

# ***Clinic Doubling in Modern Greek: a Head-Complement Relation\****

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## **Abstract**

The hypothesis presented in this paper, namely that in clitic doubling constructions the clitic selects for a DP-complement in Syntax, is motivated by the need to explain the thematic problem raised in such constructions: Two elements, the clitic and its double, compete for the same theta-role. It will be argued that, in languages with an overt case affix on nouns, the clitic and its double may start out in a head-complement relation. The clitic may also be coreferential with a phrase in an adjunct position. In this case, though, the relation between the clitic and the double is one of coreference, established outside the module of Syntax.

## **1 Introduction**

This paper deals with the well-known problem of clitic doubling. The verb seems to assign a single theta-role to two elements, the pronominal clitic and its double phrase. For example:

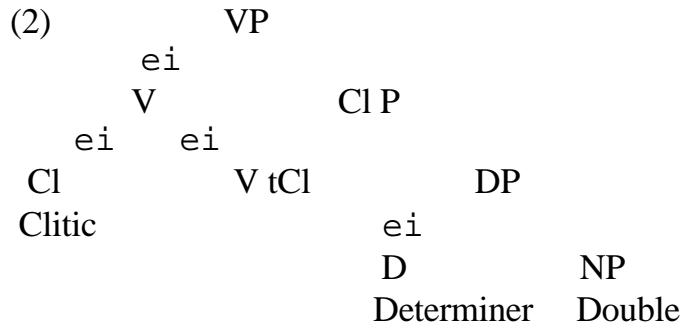
- (1) **Ton**            idha      **to**       **Jani**  
cl-3sg-m-acc saw-I    the      Jani-acc  
“I saw Jani”

The verb *idha* “saw” must assign an internal theta-role. Both the clitic and the DP-double of the clitic appear as potential internal arguments of the verb.

If the clitic is the highest functional head that is merged in the extended projection of the Noun-double, then the clitic and its double can be jointly assigned a single theta-role (i.e. the internal-role of the verb). The clitic then incorporates to the verb:

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The hypothesis makes the following predictions: Firstly, clitics and full pronouns are expected to behave in a similar way. This is borne out in Greek, where both elements can either replace a DP or appear together with it. The crucial difference is that clitics must incorporate to the verb (due to their weak nature), while strong pronouns remain in situ and appear adjacent to a coreferential DP.

Secondly, the hypothesis predicts that both clitics and strong pronouns form a constituent with their double. This is borne out in Greek: an adverbial cannot intervene between the pronoun and the DP. Of course the same argument cannot apply to clitics, since they never surface next to their coreferential DP. Evidence that the clitic and the DP form a constituent is derived from structures where clitic doubling is obligatory. In these cases, the clitic and its double may jointly be replaced by a pronominal form. The most plausible explanation is that the clitic starts out in the verbal complement position and forms a constituent with the DP-double.

Thirdly, it is predicted that the clitic and the double will share identical features (since the functional heads that are merged in the extended nominal projection cannot contain features that clash with those of the lexical head – Grimshaw 1991). This is true: the clitic and its double carry the same features for case, number, gender and person. Therefore the two elements are combined into a well formed extended projection.

Lastly, a fourth prediction is made: the clitic may start out from the verbal complement position in languages with morphological case. If case is a functional head, in the extended nominal projection, the CASE-head is filled in the presence of a case affix on the Noun (Neeleman & Weerman 1999) or else it must be governed at PF, due to the ECP (Aoun et al., 1987, Rizzi, 1990, Neeleman & Weerman, 1999). If the clitic is the highest head in the extended nominal projection, it prevents the verb from governing the case shell of the DP. In addition, the clitic is not a proper governor, due to its nominal character (Neeleman & Weerman, 1999).

This is borne out, since we can extract from the DP-double of a clitic in Greek but we cannot extract from the PP-double of a clitic in Spanish. The extraction facts also support the idea that the DP-double of a clitic is merged as the complement rather than the specifier of the clitic-head.

## 2 Clitics above the VP

Sportiche (1992, published in 1998) argues that clitics are functional heads that head their own projection. They are generated in a position higher than VP, so they never appear in the verbal complement position. A DP-double ( $XP^*$ ) is the complement of the verb. This  $XP^*$  can be either overt or null and needs to be licensed through spec-head agreement by moving, overtly or covertly, to the specifier of the projection headed by the clitic.

Sportiche actually solves the thematic problem of clitic doubling constructions, since according to his proposal, the clitic is never assigned an internal-role from the verb. An immediate problem is that the clitic and its double need to be related. This is realized through spec-head agreement. So, in clitic doubling constructions, we would expect the double to immediately precede the clitic-head. This is not actually the case. For example, in Greek, whenever the DP-double of a clitic appears in a position leftwards to the clitic, the two are not always adjacent:

- (3) a. *Tu Jani den tu exo milisi*  
the Jani neg cl-3sg-m-gen have-1sg talked  
“To Jani, I haven’t talked”
- b. *Tu Jani polles forces tu exo milisi*  
the Jani-gen many times cl-3sg-m-gen have-1sg talked  
“To Jani, I have talked”

Sportiche is forced to propose the Doubly Filled Voice Filter which guarantees that clitic-heads (on a par with other functional heads like certain Cs) cannot be simultaneously filled as their specifier, if they encode a property, which is realized overtly on this specifier.

- (4) \*[<sub>HP</sub>  $XP$  [  $H \dots ]$ ]  
where  $H$  is a functional head and both  $XP$  and  $H$  overtly encode the same property  $P$  (specificity in the case of clitic doubling).  
(Sportiche 1992:273)

However, the parallel between the Doubly Filled Voice Filter and the Doubly Filled Comp Filter is not strengthened by the fact that the latter is occasionally violated:

- (5) Dutch: Ik vraag me af *wat of* Juan gezien heeft  
           I wonder refl part what if John seen has
- Czech: Chtel bych vedet *co ze* Marie cetta  
           Would-I like to-know what that Mary read
- (Ackema & Neeleman, 1998: 471 and 475)

In the above examples, a wh-phrase is adjacent to a complementizer head (*wat* “what” is the wh-phrase and *of* “if” the C-head in (a) and *co* “what” is the wh-phrase and *ze* “that” the C-head in (b)). This indicates that both the head C and its specifier are filled by elements encoding the same property.

The hypothesis that the clitic is base-generated as a functional head in the projection extended above the verb makes certain predictions concerning the typology of languages: It allows both the clitic and its double to be overt, a phenomenon attested in clitic doubling constructions. It also allows the clitic to be overt while its double is null (cliticization without doubling). Thirdly, it allows the clitic to be null while its double is overt. Sportiche argues that scrambling constructions may be analyzed as the manifestation of this option. Lastly, the theory allows both the clitic and its double to be phonologically null. This could be a configuration where both the clitic and the complement of the verb are structurally represented but phonologically empty.

We could sum up Sportiche’s predictions in the following table:

(6) i. Clitic Doubling	$CL^0$ overt	$XP^*$ overt
ii. Cliticization without doubling	$CL^0$ overt	$XP^*$ null
iii. Scrambling constructions	$CL^0$ null	$XP^*$ overt
iv. ???	$CL^0$ null	$XP^*$ null

It can be argued that the latter is attested in languages like Italian, where it is possible for the clitic and the object-DP to be phonologically null. According to Rizzi (1986) a pro is merged in the object position.

So, in clitic constructions without doubling, a pro is required due to conditions on theta-role assignment. The clitic is merged outside VP and therefore it is not assigned the internal-role of the verb. Some other element must be merged in the verbal complement position. Sportiche assumes that this element is pro.

However, this hypothesis cannot account for a language that in general rules out a pro from the object position. More precisely, Greek lacks any independent evidence for the presence of a pro as the complement of the verb. Although, the language allows for a pro to appear in the subject position, the same is not true for the object position. As we will see, Greek behaves like English, in that an understood object is not active in Syntax.

Firstly, if we look at cases of VP ellipsis, it is obvious that the DO of a transitive verb cannot be omitted:

- (7) \*O Janis espase tin porta kai i Maria eftiakse ...  
          the Jani broke-3sg the door-acc and the Maria fixed-3sg ...  
          “Janis broke the door and Mary fixed ...”

This seems to indicate that the DO of a transitive verb is always phonologically realized, if interpretively present<sup>1</sup>.

Moreover, an empty object in Greek does not act as a controller, it does not qualify as the antecedent of a reflexive, nor is it ever modified by a secondary predicate. These are tests put forth by Rizzi (1986) in order to argue that Italian allows for pro-objects. Greek, on the other hand, behaves in a different way<sup>2</sup>.

<sup>1</sup> An exception to this generalisation would be verbs like *diavazo* “read”, where the internal theta-role of the verb can be saturated in the lexicon. In such cases, the internal theta-role is semantically present, but syntactically absent. Therefore, the configuration lacks a syntactically realised object.

<sup>2</sup> It is worth pointing out that if it is true that Greek lacks phonologically empty objects, then an explanation can be provided for the fact that a controlled object is always phonologically expressed, while a controlled subject can be omitted. More precisely, Philippaki & Catsimali (1999) present constructions where the object of the main clause is coreferential with either the subject or the object of the embedded clause. If it is the object of the embedded clause that is controlled by an argument in the main clause, it needs to be phonologically realised:

- (i) a. [[Vlepo to Jani] [na ton sproxnun]]  
 see-1sg the Jani subj cl-3sg-m-acc push-3pl  
 “I see Jani being pushed”
- b. \*[[Vlepo to Jani] [na --- sproxnun]]  
 see-1sg the Jani subj --- push-3pl

Firstly, Italian allows for a phonologically null DO to act as the controller of a subject that is generated in an embedded clause:

- (8) a. Questo conduce ---- a [PRO concludere quanto segue].  
       “\*This leads ---- to [PRO conclude what follows]”
- b. Questo conduce la gente a [PRO concludere quanto segue].  
       “This leads the people to [PRO conclude what follows]”  
       (Rizzi 1986:503)

In Greek, on the other hand, a phonologically null DO is not a potential controller for the embedded subject:

- (9) a. \*Afto kani ... na katalavun ti akolouthi  
       this makes/leads ... SUBJ understand-3pl what follows  
       “This makes/leads to understand what follows”
- b. Afto kani *tus anthropus* na katalavun ti akolouthi  
       this makes/leads the-people-acc SUBJ understand-3pl what follows  
       “This makes/leads the people to understand what follows”

- (ii) a. [[Idha to Jani] [na tu dhinun ta lefta  
       saw-1sg the Jani subj cl-3sg-m-gen give-3pl the money-acc  
       sto heri]]  
       in-the hand-acc  
       “I saw Jani being handed the money”

- b. [[\*Idha to Jani] [na ... dinun ta lefta sto heri]]  
       saw-1sg the Jani subj ... give-3pl the money in-the hand-acc

Coreference obtains between the main clause object *to Jani* “Jani” and the embedded clause object clitic pronouns *ton-acc* “him” and *tu-gen* “to him”.

However, if the subject of the embedded clause is controlled by an argument of the main clause, it can be phonologically null:

- (iii) [[Vlepo to Jani] [... na kolimbai]]  
       see-1sg the Jani ... subj swim-3sg  
       “I see Jani swimming”

Coreference obtains between the main clause object *to Jani* “Jani” and the embedded clause subject.

- c. Afto *tus* kani na katalavun ti akolouthi  
 this cl-3pl-acc makes/leads SUBJ understand-3pl what follows  
 “This leads them to understand what follows”

Also, in Italian, a phonologically empty object is a potential antecedent for a reflexive:

- (10) La buona musica riconcilia ---- con se stessi.  
 “Good music reconciles ---- with oneself”  
 (Rizzi 1986:504)

In Greek, on the other hand, only a phonologically realized object can bind the reflexive:

- (11) a. I kali musiki *se* simfilioni me ton eafto *su*  
 the good music cl-2sg-acc reconciles with the self cl-2sg-gen  
 “Good music reconciles you with yourself”
- b. I kali musiki simfilioni *tus anthropus* me ton eafto *tus*  
 the good music reconciles the people-acc with the self cl-3pl-m-gen  
 “Good music reconciles people with themselves”
- c. \*I kali musiki simfilioni --- me ton eafto tu  
 the good music reconciles --- with the self cl-3sg-m-gen  
 “Good music reconciles --- with oneself”

In addition, a phonologically null object can be the subject of a secondary predicate in Italian:

- (12) a. Di solito, quel famoso pittore ritrae ... vestiti di bianco  
 “In general, that famous painter portrays ... dressed ([+pl]) in white”
- b. Questa musica rende .... alegri]  
 “This music renders .... happy ([+pl])  
 (Rizzi 1986:505-507)

The situation is different in Greek. The object, which is modified by the secondary predicate must be phonologically realized:

- (13) a. Genikos, ekinos o gnostos zografos zografizi *anthropus*  
          in general that-3sg-m the famous painter paints people-acc  
          dimenus sta mavra  
          dressed-pl-m-acc in-the black-acc  
          “In general, that famous painter paints people dressed in black”
- b. \*Genikos, ekinos o gnostos zografos zografizi ... dimenus  
          in general that-3sg-m the famous painter paints ... dressed-pl-m-acc  
          sta mavra  
          in-the-black-acc  
          “In general, that famous painter paints ... dressed in black”
- c. Afti i musiki kani *tus anthropus eftixismenus*  
          this the music makes the people-acc happy-pl-m-acc  
          “This music renders/makes people happy”
- d. \*Afti i musiki kani ... *eftixismenus*  
          this the music makes ... happy-pl-m-acc  
          “This music renders/makes people happy”

Both in Greek and Italian, the agreement specification on the adjective indicates that it modifies the object of the verb, which is either phonologically realized or phonologically null.

In this section, we saw two arguments against Sportiche’s analysis of clitics. Firstly, the idea that the clitic is never assigned the internal-role because it is generated above VP, raises a problem. That is, the clitic has to be related to its double at LF rather than overt Syntax. Also, in constructions without doubling, Sportiche is forced to assume the presence of pro in the object position. This pro is assigned the internal role of the verb. However, there is evidence from Greek showing that a pro is ruled out from the object position. An alternative analysis is required to account for the thematic problem.

### 3 Clitics in the verbal complement position

In this section it is argued that the clitic starts out from the verbal complement position. In this case, both the clitic and its double are assigned the internal role of the verb. There are a priori two possibilities: either the DP-double of the clitic is the specifier of the clitic-head

or it is its complement. As we will see, the former is put forth in Uriagereka (1995). Eventually it will be argued that the clitic actually takes the DP-double as its complement.

Uriagereka (1995) argues that the clitic is a functional head generated within the object DP. In particular, he proposes that weak clitics are Determiners that select for a pro. The DP-double is merged in the specifier position of the clitic projection. (Then the clitic moves to its surface position):

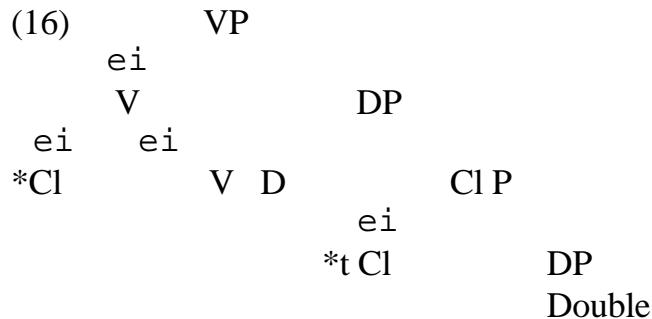
(14)	DP				
	ei				
DP		D'			
Double	ei				
	D		NP		
	<i>Citic</i>		pro		

An important advantage of this analysis is that it provides a straightforward account of the thematic problem. That is, the clitic and its double form a constituent and they are thus jointly assigned a single theta-role from the verb.

We may also assume that the clitic is a functional head that selects for a complement DP. The clitic needs to attach to a (morpho)phonological host and, therefore, it undergoes movement. Due to the HMC, the clitic can incorporate to its host only if it is the highest head in the extended nominal projection:

(15)	VP				
	ei				
V		Cl P			
ei	ei				
Cl	V t Cl		DP		
			Double		

If, on the other hand, the clitic were generated in an intermediate position, within the extended nominal projection, incorporation of the clitic to the verb would be problematic:



In (16) the Determiner head would prevent the clitic from incorporating to the verb. Moreover, pronominal clitics in Greek are not in complementary distribution with Determiners. The clitic is obligatorily doubled by a DP (not by a NP):

- (17) a. **Ton** idha **to** **Jani**  
cl-3sg-m-acc saw-1sg the Jani-acc  
“I saw Jani”
- b. **\*Ton** idha **Jani**  
cl-3sg-m-acc saw-1sg Jani-acc

It is, thus, necessary to assume the presence of two separate heads: firstly, the Determiner is merged with the NP and then the clitic is merged with the DP. So, the clitic is the head of its own projection (either with the label CL or D. Tsimpli (1999) also argues that genitive clitics are recursive Determiners).

Firstly, we will see evidence for the idea that the clitic starts out as the complement of the verb. Then I will argue against Uriagereka’s analysis, namely that the clitic takes the double as its specifier, and I will present evidence that the clitic takes the double as its complement.

#### 4 The similarity of strong and weak pronouns

If clitics are functional heads that start out from the verbal complement position it is expected that they behave similar to full pronouns, since the latter may also be the complements of verbs. Moreover, we will see that both weak and strong pronouns can form a constituent with a coreferential DP. The crucial difference is that the former need to attach to a (morpho)phonological host and therefore they never surface adjacent to the DP. The strong pronouns, on the other, remain in situ and may thus occur next to a coreferential DP.

Firstly, it is worth pointing out the morphological similarity of strong personal pronouns and pronominal clitics in Greek. The latter are usually identical to an affix of the former, as illustrated by the following table:

(18)

		FULL FORMS		CLITICS	
		<i>Gen</i>	<i>Acc</i>	<i>Gen</i>	<i>Acc</i>
1SG		emena(ne)	emena(ne)	mu	<b>me</b>
2SG		esena(ne)	esena(ne)	su	<b>se</b>
3SG	<i>masc</i>	aftu	afton(e)	<b>tu</b>	<b>ton(e)</b>
	<i>fem</i>	aftis	aftin(e)	<b>tis</b>	<b>ti(n)e</b>
	<i>neut</i>	aftu	afto	<b>tu</b>	<b>to</b>
1PL		emas	emas	<b>mas</b>	<b>mas</b>
2PL		esas	esas	<b>sas</b>	<b>sas</b>
3PL	<i>masc</i>	afton	aftus	tus	<b>tus</b>
	<i>fem</i>	aftes	aftes	tus	<b>tis – tes</b>
	<i>neut</i>	afta	afta	tus	<b>ta</b>

(table based on Drachman, 1997:221)

The similarity between the strong personal pronouns and the object clitics is strengthened by the observation that both elements may appear in the same configurations. Actually, the strong pronoun is merged either instead of a DP (pronominalization) or together with a DP (where it has a deictic interpretation)<sup>3</sup>. Similar options are available with respect to object clitics: the clitic is either selected instead of a DP (pronominalization) or it appears together with the DP (clitic doubling)<sup>4</sup>:

<sup>3</sup> See Holton, D., Mackridge P. & I., Philippaki-Warburton (1997:318) for examples where *aftos* “he” functions as a demonstrative.

<sup>4</sup> A further option is available. The clitic may occur together with the full pronoun:

O Janiston	idhe	afton	ton	andra	me	ta
The Janis cl-3sg-acc	saw-3sg	him/this	the	man-acc	with	the
makria malia	na	perni	tis	karameles		
long hair-acc	subj	take-3sg	the	sweets-acc		
“Janis saw the man with the long hair taking the sweets”						

The above example can be accounted for in the presence of a recursive position for pronominal elements.

- (19) a. O Janis idhe              *ton andra me ta makria*  
           the Janis saw-3sgthe man-acc with the long  
           *malia na perni tis karameles*  
           hair-acc subj take-3sg the sweets-acc  
           “Janis saw the man with the long hair taking the sweets”
- b. O Janis idhe              *afton na perni tis karameles*  
           the Janis saw-3sghim-acc subj take-3sg the sweets-acc  
           “Janis saw him taking the sweets”
- c. O Janis *ton*              idhe na perni tis karameles  
           the Janis cl-3sg-m-acc saw-3sg subjtake-3sg the sweets-acc  
           “Janis saw him taking the sweets”
- d. O Janis idhe              *afton ton andra me ta makria*  
           the Janis saw-3sghim/this the man-acc with the long  
           *malia na perni tis karameles*  
           hair-acc subj take-3sg the sweets-acc  
           “Janis saw this man with the long hair taking the sweets”
- e. O Janis *ton*              idhe *ton andra me ta makria*  
           the Janis cl-3sg-m-acc saw-3sg the man-acc with the long-  
           *malia na perni tis karameles*  
           hair-acc subj take-3sg the sweets-acc  
           “Janis saw the man with the long hair taking the sweets”<sup>5</sup>

It is important to point out that the strong pronoun *aftos* “he” may precede a DP, when interpreted as a deictic element (ex. 19 d), but it cannot precede a NP:

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<sup>5</sup> In a language without morphological case on nouns (like Italian) the situation is different:  
 (iv) a. Gianni l' ha visto # l' uomo con i capelli lunghi  
           Gianni cl-3sg-m-acc has seen # the man with the hair long  
       b. Gianni ha visto lui # l' uomo con i capelli lunghi  
           Gianni has seen him # the man with the hair long

The only available option is that both the clitic and the full pronoun may appear coreferential with a DP in apposition. Moreover, a demonstrative can only precede a NP (not a DP):

- c. Ho visto quell' uomo  
       have-I seen this man

- (20) a. \*O Janis idhe *afton andra me ta makria malia*  
          the Janis saw-3sghim/this man-acc with the long hair-acc  
       na perni tis karameles  
       subj take-3sg the sweets-acc  
       “Janis saw this man with the long hair taking the sweets”

In the same vein, the object clitic *ton* “him” may appear together with a DP (ex. 19 e) and not with a NP:

- b. \*O Janis *ton idhe andra me ta makria malia*  
          the Janis cl-3sg-m-acc saw-3sg man-acc with the long hair-acc  
       na perni tis karameles  
       subj take-3sg the sweets-acc  
       “Janis saw the man with the long hair taking the sweets”

As we will now see, an adverbial cannot intervene between the pronoun and its coreferential DP:

- (21) a. \*O Janis idhe *aftus xthes tus anthropus na*  
          the Janis saw-3sg them/these yesterday the men-acc subj  
       trexun pros ti thalassa  
       run-3pl towards the sea-acc  
       “Janis saw these men yesterday running towards the sea”

The adverb can only precede or follow the pronoun-DP complex:

- b. O Janis idhe (**xthes**) *aftus tus anthropus (xthes)*  
          the Janis saw (yesterday) them/these the men (yesterday)  
       na trexun pros ti thalassa  
       subj run-3pl towards the sea-acc  
       “Janis saw (yesterday) these men (yesterday) running towards the sea”

If, on the other hand, the DP is in apposition, an adverbial may intervene between the pronoun and its coreferential DP:

- (22) O Janis idhe *esas* **xthes** #tus naftikus tu  
 the Janis saw-3sg you-pl-acc yesterday the sailors-acc the-  
 nisiu #na trexete pros ti thalassa  
 island-gen subj run-2pl towards the sea-acc  
 “Janis saw you yesterday, the sailors of the island, running towards the sea”

In (21 b), where the pronoun takes the DP as its complement, the two elements have matching features. If the DP is in apposition, the features of the pronoun do not necessarily match those of the DP. For example in (22) the pronoun *esas* “you” is in the 2<sup>nd</sup> person, while the DP *tus naftikus tu nisiu* “the sailors of the island” is in the 3<sup>rd</sup> person.

So, a full pronoun may form a constituent with a coreferential DP. It is thus expected that also the clitic may form a constituent with a coreferential DP. Although we cannot apply the above test, since the clitic never surfaces in the verbal complement position, some evidence can be derived from constructions where the clitic is obligatorily selected with a coreferential DP. In particular, the clitic-double complex may undergo pronominalization.

## 5 Pronominalization

A clitic is obligatorily present with predicates that select for an experiencer argument. For example:

- (23) a. *Tu aresi tu Jani i musiki*  
 cl-3sg-m-gen like-3sg the Jani-gen the music-(nom)  
 “Jani likes the music”
- b. \**Aresi tu Jani i musiki*  
 like-3sg the Jani-gen the music-(nom)

The predicate *aresi* “likes” requires a clitic together with the experiencer-DP. When the experiencer-DP is replaced by the pronominal element *tu idhiu* “to-the same”, the clitic is no longer required:

- (24) *Tu aresi tu kaliteru mathiti tis taksis o*  
 cl-3sg-m-genlike-3sg the best student-gen the class-gen the-  
 sunagonismos,ala dhen aresi **tu idhiu** i apotixia  
 competition, but neg like-3sg the same-m-gen the failure  
 “The best student in class likes the competition/competing, but he does not like the failure/failing”

We can understand this set of data by replacing the clitic-DP complex: *tu tu kaliteru mathiti tis taksis* “to-him (cl) to-the best student of the class” by the pronoun *tu idhiu* “to-the same”. No other assumption is possible, since the predicate *aresi* “likes” obligatorily selects for a clitic coreferencial with an experiencer DP.

Note that it is also possible for the pronoun to replace only the DP:

- (25) *Tu aresi tu kaliteru mathiti tis taksis o*  
 cl-3sg-m-genlike-3sg the best student-gen the class-gen the-  
 sunagonismos,ala dhen *tu* aresi **tu idhiu** i apotixia  
 competition, but neg cl-sg-genlike-3sg the same-m-gen the failure  
 “The best student in class likes the competition/competing, but he does not like the failure/failing”

This is not a problem for the argument. If the pronominal element *tu idhiu* “the same-gen” replaces constituents, the clitic-DP complex is one constituent, while the DP-double of a clitic is another constituent. Therefore, there is an option: the pronoun can replace either the one or the other constituent.

It is important, though, to show that the pronoun *o idhios* “the same” always replaces constituents. This is illustrated by the examples below, where the pronoun can replace the DO or the VP, which are constituents, but not both the DO and IO, which are not a constituent:

- (26) a. O Janis edhose tis Marias *to vivlio tu Chekhov*  
 the Janis gave the Maria-gen the book-acc the Chekhov-gen  
 ke o Vasilis tis edhose **to idhio**  
 and the Vassilis cl-3sg-f-gen gave-3sg the same-n-acc  
 “Janis gave Maria Chekhov’s book and Vassilis gave her the same”

- b. \*O Janis edhose *tis Marias to vivlio tu Chekhov*  
          the Janis gave-3sg      the Maria-gen the book-acc the Chekhov-gen  
          ke o Vassilis edhose      **to idhio**  
          and the Vassilis gave-3sg      the same-n-acc  
          “Janis gave Maria Chekhov’s book and Vassilis gave the same (to Maria)”
- c. O Janis *edhose tis Marias to vivlio tu Chekhov*  
          the Janis gave-3sg the Maria-gen the book-acc the Chekhov-gen  
          ke o Vasilis **to idhio**  
          and the Vassilis the same-n-acc  
          “Janis gave Maria Chekhov’s book and Vassilis the same (i.e. gave Maria Chekhov’s book)”

In ex. a, *to idhio* “the same” replaces the DO *to vivlio tu Chekhov* “Chekhov’s book”, which is a constituent. Moreover, in ex. c, *to idhio* “the same” replaces the VP *edhose tis Marias to vivlio tu Chekhov* “gave Maria Chekhov’s book”, which is also a constituent. The option of the verb being gapped is excluded, since this would mean that only the DO and the IO are replaced by the pronoun. Ex. b, though, indicates that this is not allowed. In b *to idhio* “the same” cannot replace both the IO and the DO *tis Marias* “the Maria-gen” and *to vivlio tu Chekhov* “Chekhov’s book”, since they do not form a constituent.

So, we have seen that the pronominal element *to idhio* “the same” always replaces a constituent. In addition, we have seen that this element replaces the clitic-double complex, in environments where the clitic is obligatorily selected together with the DP. Therefore, we may conclude that the clitic and its double form a constituent, as expressed by the analysis proposed here.

## 6 The clitic takes the DP-double as its complement

We have seen evidence that the clitic starts out together with the DP-double. In this section, I will argue that the clitic takes the double as its complement rather than its specifier, as proposed by Uriagereka (1995).

Uriagereka’s analysis predicts that there is an option of spelling out both the NP merged as the complement of the clitic head and the double generated in the specifier position. That is, we expect to find a language where the clitic/Determiner takes a full NP as its complement and a full DP as its specifier. This prediction is not borne out, since the case of “clitic-triple” is not attested in any language.

Furthermore, the clitic and its double are jointly assigned a single theta-role from the verb. Uriagereka's analysis makes us expect an extra operation of theta-role assignment, within the DP: the nominal element merged in the complement position (or the Determiner) should assign a theta-role to the DP in the specifier position. This is expected, on a par with possessive constructions, where the possessee (or the Determiner) assigns a theta-role to the possessor:

(27)	DP				
	ei				
DP		D'			
John	ei				
D		NP			
's		book			

In possessive constructions, a theta-role is obligatorily assigned DP internally, since two lexical projections are merged: the noun expressing the possessor is merged in the specifier position and the noun expressing the possessee is merged as the complement of the Determiner. However, in clitic doubling constructions only one lexical head is generated: the noun-double of the clitic. This crucial difference should be accounted for, since it is not optimal to propose identical configurations for such different cases.

Taking in account the above problems, I would like to propose an alternative, based on the observation that, in clitic doubling constructions, a single lexical projection is involved. According to this hypothesis, the clitic takes the DP as its complement:

(28)	Cl P				
	ei				
CL		DP			
Critic	ei				
D		NP			
Determiner		Double			

In the absence of a second lexical head (i.e. in the absence of a DP merged in the specifier position of the clitic projection), no operation of theta-role assignment is expected to be active within the DP.

The hypothesis presented in this paper, is based on the assumption that extended projections are always continued through head-complement relationships and not through spec-head relationships. So, if the double is the complement of the clitic, we are dealing

with a single extended projection that is assigned one theta-role from an external head (i.e. the verb). If, on the other hand, the double is generated in the specifier position of the clitic-head, we are not dealing with a single extended projection. In this case, a separate theta-role is probably assigned DP internally and it is hard to identify the nature of such a theta-role in clitic doubling constructions.

The functional heads that are merged in the extended nominal projection cannot contain features that clash with those of the lexical head (Grimshaw 1991). The operation of feature sharing that applies within a single projection allows for the clitic and its double to be interpreted as a single argument (visibility). In the case of a Noun taking a DP as its complement, on the other hand, two lexical projections are involved and two operations of feature sharing are active. In particular, the functional heads merged in each extended projection cannot contain features that clash with those of the Noun-head of each projection. The crucial point is that no operation of feature sharing applies between the elements of different projections. This allows them to carry different features, which implies that they are not interpreted identically.

So, the hypothesis predicts that in clitic doubling constructions two sets of features  $\{A\}$  and  $\{B\}$  are unified in one  $\{A \cup B\}$ :

(29)	CL P	$\{A \cup B\}$
	$\epsilon_i$	
	CL $\{A\}$	DP $\{B\}$

The situation is different in the case of Noun taking a DP as its complement. Only the features of the N-head percolate upwards:

(30)	NP	$\{A\}$
	$\epsilon_i$	
	N $\{A\}$	DP $\{B\}$

This prediction is borne out as illustrated by the following examples:

(31) a.	* <b>Tu</b>	idha	to	Jani	Case
	cl-3sg-m-gen	saw-1sg	the	Jani-acc	
	"I saw Jani"				

- b. Idha      **ton**      **kipo**      **tu**      **spitiu**  
  saw-1sg    the      garden-acc    the      house-gen  
 “I saw the garden of the house”
- c. \***Ton**                 idha    **ti**      **Maria**                 **Gender**  
 cl-3sg-m-acc          saw-I    the      Maria-acc  
 “I saw Maria”
- d. Idha      **ton**      **patera**      **tis**      **Marias**  
 Saw-I      the      father-acc      the      Maria-gen  
 “I saw Maria’s father”
- e. \***Ton**                 idha                 **tus**      **andres**                 **Number**  
 cl-3sg-m-acc          saw-1sg                 the      men  
 “I saw the men”
- f. Idha      **ton**      **patera**      **ton**      **koritsion**  
 Saw-1sg    the      father-acc      the      girls-gen  
 “I saw the father of the girls”
- g. \***Se**                 idha    **to**      **Jani**                 **Person**  
 cl-2sg        saw-1sgthe      Jani-acc  
 “I saw Jani”
- h. Idha      **ton**      **patera**      **sou**  
 saw-1sg    the      father-acc      your-gen  
 “I saw your father”

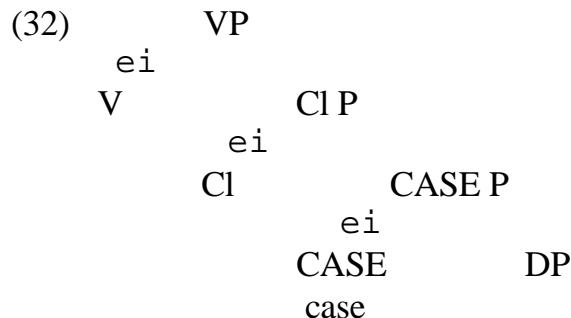
In (a) the clitic carries different morphological case from its double-DP and the configuration is ungrammatical. The situation is different when a Noun takes a DP as its complement, as illustrated in (c). In (d) the clitic and its double cannot have different features for gender, while this is possible when a noun takes a DP as its complement. Also, the clitic and its double must have identical features for number, while this is not obligatory in the case of a Noun taking a DP as its complement. Lastly, the clitic and its double must have matching features for person (g). The same is not required in a configuration where a Noun takes a DP as its complement (f).

Although, the case of a clitic taking a DP as its complement should be distinguished from the case of a Noun taking a DP as its complement with respect to interpretational effects, there is an important link between the two configurations. Clitic doubling can be explained on a par with Nouns taking a DP-complement in that both structures are allowed in languages with morphological case.

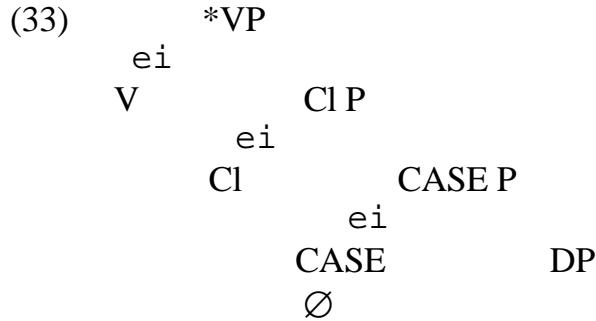
## **7 Clitic Doubling: A Syntactic Effect of Morphological Case**

It is often observed that the presence of morphological case allows a noun to take a DP as its complement. Weerman (1997) and Neeleman & Weerman (1999) propose the following explanation: If case is a functional head, generated in the extended nominal projection, it forms a CASE shell on top of the DP. The CASE P must have case features, or else it needs to be governed at PF, due to the ECP (Aoun et al, 1987, Rizzi, 1990, recently revived in Neeleman & Weerman, 1999). Government is only possible by a non-nominal category, which is adjacent to the case head (Neeleman & Weerman 1999). Unlike the standard minimalism (Chomsky 1995), where government is neither a syntactic nor a phonological phenomenon, government is here assumed to apply at PF.

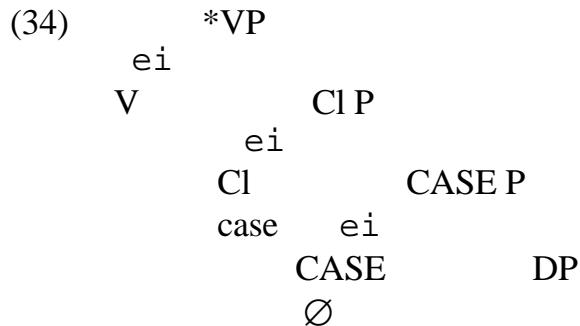
If the clitic is a functional head that takes the double DP (CASE P) as its complement, the CASE P of the complement-DP must have case features (in particular, the case features percolate from the N-head to the CASE P):



In the absence of case features on the CASE P, the case shell needs to be governed at PF. If the clitic intervenes between the verb and the DP, then government by the verb is ruled out. Moreover, if the clitic is generated in the extended nominal projection, it is nominal in character and it cannot qualify as a proper governor (Neeleman & Weerman 1999). Therefore, an empty case shell, which is generated as the complement of the clitic would fail the ECP:



The CASE P cannot be “filled” with the case features present on the clitic. More precisely, if we assume that features percolate upwards, any features present on a head above the CASE P cannot percolate to it. So clitic doubling is not allowed in a language that has an overt case affix on the clitic but not on the Noun-double of the clitic:



The features present on the clitic-head do not percolate to the CASE P, since the former is merged above the latter. Moreover, the presence of the clitic bans government of the case shell by the verb. Therefore, it is not possible for a DP to appear as the complement of the clitic, unless its case shell carries case features.

## 8 Extraction

So far, it has been argued that the clitic starts out from the object position. There are two options: the clitic takes the DP-double either as its specifier or as its complement.

If the DP-double of a clitic is merged in the specifier position, it is predicted that extraction from the double is ruled out, since the specifier of a complement is an island. If, on the other hand, the DP-double of a clitic is merged as the complement of the clitic-head,

it is predicted that extraction from the double is possible, since movement from the complement (of a complement) is unproblematic. This prediction is borne out, since it is possible to extract from the DP-double of a clitic in Greek.

Moreover, it has been argued that the clitic may take the double as its complement in languages with overt case affixes on Nouns. This is also borne out since we can extract from the DP-double of a clitic in Greek, a language with morphological case on Nouns, but we cannot extract from the PP-double of a clitic in Spanish, a language without morphological case on Nouns.

So, in Greek, it is possible to extract from the DP double of a clitic:

- (35) a. *Tin idha tin tenia tu Fellini*  
           cl-3f-acc saw-1sgthe film-acc the Fellini-gen  
           “I saw Fellini’s film”
- b. ***Tu Fellini***      *tin idha tin tenia*  
       the Fellini-gen cl-3f-acc saw-1sg the film-acc  
       “Fellini’s I saw the film”

In example b the DP *tu Fellini* “Fellini’s” is extracted from the complex DP *tin tenia tu Fellini* “Fellini’s film”, indicating that the latter is a complement. Of course, extraction from the DP *tin tenia tu Fellini* “Fellini’s film” is also possible in the absence of a clitic:

- (36) a. *Idha tin tenia tu Fellini*  
       saw-1sg the movie-acc the Fellini-gen  
       “I saw Fellini’s movie”
- b. ***Tu Fellini***      *idha tin tenia*  
       the Fellini-gen saw-1sg the movie-acc  
       “Fellini’s I saw the movie”

There seems to be no contrast in the acceptability of the above examples: the DP *tin tenia tu Fellini* “Fellini’s film” is merged in a complement position, in both cases.

The argument is strengthened by the fact that Greek also allows for an adjunct to be extracted from the double of a clitic:

- (37) a. O Janis *to troi to kres apo to horio tu*  
          the Janis cl-3sg-n-acc eats the meat-acc from the village-acc his-gen  
          “Janis eats the meat from his village”
- b. *Apo to horio tu o Janis to troi to kreas*  
          from the village-acc his-gen the Janis cl-3sg-n-acc eats the meat-acc  
          “From his village Janis eats meat”

The PP *apo to horio tu* “from his village” is extracted from the double of the clitic *to kreas* *apo to horio tu* “the meat from his village”. This strongly indicates that the DP double of the clitic occupies a complement position. In particular, it is the complement of the clitic.

The extended projection of a non-nominal category, on the other hand, cannot contain a nominal head, since the categorial features of the two elements are different. So, a clitic is never merged in the extended projection of a PP (i.e. the clitic does not take a complement PP). Also, the clitic is not merged inside the PP, since the presence of the P-head would ban incorporation of the clitic to its host (HMC). It is, thus, predicted that a PP double of a clitic is an adjunct, associated with the clitic-argument through coreference. This prediction is borne out, since extraction from the PP-double of a clitic is ruled out in Spanish:

- (38) a. *La vimos a la hermana de Juan (col)*  
          cl-3sg-f-acc saw-1pl P the sister of Juan  
          “We saw Juan’s sister”
- b. \**De Juan la vimos a la hermana*  
          of Juan cl-3sg-f-acc saw-1pl P the sister  
          “Juan’s we saw the sister”

Extraction of the PP *de Juan* “of Juan” from the complex PP *a la hermana de Juan* “to the sister of Juan” is ruled out. This indicates that, in the presence of a clitic, the double PP is not in a complement position. Rather, the clitic is the argument of the verb, while the PP occupies an adjunct position.<sup>6</sup>

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<sup>6</sup> Similar is the situation in Italian (and the other romance languages that make use of object clitics):

- (v) a. Abbiamo vista *la sorella di Maria*  
          have-1pl seen-f the sister of Maria  
          “We have seen the sister of Maria”
- b. ?*Di Maria*abbiamo vista *la sorella*  
          of Maria have-1pl seen-f the sister
- c. *L’ abbiamo vista # la sorella di Maria*

Extraction from the PP is possible only in the absence of a clitic:

- (39) a. Vimos *a la hermana de Juan*  
          saw-1pl P the sister of Juan  
          “We saw Juan’s sister”
- b. *De Juan, vimos a la hermana*  
      of Juan saw-1pl P the sister  
      “Juan’s we saw the sister”

In this case, we may assume that the PP is generated in the verbal complement position.

To conclude, extraction from the PP is possible in Spanish only in the absence of a clitic argument. A PP double of a clitic is an adjunct, associated with the clitic-argument through coreference. In Greek, on the other hand, extraction from the DP double of a clitic is allowed. We may, thus, assume that the DP is merged as the complement of the clitic.

As we will now see, Greek occasionally allows for a PP double of a clitic. In this case, though, the PP-double of a clitic is a topicalized element. As Tsimpli (1995) argues, the topicalized double of a clitic is base generated in an adjunct position.

## 9 Indirect Object Clitic Doubling in Greek

Greek has two ways of expressing the IO: either with a DP carrying genitive case or with a PP:

- (40) a. Edhosa *tu Jani ta lefta*  
      gave-1sg the Jani the money-acc  
      “I gave Jani the money”
- b. Edhosa *sto Jani ta lefta*  
      gave-I P-the Jani-acc the money-acc  
      “I gave the money to Jani”

- 
- d. cl-3sg-f-acc have-1pl seen-f the sister of Maria  
    \**Di Maria, l'* abbiamo vista *la sorella*  
    of Maria cl-3sg-f-acc have-1pl seen-f the sister

The contrast between the examples b and d indicates that the DP *la sorella di Maria* is in a complement position in a and b but not in c and d. In the presence of a clitic the DP is in a right dislocated position.

The presence of syntactic material following the IO (i.e. the DO in the above examples) shows that both the DP *tu Jani* “the-Jani-gen” and the PP *sto Jani* “to-the-Jani” are not in a right dislocated position, but presumably they are merged VP internally.

Given two possible ways of expressing the IO in Greek, either with a DP or with a PP, the DP-double of a clitic is expected to block the availability of a PP-double of a clitic. The clitic is allowed to select for a DP as its complement, but it cannot select for a PP as its complement (the reasons have been explained in previous sections). Therefore, it is more economical for the clitic to take a DP-double that starts out as its complement, rather than to be associated with a PP that starts out from an adjunct position. This is based on Reuland (1997) who argues that, given two ways of associating an anaphoric element with its antecedent (either in Syntax or outside Syntax), it is more economical to establish the relation syntactically.

In this case, the PP is base-generated in its surface position. As Tsimpli (1995) argues the double of a clitic in Greek CLLD constructions, is a topic that is base generated in a dislocated position (that is, it does not move in Syntax). We may, thus, assume that the IO PP-double of a clitic is also a topic, which is analyzed on a par with other CLLD constructions. The presence of a clitic-head would prevent movement of the double, since the clitic is functional and extraction of the complement of a functional head is ruled out (for example, the complement of a Determiner cannot be extracted – Abney 1987).

This is actually true, since clitic doubling is usually attested with an IO DP:

- (41) a. *Tu edhosa tu Jani ta lefta*  
           cl-3sg-gen gave-1sg the Jani-gen the money-acc  
           “*I gave Jani the money*”

The IO PP, on the other hand, is usually not the double of a clitic:

- b. \**Tu edhosa sto Jani ta lefta*  
           cl-3sg-gen gave-1sg P-the Jani-acc the money-acc  
           “*I gave the money to Jani*”

Coreference between an IO PP and a clitic is marginally possible only if the PP is topicalized (i.e. the PP occupies an adjunct position). A long intonational break intervenes between the PP and the rest of the structure:

- (42) ?*Sto Jani #tu ta edhosa ta lefta*  
           to-the Jani       cl-3sg-gen cl-3pl-acc gave-1sg the money-acc  
           “To Jani, I gave him the money”

We may, thus, conclude that, although Greek marginally allows for a PP-double of a clitic, this option is in general blocked by the syntactic option. That is, if the clitic is allowed to select for the double as its complement, the option of applying coreference outside the module of Syntax (for example, in Pragmatics, as argued by Reinhart 1983) is avoided.

## 10 Conclusion

The main issue of this paper has been the thematic problem raised in clitic doubling constructions. According to Sportiche (1992 / 1998), the clitic-head does not receive a theta-role, since it is generated above VP. The internal role of the verb is assigned to the DP-double that is merged in the verbal complement position. However, he is forced to assume the Doubly Filled Voice Filter in order to guarantee covert movement of the double to the specifier of the clitic-head. In constructions without doubling, he assumes the presence of an object pro. This is not applicable in Greek, though, where the data indicate that pro is ruled out from the verbal complement position.

Also Uriagereka's proposal, according to which weak clitics are Determiners taking the double as their specifier, predicts “clitic-triple”, a configuration not attested cross-linguistically. Moreover, it makes us expect an extra operation of theta-role assignment to take place DP-internally (similarly to possessive constructions), which is totally redundant in clitic doubling constructions.

Given the disadvantages of the above proposals it has been argued that the clitic selects for the DP-double as its complement.

An immediate prediction is that clitics behave in a similar way to strong pronouns, since the latter can occur as complements of the verb. The difference is that full pronouns remain in situ, while clitics need to attach to V. As we have seen, this is borne out in Greek. In addition, the pronoun and the DP may form a constituent. The clitic and its double also behave like a constituent, since they may undergo pronominalization. This is only explained if the clitic starts out from the object position.

The two basic points of the hypothesis, namely that the double is the complement of the clitic-head and that this is only possible in languages with morphological case, predict that extraction from the DP-double of a clitic is allowed in languages with case affixes on Nouns. In languages without morphological case the double of a clitic is an adjunct

associated with the critic-argument through coreference. This is borne out since we can extract from the DP-double of a critic in Greek but we cannot extract from the double of a critic in Spanish.

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