

Clitics in Greek restrictive relatives: an integrated approach

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Abstract. In this paper we examine the distribution of clitic pronouns in Greek restrictive relatives introduced by the complementizer *pu*. After presenting the two major analyses of relative clauses in the literature (that is, the *operator analysis* and the *raising analysis*), we go through the advantages and the disadvantages of the proposal put forth in Alexiadou & Anagnostopoulou (2000) who offer a raising analysis in the spirit of the antisymmetric program of Kayne (1994). Having pointed out many weaknesses in both analyses, we conclude that a mixed (*matching*) analysis to relativization (see Chomsky 1965, Sauerland 1998) offers both theoretical and empirical benefits. As to the distribution of the clitic, we observe that the analyses of the phenomenon up to date i) have made an unnecessary distinction between the *pu*- and the *opios*-relatives, and ii) have ignored the parameter of D-linking of the relative phrase, a parameter that seems to be responsible for many of the ‘curious’ aspects of resumption in Greek relative clauses.

1. Introduction

This study investigates the distribution of clitic pronouns in Greek restrictive relative clauses (RRCs) introduced by the relative complementizer *pu*. These clauses have received great attention in the literature because they are characterized by two asymmetries with respect to the distribution of clitics. The first asymmetry concerns *pu*-RRCs that modify a direct object and *pu*-RRCs that modify an indirect object: clitics are obligatory in the latter but not in the former. The second asymmetry is observed within *pu*-RRCs that modify a direct object: clitics seem to be permitted when the relative head is indefinite, but not when the relative head is definite.

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In what follows, we examine the conditions that license a clitic in the aforementioned structures, based on data collected by means of a questionnaire distributed to 35 native speakers of Greek. Moreover, we present Alexiadou & Anagnostopoulou's (2000) account of the distribution of clitics in Greek *pu*-RRCs, which is based on Kayne's (1994) raising analysis, and we identify its drawbacks. Finally, we attempt to identify the advantages and disadvantages of the two predominant analyses of relative clauses in the literature, and we propose a "reconciliatory" analysis that overcomes some of their problems.

2. Theoretical approaches

The term relative clauses refers to the (embedded) clauses that are attached to a Noun Phrase which they modify in some way. Relative clauses are traditionally divided into two kinds, according to the semantic relationship that pertains between the modified NP-head and the relative clause itself:¹

a) Restrictive relative clauses are those that restrict the head, thus narrowing down its possible reference. The relative clause in (1) picks out –among a multitude of articles– the article that the speaker read.

- (1) xtes dhjavasa to arthro to opio/pu eghrapse
 yesterday read_{1sg} the article the which/that wrote_{3sg}
 i irini ton perasmeno mina
 the Irene the last month
 'Yesterday, I read the article that Irene wrote last month.'

b) Non-restrictive or appositive relative clauses are those that assign some extra attribute to, rather than restrict, the nominal head. The relative clause in (2) gives some additional information about the watch, rather than restricts its reference.

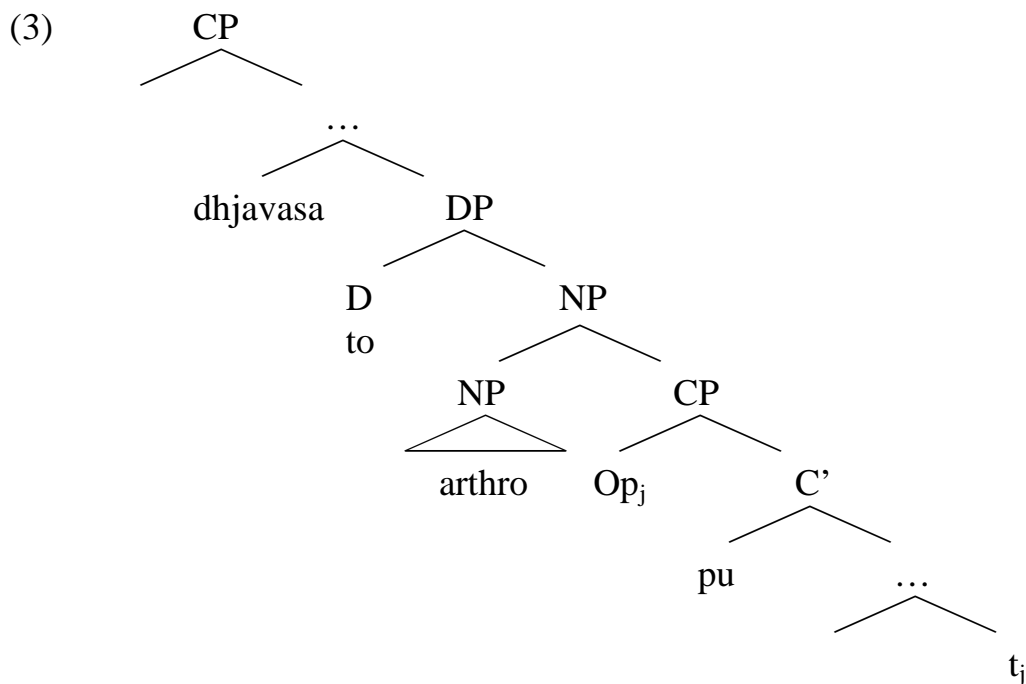
- (2) mu edhikse to roloi tu, pu to aghorase stin elvetia
 me_{gen} showed_{3sg} the watch his, that it bought_{3sg} in Switzerland
 'He showed me his watch, that he bought in Switzerland.'

Two issues have attracted researchers' interest as regards the syntactic analysis of relative clauses. First of all, the structural relation between the relative clause and the NP that contains it, particularly whether the relative clause is a complement of the NP or an adjunct on it.

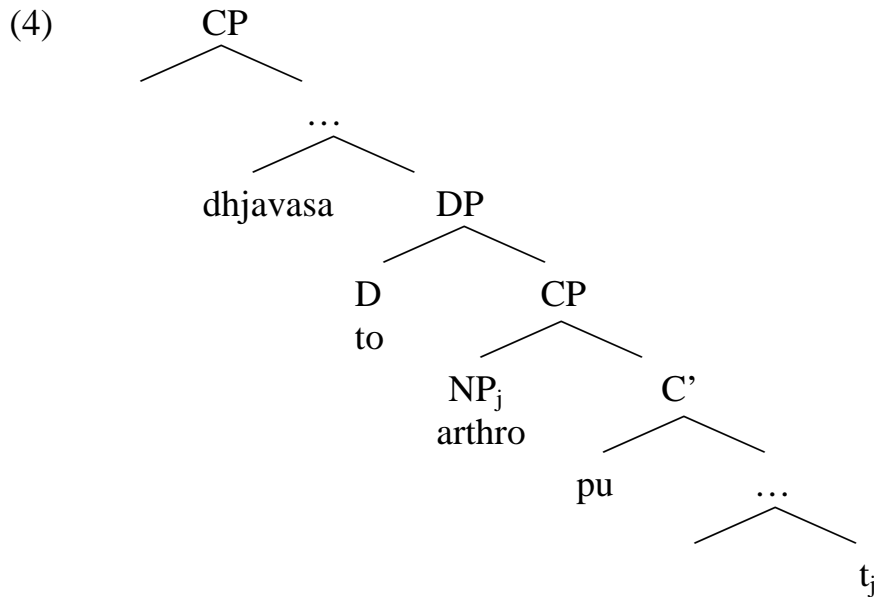
¹ Free relatives will not be discussed in this paper.

Secondly, the relationship between the head of the relative clause and the relativization site, that is whether the NP is generated inside or outside the relative clause. These problems have been discussed within generative grammar and two main approaches have been pursued: the *operator analysis* (among others, Chomsky 1977) and the *raising analysis* (Vergnaud 1974, Kayne 1994).

According to the operator analysis, the pivot NP is generated outside the relative clause. It is, therefore, an argument of the superordinate clause. Agreement between the NP-head and the relativization site is achieved by means of raising of an operator from the relativization site to the [Spec, CP] position of the embedded clause, in a position of proximity to the NP. This operator is either the relative pronoun (in *wh*-relatives) or an empty operator (in *that*-relatives). According to the operator analysis, the whole relative clause is adjoined to the NP. Schematically (taking (1) as an example):



On the contrary, according to the raising analysis, the relative head *itself* comes from the relativization site and it is raised to [Spec, CP]. In this way, the raising analysis can explain agreement between the NP-head and the relativization site without postulating the existence of an operator. In this case, the whole relative clause is thought to be a complement of a D head, in other words it occupies –in essence– the position of an NP:



We observe that within this analysis the D *to* (the) and the NP *arthro* (article) do not form a constituent.²

The raising analysis offers a satisfactory explanation for the agreement between the relative head and the relativization site. Especially within the minimalist framework (Chomsky 1993, 2000), reducing the relation of two elements or positions to movement is preferable to reducing it to mere coindexation (given the theory-driven need to dispense with indices, null elements, etc.). Moreover, the raising analysis is in accordance with the spirit of the antisymmetry proposal put forward by (Kayne 1994), according to which right adjunction (employed in the operator analysis (3)) is banned in natural language.

Despite these theoretical advantages, the raising analysis has often been criticized on the grounds of both its theoretical and its empirical adequacy. We return to the problems of this analysis in section 5.

3. The Greek data

Greek RRCs are introduced in two ways: either with the relative pronoun *o opios*, -a, -o (5), or with the complementizer *pu* (6).

² The raising analysis of *wh*-relatives is slightly more complex. In *wh*-relatives, the relative head is generated as a complement of the D *who/o opios*. We will not discuss the raising analysis of *o opios*-relatives, which in our view shares many of the general problems of the raising analysis of *pu*-relatives, discussed in section 5.

- (5) oli dhjaleksan ti lisi tin opia profere o proedhros
 all chose_{3pl} the solution the which offered_{3sg} the president
 the company
 tis eterias_{gen}
 ‘Everyone chose the solution offered by the president of the
 company.’
- (6) oli dhjaleksan ti lisi pu profere o proedhros
 all chose_{3pl} the solution that offered_{3sg} the president
 the company
 tis eterias_{gen}
 ‘Everyone chose the solution offered by the president of the
 company.’

Clitic pronouns are permitted in both *pu-* and *o opios*-RRCs. However, there is no consensus in the literature regarding the exact distribution of the clitic (Stavrou 1983, Theophanopoulou-Kontou 1985, Tsimpli 1999, Alexiadou & Anagnostopoulou 2000, but also Joseph 1980, Efthimiou 1997). This is the reason that led us to design a questionnaire and distribute it to 35 native speakers of Greek. The aim of this questionnaire was to check the presence or absence of clitics in *pu-* and *o opios*-RRCs modifying DOs and IOs.

We will focus on *pu*-RRCs. Clitics seem to be obligatory in RRCs with IO-dependencies (Stavrou 1983, Alexiadou & Anagnostopoulou 2000), a fact confirmed by the responses of our subjects.³ The vast majority⁴ of native speakers do not accept such clauses without the clitic:

- (7) ghnorisa mia kopela pu *(tis) ixan klepsi ton ipologhisti
 met_{1sg} a girl that *(her) had_{1pl} stolen the computer
 ‘I met a girl that they had stolen her computer.’

In contrast, the presence of a clitic in *pu*-RRCs with a DO-dependency seems to be regulated –at least for the majority of native speakers– by the definiteness of the relative head. When the head is indefinite, the clitic is permitted (8), but when the head is definite, the clitic is not preferred⁵ (9):⁶

³ But see Joseph (1980), for the claim that *pu*-RRCs modifying IOs tolerate gaps –and the response in Theophanopoulou-Kontou (1985).

⁴ Only 2 out of 35 native speakers accepted sentences like (7) without the clitic.

⁵ 29 out of 35 native speakers did not accept sentences like (9).

⁶ But see Efthimiou (1997) for the view that clitics are permitted even in *pu*-RRCs with a definite head.

- (8) ta pedhja ixan vri mia kripsona pu i ghonis tus
 the children had found a hiding-place that the parents their
 dhen tin ixan anakalipsi
 not it had discovered
 ‘The children had found a hiding place that their parents had
 not discovered.’
- (9) ghnorisa tin kopela pu (*tin) ixë kalesi o janis
 met_{1sg} the girl that (*her) had_{1sg} invited the John
 at party his
 sti jorti tu
 ‘I met the girl that John had invited to his party.’

Nevertheless, the degree of ungrammaticality varies in the latter case. There seems to be a considerable difference between sentences like (9) and sentences like (10), which is acceptable for the vast majority of speakers⁷ although its head is definite (see also Tsimpli 1999):⁸

- (10) ta pedhja pu ta aghapane oli ine kala
 the children that them love_{3pl} everyone are good
 ‘The children that everybody loves are good.’

We also observe that similar judgments arise in all the cases where the relative head can be interpreted as a presupposed element. So, the clitic is licit in (12), where a set of students is presupposed in the discourse, but not in (11), where no such presupposition exists.

- (11) pjon su sistisan? mu sistisan to mathiti
 whom you_{gen} introduced_{3pl}? me_{gen} introduced the student
 tis irinis pu *(ton) epenesan stin akadhimia
 the Irene_{gen} that *(him) praised_{3pl} in-the academy

⁷ Only 2 out of 35 speakers considered (10) ungrammatical.

⁸ The same applies to the sentences below, cited in Stavrou (1985), who reports that adding an extra word (*xthes* ‘yesterday’, *pote* ‘never’ or *kala* ‘well’) can reduce ungrammaticality considerably:

- (i) to roloi tu pu to aghorase xtes
 the watch his that it bought_{3sg} yesterday
 ‘His watch that he bought yesterday.’
- (ii) exase ton aftosevasmo tu pu dhen ton ixë pote!
 lost the self-respect his that not it had_{3sg} never
 ‘He lost his self-respect that he never had.’

‘Whom did they introduce to you? They introduced to me Irene's student that they praised in the Academy.’

- (12) *pjon mathiti tis irinis su sistisan? me*
 which student the irene_{gen} you_{gen} introduced_{3pl}? me_{gen}
sistisan to mathiti tis irinis pu (ton) epenesan stin
 introduced the student the Irene_{gen} that (him) praised_{3pl} in-
akadhimia the academy
 ‘Which of Irene's students did they introduce to you? They introduced to me Irene's student that they praised in the Academy.’

In the same fashion, clitics seem to be permitted in cases where some element other than the definite NP is focused, as in (14):

- (13) *aghapao tin kopela pu o kostas dhen (*tin) frontizi*
 love_{1sg} the girl that the Kostas not (*her) take-care-of_{3sg}
 ‘I love the girl that Kostas does not take care of.’
- (14) *aghapao tin kopela pu KANIS dhen (tin) frontizi*
 love_{1sg} the girl that nobody not (her) take-care-of_{3sg}
 ‘I love the girl that nobody takes care of.’

Finally, clitics seem to be licensed in *pu*-RRCs with a definite head when the relative clause contains some kind of “heavy” element:

- (15) *afti ine i dhulia pu tha (*tin) kerdhizes*
 this is the job that would (*it) get_{2sg}
 ‘This is the job you would get.’
- (16) *afti ine i dhulia pu an epemenes tha (tin) kerdhizes*
 this is the job that if insisted_{2sg} would (it) get_{2sg}
 ‘This is the job you would get, if you insisted.’
- (17) *afti ine i dhimosioghrafos pu (*tin) episa*
 this is the journalist that (*her) persuaded_{1sg}
 ‘This is the journalist I persuaded.’
- (18) *afti ine i dhimosioghrafos pu (tin) episa*
 this is the journalist that (her) persuaded_{1sg}

oti exi dhikio

that has_{3sg} right

‘This is the journalist I persuaded that she is right.’

- (19) *afto ine to provlima pu (*to) lisame*
 this is the problem that (*it) solved_{3pl}
 ‘This is the problem we solved.’

- (20) *afto ine to provlima pu (to) lisame se tria lepta*
 this is the problem that (it) solve_{3pl} in three minutes
 ‘This is the problem we solved in three minutes.’

In our view, the extra clauses in (16, 18), the extra focused elements in (20), as well as the extra words in the examples in footnote 8 add more background information in the clauses under consideration, thus allowing a D-linked interpretation of the relative head. Therefore, we conclude that the presence or absence of the clitic is not only linked to the nature of the relative head ((in-)definiteness), but also to whether this relative head is part of the given (presupposed) information in the clause. This observation (already present in Stavrou 1985) will play an important role in our analysis.

4. The analysis of Alexiadou & Anagnostopoulou (2000)

In an attempt to explain the distribution of clitics in *pu*-RRCs, Alexiadou & Anagnostopoulou (2000) adopt Kayne’s (1994) analysis. They follow Stavrou’s (1983) basic observation that clitics are permitted in DO *pu*-RRCs when the head is indefinite, e.g. (8), but not when the head is definite, e.g. (9).

For Alexiadou & Anagnostopoulou (2000), *pu*-RRCs with a clitic pronoun are in essence clitic doubling constructions, and the asymmetry between definite and indefinite *pu*-RRCs is due to the fact that what raises in the former case is a bare NP, whereas what raises in the latter case is a DP. Consequently, when the head of the relative clause is definite, the input structure is ungrammatical, since it is well-known that in Greek clitic doubling structures the clitic does not double a bare NP but a full DP.

- (21) **tin ixē kalesi o janis kopela sti jorti tu*
 her had_{3sg} invited the John_{nom} girl in party his
 ‘John had invited girl to his party.’

On the contrary, when the relative head is indefinite, the input structure is claimed to be well-formed:

- (22) tin ixē kalesi o janis mia kopela sti jorti tu
 her had_{3sg} invited the John_{nom} a girl in party his
 ‘John had invited a girl to his party.’

On the other hand, the obligatory presence of the clitic –irrespective of the definiteness of the head– in IO *pu*-RRCs, as (7), can be attributed, according to Alexiadou & Anagnostopoulou (2000), to the fact that the input structure in these cases is a double object construction, as (23):⁹

- (23) edhosa tu jani ena vivlio
 gave_{1sg} the John_{gen} a book
 ‘I gave John a book.’

Alexiadou & Anagnostopoulou (2000) substantiate their claim by pointing out that if the input structure is indeed a double object construction in (7), then the obligatory presence of the clitic is expected, since it is well-known that the goal-argument in double object constructions of many languages cannot A'-move, whereas the theme-argument can.

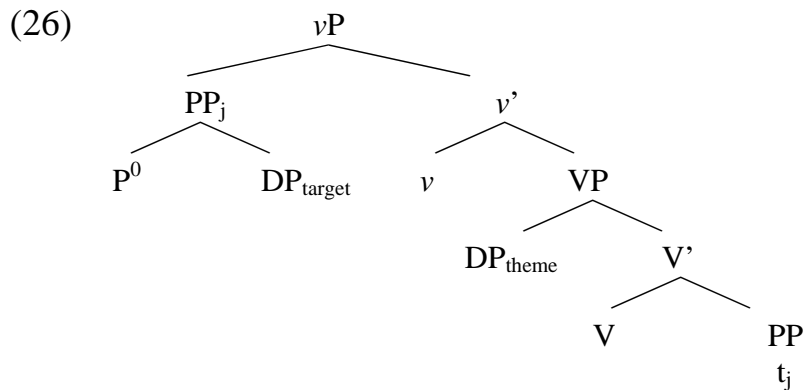
- (24) *The man that I gave the book.
 (25) The book that I gave John.

The reason for the above asymmetry is the fact that the goal-argument in double object constructions is introduced by an empty preposition (Baker 1988, den Dikken 1995). The PP headed by this empty preposition, according to Alexiadou & Anagnostopoulou (2000), moves¹⁰ to the [Spec, *v*P] position, where the empty P gets licensed via incorporation to the verb. Further raising of the NP, as required by the raising analysis, would constitute extraction from a left branch and would lead to ungrammaticality.¹¹

⁹ Alexiadou & Anagnostopoulou (2000) provide evidence for the fact that structures like (23) are indeed double object constructions which we will not examine here.

¹⁰ Dative-shifts.

¹¹ The exposition is slightly simplified here. The reader can consult Alexiadou & Anagnostopoulou's (2000) paper for topics that we miss out here, such as, for example, the reason why the P cannot be pied-piped together with the NP in order to avoid the extraction from a left branch.



In contrast, in IO *pu*-RRCs with a clitic, the empty P that is related to the clitic remains in the complement position and need not dative-shift, since the assumption is that the clitic can identify the empty preposition in-situ. In those cases, the input structure is –as in the DO-case– a clitic doubling construction. Consequently, according to the raising analysis, which demands movement of the NP to [Spec, CP], the NP moves outside the PP-complement. This movement is licit, since the PP does not occupy a left branch. So, for Alexiadou & Anagnostopoulou (2000) P-stranding in Greek is licit only in the presence of a clitic pronoun.

5. Problems with the raising analysis

Despite its theoretical advantages, pointed out in section 2, the raising analysis has been criticized in terms of both its theoretical and empirical adequacy (see Borsley 1997).¹² We note that the implementation of this analysis in Greek also faces theoretical as well as empirical problems. From a theoretical perspective we observe the following:

According to the raising analysis, RRCs derive from an ungrammatical structure, since the relative clause takes as an argument a bare NP (i.e. a nominal phrase lacking the DP layer).¹³ For example, (1) would derive from the ungrammatical clause [**pu eghrapse i Irimi arthro*] (that wrote Irene article). If we adopt a top-to-bottom derivation, as standardly assumed within the minimalist program, and suppose that the choices of the computational mechanism are local (i.e., they do not involve look-ahead), then sentences such as the above must be rejected.¹⁴

¹² But see also Bianchi (2000).

¹³ Borsley (1997) examines and offers a host of arguments against the view that the NP that raises to [Spec, CP] is a DP with a null D.

¹⁴ Borsley (1997) presents even more arguments against the raising analysis, which derive from *wh*-relatives, extraposed relatives, and non-restrictive relatives.

We also observe that one of the central arguments for the raising analysis does not hold for Greek. More specifically, proper names in English are not accompanied by the article:

(27) I remember (*the) Paris.

Nevertheless, when a proper name is the relative head, it must be introduced by an article:

(28) This is *(the) Paris that I will always remember.

The raising analysis attributes the grammaticality of (28) to the fact that the proper name and the article do not form a constituent. The proper name starts off as a bare NP-complement of the embedded verb, and moves to [Spec, CP] where it is merely linearly adjacent to D on its left.

In Greek, however, the behaviour of proper names does not support the raising analysis. It is well-known that Greek proper names are obligatorily introduced by the article:

(29) afti ine *(i) athina
 this is *(the) Athens
 ‘This is Athens.’

The same holds when proper names are relative heads:

(30) afti ine *(i) athina pou pandote tha thimame
 this is *(the) Athens that always will remember_{1sg}
 ‘This is Athens that I will always remember.’

Given the ungrammaticality of “bare” proper names, it is impossible to assume that a bare NP *Athina* starts off as a complement of the embedded clause, as required by the raising analysis. Therefore, one of the central arguments of the raising analysis becomes problematic when we consider Greek.

A second important drawback of this analysis is the fact that it cannot offer an explanation for the double case marking of the relative NP. Since the NP originates in the relativization site, we expect that it is assigned case within the embedded clause. What is not explained in the raising analysis is the way in which this case-marked NP shifts case and ends up with the case of the D introducing the relative clause:

- (31) poli zilevun to nearo pu tu ixē dhosi
 many envy_{3pl} the young-man_{acc} that him_{gen} had_{3sg} given
 fili i kulianu
 kiss the Kulianu
 ‘Many people envy the young man whom Kulianu had
 kissed.’
- (32) estila tu ghlosologhu pu ixa ghnorisi sto nels
 sent_{1sg} the linguist_{gen} that had_{1sg} met in NELS
 to neo mu arthro
 the new my paper
 ‘I sent my new paper to the linguist that I had met in NELS.’

In (31), the NP *nearo* surfaces in accusative case, whereas the relativization site is genitive-marked (a fact also evident from the case of the clitic). In (32), on the other hand, the relativization site is a DO position –and, therefore, accusative-case marked– but the NP *ghlosologhu* surfaces in genitive.

The problem arising is theoretical, since it is difficult to show how the NP gets case in its derived position. We could assume that the whole DP (which D introduces) gets case from the matrix verb (or gets inherent case). However, the raised NP does not have any special relationship with this D head, and, therefore, it is difficult to assume that it gets its case from D (which cannot assign case anyway, according to standard assumptions). Moreover, the fact that the allegedly raised NP has already been assigned case in the relativization site of the embedded clause should render it invisible to further case marking.¹⁵ Thus, the fact that the raising analysis cannot offer a satisfactory solution to the case conflict constitutes another problem for this account.

Let us now examine Alexiadou & Anagnostopoulou’s (2000) analysis for Greek. According to this analysis, the input structure in relative clauses with a definite head is ungrammatical, since it involves doubling of a “bare” NP:

- (33) *to ghnorisa pedhi
 it met child
 ‘I met child.’
 ↓

¹⁵ Cf. Chomsky (2000), according to whom DPs/NPs that have checked their case get ‘frozen in place’ and cannot enter new Agree relationships.

- (34) *afto ine to [pedhi_j pu to ghnorisa t_j]
 this is the [child that it met_{1sg} t]
 ‘This is the child I met.’

However, in the same fashion, sentences where an indefinite noun phrase is clitic doubled (35) are ungrammatical too. Although we have doubling of a full DP in these cases, it is well known that doubling of an indefinite phrase is very rarely licit in Greek:

- (35) *to ghnorisa ena pedhi
 it met a child
 ‘I met a child.’
 ↓

- (36) su milusa ja ena [pedhi_j pu to ghnorisa t_j]
 you_{gen} talked_{1sg} about a [child that it met_{1sg} t]
 ‘I was talking to you about a child I met.’

We do acknowledge the fact that when the DP has the property of familiarity it can be doubled or clitic dislocated even if it is indefinite, as in the well-known example from Kazazis & Pentheroudakis (1976):

- (37) to epina efxaristos ena uzaki
 it drank_{1sg} with-pleasure an ouzo
 ‘I would drink a glass of ouzo with pleasure.’

Nevertheless, the use of a clitic in *pu*-RRCs with an indefinite head is far more widespread than clitic doubling or clitic left dislocation of an indefinite noun phrase and it can be attested even with relative heads that are not ‘familiar’ (as, for instance, in (36)). Given this, one must then show that the underlying clitic doubling structure in *pu*-RRCs with an indefinite head is grammatical, a fact that –in the majority of cases– does not hold (cf. (35)). Therefore, the analysis according to which the presence of clitic pronouns derives from a clitic doubling/clitic dislocation input does not make the correct predictions for relative clauses with an indefinite head.

Furthermore, Alexiadou & Anagnostopoulou’s (2000) analysis is based on the assumption that constructions with an indefinite head are clitic left dislocation constructions, which derive from clitic doubling constructions via movement of the NP.¹⁶ But the fact that clitic left

¹⁶ It is indeed the case that the two kinds of construction resemble each other. However, this fact does not necessarily imply that they are transformationally related. In fact,

dislocation constructions are not generated by movement has been extensively argued in the literature (see Cinque 1990), as Alexiadou & Anagnostopoulou's (2000) observe.

Finally, on a more empirical level, Alexiadou & Anagnostopoulou's (2000) analysis does not explain why sentences like (10-20) [or (i) to (iii) in footnote (8)] that contain both a clitic and a definite head are grammatical and cannot, therefore, account for the asymmetry that we observed in section 3 concerning the correlation between the presence of the clitic and D-linking.

In general, Alexiadou & Anagnostopoulou's (2000) analysis presents the same problems that the raising analysis exhibits and needs a number of additional assumptions concerning Greek syntax in order to account for the distribution of clitics in RRCs.

6. *The proposal*

6.1 *The 'matching'-analysis*

In the previous section, we showed that the raising analysis as a whole, as well as its application to Greek, faces several problems. As we argued in section 2, though, this analysis offers a number of advantages, since it renders the null operator superfluous in *pu*-RRCs and explains the reconstruction phenomena observed in the structures under consideration.

More specifically, we observe that when the relative head contains an R-expression, this element cannot bear the same index as the embedded subject:

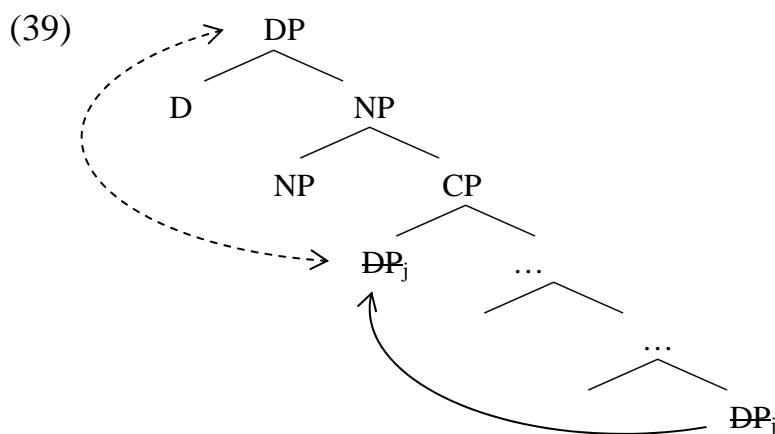
- (38) **thimame* to [*filo tu jorghu*]_i] *pu dhen pro*_i
 remember_{1sg} the friend the George_{gen} that not *pro*
ektimuse *t*_j
 respect_{3sg} *t*
 'I remember George's friend that he didn't respect.'

The ungrammaticality of (38) is probably due to a violation of Principle C of the binding theory. The DP 'tu jorghu' is bound by the subject *pro* of the embedded clause. But in such a case, we need to assume that the DP that contains 'tu jorghu' –that is, the bracketed DP in (38)– must be

there are good arguments that they are not (see Philippaki-Warbuton, Varlokosta, Georgiafentis & Kotzoglou 2002).

reconstructed at the site of its trace by LF. Given the fact that ‘reconstruction’ is a property of movement chains, and not mere coindexation chains (according to the copy theory of movement of Chomsky 1993), we reach the conclusion that the relative head in (38) comes from the relativization site, as postulated in the raising analysis.

It seems, then, that we have reached a dead-end. On the one hand, we have rejected the raising analysis, since it demands raising of a bare NP and it cannot offer an explanation for the double case-marking problem. Moreover, it does not treat the sequence of [D+NP] as a constituent. On the other hand, the traditional operator analysis succeeds in these respects, but fails to account for the reconstruction phenomenon. But the dead-end is only apparent. Most of the aforementioned problems find a satisfactory solution if we adopt a mixed analysis, the matching analysis, according to which the DP is generated both inside and outside the relative clause¹⁷ and the relative clause is an adjunct of the higher DP (more correctly: the NP dominated by the D-layer). This analysis retains the general format of the operator analysis, but it also generates a full copy of the relative phrase in the relativization site. This copy raises to [Spec, CP] of the subordinate clause and matches the relative phrase. PF-rules see that only the hierarchically higher phrase (among the matching ones) gets pronounced at Spell-out.¹⁸



If we follow this analysis, the reconstruction riddle gets explained, since what we find in the embedded clause is no longer a trace, but the covert

¹⁷ For the matching analysis see Chomsky (1965), Sauerland (1998).

¹⁸ We argue, in other words, that the moved phrase and the relative phrase in the matrix clause are identified as parts of the same chain (although their relation is not that of movement) and that the moved phrase loses its phonetic content due to the same mechanism that deletes the phonetic material of copies in (regular) movement chains, see Nunes (1999).

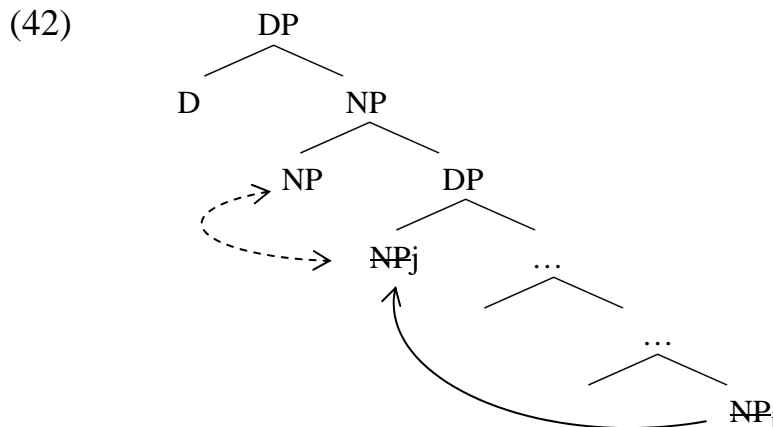
copy of the DP that has raised in the [Spec, CP] of the subordinate clause. Moreover, the double case-marking problem is explained, since the DPs in this analysis are two, and we can, therefore, assume that each of them bears its own case (the matching procedure does not need to involve case, which is anyway an uninterpretable feature on nominals). Finally, we do not need to suppose that the raised phrase is a bare NP. Therefore, our analysis does not share the problem pointed out by Borsley (1997) regarding the ungrammaticality of the input structure (V+bare NP) in the raising analysis.

On the other hand, our proposal seems –at first sight– to have difficulty explaining cases where raising of a bare NP (and not a DP) is required, as is the case of idioms.

- (40) o nikos ekane (*tin) poodho
 the Nick_{nom} made_{1sg} (the) progress_{acc}
 ‘Nick made a progress.’

- (41) i poodhos pu ekane o nikos ine simantiki
 the progress_{nom} that made the nikos_{nom} is important
 ‘The progress that Nick made is important.’

However, nothing in our analysis prohibits the possibility that in cases like this a bare NP is generated in the embedded thematic position (obeying the subcategorization restriction) and then raises to [Spec, CP] where it is matched not with the whole DP, but with its NP subpart.



Let us recall that it is a requirement of the moved and hierarchically lower element to be phonetically erased, so that a legitimate PF-structure is achieved. Therefore, what part of the higher DP is matched (the whole DP or its NP subpart) is completely irrelevant for the higher clause. In this

respect, our analysis does not have a problem in dealing with idiom chunks.

6.2 *The presence of the clitic in RRCs*

Let us now turn to the specific problems induced by the presence of a clitic in *pu*-RRCs with a DO-dependency. In section 3, we saw that the general schema regulating the distribution of the clitic is the following (where “topicalization” means the possible interpretation of the relative element as part of the presupposed/given information in the sentence):

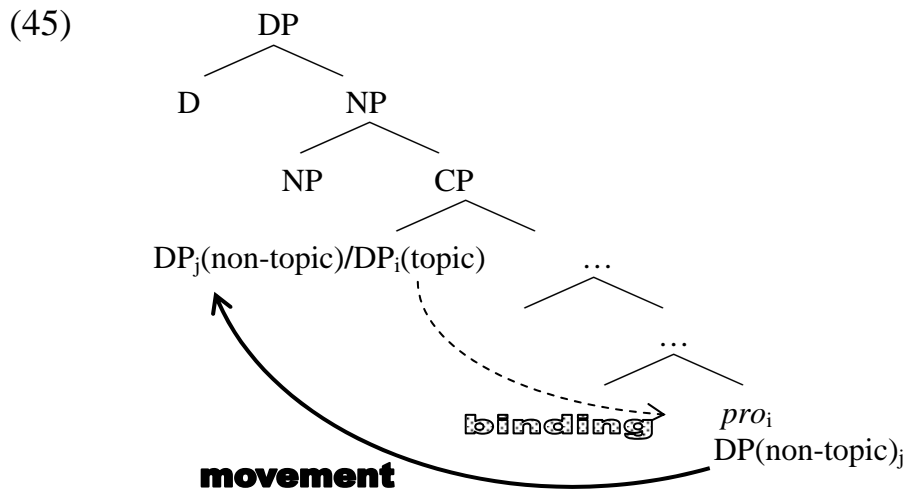
(43)

	topicalization	non-topicalization
definite head	✓clitic	*clitic
indefinite head	✓clitic	✓clitic

We know that the placement of D-linked elements is not a consequence of movement, but rather a product of base generation in a peripheral clause position (see Pesetsky 1987). For example, D-linked *wh*-phrases are supposed to be directly generated in [Spec, CP] without movement and to just bind some null element *pro* in the thematic position:

- (44) *pjon apo tus filus tu aghapai o nikos perisotero?*
phom from the friends his loves the Nick most
 ‘Which one of his friends does Nick love most?’

If we combine this approach with the matching analysis, as presented in example (39), we are led to the conclusion that in the cases where clitics are permitted, the relative DP is directly generated in [Spec, CP] and just binds a *pro* in the relativization site. On the contrary, when we do not have a topicalized/presupposed reading of the relative DP, we necessarily have movement from the relativization site to [Spec, CP]:



Therefore, the relevant restriction has to do with the movement of a definite DP to the [Spec, CP] position of *pu*-RRCs in the presence of a clitic. We believe that a similar restriction holds also for *o opios*-RRCs:¹⁹

- (46) ?*aftos ine o anthropos ton opio ton empistevome
 this is the man the whom him trust_{1sg}
 ‘This is the man I trust.’

- (47) o kokalis proselave ton proponiti ton opio poli tha
 the Kokalis hired the coach the whom many would
 ton ithelan stin omadha tus
 him want at-the team their
 ‘Kokalis hired the coach that many would want in their team.’

If indeed the differences between *pu*-RRCs and *o opios*-RRCs regarding the presence of a clitic are not so important, then the argument that the clitic is permitted in *o opios*-RRCs because there we have doubling of a full DP (e.g. *o opios anthropos*) cannot explain the ungrammaticality of (46), in much the same way as it cannot explain the grammaticality of the presence of a clitic in *pu*-RRCs with a definite head in which the relative phrase is D-linked. The current approach offers a uniform treatment for *pu*- and *o opios*-RRCs, interpreting the ungrammatical cases as consequences of illicit movement of a definite DP in the presence of a clitic.

We do not know, of course, what the specific condition is that bans movement of a definite DP when a clitic is present in the structure; we also leave open the issue of the exact input structure of relative clauses with a clitic. We simply note that the presence of both the clitic and a relative DP

¹⁹ The native speakers we consulted noted a clear-cut difference between (46) and (47).

seems to be required throughout the derivation.²⁰ If the clitic is generated in the object position (according to Philippaki-Warburton, Varlokosta, Georgiafentis & Kotzoglou 2002), then we are led to (i) either a structure that resembles that of normal clitic doubling, with the DP-double adjoined to vP/VP (48) (Philippaki-Warburton et al. 2002), (ii) or a complex DP structure with the resumptive clitic²¹ as a head, similar to that of Boeckx (2001) (49), (iii) or to some variation of Boeckx's structure, with the clitic as an object and the DP adjoined to it (50):

- (48) [_{vP} DP_i [_{vP} v [_{VP} DP_i [_{VP} clitic_i]]]]
 (49) [_{DP_{cl}} clitic [_{DP} ...]]²²
 (50) [_{DP_{cl}} DP_i [_{DP_{cl}} clitic_i]]

In all three cases the DP starts from 'low' enough in the phrase marker to be bound by the subject, a fact that explains the Principle C effects observed in the reconstruction cases (see (38)). This happens because in (49-50) the DP is part of the object and in (48) because it is an adjunct to vP/VP . We will not favour any of these alternatives in this paper. Suffice it to note that all of them are compatible with our proposal.²³

²⁰ Chomsky's (1993) *Inclusiveness Condition* bans the introduction of elements that were not present in the Numeration during the derivation, and therefore does not permit the interpretation of the resumptive clitic as a mere spell-out of the trace of the moved DP.

²¹ Let us note here that Alexiadou & Anagnostopoulou (2000) reject the possibility that the clitic in Greek relative clauses is resumptive. They propose that it is an A'-bound clitic, since it is selectively sensitive to island violations. However, it has been observed by Boeckx (2001) that selection violation of islands is not always a safe test as to the movement/non movement status of the phrase associated with a resumptive clitic. Therefore, the data from island violations do not lead us to safe conclusions concerning the nature of the clitic; in other words, they do not show that the clitic is not resumptive.

²² A possible objection here might be that this kind of structure is considered to be inappropriate for simple clitic doubling constructions (see Philippaki-Warburton et al. 2002). If Boeckx's structure is correct, we could suppose that it is a property of resumptive clitics to take a complement, whereas doubling clitics cannot.

²³ We observe here that the analysis in (48), which would be the more natural one, faces the problem of the difference between the input structure in clitic doubling constructions and in the licit relativization constructions, a problem present in the analysis of Alexiadou & Anagnostopoulou (2000) as well. In other words, it cannot explain why sentences with an indefinite relative head and a clitic are grammatical, although clitic doubling of an indefinite DP is not licit. We, therefore, leave the issue of the exact input structure of the clitic-DP construction open.

Let us, finally, examine the cases of RRCs with an IO-dependency. Their major characteristic is the obligatory presence of a clitic, as we saw in (7). Since nothing in our analysis demands the obligatory presence of a clitic in relative clauses, we reach the conclusion that presumably some other independent factor explains the pattern in (7). We believe that such a factor exists, following in this respect Alexiadou & Anagnostopoulou (2000). More specifically, as we mentioned in section 4, it is well known that the “target” argument cannot A'-move. Alexiadou & Anagnostopoulou (2000) assume that the ungrammaticality of the movement in question derives from the fact that the “target” is introduced by a null preposition that must be licensed. This licensing can take place via movement of the PP to the left periphery of the ν P and incorporation of the null P to the verb. After this first movement has taken place, further extraction of the relative phrase from the PP leads to ungrammaticality, as it is extraction from a left branch.²⁴ On the contrary, the clitic might suffice to license the PP in situ.

Of course, a problem that remains open is why in relatives with an IO-dependency movement of a definite phrase to [Spec, CP] does not lead to ungrammaticality when a clitic is present, contrary to what happens to movement of a definite DP in relatives with a DO-dependency. This problem is shared by all approaches to relatives, and its solution might be based on the different behaviour of clitics with inherent case from clitics with accusative case. Therefore, in this issue we follow Jaeggli (1982), Tsimpli (1999), Alexiadou & Anagnostopoulou's (2000), and we postulate that resumptive accusative clitics differ from genitive clitics in their feature structure. We suppose, then, that the restriction on movement of a definite phrase concerns the clitics that “double” or co-occur with accusative objects. We leave this issue open, as well, noting that it is shared by all analyses of relative clauses.

²⁴ An important problem that our analysis shares with Alexiadou & Anagnostopoulou's (2000) one is that although the relevant restriction on extraction from a left branch dictates that this extraction cannot pied-pipe the preposition due to the fact that the operator is null, nevertheless none of the two approaches assumes that the operator is actually null. Under our analysis, though, an important difference between interrogative and relative clauses would be that no phonologically overt material can be found at [Spec, CP] in relatives. If we follow a representational explanation of the restriction in movement of a preposition by phonologically non-overt material, then the fact that no link in the movement chain of the relative DP is phonologically overt might offer us the same benefits as the null operator analysis.

7. *Benefits of the proposed analysis – Issues for further investigation*

Our approach is an attempt, first of all, to explain the empirical data of the distribution of resumptive clitics in *pu*-RRCs in Greek. Therefore, it does not yet have the character of a solid theoretical proposal. We note, nevertheless, that it offers the following advantages compared with other analyses:

a) It explains the different case marking of the relative head and the relativization site. The spelled-out nominal head bears the case it receives in the matrix clause, since it is an argument of this clause throughout the derivation. The case assigned to the trace/relativization site is given to a second NP/DP, similar to the matrix one, which raises to the [Spec, CP] of the embedded clause. The phonetic features of this second phrase get erased by agreement with the matrix relative phrase. So we are dealing with two distinct phrases throughout the derivation, hence the double case marking.

b) It offers a satisfactory explanation to the reconstruction effects in the RRCs, since a silent copy of the DP/NP occupies the relativization site.

c) It avoids the subcategorization problem that the raising analysis faces. We do not need, in other words, to suppose that the object position of the verb is occupied by a bare NP in subordinate relative clauses, but we can still assume that the verb subcategorizes for a full DP (apart, of course, from cases where a bare NP is required, see (40), (41)).

d) It offers a plausible explanation for the presence of clitics in *pu*-RRCs in which the relative clause is a D-linked element. Since our proposal maintains that the ungrammaticality in structures with a resumptive clitic is due to the movement of a definite phrase in the presence of a clitic, the case where this definite phrase is D-linked is correctly predicted to be licit, since D-linking does not involve movement.

e) It proposes a uniform analysis for the presence of a clitic in *pu*- and *o opios*-RRCs, taking into account the fact that the clitic is permitted in both cases when the relative phrase is D-linked.

Despite the advantages of the present approach, issues such as the exact input structure of *pu*-RRCs with a clitic, the reasons that ban movement of a definite DP in [Spec, CP] when the clitic is present, as well as the reasons for the obligatory presence of a clitic in *pu*-RRCs with an IO-dependency remain open for future research.

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