

Clitics and Island Effects

Sabine Iatridou

0 The problem

In this paper I will discuss the construction called Clitic Left Dislocation (CLLD). Roughly put, CLLD contains a left dislocated element as well as a coindexed clitic on the verb, as in the Modern Greek (MG) (1):

- (1) ton Kosta, i Maria ton idhe
DET Kosta/ACC DET Mary/NOM him saw

CLLD, as instantiated in Romance languages, has been discussed by van Haaften, Smits and Vat (1983) and Cinque (1977, 1983, 1990) among others. The debate about CLLD has mostly centered on whether the left dislocated element appears in its surface position by moving out of the postverbal position or whether it is base-generated sentence-initially. Cinque (1990), unlike the other cited references, argues in favor of base-generation. I will follow him on this, and in section 1 I will give an overview of some arguments for this position, with particular reference to MG.

Section 2, the main part of the paper, introduces and attempts to solve what I would like to call "Cinque's Paradox". This refers to the fact that although the relationship between the left-dislocated element and the clitic is not one of movement, it is constrained by islands:

- (2) *ton Kosta, sinandisa tin kopela pu ton idhe
DET Kosta, (I) met DET girl who him saw

This is paradoxical in current GB theory: if islands constrain movement and not base-generated relationships, why is the relationship between the clitic and the CLLDed constituent (which as argued by Cinque is *not* one of movement) constrained by islands? Cinque (1990) answers this by rejecting the widely held assumption that islands distinguish movement from base-generated representations, and making concomitant revisions in the theory. I will argue that the island effects exhibited in CLLD are, in fact, due to movement, and that therefore CLLD does not provide any evidence to abandon the basic assumption about the theoretical significance of island effects.

Finally, in section 3 I discuss some other advantages of the solution proposed in section 2.

1 The structure of CLLD

1.1

In this section I will give an overview of the arguments in favor of treating (1) as representing a base-generated order. In other words, the question that will be answered negatively is whether the *Q S cl-V* order (CLLD) is derived from the *S cl-V Q* order by (A-bar) movement of the object to a sentence-initial position.

The *S cl-V Q* order is a case of clitic doubling, a common construction in many languages, among which MG, in which a clitic agreeing in features with the object appears along with that object. The question therefore arises, whether clitic doubling is the source for CLLD by movement of the doubled element to the sentence-initial position. However,

as Cinque (1990) points out, there are languages that have CLLD but do not have clitic doubling. Such a language is Italian:

- (3) a *lo conosciamo (a) Gianni
him know Gianni
b. Gianni, lo conosciamo
Gianni him know
'Gianni, we know him'

Second, there are semantic classes of NPs that can appear in CLLD structures but cannot be clitic doubled:

- (4) a. tria provlimata mono o Kostas ta elise
three problems only Kosta them solved
'three problems are such that only Kostas solved them'
b. mono o Kostas (*ta) elise tria provlimata
only Kostas (*them) solved three problems

Third, there are languages that have an animateness requirement on clitic doubling, but not on CLLD:

- (5) a. (lo) vimos a Juan (Rio Plate Spanish)
him saw Juan
'We saw Juan'
b. *lo vimos el/al libro
it saw the book
(6) el libro lo compramos ayer
the book it bought yesterday
'the book, we bought it yesterday'

Fourth, clitic doubling cannot be the source for CLLD, because extraction from a clitic doubled position is not possible. This is a highly theory-internal argument, however, and I will return to it in section 3.

Finally, we can find arguments in favor of the position that *Q S cl-V* is base-generated as such by comparing it with *Q S V* which is the result of movement.

A first, descriptive, point of comparison is that in *Q S cl-V* (CLLD), the object is old information and cannot be stressed. In *Q S V* the object is new information and receives focal stress. Both (7a-b) can be answered with (8), the neutral *SVQ* order, but the *QSV* order, (7a), can only be answered with (9a) and (7b) only with (9b):

- (7) a. Who saw Mary?
b. Who did Kostas see?
(8) o Kostas idhe tin Maria
Kostas/NOM saw Mary/ACC
(9) a. tin Maria o Kostas *(tin) idhe O S cl-V (CLLD)
Mary/ACC Kostas/NOM her saw
b. tin Maria o Kostas *(tin) idhe OSV
Mary/ACC Kostas/NOM her saw

It is possible to argue that while (9b) is the result of movement, (9a) represents a base-generated construction. The relevant tests check the "variablehood" of the ECs after the verb in (10) and (11):

- (10) O S cl-V EC(*pro*)¹ (base-generated order)
 (11) O_i S V EC_i(variable) (movement)

First of all, while *Q S V* shows Weak Cross Over effects, *Q S cl-V* does not. WCO effects are found in a construction like the one in (12), where an operator binds both a pronoun and a variable, neither of which c-commands the other:

- (12) * Operator [...*pron*...] EC(variable)

In the examples below, the pronoun in (12) is the possessive pronoun contained in the NP *i mitera tu*, and the variable is the empty category after the verb:

- (13) O S V
 a. Op [...*poss. pron*...] verb EC(variable)
 b. *ton Kosta i mitera tu agapa
 Kosta/ACC the mother his loves
 c. *kathe pedhi i mitera tu agapa
 each child/ACC the mother its loves
 d. ton Kosta i Maria agapa
 Kosta/ACC Mary/NOM loves

The unacceptable (13b-c), which have the status of a WCO violation compared to the fully acceptable (13d), seem to point towards the existence of a variable in the internal argument position of the verb.

This is not the case with CLLD, where no WCO violation occurs. Contrast (13b-c) above with (14b-c):

- (14) O S cl-V
 a. Op [...*poss. pron*...] [clitic *pron*.] verb EC(*pro*)
 b. ton Kosta i mitera tu ton agapa
 Kosta/ACC the mother his him loves
 c. kathe pedhi i mitera tu to agapa
 each child mother its it loves

The fact that there are no WCO violations in (14b-c) indicates that the postverbal EC in these sentences is not a variable.

Q S V licenses parasitic gaps, *Q S cl-V* does not. A parasitic gap is licensed by an A-bar trace that does not c-command it.

- (15) a. Which article did you file EC(vbl) without reading EC(pg)
 b. This article Mary filed EC(vbl) without reading EC(pg)

As in (15a-b), the acceptability of (16a) shows that there is an A-bar trace after *arxiotetise*:

- (16) O S V
 a. Afto to arthro i Maria arxiotetise xoris na dhiavasi
 this the article the Mary filed without reading
 b. Op V EC(variable) [...*parasitic gap*...]

¹In (10) I represent the empty category in the argument position as *pro* (following Jaeggli (1986) and quite a few others) but *only* for concreteness. It's not crucial that this EC be *pro*; what is crucial is that it not be an extraction site. This point holds throughout the entire paper.

On the other hand, CLLD does not license a parasitic gap:

- (17) O S cl-V
 a. *Afto to arthro i Maria to arxiotetise xoris na dhiavasi
 this the article Mary it filed without reading
 b. Op V EC(*pro*) [...*parasitic gap*...]

The unacceptability of (17a) shows that the postverbal empty category in CLLD is not a variable. So, from the absence of WCO violations and the unacceptability of parasitic gaps, we can conclude that there is no A-bar trace after the verb in a CLLD construction.²

Summarizing this section so far, I have presented some arguments in favor of the position that while *Q S V* is the result of movement of the object to a sentence-initial A-bar position (this would be some sort of focusing associated only with new information, *Q S cl-V* (CLLD) is a base-generated order. Some more arguments will come up in later sections as side-effects of the discussion of long-distance CLLD in MG. For arguments from Italian that CLLD represents a base-generated order, see Cinque (1990, ch. 2).

1.2

In the previous section we established that there is no extraction site for the Clitic Left Dislocated object in *Q S cl-V*. The natural step would be to assume that it is base-generated where it appears. In this section, I will address the question of where the CLLDed element stands.

We saw above that the CLLDed element appears before the subject. In fact, it *must* appear before the subject. If it doesn't, i.e., if it appears between the subject and the verb, the only possible reading is one in which the subject is dislocated as well. In other words, in the *S O cl-V* order, both the subject and the object are understood as old information, the mark of CLLDed constituents. CLLD of the subject does not contain a coindexed clitic, as MG does not have subject clitics. I will assume that in such a case, there is a *pro* in subject position.^{3,4}

- (18) [o Yanis [tin maria [*pro* tin agapa]]]
 John/NOM Mary/ACC her loves

So the CLLDed constituent stands to the left of the IP. It also must appear in front of the Wh-word in a matrix question:

²A skeptic could argue that the postverbal EC in (14b-c) is, in fact, a variable, but it does not yield WCO violations, because its locality requirements are somehow satisfied by the clitic, the latter standing in some fashion as proxy for the operator, and therefore no Crossover configuration is created. If this were the case, however, the postverbal EC should still be able to behave as an A-bar trace and license a parasitic gap. But as is obvious from (17), this does not happen.

³In effect, this shows that the term "Clitic Left Dislocation" is a misnomer, since it is possible to have this construction without an overt clitic. The name could also mislead one into believing that any language that has clitics as well as dislocation, should be expected to have CLLD. This is obviously not so. The actual characteristics of the construction in question is the left dislocation, in combination with the "feeling" of old information or discourse linking of the left dislocated element, and, as we will see later, respect for islands.

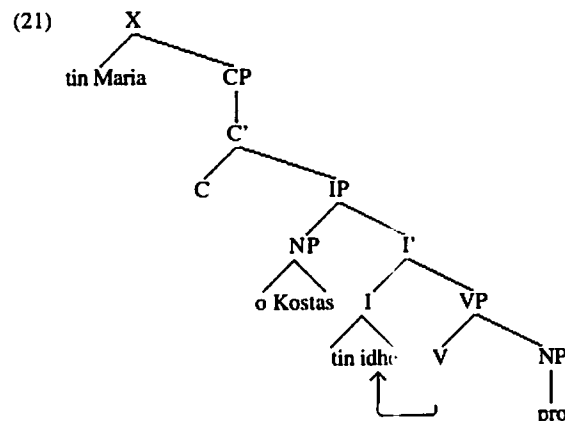
⁴It should in principle be possible for the CLLDed element to be an adjunct. According to Cinque, this is not possible in Italian. However, the data, as well as his explanation, seem problematic. In MG it does seem possible, but I will not address this here.

- (19) a. tin Maria pios tin idhe
 the Mary who her saw
 b. tin Maria tin idhe pios (echo only)

MG is V-second in questions (matrix as well as embedded). If V-second results from the Wh-word appearing in [SPEC,CP] and the verb in [HEAD,CP], then *tin Maria* in (19a) must stand to the left of the CP. Moreover, the CLLDed element can, but doesn't have to, appear to the left of the complementizer:

- (20) a. o Yanis nomize tin Maria oti o Kostas tin idhe
 John thought Mary/ACC COMP Kostas her saw
 b. o Yanis nomize oti tin Maria o Kostas tin idhe
 John thought COMP Mary/ACC Kostas her saw

If V-second is I-to-C, the CLLDed element is base-generated to the left of the CP, and the order in (20b) is the result of CP-recursion (Schwartz and Vikner (1989)).⁵ This means that the structure of a simple Q S_{cl}-V sentence is as in (21):



The constituent *tin Maria* is base-generated under the node X (I'll return shortly to what this node can be). The coindexed clitic appears because the verb must project its argument somehow. In effect what licenses this construction is predication: the CLLDed element is the subject of predication and the rest of the clause is the predicate, the clitic being the predicate variable.⁶ The clitic licenses *pro*; in MG there is no *pro* in object position by

⁵On the other hand, in an account like that of Pesetsky (1989), where Wh-words stand in [SPEC,IP], (19a) can at most indicate that *tin Maria* is to the left of the IP. In this account V-second is only V-to-I, in which case, (20b) would be the base-generated order, (20a) being the result of movement out of that position to the left of the CP. It's possible that the present paper is translatable into a framework like the above. In any case, the only relevant point is that the CLLDed element is base-generated adjoined to the minimal clause containing the clitic. The exact category of our "clause" and the exact nature of the [SPEC,IP] position are issues outside the scope of the present paper.

⁶The term "predicate variable" should be understood in the sense of Williams (1980). It refers to the open position that permits a constituent to behave as a predicate. This position does not have to be a variable in the syntactic sense, i.e. Case-assigned and locally A-bar bound. (In Williams (1980) PRO is treated as a

itself:

- (22) *o Kostas
 Kostas cut

But even with those verbs that permit a *pro*(arb) in the object position in the sense of Rizzi (1986). The '*' in (23) is intended to indicate that the CLLD reading (i.e., the dislocated element being old information) is not possible without a clitic:

- (23) *ton Yani o Kostas epireazi
 Yani/ACC Kostas/NOM influences

Presumably this is because *pro*(arb), being referential, cannot function as a predicate variable. Similarly, if a full NP were to replace clitic-*pro*, there would be no predicate variable, therefore no predicate, and no predication relation to license CLLD.⁷

Returning now to the question of what the node X is in (21), we can exclude it being the CP segment dominating the [SPEC,CP] since the CLLDed element appears before the Wh-phrase, and in MG it is not possible to have more than one (Wh-) phrase in [SPEC,CP]. Moreover, CLLD does not create islands (Cinque (1990), for the relevant Italian data):

- (24) pios nomizis tin Maria oti tha tin psifize
 who (you) think Mary/ACC that FUT her vote
 'Who do you think would vote for Mary'

The acceptability of (24) shows that *tin Maria* does not occupy the [SPEC,CP] position: if it did, extraction of *pios* should be blocked.

The node X could possibly be a separate maximal projection, but this one would

predicate variable). In fn. 12, I will suggest that, for example, the whole relative Wh-chain is the predicate variable. Empirically, this may not be different from treating only the Wh-head as the predicate variable, but it is consistent with the intuition that a chain is a single entity. More central to the present discussion, one could claim that the clitic and the *pro* form some sort of discontinuous constituent, as in Collins (1990) and that therefore the predicate variable is "clitic-*pro*".

⁷Alternatively, one could say that the CLLDed element and clitic-*pro* must agree maximally in features; in other words, *pro* must be identifiable as having the same features as the CLLDed constituent. One could push this view further and argue that *pro*(arb) can be the predicate variable in constructions referred to by Cinque as CLLD of "bare quantifiers". In MG, as in Italian, there are some quantifiers like *kapios* ("someone") which can appear sentence-initially and be old information (a combination which, as mentioned, is the diagnostic for CLLD), yet for which no coindexed clitic can appear, as in (ii) following the discourse in (i):

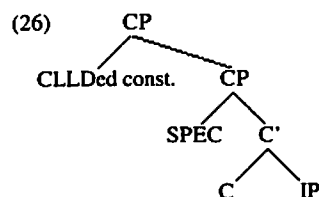
- (i) I have to go to school to find someone to lend me some money. I know it's very late, but...
 (ii) kaption tha (*ton) vro
 someone FUT (*him) (I) find
 'someone I'll find'

As is obvious from the meaning, *kaption* is not specific, nor is it new information. According to Cinque the construction in (ii) is base-generated and the postverbal EC in (ii) is a (base-generated) variable, bound by the dislocated quantifier. In his account, the clitic is not permitted in (ii) because in its presence, the EC would not be a variable and the quantifier would have nothing to bind. However, one could argue that (ii) is more similar to the standard cases of CLLD, in that the postverbal EC is *pro*(arb). The clitic would be impossible, because it would identify the *pro* as having features incompatible with the non-specific use of the quantifier in (ii). When the dislocated quantifier is interpreted specifically, the clitic does become possible, since the features that the clitic would be giving *pro* would be permissible, in fact, necessary. Since this alternative formulation is neutral to the present proposal, I won't pursue it further here.

have to be transparent, since the presence of a CLLDed element does not block the access that a higher verb has to the element in COMP:

- (25) *anarotieme ton Kosta pios ton idhe*
wonder the Kostas who him saw
'I wonder who saw Kostas'

If X in (21) were a separate maximal projection, then *anarotieme* in (25) would not govern the maximal projection containing the Wh-word and its subcategorization requirements would not be satisfied. Since (25) is fully acceptable, I conclude that *anarotieme* governs the embedded CP, and that X is not an intervening maximal projection. I will assume therefore that the CLLDed element is (base-generated) adjoined to the CP and that X is a CP-segment created by the base-generated adjunction of the CLLDed element:



In section 2.2 I will return in more detail to the structure in (26).⁸

2 Long distance CLLD

2.1

The CLLDed constituent can appear far away from the clause containing the clitic:

- (27) *ton Kosta nomiza oti i Maria ton idhe*
the K. (I) thought that the M. him saw

⁸I have argued that while OSV is the result of movement, *Q S cl V* (CLLD) is base-generated. When both occur in a sentence, the CLLDed constituent precedes the focused constituent. The underlined constituent is focus-moved, the constituent preceded by 'DL' is the CLLDed one:

- (i) a. *DL/tin Maria o Yanis tin agapa*
Mary/ACC John/NOM her loves
b. *DL/o Yanis tin Maria agapa*
c. *????o Yanis DL/tin Maria tin agapa*
d. *????tin Maria DL/o Yanis agapa*

Sentence (ic) is marginally acceptable as a corrective stress on a previously mentioned sentence in which *o Yanis* was understood as having been CLLDed. When both constituents are CLLDed, they can appear in any order:

- (ii) a. *DL/o Yanis DL/tin Maria tin agapa*
b. *DL/tin Maria DL/o Yanis tin Maria*

It is not possible to focus more than one constituent, however:

- (iii) a. *????o Yanis tin Maria agapa*
b. *????tin Maria o Yanis agapa*

However, no island can intervene between the CLLDed element and the clitic:

Relative Clause:

- (28) **ton Kosta sinandisa tin kopela pu ton idhe*
the K. (I) met the girl who him saw

Adjunct:

- (29) **tin efimeridha apokimithike dhiavazondas tin*
the newspaper (he) fell asleep reading it

Sentential subject:

- (30) **ton Kosta ipes oti to oti i Maria ton agapa tromazi ton Yani*
the K. (you) said that the that the M. him loves scares the Y.

NP island:⁹

- (31) **ton Kosta dhiavasa tin idhisi oti ton apelisan*
Kosta/ACC read the news that him (they) fired

Compare (28)-(31) with the construction, translatable as "as for X, ...", which does not obey islands (33a-c). It is the only construction in which a vague "aboutness" relationship can be expressed (32a); this is not possible with CLLD (32b):

- (32) a. *oson afora ta psaria, protimo tis renges*
as concerns fish, (I) prefer herring
b. **psaria, protimo tis renges*
- (33) a. *oson afora ton Kosta, akusa tin fimi oti ton apelisan*
as concerns Kosta, (I) heard the rumor that him fired
b. *oson afora ton Kosta, sinandisa tin kopela pu ton idhe*
as concerns Kosta (I) met the girl who him knows
c. *oson afora tin efimeridha, apokimithike dhiavazondas tin*
as concerns the newspaper, (he) fell asleep reading it

We thus have "Cinque's paradox": If islands constrain movement and not base-generated relationships, why is the relationship between the clitic and the CLLDed constituent (which, as argued above has *not* been extracted from the clitic doubled position) constrained by islands? As a solution, Cinque (1990) proposes that islands do not distinguish movement from base-generated representations and discusses a number of ensuing consequences of this position. As mentioned, Cinque himself argues, using data from Italian, that there is no extraction site after the most embedded verb in a sentence like (27). But he then makes a logical jump and concludes that in a sentence like (27) *ton Kosta* is base-generated where it appears, without considering any intermediate position. I would like to suggest that the source of (27) is (34) below, which is a fully acceptable sentence in both MG and Italian. I will argue that the island effects exhibited in CLLD are, in fact, reducible to islands, and that therefore CLLD does not provide any reason to abandon the widely held assumption that islands constrain only movement relationships.

In other words, I will argue that in long distance CLLD, the CLLDed element

⁹According to Horrocks and Stavrou (1987) extraction from some NP-islands is acceptable for some speakers. This observation holds for English as well (Ross 1967). According to their account this is possible only with those NPs that are paraphrasable as complex verbs, i.e., "hear a rumor that" would be understood as a verb. This point is not really relevant, since all the other island effects hold without exception, as far as I know.

appears in its surface position by movement, the source of (27) being (34):

(27) ton Kosta nomiza oti i Maria ton idhe
the K. (I) thought that the M. him saw

(34) nomiza ton Kosta oti i Maria ton idhe
(I) thought the K. that the M. him saw

If I am right, then the island effects on the relationship of the CLLDed element and the clitic are an illusion. Islands constrain the relationship between the position in which *ton Kosta* is generated (as in (34)) and the position it appears in (27)). This is a movement relationship. This is movement out of an adjoined position and extraction out of such a position over an island is predicted to have the "heavy" feeling of an ECP violation, as in the case of adjunct extraction out of an island, and not a subadjacency violation as when an object is extracted out of an island. This prediction is borne out.^{10,11,12}

2.2

I have argued that the CLLDed element is base-generated adjoined to the minimal CP containing the clitic. From now on I will call this position the "DL-position" for Pesetsky's (1986) notion of "D-Linking", since as mentioned, the elements that appear there must have been mentioned previously in the discourse (in fact, the DL-position might be the position of Pesetsky's "Baker-style operator". In such a case, the difference between English and languages with CLLD would be that the latter permit overt elements in the DL-position). The locality constraint between the DL-position and the minimal clause containing the clitic follows from general structural constraints on predication: the subject of predication and the predicate must m-command each other (Rothstein (1983), McNulty (1988), Rizzi (1990) and others). The subject is the DL-position and the predicate is the minimal maximal projection containing the predicate variable, which in the case of CLLD is the clitic

¹⁰Notice that this provides one more argument against the position argued against in section 1.1, namely that the postverbal position in CLLD is an extraction site. If it were, there should be no ECP effects, since extraction would be out of an object position.

¹¹Intermediate positions can be landing sites for the dislocated element on its way up. The following sentence is also acceptable in Italian:

(i) i Ana nomize ton Kosta oti o Yanis ipe oti i Maria ton idhe
DET Ana thought DET K. that DET Y. said that DET M. him saw

¹²Returning to sentences like (25) repeated here:

(i) anarotieme ton Kosta pios ton idhe
(I) wonder DET Kosta who him saw
'I wonder who saw Kostas'

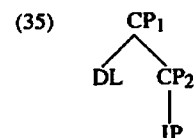
and its long distance counterpart:

(ii) ton Kosta anarotieme pios ton idhe
DET Kosta (I) wonder who him saw

These sentences are totally acceptable, i.e. they are not Wh-island violations. This confirms two points argued for in this paper. First of all, it supports the position of section 1.1 that the CLLDed element is not extracted from the postverbal position. If it had it would have crossed a Wh-island in both (i) and (ii). Second, it supports the position of section 2.1 that the CLLDed element is base-generated to the left of the CP, so that again, it doesn't have to cross the Wh-island. This latter point explains why CLLD obeys what Cinque calls "strong" islands (the ones in (28)-(31)), but why it isn't at all sensitive to a "weak" island, like the Wh-island: it simply is base-generated outside the latter.

(or the clitic-*pro* chain, see fn. 6). Following Kayne (1990) and references cited there, I will assume that the clitic is adjoined to I. This would mean that the predicate is the minimal clause containing the clitic. This can be understood as being either the CP or the IP, and either one will do for the purpose of the present paper, but which of the two it actually is depends on one's view of which functional projection "closes off" the clause. Although I think that our present knowledge leaves the answer to this question undetermined, in the next part of this section, I will suggest that there might be some reasons that favor the option of IP as the predicate.

As mentioned above, the predicate must m-command the subject. To see which of the two potential predicates m-commands the subject of predication (the DL-position), let's look at the structure proposed for a simple CLLD construction in section 1:



In effect, the mutual c-command relationship defines XP-government, as far as I can see: there is no structure where two maximal projections m-command each other, yet they don't govern each other as well. This follows from the definitions of m-command and government as in Chomsky (1986) (crucially in combination with a notion like Rizzi's (1990) relativized minimality and not rigid minimality):

- (36) X m-commands Y iff X does not dominate Y and every Z, Z a maximal projection, that dominates X, also dominates Y.
- (37) X governs Y iff X m-commands Y and there is no Z, Z a barrier for Y, such that Z dominates Y and excludes X.
(Since we are not talking about head-government here, all of X, Y, Z are maximal projections.)

Moreover, domination is recursively defined as in (38a), and exclusion as in (38b):

- (38) a. X is dominated by Y only if it is dominated by every segment of Y.
b. X excludes Y if no segment of X dominates Y.

Now let's look at what (36)-(38) can tell us about the structural relations in (35). Immediately we can exclude CP₂ as a potential governor/predicate: first of all, we cannot speak of a segment of a maximal projection (CP₂) as being a governor; second, assuming that CP₂ is the predicate would go against the widely argued position that only maximal projections can be predicates. This would leave CP₁ and IP as possible XP-governors of the DL-position, i.e., as possible predicates, but, in fact, we can also exclude CP₁. According to definitions (36) and (38a), the CP does not dominate the DL-position, since it's not the case that both its segments (CP₁ and CP₂) dominate it. This means that the CP m-commands/governs the DL-position. However, I think that this reading of the definitions goes against the spirit of the (m- or c-) command relations, according to which containment is never a case of command. If I am right, then (36) should be read as (36'):

- (36') X m-commands Y iff no segment of X dominates Y and every Z, Z a maximal projection, that dominates X, also dominates Y.
(If Z is not restricted to maximal projections, (36') defines the c-command relation.)

Returning to (35), one segment of the CP (namely, CP₁) dominates the DL-position; this means that the CP does not m-command or XP-govern the DL-position and is therefore excluded as its predicate. This leaves only IP as potential predicate and indeed this node does stand in a mutual m-command/government relation with the DL-position. The DL-position governs the IP in (35) since there is no maximal projection that includes IP but excludes the DL-position. The same relation holds in reverse. So, if the above revisions are on the right track, we are able to choose IP over CP as the predicate for the DL-position. But as already mentioned, either one of CP or IP would do for the purpose of this paper, since all that is needed is that the predicate be the minimal clause containing the clitic.¹³

¹³There is a point here that needs emphasizing. All work done on the structural requirements on predication has focused on the locality between subject and predicate; nothing has been said on the locality relation between the predicate and the predicate variable, i.e. on how large the predicate can be with respect to the positioning of the predicate variable in it. Put differently, if putting a predicate variable in a maximal projection suffices to make a predicate, why should there be any constraints on where this should be? In the text I suggested that the predicate is the minimal maximal projection containing the predicate variable. In addition to being consistent with the general structural relations within CLLD, this generalization seems to hold in all cases of predication containing a predicate variable (and if one is willing to accept an open position in an AP, or other secondary predicates, the generalization holds for those cases as well). Take for instance the predication in English relative clauses. The XX constituent in (i) but not in (ii) can be the predicate on *the man*:

- (i) the man [XX who [Mary said [Bill saw]]]
 (ii) *the man [XX Mary said [YY who [Bill saw]]]

If all we had to say about the structural requirements on predication were that subject and predicate must m-command each other, we would not be able to exclude (ii). If, however, we added the additional constraint that the predicate must be the minimal maximal projection containing the predicate variable, this being the chain headed by *who*, then the predicate in (ii) could only be the constituent YY. However, this does not stand in a mutual m-command/government relationship with *the man* and (ii) cannot be a possible case of predication.

It seems, then, that this second constraint on predication is needed. It would be interesting to speculate on a possibility for combining both constraints. One possible direction, which I will not explore here, however, could be along the following lines: predication is some sort of chain formation between the subject of predication and the element with which it is coindexed, namely, the predicate variable. This would imply that each link in the chain would govern the next one. It would follow that the subject of predication must govern the predicate variable. The mutual m-command/government requirement would follow since only then could the subject govern the predicate variable. So would the locality constraint on how much higher than the predicate variable the "limits" of the predicate could be; again if the predicate were larger than the minimal maximal projection containing the predicate variable, the subject could not govern the next element in the chain (the predicate variable).

One might additionally venture the speculation that a relative pronoun must move in order to be governed by the head noun: if it didn't, but stayed in situ, it wouldn't be governed by the subject of predication (the head noun), and no relative clause/predicate could be formed. The same, of course, would hold for head-internal relative clauses, only there this movement would take place at LF. It seems encouraging for this possibility that the languages that have head-internal relative clauses are the languages with Wh-words in situ (Ken Hale p.c.), and where Wh-movement in general would happen at LF.

Something more would need to be said about cases where the Wh-word is embedded inside a maximal projection itself containing a maximal projection that XP-governs the Wh-word which would, by relativized minimality (Rizzi (1990)) block XP-government of the Wh-word by the head NP, as in (iii):

- (iii) the country [Columbus's discovery of which] ...

In (iii), *Columbus* is a closer XP-governor of *which*, preventing government by *the country*, yet (ii) can form an acceptable relative clause. Whatever is at issue here is reminiscent of the phenomenon of pied piping. Notice that the complex NP *Columbus's discovery of which country* can satisfy the requirement of an interrogative [SPEC,CP] to carry a Wh-word:

2.3

I argued in section 2.1 that long distance CLLD should be analyzed as a case of movement out of the DL-position of the minimal clause containing the clitic. It should be possible to test for such movement. One test was suggested to me by David Pesetsky (p.c.). Since this test crucially relies on parasitic gaps, it is applicable only to those speakers who accept parasitic gaps in the first place. Suppose the alleged movement crosses an adjunct containing a parasitic gap, then the acceptability of that sentence would confirm the existence of such movement. Abstractly:

- (39) NP_i [...[...parasitic gap...] ... [DL t_i [...clitic...]]]

If (39) is acceptable, Cinque's analysis cannot account for it, since for him the NP is base-generated where it appears in (39) and there is therefore no A-bar chain in the sentence to license a parasitic gap. In the present account, however, the acceptability of (39) is explained by the movement of the NP out of the DL-position and into the sentence-initial position. This movement forms an A-bar/A-bar chain which licenses the parasitic gap. (39) is, in fact, acceptable in MG; the '(?)' indicates the status of parasitic gaps in general.¹⁴

- (40) (?) ton Y. i M. ipe [xoris na agapa] DL oti tha ton pandrefti
 the J. the M. said [without loves] that (she) will him marry

Compare (40) with (41), which has the parasitic gap in a position not "crossed" by the

- (iv) Columbus's discovery of which country did John witness?

I assume that whatever mechanism is at play in (iv) (perhaps feature percolation) is also responsible for the acceptability of (iii). In specific, if the whole NP can act as a single Wh-phrase for the purposes of question formation in (iv), I assume the whole NP can also act as a single predicate variable in (iii). It follows that the government relation between head-NP and predicate variable holds in (iii) as well.

¹⁴For some Italian speakers, it seems that (40) is unacceptable. As mentioned, Italian, unlike MG, does not tolerate material to the left of the complementizer as belonging to the embedded clause. This means that the adjunct "without loves" in (40) can only be interpreted as modifying the higher clause. And it seems that there must be some locality constraint on the relationship between the licensing A-bar chain and the parasitic gap that would be violated if the adjunct in (38) belonged to the higher clause. For many English speakers (i) is considerably worse than the classic parasitic gap sentences:

- (i) ?*which paper did [John say [without reading PG]] that (Mary said that) Bill would publish EC?

Luigi Rizzi (p.c.) suggested a test that argues for the existence of a trace in the DL-position in Italian as well. This test is based on having the DL-position provide a reconstruction site for a higher anaphor. Sentence (ii) is not acceptable because the anaphor *se stessa* is not bound in its governing category:

- (ii) *Maria dice che Piero non parla abbastanza di se stessa
 M. said that P. not talks enough of herself

The acceptability of (iii) however, shows, according to Rizzi, that there is a lower position in which the anaphor reconstructs and in which it is bound by *Maria* inside its governing category. This position would be a trace coindexed with the anaphor, specifically the DL-position in (iii):

- (iii) di se stessa M. dice che DL P. non ne parla abbastanza
 clitic
 of herself Maria said that P. not talks enough

I will not explore this further, since the significance of reconstruction as a diagnostic for the existence of traces requires discussion beyond the scope of this paper (see Higgins (1973) and Barss (1986)).

movement out of the DL-position. The sentence is ungrammatical:

- (41) *ton Y. i M. ipe DL otí tha ton pandrefti [xorís na agapa]
the J. the M. said that (she) will him marry [without loves]

Usually, the existence of A-bar chains is tested with the licensing of parasitic gaps and WCO violations, and usually, both tests come out on the same side (as e.g. in section 1.1). We just saw that long distance CLLD licenses parasitic gaps. But the prediction that it causes WCO is not borne out. There is no contrast between (42a-b):

- (42) a. ton Yáni i Maria ipe DL otí i Katerína ton idhe
J/ACC M. said that K. him saw
b. ton Yáni [i mitera tu] ipe DL otí i Katerína ton idhe
J/ACC [the mother his] said that K. him saw

However, should one really expect a trace in the DL-position to cause WCO violations?¹⁵ A trace in the DL-position has the status of an intermediate trace in an A-bar chain (it is neither an operator, nor a variable), and it is dubious whether intermediate traces cause WCO violations. Unlike parasitic gaps, which only seem to need a local A-bar chain, WCO is defined with respect to true semantic variables (Lasnik and Stowell 1989; for present purposes, an A-bar bound trace in a theta-position). If this is correct, a WCO violation should not arise in (42b). The trace in the DL-position, being in an A-bar (therefore not theta-) position, cannot function as a variable, the semantic variable being the predicate variable. This means that the absence of a WCO violation in long distance CLLD (as in 42b)) is not only unproblematic, but expected under current assumptions about WCO. Moreover, the lack of WCO, in combination with the licensing of parasitic gaps (as in (40)) confirms the nature of the DL-position as an adjoined position, which can hold an A-bar trace, but not a semantic variable, since it's not a theta-position.

In the most often discussed cases of potential WCO configurations it is not possible to determine whether it is the deepest or an intermediate trace that causes the violation, and the decision would have to be made on theory internal grounds. However, long distance CLLD, by providing an environment where the two can be teased apart (the intermediate trace is connected by movement to the operator, but the semantic variable isn't), it provides additional evidence for a position like that of Lasnik and Stowell (1989) according to which only true semantic variables can cause WCO violations.

2.4

In sections 2.1 and 2.3, I argued that long distance CLLD obeys islands, because islands constrain movement out of the DL-position. It is possible for many constituents to be (long) CLLDed at the same time, indicating that CLLD does not create islands for further movement:

- (43) ta pedhía tin Maria o Kostas ipe DL otí pro tin agapun
the children/NOM M/ACC K/NOM said that her love/3/PL
'Kosta said that the children love Mary'

This is because the DL-position and all the traces that the CLLDed element might leave on its way up are adjunction sites, and adjunction does not create islands, unlike A-bar movement through [SPEC,CP]s, which does create islands by blocking up "escape

hatches". This explains the superficially odd combination of properties that movement involved in long distance CLLD has: it obeys, but does not create, islands.

3 One more case of movement out of the DL-position

3.1

As already mentioned, clitic doubling is very productive in MG:¹⁶

- (44) o Kostas tin idhe tin Maria
Kostas her saw Mary

A much discussed point in the literature on clitic doubling is that extraction from a position doubled by an accusative clitic does not seem possible (Jaeggli (1982, 1986 and references therein)).¹⁷

- (45) a. A quien (*lo) vimos EC?
who CL saw
'Who did we see?'
b. (*las) vi a todas las mujeres
CL saw all the women
'I saw all the women'
c. (*lo) vimos a JUAN
him saw Juan
'We saw JUAN'

The unacceptability of (45a) shows that S-structure Wh-movement is not permitted out of the doubled position. The unacceptability of (45b-c) with a clitic is supposed to show the same point but for movement at LF; Quantifier Raising and Focus Raising are not possible

¹⁶Although not relevant to this paper, it is well-known that MG appears to violate what has come to be known as "Kayne's generalization" in the literature on clitic doubling, namely the generalization that a clitic absorbs Case and that for the object NP to appear overtly, there must exist an additional source of Case. This can be done with a "dummy" preposition:

- (i) a. L am vazut *(pe) Popescu (Romanian)
CL have seen Popescu
'I have seen Popescu'
b. Sif-t-a *(l) Xalid (Iraqi Arabic, Roberge 1990)
saw CL Xalid
'I saw Xalid'
c. Marie l'aime *(a) Jean (Pied Noir French, Roberge 1990)
Marie CL loves Jean
'Marie loves Jean'

¹⁷The discussion in this section will be referring only to extraction from a position doubled by an accusative clitic. Extraction from a position doubled by a dative clitic is possible:

- (i) a quien le regalaron un auto
to whom him/her gave a car
'To whom did they give a car?'
(ii) pianu tu edhosan ena aftokinito
who his gave a car
'To whom did they give a car?'

MG does not have Dative Case, the Genitive having taken over previous occurrences of the Dative.

¹⁵I am particularly grateful to Luigi Rizzi and Tim Stowell for discussions on this point.

out of the doubled position. The same facts hold in MG:¹⁸

- (46) a. Pion (*ton) idhes?
 who CL saw
 'Who did you see?'
 b. (*ton) idha ton KOSTA
 CL saw Kosta
 'I saw Kosta'
 c. dhio yatri tha (tus) eksetasun olus tus arostus
 two doctors FUT CL examine all the patients

Sentences (46a-b) are unacceptable with the clitic. (45c) is acceptable, but with the clitic, it lacks the reading corresponding to the object having raised over the subject. In other words, without the clitic, the sentence is ambiguous between (47a) and (47b), with the clitic it can only mean (47b):

- (47) a. Each patient will be examined by some two doctors.
 b. There are two doctors each of which will examine all the patients.

So as in the relevant dialect of Spanish, the presence of a clitic blocks A-bar movement in the syntax, as well as at LF. There have been several accounts of these facts in the literature;¹⁹ which of these is correct is not directly relevant. All that is crucial for the

¹⁸Depending on one's theory of echo-questions one can construct one more argument that extraction from a doubled position is not possible. This revolves around data like (i) and (ii):

- (i) Pios idhe pion
 who saw whom?
 (Mary Bill, Jane Fred)
 (ii) Pios ton idhe pion?
 who CL saw whom? (echo on object)
 (Pios idhe tin Maria? 'Who saw Mary?')

(ii) can only be answered by responding to the contained echo-question first, as indicated below the gloss. This contrast between (i) and (ii) is not expected if the Wh-word in object position can extract in both (i) and (ii) at LF.

¹⁹Some of these include the following: Jaeggli (1982, 1986) argues that the expansion of sentences (45a-c) with the clitic are ungrammatical because the clitic absorbs the Case the verb has to assign (see fn. 15). As a result, the EC left behind by A-bar movement does not receive Case and therefore it cannot function as a variable.

According to Borer (1984), Case agreement is a condition on proper government. In (45) the clitic is Accusative, yet the EC left by movement is Dative, due to the preposition *a*. Therefore the extraction site violates the ECP.

According to Aoun (1981) accusative clitics absorb theta-roles, turning the doubled object to a non-argument, which can therefore not be extracted. In this account, Dative clitics do not absorb theta-roles.

According to Hurtado (1984) (for dialects of Spanish) and Philippaki-Warbuton (1987) (for MG), the doubled NP stands in an A-bar position and gets Case in whichever way NP adjuncts receive Case. In these proposals extraction from the doubled position is not possible because of what they consider to be a general ban on extraction from adjuncts.

According to Suner (1988) clitics are (object) agreement markers, and therefore do not absorb Case or Theta-roles. But as agreement markers they must match in features the object they agree with. Dative clitics are specified for [animate], [gender], [number] and [person]. Accusative clitics are specified for all those, plus [+specific]. So extraction from an accusative doubled position is out because there is a mismatch: the Wh-word is [-specific], while the clitic is [+specific].

All of the above accounts have their insights and weaknesses, but a detailed discussion of them would take us beyond the scope of the present paper.

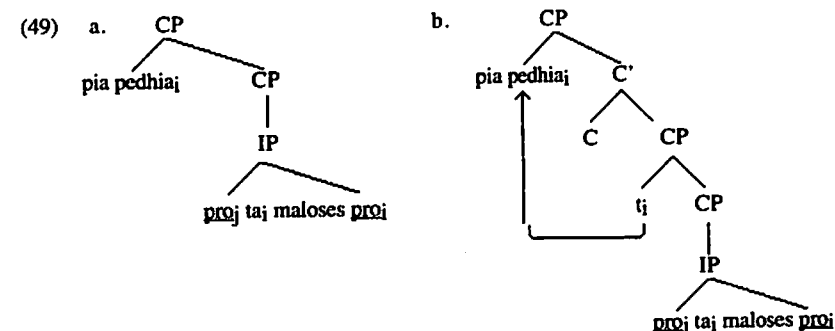
present purposes is the descriptive generalization that A-bar movement out of the doubled position is not possible in sentences like (45)-(46).

However, this last generalization seems to have been made on too narrow a database. There is a set of data that to my knowledge nobody before Suner (1988) and Dobrovie-Sorin (1990) had discussed. It appears, in fact, that while extraction of the equivalent of *who* is impossible, extraction of the equivalent of a *which*-NP is possible:

- (48) a. pia pedhia (ta) malosos (MG)
 which children them scolded
 'Which children did you scold?'
 b. A cual de los dos candidatos lo entrevistaron? (SP)
 which of the two candidates him/ACC interviewed
 'Which of the two candidates did they interview?'

Clearly, an analysis that attempts to account for the lack of extraction in (45)-(46), should permit cases like (48a-b) and it isn't clear how many existing proposals (e.g., the ones mentioned in fn. 18, except Suner's) could be modified to cover (48). However, both Suner (1988) and Dobrovie-Sorin (1990) have proposals to account for the contrast between (45)/(46) and (48). Although their proposals differ on basic points, they both believe that the existence of sentences like (48) shows that the "classic" accounts of clitic doubling were misled in that they excluded extraction from the doubled position altogether. For Suner and Dobrovie-Sorin extraction is possible as long as some (but different for each author) requirements are met.

Unlike Dobrovie-Sorin and Suner, I would like to side with the old empirical generalization according to which extraction from a clitic doubled position is *not* possible and will argue that the data in (48) are not instances of extraction of the *which*-phrase from the clitic doubled position. I will propose that sentences like (48a-b) are the result of extraction from the DL-position and that the EC after the verb is of the same nature as it is in a sentence containing only a clitic. In other words, (48a) is argued to have two possible representations:



In (49a), the Wh-word stands in the DL-position in which it is generated. In (49b) it has moved into the [SPEC,CP] of a higher CP. The difference between (49a-b) seems to me to be narrowly theory internal at this point: the question revolves around whether a Wh-word can be interpreted in a base-generated adjunct position, or has to appear in a [SPEC,CP] at S-structure. For the present purposes, however, either of (49a-b) will do, since either one is compatible with the main argument, namely that the *which*-phrase has not been extracted from the object position but from the DL-position. Sentences (45a) and (46a) are out

because of independent constraints on the D-linking of Wh-words (Pesetsky (1986)): it is very hard to D-link *who*. Therefore (non-D-linked) *who* cannot appear in the DL-position.

The two expansions of (48a) (with and without a clitic) are not synonymous. Without the clitic, the sentence means something like "In the group of scolded people, which children fit?", while with the clitic it means "Of the mentioned children, which ones did you scold?". In other words, the expansion with the clitic has a different domain of discourse. This becomes clearer in a pair like (50a-b) (see Dobrovie-Sorin (1990)) for similar data in Romanian):

- (50) a. *posa pedhia ta maloscs*
how many children them scold
'Of the children already mentioned, how many of them did you scold?'
b. *posa pedhia maloscs*
how many children scold
'Of all the people that you scolded, how many were children?'

The contrast between (50a) and (50b) becomes especially crisp after a statement like (51), which can be followed *only* by (50b):

- (51) I scolded many people.

In other words, and as already mentioned, the DL-position is a D-linked position and extraction from it is possible only when the DL-position can be felicitously used, i.e. when it contains something that has already been mentioned in the discourse. A statement like (51), which does not restrict the conversation to children, is not sufficient to license a constituent containing *children* in the DL-position of the next sentence.

If I am right in arguing that sentences like (48) have resulted from CLLD and *not* from clitic doubling, then we would expect a language that has CLLD but does not have clitic doubling to permit sentences like (48). Such a language is Italian and there this prediction is borne out. Sentences (52a-b) show the absence in Italian of clitic doubling and the existence of CLLD respectively:

- (52) a. *(*lo) conosciamo (a) Gianni*
him we know Gianni
b. *Gianni, lo conosciamo*
Gianni, him we know

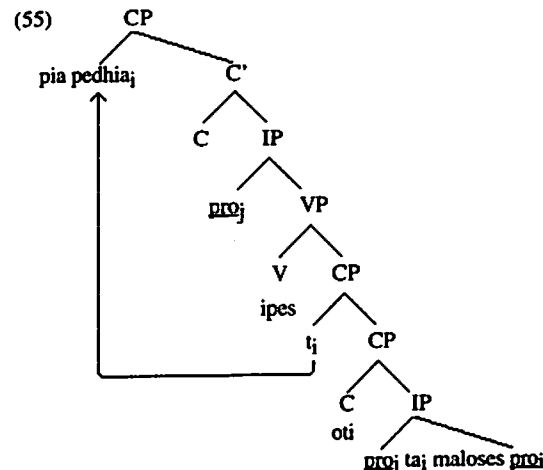
Since Italian has CLLD, it is predicted to also permit highly specific Wh-NPs in the DL-position. The acceptability of (53a) confirms exactly that:

- (53) a. *quanti/quali bambini (hai detto che) (li) hai rimproverati*
how many/which children (have said that) (them) have scolded
'How many/which children (did you say that) you have scolded?'
b. **chi (hai detto che) (lo) hai rimproverato*
who (have said that) (him) have scolded
'Who (did you say that) you have scolded?'

A sentence like (53a) can obviously not result from extraction from a doubled position, since Italian lacks this construction. Moreover, the contrast between (53a) and (53b) reflects, as mentioned, restrictions on the D-linking of Wh-words.

When the *which*-phrase is further removed from the clause that contains the clitic, it is contained in the [SPEC,CP] of the higher clause. So for example, the structure of (54) is as in (55):

- (54) *pia pedhia ipes oti ta maloscs?*
which children said/2/SG that them scolded
'Which child did you say you scolded?'



So far I have tried to argue that, independently of the reason for which extraction from a clitic doubled position is not possible, sentences like (48) are not sufficient to argue in favor of such extraction, but should be analyzed as extraction from the DL-position. There is another test that shows that sentences like (48) do not involve extraction out of the clitic doubled position. Note that, unlike real extraction (56a), a sentence like (56b) (which contains a clitic) does not license a parasitic gap:²⁰

- (56) a. *pion andhra pandreflike xoris na agapa*
which man married without loves
'Which man did she marry without loving?'
b. *pion andhra ton pandreflike (*xoris na agapa)*
clitic
which man him married without loves

But as discussed in section 2, a parasitic gap is licensed with long distance extraction:

²⁰There is also a clear contrast in WCO effects:

- (i) a. *???pio pedhi [i mitera tu] malose*
which child [the mother its] scolded
b. *pio pedhi i mitera tu to malose*
clitic
which child the mother its him scolded

However, it appears that D-linked *which*-NPs do not show WCO violations (Pesetsky (p.c.)):

- (ii) a. *??Who does his mother love?*
b. *(?)Which boy does his mother love?*

In other words, the contrast in (i) cannot uncontroversially be attributed to the lack of movement in (ib).

- (57) pion andhra ipe xoris na agapa PG [DL [oti tha ton pandrefiti]]
 which man say without loves that FUT him marry
 'Which man did she say that she would marry without loving?'

The contrast between (56a) and (56b) can easily be accounted for if there is no movement out of the doubled position in (56b). This is not so for an account in which the *which*-phrase is extracted from the doubled position.²¹

4 Summary

In this paper, I discussed Clitic Left Dislocation in Modern Greek and argued that the CLLDed constituent is not extracted from the postverbal position, but is base-generated adjoined to the minimal clause containing the coindexed clitic. I also argued that CLLD is restricted to D-linked constituents. I further suggested that the relation between the CLLDed constituent and the clause it is base-generated on is a relation of predication. More specifically, I suggested that the CLLDed constituent is the subject and the clitic (or, clitic-*pro*) the open position that makes the clause into a predicate.

Moreover, I suggested that Cinque's paradox (the fact that although the relation between the CLLDed constituent and the clitic is not one of movement, it is still subject to islands) should be attributed to constraints on movement after all, specifically, movement out of the DL-position.

Finally, I suggested that there is at least one more instance of movement out of the DL-position, namely some cases that have been analyzed as extraction of a specific Wh-NP out of a clitic doubled position.

References

- Aoun, J. (1981). *The Formal Nature of Anaphoric Relations*, Ph.D. diss., Massachusetts Institute of Technology, Cambridge.
- Barss, A. (1986). *Chains and Anaphoric Dependence*, Ph.D. diss., MIT, Cambridge.
- Borer, H. (1984). *Parametric Syntax: Case Studies in Semitic and Romance Languages*. Dordrecht: Foris.
- ed. (1986). *Syntax and Semantics* Vol. 19. New York: Academic Press.
- Chomsky, N. (1986). *Barriers*. Cambridge: MIT Press.
- ²¹Dobrovie-Sorin (1990) sets up a category of "non-syntactic quantifiers", not unlike Cinque's (1986) "non-bare quantifiers". According to her the differences between "syntactic" and "non-syntactic" quantifiers are structural as well as lexical, and crucially boil down to the former but not the latter needing to bind a variable. Both need a range of quantification. The Romanian "non-syntactic" quantifier is *care*, which she glosses as 'which' and its "non-syntactic" quantifier status is derived in D-S's paper from the fact that *care* N phrases always need to be clitic doubled:
- (i) pe care baiat (l-) ai vazut
 which boy him-have seen
 'Which boy did you see?'
- For D-S, (i) shows that *care* cannot bind a variable, and that therefore a pronominal clitic is inserted. However, on p. 362 she says: "...*care* structures can be used only if a certain set of [boys] has already been mentioned or is implicit in a given dialogue....". This means that *care* is necessarily D-linked. In the present analysis this implies that *care* N must appear in the DL-position and if this is correct, the clitic is obligatory in (i) for the same reason that it is in the case of CLLD, of which it is an instantiation. This means that the existence of sentences like (i) does not provide evidence for a category of "non-syntactic quantifiers".
- Cinque, G. (1977). "The Movement Nature of Left Dislocation," *Linguistic Inquiry* 8, 397-412.
- (1984). "Clitic Left Dislocation in Italian and the 'Move-a' parameter", ms., Universita di Venezia.
- (1986). "Bare Quantifiers, Quantified NPs and the Notion of Operator at S-structure," *Rivista di Grammatika Generativa* 11, 33-63.
- (1990). *Types of A'-Dependencies*. MIT Press.
- Collins, C. (1990). "Clitic Doubling in Modern Greek", ms., MIT.
- Dobrovie-Sorin, C. (1990). "Clitic Doubling, Wh-movement, and Quantification in Romanian", *Linguistic Inquiry* 21.3, 351-399.
- Ehlich, K. & H. van Riemsdijk eds. (1983). *Connectedness in Discourse and Text*. KUB, Tilburg.
- van Haaften, T., R. Smits & J. Vat (1983). "Left Dislocation, Connectedness and Reconstruction" in Ehlich, K. & H. van Riemsdijk eds., 43-70.
- Higgins, F. R. (1973). *The Pseudo-Cleft Construction in English*, Ph.D. diss., MIT.
- Horrocks G. and M. Stavrou (1987). "Bounding theory and Greek syntax: evidence for Wh-movement in NP", *Journal of Linguistics* 23, 79-108.
- Hurtado, A. (1984). "The Unagreement Hypothesis" in L. King and C. Maley eds.
- Jaeggli, O. (1982). *Topics in Romance Syntax*. Dordrecht: Foris.
- (1986). "Three issues in the Theory of Clitics: Case, Doubled NPs, and Extraction," in H. Borer, ed.
- Kayne, R. (1990). "Romance Clitics and PRO", ms., CUNY.
- King, L. & C. Maley, eds (1984). *Selected Papers from the XIII Linguistic Symposium on Romance Languages*. Amsterdam: John Benjamins.
- Lasnik, H. & T. Stowell (1989). "Weakest Crossover", ms., U. Conn & UCLA.
- McNulty, E. (1988). *The Syntax of Adjunct Predicates*, Ph.D. diss., U. of Connecticut.
- Pesetsky, D. (1986). "Wh-in situ: Movement and Unselective Binding" in Reuland, E. & A. ter Meulen, eds.
- (1989). "Language-Particular Processes and the Earliness Principle", ms., MIT.
- Philippaki-Warbuton, I. (1987). "The Theory of Empty Categories and the pro-drop Parameter in Modern Greek", *J. Linguistics* 23, 289-318.
- & M. Stavrou (1986). "Eleutheris anaphorikes protasis". *Studies in Modern Greek Linguistics* 7.
- Reuland, E. & A. ter Meulen (1986). *The Representation of (In)definiteness*, MIT Press.
- Rizzi, L. (1986). "Null Objects in Italian and the Theory of pro". *Linguistic Inquiry* 17.4, 501-557.
- (1990). *Relativized Minimality*. MIT Press.
- Roberge, Y. (1990). *The Syntactic Recoverability of Null Arguments*. McGill-Queen's University Press.
- Ross, J. (1967). *Constraints on Variables in Syntax*, Ph.D. diss., MIT.
- Rothstein, S. (1983). *The Syntactic Forms of Predication*, Ph.D. diss., MIT.
- Schwartz, B. & S. Vikner (1989). "All Verb Second Clauses are CPs". *Working Papers in Scandinavian Syntax* Vol. 43.
- Suner, M. (1988). "The Role of AGR(ement) in Clitic-Doubled Constructions," *Natural Language and Linguistic Theory* 6, 391-434.
- Williams, E. (1980). "Predication". *Linguistic Inquiry* 11.1, 203-238.