The Structure of Clitic Doubling in Modern Greek

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A. Clitic Doubling (Cl-d) in MG exhibits three interesting properties:

1. Cl-d requires the doubled expression to be interpreted as "old information:"

   a. o Yiorghos tin-aghapa tin Maria

2. There is an asymmetry between Cl-ded NPs versus Cl-ded QPs: Cl-ded QPs may not take antecedents internal to the clause immediately containing the doubled QP. Doubled NPs face no such restrictions. (2a,b,c and d) are representative examples:

   b. piosj ton-aghorase [\.\i ton kathe pinaka apo to xorio tu,\i]  
   c. i Tzeni toj-pulse [\.\i to vivlio].

3. Although Ns, Ps and Vs in MG can host pronominal clitics which correspond to their arguments, only the complements of Vs can be clitic doubled.

C. Noticing that NPs in the clause initial position occupied by Clitic Left Dislocated (CLDLed) NPs (see (3)) must also be interpreted as "old information," I propose the representation of Cl-d in (4): a topic, which is a copy of the Cl-ded expression, occurs in the clause initial CLLD position; the topic is the subject of a predication, the doubling clitic serves as predicate variable:

   (3) tin Maria o Yiorghos tin-aghapa

   (4) [\.\i, QPj/NPj [\.\i .... cliticj .... QPj/NPj ....]]]

In Cl-d, a PF rule deletes the topic copy. In CLLD, a PF rule deletes the doubled expression in argument position.

(4) captures that there is a common reason for the "old information" interpretation in Cl-d and CLLD constructions: the constructions have virtually identical representations. The data in (II) confirm that the relation between the argument position and the CLLDed position cannot be one of movement: this would create a contradiction for the analysis of the NP/QP asymmetries. If only doubled QPs, but not doubled NPs, were to raise to topic position, we could attribute their non-cooccurrence with clause internal antecedents as due to a failure of c-command: doubled QPs raise outside the c-command range of any clause internal antecedent. But if doubled NPs were also raised to the topic position, they should not be able to contain bound pronouns or other expressions requiring clause internal antecedents either, contrary to fact. It must be that there is not blindly movement from the Cl-ded argument position to the CLLDed topic position; a non-movement analysis is supported instead. Finally, I will demonstrate how the data in (III) support the idea that the relation between the clause-initial topic and the rest of the clause is predication.
ON THE SYNTAX OF CLITIC DOUBLING IN MODERN GREEK

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0. The Phenomenon of Clitic-Doubling.

The phenomenon of clitic-doubling (Cl-d) in Modern Greek (MG) is illustrated below where a clitic co-occurs with a nominal expression with which it agrees in gender, number, case and person (compare (1a) and (2a) with (1b) and (2b)).

(1a. idhes [\textit{NP tin kopella}]
   saw-2 the-acc.f girl
   "Did you see the girl?"

b. \textit{tin-idhes [\textit{NP tin kopella}]}
   cl.acc.f-saw-2 the-acc.f girl
   "Did you see the girl?"

(2a. idhes [\textit{NP ton Aleksandro}]
   saw-2 the-acc.m Alexander
   "Did you see Alexander?"

b. \textit{ton-idhes [\textit{NP ton Aleksandro}]
   cl.acc.m-saw-2 the-acc.m Alexander
   "Did you see Alexander?"

In this paper I first observe certain empirical data regarding the syntax of clitic-doubled Quantifier Phrases (QPs). I then propose that their unexpected behavior can be captured given the fact that clitic-doubled QPs occur in a very high position in the clause containing the doubling clitic. This proposed structure can be straightforwardly extended to account for certain distributional asymmetries which exist between doubled QPs versus doubled NPs.

1.0. Clitic-Doubled QPs.

It has been observed in the literature on Clitic Doubling (Cl-d) that quantified expressions that can be doubled take widest scope in a sentence
and escape Weak Crossover (WCO). This led to the proposal (Dobrovie-Sorin (1990)) that clitic-doubled QPs be treated syntactically like names: they remain in situ and lack an operator/variable structure. Since names basically take widest scope in a sentence, Dobrovie-Sorin’s proposal accounts for the wide scope interpretation of doubled QPs. And since WCO arises only when a variable is (ungrammatically) co-indexed with a non-commanding pronoun to its left, a configuration illustrated in (3), the proposed lack of a variable for Cl-ded QPs accounts for the absence of WCO effects in this syntactic context. The following example illustrates a typical case of WCO:

(3)  pioni aghanai i mitera tuₖ₋₁ᵢ xᵢ  
whom love.3s the mother his

*? "Whoᵢ does hisᵢ mother love?

1.0.1. Clitic-Doubled QPs and Local Operators and Pronouns.

Although Dobrovie-Sorin’s solution seems to adequately capture the behavior of Cl-ded QPs, it is not right for Cl-d in Modern Greek (MG). At first glance, Cl-ded QPs in MG do indeed behave like names: (a) they have widest scope with respect to operators (see (4a)); and (b) they display no WCO effects. For most speakers, Cl-ded QPs have unambiguous wide scope with respect to a Wh-element contained within the same clause. The relative scope between the Cl-ded QP and the Wh-element is represented schematically in (4b). Cf.:

(4a) pios to-malone to kathe pedhi  
who cl.n-scolded.3s the every child

"Who scolded every child."

b. [to kathe pedhiᵢ [piosₖ [to-malone ]]]

The absence of WCO effects with Cl-ded QPs is illustrated in (5):

(5)  [i mitera tuᵢ] toᵢ-agapai to kathe pedhiᵢ  
the mother his cl.n-loves the every child

*? "Hisᵢ mother loves every childᵢ."

The behavior of doubled QPs contrasts sharply with that of a non-
doubled QP object, which takes narrow scope in the same environment (see (6a)). The relative scope between the non-doubled QP object and the Wh-element is represented schematically in (6b). Cf.:

(6a) a. pios Malone to kathē pedhi
    who scolded.3s the every child
    "Who scolded every child?"

    b. [pios [to kathē pedhi [ Malone ]]]

Likewise, non-doubled QPs behave like they have an operator/variable structure when WCO is considered as evidenced by the fact that WCO arises when non-doubled QPs are involved:

(7)  * [i mitera-tu] agapai to kathē pedhi,
    the mother-cl.gen loves the every child
    ? "Hisj mother loves every childj."

The observation that Cl-ded QPs behave like names is valid only when the behavior of Cl-ded QPs is considered with respect to operators and pronouns within the same clause as the Cl-ded QP. Once we consider the behavior of Cl-ded QPs with respect to operators and pronouns outside the clause immediately containing the doubled QP, the picture changes: Cl-ded QPs behave just like non-doubled QPs.

1.0.2. Clitic-Doubled QPs and Long-Distance Operators and Pronouns.

A Cl-ded QP behaves like any other quantifier when we consider its relation to operators and pronouns in clauses superordinate to the doubled QP: the doubled QP takes narrow scope and it cannot bind a pronoun it does not c-command.

The sentence in (8a) illustrates this point for relative scope interpretation where we see that a clitic-doubled QP has narrow scope with respect to a wh-operator that originates in an upstairs clause. (8b) indicates the relative scope interpretations of the two quantificational elements schematically. Cf.:
(8) a. Pios ipe oti to-aghorases to kathe pegnidhi
    who said that cl-bought.2s the every toy
    "Who said that you bought every toy."

    b. \[pios_k \ [ x_k ipe oti [kathe pegnidhi_j [ to-aghorases ]]]\]

In this same context, when their relative scope interpretation is considered, non-doubled QP objects behave exactly like doubled QPs: they have narrow scope with respect to a Wh-operator contained in a superordinate clause. Cf.:

(9) a. Pios ipe oti aghorases to kathe pegnidhi
    who said that bought.2s the every toy
    "Who said that you bought every toy."

    b. \[pios_k \ [ x_k ipe oti [to kathe pegnidhi_j [ aghorases ]]]\]

In sum, Cl-ded and non-doubled QPs behave the same with respect to relative scope interpretation when we consider their interaction with a Wh-operator contained in a superordinate clause: doubled and non-doubled QPs alike take narrow scope. It is only when we consider their relative scope interpretation with respect to a Wh-operator in a local domain (the same clause), that their behaviors diverge: Cl-ded QPs take wide scope and non-doubled QPs take narrow scope.

The data in (8) indicate that, under certain circumstances, Cl-ded QPs behave like standard QPs and therefore, must have an operator/variable structure despite initial impressions.

The identical conclusion can be reached when we consider the behavior of Cl-ded QPs with respect to the binding of pronouns which do not occur in the same clause containing the Cl-ded QP: Cl-ded QPs behave just like standard QPs; they cannot bind pronouns that they do not c-command.

Consider first the case where a non-c-commanding pronoun occurs in a clause which is superordinate to the clause containing the Cl-ded QP. In this situation, it is not possible to coindex a clitic-doubled QP with a non-c-commanding pronoun to its left. This fact is illustrated in (10):
(10) *[o dhaskalos tu] ipe oti to-malosan to kathe pedhi
the teacher his said that cl.scolded-3pl the every child
"His teacher said that they scolded every child."

If Cl-ded QPs were really like names, as Dobrovie-Sorin suggests, then
the distance of the pronoun from its "antecedent" shouldn't have any effect
on reference possibilities, as the following example involving a name
illustrates. Cf.:

(11) *[o dhaskalos tu] ipe oti (ton-)malosan ton Saki
the teacher his said that (cl.acc.m-)scolded-3pl the Sakis
"His teacher said that they scolded Sakis."
A true name, Cl-ded or not, can be structurally quite far from the pronoun
with which it is coindexed and the sentence is perfectly grammatical in
contrast to the behavior of a clitic-doubled QP in the same context.

When we consider a pronoun that is not in the same clause as its
"antecedent," non-doubled QPs and doubled QPs behave exactly alike: it is
also not possible to coindex a non-doubled QP with a non-c-commanding
pronoun contained in a clause which is superordinate to the QP. Cf. (10)
and (12):

(12) *[0 dhaskalos tu] ipe oti malosan to kathe pedhi
the teacher his said that scolded-3pl the every child
* "His teacher said that they scolded every child."

The consideration of additional configurations involving the binding
of pronouns which are not in the minimal clause dominating the Cl-ded QP
yields the same result: such pronouns cannot be coindexed with a doubled
QP. Consider the following. It is a property of non-existential QPs, those
that Haik (1984) calls "inherent quantifiers," that they may not be construed
coreferentially. Haik defines "inherent quantifier" as follows (ibid. p. 189):
"An inherent quantifier is an NP that is not satisfiable by one or more
objects of the domain of discourse." An example of an inherent quantifier
in English would be something like the QP 'everyone'. An inherent
quantifier like kathe pedhi ('every child') cannot be coindexed with a
pronoun which is not in its scope. For example, it is not possible to corefer across discourse:

(13) *kathe pedhi, bike mes'to domatio. proj kathise.
    every child entered into the room. sat.down.3s
    "Every child entered the room. He sat down."

Since kathe pedhi is a quantifier, it must have scope over a pronoun in order for the pronoun to be interpreted as a bound variable, a possibility which is illustrated in the following example:

(14) kathe pedhi,j ipe oti proj idhe to video.
    every child said.3s that saw.3s the video
    "Every child said that he saw the video."

C1-ded QPs behave in just the same way. For instance, a C1-ded QP cannot be coindexed with a pronoun across discourse:

(15) *i mitera-su tin-prosvale tin kathe kopella-j. proj sadistike.
    the mother-cl.gen.2s cl.acc.f.-insulted.3p the every
girl. got.mad.3s
    "Your mother insulted every girl. She got mad."

In contrast, a C1-ded name can easily corefer across discourse:

(16) o Apostolis tin-malose tin Tzeni,j. proj sadistike.
    the Apostolis cl.acc.f.scolded Tzeni. got.mad.3s
    "Apostolis insulted Janey. She got mad."

Moreover, clitic-doubled QP's cannot be associated with a co-varying pronoun in donkey anaphora constructions; this is because the inherent quantifier does not c-command the pronoun in question. The comparable doubled and non-doubled universal QP's alike behave identically: the sentences are ungrammatical. Cf. (17) and (18):

(17) *can to-vro to kathe avgho,j, tha toj-tighaniso amesos
    if cl-find-1s the every egg, will cl-fry-1s immediately
    * "If I find every egg, I will fry it immediately."
(18) *ean vro (to) kathe avgho, tha to-tighaniso ameso
if find-1s (the) every egg, will cl-fry-1s immediately
**"If I find every egg, I will fry it immediately."
In contrast, names (Cl-ded or not) and weak quantifiers can easily corefer
to or covary with a pronoun in donkey anaphora contexts (cf. (19a. and b)).
(19)a. ean vro ena avgho, tha to-tighaniso ameso
if find-1s an egg, will cl-fry-1s immediately
"If I find an egg, I will fry it immediately."
b. ean (ton-)vro ton Yiorgho, tha ton-maloso ameso
if (cl.acc.m.)find-1s the G., will cl.acc.m-scold-1s immediately
"If I run into George, I will scold him immediately."

The behavior of Cl-ded QPs is then quite unlike the behavior of
names and existential quantifiers in donkey anaphora contexts; instead Cl-
ded QPs behave like non-doubled inherent quantifiers. The
ungrammaticality of clitic-doubled QPs in donkey anaphora contexts
suggests that the doubled QP can't possibly be referential since the doubled
element and the pronoun cannot corefer. Instead, the data support the claim
that Cl-ded QPs have the kind of operator/variable structure a comparable
non-doubled QP has.

In sum, Dobrovie-Sorin's analysis, namely, that Cl-ded QPs have the
syntax of names (they lack operator/variable structure) provides a natural
explanation for the wide scope interpretation of Cl-ded QPs in the local
contexts we considered first. To see this, consider that Cl-ded QPs, if they
lacked operator/variable structure, would not be subject to the rule of
Quantifier Raising (QR) which, in interaction with other principles of the
grammar, determines the scope of a QP. Without operator/variable
structure Cl-ded QPs would behave like names; and it is a property of names
that they are understood as having widest scope. The hypothesis that Cl-ded
QPs are like names instead of quantifiers would explain why Cl-ded QPs are
interpreted as having wide scope with respect to a Wh-operator: names are
generally understood as having widest scope.

However, we were forced to reject this hypothesis when we consider the relative scope of CI-ded QPs with respect to operators and pronouns that are not contained in the same clause as the doubled QP since it leads us to a contradiction. With respect to this second context, we can conclude that CI-ded QPs behave like other QPs and therefore, do not have the syntax of names. In the next section, I will propose an account of the behavior of CI-ded QPs.

1.1. Proposed Account of the Asymmetry.

The local/long distance asymmetry in the behavior of CI-ded QPs can be accounted for given the following structural representation of CI-d where a copy of the CI-ded expression occurs in the left peripheral position of the clause immediately containing the doubled QP:

(20) NP$_i$/QP$_j$ [$_{cp}$ ... cl$_1$]-V NP$_j$/QP$_j$ ...

A PF rule of deletion of the copy accounts for the construction being pronounced without the left peripheral copy.$^2$ $^3$ The copy is still syntactically present since, by hypothesis, the deletion is only in PF. A more concrete example of the proposed structure is given next:

(21) [topic [to kathe vivlio]$_{cp}$ to$_j$-aghora [to kathe vivlio]$_j$]

The structure as given in (20) is not quite complete as far as the syntax of (doubled) QPs are concerned; we still need a variable in such constructions when doubled QPs are involved due to the grammar's prohibition against vacuous quantification. It is standardly assumed that the rule of Quantifier Raising (QR) is responsible for the raising of QPs and thereby for the creation of an operator/variable structure when QPs occur. Nonetheless, it does not seem likely that the standard process of QR would take place in CI-ding constructions given the structure in (20). This is because nothing ensures that the doubled QP in argument position would be QRed to the clause peripheral position where it is clearly interpreted. Normally, the rule of QR raises a QP from argument position and adjoins it to VP or IP, but the wide scope interpretation of doubled QPs that we
have seen in local contexts indicates that at LF the doubled operator can occur no lower than the left peripheral position postulated in (20). In addition to this stipulation, the doubled QP and the QP copy must be made to "merge" through the rule of QR (not inconceivable given the existence of grammatical processes such as operator absorption) or otherwise, we would have one variable related to two QPs, a situation that is ruled out by the Bijection Principle which requires a one to one relation between quantifiers and variables.

Moreover, consider that a raising process as embodied in a rule like QR seems to be entirely redundant with the fact that, under the copy hypothesis in (20), there is already a QP outside of CP, and this QP is identical to the doubled QP which putatively raises outside of CP via QR. In addition, consideration of the principles of economy recommend against such a treatment: the purpose of QR is to give the QP scope over the proposition it modifies, a relation which exists for the copy QP prior to any kind of movement. Such total redundancy and stipulation in the grammar can be avoided if, instead of QR being accomplished via raising, QR is accomplished simply via (syntactic) deletion in this case; call the rule "QD" (Quantifier Deletion). QD deletes the doubled QP in argument position leaving behind a variable as required by the Bijection Principle:

\[(22) \Gamma_{OP_j} [_{CP} \ldots c]_V x_j \ldots]\]

Deletion at LF of the doubled QP in argument position would leave behind a variable which is bound by the QP in topic position. The following representation would exist after LF deletion of the doubled QP:

\[(23) [_{TOPIC} [to kathe vivlio]_j [_{CP} to\_aghorasa x_j]]\]

QR via deletion is forced presumably due to the principle of economy: it is more economical not to move than to move, since the QP in topic position already has scope over the proposition it modifies. The possibility of QR via deletion explains why there is an apparent "high-placement requirement" for QPs when the interpretation of Cl-ded QPs is involved.

Given that it is the copy in left peripheral position that is relevant for
scope interpretation (as opposed to the variable), the required wide scope interpretation of the doubled QP in local contexts is due to the fact that a copy of the doubled QP occurs in the structurally highest position in the clause; therefore, a doubled QP always takes scope over any other operators, etc. in the same clause. A doubled QP in left peripheral position will moreover correctly have narrower scope than an operator in a superordinate clause:

\[(24) \; [_{cp} \; \textit{WH} \; [_{ip} \; \ldots \; [\textit{QP} \; [_{cp} \; [_{ip} \; \ldots \; \textit{cl}_1 \; \textit{V} \; x_j \; \ldots \; ]]]]]\]

It also would not be able to bind a pronoun in a superordinate clause due to failure of c-command:

\[(25) \; * \; [_{ip} \; [_{np} \; \text{pronoun} \; \text{NP}] \; \ldots \; [\textit{QP} \; [_{cp} \; [_{ip} \; \ldots \; \textit{cl}_1 \; \textit{V} \; x_j \; \ldots \; ]]]\]

Similar considerations hold when we consider the (potential) binding of pronouns which occur in separate sentences from the doubled QP (see, for instance, sentences as in (15)). I leave this to the reader to confirm for herself.

The question still remains as to how WCO is overcome in Cl-d constructions despite the existence of a variable in argument position to the right of the non-c-commanding pronoun which is bound by the doubled QP. One idea in the literature is that WCO arises due to the fact that it violates the Bijection Principle, the principle that every variable must have an operator and every operator must have a variable. Since WCO is avoided in Cl-ding constructions, it suggests that there are two A*-elements in these constructions: one to bind the pronoun, and one to bind the variable to the right of the pronoun. The clitic suggests itself as a candidate for the role of A*-element binding the variable in argument position: clearly the clitic is not an A-element in the analysis developed here; the QP in left peripheral position binds the pronoun to the left of the variable in argument position. In this way, since there is a one to one relation between variables and operators, the Bijection Principle isn’t violated and WCO doesn’t arise. The following example illustrates the details of this proposal:
(5)' [ to kathe pedhi_j [i mitera tu_j] to_j-agapai x_j
the mother his cl.n-loves the every child

**OPERATOR VARIABLE**_{bound_pronoun} **OPERATOR**_{clitic} **VARIABLE**

2.0. Independent Motivation For the Left Peripheral Copy Position in Cl-d.

I have suggested that Cl-d constructions involve a copy of the doubled expression in left peripheral position of the clause immediately containing the Cl-ded QP or NP, and when doubled QPs are involved there is also a rule of QD involved that syntactically deletes the doubled QP in argument position, leaving behind a variable (as forced by the Bijection Principle). The QP copy in left peripheral position binds the variable in argument position. The structurally high position of the QP copy accounts for the scope and binding properties we examined earlier. Independent motivation for the existence of such a left peripheral position existing in Cl-ding constructions in MG can be found by considering properties regarding the **interpretation** of Cl-ded expressions. We will see that Cl-ded expressions share their interpretative properties with another construction in the MG grammar, namely, Clitic Left Dislocation (CLLD). The following example illustrates the construction:

(26) **tin Maria o Yiorghos tin-aghap a**
the Maria.acc the George cl.acc.f-love.3sg
"Maria, George loves her."

In this construction, there is overtly a nominal expression in the left peripheral position that we have postulated to exist (covertly) in Cl-d constructions, as well as a clitic that doubles the dislocated expression. The structure proposed for Cl-d in (20), repeated here, can relate the two constructions given that the PF deletion rule postulated earlier can freely delete either the doubled expression or the copy. Recall the proposed structure:

(20) **NP_j/QP_j [cp ... cl_j-V NP_j/QP_j ...]**

If the copy is deleted, then a Cl-d construction results, if the doubled
argument is deleted, then a CLLD construction is pronounced. The conclusion then is that the two constructions are syntactically virtually identical. The fact that we can relate two constructions in this way with minimal machinery helps motivate the proposed structure of Cl-d introduced above. We turn now to a discussion of the interpretive properties shared by the two constructions.

2.1.1 The Interpretation of Cl-d Cl-d NPs as "Old Information."

An interpretive requirement on a doubled NP is that it must have a special discourse function: it is interpreted as "old information;" i.e., essentially as a topic given by the previous discourse. This fact has long been noted in research on MG; cf., for instance, Haberland and Van Der Auwera (1990), Horrocks (1983), Joseph (1983), Kazazis and Pentheroudakis (1976), Mackridge (1985), Philippaki-Warburton (1975, 1985), Stavrou (1985), Schneider-Zioga (1990), Tzartzanos (1946).

Philippaki-Warburton (1985) points out that the effect of Cl-d is to defocus the doubled NP which cannot be understood as part of the presentational focus of the sentence. Philippaki-Warburton notes that this requirement prevents a normal intonational pattern for a sentence with a doubled NP. The unmarked intonational pattern in MG is when the sentence final constituent carries the most prominent stress, as is illustrated in (27):

(27) ο Αλέξανδρος προτιμά τιν ΡΑΝΙ
    the Alexander prefers the RANI
    "Alexander prefers RANI."

But when Cl-d of the direct object "τιν ΡΑΝΙ" occurs, main stress must fall either on the verb, or the subject, it may not fall on the doubled NP. Cf. (28a,b, and c):

(28)a.ο Αλέξανδρος τιν-ΠΡΟΤΙΜΑΙ τιν ΡΑΝΙ
     the Alexander cl.acc.f-prefer the Rani.acc
     "Alexander PREFERENCES Rani."

b.ο ΑΛΕΞΑΝΔΡΟΣ τιν-προτιμά τιν ΡΑΝΙ
     "ALEXANDER prefers Rani."
c. "o Aleksandhros tin-protimai tin RANI
"Alexander prefers RANI."
The doubled NP is not allowed to be part of the presentational focus as confirmed by the intonational patterns of sentences with cl-ded NPs.

Besides the fact that Cl-ded NPs are excluded from the presentational focus, doubled NPs must be specific in the sense of Enc (1987), as discussed in Schneider-Zioga (1990). Enc defines specificity in the following way: "[a]n NP is specific if and only if its head is definite." She extends Heim (1982) and Kamp (1981) by suggesting that "a noun which is indefinite introduces a new set into discourse, and a noun which is definite is mapped onto a set that is already in the discourse (p.13)." Enc notes that whether an NP itself is definite or not depends on properties of the determiner; e.g., some determiners are inherently marked as to definiteness (for instance, "the"). The definiteness of the determiner determines the definiteness of the NP. Determiners are lexically specified as to whether they select a + definite and ± singular head. The intuition behind her analysis is that specificity is covert partitivity. Under this view of specificity, certain QPs are also specific, and thus count as "old information."

Enc indicates that a good syntactic test of specificity is found with there-sentences, which, she claims, cannot contain specific NPs. This observation provides us with a heuristic device to establish that non-specific NPs cannot Cl-d.

The MG analogue of the there-insertion construction involves the verb exi (literally 'to have') in its existential interpretation. The following (non-exhaustive) paradigm lists NPs that can occur in this construction:

(29) exi _____ stin avli (there is _____ in the courtyard)

(ena) ghaidaro ((a) donkey)
en (one)
allo ghaidharo (another donkey)
merikus (some/a few)
kati bukalya (some bottles)
toso (so much)
tosa luludhia (so many flowers)
tetio luludhi (that kind of flower)
ap' ola (of all, i.e.: something of everything)
dhen.....tipota (not...something, i.e.: nothing)
dhen.....katholu luludhia (not.....at all (any) flowers)
pola luludhia (many flowers)
ligho kafe sto flizani (a little coffee in the cup)
arketo kafe sto flizani (enough coffee in the cup)
kamposo kafe sto flizani (quite a bit of coffee in the cup)

None of the NPs listed above can undergo Cl-d. These facts indicate that non-specific NPs cannot Cl-d. Consider now the (non-exhaustive) paradigm of NPs that cannot occur in the existential exi construction:

(30) exi ___________ stin avli (there is ______ in the garden)

*afto/ekino (this/that)
*afto to luludhi (this the flower, i.e.: this flower)
*opiadhipote luludhia (whatever flowers)
*kathe ghata (every cat)
*to kathe ghata (the every cat)
*i mia ghata (the one cat)
*ke i dhio ghates (and the two cats, i.e: both cats)
*tin Maria (the Maria)

Only NPs/QPs that fit this paradigm can Cl-d.

In addition, CPs can also Cl-d in MG. In this case they are interpreted as "factive" when they are Cl-ded; i.e., they are understood as necessarily true. This can be understood as the sentential equivalent of a specific NP. The following examples illustrate the possibilities:

(31) dhen to-fandasitke oti les psemata
    not cl.n-imagined.1s that say.2s lies
    "I never would have imagined that you tell lies!"
    (The implication is that you really do tell lies, I just wouldn't
     have imagined it if you hadn't told me.)

(32) dhen to-perimena na erthis noris
    not cl.n-expected.1s subjunctive arrive.2s early
    "I didn't expect you to arrive early."
    (The implication is that you really did arrive early, I just
didn’t expect that to happen.)

(33)  to-anarotieme pios podise ta luludhia
cl.n-wonder.1s who watered the flowers
"I wonder who watered the flowers."
(The implication is that someone really did water the flowers.)

Cl-ded NPs cannot be contrastively focussed although it seems a contrastively focussed NP could be interpreted as old information.

The following examples illustrate this point:

(34)a.o Aleksandros aghapai tin RANI, oxi ton Yiorgho
the Alexander loves the Rani, no the George
"Alexander loves Rani, not George."

b.*o Aleksandros tin-aghapai tin RANI, oxi ton Yiorgho
the Alexander loves the Rani, no the George
"Alexander loves Rani, not George."

Finally, Schneider-Zioga (ibid.) points out that Cl-ded NPs in MG cannot be modified by focus operators such as akoma (even) and mono (only) that "associate" (in the sense of Jackendoff (1972)) with focussed constituents. For example:

(35)a.o Yiorghos (mono/akoma) aghapai (mono/akoma) tin RANI
the George (only/even) loves (only/even) the Rani
"George loves only/even Rani."

b.*o Y. (mono/akoma) tin-aghapai (mono/akoma) tin RANI
the George only/even cl.acc.f-loves (only/even) the Rani

2.1.2. The Interpretation of Clitic Left Dislocated NPs as "Old Information."

In sum, Cl-d defocuses the doubled element and is possible only with discourse topics in MG. CLLD in MG has precisely these same properties. Just as with Cl-ded NPs, the CLLDed NP may not bear focal stress; i.e., it must be defocused:

(36)a.tin Maria o YIORGHOS tin-aghapa
the Maria.acc the GEORGE cl.acc.f-love.3sg
"Maria, GEORGE loves her."
b. tin Maria o Yiorghos tin-AGHAPAI
   the Maria.acc the George cl.acc.f-LOVE.3sg
   "Maria, George LOVES her."

c. *tin MARIA o Yiorghos tin-aghapai
   the MARIA.acc the George cl.acc.f-love.3sg
   "MARIA, George loves her."

As discussed in Iatridou (1991), CLLDed NPs are interpreted as old information. Iatridou points out, for instance, that in the following kind of example, the CLLDed NP is understood as having been previously mentioned in the discourse as indicated by the fact that the CLLD can answer (37a) but not (37b) (= Iatridou's (9a), (7a), and (7b) respectively):

(37)a. Who saw Mary?
   b. Who did Kostas see?

(38) tin Maria o Kostas tin-idhe
    the Maria.acc the Kostas.nom cl.acc.f-saw.3s

We see then that, as with clitic-doubling structures, CLLD constructions involve "old information." Moreover, as with Cl-ded NPs, the CLLDed NP must be specific, e.g.:

(39)a. *arketa provlimata dhen-ta-exo
    enough problems not-cl.acc.n(pl)-have
   b. arketa provlimata dhen-exo
    enough problems not-have.1s

And CPs can also CLLD, in which case they are interpreted as factive. This property is also parallel to Cl-d. The following example illustrates the CLLD of a CP:

(40) oti les psemata dhen to-fandastika
    that say.2s lies not cl.acc.n-imagined.1s
    "That you lie, I would not have imagined it."

Like Cl-ded NPs, the CLLDed NP may not be contrastively focussed:

(41)a. *tin RANI. o Aleksandros tin-aghapai, oxi ton Yiorgho
the Rani.acc the Alexander cl.acc.f-love.3s, not the George.acc
b.tin RANI, o Aleksandros aghapai, oxi ton Yiorgho
the Rani.acc the Alexander love.3s, not the George.acc
"(It's) Rani, Alexander loves, not George."
Nor may CLLDed NPs be associated with focus operators; again, this is a
property shared by Cl-d constructions:

(42) *(akoma/mono) tin RANI (akoma/mono) tin-aghapo
    (even/only) the Rani (even/only) cl.acc.f-love.1s

2.2. The Link between Cl-d and CLLD Constructions.

The striking similarities in interpretation and constraints on
interpretation shared by the two constructions support the idea that the two
constructions are related but they don’t shed any light on how exactly they
are related. To clarify the issue under consideration, consider for a moment
an analogous situation: the question of the relation between wh-elements
that have moved in the syntax versus those that remain in-situ (due to the
fact that there are two wh-elements in the clause and the language respects
the doubly-filled comp filter, for example). Since both kinds of wh-elements
(moved and in-situ) are interpreted in the same way: namely, as having
scope over a sentence; it is standardly assumed that wh-elements in-situ
move at LF to the same position they would have moved to if they had
moved in the overt syntax. That is, since both moved and in-situ wh-elements
are interpreted as taking wide scope over the sentence, both kinds of
elements are assumed to actually occur in the understood position by L; it
is, of course, also logically possible that a non-movement relation exists
between the two constructions under a copy analysis of wh-movement, for
example.

When we consider the interpretation of Cl-ded NPs as specific, and
the kind of syntax that is currently proposed in the literature to account for
specificity effects, it would be quite natural to treat cl-ded NPs as raising to
the CLLD position at LF (as opposed to the copy analysis proposed here).
In fact, the raising analysis is the proposal made by Pinar (1992) with
respect to Spanish on grounds of the semantic relatedness between the two constructions. She suggests that C1-ded NPs must raise to the CLLDed position, because that is the position reserved for specific NPs in Spanish. Pinar follows Diesing (1990) in assuming that the tripartite quantificational structure of Kamp (1981) and Heim (1982), which consists of an operator, restrictive clause, and a nuclear scope, is syntactically realized. The restrictive clause (=IP) is the domain of presuppositional interpretation and the nuclear scope (=VP) is reserved for new information. According to Diesing then, +specific NPs must be mapped to a position outside of VP in order to be in the quantificational domain of the restrictive clause so that they can be interpreted as specific.⁹

I've already pointed out reasons against exporting Pinar's movement proposal to MG because of the conceptual problems of stipulation and redundancy it would raise for the interpretation of doubled quantifiers as already discussed in the earlier section. But there is independent evidence against a movement analysis based on the fact that there is a distributional asymmetry between C1-ded QPs versus NPs that cannot be captured under a movement analysis: only a copy analysis is empirically adequate with respect to an account of this asymmetry. I turn now to a discussion of asymmetries in the distribution of doubled QPs versus NPs.

2.3. Doubled QP/NP Asymmetries.
2.3.1 Bound Pronouns.

A pronoun contained within a non-doubled NP or QP can function as a bound pronoun. E.g.:

(43)a. πίωντο τον πίντον του

who sold the book his

"Who sold his book?"

b. Πίωντο τον κάθε πίντον κατοικία του

who bought the every painting from the village his

"Who bought every painting of his village?"

The same is true of a pronoun contained within a clitic-doubled NP: it can
function as a bound variable:

(44) Pios\textsubscript{j} to-pulise [\textsubscript{np} to vivlio tu\textsubscript{j}]
    who cl.acc.n-sold the book his
"Who sold his book?"

But, although it is perfectly grammatical to double a QP (see (45)), a
pronoun contained within a clitic-doubled QP may not contain a bound
pronoun (see (46)). To illustrate:

(45) i Tzeni to\textsubscript{j}-malose [to kathe pedhi]\textsubscript{j}
    the Janey cl.acc.n-scolded the every child
"Janey scolded every child."

(46) pios\textsubscript{j} ton-aghorse [\textsubscript{qp} ton kathe pinaka apo ton xorio tu\textsubscript{k}]/\textsubscript{j}
    who cl.acc.m-bought the every painting from the village-cl.gen.m
"Who bought every painting from his village?"

It is not possible to account for this asymmetry under a
movement analysis where the doubled NP/QP blindly moves from argument
to CLLDed position. To see this, consider the following. Since c-command
by the relevant operator is a necessary requirement for a pronoun to receive
a bound interpretation, raising a doubled QP or NP out of the c-command
range of the subject operator precludes a bound pronoun interpretation
for a pronoun contained within the raised doubled expressions; this means it
precludes bound pronouns for both Qps and NPs alike. If this were the case,
there would be no asymmetry, instead their distributions would be the
same.\textsuperscript{10} We see then that a movement analysis of the relation between
the doubled argument position and the CLLDed position cannot capture the
asymmetric distribution of bound pronouns with QPs versus NPs.

In contrast, a copy and deletion account, as proposed in (20), can
straightforwardly capture the asymmetry in the following way: NPs and QPs
alike have a copy in the CLLDed position as illustrated below:

(47)a.[[\textsubscript{qp} O..pro\textsubscript{k} \textsubscript{l}] \ldots \text{WH/\textsubscript{QP} \ldots cl}\textsubscript{j}-V \textsubscript{[\textsuperscript{qp} O..pro\textsubscript{k} \textsubscript{l}] \ldots}]

b.([[\textsubscript{np} N..pro\textsubscript{k} \textsubscript{l}] \ldots \text{WH/\textsubscript{QP} \ldots cl}\textsubscript{j}-V \textsubscript{[\textsuperscript{np} N..pro\textsubscript{k} \textsubscript{l}] \ldots}]

After the rule of QD has applied at LF, the doubled QP in argument
position in (47a) will be syntactically absent, leaving only a variable behind. Since no such rule applies to NPs, the doubled NP in argument position will remain. The following representations illustrate the LF configurations for doubled QPs and NPs respectively:

\[(48)a. [[_{qp} Q..pro_k ]]_j [..WH/QP_k ...cl_j-V \ x_j ...] \]
\[b. [[_{np} N..pro_k ]]_j [..WH/QP_k ...cl_j-V \ [_{sp} N..pro_k ]_j ...] \]

In (48a), where a doubled QP occurs, there is no pronoun in the scope of the operator due to the rule of QD and, therefore, it is not possible for the pronoun to be bound due to failure of c-command by the operator. In contrast, in (48b), where a doubled NP occurs, there is a pronoun in the scope of the operator since no rule like QD applies and, therefore, doubled NPs can contain bound pronouns provided that it is not necessary for a bound pronoun interpretation for the pronoun in the copy to also be bound by the operator (I will assume this is the case).

The above account suggests that there is nothing, in principle, ungrammatical about bound pronouns contained within clitic-doubled QPs. It makes the prediction that if the operator and the bound pronoun contained within the doubled QP are in separate clauses, the bound pronoun should be allowed; provided, of course, that the operator is in the superordinate clause so it still c-commands the pronoun. This prediction is accurate as the following data indicates:

\[(49) \ ?Pios \ ipe oti i Maria ton-misouse ton kathe erasti apo ton parelthon-tu \]
who said that the Maria cl.acc.m-hated the every lover from the past- cl.gen.m

"Who said that Maria hated every lover from his past?"

The proposed structure for Cl-d gives in the following configuration for (49) where the doubled QP is adjoined to the embedded CP:
(50) Piosj ipe oti [\textsubscript{cp} [ton kathe erasti apo ton parelthon-tu\textsubscript{j}]]
who said that the every lover from the past-cl.gen.m
[\textsubscript{cp} i Maria ton-misuse x\textsubscript{k}]]
the Maria cl.acc.m-hated
In this configuration the bound pronoun contained within the copy doubled
QP is still within the c-command range of the relevant operator since the
operator and doubled QP copy are in separate clauses; therefore, a bound
pronoun reading is correctly available.

2.3.2. An Asymmetry with Focussed Expressions.

A similar QP/NP asymmetry as exists for bound pronouns exists for
focussed XPs such as possessors and agents contained within Cl-ded
expressions: Cl-ded NPs but not doubled QPs can contained focussed XPs.

Doubled and non-doubled QPs and NPs alike can contain non-
focussed XPs. Non-focussed XPs contained within nominal expressions occur
in post nominal positions as opposed to focussed XPs which occur in
immediate prenominal position (cf. Horrocks and Stavrou (1987)) (I follow
standard practice and indicate focus interpretation via capitalization.) Cf.:

(51)a.to vivlio tu Chomsky (non-focussed)
the book the.gen Chomsky
"the book by Chomsky"

b.tu CHOMSKY to vivlio (focussed)
the.gen Chomsky the book
"the book by CHOMSKY"

(52)a.kamia paramia apo to Muzaki (non-focussed)
no saying from the Muzaki (a town)
"no saying from Muzaki"

b.apo to MUZAKI kamia paramia (focussed)
from the Muzaki no saying
"no saying from MUZAKI"

The examples in (53) illustrate the asymmetry between doubled NPs versus
QPs respectively. (53a) indicates that it is perfectly grammatical for a clitic-
doubled NP to contain a focussed NP, and (53b) indicates that this is ungrammatical when a doubled OP is involved. Cf.:

(53)a. toj-dhiavaza [tu CHOMSKY [to vivlio]]
   cl.acc.n-read.1s by CHOMSKY the book
   "I read the book by CHOMSKY."

b. toj-dhiavaza [tu CHOMSKY [to kathē vivlio]]
   cl.acc.n-read.1s by CHOMSKY the every book
   "I read every book by CHOMSKY."

In contrast, for non-doubled expressions, it is perfectly grammatical for either a non-doubled OP or a non-doubled NP to contain a focussed XP. Cf.:

(54)a. dhiavaza [tu CHOMSKY [to vivlio]]
   read.1s by CHOMSKY the book
   "I read the book by CHOMSKY."

b. dhiavaza [tu CHOMSKY [to kathē vivlio]]
   read.1s by CHOMSKY the every book
   "I read every book by CHOMSKY."

Again, this asymmetry cannot be captured under a movement analysis.

To see how this works, suppose that when there is a focus interpretation there is a focus operator in the clause that binds the focussed XP. This is illustrated in the following example:\[11\]

\[(55) \ [ \text{OP}_f (\text{focus operator}) \ [ \ldots \ [\text{XP}_f \ [ \text{N e.c}_f ]] \ldots ] \ldots ]\]

The natural location for the focus operator would be in the spec of CP since WH and focus are in complementary distribution. Following the standard assumption that the WH-operator is in spec of CP, the focus operator must then occur in this same position. The following example illustrates the location of the focus operator:

\[(56) \ [\text{CP} \text{OP}_f (\text{focus operator}) \ [\text{IP} \ldots \text{x}_f \ldots ]\] \]

Consider now what the representation would be if Cl-ded QPs and NPs respectively would have moved to the CLLDed position:
(57) **DOUBLED QP**
[[XP\_i [QP\_j]] [...Op\_f (focus operator) ... cl\_j-V x\_j ...]]

(58) **DOUBLED NP**
[[XP\_i [NP\_j]] [...Op\_f (focus operator) ... cl\_j-V e.c\_j ...]]

If this were the case, neither doubled QPs nor doubled NPs could contain focussed constituents because they would both equally be outside the scope of the focus operator. Thus, contrary to fact, we would expect no asymmetric behavior between the two. Since there is indeed an asymmetric distribution of doubled QPs versus NPs in this context, it militates against a movement analysis of CI-d constructions.

A copy and deletion structure as proposed in (20) makes the correct predictions. When doubled QPs or NPs are involved, there is a copy in the CLLDED position as illustrated here:

(59) **DOUBLED QP**
[[XP\_i [QP\_j]] [...Op\_f (focus operator) ... cl\_j-V [XP\_i [QP\_j]] ...]]

(60) **DOUBLED NP**
[[XP\_i [NP\_j]] [...Op\_f (focus operator) ... cl\_j-V [XP\_i [NP\_j]] ...]]

After the application of the rule of QD in LF, the following structure would exist for (59):

(59') **DOUBLED QP**
[[XP\_i [QP\_j]] [...Op\_f (focus operator) ... cl\_j-V x\_j ...]]

Due to QD, a doubled QP copy exists only outside the scope of the focus operator in spec of CP at LF. Therefore, binding of a focussed XP by the focus operator in spec of CP should be impossible due to failure of c-command of the focussed XP by the focus operator. Doubled NPs, on the other hand, remain within the scope of the focus operator as shown in (60) above, QD is irrelevant here.

Under the copy analysis, when CI-ding is involved, focus within nominal expressions should be possible only in cases involving CI-ded NPs. This is due to the fact that only in this case is c-command of the focussed XP by the focus operator satisfied and, therefore, binding of the focussed
constituent is possible.

When non-doubled expressions are involved there are two structural possibilities, both of which correctly predict binding of a focussed expression by the focus operator. The first structure is straightforward: there is a non-doubled NP which contains a focussed XP that is bound by the focus operator in essentially the same way described previously with respect to doubled NPs. The focus operator c-commands and therefore, can bind the focussed XP. The following configuration illustrates this possibility:

(61) \[ \text{[cP} \text{ Op}_f (\text{focus operator}) \text{[ \ldots [XP} \text{[ NP]} \text{\ldots}\text{]} \text{]} \]

The second structure is equally straightforward: a non-doubled QP which contains a focussed XP is bound by the focus operator. The rule of QR can raise the QP either to VP or IP under the standard assumptions about QR. In either case, a focussed XP contained within the raised (non-doubled) QP is c-commanded and bound by the focus operator which is located higher than the QP in both cases; namely, in the spec of CP. The following configurations illustrate these two possibilities for non-doubled QPs:

(62)a. \[ \text{[cP} \text{ Op}_f (\text{focus operator}) \text{[ \ldots [vp} \text{[ XP}_f \text{[ QP}_j\text{][vp} \text{V} \text{ x}_j \text{\ldots}\text{]]]} \]

b. \[ \text{[cP} \text{ Op}_f (\text{focus operator}) \text{[ip} \text{[ XP}_f \text{[ QP}_j\text{][ip} \text{\ldots [vp} \text{V} \text{ x}_j \text{\ldots}\text{]]]} \]

In sum, asymmetries in the behavior of doubled QPs versus NPs lead us to the conclusion that Cl-ded expressions do not undergo movement from argument to CLLDed position. Moreover, we have established that at LF a doubled QP is to a position that is quite high structurally: the CLLDed position that is peripheral to the clause containing the clitic. Evidence for this came from the behavior of Cl-ded QPs which could not contain neither bound pronouns bound by an operator in the local comp nor focussed XPs bound by a focus operator in comp. It is possible for the doubled expression to be quite high structurally yet not undergo movement due to the copy and deletion analysis of Cl-d.

3.0. Concluding Remarks.

I proposed the following representation of Cl-d where a nominal
expression, which occupies the left-peripheral CLLD position, is a copy of
the doubled NP/QP:

(63) \[ \text{topic NP}_j \ [\text{clitic} \ldots \ldots \text{NP} \ldots \ldots] \]

By postulating the existence of a copy in Cl-d constructions, which
occupies the same position that CLLDed NPs occupy, we can capture the
fact that the interpretation of the doubled expression in both constructions
is that of "old information." A rule of PF deletion of the copy explains why
the copy is not pronounced in Cl-d constructions. The following example
illustrates how this works for Cl-d:

(64)a. [\[\text{ton Yiorgho} \] [\text{Cl-acc.m-sawl} \text{is the George}]] SYNTAX
b. [\[\text{Cl-acc.m-sawl} \text{is the George}]] PF

The same PF rule is operative to produce CLLD as well, but in this case, the
doubled argument is not pronounced. Cf.:

(65)a. [\[\text{ton Yiorgho} \] [\text{Cl-acc.m-sawl} \text{is the George}]] SYNTAX
b. [\[\text{Cl-acc.m-sawl} \text{is the George}]] PF

Since under the theory developed here there is not a movement
relation between the doubled argument and the CLLDed position, but
instead simply a copy relation, the movement/non-movement contrast
between doubled QPs and NPs can be accounted for. Since Cl-ded NPs
behave like they are in argument position nothing further need be said
about doubled NPs since, under the theory proposed here, doubled NPs are
in argument position. On the other hand, doubled QPs appear to undergo
raising since they are not in the scope of operators which occur in the same
CP that, in the overt syntax, contains the clitic and the QP it doubles. I
noted earlier that there is a rule of OD, deleting the doubled QP in
argument position; this rule is responsible for the illusion that doubled QPs
undergo raising to a very high position.
NOTES

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1. The clitic and the definite article in MG are phonologically identical.

2. Alternately, a PF deletion rule can delete the doubled expression in argument position in which case Clitic Left Dislocation results. I discuss this in some detail in a later section.

3. In Schneider-Zioga (1993) I discuss in depth the relation between the copy and the clitic and the expression it doubles. I argue that a predication relation exists such that the copy serves as the subject of the predicate for which the clitic and doubled expression together serve as a syntactic predicate variable allowing the clause containing them to function as a predicate. My proposal is similar in spirit to Iatridou's (1991) analysis of CLLD in MG.

4. I will use the term "NP" to refer ambiguously to NP or QP where no confusion arises.

5. For a discussion and definition of the concept "presentational focus" see Rochemont (1986).

6. Exi can only be interpreted as existential when it takes a locative PP as a complement; for instance:
   (i) exi ena ghaidaro sto kipo
       have a donkey in the garden
       "There is a donkey in the garden."

7. In this way MG differs from other languages with Cl-d which allow, e.g., contrastively focussed NPs as well as topics to Cl-d. Spanish dialects that allow Cl-ding seem to allow this possibility.

8. It is true that CLLD and Cl-d both are interpreted as old information, but what can clitic-double is in many languages a subset of what can CLLD. See Iatridou (1991) and Schneider-Zioga (1993) for discussion.

9. This must happen at least by LF: whether this happens at s-structure or by LF is language specific.

10. In the literature there are two different proposals as to the level the c-command requirement on bound pronouns holds at: s-structure or LF. Notice that the Cl-d facts indicate that the c-command requirement is not
imposed at s-structure because if it were, there would be no asymmetry between bound pronouns in doubled QPs versus doubled NPs; they should both equally be licensed since they are both c-commanded by the wh-phrase at s-structure. But, if the c-command requirement holds at LF, it is possible to distinguish between the two constructions given that the QP but not the NP is outside the scope of the operator in question.

11. Alternately, there is a raising operation of the focussed XP.

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