps: first movement to a [Spec,Cl_{acc}P] in order for the Clitic Criterion to be satisfied and then movement to some higher position (in fact, many people have explicitely or implicitely pursued this line). Given that the substitution step is the first step (otherwise the presence of the clitic in a relatively low position in long-distance CLLD cannot be justified), the second step must be semantically vacuous adjunction. This would be consistent with the fact that CLLD looks like adjunction to IP, as we have shown above. In other words, long-distance CLLD would be the Romance and Greek counterpart of long-distance scrambling in languages like Japanese and Hindi. In this manner, unboundedness and connectivity would be derived. Given that, by hypothesis, semantically vacuous adjunction implies Full Reconstruction, we would have to assume that Full Reconstruction does not target some VP-internal position because then we would predict that CLLD cannot escape the Condition C violation, a prediction contrary to the facts. It follows, therefore, that Full Reconstruction would target a position higher than VP, namely the [Spec,Cl_{acc}P] position. It has been shown by Mahajan (1990) and others that the type of mixed movement we have described so far involves a two-step process, L-related movement followed by non-L-related movement. One of the arguments that the first step must be L-related movement is reconstruction involving Binding Condition C effects of the type described here. Under the hypothesis that NP-movement (L-related movement) does not display any reconstruction effects, we can straightforwardly account for the fact that the reconstruction site for long-distance scrambling is a position higher than the original VP-internal position (as indicated by reconstruction effects, cf. Mahajan (1990:36-37) for details). If long-distance CLLD is the counterpart of long-distance scrambling, then it is reasonable to suggest that the first movement step we are postulating is L-related movement. Furthermore, it would be unclear why reconstruction from an A' position should target an intermediate trace position rather than the variable position (recall that, under the hypothesis that movement to [Spec,Cl_{acc}P] is non-L-related, the whole chain would have the form $\{t_2'.....t_1'.....t\}$ where t_1= [Spec,Cl_{acc}P]); this is not what we usually find. If short-distance CLLD is L-related movement, then short-distance CLLD is the overt counterpart of the LF-movement of the doubled phrase in Clitic Doubling.[57] And in fact, this would be the null hypothesis under this line of analysis. We would furthermore have to assume that, for some reason, we don't see the movement to [Spec,Cl_{acc}P] step: it is either done at LF in languages like Greek or it is obligatorily followed by further adjunction in languages like Greek, Italian, Catalan. However, we saw previously that there is an asymmetry between CLLD and Clitic Doubling with respect to Condition C effects: the former escapes Condition C violations, while the

[57]Recall that clitic doubling has NP-movement properties; recall, furthermore, that the fact that the doubled DP never precedes the participle in clitic doubling constructions has been viewed as evidence that it does not move overtly to some VP-external position.

latter does not. Note that there is no such asymmetry between short-distance scrambling and long-distance scrambling in Hindi. Furthermore, this asymmetry is not what we would expect if the reconstruction site for CLLD was the LF-movement site for Clitic Doubling. In a framework where the Principles of Grammar are Interface Conditions, we would expect Principle C to apply at LF. In turn, this would mean that there shouldn't be any difference in status between CLLD and Clitic Doubling if this approach towards CLLD was correct. In other words, we would end up with a contradiction.

There are other problems related to an analysis of the contrast between CLLD and Focus preposing in terms of Chomsky's (1994) proposal. One problem would be that, as especially Tsimpli (1990, 1992) has shown, there are good reasons to analyse Focus Preposing as movement to a specifier position for feature checking: the fact that the preposed focused phrase is adjacent to the verb would be one argument in favor of this analysis. Furthermore, Focus Preposing does not show the diagnostic properties of either long-distance scrambling nor English Topicalization; among other things, focus preposing does not obviate WCO effects (as the two other constructions do, presumably for different reasons each, cf. Mahajan (1990) for Scrambling and Lasnik and Stowell (1991) for Topicalization). Finally, it would be counterintuitive and possibly formally incorrect to treat Focus Preposing as semantically vacuous movement.

To conclude, given that it would be hard to account for the contrast between CLLD and Focus preposing with respect to Condition C effects in terms of Chomsky's (1994) "Principle of Economy of Deletion for Non-Uniform Chains", it is justified to propose that CLLD overrides Condition C because the left dislocated phrase is base generated in its surface position. It follows from this analysis that the CLLD-gap cannot be a layered trace in the sense of Chomsky (1992).

3.4. Cinque's Paradox (ii): Island Sensitivity

In this section, I will discuss the second part of Cinque's paradox, namely the island sensitivity property of CLLD. Basing myself on results drawn from previous work of mine (Anagnostopoulou (1993a), (1993b)), I will point out that Cinque's Generalization, according to which operator-variable chains are sensitive to weak and strong islands while binding chains are sensitive to strong islands and insensitive to weak islands, cannot fully accommodate all the relevant Modern Greek data. I will propose a slightly different classification of islands depending on their *strength* and *generality*. Then I will review the three recent proposals concerning the selective island sensitivity property of CLLD, namely the proposals by Cinque (1990), Iatridou (1991a) and Demirdache (1991), and I will argue

that LD CLLD seems to involve base generation of the LDed phrase in its surface position, as Cinque and Demirdache have suggested.

It was pointed out in sections 3.1. and 3.2. that one asymmetry between CLD and CLLD is that the former is sensitive to invariably all islands while the latter is sensitive only to certain islands. There is a related difference between the two constructions I haven't talked about yet: in long-distance CLD the d-word moves all the way up to the highest [Spec,CP] position, while in long-distance CLLD the clitic stays behind in the CP/IP domain which the left dislocated phrase belongs to:[58]

(93) a. Jan, **die** dacht ik **t'** dat Piet zei **t'** dat hij **t** gezien heeft
John, **that** thought I **t'** that Peter said **t'** that he **t** seen had
b. Ton Janni skeftika oti o Petros ipe oti **ton** idhe **t**
The John thought-I that the Peter said that **him** saw **t**

Nevertheless, the distance between the fronted left dislocated phrase and the clitic is not arbitrary. As the examples below indicate (from Iatridou (1991a)), long-distance CLLD is subject to the CNPC of the relative clause type (94), the Adjunct Condition (95), the Subject Condition (96) and the CNPC of the noun-complement type (97). In other words, long-distance CLLD shows CED effects, namely sensitivity to islands, which have been described in terms of Subjacency-2 in the Barriers framework:[59]

(94) CNPC (Relative)
*Ton Kosta sinantisa tin kopela pu ton idhe
*The Kostas met-I the girl who him saw
"Kostas, I met the girl who saw him"

(95) Adjunct
*Tin efimerida apokimithike diavazontas tin
*The newspaper fell asleep-he reading it
"The newspaper, he fell asleep while reading it"

[58]Recall that the d-word may remain in situ, in which case the distance between the left dislocated phrase and the d-pronoun in situ appears to be non arbitrary: there is sensitivity to strong islands but not to weak islands (Henk van Riemsdijk p.c.). If this is correct, then we have further support for our analysis (cf. below). Unfortunately, the relevant data are not that clear because it looks as if the constructions involving d-pronouns in situ are ambiguous between an operator interpretation and a non-operator interpretation (in the second case they qualify as HTLD).

[59]The CNPC of the noun-complement type cannot be accommodated under Subjacency-2 in Chomsky's (1986) system. For discussion, cf. Chomsky (1986). I would also like to point out that the CNPC of the noun-complement type gives better results than all other "strong" islands not only in the case of long distance CLLD but also with long distance wh-movement.

(96) Subject

*Ton Kosta ipes oti to oti i Maria ton agapa
*The Kostas said-you that the that the Mary him loves
tromazi ton Janni
scares the John
"You said that the fact that Mary loves Kostas scares John"

(97) CNPC (Noun-Complement)

?*Ton Kosta diavasa tin idhisi oti ton apelysan
?*The Kostas read-I the news that him fired-they
"I read that they fired Kostas"

On the other hand, long distance CLLD across wh-islands (98) and factive islands introduced by the special complementizer *"pu"* (99) are completely well formed:

(98) WH-island

To forema den ksero pu na to valo
The dress not know-I where to it put
"The dress, I don't know where to put"

(99) "Pu"-island

Ton Janni xarika pu ton ksanaidha
The Janni I was glad that him saw again
"John, I was glad that I saw again"

It has been observed by among others Roussou (1992), Anagnostopoulou (1993b) and Varlokosta (1994), (forthcoming) that complements introduced by the special complementizer *pu* in Modern Greek differ from *"that"-clauses* in English and *"oti"-clauses* in Greek in that they interfere not only with adjunct extraction but also with argument extraction:

(100) a. To whom do you regret that you could not speak?
b. *How do you regret that you behaved?

(101) a. Ti thimase *oti* agorase o Petros?
What remember-you *that* bought the Peter?
"What do you remember that Peter bought?"
b. *Pos thimase *oti* efige o Petros t?
*How remember-you *that* left the Peter t?
"How do you remember that Peter left?"

(102) a. ??Ti metanjoses *pu* agorases?
??What regret-you *that* bought-you?
"What do you regret that you bought?"
b. *Pos metanjoses *pu* efiges t?
*How regret-you *that* left-you t?
"How do you regret that you left?"

Examples (100)-(102) illustrate this point. (100) shows that wh-movement across factive CP-complements in English is well formed when the fronted wh-phrase is a complement and ill formed (i.e. the lower construal impossible) when the fronted phrase is an adjunct. Modern Greek factive CPs introduced by the complementizer "oti" pattern with their English counterparts, as (101) indicates. Example (102), on the other hand, shows that argument extraction across a *"pu"-clause* is ungrammatical.[60] Roussou (1992) and Varlokosta (1994) have taken this to indicate that pu-CPs constitute *strong islands* with respect to wh-movement, but I don't fully agree with them. In Anagnostopoulou (1993b), I argued that pu-CPs pattern with wh-CPs in qualifying not just as weak *Opacity* islands in the sense of Rizzi (1990) and Cinque (1990), but also as *weak Subjacency* islands in the sense that they block wh-movement of arguments (complement PPs, NPs with a referential theta-role). Sometimes they give relatively good results, as in (102a) above. In other cases they give relatively bad results, as in (103a) below.

(103) a. ?*Ti thimase pu agorase o Jannis?
?*What remember-you that bought the John?
"What do you remember that John bought?"

b. *Jiati thimase pu efige o Jannis?
*Why remember that left the John?
"Why do you remember that John left?"

In this respect, *pu-CPs* pattern exactly with wh-complements which in some cases cause strong violations and in other cases not, depending on factors such as the presence of an Indicative or a Subjunctive (recall that tensed wh-islands give worse results than their infinitival counterparts in English and other languages), the type of wh-element introducing the wh-complement, etc. (cf. Theophanopoulou-Kontou (1990) for discussion). For example, there is a difference in status between (104a) and (105a) which appears to relate to the presence of a subjunctive in the former and an indicative in the latter:

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[60] A detailed presentation of the semantic and syntactic properties of *pu*-complements in Modern Greek, as opposed to *oti*-complements, is beyond the scope of the present analysis. The reader is referred to Christidhis (1982, 1986), Roussou (1992) and Varlokosta (1994) for some proposals. It is sufficient to note that there is a clear semantic difference between *oti*-factive CPs and their *pu*-counterparts which led Christidhis to propose that *pu*-CPs represent known information while *oti*-CPs express new information (cf. also Roussou); the implication of this analysis appears to be that factivity is related to the choice of a particular complementizer in Greek. Alternatively, Varlokosta (1994) has argued that factivity may result also with *oti*-complements and she suggested that *oti* is used to introduce new information in the discourse, while the use of *pu "....entails that the content of the complement clause is established in the discourse, either as a known fact or as an occurent or background issue that is somehow shared not only by the speaker-as the standard notion of factivity requires-but by all the participants of the conversation...."* (Varlokosta: 1994:7).

(104) a. ??Pjon anarotiese pote na sinantisis?
??Whom wonder-you when SUBJ meet-2sg?
"Who do you wonder when to meet?"

b. *Pos anarotiese pote na erthis?
*How wonder-you when SUBJ come?
"How do you wonder when to come?"

(105) a. *?Pjon anarotiese pote sinantise o Jannis?
*?Whom wonder-2sg when met the John?
"Who do you wonder when John met?"

b. *Jiati anarotiese pote irthe o Jannis?
*Why wonder-you when came the John?
"Why do you wonder when John came?"

In a similar manner, the difference in status between (102a) and (103a) seems to relate to the presence of a referential subject in the lower CP in (103a) and an anaphoric pro in (102a).

These are factors we will have to abstract away from; it is sufficient to note that long distance CLLD is completely insensitive to factive islands and to wh-islands, irrespectively of whether the complement CPs have a referential or an anaphoric tense, a referential or an anaphoric subject, etc.

With these facts in mind, let us now turn to Cinque's Generalization concerning CLLD:

(106) *Descriptive Generalization* (Cinque 1990)

a. CLLD is sensitive to strong islands and insensitive to weak islands

b. Strong Islands= Subject Island, Complex NP Island, Adjucnt Island

c. Weak Islands= Wh-Island, Inner (negative) Island, Factive Island, Extraposition Island

A brief look into Cinque's (1990:1) original examples is sufficient to show that there is a difference in status between *wh-islands* on the one hand and *inner islands, factive islands and extraposition islands* on the other. The former influence wh-extraction of arguments with a "referential theta-role" (Rizzi 1990), the latter do not:

(107) Wh-Island

a. ??To whom didn't they know when to give their present?

b. *How did they ask you who behaved?

(108) Inner-Island

a. To whom didn't you speak?

b. *How didn't you behave t?

(109) Factive-Island

a. To whom do you regret that you could not speak?

b. *How do you regret that you behaved?

(110) Extraposition-Island[61]

a. To whom is it time to speak?

b. *How is it time to behave?

The obvious difference between (107) and (108)-(109) (cf. fn 46 for 110) is that in the former the [Spec,CP] position of the embedded clause is occupied by a wh-element while this is not the case in (108) and, arguably, in (109) (cf. Hegarty (1991) for discussion).[62] I take this difference to indicate that *weak islands* should be divided into two further subtypes: *(i) opacity islands* (i.e. islands blocking adjunct extraction only) and *(ii) locality islands* (i.e. islands influencing argument extraction as well). Wh-islands qualify as both *opacity* and *locality* islands (the status of argument extraction is *marginal* and the lower reading construal of adjuncts is *impossible*). On the other hand, "that"-factives are just *opacity islands*. This classification of islands predicts the existence of weak islands creating locality effects but no opacity effects. *Topics* in English might be plausible candidates for this type of islandhood. Witness the following example (from Lasnik and Saito (1992:96)):[63]

(111) ??How do you think that this problem, John solved t t ?

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[61]Extraposed clauses create additional complications because in languages like German and Dutch extraction out of "extraposed clauses" depends on the presence or absence of the expletive elements "es" and "het" in the matrix clause (cf. Bennis (1986) Coopmans (1988) among many others). Given that it is not at all clear nowadays how extraposed clauses should be analysed, I will abstract away from them entirely here.

[62]Hegarty (1991) very convincingly argues that in "that"-factives, the [Spec,CP] position is free (i.e. it is not occupied by an empty operator). One of his arguments is that wh-extraction across "that"-factives is completely well formed, contrary to wh-islands; obviously, this argument is not sufficiently strong for our purposes here. Another argument is based upon structures of the following type:

(1) I know/remember where I saw her

In (1), the verbs "know/remember" select for a factive CP introduced by a wh-phrase occupying the [Spec,CP] position. This means that the factive operator (if there is one) must be placed in some other position.

I would like to point out here that in Anagnostopoulou (1993b) I assumed that pu-CPs in Modern Greek are structurally identical to wh-CPs in being complements (L-marked by the matrix verb) with their [Spec,CP] occupied by an empty operator. This analysis was supported by the observation that the morpheme "pu" is employed in some null operator constructions in Greek (clefts and relatives). It was also supported by crosslinguistic and diachronic considerations: "pu" originates from the local adverbial element "opu", which in languages like German is clearly a wh-word, namely the element "wo". Furthermore, the complementizer "pu" morphologically coincides with the wh-question words "pos" (how), "pjos" (who), "pu" (where) and "pote" (when). Given these facts, it would be justified to analyse "pu"-complements as being structurally parallel to "wh"-complements, an analysis that would capture the extraction facts described so far in a very straightforward manner. However, after the arguments presented in Hornstein and Varlokosta (1993) concerning the distribution of "ton idhio" and, especially, the analysis proposed by Varlokosta (1994) which appears to be confirmed by the data presented in section 3.2. above (concerning the distribution of precomplementizer CLLD in Greek), I am no longer sure that this analysis is correct. Let me point out that under Varlokosta's (1994) proposal according to which factive clauses stand in a paratactic relation with the main clause by being associated with an empty nominal complement of the matrix verb in an appositive relation, the extraction facts cannot be derived as straightforwardly as under the null operator complement-analysis adopted in Anagnostopoulou (1993b). I will leave this issue open.

[63]If the analysis of OI which will be presented in the next chapter is correct, then preverbal subjects in Greek also create locality effects but no opacity effects.

Lasnik and Saito (1992:96) point out with respect to this example: *"...The behavior of adjuncts in a configuration such as* [(111)] *comes as something of a surprise.* [(111)] *has merely the status of a Subjacency violation, rather than that of an ECP violation...."* (Lasnik & Saito (1992:96)). L&S try to explain away the mild ungrammaticality of (111) by arguing that (111) is an ECP violation after all. For locality systems such as Chomsky's (1986), Rizzi's (1990) or Lasnik and Saito's (1992) where Subjacency (constraining argument extraction) automatically implies ECP (w.r.t. adjunct extraction), a case like (111) is a serious anomaly. On the other hand, if we tear the notions *locality* and *opacity* apart, as we are doing here, then we correctly predict the existence of structures such as (111). I will not go deeply into this discussion right now. It is sufficient to note that there are proposals in the literature such as Kolb and Thiersch's (1990) or Hegarty's (1991) according to which, the lower reading of adjunct wh-phrases does not result from movement but rather is due to some independent interpretive mechanism (cf. chapter 4). To conclude, so far we have seen that Cinque's distinction between strong and weak islands is not entirely correct (cf. Frampton (1991), Szabolcsi and Zwarts (1991), Kroch (1990) among others for comparable conclusions).

I have shown elsewhere that wh-movement in Modern Greek gives the results summarized in table (112) below:

(112)

	Strong Islands (SUBJACENCY 2)	Weak Islands (WH/PU-factives) (SUBJACENCY 1)
Arguments	yes	**yes: weak effect (deviance)**
Adjuncts [non selected]	yes	**yes: strong effect (opacity)**
Quasi-arguments [selected]	yes	**yes: strong effect (opacity)**

CED-islands (Adjunct-Island, Subject-Island, CNPC-islands) uniformly give bad results regardless of whether the extracted element is an argument carrying a referential theta-role (in the sense of Rizzi (1990)), an adjunct (prototypically *"why"*, *"how"* or *"when"*) or a quasi argument (in the sense of Rizzi (1990), namely an obligatorily selected manner adverb (*"how"*) or a measure phrase (*poso "how much"*)). On the other hand, with weak locality islands such as wh-islands and "pu"-islands, wh-extraction of arguments gives marginal or bad results (cf. above) while wh-extraction of adjuncts and quasi-arguments leads to uninterpretability. Notice that these facts seem to support Rizzi's (1990) notion of

referentiality, as opposed to Cinque's (1990) alternative notion, because non-D-linked argumental wh-phrases can be interpreted correctly while quasi-argumental wh-phrases are completely uninterpretable. Witness the following oppositions:

(113) a. ??Ti anarotiese pote na agorasis t?
??What wonder-you when SUBJ buy-you t?
"What do you wonder when to buy?"

b. *Poso anarotiese pote na zigizes?
*How-much wonder-you when SUBJ weigh-past-2sg
"How much do you wonder when you weighed?"

(114) a. ??Ti metanjoses pu agorases?
??What regret-you that bought?
"What do you regret that you bought?"

b. *Poso metanjonis pu zigizeis?
*How much regret-you that weigh-you
"How much do you regret that you weigh?"

To complete this discussion, in (115) I provide one more table summarizing the observations presented above with respect to the Modern Greek facts given in (98)-(105):

(115)

	WH-islands/pu-factives (LOCALITY + OPACITY)	"oti"-factives/"inner"-islands (JUST OPACITY)
Arguments [non d-linked]	**yes (- opacity)**	**no**
Arguments [d-linked, clled]	**no**	**no**
Quasi-arguments [selected]	**yes (+ opacity)**	**yes (+ opacity)**
Adjuncts [non selected]	**yes (+ opacity)**	**yes (+ opacity)**

Note that the table (115) shows that CLLD patterns with wh-constructions involving D-linking: both constructions are completely insensitive to wh-islands and pu-islands. This might be taken to support Cinque's notion of "referentiality", in which case it would be unclear what we should do with our previous conclusion based on the facts in (113), (114). Anticipating the discussion below and in chapter 4, I would like to point out that there is independent evidence in favor of an analysis of the Modern Greek d-linking facts which would allow us to maintain our conclusion based on (113) and (114): if D-linked wh-chains pattern with CLLDed chains in not involving movement of the fronted wh-element (cf.

Iatridou (1991b), Anagnostopoulou (1993a) and ch 4), then it is possible to account for the fact that these chains, like CLLD chains, are insensitive to certain types of derivational constraints.

With this discussion in mind, let us now turn to CLLD and island sensitivity. I propose to replace Cinque's (1990) Generalization given in (106) above with the slightly modified Generalization in (116):

(116) *Descriptive Generalization (revised)*
CLLD is (i) sensitive to strong islands, (ii) insensitive to "weak locality" islands and (iii) insensitive to opacity islands

As we shall see, *property (i)* can be taken to indicate either that CLLD is a special type of movement construction or that it is a Binding Chain in Cinque's (1990) sense. *Property (ii)* is due to the fact that the *clitic* is not licensed in a specifier position, hence it is insensitive to islands induced by an occupied specifier (but see fn 47). As for *property (iii)*, I believe that there are good reasons to agree with Kroch (1990) and Szabolcsi and Zwarts (1990) that opacity effects ("uninterpretability") are due to pragmatic or semantic factors such as pragmatic presuppositionality or monotonicity: for this reason, I will abstract away from this issue entirely. Let us now see whether the proposals in the literature can account for the facts in (116), particularly the observation that CLLD is sensitive to strong islands and insensitive to weak islands (properties (i) and (ii)):

(a) *Cinque (1990): Government Chains vs. Binding Chains*

It is well known that Cinque (1990) used CLLD in order to argue in favor of his notion of "Binding Chain", i.e. a chain which is defined in terms of referential indices (Rizzi (1990)) and which can hold at an "arbitrary" distance, in the sense that it shows insensitivity to Relativized Minimality types of effects (cf. Rizzi (1990) for details). As was mentioned above, Cinque (1990) proposed to replace Rizzi's notion of "referentiality" with "D-linking". What is crucial for Cinque (1990) is that "Sensitivity to Strong Islands" is a property characterizing Chains regardless of whether they involve movement or base generation. CLLD is the main argument in favor of this claim.

We may argue that the facts concerning CLLD can be covered in terms of Cinque's proposal (re-interpreted along the lines suggested previously). CLLD can be treated as a binding chain consisting of a left dislocated phrase and an operator-variable chain. Strong islands are properties of chains, hence they constrain the binding relationship between the left dislocated element and the operator-variable chain created by the clitic. On the other hand, weak islands (with the modifications introduced above which are summarized in generalization (116)) are not wellformedness conditions on chains, but rather they constrain

movement. Given that the clitic does not move all the way up to the highest [Spec,CP] position, unlike its d-word counterpart, it is predicted that CLLD will be insensitive to those conditions that directly affect movement. This analysis would imply that there is no chain formation in constructions where there is no island sensitivity whatsoever, such as HTLD or certain types of resumptive pronoun constructions.

Note that this result would be compatible with Frampton's (1991) interpretation of Rizzi's (1990) notion of "Relativized Minimality". According to Frampton, Relativized Minimality should be viewed not as a Condition on Representation, but rather as a Derivational Constraint of the type *"don't skip potential landing sites"* (cf. the "Shortest Steps" Condition on Movement discussed in Chomsky (1992), (1994)). Note, furthermore, that the analysis suggested here would raise several questions. For example, in previous systems Subjacency was assumed to apply at S-structure. However, the Minimal Link Condition is supposed to apply at LF where deletion of intermediate traces of arguments takes place, as is standardly assumed. This is a problem for the approach suggested here if the Minimalist Program is taken into account. A related problem for this particular interpretation of the selective island sensitivity property of CLLD has to do with the observation that argument wh-movement across wh-islands or "pu"-factives leads to weak ungrammaticality. If these weak effects are accounted for in terms of Chomsky's (1992) Shortest Steps Condition, then they are implicitely treated as *economy* violations. However, economy violations are usually strong while this type of ungrammaticality is weak. Furthermore, comparable violations in cases of L-related movement (e.g. *superraising*) lead to very strong ungrammaticality which is predicted under a view of the Minimal Link Condition as an economy condition. A solution to these problems might be to try to argue that long wh-movement across a wh-island leads to a convergent derivation while superraising does not, an issue which would require a much more careful investigation than the sketchy remarks made here.

In any event, note that CLLD and CLD are identical from the point of view of "referentiality" in either Cinque's (1990) or Rizzi's (1990) terms. They differ from each other only with respect to *"full" movement vs. "partial" movement*. This can be taken to indicate that sensitivity to *weak locality islands* in the sense described above is relevant when there is movement (CLD) and irrelevant when there is no movement (CLLD). This conclusion would have implications for Cinque's (1990) system: Binding Chains of the type he defines over CLLD can be created only when there is no movement (and not when "Referentiality" is involved). In chapter 4, I will provide further evidence in favor of this conclusion.

(b) *Iatridou (1991a): CLLD is an XP-movement construction.*

Iatridou (1991a) proposes to account for the island sensitivity property of CLLD by arguing that, despite appearences, long distance CLLD involves long distance XP movement. More

specifically, she suggests that the LDed phrase is base generated as an adjunct to the most deeply embedded CP (left adjoined to CP) and then it is moved higher up to its surface position.[64] She concludes that there is no empirical motivation for the postulation of Government vs. Binding Chains (Cinque (1990)) because long-distance CLLD is not a base generated construction. As far as I can see, there are some problems related to Iatridou's analysis, despite its elegance:

Recall from section 3.2. that the CLLDed phrase usually precedes the wh-phrase in cases like the following:

(117) Ton Janni pote ton idhes?
The John when him saw-you?
"John, when did you see"?

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[64]Iatridou (1991a) uses two pieces of evidence in favor of her analysis. First, she points out that if her analysis is correct, then the CLLDed phrase moves from an A' position: it is predicted that LD CLLD across Strong Islands should give very bad results because the trace left behind is an A' trace (this type of movement should have the properties of adjunct-extraction, i.e. the relevant violations should qualify as ECP violations). And indeed, long distance CLLD across CED-islands leads to strong ungrammaticality. However, I would like to point out that long distance wh-movement of arguments across CED-islands gives no better results. In fact, I see no difference in status between wh-movement of arguments and CLLD with respect to strong islands. Yet wh-movement of arguments is clearly a Subjacency violation.
The second piece of evidence is based on the following Parasitic Gap-facts:

(1) a. *Ton Petro ton pantreftika [xoris na agapo e]
*The Peter him married-I [without to love e]
"Peter, I married without loving"
b. Ton Petro i Maria ipe [xoris na agapa e] oti tha ton pantrefti
The Peter the Mary said [without to love e] that will him marry
"Peter, Mary said that she would marry without loving"
c. *Ton Petro i Maria ipe oti tha ton pantrefti [xoris na agapa e]
*The Peter, the Mary said that will him marry [without to love e]

On the hypothesis that parasitic gaps presuppose the existence of traces, the grammaticality of (1b) is taken to confirm her analysis because it leads to the following underlying structure (notice that CLLD only in this case licenses parasitic gaps):

(2) NP_i [.....[.....parasitic gap....]...[DLt_i.....[....clitic....]]]

Although I think that this argument is a strong one, I would like to point out that there are some similar Parasitic Gap-facts in cases where there is no long distance movement of the type illustrated in (1):

(3) a. ?Ton Janni i Maria [xoris na agapa e] tha ton pantrefti
?The John the Mary [without to love e] will him marry
"John, Mary will marry without loving"
b. *Ton Janni i Maria tha ton pantrefti [xoris na agapa e]
*The John the Mary will him marry [without to love e]
"John Mary will marry without loving"
c. ?Pjon antra [xoris na agapas e] ton pantreftikes?
?Which man [without to love e] him you married?
"Which man did you marry without loving?"
d. *Pjon antra ton pantreftikes [xoris na agapas e]?
*Which man him married-you [without to love e]

Of course, Iatridou's analysis could be maintained for these cases as well (the fronted phrase in (3a) and (3c) could originate from a lower position).

Given the existence of sequences like (117), an advantage of the analysis proposed by Iatridou (1991a) is that it may provide an immediate explanation for the selective island sensitivity of long distance CLLD in examples like (118):

(118) Ton Janni anarotieme pote ton idhes
The John wonder-I when him saw-you
"John, I wonder when did you see"

(119) [Ton Janni$_i$..[.....[t_i [WH.....cl$_i$]]

According to Iatridou (1991a), the sentence (118) has the structure in (119): the left dislocated phrase moves from a position preceding the wh-phrase (it can be base generated in this position, as (117) indicates). It follows that the presence of a wh-phrase does not interfere with long distance CLLD in this case.

Nevertheless, it is not clear how we can deal with the following well formed structure under such an approach:

(120) Ton Janni$_i$ anarotieme pote ipes t_i oti ton$_i$ idhes
The John$_i$ wonder-I when said-you t_i that him$_i$ saw
"John, I wonder when did you say that you saw"

In other words, it is not clear why the presence of a wh-phrase does not interfere with long distance CLLD in configurations like the following:

(121) [$_{CP}$ XP$_{j\ LDed}$ [$_{CP}$.....[$_{CP}$ WH$_i$.....[$_{CP}$ t_j...[$_{CP}$

I conclude that under a view of long distance CLLD as ordinary XP movement, we cannot straightforwardly account for the extraction facts illustrated in (120), unless we make a number of additional assumptions. Relativized Minimality to Features might be viewed as a way out at this point. For example, it could be suggested that Iatridou's LD position and the position hosting wh-elements are two distinct checking positions for non-L-related movement and, for this reason, long distance CLLD never interferes with wh-movement. In other words, long distance CLLD and long distance wh-movement employ different intermediate landing sites, this being the reason why they don't interfere with each other. Müller and Sternefeld (1993) and Zwart (1993) have argued in favor of this position in order to account for similar contrasts attested in German and Dutch (from Fanselow (1991:225)):

(122) a. ?Radios kann ich mich nicht erinnern wer repariert hat
?Radios can I refl not recall who repaired has
"Radios, I don't recall who has repaired them"

b. *Was kannst du dich nicht erinnern wer repariert hat?
*What can you refl not recall who repaired has?
"What don't you recall who repaired?"

However, first of all the German and Dutch facts are not generally agreed upon, as Riny Huybregts (p.c.) has informed me. Secondly, Topicalization interferes with wh-movement in English, as is well known. This indicates that even if it is correct that in some languages long distance topicalization and long distance wh-movement employ different intermediate landing sites it is certainly not universally so (but cf. Müller and Strenefeld for a discussion and see chapter 4 for criticism). As for Modern Greek, it is quite clear that the features [+focus] and [+wh] interfere with one another; in other words, it cannot be argued that long distance focus movement and long distance wh-movement employ different intermediate landing sites. Yet Tsimpli (1992) has discussed cases where fronted focused elements may co-occur with fronted wh-phrases provided that the former precede the latter. In this respect, focused XPs pattern with their CLLDed counterparts. Furthermore, factive operators associated with the element "pu" also interfere with wh-movement and focus movement. These facts suggest that whenever XP movement is clearly involved, the presence of a non-L-related specifier is in itself relevant, regardless of the type of non L-related feature involved. I conclude that, although the facts in (120) can be accounted for in terms of an approach towards successive cyclic movement relativized to features, it is not the most desirable direction to take.

There is one more related problem I would like to mention at this point. It has to do with the explanation for the grammaticality of (118) above. While it is clear that the well formedness of (118) can be made to depend upon the fact that the left dislocated phrase can be base generated to the left of the wh-phrase, it is not clear why grammaticality arises also in cases where the XP_{LDed} cannot be assumed to be generated as an adjunct to the left of Comp, in particular with "pu-factives":

(123) "Pu" factives
*Metaniono tin Maria pu tin proskalesa
*Regret-1sg the Mary that her invited
"I regret that I invited Maria"

(124) "Pu"-island
Ton Janni xarika pu ton ksanaidha
The Janni I was glad that him saw again
"John, I was glad that I saw again"

Given that (123) is ungrammatical, we cannot account for the grammaticality of (124) in the same way we accounted for the grammaticality of (118). Once more we may conclude that

under the XP movement analysis there are some remaining questions which do not receive a straightforward answer.

(c) *Demirdache (1991): The clitic is the [+topic] Operator moving at LF.*

Like Iatridou (1991a), Demirdache (1991) attempted to account for the island sensitivity property of CLLD in terms of the hypothesis that CLLD is a movement construction. The two analyses differ from one another in two respects: (i) Iatridou assumed that it is the left dislocated phrase that undergoes movement; altenatively, Demirdache proposed that the left dislocated phrase is base generated in its surface position and that it is the IP-internal clitic that moves. (ii) Iatridou assumed that movement takes place overtly while Demirdache proposed that movement takes place at LF. Before proceeding, I would like to point out that Demirdache is not very explicit with respect to the structural analysis of resumptive clitics: on the one hand, she says that they differ from maximal projections (Demirdache 1991:199) but, on the other hand, she suggests that they are adjoined to I' or V' and they undergo XP movement at LF, both properties characterizing maximal projections rather than heads. In order to account for the selective island sensitivity of CLLD, Demirdache points out that it is generally the case that argument extraction at S-structure is not allowed to violate wh-islands while LF-movement of arguments is insensitive to wh-islands. In a similar manner, the clitic is allowed to violate wh-islands because it moves at LF. Although the clitic itself is in an A'position, the original trace occupies an A position, this being the reason why LF clitic movement behaves like LF argument movement with respect to wh-islands. The particular way she implements these ideas technically is not relevant for us here. What is relevant is the intuition that the clitic in CLLD behaves like a wh-in-situ element with respect to extraction across wh-islands. This intuition is confirmed by some facts concerning CLD that have been mentioned earlier in this chapter. Henk van Riemsdijk (p.c.) has pointed out to me that there are actually two types of CLD: the most common type is the one we described in section 3.1. involving overt movement of the d-word to its surface position. This variant of CLD is sensitive to wh-islands. The second type of CLD involves a d-word in situ carrying heavy stress. At first sight, this construction looks like a HTLD; however, it shows certain forms of connectedness which do not characterize "orthodox" HTLD with a pronoun instead of a d-word in situ (for example, it shows Case connectedness). Interestingly enough, it looks as if this second CLD variant patterns with CLLD in being sensitive to strong islands and insensitive to wh-islands. If the stress on the d-word is taken to indicate that it moves at LF (as is the standard analysis for focus in situ) then we have strong empirical evidence in favor of Demirdache's proposal: overt movement is not allowed to escape wh-islands while covert movement freely violates them, this being the reason why CLLD displays selective island sensitivity and covert d-pronoun movement also displays selective island sensitivity (while overt d-pronoun movement is sensitive to all islands).

There is one question raised by this analysis I would like to address briefly before closing this section. If it is correct that the island sensitivity property of CLLD is due to the fact that the clitic moves at LF rather than the Left Dislocated phrase overtly, then we have a paradox. On the one hand, overt clitic movement has the properties of X^0 movement in the sense that the resumptive pronoun cliticizes onto a head. On the other hand, however, covert clitic movement behaves like XP movement because the locality constraints CLLD is sensitive to are XP movement-constraints. It would be hard to account for this problem in previous frameworks, but Chomsky's (1994) "Bare Phrase Structure" may provide a solution to it. More specifically, Chomsky's system allows for the following two options:
(i) Adjunction of an X^0 to an XP is legitimate if X^0 is also an XP. This is the case of clitics; hence, the fact that resumptive clitics undergo LF XP movement is no longer a problem.
(ii) Adjunction of a clitic to a head permits the clitic to retain its status as both maximal and minimal for the reasons discussed in Chomsky ((1994:17-20), cf. especially the discussion of structure (20)). This means that in long-distance CLLD, the Chain formed at LF (when the clitic moves to a position close to the left dislocated phrase) does not violate chain uniformity.

Ideally, it would be desirable to derive the fact that long distance CLLD necessarily involves LF movement of the clitic while long distance CLD permits both options (i.e. overt and covert movement of the d-pronoun) from the observation that the clitic is morphologically an affix while the d-word is not; it is not unreasonable to think that there there is some PF Condition responsible for the fact that the clitic does not move all the way up overtly. But this is just speculation for the time being.

To conclude, in this section I investigated more closely the selective island sensitivity property of CLLD arguing that there are two types of locality effects, strong and weak islands: the former corresponds roughly to Subjaceny-2 in Barriers and the latter to Subjacency-1. It is possible to define strong islands in terms of inherent barrierhood (cf. Cinque (1990) for such a proposal) and to do away with barrierhood by inheritance entirely: weak islands systematically involve an occupied specifier and, therefore, they can be subsumed rather naturally under Chomsky's Shortest Steps Condition. As far as I can see, strong islands cannot be accommodated under this Condition as easily. It is unclear how we should "translate" L-marking in the Minimalist Program, but it is rather obvious that this notion is crucial for the definition of strong islands while it does not play any significant role in the case of weak islands. The fact that islands of the former type always lead to strong ungrammaticality and block any kind of chain formation, while the latter type is less strong and less general, indicates that strong and weak islands reduce to different Principles of Grammar. I furthermore pointed out that "weak locality islands", as defined here, should not be confused with the opacity effects caused by Operator features such as Negation, Factivity,

etc. because, as Kroch (1990) and Szabolcsi and Zwarts (1990) among others have shown, these effects are not purely syntactic in nature. Finally, I discussed the proposals of Cinque's (1990), Iatridou's (1991a) and Demirdache's (1991) which are all based on an analysis of CLLD along the lines suggested in this chapter and I showed that they can account for the selective island sensitivity property of CLLD in a much more straightforward manner than a Clitic Doubling-movement approach (given the interpretation of "weak islands" suggested here).

3.5. Conclusions.

In this chapter, I have investigated the properties of CLLD focusing on the Modern Greek data. I pursued a line of analysis according to which CLLD is a Left Dislocation variant corresponding to CLD in German and Dutch. I argued that the similarities between CLLD and CLD can be accounted for if both constructions are analysed as consisting of a base generated left dislocated phrase in an adjoined position and an operator-variable chain expressing (in some way or other) topichood. Under this view, the clitic in CLLD is the counterpart of the d-pronoun in CLD and from this minimal lexical difference all the asymmetries between the two constructions systematically follow. The consequence of this approach is that CLLD and Clitic Doubling do not reduce to one and the same underlying structure. Apart from the fact that there is independent crosslinguistic evidence in favor of this conclusion (Cinque (1990), Iatridou (1991a)), it will be shown in the appendix that clitic doubling and clitic left dislocation in Modern Greek are not licensed under identical conditions. While Prominence and Accommodation are key notions for our understanding of Modern Greek clitic doubling, Aboutness is the most crucial property characterizing CLLD. In itself, of course, this difference is not necessarily an argument against a unification of CLLD and Clitic Doubling. In a similar manner, the fact that scrambling and topicalization in German and Dutch have partially different semantic properties does not necessarily imply that they are not related transformationally. However, in sections 3.3. and 3.4., I presented a number of syntactic arguments against reducing CLLD to Clitic Doubling. These arguments are based on the properties that, at first sight, would speak in favor of treating the clitic left dislocated phrase as a doubled XP which has moved overtly, namely connectivity and island sensitivity.

3. Appendix: Against Unifying CLLD and Clitic Doubling

CLLD and Clitic Doubling look very similar and, for this reason, many linguists have tried to reduce the one to the other. For example, in chapter 2 it was mentioned that Hurtado (1984), Rivero (1986), I. Philippaki-Warburton (1986), Tsimpli (1990) and others have proposed to analyse various instances of doubling as right dislocations. On the other hand, Mahajan (1991) and Sportiche (1992) explicitly or implicitly suggest that Clitic Left Dislocation and Clitic Doubling are licensed under identical conditions, since they both seem to involve the same X° which, arguably, encodes specificity. However, since they give no detailed exposition of this analysis, it is unclear how they would account for the differences between the two constructions. Dobrovie-Sorin (1990) argues that Romanian CLLD results from movement of a doubled DP. Finally, Agouraki (1993) treats CLLD as overt movement to the [SPEC,ClP], and doubling as resulting from CLLD when the cluster "cl-Verb" raises further to an F°(Focus) head leaving the CLLDed phrase behind. As we can see, the relation between the two constructions is a highly controversial issue. In this chapter, I followed Cinque's (1990) and Iatridou's (1991a) line of analysis according to which, CLLD should not be reduced to Clitic Doubling. I argued that this approach has three purely syntactic advantages: (i) it accounts for the fact that CLLD-constructions do not exhibit full reconstruction effects, (ii) it may offer an explanation for the selective island-sensitivity property of CLLD and (iii) it enables us to offer a unified analysis for CLD and CLLD, which have many properties in common. Furthermore, there are asymmetries between CLLD and Clitic Doubling which cannot be straightforwardly accounted for if the two constructions are subject to the same structural analysis. More specifically:

First of all, as Cinque (1990) and Iatridou (1991a) point out, there are many languages that have CLLD but do not have clitic doubling. Such a language is, for instance, Italian:

(1) a. *Lo conosciamo (a) Gianni
*Him we-know Gianni
"We know Gianni"

b. Gianni lo conosciamo
Gianni him we-know
"Gianni, we know him"

Second, as observed by Iatridou (1991a), there are languages that have an animateness requirement on clitic doubling but not on CLLD. One example illustrating this opposition is given below (from Rio Platese Spanish):

(2) a. Lo vimos a Juan
Him saw-we "a" Juan
"We saw Juan"

b. *Lo vimos el/al libro
*It saw-we the book
"We saw the book"

c. El libro lo compramos ayer
The book it we-bought yesterday
"The book, we bought it yesterday"

As (2b) shows, in this variety of Spanish the inanimate definite DP *el libro* can not be doubled; yet, *el libro* is allowed to undergo CLLD (2c).
Third, while Clitic Doubling allows for doubled *NPs* only, the dislocated phrase of CLLD can be *any maximal phrase* (Cinque 1990:58):

(3) a. [$_{PP}$ Al mare] ci siamo gia stati
[$_{PP}$ To-the seaside] there we-have already been
"To the sea, we have already been there"

b. [$_{AP}$ Bella] non lo e mai stata
[$_{AP}$ Beautiful] not it is ever been-she
"Beautiful, she never was that"

c. [$_{VP}$ Messo da parte] non lo e mai stato
[$_{VP}$ Got out of-the way] not it is ever been-he

The presence of a clitic in (3) clearly shows that these sentences are instances of CLLD.[1]

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[1]The same argument can be constructed with particular reference to Modern Greek, though the relevant facts are slightly more complicated. In particular, Modern Greek has neither adverbial clitics nor predicative clitics as in (3b), (3c). Thus, the Modern Greek constructions corresponding to (3b) and (3c) would be as follows:

a. Anarotieme omorpho pjon na theori i Maria
Wonder-I handsome whom PRT considers the Mary
"I wonder who Mary considers handsome"

b. Anarotieme stin thalassa pote na pige i Maria
Wonder-I to-the sea when PRT went the Mary
"I wonder when Mary went to the sea"

Although the fronted phrases *omorpho* and *stin thalassa* are not followed by any clitics IP-internally, it can be claimed that (a) and (b) display CLLD of an AP and a PP respectively. Modern Greek, like Italian, has two types of argument "fronting": CLLD and Focus movement (cf. Cinque 1990 for Italian, Iatridou 1991a, Tsimpli 1990, 1992 for Greek). The second type of fronting differs from CLLD in many respects: Focus-fronting has all the properties of movement, the fronted element is heavily stressed, it represents "new information", it is necessarily

The fourth argument against treating CLLD on a par with Clitic Doubling is again due to Iatridou (1991a): she pointed out that there are semantic classes of NPs that can appear in CLLD structures but cannot be clitic doubled. Her original examples are repeated under (4):

(4) a. *Mono o Kostas ta elise tria provlimata
*Only the Kostas them solved three problems
"Only Kostas solved three problems"

b. Tria provlimata mono o Kostas ta elise
Three problems only the Kostas them solved
"Three problems are such that only Kostas solved them"

This very sharp contrast between CLLD and Clitic Doubling is particularly clear in Modern Greek. Recall from chapter 2 that Modern Greek Clitic Doubling is basically restricted to certain classes of definites, and that doubling clitics are incompatible with specific/D-linked indefinites, partitives and (certain types of) strong quantificational DPs. On the other hand, all these expressions may undergo CLLD. Witness the following oppositions:

(5) a. Merikes askisis tis elisa me diskolia
Some exercises Cl solved-I with difficulty
"Some exercises, I solved them with difficulty"

b. *Tis elisa merikes askisis me diskolia
*Cl solved-I some exercises with difficulty
"I solved-them some exercises with difficulty"

(6) a. Enan filo mu ton theoro idietera eksipno
A friend my Cl consider-I particularly clever
"A friend of mine, I consider him particularly clever"

b. *Ton theoro enan filo mu idietera eksipno
*Cl consider-I a friend my particularly clever
"I consider-him a friend of mine particularly clever"

---

adjacent to the Verb, and it is usually not allowed to co-occur with question words. The expressions *omorpho* and *stin thalassa* do not have any of the properties of fronted focused XPs: they do not bear focal stress, they are not adjacent to the verb and they precede the wh-phrases *pjon* and *pote*. Moreover, there is clear evidence that these elements are CLLDed: these sentences have the intonation of CLLD, and the phrases *omorpho* and *stin thalassa* occupy the position of CLLDed DPs (cf. chapter 3); furthermore, they have the pragmatics of CLLD (informally speaking, we could describe the difference between CLLD and Focus-constructions as "old vs. new information", but see the discussion below which shows that this generalization is not entirely correct). Finally, the conclusion that they are CLLD structures is supported by the fact that the resumptive clitics in the Italian sentences under (3) are optional, contrary to object clitics which are obligatory. According to Cinque, this asymmetry follows from the minimal assumption that the resumptive clitics in CLLD are all optional, and the obligatoriness of the argument clitics can be made to follow from independent principles of the theory provided that CLLD does not involve movement (for details, cf. Cinque 1990: 71-72). According to the approach developed in chapter 3, CLLD is an operator-construction; it could be proposed that Modern Greek has empty predicative and adverbial clitics which license these constructions. This issue requires further investigation.

(7) a. Pollous fitites tous skotose i astinomia
Many students Cl killed the police
"Many students, the police killed them"

b. *Tous skotose pollous fitites i astinomia
*Cl killed many students the police
"The police killed-them many students"

(8) a. ?Kathe filo mu ton agapao jia kati diaforetiko
?Every friend my Cl love-I for something different
"Every friend of mine, I love him for a different reason"

b. *Ton agapao kathe filo mu jia kati diaforetiko
*Cl love every friend my for something different
"I love-him every friend of mine for a different reason"

These are minimal pairs illustrating further Iatridou's observation. All the doubling cases have been extensively discussed in chapter 2. The main point there was that their ungrammaticality can be made to follow from the hypothesis that Modern Greek direct object clitic doubling is subject to the *Prominence Condition* in the sense of Heim (1982). Specific indefinites, partitives and strong quantificational NPs do not observe the Prominence Condition even when they are D-linked. For example, Enç 1991 showed that NP denotations can be linked to previously established referents in various different ways, and that *"...definiteness involves a strong link, that of identity of reference, whereas specificity* (or D-linking) *involves a weak link, that of being a subset of or standing in some recoverable relation to a familiar object"* (Enç 1991: 23-24). Given that the Prominence Condition implies not just definiteness but also the strictest possible type of familiarity, the ungrammaticality of the doubling cases above is to be expected. If this reasoning is correct, then the grammatical status of the examples (a) in (5)-(8) would be surprising under a Clitic Doubling approach because, although these structures violate the Prominence Condition, they are nevertheless well formed. Notice that the CLLDed QPs in (5)-(8) are understood either as *partitives* or as *specific*. The speaker is talking about particular individuals or subsets of sets that he doesn't identify. It is not necessarily the case that the referents have been established in previous discourse; in other words, it is not necessarily the case that the information expressed by the fronted QPs is knowledge *shared by all participants in the conversation*. For this reason, the notion *D-linking* is, in my view, inappropriate. It is more correct to say that these constructions are characterized by *referentiality* and *aboutness*. The speaker attributes a property to individuals or sets denoted by the CLLDed QPs.

Now I would like to concentrate on definite DPs. I want to show that the conditions under which Clitic Left Dislocation of definites is licensed are generally weaker than the conditions under which Clitic Doubling of definites is licensed, a result which is consistent

with the facts described so far. It looks as if the observed asymmetries can be dealt with if CLLD is treated as a construction available in the language to mark *topics* structurally. Under the assumption that Reinhart (1981/2) is right that the *old information criterion* for topichood is not sufficient, we can explain why neither *Prominence* nor, sometimes, *D-linking* are descriptively adequate devices for the characterization of CLLD. This supports further the idea that CLLD and Clitic Doubling are not one and the same construction. At first sight, it looks as if clitic left dislocated and clitic doubled *definites* have identical felicity conditions. For example, they are both inappropriate in *novelty contexts* and they both seem to represent *old information*:

(9) Q -*Ti* aghorase o Petros?
-*What* bought the Peter?
"What did Peter buy?"

a. *#To vivlio to* agorase o Petros
#The book it bought the Peter
"As for the book, Peter bought it"

b. #O Petros *to* agorase *to vivlio*
#The Peter *it* bought *the book*
"Peter bought-it the book"

(10) Q -Pjos agorase *to vivlio*?
-Who bought *the book*?
"Who bought the book?"

a. *To vivlio to* agorase o Petros
The book it bought the Peter
"As for the book, Peter bought it"

b. O Petros *to* agorase *to vivlio*
The Peter *it* bought *the book*
"Peter bought-it the book"

Examples (9) and (10) seem to indicate that CLLDed definites like their clitic doubled counterparts fall under the *Prominence Condition*. Nevertheless, it is possible to find instances of CLLD where the *Prominence Condition* is not observed; in these contexts doubling is odd, as expected:

(11) a. O Jannis ine enas apaisios typos
The John is a horrible guy
"John is a horrible guy"

b. Jia paradeigma, *tin aderfi tu tin* eklepse
For example, *the sister his her* robbed-he
xoris na niosi kammia ntropi
without SUBJ feel any guilt
"For example, his sister, he robbed without feeling guilty"

(12) a. O Jannis ine enas apaisios typos
The John is a horrible guy
"John is a horrible guy"

b. #Jia paradeigma *tin* eklepse *tin aderfi tu*
#For example *her* robbed-he *the sister his*
xoris na niosi kammia ntropi
without SUBJ feel any guilt
"For example he robbed-her his sister without feeling guilty"

(11) is a text consisting of two utterances, namely (11a) and (11b), which are both about *John* in the sense that they predicate something of *John*. The relation between the two sentences is established via the connector *jia paradeigma*. This expression forces a reading under which the definite *tin aderfi tu* is novel: neither contextual salience nor previous mention of John's sister is presupposed. In contexts like this there is a clear asymmetry between CLLD and Clitic Doubling of definites. Novel definites of this kind may undergo CLLD but, as (12b) shows, they cannot be doubled. Furthermore, (11b) illustrates a property of *topicalization structures* which has been pointed out by Reinhart (1981/2). Although Left Dislocations and Topicalizations are usually characterized as constructions expressing *topichood* by formal means, it is not always the case that there is an one-to-one correspondence between *actual sentence topics* and *structural topics*. Example (11b) instantiates this bifurcation. The (implicit) sentence topic is *John*; however, the structural topic, is *tin aderfi tu*. This is so because *structural topics* often introduce *new sentence topics*. In other words, they serve to shift the topic of the conversation to another referent, this being the reason why *novel expressions* are legitimate in this position. (11b) could be such a case: one could easily imagine that the next utterance would be about *John's sister*. Obviously, the semantic/pragmatic properties of clitic doubling are completely different from the semantic/pragmatic properties of CLLD.

Now I will present some examples illustrating the fact that the mechanism of *accommodation* discussed in chapter 2 is sometimes available for CLLDed definites though it is always unavailable for doubled definites. This is a very systematic difference between CLLD and Clitic Doubling:

(13) a. O kathigitis glossologias edhose stous fitites bibliographia
The professor linguistics$_{gen}$ gave the students bibliography
kai *ton Chomsky* *ton* vrikan poli diskolo
and *the Chomsky* *him* they-found very difficult
"The professor of linguistics gave bibliography to the students and Chomsky they found very difficult"

b. #O kathigitis edhose stous fitites bibliographia
#The professor gave the students bibliography
kai *ton* vrikan *ton Chomsky* poli diskolo
and *him* they-found *the Chomsky* very difficult
"The professor gave bibliography to the students and they found-him Chomsky very difficult"

(14) a. Xtes to proi agorasa frouta.
Yesterday the morning bought-I fruit.
"Yesterday morning I bought some fruit"

b. *Ta mila* i kori mu den *ta* efage.
The apples the daughter my not *them* ate
"My daughter didn't eat the apples"

c. #I kori mu den *ta* efage *ta mila.*
#The daughter my not *them* ate *the apples*
"My daughter didn't eat-them the apples"

(15) a. I mama mu mu estile pouxa apo tin Ellada.
The mum my Cl$_{gen}$ sent clothes from the Greece.
"My mum sent me clothes from Greece"

b. *Ta pantelonia* *ta* dokimasa alla dhen mu ekanan
The trousers *them* I-tried on but not to-me suited
"I tried on the trousers but they didn't suit me"

c. *#Ta* dokimasa *ta pantelonia* alla dhen mu ekanan
#Them I-tried on *the trousers* but not to-me suited
"I tried-them on the trousers but they didn't suit me"

(13), (14) and (15) are self-contained texts consisting of two parts. In the first part, the bare (novel/indefinite) NPs *"vivliographia"*, *"frouta"* and *"rouxa"* introduce new discourse referents. In the second part, the definite DPs *"ton Chomsky"* (refering to an article of Chomsky's), *"ta mila"* and *"ta pantelonia"* are used. In order to be felicitous, these definites have to be linked by cross-references to the already present objects *the linguistic bibliography that the professor gave to the students*, *the fruit that I bought yesterday*, *the clothes that my mother sent me* (subset relation). As we see, this linking is successful when the definites are CLLDed, but it cannot take place when they are doubled: thus, (13a) is well formed but (13b) is odd, the CLLDed definites in (14b) and (15b) are felicitous while their doubled counterparts in (14c) and (15c) are not. This suggests that the mechanism of accommodation

is available for the former but not the latter, an asymmetry which would not be expected if the accusative clitics in the two constructions had one and the same function.

To conclude, the idea that the feature licensing CLLD is neither [+Prominent] nor [+D-Linked] (contra Iatridou 1991a) but rather [+Topic] can provide an explanation for the various types of NPs that are likely to undergo CLLD and for the properties exemplified above:

(a) CLLDed NPs tend to represent "old information" because structural topics often coincide with "sentence topics" in the technical sense of Reinhart (1981/2). They represent knowledge shared by speaker and hearer for the same reason *sentence topics* usually satisfy the *old information criterion* for topichood (cf. Reinhart (1981/2) for discussion). In these cases, they qualify as *prominent* (cf. examples 9 and 10).

(b) Quantified NPs may only undergo CLLD if they can be interpreted as denoting sets so that the sentence can be *about* their referents (see examples (5)-(8)).

(c) Specific indefinites may undergo CLLD even when they are non-D-linked (hence they do not always represent "old information")

(d) CLLDed definites can be *novel* when they introduce new *"sentence topics"*. This accounts for examples like (11) and (13)-(15).

4

Inversion, Discourse Linking and Clitics in Interrogatives

4.0. Introduction

In the introductory chapter of this dissertation the question of the *Uniformity Hypothesis* for clitic constructions was addressed. The position I took there was that the Uniformity Hypothesis is useful but not necessarily entirely correct. Given that Modern Greek is a *clitic doubling* language and a *clitic left dislocation* language, the strongest possible form of the Uniformity Hypothesis would be to maintain the idea that that the two constructions are transformationally related to one another. But we saw in the previous chapter that there are strong arguments of various sorts against this proposal. Crosslinguistic considerations, distributional asymmetries, pragmatic and semantic differences and syntactic arguments based on reconstruction and island sensitivity all point towards the direction that CLLD and Clitic Doubling do not reduce to one and the same underlying configuration. In fact, if the analysis of the CLLD-clitic proposed in chapter 3 is correct then it is not even clear that doubling constructions and their non-doubling counterparts can be analysed in the same way; however, I would prefer not to take a definitive position with respect to this question.

The construction discussed in this chapter can be viewed as one more piece of evidence against the idea that clitic-dependencies are structurally uniform. As we shall see, d-linked wh-phrases in Modern Greek may license clitics instead of gaps IP-internally and it is not a priori clear how these clitics can be best analysed. They could be *doubling-clitics*, *clitic left dislocation-clitics* or some sort of *resumptive-clitics*.[1] What type of evidence should we use in order to determine their nature? The strategy I will employ in order to answer this

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[1]In Anagnostopoulou (1993b) I have argued that the various syntactic criteria one could use in order to determine the syntactic nature of this clitic such as *island sensitivity*, *suppression of WCO effects* or licensing of *Parasitic Gaps* cannot really help in this case. For example, island sensitivity is "selective" (see chapter 3), but if Cinque (1990, ch 1) is right this property reduces to "referntiality vs. non-referentiality" rather than "movement vs. non movement" (however, see chapter 3 for discussion). This means that the clitic could either be a clitic left dislocation-clitic or a doubling clitic. It could even be a "resumptive clitic" in the traditional sense (Chomsky (1982)) since there isn't much agreement in the literature as to whether or not resumptive clitics always escape Subjacency violations. For example, Engdahl (1985) points out that resumptive pronouns in Swedish are not licensed within Islands; on the other hand Borer (1984b) and van Riemsdijk (1989) show that relative clauses employing the resumptive pronoun strategy display insensitivity to Subjacency-islands. Furthermore, McCloskey (1989) and others have shown that the distribution of resumptive pronouns is not restricted to relative clauses, as is sometimes assumed. Similar problems arise in connection with PGs and WCO effects (cf. Anagnostopoulou (1993b) for discussion).

question will be to concentrate on another property of d-linked wh-questions, namely their exceptional behavior with respect to the phenomenon of "triggered-" or "obligatory-inversion". More specifically, I will demonstrate that in Modern Greek, d-linked wh-phrases differ from their non-d-linked counterparts not only in their ability to license clitics but also in their ability to escape the effects of obligatory inversion. And what is even more significant is that d-linked wh-phrases pattern with adjuncts in this respect. I will show that by accounting for the phenomenon of obligatory inversion and for the exceptions to it we have an immediate answer to our original question concerning the nature of the clitic: this can be analysed as the "spell-out" of a resumptive pro of the type Cinque (1990) proposed. This result is not necessarily incompatible with the clitic left dislocation approach towards these constructions proposed by Iatridou (1991a) (though we would have to reformulate Iatridou's analysis along the lines suggested in chapter 3 in order to capture certain asymmetries between these constructions and ordinary CLLDs) but it is incompatible with the clitic doubling alternative analysis, an analysis which I will provide independent arguments against.

4.1. Inversion Patterns and Clitics in Modern Greek Interrogatives

In this section I will provide a description of the various word order patterns attested in Modern Greek wh-questions. I will initially consider data illustrating the *argument-adjunct* asymmetry, an asymmetry that has already been discussed in the literature. Then I will focus on the effects of *Discourse-Linking* showing that in Modern Greek, discourse linked wh-phrases systematically pattern with their adjunct counterparts with respect to inversion. Moreover, the presence or absence of direct object A' dependent clitics in Modern Greek interrogatives is also sensitive to the referential properties of the fronted wh-phrases. In fact, there is a systematic correlation between the latter two properties of Modern Greek interrogatives: whenever inversion is obligatory the clitics are ruled out; whenever inversion is not required the clitics are grammatical. In my view, these are interesting correlations that require an explanation.

4.1.1. Argument-Adjunct data and first generalizations

There are two types of subject-verb "inversion" (the term used pre-theoretically) in Modern Greek: *free inversion* and *triggered inversion*. The former is optional, the latter is obligatory. Some examples of "free inversion" are given in (1):[2]

(1) a. O Jiorgos pantreftike tin Alina SVO
The George$_{nom}$ married the Alina$_{acc}$
"George married Alina"

b. Pantreftike o Jiorgos tin Alina VSO
Married the George$_{nom}$ the Alina$_{acc}$
"George married Alina"

c. Pantreftike tin Alina o Jiorgos VOS
Married the Alina$_{acc}$ the George$_{nom}$
"George married Alina"

As we can see, SVO, VSO and VOS are all possible orders in Modern Greek which patterns with Spanish in this respect. The VOS order is somewhat marked in the sense that it is not very frequent and the subject is heavily stressed (cf. Suñer (1992:5) for Spanish). As for SVO and VSO, both are quite natural though there is a difference between them: SVO can be divided into a Topic part and a Comment part, while VSO cannot. As has been pointed out especially by Philippaki-Warburton (1982, 1985) for Modern Greek, VSO orders can be thought as answers to the question *"what happened?"*; this is what Kuroda (1972) calls a *"thetic statement"*.

For the time being, I will be concerned with *triggered inversion* which I will call *obligatory inversion (OI)* following Canac-Marquis (1991). The phenomenon of OI as found in Modern Greek can be captured by the following generalization which is based on Torrego's (1984) original description of similar phenomena from peninsular Spanish:

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[2]When I say "free inversion" here I mean both VSO and VOS. Traditionally, the term "free inversion" has been used to characterize structures in which the subject has been "moved" to the end of VP (Rizzi (1982), Torrego (1984), Suñer (1992)). According to this terminology, VOS and not VSO is a free inversion order. It is standardly assumed that free inversion (i.e. VOS orders) is a process by which the subject is moved to the end of the VP. Recently, however, some linguists working within Kayne's (1933a) "antisymmetry" proposal have argued in favor of an alternative analysis according to which in VOS structures the verb has been moved to INFL, the subject has stayed in its base position VP-internally and the object has undergone "scrambing" to some position higher than the subject (cf. Ordoñez (1994) for Spanish, Alexiadou (1994b) for Modern Greek). For the purposes of this chapter it is not relevant which one of the two analyses for VOS orders is the correct one. Notice, however, that the scrambling analysis would be incompatible with my claim in chapter 2 that Modern Greek doesn't have scrambling, a claim which is supported by the fact that the object is not allowed to precede the participle and that there are no interpretational differences between VOS and VSO orders in Modern Greek (in the sense that the object does not receive a strong reading in VOS orders and a weak reading in VSO orders, something which we might expect under a scrambling analysis). As we shall see later on, it is significant that Modern Greek trigerred inversion patterns with Spanish trigerred inversion in most respects. Both languages differ from Catalan and Italian with respect to triggered inversion. Interestingly enough, VSO orders are not permitted in Catalan and Italian: this could be viewed as an argument against the scrambling analysis for VOS orders, for reasons that will become clear later in this chapter.

(2) *An argument wh-word in the Comp position of a tensed clause triggers obligatory inversion (subject-verb) in both main and embedded clauses*

As stated in (2), this type of inversion is characterized by two properties. (i) OI uniformly applies in *direct* as well as *indirect questions*. (ii) Furthermore, OI is characterized by a number of *exceptions*: it is restricted to *argument* wh-words and it does not occur when the fronted element is an *adjunct* (cf. Torrego (1984), Canac-Marquis (1991) for Spanish, Drachman and Klidi (1992) for Modern Greek).[3]

(3) a. *Pjon$_j$ o Petros idhe t_j?
*Whom$_{j,\ Acc}$ the Peter$_{Nom}$ saw-3sg t_j?
b. Pjon$_j$ idhe o Petros t_j?
Whom$_{j,\ Acc}$ saw-3sg the Peter$_{Nom}$ t_j?
"Who did Peter see ?"

(4) a. *I Maria rotise pjon$_j$ o Petros idhe t_j
*The Mary$_{Nom}$ asked-3sg whom$_{j,\ Acc}$ the Peter$_{Nom}$ saw-3sg t_j
b. I Maria rotise pjon idhe o Petros t_j
The Mary$_{Nom}$ asked-3sg whom$_{j,\ Acc}$ saw-3sg the Peter$_{Nom}$ t_j
"Mary asked who Peter saw"

The sentences in (3) and (4) illustrate the non-root character of the phenomenon under consideration. As we can see, the subject is not allowed to intervene between the wh-word and the verb irrespective of the *root-embedded* character of the structures involved (compare (3) to (4)). In what follows, I shall concentrate on the second property of OI, namely the argument-adjunct asymmetry, since I think that the relevant data are not that clear, hence requiring some additional discussion. For simplicity, the examples I will be presenting are main questions. However, indirect questions pattern with direct questions in all relevant respects. Let us now look at some cases of argument extraction:

(5) a. *Ti o Jannis theli?
*What the John wants?
"What does John want?"
b. Ti theli o Jannis?
What wants the John?
"What does John want?"

[3]Actually, the terms "argument" and "adjunct" are somewhat misleading. As Suñer (1992) and Drachman and Klidi (1992) have pointed out, there are adjunct-like phrases that trigger inversion and others that don't. Some cases which I will discuss later show that *lexical selection* might be a descriptively more adequate notion.

(6) a. *Ti o Petros efage?
*What the Peter ate?
"What did Peter eat?"

b. Ti efage o Petros?
What ate the Peter?
"What did Peter eat?"

(7) a. *Pjon o Jannis idhe?
*Whom the John saw?
"Who did John see?"

b. Pjon idhe o Jannis
Whom saw the John?
"Who did John see?"

(8) a. *Pjon i kritiki thavi?
*Whom the critics bury?
"Who do the critics bury?"

b. Pjon thavi i kritiki?
Whom bury the critics?
"Who do the critics bury?"

(9) a. *Ti o Petros exi?
*What the Peter has?
"What is the matter with Peter?"

b. Ti exi o Petros?
What has the Peter?
"What is the matter with Peter?"

(10) a. *Tinos i Maria sistise ton Petro?
*Whom_{gen} the Mary_{nom} introduced the $\text{Peter}_{\text{acc}}$?
"Who did Mary introduce Peter to?"

b. Tinos sistise i Maria ton Petro
Whom_{gen} introduced the Mary_{nom} the $\text{Peter}_{\text{acc}}$?
"Who did Mary introduce Peter to?"

(11) a. *Tinos o dievthintis ipe na pai sto Parisi?
*Whom_{gen} the director said to go to Paris
"Who did the director tell to go to Paris?"

b. Tinos ipe o dievthintis na pai sto Parisi?
Whom_{gen} said the director to go to Paris?
"Who did the director tell to go to Paris?"

What these sentences show is that inversion obligatorily takes place with argument wh-phrases in Modern Greek. Thus, while the *(a)*-sentences in (5)-(11) are uniformly ill formed, their *(b)*-counterparts are grammatical. More specifically, (5)-(7) are introduced by the direct object wh-words *ti* (what) and *pjon* (who). Examples (8) and (9) exemplify wh-movement of objects of idioms. As we can see, (8a) and (9a) are completely ungrammatical whereas (8b)

and (9b) are both fine. Finally, (10) and (11) instantiate indirect object fronting; once again, the subject is not allowed to intervene between the genitive wh-word and the verb. Consider now some instances of adjunct fronting:

(12) a. Jiati o Petros ine lipimenos?
Why the Peter is sad?
"Why is Peter sad?"

b. Jiati ine o Petros lipimenos?
Why is the Peter sad?
"Why is Peter sad?"

(13) a. Pos ke i Maria efige toso noris?
How and the Mary left so early?
"How come Mary left so early?"

b. Pos ke efige i Maria toso noris?
How and left the Mary so early?
"How come Mary left so early?"

(14) a. Pote o Petros protognorise tin Ilektra?
When the Peter_{nom} first-met the Ilektra_{acc}?
"When did Peter first meet Ilektra?"

b. Pote protognorise o Petros tin Ilektra?
When first-met the Peter_{nom} the Ilektra_{acc}?
"When did Peter first meet Ilektra?"

(15) a. Pote o laos tha apofasisi epitelous na antidrasi?
When the people FUT decide at last to react?
"When will the people at last decide to react?"

b. Pote tha apofasisi epitelous o laos na antidrasi?
When FUT decide at last the people to react?
"When will the people at last decide to react?"

(16) a. ?Pos i kathigites aksiologisan afta ta grapta?
?How the teachers_{nom} evaluated these the assignments_{acc}?
"How did the teachers evaluate these assignments?"

b. Pos aksiologisan i kathigites afta ta grapta?
How evaluated the teachers_{nom} these the assignments_{acc}?
"How did the teachers evaluate these assignments?"

(17) a. ?Pos i Maria vrike to spiti tis stin Ollandia?
?How the Mary_{nom} found the home_{acc} her in-the Holland?
"How did Mary find her place in Holland?"

b. Pos vrike i Maria to spiti tis stin Ollandia?
How found the Maria_{nom} the home_{acc} her in-the Holland?
"How did Maria find her place in Holland?"

(18) a. ?? Pu i Maria dimosievse to arthro tis jia ta epirimata?
??Where the Mary_{nom} published the article_{acc} her for the adverbs?
"Where did Mary publish her article on adverbs?"

b. Pu dimosievse i Maria to arthro tis jia ta epirimata?
Where published the Mary_{nom} the article_{acc} her for the adverbs?
"Where did Mary publish her article on adverbs?"

(19) a. ?Pu i Maria protoakouse ji' afto to sinedrio?
?Where the Mary_{nom} first-heard about this the conference?
"Where did Mary first hear about this conference?"

b. Pu protoakouse i Maria ji' afto to sinedrio?
Where first-heard the Mary_{nom} about this the conference?
"Where did Mary first hear about this conference?"

As (12)-(19) indicate, when the fronted wh-phrase is an adjunct the subject may either precede or follow the verb with no significant acceptability difference between the two orders. This can be taken to suggest that adjunct extraction does not trigger inversion in Modern Greek. Given that "free" inversion is possible in this language (see (1) above), it seems justified to suggest that the VS orders illustrated above involve "free inversion" rather than "obligatory inversion" (see section 4.2. for theoretical discussion). To my knowledge, Drachman (lecture notes, Salzburg, Fall 1991) and Drachman and Klidi (1992) were the first to observe and systematically discuss these facts for Modern Greek.[4]

To summarize so far, the two groups of examples (5)-(11) and (12)-(19) show that there is a clear argument-adjunct asymmetry with respect to inversion. Note that the *argument vs. adjunct* structures presented so far are *true minimal pairs* in the sense that they all involve *bare wh-phrases*. Furthermore, it is important that the non-inverted order is wellformed not only with *jiati* ("why") and *pos ke* ("how come") but also with other adjuncts such as *pote* ("when"), *pos* ("how") and even *pu* ("where").[5] It would be less interesting if only *jiati* and *pos ke* were exceptional because it is well known that *why* and *how come* have irregular properties. For example, Nishigauchi (1990:97-109) showed that in Japanese there are important differences between *naze* "why" and the other wh-phrases. Among other things,

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[4]For a related proposal motivated differently, see Fykias (1988). Horrocks (1992) independently observed this asymmetry. Torrego (1984) was the first to point out these facts for Spanish (and also possibly Catalan) and Canac-Marquis (1991) tried to provide a principled explanation for Torrego's Generalization. In Anagnostopoulou (1993a) I explored a variant of Canac-Marquis' analysis in order to account for the Modern Greek data. I will return to these issues below.

[5]Notice, however, that *pu*-questions are not entirely wellformed. Modern Greek seems to pattern with Spanish in this respect. According to Torrego (1984:106), inversion does not necessarily apply with *en qué medida* "in what way", *por qué* "why", *cuándo* "when" and *cómo* "how"; this seems to suggest that "where" in Spanish patterns with arguments with respect to inversion. However, it seems to me that there is still a contrast between *pu* and *argument-phrases* in Greek: the non-inverted order is much worse with elements of the latter type. Note furthermore that *jiati*, *pos ke* and *pote* give better results than *pos* for reasons that are not clear to me.

this element resists co-occurrence with other types of WH-phrases within the same sentence, it does not exhibit scopal interactions with other quantificational expressions and, more generally, it behaves like a sentential operator rather than a quantificational expression. Rizzi (1990:47 and references) proposed that *why* and *pourquoi* are directly base-generated in Comp, unlike other adjunct wh-phrases. According to Rizzi, French provides two pieces of evidence in favor of this conclusion: (i) while all other wh-elements can be left in situ, *pourquoi* cannot and (ii) stylistic inversion is triggered by any other wh-phrase except *pourquoi*. Furthermore, Culicover (1991:21-26) among others discussed the differences between *why* and *how come* in English. Following Rizzi, he suggested that *why*, unlike other wh-words, does not undergo Move α. As for *how come*, he showed that it cannot be viewed as a true wh-interrogative because it does not allow inversion, it is not allowed to cooccur with *the hell/in the world* and it cannot occur with *ever*, in contrast with *why*. Given these crosslinguistic facts, it is crucial for the overall analysis of OI in Modern Greek that the lack of inversion is a pattern characterizing *adjunct fronting* in general and is not restricted to *why* and *how come*. If this was the case, then we would be able to maintain the generalization that Modern Greek interrogatives always display obligatory inversion by explaining away the absence of inversion with *jiati* and *pos ke* given that the exceptional status of these elements seems to be generally agreed upon. But the fact that most adjuncts allow for SV orders in Greek can be viewed as one major criterion according to which a number of analyses of OI that have been proposed in the literature qualify as descriptively and explanatorily inadequate.[6] So far we have considered elements the status of which is fairly uncontroversial with respect to the labels "argument" and "adjunct", namely NP objects on the one hand and adverbial phrases that are in no sense subcategorized for by V on the other. It should be

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[6] I would like to mention at this point that especially with *pos* "how" and *pote* "when" there is a certain "heaviness" constraint on the predicate in order for the non-inverted order to be completely wellformed:

(1) a. Pote o Petros protognorise tin Ilektra?
When the Peter_{nom} first-met the Ilektra_{acc}?
"When did Peter first meet Ilektra?"

b. ??Pote o Petros efige?
??When the Peter left?
"When did Peter leave?"

c. Pote o Petros efige jia tin Ameriki?
When the Peter left for the States?
"When did Peter leave for the States?"

(2) a. ??Pos i omada epiviose?
??How the group survived?
"How did the group survive?"

b. ?Pos i omada epiviose eno den ipirxe trofi?
?How the group survive while not was food?
"How did the group survive while there was no food?"

According to Torrego (1984, fn 6), the same constraint is operative in Spanish with the wh-words *cómo* and *cuándo*. The reason for this restriction is unclear. For an attempt to account for this restriction, see Drachman and Klidi (1992).

made clear that inversion is also triggered by *obligatorily selected (i) locative PPs* (cf. (20), (21)), *(ii) manner adverbials* (cf. (22), (23)) and *(iii) measure phrases* (cf. (24), (25)):

(20) a. O Petros pige *(stin Ameriki)
The Peter went *(to-the States)
"Peter went to the States"

b. *Pu o Petros pige?
*Where the Peter went?
"Where did Peter go?"

c. Pu pige o Petros?
Where went the Peter?
"Where did Peter go?"

(21) a. To sinedrio tu Reading sinevale *(stin proothisi tis
The conference of Reading contributed *(to-the promotion of
Ellinikis Glossologias)
Greek Linguistics)
"The Conference of Reading contributed to the promotion of Greek linguistics"

b. *Se ti to sinedrio tu Reading sinevale?
*To what the conference of Reading contributed?
"What did the conference of Reading contribute to?"

c. Se ti sinevale to sinedrio tu Reading?
To what contributed the conference of Reading?
"What did the conference in Reading contribute to?"

(22) a. O Petros perase *(kala/orea)
The Peter passed *(well/nicely)
"Peter had a good time"

b. *Pos o Petros perase?
*How the Peter passed?
"Did Peter have a good time?"

c. Pos perase o Petros?
How passed the Peter?
"Did Peter have a good time?"

(23) a. O Petros simberiferete *(kala)
The Peter behaves *(well)
"Peter behaves well"

b. *Pos o Petros simberiferete?
*How the Peter behaves?
"How does Peter behave?"

c. Pos simberiferete o Petros?
How behaves the Peter?
"How does Peter behave?"

(24) a. O Petros zygizi *(75 kila)
The Peter weighs *(75 kilos)
"Peter weighs 75 kilos"

b. *Poso o Petros zygizi?
*How much the Peter weighs?
"How much does Peter weigh?"

c. Poso zygizi o Petros?
How much weighs the Peter?
"How much does Peter weigh?"

(25) a. To forema kostizi/kani *(30.000 drachmes)
The dress costs/makes *(30.000 drachmas)
"The dress costs 30.000 drachmas"

b. *Poso to forema kostizi/kani?
*How much the dress costs/makes?
"How much does the dress cost?"

c. Poso kostizi/kani to forema?
How much costs/makes the dress?
"How much does the dress cost?"

The *(a)*-sentences in (20)-(25) show that the extracted elements are obligatorily selected by the verbs, hence they can be characterized as *arguments* according to this criterion.[7] Nevertheless, wh-extraction of PP complements out of certain islands (e.g. CNP-islands of the Noun-Complement type) gives worse results than wh-extraction of NP complements, a fact that could be taken to suggest that the two types of complements do not have an identical syntactic status. One Modern Greek example illustrating this opposition is given below:

(26) a. ??Pjon akouses [tin fimi [oti apelyse o diefthintis]]?
??Whom heard-2sg [the rumor [that fired-3sg the director]]?
"Who did you hear the rumor that the director fired?"

b. ?*Se ti akouses [tin fimi [oti sinevale to sinedrio]]?
?*To what heard-2sg [the rumor [that contributed-3sg the conference]]?
"What did you hear the rumor that the conference contributed to?"

Furthermore, manner adverbials and measure phrases behave on a par with *adjuncts* rather than *arguments* with respect to *Relativized Minimality islands* in the sense of Rizzi (1990).

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[7] I would prefer not to be more explicit about the exact nature of the (structural and, especially, thematic) relation of these complements to the selecting verbs. Rizzi (1990:77) argues that manner adverbials and measure phrases are mentioned in the θ-grid of the verb, hence they are θ-marked and θ-governed. However, they do not have a *"referential θ-role"* because they do not refer to event-participants and this is the reason why they behave like adjuncts in certain respects. Adger (1993a) maintains the idea that measure phrases are arguments but he derives their adjunct-like behavior in a different manner (the type of syntactic licensing determines the extraction possibilities of the various complements). Also, I would like to point out that "obligatoriness" is not an absolute criterion for argumenthood because even direct objects of verbs are sometimes optional.

On the other hand, the examples (20)-(25) show that such *quasi-arguments* pattern with *arguments* rather than *adjuncts* with respect to *OI*. Table (27) summarizes this bifurcation:[8]

(27)

	Obligatory Inversion	Relativized Minimality (WH-/Neg-islands)
Arguments	**yes**	**no (?)**
Adjuncts [non selected]	**no**	**yes**
Quasi-arguments [selected]	**yes**	**yes**

Given that *quasi-arguments* qualify as *arguments* according to some criteria but as *adjuncts* according to other, I propose to slightly reformulate Torrego's generalization (2) along the following lines (see also Alexiadou (1994b)):

(28) *"A lexically selected wh-word in the Comp position of a tensed clause triggers obligatory inversion (subject-verb) in both main and embedded clauses"*

(28) allows us to describe correctly most of the observed facts. For instance, the existence of minimal pairs as in (29) is expected:

(29) a. ?Pos i Maria vrike to spiti tis stin Ollandia?
?How the $\text{Maria}_{\text{nom}}$ found the home_{acc} her in-the Holland?
"How did Mary find her place in Holland?"

b. *Pos o Petros simberiferete?
*How the Peter behaves?
"How does Peter behave?"

[8] In (27) it is stated that arguments are insensitive to Relativized Minimality islands. This is not entirely true, in the sense that argument extraction out of wh-islands has the status of a "weak violation" due to Subjacency. If the term "Relativized Minimality island" is used to refer to the opacity (ECP-type) effects induced by wh-islands, then it is clear that argument extraction is insensitive to wh-islands. Nevertheless, the notion of locality based on the split between ECP (as a condition on Representation) and Subjacency (as a condition on Movement) is no longer well defined (cf. chapter 3, section 3.4. for discussion).

There is still one complication. The status of wh-extraction of *"optionally selected" PPs* is not clear at all. Thus, according to Torrego (1984), the following structure is ill formed in Spanish:[9]

(30) *Con quién Juan vendrá hoy?
*With whom John will-come today?
"With whom will John come today?"

Note that this particular sentence can be taken to challenge Torrego's Generalization in (2) because it is not obvious that the fronted wh-phrase *con quién* in (30) is an argument rather than an adjunct.[10] As for Modern Greek, it seems to me that the status of such sentences is very unclear. They give better results than obligatorily selected NPs or PPs, but they are worse than "adjuncts" (i.e. modifiers that are uncontroversially non-argumental). Compare (31) to (32):

(31) a. ??Se pjon i Maria simberiferete kala?
??To whom the Mary behaves well?
"Towards whom does Mary behave well?"
b. ??Me pjon i Maria vgike ekso?
??With whom the Mary went out
"With whom did Mary go out?"
c. ??Me ti i Maria skotose ton andra tis?
??With what the Mary killed the husband her?
"What did Mary kill her husband with?"

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[9]According to Torrego (1984), Catalan seems to behave like Spanish with respect to inversion. Nevertheless, Bonet (1991, fn 16) points out: *"...Questions with per què constitute an exception (to inversion) [...]. Actually, this lack of "inversion" seems to be generally possible whenever the wh-phrase is headed by a* ***preposition*** *(e.g. des de quan "since when", de quina manera "in what fashion")".* It is not clear from these particular examples whether the lack of inversion is only possible with PPs of this type, namely "discourse linked" non selected adjuncts, or invariably with all PPs. It seems to be implied, however, that bare adjunct wh-phrases do require inversion in Catalan, unlike the situation in Greek and Spanish.

[10]Cinque (1990:23) discusses the following opposition:

(1) a. ?Which book did John announce a plan (for you) to read?
b. *With whom did John announce a plan to go out?

If the judgements are correct, then the former structure has the status of a weak Subjacency violation while the latter has the status of an ECP violation; this would be a standard reaction to this contrast in pre-minimalistic frameworks (but cf. Cinque (1990, chapter 3) and Koster (1987) for a different analysis depending on the categorial status of the fronted XPs and the type of empty category they may license in the root position).

(32) a. *Tinos i Maria milise?
*Who$_{gen}$ the Mary talked?
"Who did Mary talk to?"
b. *Ti o Petros efage?
*What the Peter ate?
"What did Peter eat?"
c. *Pos o Petros simberiferete?
*How the Peter behaves?
"How does Peter behave?"

The main topic of this chapter is not so much the *argument-adjunct* asymmetry but more the *D-linked* vs. *non D-linked* asymmetry that will be discussed in the next section. For this reason, the data in (31) will be mostly ignored. They are mentioned here for the sake of concreteness. The sentences in (31) are problematic in a number of respects: for example, it is not clear why they have an intermediate status, whether these PPs are arguments or adjuncts (in fact, they do not seem to form a natural class) etc. One obvious property the sentences in (31) have in common is that they all involve extraction of a PP. This structural factor seems to be related to the fact that (31a) is better than (33) below: both display indirect object extraction but the former contains a *prepositional phrase* while the latter a *bare genitive NP*:

(33) *Tinos i Maria simberiferete kala?
*Who$_{gen}$ the Mary behaves well?
"Towards whom does Mary behave well?"

On the other hand, the *manner PP* in (34a) and the *temporal PP* in (34b) are certainly better than the *comitative PP* in (31b) and the *instrumental PP* in (31c), a fact indicating that the syntactic category of a wh-element is not sufficient to explain its behavior with respect to OI.

(34) a. Me ti tropo o filakismenos apedrase apo to keli tu?
With what way the prisoner escaped from the cell his?
"In what way did the prisoner escape from his cell?"
b. Apo pote o filakismenos prospathouse na apodrasi?
Since when the prisoner was-trying to escape?
"Since when did the prisoner try to escape?"

Admittedly, these PPs challenge the generalizations discussed so far. For one thing, while we would expect all arguments to behave alike with respect to inversion, what we actually see is that prepositional indirect objects give better results than bare indirect object NPs. Nothing in the analysis of Obligatory Inversion I will pursue later on can account for this

difference (cf. Alexiadou (1994b) for a more systematic discussion). Furthermore, there appear to be further asymmetries within the class of adjuncts.[11] To conclude, certain PPs are problematic for the generalization formulated in (28). As previously stated, it would lead us too far afield to account for these data. This would first of all require a thorough investigation of the syntax of PPs, something which is beyond the scope of the present study.

4.1.2. The effects of Discourse Linking

In Modern Greek, there is a second class of systematic exceptions to OI, namely questions introduced by *d(iscourse)-linked wh-phrases* (i.e. wh-phrases referentially linked to "..sets established in the discourse..", according to Pesetsky's (1987:108) formulation). As the two groups of examples in (35) and (36) indicate, the *acceptability* of preverbal subjects depends upon a number of characteristic properties of the fronted *argument* wh-phrases:
(a) In questions introduced by *overt partitive wh-phrases* (typically d-linked), inversion doesn't have to take place (35a).
(b) *"Which-phrases"* that are usually understood as d-linked do not require inversion, especially when they receive a partitive reading (35b), (35c).[12]
(c) On the other hand, OI does occur with the bare element *"pjos"* (corresponding to the English "who") and the "aggressively" non-d-linked element *"pjos sto diavolo"* (the Greek counterpart of the expression "who-the-hell", cf. Pesetsky 1987 for the relevant tests), as illustrated by the corresponding ill formed Modern Greek examples (35d), (35e).
(d) Finally, while inversion is not obligatory with *"how many phrases"* (especially as overt or covert partitives, cf. (36a), (36b), (36c)) which are well known for having the option of receiving referential readings, it must take place with any type of *"what-phrase"* (i.e. bare, "agressively" non-d-linked, non-bare), the latter being typically non-d-linked (36d), (36e), (36f). Here are the relevant examples:

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[11]This, however, may be a less severe problem, because comitative and instrumental PPs could be claimed to be argumental in some sense. For example, a sentence like *"I opened the door with the key"* can be paraphrased as *"the key opened the door"* with the instrumental NP in subject position. Furthermore, a sentence like *"John went to the cinema with Mary"* can be understood as *"John and Mary went to the cinema"* with *Mary* as subject. Furthermore, in serial verb constructions the instrument has the status of an argument. In general, it seems that the behavior and the syntactic properties of these PPs is not an uncontroversial issue (Hans Broekhuis, p.c.).

[12] According to the intuitions of the native speakers, certain types of verbal predicates seem more appropriate to impose a clear partitive reading on the wh-phrase than others: tense, aspect and the type of verbal modifier chosen seem to play a role. Especially crucial seems to be the relevance of the adverbial element: all the wellformed cases given below are ungrammatical when the adverbs VP-finally are missing. The reason for this is completely unclear to me. Note that the "heaviness constraint on the predicate" is operative also with adjunct extraction in Greek and Spanish (cf. fn 6 earlier in the text).

(35) a. Pjon apo tus filous tu o Petros agapai perissotero?
Which of the friends his the Peter$_{nom}$ loves most?
"Which of his friends does Peter like most"

b. Pja epilogi tis i Maria theori idiatera epitiximeni?
Which choice her the Mary$_{nom}$ considers particularly successful?
"Which choice of her does Mary consider particularly successful?

c. Pjo provlima i mathites elisan xoris kamia diskolia?
Which problem the pupils solved without any difficulty?
"Which problem did the pupils solve without any difficulty?"

d. *?Pjon o Petros agapai perissotero?
*?Whom the Peter loves most?
"Who does Peter like most?"

e. **Pjon sto-diavolo i Maria sinantise?
**Whom to-the-devil the Mary met?
"Who the hell did Mary meet?"

(36) a. Posa apo ta abstracts i epitropi tu Glow aperripse omofona?
How many of the abstracts the committee the Glow rejected unanimously?
"How many of the Glow abstracts did the Glow committee reject unanimously?"

b. Poses epiloges tis i Maria theori idiatera epitiximenes?
How many choices her the Mary$_{nom}$ considers particularly successful?
"How many choices of hers does Mary consider particularly successful?

c. Posa provlimata i mathites elisan xoris kamia diskolia?
How many problems the pupils solved without any difficulty?
"Which problem did the pupils solve without any difficulty?"

d. *Ti o Jannis idhe xtes sto theatro?
*What the John saw yesterday in-the theatre?
"What did John see yesterday in the theatre?"

e. **Ti sto-diavolo o Jannis ithele?
**What to-the devil the John wanted?
"What the hell did John want?"

f. *Ti tenies o Gavras kani sinithos?
*What movies the Gavras makes usually?
"What movies does Gavras usually make?"

As has been shown in Anagnostopoulou (1992), the distribution of A' dependent clitics in Modern Greek depends on the same kind of "referentiality hierarchy":[13] [14]

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[13]The authors who observed these facts for the first time were Theophanopoulou-Kontou (1986) and Iatridou (1991a). The original examples Theophanopoulou-Kontou gave are the following:

(1) a. [Poses apo tis askisis]$_i$ (tis$_i$) linis
[How many of the exercises]$_i$-Acc,pl (them$_i$-Acc,pl) solve-2sg
xoris provlima ?
without problem ?
"How many of the excercises do you solve (them) without any problem ?"

(37) *Overt partitive wh-phrases*

a. [Pjon apo tus filus su]$_i$ (ton$_i$) katalavenis
[Which of the friends yours]$_i$-Acc,sg (him$_i$-Acc,sg) understad-2sg
kalitera ?
best ?
"Which one of your friends do you understand (him) better ?"

b. [Pjo apo afta ta vivlia]$_i$ (to$_i$) agapas idietera ?
[Which of these the books]$_i$-Acc,sg (it$_i$-Acc,sg) like-2sg particularly ?
"Which one of these books do you like (it) most ?"

(38) *"Which-phrases"*

a. ?[Pjo vivlio su]$_i$ to$_i$ agapas idietera ?
?[Which book yours]$_i$-Acc,sg it$_i$-Acc,sg like-2sg particularly ?
"Which book of yours do you particularly like (it) ?"

b. ?[Pja gineka]$_i$ tin$_i$ sinantas kathe mera ston dromo ?
?[Which woman]$_i$ her$_i$ meet-2sg every day in the street ?
"Which woman do you meet (her) every day in the street ?"

c. ?[Pjo dentro]$_i$ to$_i$ fitepses monos su ?
?[Which tree]$_i$ it$_i$ plant-2sg alone cl-2sg,gen ?
"Which tree did you plant (it) on your own ?"

(39) *"What"-phrases*

a. *[Ti fagita]$_i$ ta$_i$ magirevis grigora ke evkola?
*[What dishes]$_i$ them$_i$ prepare-2sg quickly and easily?
"What kind of dishes do you prepare them quickly and easily?"

b. *[Ti tenies]$_i$ tis$_i$ kani o Gavras?
*[What films]$_i$ them$_i$ make-3sg the Gavras?
"What kind of movies does Gavras make them?"

(40) *Bare and "what the hell phrases"*

a. *Pjon$_i$ ton$_i$ idhes?
*Whom$_i$ him$_i$ saw-2sg?
"Who did you see him?"

b. *Ti$_i$ to$_i$ magirepses?
*What$_i$ it$_i$ cooked-2sg
"What did you cook it?"

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b. [Pjon apo tus filus su]$_i$ (ton$_i$) katalavenis
[Which of the friends yours]$_i$-Acc,sg (him$_i$-Acc,sg) understad-2sg
kalitera ?
best ?
"Which one of your friends do you understand (him) better ?"

[14]cf. Anagnostopoulou (1992) for a more complete discussion of the relevance of D-linking for the licensing of direct object clitics in Modern Greek wh-questions including a detailed presentation of the way the "d-linking tests" apply in Modern Greek.

c. **[Pjon sto diavolo]$_i$ ton$_i$ idhes?
**[Whom the hell]$_i$ him$_i$ saw-2sg?
"Who the hell did you see him?"

(41) *"How many"-phrases (partitive, non partitive: individual and not cardinal reading)*

a. [Poses apo tis askisis]$_i$ (tis$_i$) linis xoris provlima?
[How many of the excercises]$_i$ (them$_i$) solve-2sg without problem?
"How many excercises do you solve (them) without problem?"

b. [Posa abstract]$_i$ (?ta$_i$) aperripsan amesos?
[How many abstracts]$_i$ (?them$_i$) rejected-3pl immediately?
"How many abstracts did they reject (them) immediately?"

c. [Poses psifous]$_i$ (*tis$_i$) pire to PASOK stis ekloges?
[How many votes]$_i$ (*them$_i$) took the PASOK in-the elections?
"How many votes did PASOK receive (*them) in the elections?"

In fact, there is a systematic correlation between these two properties of Modern Greek interrogatives: whenever inversion is obligatory, the clitics are ruled out; whenever inversion is not required, the clitics are grammatical:

(42) a. *Ti o Petros efage?
*What the Peter ate?
"What did Peter eat?"

b. *Ti to-efage o Petros?
*What it-ate the Peter?
"What did Peter eat-it?"

(43) a. *Pjon o Jannis idhe?
*Whom the John saw?
"Who did John see?"

b. *Pjon ton-idhe o Jannis?
*Whom him-saw the John?
"Who did John see-him?"

(44) a. *Pjon i kritiki thavi?
*Whom the critics bury?
"Who do the critics bury?"

b. *Pjon ton-thavi i kritiki?
*Whom him-bury the critics?
"Who do the critics bury-him?"

Examples (42)-(44) show that in cases where the WH-SV order is excluded, the clitic is also excluded. On the other hand, the sentences (45)-(47) allow for *absence of inversion* and *presence of clitics*:

(45) a. Pja epilogi tis i Maria theori idiatera epitiximeni?
Which choice her the $Mary_{nom}$ considers particularly successful?
"Which choice of hers does Mary consider particularly successful?

b. Pja epilogi tis i Maria tin-theori idiatera epitiximeni?
Which choice her the $Mary_{nom}$ her-considers particularly successful?
"Which choice of hers does Mary consider-it particularly successful?

(46) a. Pjo provlima i mathites den boresan na lisun?
Which problem the pupils not could to solve?
"Which problem couldn't the pupils solve?"

b. Pjo provlima i mathites den boresan na to-lisoun?
Which problem the pupils not could to it-solve?
"Which problem couldn't the pupils solve-it?"

(47) a. Posa apo ta abstracts i epitropi tu Glow aperripse omofona?
How many of the abstracts the committee the Glow rejected unanimously?
"How many of the Glow abstracts did the Glow committee reject unanimously?"

b. Posa apo ta abstracts i epitropi tu Glow ta-aperripse omofona?
How many of the abstracts the committee the Glow them-rejected unanimously?
"How many of the Glow abstracts did the Glow committee reject unanimously?"

These facts are summarized in table (48):

(48)

	Obligatory Inversion	Direct Object Clitics
Arguments [-D-linked]	**yes**	**no**
Arguments [+D-linked]	**no**	**yes**

To conclude, in this section we saw that discourse-linked wh-phrases in Greek pattern with adjuncts in not trigerring "inversion". This leads to one more revision of the Generalization (28):

(49) *"A lexically selected non d-linked wh-word in the Comp position of a tensed clause triggers obligatory inversion (subject-verb) in both main and embedded clauses"*

4.1.3. A note on d-linking or the individual vs. higher order distinction

Before proceeding, a few remarks on the semantic nature and the syntactic effects of the "referentiality hierarchy" presented above might be useful. It is well known that wh-phrases are divided into two major sub-types according to a number of semantic/pragmatic and syntactic criteria. For example, the wh-phrases characterized here as "d-linked" are the ones that are not allowed to occur in existential constructions, they are able to undergo "long wh-movement out of weak islands", they cannot co-occur with expressions such as *"the hell"* and they can be interpreted as partitives. On the other hand, the wh-phrases which I called "non-d-linked" are perfectly grammatical in *there-insertion* sentences, they resist long extraction across opacity islands, they are compatible with *"the hell"* and they are inherently non-partitive. It is less clear how to semantically define this referentiality hierarchy. In the recent literature there are two main proposals for the characterization of phenomena of this type. According to the theory of *D(iscourse)-linking* that Pesetsky (1987) developed, certain types of wh-phrases but not others have *referential properties* in the sense that they are appropriate only when the individuals named in the answer come from a salient set in the domain of discourse. Enç (1991) tried to subsume d-linking under her theory of Specificity, thus capturing the fact that d-linked wh-phrases are systematically interpreted as partitives (on the difference between which-NPs and what-NPs with respect to partitiveness, cf. Heim 1987:33). Furthermore, Cinque (1990) and Kiss (1993) among others have argued that d-linked wh-phrases are easily extracted from weak islands because "d-linking" is a syntactically relevant semantic property: Cinque proposed to translate d-linking into a potential for almost unconstrained binding of a trace (cf. chapter 3 for some discussion) and Kiss made use of a filter based on Specificity in the sense of Enç (1991). On the other hand, Szabolcsi and Zwarts (1991) building on work by Heim (1987) have argued that a more adequate characterization of the phenomena under discussion can be given in terms of the so called *"individual vs. higher order"* distinction. More specifically, they showed that the syntactic behavior of a wh-phrase is determined by the type of variable it introduces: wh-phrases ranging over *individual variables* have different *semantic* and therefore *syntactic* properties from variables ranging over *higher order variables* such as *amount* and *kind* variables (cf. Heim (1987) for a detailed discussion). *How many-phrases* have been viewed as the prototypical example illustrating the individual-higher order distinction since they are systematically ambiguous between two readings. Under one interpretation, a question introduced by *how many* has the following type of answer: *"three, namely A, B, C"*. In other words, the listener is expected not only to count, but to be able to identify the members of the set named in the answer. Under the other interpretation the answer names an *amount* of objects. Following Heim (1987), Dobrovie-Sorin (1992) and Frampton (1991) proposed that

the individual and the amount interpretation correspond to two alternative syntactic representations which are systematically obtained through movement reconstruction:[15]

(50) a. How many books did you read?
b. $[?x]_i$ you read $[x_i$-many books$]$
c. $[?x]_i$ $[x_i$-many books$]_j$ you read x_j

(50b) has an amount variable whereas (50c) has an individual variable in the root trace position. In other words, according to this proposal, there is an one-to-one correspondence between the semantic and the syntactic variable introduced which is responsible for the semantically related syntactic effects mentioned previously. Given the ambiguity in (50), it is predicted that *"how many N's"* will pattern with *"which N's"* under the individual interpretation ("which N's" range over individual variables) while under the amount interpretation they will pattern with *"what N's"* (which range over higher order variables). Thus, in cases where the individual variable reading is blocked (for pragmatic reasons) it is expected that, for instance, long extraction across a wh-island will not be possible. This is indeed what we find (Kiss 1993:93):

(51) *How many votes don't you know which candidate received?

As indicated by the opposition between (41b) and (41c) above, the Greek facts are compatible with the individual/higher order distinction. This means that we do not have to characterize the Modern Greek facts presented in section 4.1.2. in terms of d-linking and, as far as I am concerned, there are no significant empirical reasons for choosing between *Discourse-linking* and the *individual vs. higher order distinction.*[16]

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[15]Note that the "how many" ambiguity is neatly expressed through reconstruction. However, with "kind"-phrases ("what N'") and "who" the reconstruction proposal doesn't work as nicely because we have to postulate very abstract (variable) representations that do not directly correspond to the syntactic form of the wh-phrases (cf. Heim (1987) for more details). Note that although *"which N"* structurally permits two alternative representations (cf. Chomsky (1992)) semantically it doesn't since it only ranges over individual variables (cf. Heim (1987) for discussion). Engdahl (1980) has proposed a treatment of *which Ns* according to which, everything but the *which* itself is interpreted in place; still, Engdahl's analysis treats "which N's" as strong (cf. Heim (1987:33) for discussion).

I would like to point out that if it is correct that which-phrases don't involve reconstruction (for semantic reasons) then we can account for the fact that questions introduced by "which" are allowed to override the Condition C effects discussed in the previous chapter without appealing to the Principle of Economy of Deletion for Non-Uniform Chains (cf. the discussion of Full Reconstruction and Chomsky's (1994) proposal). The prediction then would be that *"how many-N's"* may escape Condition C violations only when they range over individual variables; I don't know if this prediction is borne out.

[16]We might even try to reconcile the two alternatives following a remark made by Szabolcsi and Zwarts (1991:41), that *"...the existence of a salient set facilitates and/or justifies the individual interpretation..."* which might suggest furthermore that *"...D-linking [...] does play an important role, but an ancillary one"*.

4.1.4. Long distance wh-movement and inversion

Torrego (1984:108-109) pointed out that OI in peninsular Spanish is "successive cyclic" in the sense illustrated below:

(52) a. *Juan* pensaba que *Pedro* le había dicho que *la revista*
John thought that *Peter* him had told that *the journal*
había publicado ya el artículo.
had published already the article.
"John thought that Peter had told him that the journal had published the article already."

b. Qué pensaba *Juan* que le habia dicho *Pedro* que había
What thought *John* that him had told *Peter* that had
publicado *la revista*?
published *the journal*?
"What did John think that Peter had told him that the journal had published?"

c. *Qué pensaba *Juan* que *Pedro* había dicho que *la revista* había publicado?

What these sentences show is that in long distance wh-movement cases, "inversion" must take place not only in the matrix clause but also in the embedded clauses which show no overt wh-word "trigger". Torrego (1984) interpreted these facts as evidence for the application of Wh-movement in a successive cyclic fashion. Let me now construct some Modern Greek examples on this pattern:

(53) a. *O Jannis* nomize oti *o Petros* tu ixe pi oti
The John thought that *the Peter* him had told that
to periodiko ixe idhi dimosiefsi to arthro
the journal had already published the article
"John thought that Peter had told him that the journal had published the article already"

b. Ti nomize *o Jannis* oti tu ixe pi *o Petros* oti ixe
What thought *the John* that him had told *the Peter* that had
dimosiefsi *to periodiko*?
published *the journal*?
"What did John think that Peter had told him that the journal had published?"

c. ??Ti nomize *o Jannis* oti *o Petros* tu ixe pi oti *to periodiko*
ixe dimosievsi?

(54) a. *O Jannis* epimeni oti *i Katerina* ipe oti
The John insists that *the Katerina* said that
i aderfi tis pige stin Ameriki
the sister her went to-the States
"John insists that Katerina said that her sister went to the States"

b. Pu epimeni *o Jannis* oti ipe *i Katerina* oti
Where insists *the John* that said *the Katerina* that
pige *i aderfi tis*?
went *the sister her*?
"Where does John insist that Katerina said that her sister went?"

c. ??Pu epimeni *o Jannis* oti *i Katerina* ipe oti
i aderfi tis pige?

Examples (53b) and (54b) show that long distance wh-movement can be claimed to trigger "successive cyclic" inversion in Modern Greek as well. However, the status of (53c) and (54c) indicates that there is a clear asymmetry between these cases and the cases we have examined so far. The lack of inversion in the presence of an overt "trigger" gives considerably worse results than in its absence.

As will be shown in the next section, the status of examples like (52c), (53c) and (54c) has given rise to much controversy in the literature. Some people have claimed that these examples are fully grammatical, others claimed that they are a bit unnatural but more or less fine and there are researchers like Torrego who characterize them as completely ungrammatical. As for Modern Greek, I think that we can by no means ignore the fact that the non inverted orders are worse than the inverted ones. Furthermore, it is possible to construct examples where the presence of a preverbal subject in the subordinate clause leads to strong deviance:

(55) a. Posa asteria nomizis oti exi o ouranos?
How-many stars think-2sg that has the sky?
"How many stars do you think that the sky has?"

b. ?*Posa asteria nomizis oti o ouranos exi?
?*How-many stars think-2sg that the sky has?
"How many stars do you think that the sky has?"

(56) a. Ti vlastisi pisteves oti exi i Ellada?
What vegetation believed-2sg that has the Greece?
"What kind of vegetation did you believe that Greece has?"

b. ?*Ti vlastisi pisteves oti i Ellada exi?
?*What vegetation believed-2sg that the Greece has?
"What kind of vegetation did you believe that Greece has?"

(57) a. Ti sto diavolo pistevis oti exi o Jannis pu travai tin prosoxi?
What the hell think-2sg that has the John that attracts the attention?
"What the hell do you think that John has that attracts attention?"

b. *?Ti sto diavolo pistevis oti o Jannis exi pu travai tin prosoxi?
?*What the hell think-2sg that the John has that attracts the attention?
"What the hell do you think that John has that attracts attention?"

(58) a. Poso megali ipe i tileorasi oti ine i katastrofi?
How big said the television that is the disaster ?
"How big did they say on the television that the disaster was?"

b. ?*Poso megali ipe i tileorasi oti i katastrofi ine?
?*How big said the television that the disaster is?
"How big did they say on the television that the disaster was?"

(59) a. Poso nomizis oti kani to tiri ?
How much think-2sg that costs the cheese?
"How much do you think that the cheese costs?"

b. ?*Poso nomizis oti to tiri kani?
?*How much think-2sg that the cheese cost?
"How much do you think that the cheese costs?"

Apparently, there are several factors influencing the degree of grammaticality of these constructions. WH-extraction of non-d-linked wh-phrases (or phrases introducing higher order variables) in "Definiteness Restriction" contexts (cf. (55),(56) where the wh-phrases are objects of possessive "have") forces inversion in the subordinate clause. The same is true of wh-objects of idioms (57), postcopular predicative wh-phrases (58) and measure phrases (59). Other factors such as intonation and the length of the predicate also play a role. For example, I find a contrast between the following two sentences:

(60) a. ?*Poso nomizis oti to tiri kani?
?*How much think-2sg that the cheese cost?
"How much do you think that the cheese costs?"

b. ??Poso nomizis oti to tiri kani stin Ollandia?
??How much think-2sg that the cheese cost in-the Holland?
"How much do you think that the cheese costs in Holland?"

To conclude, in this section I have shown that Modern Greek patterns with the variety of Spanish described by Torrego in displaying "successive cyclic" inversion effects. Nevertheless, the absence of inversion in the subordinate clause(s) doesn't always cause strong ungrammaticality. One of the factors that seems to play a role is once more the "referential status" of the fronted argument wh-phrase. When the wh-phrase is forced into "non-referentiality" in the sense of either Rizzi (1990) (cf. examples (57), (59)) or Cinque (1990) (cf. examples (55),(56)) the status of the non-inverted variant becomes worse. Ideally, we would like to account for the fact that the type of inversion we are interested in here has successive cyclic force and also for the fact that there is an asymmetry between "short distance inversion" and "long distance inversion". In this chapter, I will provide an answer

to the first question but only a partial answer to the second question. A more satisfactory treatment of the observed asymmetry will be left for future research.

4.1.5. A note on related inversion phenomena from other languages

There are strong similarities between Modern Greek inversion, as has been described so far, and a number of inversion phenomena attested in other languages. Spanish, Catalan, possibly Italian and to a certain extent Hebrew are the cases in point. Nevertheless, as far as I have been able to determine, there are also crucial differences among the various tokens of this type of inversion. In this chapter I don't intend to deal with the question of parametric variation. In other words, the analysis I will be proposing is meant to apply specifically to Modern Greek. The reason for this will become clear after a brief overview of the main properties of triggered inversion in these languages.[17]

(a) Spanish. The Spanish inversion facts have been discussed in Torrego (1984), Canac-Marquis (1991), Goodall (1991) and Suñer (1992) among others. There is no general agreement on some of the properties of OI, most notably, the question of "successive cyclicity" (this property is fairly decisive with respect to the type of analysis that would qualify as the most suitable for OI; therefore, it is unfortunate that there is no convergence upon this point). The pattern of OI, as has been described by these authors (especially Torrego and Canac Marquis), is very similar to the Modern Greek one. In what follows, I will give a brief summary of the similarities and differences between the two languages:
(i) Free Inversion: Spanish, like Greek, permits both VSO and VOS orders (Suñer 1992). According to Suñer, the VOS orders are more "marked" than their VSO counterparts, in the sense that they are less frequent and the subject has to be contrastively stressed. Modern Greek patterns with Spanish in both respects. Moreover, XPVSO orders (where XP is an adverbial element) are completely "unmarked" intonationally and pragmatically (recall that VSO orders are "thetic statements", cf. Comorovski (1991) and, for this reason, they are a bit unnatural as "out of the blue" sentences, cf. Suñer (1992)); XPVOS orders are still marked, in the sense that they require heavy stress on the subject.
(ii) Triggered Inversion: Triggered inversion in the dialect of Spanish discussed by Torrego (1984) and Canac Marquis (1991) is strikingly similar to Greek inversion. More specifically, Spanish inversion is *selective* in the sense that it is triggered only by *argumental wh-phrases* and it uniformly applies in *main* and *embedded interrogatives*. Apparently, there are no *D-*

[17]Here I will only discuss Spanish, Catalan and Italian. For the Hebrew facts the reader is referred to Shlonsky and Doron (1991) and Borer (1992).

linking effects in Spanish, or, at least, they have not been discussed in the literature. Spanish appears to differ from Greek in this respect. As we saw, Spanish Inversion is also *successively cyclic* in the sense illustrated in section 4.1.4. On the other hand, the effects of the failure of successive cyclicity are reported to be fairly strong in Spanish, while they are quite mild in Greek (cf. above). Furthermore, the First Cycle Effect (cf. Torrego (1984) and Canac Marquis (1991) for details) is not all that clear in Greek (cf. footnote 19 below); for this reason, I do not extensively discuss it. Suñer (1992) agrees with Torrego on most of these facts.[18] Crucially, however, she judges *"...instances in which the long extracted argumental wh-phrase lands in other than its own CP.."* (Suñer 1992:29-30) as *well formed* if there is linear adjacency between the fronted wh-phrase and the main verb (i.e. inversion is not *cyclic*). A possible reason for this difference in judgements could be dialectal variation. Another possibility might be that the successive cyclicity effects are considerably milder (cf. Greek and Catalan), this being the reason why they are being ignored.[19] I will leave this matter open. Finally, Spanish inversion, as has been described by Goodall (1991), strongly resembles Catalan inversion, as we shall see next. In particular, according to Goodall, inversion is generally obligatory in Spanish with the sole exception of wh-questions

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[18]In section 4.2. I will extensively refer to Suñer's paper because the description she provides for the short distance cases is very relevant to our discussion: Modern Greek and Spanish are almost identical with respect to most of the properties described (compare Anagnostopoulou (1993) to Suñer (1992)). It should be mentioned at this point that the only short distance examples without inversion mentioned by Suñer are introduced by *por qué* "why", *con qué fundamento* "with what reason" and *si* "whether". These particular examples are not very strong for the reasons mentioned in section 4.1.1.

[19]There is a further possibility, namely that the First Cycle Effect inteferes with the judgements. More specifically, Torrego (1984:113) discussed the following oppositions attested in Spanish (and Catalan):

(1) a. ???*En que vía dijo *Juan* que *el altavoz* anunció que *el tren* se estacionaría?
???*What track said *Juan* that *the loudspeaker* announced that *the train* would arrive at?
" What track did John say that the loudspeaker announced that the train would arrive at?"
b. En que vía dijo *Juan* que anunció *el altavoz* que *el tren* se estacionaría?
c. ???En que vía dijo *Juan* que *el altavoz* anunció que se estacionaría *el tren*?

According to Torrego, these facts provide evidence in favor of Rizzi's (1982) formulation of Subjacency (cf. Torrego 1984:113 for details). Except for Torrego (1984) and Canac-Marquis (1991), most authors (including myself) have considered examples involving only "two S'-cycles" in order to decide whether or not obligatory inversion is cyclic. I think, however, that, if Torrego (1984) is right, then examples involving at least three S'-cycles are needed because movement of a wh-phrase$_A$ appears to be able to skip one S'-cycle in Spanish, namely the cycle in which the wh-phrase originates. If this generalization is descriptively correct, then less complicated examples cannot show us anything with respect to the successive cyclicity issue (they are predicted to be well-formed due to the First Cycle effect).

As for Modern Greek, it is true that sentences like (1b) are better than sentences like (1a) and I also think that it is true that sentences like (1b) are better than sentences like (1c), but I am not sure that the relevant oppositions are that sharp. Furthermore, I think that constructions involving "two S'-cycles" are not fully grammatical but deviant (factors like d-linking play a role, as mentioned above). Finally, Modern Greek sentences corresponding to (1b) are not well formed if the fronted wh-word is non-"referential":

(2) ??Posa asteria ipes oti pistevi i Maria oti o ouranos exi?
??How many stars said-you that believes the Mary that the sky has?
"How many stars did you say that Mary believes that the sky has?"

Let me point out that, to the extent that I have checked, Modern Greek patterns with Italian and Spanish with respect to the wh-island extraction facts discussed in Rizzi (1982).

introduced by *si* and *por qué*. Furthermore, Goodall agrees with Suñer on the successive cyclicity issue.

(b) Catalan. As far as I understand from the literature, the most clear-cut difference between Catalan and Spanish (and Modern Greek) concerns "free inversion" structures. VSO orders are not acceptable in Catalan (Bonet (1991), Solà (1992)). According to Solà (1992:13-14), the other arguments must always precede the inverted subject; adjuncts of time, place and manner may either precede or follow the postverbal subject, although the order subject-adjunct is slightly preferred. The intonational facts have been described in detail by Bonet (1991): inverted subjects may either have the same kind of intonation as right dislocated elements or they receive obligatory contrastive focus; in the latter case, there is no special intonation attached to them (cf. also Vallduví (1993) for an interesting discussion of VOS orders in Catalan from the point of view of information structure). As for triggered inversion, according to Torrego (1984: footnote 15), Catalan appears to pattern with Spanish with respect to the major properties discussed in Torrego (1984).[20] More specifically, Catalan triggered inversion takes place in main and embedded questions, it is successively cyclic (Torrego 1984: footnote 18) and it exhibits the First Cycle Effect (Torrego 1984, footnote 24). Once more, however, there are some disagreements concerning the long distance cases. Bonet (1991:15), for instance, notes: *"...When there is long extraction [...], the subject usually appears postverbally [...]. However, the presence of a preverbal subject is not as bad [...]"*. I think that Bonet's description is fairly close to the one provided above for Modern Greek.[21] Finally, Catalan doesn't seem to be as liberal as Spanish and Greek with respect to the exceptions to inversion. Thus, according to Bonet (1991), the lack of inversion is only possible with *per qué* and *wh-phrases headed by prepositions* (for more details and some comments on her data, cf. section 4.1.1.).

(c) Italian. Here I will not present the Italian "free inversion" facts because the relevant data are not entirely clear to me. My impression from the literature is that "free inversion" is much more restricted in Italian than it is in Spanish, Modern Greek or even Catalan (compare Belletti (1988) and Pinto (1994) to the facts outlined above).

As for "triggered inversion", there are similarities but also some crucial differences between Italian on the one hand and Spanish, Greek and Catalan on the other. The most puzzling aspect of Italian "triggered inversion" has to do with the fact that the sequence *"wh-word - subject - inflected verb"* which is excluded in main questions seems to be marginally

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[20]Torrego's conclusion is drawn on the basis of data provided by C. Picallo (p.c).

[21] However, she judges the relevant examples as "?". Note, furthermore, that the long distance cases she discusses involve only two S'-cycles (cf. footnote 19 above for discussion).

possible in embedded interrogatives (cf. Rizzi (1991), compare to Torrego (1984)). More specifically, there are oppositions of the type illustrated below (from Rizzi (1991)):

(61) a. *Chi Maria ama?
*Whom Maria loves?
"Who does Maria love?"

b. Chi ama Maria?
Whom loves Maria?
"Who does Maria love?"

(62) a. *Che cosa il direttore ha detto?
*What the director has said?
"What did the director say?"

b. Che cosa ha detto il direttore?
What has said the director?
"What did the director say?"

(63) a. ??Tutti si domandano che cosa il direttore $ha_{INDICATIVE}$ detto
??Everybody wonders what the director has said
"Everybody wonders what the director has said"

b. Tutti si domandano che cosa il direttore $abbia_{SUBJUNCTIVE}$ detto
Everybody wonders what the director have said
"Everybody wonders what the director has said"

(64) a. Tutti si domandano che cosa ha detto il direttore
Everybody wonders what has said the director
"Everybody wonders what the director has said"

b. Tutti si domandano che cosa abbia detto il direttore
Everybody wonders what has said the director
"Everybody wonders what the director has said"

Examples (61) and (62) show that the subject is not allowed to intervene between the fronted wh-word and the verbal cluster (Aux+Participle in (62)) in main clauses. The embedded questions corresponding to (61a) and (62a) are *deviant* but not completely ill formed in the *indicative* (63a) and they are more or less *acceptable* in the *subjunctive* (63b). The inverted orders are fully acceptable in both the indicative and the subjunctive, as the structures (64a) and (64b) indicate. It is very difficult, I think, to make some sense out of these data. First of all, it is not clear how the difference between the indicative and the subjunctive should be interpreted.[22] Secondly, even though there appears to be an asymmetry between main and embedded interrogatives, it is not obvious that we have to do with a standard V-2

[22]Obviously, a much more thorough investigation of the Italian facts is needed in order to account for this difference (cf. Rizzi (1991) for an attempt to account for the indicative-subjunctive asymmetry). This is beyond the scope of the present study.

phenomenon of the Germanic type for two reasons at least. (i) The asymmetry under discussion is not as strong as it is in true V-2 or residual V-2 languages: the non-inverted order is better in embedded questions than in main questions, but it is not completely well formed (in the indicative). (ii) There is no clear evidence for "Aux-to-Comp": the wh-word has to be adjacent to the whole verbal cluster, in the sense that the subject is not allowed to intervene between the auxiliary and the participle. Italian patterns with all the other *"OI"* languages with respect to this property (cf. Rizzi (1991) for discussion; I will return to this issue in the next section).

Let us now turn to the second systematic property of OI, namely the fact that it usually has *exceptions*. Italian interrogatives are quite interesting also in this respect. On the one hand, there is no systematic asymmetry between *arguments* and *adjuncts*, but on the other hand, it seems that there is an asymmetry between *non-d-linked* and *d-linked* elements. More specifically, Rizzi (1991, footnote 16) observes that *perché* is the only wh-element not requiring adjacency to the inflected verb. All the other wh-words (argumental or not) pattern with *chi* and *che cosa* in (61)-(64). At first glance then, it would be justified to conclude that inversion is generally obligatory in Italian because we cannot really base the claim that Italian inversion is *selective* on the *perché* cases (for reasons that have been discussed already). However, a more careful look into the relevant facts shows that this would be a premature conclusion because later on Rizzi (1991) points out: *"...In Italian, per che ragione (for what reason) also does not trigger I-to-C movement* (i.e. it does not require adjacency), *but this may be related to the fact that the* ***obligatoriness of I-to-C in interrogatives is generally weakened when a discourse-linked wh is involved, for unclear reasons***".[23] Hence, Italian inversion does seem to have some systematic exceptions after all. Nevertheless, it is not clear that the analysis I will propose for Greek can be maintained for Italian as well because the two languages differ considerably from one another, as we saw.[24]

To conclude, in this section I have provided a summary of the Spanish, Catalan and Italian triggered inversion facts. It is clear that there are many similarities between Spanish and Greek inversion. For this reason, I will assume that the two phenomena may have the same structural analysis, provided that Torrego (1984) and Canac-Marquis (1991) are right on the successive cyclicity issue. As for Catalan and, especially, Italian, the relevant facts are much more complex, as we saw. A more systematic discussion of the similarities and differences between Greek, Catalan and Italian is beyond the scope of the present analysis.

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[23]That Italian generally patterns with Modern Greek with respect to Discourse Linking (but not with respect to the argument-adjunct asymmetry) has been pointed out to me independently by Anna Cardinalletti (p.c.).

[24]As far as I understand from Rizzi (1991), Italian inversion doesn't have a "successive cyclic" character.

4.1.6. Summary

To summarize, so far I have presented the range of facts I will investigate in the rest of this chapter. The observational generalization established so far is that *non-d-linked argumental wh-elements must be left adjacent to the inflected verb* in Modern Greek. My goal is to account not only for the adjacency but also for the exceptions to it. A number of additional observations explicitely or implicitely stated above are of relevance for my proposal. More specifically, it is significant that this type of inversion systematically applies in "null subject", "free inversion" languages. It is even more significant that Greek and Spanish, which are almost identical with respect to triggered inversion, are also identical with respect to "free inversion"; in particular, they both allow for VSO orders. "Successive cyclicity" (in the sense illustrated above) is another property of OI that will be taken into consideration. As we saw, long distance wh-movement across a preverbal subject in the embedded clause can be characterized as "unnatural", "deviant" or "ill formed" depending upon a number of factors. One of the factors that seems to play a role in Greek is the "referentiality" of the fronted wh-word (or the type of variable left behind). I will suggest that there might be a principled explanation for this observation. Finally, I have shown that there is a systematic correlation between the obligatoriness of inversion and the ungrammaticality of A' dependent accusative clitics with direct object wh-phrases in Greek.

4.2. Towards an analysis

The facts presented in the previous section have received much attention in the GB literature. The analyses that have been proposed so far can be summarized as follows.

(a) *OI as an instance of I-to-C movement.* According to a widely accepted view, the phenomenon referred to here as *triggered inversion* or *obligatory inversion* is actual subject-verb inversion. Torrego (1984) was the first to treat Spanish inversion in interrogatives as V-movement to Comp. The same line of analysis can be found in many other more recent proposals according to which the linear adjacency between the wh-phrase and the inflected verb results from I-to-C movement which is triggered by the WH-Criterion.

(b) *Wh and preverbal Subject competing for the same structural position.* This account is based on the VP-subject internal hypothesis and the consequences it may have for the analysis of free inversion languages. The idea is that in languages like Greek, Spanish and Catalan wh-movement targets [Spec,IP] rather than [Spec,CP]. Under the hypothesis that in these languages the subject can be Case-licensed VP-internally, [Spec,IP] is a neutral (A/A') position which may host either pre-verbal subjects or wh-phrases. The subject is not allowed

to intervene between the wh-word and the verb because there is not enough room for both elements; they are competing for the same structural position. According to this analysis, the linear adjacency between the fronted wh-phrase and the verb reflects a Spec-Head configuration.

(c) *The linear adjacency between the wh-phrase and the verb does not reflect a Spec-Head configuration.* This approach differs from the approaches (a) and (b) in that the linear adjacency between the wh-phrase and the verb is not interpreted as structural adjacency. In other words, it is proposed that the wh-phrase and the verb are not in a Spec-Head agreement relationship. This type of analysis is based on the observation that OI has exceptions: given that the WH-S-V order is sometimes possible, it can be concluded that (i) the verb does not move across the preverbal subject in interrogatives and (ii) wh-phrases and preverbal subjects are not competing for the same structural position. The next step is to account for the inversion and the exceptions to it. Canac-Marquis (1991) and Anagnostopoulou (1993a) have argued that OI phenomena should be treated in terms of clause-internal barrierhood which is due to the blocking character of preverbal subjects in the languages under discussion. On the other hand, Suñer (1992) has proposed that the inversion effects are due to a PF condition which will be presented later in this chapter.

In this section, I will argue in favor of the third type of approach towards OI and I will show how an analysis along the lines of Anagnostopoulou (1993a) may account for most of the observed facts. I will focus on the effects of d-linking, discussing the unexpected correlation between adjunct and d-linked wh-phrases from the point of view of Rizzi's (1990) and Cinque's (1990) theory of locality. More specifically, I will argue that Modern Greek OI provides further support in favor of the re-interpretation of Cinque's proposal along the lines suggested in the previous chapter (chapter 3, section 3.4.)

4.2.1. Previous approaches to OI. Criticism.

(a) *OI as an instance of I-to-C movement.* As stated above, the V-to-C line of analysis towards OI is quite old. Here I will concentrate on some recent proposals within the general framework of Checking Theory. In particular, I will provide a critical review of Rizzi's account in terms of the *WH-Criterion* (Tsimpli's (1992) and Agouraki's (1993) alternative

treatment of Modern Greek interrogatives can be viewed as a variant of Rizzi's proposal).[25] I will argue that the I-to-C analysis is descriptively and explanatorily inadequate.

Rizzi (1991) proposes to account for residual V-2 phenomena of the English type in terms of the, so called, "Wh-Criterion":

(65) *The Wh-Criterion*

a. A Wh-Operator must be in a Spec-head configuration with an $X^0_{[+WH]}$

b. An $X^0_{[+WH]}$ must be in a Spec-head configuration with a Wh-operator

(65) is based on a principle first proposed by May (1985). The idea is that (65) is a condition applying universally at LF. This means that in languages like Chinese and Japanese (with no overt wh-movement, cf. Huang (1982) among others) question operators must be moved at LF in order to satisfy (65).[26] On the other hand, it is assumed that in languages where the wh-words cannot stay in-situ the Wh-Criterion applies earlier (cf. Rizzi (1991) for details).

Rizzi (1991) claims that Subject-Aux inversion in English can also be attributed to the WH-Criterion. Rizzi's crucial assumption is that INFL carries a [+WH] specification in main clauses, an idea which may receive empirical support from the observation that in some natural languages the verb manifests a special morphology in interrogatives (cf. Rizzi (1991) for details). Let me now briefly demonstrate how exactly this analysis works:

(66) a. Who has Mary seen?

b. *Who Mary has seen?

(67) a. *I wonder who has Mary seen

b. I wonder who Mary has seen

Under the assumption that I^0 is specified as [+WH] in main clauses, the underlying structure of (66) is as in (68):

(68) [C^0 [Mary $has_{[+WH]}$ seen who]]

(68) cannot remain as it stands because it violates both clauses of the WH-Criterion. For this purpose, $I^0_{[+WH]}$ is moved to C and *who* is moved to [Spec,CP]. This gives us the wellformed structure (66a) which satisfies (65) at S-Structure: the spec-head configuration required by

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[25]Tsimpli and Agouraki differ from Rizzi in that they propose that OI is triggered by the abstract morpheme Q situated in C^0: Q is assumed to be a bound morpheme this being the reason why I-to-C movement is triggered in both main and embedded clauses.

The idea that there is I-to-C movement in Greek interrogatives is assumed without much discussion in Iatridou (1991a). However, Sabine Iatridou (p.c.) has informed me that she no longer believes that this is the right approach.

[26]However, cf. Chomsky (1992) who challenges this assumption on the basis of a proposal of Watanabe's (1991).

the Wh-Criterion is met. On the other hand, (66b) is ungrammatical because the wh-operator is not in a spec-head configuration with a $X^0_{[+WH]}$ and the WH-Criterion is violated. As for the absence of inversion in embedded clauses (compare (67) to (66)), Rizzi (1991:3) proposes a solution along the following lines: *"...[67a] is excluded by whatever principle accounts for the root character of I-to-C movement: Rizzi & Roberts (1989) argue that a restrictive enough formulation of the Projection Principle rules out such cases; alternatively, one may think that the specification WH fills the embedded C, and makes it unavailable as a landing site for I-to-C movement (as any other filled C)..."*[27]. In other words, the root-embedded asymmetry in V-2 and residual V-2 languages is dependent upon I-to-C movement: a selected C is already filled either by an overt complementizer or by abstract features, thus being unavailable for I-to-C movement (for a related approach, cf. Culicover (1991)).

Rizzi (1991) attempts to attribute triggered inversion in Italian interrogatives to the *WH-Criterion*, thus extending the theoretical explanation he uses for the obligatoriness of Subject-Aux inversion in English, German, Dutch etc. to OI phenomena as well. In this manner, OI is implicitely treated as a V-2 phenomenon. As far as I can see, there are many reasons not to adopt Rizzi's proposal for Modern Greek:[28]

First of all, the typological consideration with respect to the non root character of the phenomenon discussed here can be taken as a strong indication against Rizzi's proposal. Rizzi (1991) tries to solve this problem by suggesting that in OI-languages the functional head bearing the WH-feature is always tensed INFL, in main and embedded contexts. He furthermore attempts to link this proposal to the "richness" of tensed INFL in null subject languages. However, it is not clear why non-L-related feature placement should be related to the richness of a head with respect to L-related features.

A second objection has to do with the observation that one characteristic property of Modern Greek (and Spanish) OI is that it has exceptions. Under the assumption that Rizzi is right in attributing I-to-C movement in main interrogatives to the WH-Criterion, any attempt to account for OI in terms of the WH-Criterion would actually weaken the explanatory power of the WH-Criterion. We would be forced to conclude that I-to-C movement takes place with some wh-phrases but not with others for unclear reasons. As far as I can see, the correctness of the proposal that I-to-C movement reduces to feature checking in languages like English and German is supported by the observation that in V-2 and residual V-2 languages the wh-phrases must be always adjacent to the verb, irrespective of whether they are arguments, adjuncts, d-linked, non d-linked etc. Even *"why"* patterns with

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[27]The idea in Rizzi and Roberts (1989) is that substitution to C is possible only when a CP is non selected. Otherwise, we have a violation of the Projection Principle.

[28]Recall that I will discuss only Modern Greek OI here.

all other wh-phrases in this respect, despite the fact that *"why"* has many exceptional properties, as is well known (cf. 4.1.1.).[29] This is precisely what a checking approach towards Subject-Aux inversion would predict. By the same reasoning, the fact that OI has exceptions is expected under the hypothesis that this type of "inversion" does not reduce to feature checking. As long as I-to-C is not required with certain wh-phrases, it is reasonable to conclude that it is not required with any wh-phrase (cf. Anagnostopoulou (1993a) and Alexiadou (1994b) for Modern Greek, Canac-Marquis (1991) and Suñer (1992) for Spanish).[30] A number of independent considerations reinforce this conclusion:

(i) In V-2 and residual V-2 languages Subject-Aux inversion is obligatory in yes/no questions. This can be taken to suggest that I-to-C movement invariably takes place in main interrogatives.[31] On the other hand, in Modern Greek and Spanish yes/no questions inversion is optional, as the following Modern Greek examples indicate (cf. Torrego (1984), Suñer (1992) for Spanish):

(69) a. I Maria irthe?
The Mary came?
"Did Mary come?"
b. Irthe i Maria?
Came the Mary?
"Did Mary come?"

The difference between V-2 languages and OI languages with respect to the word order in yes/no questions can be taken as an additional piece of evidence against the I-to-C analysis.

(ii) It is well known that in V-2 and residual V-2 languages nothing is allowed to intevene between the fronted wh-phrase and the verb. This is expected under the hypothesis that the wh-phrase and the verb are in a Spec-Head configuration. On the other hand, in Modern Greek and Spanish certain adverbs are allowed to intervene between the fronted argumental non-d-linked wh-word and the verb, as Alexiadou (1994b) and Suñer (1992) have observed:

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[29]The only element not permitting inversion is *"how come"*, an element which should not be treated as a true interrogative, as Culicover (1991) has shown.

[30]If this conclusion is correct then in Modern Greek either there is a generalized process of dynamic agreement (cf. Rizzi (1991)) or I-to-C movement takes place at LF. I will leave this open.

[31]Strictly speaking, this can be taken to suggest that I-to-C movement takes place independent of the WH-criterion; rather, it is related to Q-checking. For arguments that overt wh-movement in languages like German, English or Greek is triggered by the Q feature rather than the WH-feature, cf. Pesetsky (1994): he points out that it would be incorrect to account for wh-movement in languages where only one wh-element per sentence is allowed to move in terms of WH-checking; if the feature triggering movement was [+WH] we would expect multiple wh-fronting, which is not what we find.

(70) a. ?Ti akomi diavazi o Jannis?
?What still reads the John?
"What is John still reading?"

b. Ti akomi den boris na katalavis
What yet not can-2sg SUBJ understand?
"What can't you understand yet?"

c. ?Pjon idhi apelyse o diefthintis?
?Whom already fired the director?
"Who has the director already fired?"

d. Ti pote-tis den apodextike i Maria?
What never-cl not accepted the Mary?
"Who did Mary never accept?"

e. Pjon isos na dhis avrio?
Whom may be SUBJ see tomorrow?
"Who will you probably see tomorrow?"

(71) a. *Ti xtes diavase o Jannis?
*What yesterday read the John?
"What did John read yesterday?"

b. *Pjon grigora apelise o diefthintis?
*Whom quickly fired the director?
"Who did the director quickly fire?"

c. *Ti profanos katalaves?
*What evidently understood-you?
"What did you evidently understand?"

(72) a. A quién jamás ofenderías tú con tus acciones?
Whom never would-offend you with your actions?
"Who would you never offend with your actions?"

b. Qual propuesta ya casi le entregaron tus estudiantes al dean?
Which proposal already almost to-him gave your students to-the dean?
"Which proposal have your students almost given already to the dean?"

c. Que idioma todavía estudia Pepita en su tiempo libre?
Which language still studies Pepita in her time free?
"Which language does Pepita still study in her free time?"

d. Qué aún no le dio Mafalda a su mamá?
What yet not to-her gave Mafalda to her mother?
"What didn't Mafalda give to her mother yet?"

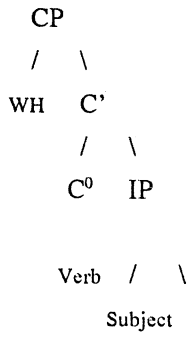
The facts in (70) and (72) constitute a strong argument against the I-to-C analysis of Greek and Spanish OI. If the wh-phrase was in [Spec,CP] and the verb was under C^0 we would not expect anything else to be able to occur in between; yet this is what we find. Interestingly enough, the adverbial elements which may intevene between the wh-phrase and the verb are the same in both languages, namely *"yet", "still", "never", "already"*. The examples in (71)

indicate that most adverbs are ungrammatical in this position: even sentential adverbs or event modifiers such as *"profanos"* (evidently) or *"grigora"* (quickly meaning "soon") are ruled out.

(iii) Floating quantifier placement in wh-questions might be viewed as a further piece of evidence against viewing OI as I-to-C movement. Consider the following grammatical Modern Greek sentence:

(73) Ta pedja$_i$ elysan xtes ola$_i$ tin askisi
The children solved yesterday all$_i$ the exercise
"Yesterday all the children solved the exercise"

(73) can be analysed as follows. The adverbial element *xtes* (yesterday) is adjoined to some XP (VP or higher up). The verb has been moved to INFL^0 (possibly to Mood^0, as Drachman (1991, 1993) has proposed). The preverbal subject DP *ta pedjia* (the children) has been moved to a position preceding the inflected verb leaving the quantifier *ola* (all) stranded.[32] The object arguably occupies some VP-internal position. Under the assumption that (73) is correctly analysed along the lines suggested here, floating quantifiers may serve as a diagnostic test for the position of subjects in OI structures. More specifically, under the I-to-C hypothesis the order Wh-V-S may or must be analysed as in (74):

(74)


If (74) is correct then it is predicted that sequences like *"WH-V-S-Adv-Ola"* will be possible in Modern Greek. This prediction is wrong, as (75) indicates:

(75) *Ti elisan ta pedhia xtes ola?
*What solved the children yesterday all?
"What did all the children solve yesterday?"

[32] I am assuming here that Sportiche's (1988) quantifier stranding proposal is correct.

Note than this sequence is grammatical when the fronted wh-phrase is an adjunct or a d-linked wh-phrase not triggering inversion:

(76) Jiati ta pedhia elisan xtes ola tin askisi?
Why the children solved yesterday all the exercise?
"Why did all the children solve the exercise yesterday?"

(77) ?Pja apo tis askisis ta pedhia (tin) elisan xtes ola?
?Which of the exercises the children (it) solved yesterday all?
"Which of the exercises did all the children solve yesterday?"

I take the ungrammaticality of (75) as indirect evidence that the I-to-C analysis is incorrect, and the opposition between (75) and (76), (77) as an argument that the subject in (75) has a different position than in (76) and (77). Given that the inflected verb moves overtly in Modern Greek, it is quite clear that the preverbal subject in (76) and (77) has also been moved to some relatively high position preceeding Tense and AgrS. This may account for the grammaticality of (76) and (77) given the grammaticality of (73). In (75), however, it is not uncontroversial to state that the subject has been moved overtly. In fact, the floating quantifier data presented here suggest that the movement analysis would be false.

(iv) A final argument against the I-to-C analysis can be constructed on the basis of the observation that in OI structures the wh-phrase is adjacent not just to the inflected auxiliary but to the whole verbal cluster, namely the auxiliary (to which clitics may be attached), the mood and negation particles and the participle:

(78) a. Ti na min tu pi o Petros?
What SUBJ NEG CL_{IO} say the Peter?
"What shouldn't Peter tell him?"

b. Ti dhen exi kani o Petros?
What not has done the Peter?
"What hasn't Peter done?"

c. *Ti dhen exi o Petros kani?
*What not has the Peter done?
"What hasn't Peter done?"

d. Ti exi idhi kani o Petros?
What has already done the Peter?
"What has Peter already done?"

(78a) shows that the wh-phrase is adjacent to the verb preceded by the Subjunctive particle *na*, the Negation particle *min* and the Indirect Object clitic *tu*. (78b) shows that the wh-phrase is adjacent to the verbal cluster formed by the negation particle *dhen*, the inflected auxiliary

exi (has) and the participle *kani* (done). (78c) shows that the subject is not allowed to intervene between the auxiliary and the participle. (78d) shows that certain adverbs may occur between the auxiliary and the participle in Modern Greek; this could be taken to indicate that the auxiliary and the participle do not form a morphological unit (i.e. there is no reanalysis or incorporation involved).

Let us look at (78a) first. In itself, this construction does not necessarily constitute an argument against the I-to-C analysis. It could be argued that the verb, the particles and the clitics form a complex head which moves further to C.[33] However, if Rivero (1988) is right that the negative heads *dhen/min* in Modern Greek count as independent A' heads blocking the non-L-related movement of V to C in imperatives (this being the reason why negative imperatives do not occur in this and other languages) then (78a) and (78b) cannot be claimed to involve I-to-C movement.[34] It is not clear why the negative particle should qualify as an independent head interfering with verb movement to Comp in imperatives but not in interrogatives.[35] Note, furthermore, that it is usually the case that V-to-C movement results to enclisis rather than proclisis; however, in OI constructions there is systematic proclisis and not enclisis.

As for (78b) and (78c), these structures can be viewed as straightforward evidence that the subject in OI constructions is not in [Spec,IP] (i.e. [Spec,MoodP] or [Spec,AgrS]), a conclusion which is further supported by the floating quantifier facts presented above. Rizzi (1991:16) attempted to account for similar facts in Italian by suggesting that in this language Agr only assigns nominative in a Spec Head configuration; I to C movement destroys the required configuration, and an overt subject cannot survive in the [Spec,IP] position in these cases. However, this type of explanation cannot be retained within the Minimalist framework: for example, in non-scrambling languages like Italian, Spanish etc. Accusative is presumably checked in [Spec,AgrOP] at LF while the complex V+AgrO moves overtly to Tense and AgrS. This is precisely the situation Rizzi wants to exclude. Independent of that, Rizzi's solution would be rather implausible for Modern Greek or Spanish. As we saw, VSO orders are perfectly grammatical in these languages. This suggests that Nominative can always be assigned under Government in Spanish and Greek and, therefore, it is not even clear that [Spec,IP] is a Case position (cf. below); yet Spanish and Greek pattern with Italian with respect to structures like (78b) and (78c).

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[33]These particles are "clitics" in the sense that they have a fixed position within the clitic cluster and nothing is allowed to intervene between them.

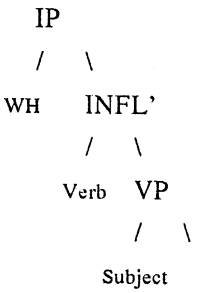
[34]However, cf. Visser (1994) for arguments against Rivero's proposal.

[35]A comparable argument could be constructed on the basis of the particle *na* which, as Terzi (1992) has argued, also qualifies as an independent head with blocking properties; however, *na* is arguably an A head, cf. Terzi (1992:165-170) for details.

To summarize, so far we have discussed the I-to-C approach towards OI arguing that it cannot be maintained. For comparable arguments concerning Spanish, the reader is referred to Suñer (1992).

(b) *Wh and preverbal Subject competing for the same structural position.* This account has been proposed independently by Bonet (1991) for Catalan (cf. also Vallduví (1992a)) and Drachman (1991), (1993) and Drachman and Klidi (1992) for Modern Greek.[36] It is based on the VP-subject internal hypothesis (Koopman and Sportiche (1988) among others) and the consequences it may have for the analysis of free-inversion languages. First of all, post-verbal subjects no longer have to be treated in terms of a subject-postposing rule, especially if Koopman and Sportiche are right that Nominative Case can be assigned VP-internally under government by INFL: it can be argued that they occupy their D-structure position. Furthermore, in order to ensure that in interrogatives the subject has to remain VP-internal, it is suggested that the wh-words actually occupy the [Spec,IP] position. The idea that [Spec,IP] is the landing site for wh-movement again can be made to follow from the VP-internal Subject hypothesis which allows us to treat [Spec,IP] as a neutral (A/A') position, at least for languages where Subjects can be Case licensed VP-internally.[37] Figure (79) summarizes this proposal:[38]

(79)



The line of research which reduces OI to the ban on preverbal subjects in wh-constructions by exploiting the free inversion character of the languages involved appears to have a number of advantages. First of all, it manages to express the correlation between "free inversion" and "triggered inversion" in a systematic way. Secondly, it provides a principled explanation for

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[36]For a similar view on Spanish, cf. Goodall (1991): his proposal results from a combination between Kuroda's (1988) formulation of the wh-criterion and Rizzi's (1990) ideas on the typology of C-agreement systems. Also cf. Drijkoningen (1990) for a related (though essentially distinct) analysis. Borer (1992) has proposed that Hebrew XPVSO orders should be analysed in a similar manner.

[37]Henk van Riemsdijk (p.c.) points out that this line of reasoning is insufficient to capture the difference between Germanic languages on the one hand and OI languages on the other. In both there is the option for VP-internal Case licensing of subjects (cf. den Besten (1985), Broekhuis (1992) among others) but they clearly differ from one another with respect to topicalization and question formation. Something more has to be added concerning the feature manifestation of C and I in the languages under discussion.

[38]In figure (79) I am abstracting away from irrelevant structure.

the observation that the subject must remain in its VP-internal position in OI constructions, as the facts discussed above concerning floating quantifiers and auxiliary+participle sequences seem to suggest. Furthermore, this approach is strongly supported by the observation that XPVSO orders are freely available in Greek and Spanish main and embedded clauses. In fact, the preverbal position can be occupied by almost anything: adverbs, focused XPs or quantificational elements are perfectly acceptable in a pre-verbal, post-complementizer position in subordinate clauses of any kind (and not just in CP-recursion contexts). We may thus conclude that the *"neutral Spec,IP position"*-analysis is supported by a vast amount of independent evidence: it is not just an ad hoc solution designed to capture specifically the OI facts. As far as I can see, the strongest piece of evidence in favor of this analysis comes from an asymmetry between relative clauses and embedded interrogatives with respect to CLLD (cf. the discussion in chapter 3):

(80) a. Anarotieme tu Petrou ti tu edoses
Wonder-I the $Peter_{gen}$ what CL_{IO} gave-2sg
"I wonder what did you give to Peter"

b. *O anthropos tu Petrou pu tu milise
*The man the $Peter_{gen}$ that CL_{IO} talked
"The man that talked to Peter"

This contrast can be naturally accounted for within a Bonet (1991), Drachman (1991) type of approach towards OI.[39] Recall from the previous chapter that CLLD involves adjunction to IP. Under the hypothesis that wh-interrogatives must occupy [Spec,IP] while relative complementizers and relative pronouns must be in Comp (presumably because of restrictions on Predication) the fact that (80a) is grammatical while (80b) is not is immediately accounted for: the former displays adjunction to IP while the latter adjunction to CP which is generally impossible in embedded contexts (cf. chapter 3). I am assuming here that the embedded $IP_{[+WH]}$ would be the complement of an empty Complementizer (following Rizzi (1991) among others).[40] Thus, the contrast in (80) can be viewed as an argument that the wh-phrases in OI languages are in a position lower than Comp. This provides further support in favor of the structure (79).

Despite the advantages of this proposal, I will not adopt it here for the following reasons:

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[39]Note that under the analysis I will later argue in favor of, the contrast in (80) remains in part unexplained.

[40]This assumption is necessary because otherwise some version of the filter proposed in chapter 3 which excludes adjunction to subordinate CPs might be violated (note that the only difference between an $IP_{[+WH]}$ directly selected by the verb and a complement CP would be a difference in labels).

(i) The obvious implication of this analysis, as explicitely stated by Bonet (1991:15), again would be that the feature Q associated with questions in these languages is in I and not in C in both main and embedded questions (Pesetsky (1989)). This would prevent [Spec,CP] from being a landing site for wh-phrases; otherwise, the OI effects cannot be accounted for. However, this result seems undesirable because OI has *exceptions* which are left unexplained by this analysis as well (cf. the criticism of the I-to-C approach presented above). The alternative pursued by Drachman and Klidi (1992), namely that [Spec,IP] (more specifically, [Spec,MoodP]) is the landing site for movement while [Spec,CP] is an intrinsic operator position where adjunct wh-phrases can be base generated (under the assumption that adjunct phrases don't need a variable in order to be interpreted), while being on the right track, does not provide a straightforward answer to the question of the exact location of the Q feature (cf. Alexiadou (1994b) for a similar conclusion).

(ii) Under this approach, the linear adjacency between the wh-phrase and the verbal cluster is interpreted as structural adjacency, namely as a Spec-Head configuration (especially if the Q feature is assumed to be in I). However, we saw previously that it would be very difficult to maintain the [Spec,Head] analysis of OI because certain adverbs are allowed to occur between the fronted wh-phrase and the verb. In other words, it is not clear how the facts in (70) and (72) would be interpreted within this framework of analysis.

(iii) A third theory-internal consideration has to do with the fact that this analysis is not easy to restate in terms of the Minimalist Program. More specifically, there is one obvious problem related to this analysis, quite apart from the fact that in the Minimalist Program the various features tend to correspond to separate maximal projections. The problem is that once we adopt the Minimalist Program, the highest Specifier position within the IP domain must be an L-related position, hence a position which cannot host wh-elements. Furthermore, the fact that the subject remains VP-internal in OI languages no longer implies that it is Case licensed in this position. It only implies that the relevant Case or Agr features which must be checked at LF are weak and, for this reason, they do not trigger overt movement. In other words, the conceptual arguments motivating this analysis are very solid from a Principles and Parameters point of view but they are hard to maintain within the Minimalist Framework.

(iv) There is a final problem I would like to address at this point and which will lead us to the analysis proposed in the next section. It has to do with the characterization of [Spec,IP] as an A/A' position which, according to both Bonet (1991) and Drachman (1991), is determined by the surface position of the subject (cf. Diesing (1990) for an interesting attempt to derive this result from Binding Theory). However, the status of long distance wh-constructions without inversion in the subordinate clause (i.e. the *successive cyclic* cases discussed in the previous section) seems to suggest that in structures like (81) [Spec,IP] does not uncontroversially count as an A position when occupied by the subject:

(81) ?? [Wh_i.....[that [Subject ..V...t_i..]]]

(82) ??Ti ipes oti i Katerina ipe?
??What said-2g that the Katerina said?
"What did you say that Katerina said?"

Given that the presence of a preverbal subject in these configurations leads to deviance or ungrammaticality, it seems justified to propose that the preverbal subjects in languages like Modern Greek and Spanish interfere with wh-movement in the sense that they create a locality effect.[41] As will be shown in the next section, under this hypothesis, most of the OI facts described so far can be accommodated.

4.2.2. Deriving OI: a locality effect due to preverbal subjects as topics

The approach I will defend here is a more elaborated version of an analysis presented in Anagnostopoulou (1993a) which was heavily based on an insight of Canac-Marquis' (1991) concerning OI in Peninsular Spanish. Canac-Marquis (1991) treated OI as a Subjacency effect.[42] More specifically, he explored a system of locality which does away with the stipulation that IP is not a barrier and instead makes use of adjunction to IP as an escape hatch (see also Frampton (1990)). Canac-Marquis developed a version of *Economy of Derivation*, according to which, *substitution* is a more economic escape hatch than *adjunction* because the latter is non-structure preserving (Emonds 1976) since it creates extra structure. He furthermore suggested that in cases where both options are in principle available, *adjunction* is excluded by *Economy*. In other words, if a language permits an alternative derivation not creating additional structure, adjunction is ruled out on grounds of economy. Under the hypothesis that in OI languages [Spec,IP] is an open (A/A') position, it follows that wh-movement necessarily proceeds through it because the adjunction to IP option is less economical. This gives us the OI facts displayed in (clause bound and long distance) wh-movement in Spanish. On the other hand, in languages like English where [Spec,IP] is an A position, the presence of a preverbal subject does not interfere with wh-movement because the adjunction to IP derivation is the only possible derivation, thus not being anti-economical. Finally, Canac-Marquis (1991) proposed to attribute the fact that adjunct extraction does not

[41] Bonet, alternatively, suggests that the deviance of these long distance cases has to do with the fact that the [Spec,CP] is an unusual intermediate position for wh-movement to proceed through. It seems to me though that within the proposal explored in the next section, nothing extra has to be stipulated.

[42] cf. also Uriagereka (1992c) for various Romance dialects and Basque.

require inversion to the assumption that Subjacency does not constrain the movement of adjuncts (cf. Canac-Marquis (1991) for details).

Even though I find most of the technical aspects of Canac-Marquis' solution attractive, I will not adopt it here mainly for theory-internal reasons. First of all, it is not clear whether this particular interpretation of the notion of Economy of Derivation can be maintained nowadays. Although the idea of comparing derivations underlies the notion of Global Economy explored in an interesting way by Reinhart (1993), Ruys (1994a) and Adger (1993b), (1994) (cf. the discussion in chapter 2), it seems to me that it would be a rather tricky question whether or not Canac-Marquis' proposal is translatable in terms of Global Economy. In some sense, adjunction does involve a geometrically lengthier derivation than substitution but the difference seems too weak and too dependent upon formal definitions. Moreover, this proposal would be untenable within Kayne's (1993a) system, and I am not sure whether a version of Economy based on structure preservingness can have a formal status within Chomsky's (1992) and (1994) system where specifier positions are not "given" by X-bar theory but rather are created once they constitute a target for movement. Under this view, the distinction between specifiers and adjuncts becomes so much dependent upon feature checking that it would be desirable to avoid basing our entire analysis on this difference. In a similar manner, the asymmetry between Subjacency and ECP which is by and large the consequence of the distinction between Derivational Constraints and Representational Constraints which, in turn, may have a formal status only if there are Principles applying at different levels (S-structure, LF etc.) is no longer well defined. Furthermore, we saw in the previous chapter that there are empirical and conceptual reasons independent of the Minimalist Program which reinforce the conclusion that a theory of locality based on the split between Subjacency and ECP is unsatisfactory. Finally, as stated above, the proposal that [Spec,IP] is a neutral (A/A') position because the subject is allowed to remain in its base position is untenable within the Minimalist Program where the licensing of arguments is performed within the functional domain exclusively. This is an assumption I have adopted throughout this dissertation (though I have suggested at the end of chapter 2 that there might be some reasons to relativize it); thus, I cannot adopt the "free [Spec,IP]" line of analysis for reasons having to do with the internal consistency of my system. There is an ancillary argument against this analysis which is related to the licensing of *referential pro* in structures like (83):

(83) Pjon idhes?
Whom saw-2sg?
"Who did you see?"

Under the assumption that *referential pro* must be locally identified under Spec-Head agreement by a rich Agr^0 head, it is natural to conclude that in (83) [Spec,IP] is occupied by *pro*; yet this sentence is grammatical. If this analysis is correct then it is unclear why an overt element creates a blocking effect while its covert counterpart doesn't.[43] Of course, this argument is rather weak because the syntax of *pro* is a very unsettled issue.

The alternative I would like to pursue here preserves Canac-Marquis' core intuitions without being incompatible with the Minimalist Program, more specifically with the basic assumptions underlying Checking Theory. I would like to explore the possibility that Subjacency is linked to the *topic-status* of preverbal subjects in Modern Greek (and presumably also in Spanish). The intuition that preverbal subjects are topics in Modern Greek is quite old (cf. especially Philippaki-Warburton (1982), (1985) and also Tsimpli (1990) among others). From a functional perspective, the difference between SVO and VSO corresponds to the fact that the former can be divided into a *topic* part and a *comment* part while in the latter all information presented is new (cf. section 4.1.). It is, therefore, not implausible to suggest that SVO orders involve some sort of non-L-related subject placement. The distributional similarity between preverbal subjects and clitic left dislocated objects in wh-contexts strongly supports this line of analysis. In all the environments where inversion is obligatory, clitic left dislocated elements are not allowed to intervene between the wh-phrase and the verb. On the other hand, clitic left dislocated objects to the right of adjunct and d-linked wh-phrases are grammatical (cf. Suñer (1992) who shows that the situation in Spanish is very similar). Witness the following examples:

(84) a. *Pjos ton Petro ton agapa?
*Who$_{nom}$ the Peter$_{acc}$ Cl$_{acc}$ love-3sg?
"Who loves Peter?"

b. *Ti tu Petru tu ipes?
*What the Peter$_{gen}$ Cl$_{gen}$ told-2sg?
"What did you tell Peter?"

c. *Tinos to vivlio to edhoses?
*Who$_{gen}$ the book$_{acc}$ Cl$_{acc}$ gave-2sg?
"Who did you give the book to?"

(85) a. Jiati tin Maria tin apolisane?
Why the Mary$_{acc}$ Cl$_{acc}$ fired-3pl?
"Why was Mary fired?"

[43]For an interesting attempt to derive this result in a principled manner, cf. Uriagereka (1992c). His definition of barrierhood is based upon an appropriately formulated notion of "strength".

b. Pote tis Marias tis ipes na erthi?
When the Mary_{gen} Cl_{gen} told-2sg to come?
"When did you tell Mary to come?"

c. Pos ta grapta tha ta aksiologisoun i kathigites?
How the assignments_{acc} FUT Cl_{acc} evaluate the teacher?
"How will the teachers evaluate the assignments?"

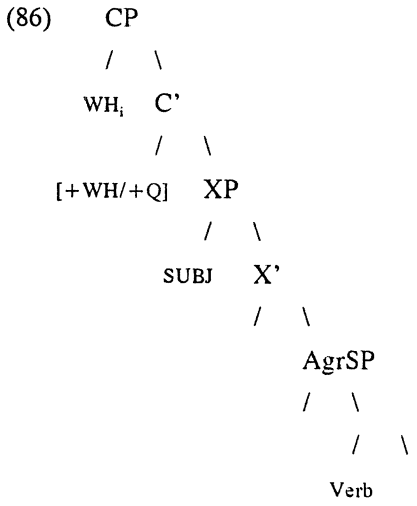
d. Pjo apo ta pedja ton Petro ton agapai perissotero?
Which_{nom} of the children the Peter_{acc} Cl_{acc} love-3sg most?
"Which of the children loves Peter most?"

The fact that preverbal subjects and clitic left dislocated objects have a parallel behavior in "obligatory inversion-" and "non-obligatory inversion-"contexts justifies the conclusion that the reason for the destributional restrictions underlying preverbal subject placement and wh-internal CLLD placement is one and the same. Given that topicalized elements interfere with wh-movement, as is well known, it is not implausible to suggest that preverbal subjects and clitic left dislocated objects are both excluded from contexts like (84) because they block movement. Under Minimalist assumptions, the idea that SVO involves "topicalization" seems rather natural. Given that VSO orders are freely available in Modern Greek (in root and embedded contexts), it can be concluded that the subject doesn't have to be licensed for Case and/or Agreement in the overt syntax and, therefore, it must not move to a checking (i.e. L-related) position. In turn, this implies that preverbal subject placement is related to some non-L-related feature and the feature [+topic] looks like the most plausible candidate. There are various possible ways in which this idea can be implemented further. One possibility would be to assume that either Agr or Tense contain weak N features and, for this reason, subject checking is always performed at LF. Another possibility might be to adopt a suggestion by Alexiadou (1994b) who follows Platzack (1994) in assuming that Spec,AgrSP can only host *pro* in the overt syntax of pro-drop languages, *pro* being an instantiation of weak Specifier features which correlates with strong verb morphology.[44] [45] As for the preverbal position of the subject, in Anagnostopoulou (1993a) I proposed the following very general structure:

[44]A consequence of this analysis would be that the SVO orders in pro-drop languages uniformly involve a preverbal subject which is not in Spec,AgrSP in the overt syntax because Agr nominal features are weak (cf. Alexiadou (1994b) for theoretical discussion). This consequence might be too strong in view of languages like Italian where VSO orders are not possible ; I will leave this open.

[45]One question that would have to be explored under such an approach towards SVO and VSO orders in Modern Greek concerns the similarities and, especially, the differences between a language like Greek where SVO is an unmarked, natural order and the languages which are clearly VSO (for example, Celtic languages).

(86)



In (86) the subject occupies the specifier position of a functional projection between CP and AgrSP which I called XP. The reason why I avoided labelling XP was that there are many linguistic proposals which go back to Reinhart (1981a) that make use of an additional functional node between the traditional C and I. These proposals are not fully compatible with one another. For example, Brody's (1990) FP has different properties from Uriagereka's (1992a, 1992b, 1993, 1994a) FP though they are both "discourse sensitive". On the other hand, Laka's (1990) Σ and Culicover's (1991) PolP are more semantic in nature. In principle, it is possible to partially identify MoodP (cf. Drachman (1991), Alexiadou (1994a/b)) with the XP in (86); however, if MoodP is L-related then it is very unlikely that the preverbal topicalised subject moves to this position given minimalist considerations (cf. Alexiadou (1994) for discussion). Another reason for not further identifying this projection has to do with the observation that, while such proposals come from both the Germanic and the Romance (and Hungarian, Basque etc.) literature, there is an important asymmetry between the properties of "XPs" (intermediate projections) employed for English, German, Dutch (possibly also Western Romance) and their Modern Greek (or Spanish) counterpart represented in (86). The former have CP-like properties in the sense that they are related to a number of root-embedded asymmetries: for example, they have a limited distribution in embedded contexts (they are basically allowed in "CP-recursion" environments) and their presence is systematically related to enclisis. On the other hand, the postulated Modern Greek XP has IP-like properties in the sense that it is freely licensed in any context and, as is well known, proclisis is displayed in most cases in Greek and Spanish.[46]

[46]Note that the Minimalist Program would force us to make use of an IP-like XP also for embedded topicalization in Yiddish and Icelandic, in which case we would have to account for the differences between these languages and Modern Greek.

Under the assumption that the crossing of one barrier is sufficient even for strong Subjacency violations (Cinque (1990)), the locality effect in (86) can be derived as follows: XP is a barrier by inheritance, AgrSP being a Blocking Category in the sense of Chomsky (1986); in addition, XP is an inherent barrier when it is not L-marked.[47] Alternatively, we can suggest that a non-L-related specifier position blocks movement to another non-L-related position, irrespective of the type of feature checked (contra Zwart (1993), cf. chapter 3, section 3.4. for discussion).

The "locality" approach towards OI has many advantages over the approaches (a) and (b) presented so far. First of all, the correlation between "free inversion" and "triggered inversion" is expressed, and the related fact that the subject must remain in its VP-internal position is also captured. Modern Greek is treated as a VSO language, while SVO involves some kind of "topicalization"; wh-movement cannot take place across a topicalized subject and, therefore, preverbal subjects are ruled out. This accounts for OI as well as the facts concerning floating quantifiers and aux+participle sequences discussed previously. Secondly, this analysis doesn't have the problems concerning the location of the feature Q/WH which were mentioned when approach (b) was discussed. All wh-phrases are assumed to occupy the same structural position, namely [Spec,CP]. This accounts for the fact that OI has *exceptions*: some wh-phrases are allowed to co-occur with preverbal subjects because the two types of elements are, in fact, not competing for the same structural position. Furthermore, the wh-phrase and the verb are not in a Spec-Head configuration; for this reason, the fact that certain adverbial elements may intervene is not unexpected. Finally, from a theory-internal perspective, this analysis has the advantage that it is compatible with the basic assumptions undelying Checking Theory.

As was pointed out by Canac-Marquis (1991), the main reason for employing Subjacency in order to account for OI is that it may offer an interesting way out to the problems posed by the *exceptions* to it. Interestingly enough, both classes of exceptions have been independently claimed in the literature not to involve movement. For this reason, the hypothesis I would like to explore here is that *adjunct* and *d-linked* wh-phrases are insensitive to the presence of preverbal subjects because they are *base generated* in their surface position (see also the proposal by Drachman and Klidi (1992) discussed previously).

The idea that adjunct extraction does not leave traces is not novel. Tanya Reinhart (p.c.) has informed me that she had suggested a non-movement, non-traces approach towards adjunct wh-fronting in the early eighties in order to account for the observation that multiple wh-questions involving more than one adjunct per sentence are generally impossible. Kolb

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[47]Later on, I will suggest that the difference in status between short distance wh-movement across a preverbal subject and long distance wh-movement across a preverbal subject might have to do with some version of "L-marking".

and Thiersch (1990) argued from a parsing point of view against adjunct movement leaving traces. Furthermore, they pointed out that, given the existence of an independent interpretive mechanism by virtue of which adjuncts are generally licensed within a local domain, adjunct wh-phrases can be base generated in [Spec,CP] because they don't have to receive their interpretation by being bound to an independently licensed empty category (cf. Kolb and Thiersch (1990) for more details). The fact that wh-movement of arguments across islands leads to *ungrammaticality* while adjunct movement across islands has a very different effect (the adjunct cannot be *interpreted* correctly) has been viewed as an additional piece of evidence in favor of this approach (Craig Thiersch, p.c.). As for the grammatical cases of long distance wh-extraction, Kolb and Thiersch suggested that the adjunct may (exceptionally) be interpreted within the lower CP by virtue of being bound to an *independently licensed* Specifier of Comp (1990:32-34). Finally, Hegarty (1991) provided strong syntactic arguments showing that adjunct extraction does not involve traces. He demonstrated that adjuncts cannot be "extracted" across *event denoting that-CPs* (factive CPs being a subclass of them). On the other hand, argument extraction across these CPs gives perfect results; this suggests that the [Spec,CP] position is free at S-structure. He furthermore argued against the possibility that the asymmetry between arguments and adjuncts reduces to the hypothesis that the [Spec,CP] position is occupied by an abstract event operator which is inserted at LF, thus blocking the movement of adjuncts but not interfering with the movement of arguments (for details, cf. Hegarty (1991) and chapter 3, section 3.4.). If Hegarty is right then we have a strong empirical argument against a traditional movement approach towards adjunct fronting.[48] And if the analysis of OI proposed here is on the right track then we have a second case against this treatment of adjunct wh-phrases.

As for the d-linking exceptions, I would like to further suggest that these too can be dealt with once we adopt the view advocated in Cinque (1990) that there exists an alternative to movement strategy involving base generated A' chains with a small pro instead of a variable. If the presence of a preverbal subject blocks movement then OI is correctly predicted not to affect chains of this type. The *"d-linking"* requirement has to do with the general conditions under which *pro* can be licensed. If the referentiality hierarchy discussed in section 4.1. is interpreted in terms of the *individual vs. higher order* distinction then the fact that inversion has to take place with wh-phrases ranging over higher order variables follows straightforwardly. As Heim (1987) among others has shown, pronominal elements are necessarily interpreted as *individual variables* (for example, they are completely ungrammatical in definiteness restriction contexts). Thus, wh-phrases ranging over higher

[48]Hegarty proposes to account for the adjunct extraction facts in terms of a WH-lowering mechanism which can be performed only under the condition that the lowered wh-adjunct is governed by the [+Q] feature hosted in the matrix Comp. In this way, the various island effects are covered.

order variables are incompatible with *pro*, which is an individual variable. It is plausible to suggest that such a chain would violate Full Interpretation. Under the alternative interpretation of "referentiality" as *d-linking*, we can appeal to the general observation that pronominal elements cannot directly depend upon non-referential antecedents and propose that a similar constraint applies to pronouns when used as syntactic variables (cf. Barss (1987), Cinque (1990)). This proposal might gain support from the observation that overt resumptive pronouns are subject to several semantic restrictions, as Sells (1984, 1987) has shown. Under this account, the fact that in cases where inversion is non-obligatory a clitic is allowed to appear follows straightforwardly. Cinque (1990) has shown that whenever *pro* is possible, a *clitic* (or a pronominal element in languages not having clitics) is in principle also possible, unless there are independent reasons why the overt pronominal counterpart of *pro* is excluded. This clitic can thus be viewed as the "spell out" of pro. Hence, the systematic correlation between the distribution of clitics and the (im)possibility of inversion strongly supports our analysis; in fact, this is precisely what we expect. Furthermore, the fact that this clitic is a *non-doubling* clitic can be established on independent grounds: (i) Clitic doubling is ungrammatical with d-linked wh-phrases in situ under an echo interpretation, as the following examples show:

(87) a. *tis$_i$ linis [poses apo tis askisis]$_i$ xoris provlima?
*Cl$_i$ solve [how many of the exercises]$_i$ without problem?
"You solve them-how many of the exercises without any problem?"

b. *ton$_i$ katalavenis [pjon apo tus filus su]$_i$ xoris provlima?
*Cl$_i$ understand [which of the friends yours]$_i$ without problem?
"You understand him-which one of your friends without any problem?

The fact that the sentences in (87) are ill-formed suggests that clitic doubling is not licensed with d-linked wh-phrases in Modern Greek presumably because they cannot satisfy the Prominence Condition which has been extensively discussed in chapter 2. Wh-phrases in situ behave on a par with quantificational, partitive and specific DPs in this respect. It would be very implausible to suggest that doubling can only be licensed when a D-linked wh-phrase moves overtly. (ii) Some crosslinguistic considerations reinforce this conclusion. Recall from chapter 2 that, while any strong DP may be doubled in Romanian, doubling is restricted to partitives in Spanish. Interestingly enough, Romanian and Spanish wh-phrases display a similar opposition. In Romanian, accusative clitics must or may co-occur with wh-phrases introduced by the elements *care* ("which") and *cîţi* ("how many" under the individual reading), while in Porteño Spanish, the wellformedness of the clitic is guaranteed only when the fronted wh-phrase is a partitive one. Witness the following examples:

(88) a. *Pe cine$_i$ l$_i$-ai văzut ? Romanian
*Pe who$_i$ him$_i$-have-you seen ?
"Who did you see ?"
b. Pe care (băiat)$_i$ l$_i$-ai văzut ?
Pe which (child)$_i$ him$_i$-have-you seen ?
"Which child did you see ?"
(cf. Dobrovie-Sorin 1990 for more examples)

(89) a. *¿A qué candidato$_i$ lo$_i$ entrevistaron ? Spanish
A which candidate$_i$ him$_i$ they interviewed ?
"Which candidate did they interview ?"
b. ¿A cual de los dos candidatos$_i$ lo$_i$ entrevistaron ?
A which of the two candidates$_i$ him$_i$ they-interviewed ?
"Which of the two candidates did they interview ?"
(cf. Suñer 1988 for more examples)

Given that doubling clitics are well formed with certain types of DPs and not with others, we expect clitics to appear in post-movement configurations only when the extracted elements satisfy the language-particular conditions on direct object doubling discussed in chapter 2. In other words, we expect them to satisfy some version of Suñer's (1988) Matching Principle:

(90) *"Matching Principle Hypothesis* (based on Suñer 1988)
a. Cl_{acc}^0 and doubled XP* must agree in features
b. *Condition a* also applies to wh-extractions

The prediction of (90b) is that there can be no asymmetry between doubled unmoved phrases and their moved counterparts. And the data in (88) and (89) show that this is indeed what we find. As for Modern Greek, we saw in chapter 1 that the only DPs that can be doubled in this language are certain types of *definites* (under an anaphoric interpretation). Despite the fact that there are claims in the literature that *which-phrases* are *definite* (cf. Katz and Postal (1964), Kuroda (1969)), this view is not generally agreed upon. For example, Heim (1987) avoids committing herself to this view and Berman (1991) draws a distinction between *singular* and *plural "which"*- phrases, pointing out that only singular *which*-phrases can be characterized as *definites*; their plural counterparts display the quantificational variability characteristic of *indefinites*. Given that direct object clitics in Modern Greek can be licensed with both *singular* and *plural* wh-phrases, we have one piece of evidence against the idea that it is the *definiteness* of the fronted wh-phrases which is responsible for the fact that the clitics in question are licensed, a hypothesis which would support their analysis as *doubling clitics*.

A further piece of evidence against the doubling analysis has to do with the observation that *"how many"*-phrases may license direct object clitics as well; yet these phrases have never been characterized as *"definites"*, as far as I know. These considerations suggest that the clitic construction discussed in this chapter does not observe the Prominence Condition, contrary to the Romanian and Spanish interrogatives mentioned above. This asymmetry would be unexpected under the clitic doubling analysis of the clitics under discussion but it is completely expected under the approach developed here. The additional fact mentioned previously, namely that clitic doubling with wh-phrases in situ is ungrammatical in Modern Greek can be taken to dismiss the doubling hypothesis entirely.

There is another alternative analysis for the direct object clitics in Modern Greek wh-questions we should consider. According to Iatridou (1991a), wh-questions with clitics are not true questions but rather special instances of CLLD. Iatridou (1991a) didn't notice the correlation between inversion and clitics discussed in this chapter but, under her analysis, this correlation is not unexpected since CLLD does not display OI presumably because there is no movement involved. However, Iatridou's (1991a) analysis, as it stands, doesn't make any clear predictions with respect to a number of asymmetries between CLLD and the D-linked wh-questions discussed here:

(i) As was pointed out in chapter 3, CLLD allows more than one left dislocated phrase, while such multiple "fronting" of d-linked wh-phrases gives completely ungrammatical results:

(91) *Pjanu pedjou, pjo apo ta vivlia tu to edhoses xtes?
*Who$_{gen}$ child$_{gen}$ which$_{acc}$ of the books Cl$_{gen}$ Cl$_{acc}$ gave-2sg yesterday?
"To which child, which of the books did you give it to him yesterday?"

(ii) Left dislocated phrases are licensed at the front of almost any subordinate clause; d-linked wh-phrases have the distribution of ordinary wh-phrases:

(92) *Ipe oti pjon andra ton agapise vathja
*Said that which man$_{acc}$ Cl$_{acc}$ loved-3sg deeply
"She said that which man she loved deeply"

(93) a. Pjon antra pistevis oti ton agapise varthja?
Which man$_i$ think-you that Cl$_i$ loved-3sg deeply?
"Which man do you think that she loved him deeply?"

b. *Pistevis oti pjon antra ton agapise varhja?
*Think-you that which man$_i$ Cl$_i$ loved-3sg deeply?
"You think that which man she loved deeply"

(94) a. *Pistevis pjon andra ton agapise vathja?
*Think-you which man$_i$ Cl$_i$ loved-3sg deeply?
"*You think which man she loved him deeply"

b. *Pistevis pjon agapise vathja
*Think-you who loved-she deeply
"*You think who she loved deeply"

(92) shows that d-linked wh-phrases do not have the distribution of ordinary CLLDed elements and (93) and (94) illustrate the fact that the conditions under which d-linked wh-phrases are licensed are identical to those licensing any wh-phrase in Modern Greek.
(iii) Finally, while direct object clitics are *obligatory* in CLLD, they are *optional* with wh-phrases of the type not triggering OI, namely with *d-linked* phrases.

Iatridou (1991a) proposed two alternative representations for wh-constructions involving D-linking. One possibility is that the d-linked wh-phrase remains in the position in which it is generated, namely the adjoined position hosting CLLDed elments which she calls *"DL"*. Another possibility is that the wh-phrase moves into the [Spec,CP] of a higher $CP_{[+Q]}$ in order to be interpreted. In my view, the data in (91)-(94) clearly support the second alternative because the asymmetries between ordinary CLLD and the special type of "CLLD" involving d-linked wh-phrases can be accounted for under the assumption that in the latter case some sort of [+Q]/[+WH] feature licensing is involved, imposing certain additional restrictions on this construction. If this reasoning is correct, then I don't see any real difference between my approach and Iatridou's alternative. Under both analyses, we have to deal with a non-movement Wh-construction which is licensed under special conditions. The only difference is that, under the alternative suggested here, we have a straightforward account for the "optionality" of the clitic in d-linked constructions. Nevertheless, if CLLD is analysed along the lines suggested in the previous chapter then, in principle, we could account for this optionality under the CLLD analysis as well. If the CLLD-clitic is an operator, as I suggested, then it can be viewed as the overt counterpart of the empty operator employed in constructions such as parasitic gaps or easy-to-please constructions. Interestingly enough, in some Modern Greek null operator constructions the clitic is obligatory while in others it is optional. For example, in easy-to-please constructions the clitic must be present; on the other hand, in parasitic gaps a clitic is possible but not required. Thus, we could formulate a general hypothesis concerning Modern Greek according to which empty operators must be spelled out when their antecedent is referential while they may remain silent when the antecedent has quantificational properties. Under this hypothesis, the *difference (iii)* between CLLD and d-linked wh-questions could also be captured under Iatridou's altenative approach.

To conclude, in this section I have argued in favor of treating OI as a *locality effect*, thus extending Canac-Marquis' (1991) analysis of Spanish to the Modern Greek data. The particular way I implemented Subjacency here was to adopt the view that SVO orders involve

topicalization and to suggest that the topicalized subject interferes with movement. I argued that the systematic exceptions to OI can be accounted for if we assume that these cases involve *base generation* of the wh-element in its surface position and I pointed out that this analysis may capture the correlation between the obligatoriness of inversion and the (im)possibility of clitics in a straightforward manner.

4.2.3. Some remaining questions

There are several questions raised by the approach suggested in this chapter. Unfortunately, I will not be able to address them here in full detail because this would require a much more thorough investigation of some of the related issues. However, I do want to briefly discuss these questions in the present section, indicating some possible directions we might take in order to provide some answers to them.

First of all, the analysis suggested here has a number of implications for locality theory which have not been carefully explored. With respect to adjunct extraction, it was pointed out that Hegarty's lowering mechanism may give us essentially the same results as an ECP type of approach. As for D-linking, in chapter 3 it was pointed out that there are reasons to suggest that *opacity effects* and *locality islands* should not be treated in a similar manner: for example, Kroch (1990) and Szabolcsi and Zwarts (1991) have convincingly argued that some of Rizzi's (1990) and Cinque's (1990) results can be obtained in a much more satisfactory way if *semantic* or *pragmatic* factors are taken into account. In a sense, my analysis provides further support in favor of this view. On the one hand I argue that d-linking plays a significant syntactic role but on the other hand I claim that the reason for this is completely different than Cinque (1990: ch. 1) has suggested. D-linking plays a syntactic role in Modern Greek OI constructions not because a referential index is sufficient to license a binding chain which is insensitive to certain kinds of ECP effects but because it may license a base generated chain which escapes the effects of bounding theory. D-linked wh-questions behave like CLLD in this respect (cf. the discussion and the tables in chapter 3, section 3.4). The additional fact that *adjuncts* pattern with *d-linked arguments* while *non-d-linked arguments* pattern with *semi-arguments* with respect to OI phenomena strongly supports this conclusion. If the presence of a preverbal subject was inducing an *ECP effect*, we would expect adjuncts and semi-arguments to pattern alike with respect to OI. But this is not what we find. Under the locality approach, the fact that semi-arguments act like arguments and not like adjuncts is not surprising: semi arguments are subcategorized by the verb, hence they leave traces, and, for this reason, they are sensitive to the presence of a preverbal subject.

The second issue I would like to address concerns the structure (86) which is clearly insufficient to account for the Modern Greek data, especially if some crosslinguistic facts concerning *topic islands* are taken into account. The most problematic aspect of (86) is that it is supposed to be a structure underlying a *Subjacency violation.* Yet Subjacency violations are generally assumed to be quite *mild* while short distance OI effects are *strong.*[49] Furthermore, (86) cannot predict the difference in status between *clause bound wh-movement* across preverbal "topics", which gives *bad results*, and its *long distance* counterpart, which gives considerably *milder results.* An additional complication has to do with the observation that CLLD is (arguably) *adjunction to IP* while in (86) topics are represented as *specifiers* of a topic projection.

With respect to the first two points, let me first of all point out that, as long as we have *long distance OI cases like (55)-(59)* where extraction across a preverbal subject in the subordinate clause leads to relatively strong ungrammaticality, we can be fairly secure that OI is a locality effect.[50] It would be very difficult to account for these data otherwise. Moreover, the fact that strong ungrammaticality in the long distance cases systematically arises when the fronted wh-phrase is forced into non-referentiality supports my analysis so far. In Definiteness Restriction contexts the small pro strategy is excluded for reasons that have been discussed previously; therefore, it is predicted that wh-movement will give bad results.

Note, furthermore, that Suñer's (1992) alternative analysis for Spanish could not possibly account for these Modern Greek data. Suñer (1992) independently concludes that the adjacency in OI structures is only apparent. Like Canac-Marquis (1991) and Anagnostopoulou (1993) she argues that there is a uniform landing site for wh-phrases in Spanish, namely [Spec,CP]; but she interprets the OI facts in a completely different manner than suggested here. Her idea is to account for the argument-adjunct asymmetry in terms of the hypothesis that "selected" wh-phrases must be "connected" to the predicate in the IP complement. More specifically, she proposes that argumental wh-phrases have a feature [+Arg(umental)] which needs to be licensed by the predicate in I^0. The mechanism she suggests is a *language-specific* process of Head-Head agreement between C^0 (which has acquired the feature [+Arg] via Spec-Head agreement with the argumental wh-phrase) and I^0 (which contains a verb that has this feature). OI is derived on the basis of the assumption that this type of agreement obeys a strict locality condition in the sense that no other argumental category may occur between C and V in I. Under the independently needed

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[49]Thanks to Jan Koster for pointing out this problem to me.

[50]cf. also some cases presented in footnote 51 below.

assumption that this condition is a PF condition, Suñer (1992) derives the fact that this type of agreement is relevant only for wh-phrases with phonological content and not for intermediate traces. Her analysis predicts that a preverbal subject in an embedded clause across which an argumental wh-phrase has been moved is grammatical. Apart from the fact that this analysis introduces a number of stipulations and language-specific mechanisms in order to account for facts that under a locality approach follow rather straightforwardly, the two approaches differ from one another with respect to the long-distance cases discussed in section 4.1. Obviously, neither of the two analyses can satisfactorily account for the intermediate status of the relevant Modern Greek examples, but the rather strong ungrammaticality of the "non-referential" cases illustrated in (55)-(59), which is compatible with the more general observation that referentiality influences OI in Modern Greek, leads me to conclude that the locality approach should be maintained.

In order to account for the observation that clause bound OI leads to strong ungrammaticality as well as for the asymmetry between the short distance OI cases and their long distance counterparts, I would like to exploit another asymmetry: the asymmetry between the group of *Germanic languages* (including English and excluding Icelandic and Yiddish) in which *embedded "topics"* are licensed under very special conditions (*"CP-recursion" conditions*) and *Greek (or Spanish)* where CLLD and preverbal subject placement may freely apply in *any embedded context*. My general suggestion will be that this difference might be related to the fact that extraction across embedded topics in the former languages gives considerably worse results than in Modern Greek.

First of all, let me point out that although *topics* are generally viewed as Subjacency inducers, they give worse results than standard *wh-islands* (they are worse than even tensed wh-islands, cf. Müller and Sternefeld (1993) for a thorough discussion of this issue). I take this observation as indirect evidence that my approach towards *clause bound* extraction across preverbal subjects and topicalized elements in Modern Greek is on the right track. As far as I can tell, there is no difference in status between the following two sentences:

(95) a. *I wonder to whom that book he gave

b. *Aporo tinos to vivlio to edhose
*Wonder-I to whom the book it gave
"I wonder to whom the book he gave"

Secondly, Müller and Sternefeld (1993) have proposed that the fact that by and large topic-islands give worse results than wh-islands can be reduced to the observation that topics occupy the specifier position of an XP which must be *licensed* in a particular way. The specific mechanisms they use in order to derive *clause bound wh-movement across topics* and

long distance wh-movement across topics are not relevant for us here. What is relevant is the observation that according to the system they develop, the clause bound cases are *explained differently* than their long distance counterparts (compare the explanation they provide for their example (43) to the proposed explanation for (35) on page 493). Crucially, their analysis of the long-distance examples presupposes that in German, Dutch and English, topicalization is licensed in CP-recursion environments (cf. chapter 3). However, it is generally agreed upon that extraction across embedded topics in languages not requiring CP-recursion gives relatively well formed results. By this I don't mean that extraction across non-CP-recursive topics gives completely grammatical results but only that there is an asymmetry between the two types of topicalization with respect to the strength of islandhood they induce (cf. the discussion of Yiddish and Icelandic in chapter 3). Given this observation, it can be furthermore suggested that non-CP-recursive topic islands have more or less the status of wh-islands. If this reasoning is correct then it can be concluded that the Modern Greek "long distance" OI examples have a marginal status for the same reason that extraction across wh-islands doesn't lead to strong ungrammaticality. In other words, as long as there is no uniform explanation for cases like (95a) and their long distance counterparts, we are free to suggest that the English and Greek sentences in (95) are *equally bad for the same reason* while their long distance counterparts differ in status from one another due to the *independent factor of CP-recursion.*[51]

One possibile way in which the strong ungrammaticality of (95a) and (95b) could be accounted for would be to suggest that the *topic XPs* in these examples are not governed by a *lexical* C^0, thus qualifying as *inherent barriers* for extraction. On the other hand, the topic XPs in the long distance cases are governed by lexical complementizers and, for this reason, they qualify only as *barriers by inheritance* (as is the case with wh-islands). Once we look carefully into the difference between Subjacency 2 effects (CED-effects) and Subjacency 1 effects in Barriers, it turns out that the "bad" Subjacency 2 cases uniformly involve an inherent barrier while the "relatively well formed" Subjacency 1 cases systematically involve

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[51]Some Modern Greek examples of long distance extraction across embedded topics are given below:

(1) ?Pjon ipes oti sto sinema sinantise o Petros?
?Whom said-2sg that in-the cinema met the Peter?
"Who did you say that Peter met in the cinema?"

(2) ?*Tinos ipes oti kala den simberiferthike i Maria?
?*Whom said-2sg that well not behaved the Mary?
"Towards whom did you say that Mary didn't behave well?"

(3) ??Poso ipes oti to tyri to poulane?
??How much said-you that the cheese it sell-3pl
"How much did you say that they sell the cheese?"

(4) ??Pos ipes oti stin Ameriki perases?
??How said-2sg that in Amerika passed-2sg?
"Did you say that you had a good time in the States?"

barriers by inheritance only. We may thus attempt to reformulate the asymmetry between Subjacency 2 and Subjacency 1 in terms of an asymmetry between inherent barriers and barriers by inheritance, suggesting that the former lead to strong ungrammaticality while the latter do not, for reasons that remain to be specified. In this way, we would be able to capture the Modern Greek facts discussed in this chapter without loosing our explanation for the asymmetry between *CED effects* and *wh-islands* ("L-marking" would have to be replaced by some other device, possibly government by a lexical element). As for the strong ungrammaticality of the English and German long distance cases, it can be suggested that this is due to the independent factor of CP-recursiveness and has nothing to do with the theory of locality per se. Of course, the very sketchy approach outlined here should be made more precise but this is beyond the scope of the present discussion.

One final remark on the relation between CLLD and preverbal subject placement. It is quite clear from the discussion in chapter 3 that CLLD is a type of adjunction which differs from long distance scrambling in not being "semantically vacuous". For this reason, it can be argued that this type of adjuntion blocks wh-movement, contra Müller and Sternefeld (1993) who argue against Lasnik and Saito's (1992) proposal that topicalization-adjunction blocks wh-movement by appealing to the observation that English Topicalization should not be analysed in terms of adjunction to IP. That is, although I agree with Müller and Sternefeld's premises, I don't necessarily agree with their conclusion. As long as CLLD type of chains cannot be accommodated within their system (cf. their discussion of the differences between CLLD and long distance scrambling in footnote 5, p. 468 and the discussion of the differences between relativization and wh-question formation in footnote 19, p. 482), we can retain Lasnik and Saito's proposal that topicalization-adjunction blocks wh-chain formation. The differences between (short and long distance) *scrambling-adjunction* and (short and long distance) *CLLD and/or topicalization-adjunction* appear to lie in the fact that the former adjunction-type is semantically vacuous while the latter is not. If this reasoning is correct then I see no a priori reason against analysing preverbal subject placement as base-generated adjunction to IP rather than movement to XP. Under this analysis, the common blocking effects of preverbal subjects and clitic left dislocated objects would be derived along the lines of Lasnik and Saito's (1992) proposal. However, I would like to avoid committing myself to the view that preverbal subjects in Modern Greek are necessarily adjoined to IP for a reason that I would prefer not to go into here.[52]

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[52]The reason is that it is not clear to me how Modern Greek Focus Preposing constructions should be analysed. My impression from the literature is there is a systematic intonational and interpretational asymmetry between "topicalized" *objects* on the one hand and *subjects* or *adverbs* on the other. This asymmetry has been observed by H. Borer (p.c.) for Hebrew, Diesing (1990) for Yiddish, etc. (note that the Dutch and German facts are similar if the Travis/Zwart type of approach towards preverbal subjects under v-2 turns out to be incorrect). Diesing (1990) provided an interesting explanation for this asymmetry in terms of Binding Theory. If her analysis is correct then we can analyse the so called "Focus Preposing" Modern Greek constructions along the lines of Diesing (1990) without appealing to a feature [+ Focus], contrary to Tsimpli's

4.3. Summary

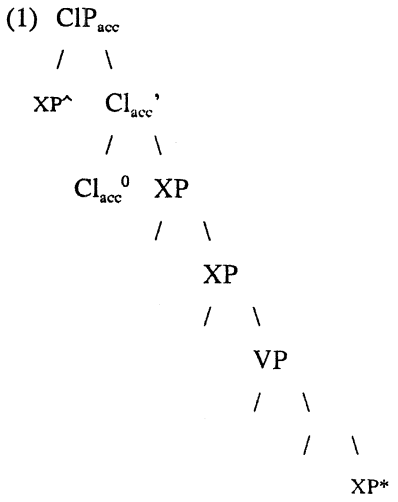
In this chapter, I have proposed an analysis for OI that is capable of accounting for the correlation between *inversion* and *clitics* in Modern Greek interrogatives. I have argued that OI is not a *checking phenomenon* but a *locality effect*. Under this approach, wh-constructions which can be analysed in terms of base-generation are predicted to escape OI. In order to account for the d-linking facts, I adopted Cinque's (1990) proposal, that base-generated A' chains with a *pro* as syntactic variable exist. The d-linking requirement is a well formedness condition on Chains: pronominal (*individual*) variables are incompatible with wh-phrases ranging over *higher order variables*. Alternatively, pronominal (syntactic and semantic) variables cannot depend upon non-referential antecedents, unless they are licensed via formal variables (cf. Barss (1986) among others). Furthermore, I argued that the *clitic* doesn't qualify as a *doubling-clitic* as the constructions under discussion violate *definiteness* and, therefore, *prominence*.

(1990, 1992) proposal. The implication of this analysis would be that preverbal subjects in Greek are structurally ambiguous: they can either adjoin to IP or move to some XP dominating IP with no significant intonational or informational difference between the two structures.

5

Conclusion

In the preceding chapters, I have studied the properties of three Modern Greek *clitic-constructions* which provide straightforward empirical evidence for the view of clitics as elements with *interpretational import* and I have tried to identify the exact role played by the clitics within them. *Clitic doubling*, *Clitic Left Dislocation* and *Discourse Linked Interrogatives* were the cases in point. What these structures have in common is that in all of them, the distribution of the clitics is sensitive to the *referential properties* of their associated DPs. Nowadays, the view that these structures are analytically similar is becoming more and more popular (cf. Mahajan (1991), Sportiche (1992) and related literature). The idea is that they should be uniformly treated along the following lines:[1]

(1)


According to (1), clitics are functional heads licensing a particular property on a designated argument (XP*) with which they agree in phi-features. The *agreement* between Cl and XP* is sanctioned by the *movement* of XP* to XP^, which takes place either overtly or covertly in order for the *Clitic Criterion* to be satisfied (or alternatively, in order for some special type of *Agreement/Case feature* to be checked). By this schema, the following cases are predicted:

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[1]The labels in (1) are taken from Sportiche's proposal. Under Mahajan's alternative, the clitic would be the head of AgrOP.

(i) *Simple cliticization* arises when Cl_{acc}^{0} is overt and XP* is covert (moving overtly or covertly).
(ii) *Clitic doubling* arises when Cl_{acc}^{0} is overt and XP* is also overt (moving covertly or, perhaps, overtly).
(iii) *Scrambling/Object Shift* arises when Cl_{acc}^{0} is covert and XP* is overt (moving overtly).
(iv) *CLLD* arises when Cl_{acc}^{0} is overt and XP* is also overt (moving overtly *to* or *through* XP^).
(v) *D-linked interrogatives* can accordingly be analysed as involving an overt (or covert) Cl_{acc}^{0} with an overt [+WH] XP*.
Under the assumption that Cl_{acc}^{0} encodes *Specificity* or some related property, the fact that in these structures the XP* must always be *referential/specific* can be captured.
The general structure (1) has the advantage that it may offer a maximally uniform analysis for all clitic constructions; under this view, clitic-constructions always conform to the requirements of the Minimalist Program of Chomsky (1992). Cliticization is claimed to be a very simple, almost trivial, process: like any other movement construction it involves movement demanded by specifier-head licensing due to some kind of feature checking. The complexity of cliticization turns out to be entirely superficial.

The main point of this dissertation has been to demonstrate that this program may be interesting, but things are not as simple as that. A more careful look into the relevant data crosslinguistically, or even within the same language, shows that it is hard to maintain this particular analysis for all clitic-constructions.

The problems already start with clitic doubling constructions for which structure (1) is appropriate, as has been argued for in chapter 2. The language-particular properties of clitic doubling phenomena cannot be accommodated within Mahajan's and Sportiche's proposal that clitics are functional heads licensing *Specificity* on the NPs they double. What we actually see is that clitic doubling constructions are subject to various morphological and semantic restrictions which are *beyond Specificity* and which are open to parametric variation. From a semantic point of view, this parametrization can be described in terms of a hierarchy of noun phrases based on the properties of *definiteness* and *animacy*. Interestingly enough, the same properties play a significant role in another syntactic domain, namely the various case and agreement splits found in ergative language systems: there too we find comparable variation patterns. Furthermore, only certain morphological types of NPs are able to undergo clitic doubling: for example, bare phrases are never allowed to co-occur with doubling clitics. In both respects, clitic doubling differs from scrambling/object shift, which may take place with any NP provided that it can receive a strong interpretation. This seems to indicate that there is a link between the parametric differences attested within the paradigm of clitic doubling languages and the presence of an overt/lexical head in Cl_{acc}^{0}. It is therefore plausible

to suggest that doubling clitics are inherently specified for certain semantic features; under the additional hypothesis that *clitic* and *associate* must match in features, the distributional restrictions characterizing Modern Greek, Porteño Spanish and Romanian doubling, as well as the differences between doubling and scrambling, can be derived.

However, once we accept this line of explanation for the idiosyncracies characterizing clitic doubling structures crosslinguistically, we implicitely question the validity of the Uniformity Hypothesis. An immediate problem for the Uniformity Hypothesis is raised by the animacy constraints on clitic doubling, which never show up in the case of simple cliticization. Another problem has to do with the observation that Clitic Left Dislocation is legitimate with NPs of any semantic type provided that they can be pragmatically interpreted as denoting sets. There is a very clear-cut asymmetry between Clitic Doubling and CLLD in Modern Greek: while Clitic Doubling is licensed only with certain *definites* which must be able to conform to the requirements of the Prominence Condition, CLLD may take place with *definites*, *specific indefinites* and *strong QPs* provided that they can be used as *referring expressions*. Modern Greek CLLD patterns with Germanic Contrastive Left Dislocation, Romance CLLD, and English Topicalization in this respect. The NPs that are able to undergo CLLD in Greek are phrases that may qualify as *sentence topics* in the sense of Reinhart (1982), i.e. expressions whose referent the sentence is *about*.

The exactness of the parallel between the properties determining *split ergativity* phenomena on the one hand and the properties determining *clitic doubling* phenomena on the other, as well as the differences between Clitic Doubling and CLLD, point towards the conclusion that Clitic Doubling is an *L-related* construction while Clitic Left Dislocation is *non-L-related*. In other words, the Clitic Doubling-clitic should be viewed as a kind of *case/agreement marker* while the CLLD-clitic qualifies as a *topic marker*. This may immediately explain why doubling is a strictly local dependency while CLLD is unbounded, and it also explains why there is no one-to-one correspondence between Clitic Doubled NPs and CLLDed NPs. Similar observations apply to D-linked interrogatives which do not obey the Matching Principle either. The clitics are allowed to co-occur with *singular* and *plural which-phrases* and also with *how-many phrases* under an *individual interpretation*. Even though it is possible to claim that *singular which-N's* are definite, it is difficult to extend this characterization to their *plural-* and *"how many"-counterparts*; we can thus be fairly secure that these constructions do not observe the Prominence Condition.

These considerations may challenge the Uniformity Hypothesis, but they cannot be taken to entirely dismiss it. It is still possible to claim that the constructions under discussion are uniformly represented as in (1), the only difference being that the clitic is inherently specified as *[+familiar/prominent]* in Clitic Doubling, *[+topic]* in CLLD and *[+D-linked]* in D-linked interrogatives. From these minimal differences in feature specification everything else can

be made to follow. In my view, however, this would be a rather uninteresting line of research since there are intra- and inter-linguistic correlations and empirical generalizations that would remain completely unaccounted for under such an approach. This was the main point of chapters 3 and 4. More specifically, in chapter 3 I presented several arguments in support of the hypothesis that CLLD is the Romance and Greek counterpart of Contrastive Left Dislocation (CLD) which is attested in German and Dutch. If the role of the *clitic* in CLLD is identified with the role of the *d-pronoun* in CLD, the differences between CLLD and CLD are immediately explained. The additional observation that in Modern Greek, clitics are systematically employed in null operator constructions strongly supports this approach because, even if we try to subsume CLLD under (1), we cannot easily extend this analysis to, for instance, parasitic gaps or easy-to-please constructions. Finally, I offered two syntactic arguments in favor of the base generation analysis for CLLD. One argument was based on reconstruction with respect to Binding Principle C effects. Under the hypothesis that CLLD-chains do not involve actual movement of the left dislocated XP, we can account for the fact that these structures escape Principle C violations. A construction like Focus preposing cannot escape these violations because it involves Full Reconstruction at LF, which presupposes the existence of a layered trace which is left behind when the XP undergoes focus movement. On the other hand, the fronted XP in CLLD has not been moved to its surface position, this being the reason why the root position IP-internally does not contain a full phrase at LF. In this manner, the difference in status between CLLD and Focus Preposing with respect to Principle C effects is correctly predicted. Another type of argument against the movement analysis is based upon the selective island sensitivity property of CLLD. CLLD-chains are insensitive to the islands that can be naturally subsumed under the Shortest Steps Condition discussed in Chomsky (1992). The asymmetry between long-distance CLLD and any other type of long-distance XP-movement construction with respect to Wh-islands and "Pu"-factive islands can once more be taken to indicate that the CLLDed XP is not an XP* which has been moved to its surface position via XP^, as the structure in (1) would predict. Finally, in chapter 4 I have argued that D-linked wh-questions should not be treated in isolation; the systematic correlation between *d-linking*, *clitics* and the various *inversion patterns* attested in Modern Greek interrogatives should be taken into account. If the analysis I argued for is correct, then the semantic conditions under which the clitics are licensed are not due to some version of feature checking but rather they can be attributed to the Principle of Full Interpretation. According to this analysis, wh-phrases are able to form base-generated chains with (overt or covert) pronominal clitics only when they are able to introduce individual variables, this being the reason why these phrases pattern with adjuncts in escaping the effects of Obligatory Inversion in Modern Greek.

To summarize, according to the analyses proposed in chapters 2, 3 and 4, the semantic properties clitic-constructions display do not always reduce to feature checking. Clitic doubling can be viewed as the most clear instance of feature checking. As for CLLD and D-linked interrogatives, there are good reasons to propose that both are non-doubling constructions: the former can be characterized as a predication structure consisting of a base generated IP-adjunct XP and an operator-variable chain formed by the clitic, while the latter is a base generated chain consisting of a wh-phrase ranging over individual variables and a pronominal (individual) variable which can be either covert or overt. Structure (1) is able to express the agreement between clitics and XPs and, partially, the XP-movement properties displayed by these constructions. Nevertheless, this structure, as its stands, fails to accommodate many other properties characterizing Clitic Doubling, CLLD and D-linked interrogatives, especially when these structures are not treated in isolation. Cliticization processes cannot be fully reduced to Spec-Head licensing, unless we are willing to disregard a number of empirical facts. It would still be desirable to progress one step further and attain a level in which the various types of clitic dependencies can be given a uniform characterization, but I don't think that this can be done in terms of the structure in (1). I hope that the data discussed throughout this dissertation have made this point clear.

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