ON THE STATUS OF RESUMPTIVE PRONOUNS IN MODERN GREEK RESTRICTIVE RELATIVE CLAUSES

Aikaterini K. Chatsiou
University of Essex

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Abstract

We discuss the status of Modern Greek Resumptive Pronouns, focusing on Restrictive Relative Clauses. Several analyses have been proposed to account for the phenomenon of resumption in Modern Greek Relative Clauses arguing in favour of a similar treatment of gaps and resumptive pronouns, suggesting that Binder-Resumptive Dependencies are triggered by the same mechanism as Filler-Gap Dependencies. In this paper, it is argued that resumptive pronouns are the ordinary pronoun forms of the language and that they are not alternative manifestations of gaps, presenting evidence from Asudeh's (2004) criteria for Hebrew, Irish and Swedish. Following this, we propose an LFG analysis for resumption in Modern Greek *pu* and *o opios* Restrictive Relative Clauses, distinguishing between two types of Dependencies (Filler-Gap and Binder-Resumptive Dependencies), following Asudeh (2004)'s treatment of the syntax of resumptives in these languages.

1 Introduction

In this paper, we discuss the status of Modern Greek Resumptive Pronouns, focusing on Restrictive Relative Clauses. In particular, it is argued that resumptive pronouns are the ordinary pronoun forms of the language and that they are not alternative manifestations of gaps. Based on this, we present an LFG analysis of resumptives and gaps in Modern Greek Restrictive Relative Clauses, following Asudeh (2004), proposing a Binder-Resumptive Dependency analysis for the former as opposed to a Filler-Gap Dependency for the latter.

The paper is organised as follows: Section 2 presents an overview of the data, namely, some of the most important characteristics of Restrictive Relative Clauses and Resumptive Pronouns in Modern Greek as well as their distribution in RRCs. In Section 3 we present our observations with regard to the status of resumptive pronouns in RRCs. Finally, in Section 4 we propose an LFG analysis of resumption in *pu* and *o opios*-RRCs.

2 An overview of the data

2.1 Modern Greek Restrictive Relative Clauses (RRCs)

Modern Greek Restrictive Relative Clauses are distinct from other types of Relative Clauses (namely Non-Restrictive (Appositive) Relative Clauses and Free Relative Clauses), since they convey important information about the head element and therefore cannot be omitted without loss of information as examples (1) and (2) illustrate:[1]

(1) Oi mathites pu teliosan tin ptihiaki
the.MPL.NOM students.MPL.NOM that finished.3PL the.FSG.ACC dissertation.FSG.ACC
tus harikan.
their.MPL.GEN were.happy.3PL
'The students who finished their dissertation were happy.'

(2) Oi mathites harikan.
the.MPL.NOM students.MPL.NOM were.happy.3PL
'The students were happy.' (Which students?)

[1]The abbreviations used in the glosses are: FSG = Feminine Singular, MSG = Masculine Singular, NPL = Neuter Plural, SG = singular, 1 = first person, 3 = third person, CL = clitic pronoun, NOM = Nominative Case, GEN = Genitive Case, ACC = Accusative Case.

Other abbreviations used in the paper: RP(s) = Resumptive Pronoun(s), MG = Modern Greek, (R)RC(s) = (Restrictive) Relative Clause(s), BR-DCs = Binder-Resumptive Dependency Constructions, FG-DCs = Filler-Gap Dependency Constructions, WCO = Weak Crossover (Effects).

Further to the above, contrary to the controversy that the same issue has raised for main declarative clauses, it is generally agreed in the literature that the internal constituent order of a relative clause is relatively fixed (Tzartzanos (1963), Markantonatou (1992), Lascaratou (1998), Mackridge (1985), Theophanopoulou-Kontou (1989)): they are introduced by a relativiser (either the complementizer *pu* or the relative pronoun *o opios*), followed by a verb and zero or more phrasal elements, as illustrated in (3):

(3) Relativiser + (resumptive pronoun) + V + XP*

The RRC's position with regards to its nominal head element is also fixed: Restrictive Relative Clauses always occur postnominally, after the element they modify, as illustrated by the ungrammaticality of (4):

(4) * Pu taise ton skilo o andras.
that fed.3SG the.MSG.ACC dog.MSG.ACC the.MSG.NOM man.MSG.NOM
[intended meaning: 'The man who fed the dog.']

Another characheristic of Modern Greek Restrictive Relative Clauses is that they are introduced either by the indeclinable, unmarked for gender and number complementizer *pu* [that] or by the fully declinable for case, gender and number relative pronoun *o opios*[2] [who.MSG.NOM], which agrees in gender and number with the modifying head and gets its case depending on the grammatical function it fulfils within the relative clause:

(5) I kopela pu vrike o skilos.
the.FSG.NOM girl.FSG.NOM that found.3SG the.MSG.NOM dog.MSG.NOM
'The girl that the dog found.'

(6) I kopela tin opia vrike o
the.FSG.NOM lady.FSG.NOM the.FSG.ACC who.FSG.ACC found.3SG the.MSG.NOM
skilos.
dog.MSG.NOM
'The girl whom the dog found.'

Both *pu* and *o opios*, are normally obligatory and cannot be omitted as illustrated in examples (7) and (8) [3] :

[2]We assume that the relative pronoun *o opios* consists of the definite article *o* (the.MSG.NOM) and the pronoun *opios* (who.MSG.NOM). Alexiadou (1998), citing Hatzidakis (1907), suggests that a further decomposition of *opios* into the indefinite marker *o-* and the variation of the free relative pronoun *ópios, -pios* is possible. The particulars of this require further research involving the diachronic analysis of relative pronouns and will not be pursued here.

[3]*Pu*, however, can be omitted in certain environments, such as in Relative Clauses in subjunctive mood (1) or in the second conjunct of a coordinated relative clause construction (2). For the purposes of this paper, however, we will assume that *pu* is always obligatory:

(1) Vrike daskala (pu) na milai Yaponezika.
found.3SG teacher.FSG.ACC that SUBJUNCTIVE PART speak.3SG japanese
'S/He found a teacher that speaks Japanese [lit. to speak Japanese].'

(2) Vrikan ton skilo pu efage ti gata ke (pu) gavgize.
found.3PL the.MSG.ACC dog.MSG.ACC that ate.3SG the.FSG.ACC cat.FSG.ACC and (that) was.barking.3SG
'They found the dog which ate the cat and (which) was barking.'

(7) O pyrosvestis pu/*Ø esose to koritsi pire
the.MSG.NOM fireman.MSG.NOM that rescued.3SG the.NSG.ACC girl.NSG.ACC received.3SG
vravio.
reward.NSG.ACC
'The fireman who rescued the girl was rewarded.'

(8) To koritsi to opio / *Ø esose o
the.NSG.NOM girl.NSG.NOM the.NSG.ACC who.NSG.ACC rescued.3SG the.MSG.NOM
pyrosvestis ine kala.
fireman.MSG.NOM is.3SG well
'The girl that the fireman rescued is fine.'

2.2 Resumption in Modern Greek RRCs

Modern Greek Resumptive Pronouns have the form of the unstressed monosyllable clitic form (weak form) of the personal pronoun. Being clitics, they are declinable according to the table in (9)[4]:

(9)

Number	Case	1st person	2nd person	3rd person		
				MASC	FEM	NEUT
SINGULAR	GEN	mu	su	tu	tis	to
	ACC	me	se	ton	ti(n)	to
PLURAL	GEN	mas	sas	tus	tis	ta
	ACC	mas	sas	tus	tis	ta

As previously noted, the position of the resumptive pronoun in the Relative Clause is fixed. Resumptive pronouns are *proclitic* – that is, they immediately precede the main verb – and must follow the relativiser (and optionally any negation markers present) as illustrated in (10):

(10) O gatos pu den ton taise i kopela.
the.MSG.NOM cat.MSG.NOM that not CL.3.MSG.ACC fed.3SG the.FSG.NOM girl.FSG.NOM
'The cat that the girl did not feed'

Depending on their case-marking, resumptive pronouns can fulfil specific syntactic functions. For instance, resumptive pronouns marked for accusative case may function as direct objects, whereas those in genitive case can function as indirect objects or as complements of a preposition, as in (11):

(11) To koritsi pu tu edoses ta luludia.
the.NSG.NOM girl.NSG.NOM that CL.3.NSG.GEN gave.2SG the.NPL.ACC flowers.NPL.ACC
'The girl that you gave the flowers to.'

[4]In addition to the forms presented in table (9), there is a 3rd person Nominative Singular form of the clitic pronoun (*tos* [CL.3.MSG.NOM], *ti* [CL.3.FSG.NOM] , *to* [CL.3.NSG.NOM]), which is reserved for special uses in certain expressions following *na* and *pun* (short form of *pu ine..?* = 'where is...?') as in *pun'tos?* = 'where is he?' and *na tos* = 'there he is!'. This reserved use of the nominative case of the clitic might be an explanation as to why RRCs bearing the relativised function of a subject are ungrammatical when a RP is present, as illustrated in (1):

(1) O mathitis o opios / pu ***tos*** teliose tin ptihiaki
the.MSG.NOM student.MSG.NOM the.MSG.NOM who.MSG.NOM / that CL.3.MSG.NOM finished.3.SG the dissertation
tu.
his.MSG.GEN
'The student who/that finished his dissertation.'

Regarding their distribution, resumptive pronouns are obligatorily absent in subject position both in *pu*- and in *o opios*-RRCs, although it is not clear whether this is simply due to the fact that the form for the nominative case is reserved for specific expressions (see footnote 4). Moreover, resumption is optional in both *pu*- and *o opios*- RRCs when the relativised position is a Direct Object, whereas when it is an Indirect Object (OBJ, OBJ2) it is obligatorily present in *pu*-RRCs but obligatorily absent in *o opios*-RRCs.

The table in (12) summarises their distribution in Modern Greek RRCs (+ marks the obligatory presence of the resumptive; - marks the obligatory absence of the resumptive pronoun; +/- marks its optionality):

(12)

Relativiser	**Relativised Function**		
	SUBJ	OBJ	OBJ2
PU	-	+/-	+
O OPIOS	-	+/-	-

3 On the status of Resumptive Pronouns in Restrictive Relative Clauses

In this section we consider two issues regarding the status of Resumptive Pronouns (RPs) in Modern Greek (henceforth MG) Restrictive Relative Clauses (RRCs), namely that first of all, they are the ordinary pronouns of the language and should therefore be analysed similarly to pronouns and that secondly they are not alternative manifestations of gaps and for this purpose dependencies involving resumptives and dependencies involving gaps should receive a distinct treatment.

3.1 Resumptive pronouns are the ordinary pronouns of the language

An important observation related to RPs is McCloskey (2002)'s claim "that resumptive pronoun languages do not have resumptive-specific morphological paradigms" (Asudeh, 2004, p. 11). Although this observation does not apply to all languages[5], resumptive pronouns in Modern Greek Restrictive Relative Clauses are the normal pronouns of the language: they have the same form and syntactic distribution as the 'ordinary' pronominal clitic forms. In particular, RPs have the form of the unstressed monosyllable clitic forms of personal pronouns and are declined according to the table in (9), reproduced here for convenience as (13):

(13)

Number	**Case**	**1st person**	**2nd person**	**3rd person**		
				MASC	FEM	NEUT
SINGULAR	GEN	mu	su	tu	tis	to
	ACC	me	se	ton	ti(n)	to
PLURAL	GEN	mas	sas	tus	tis	ta
	ACC	mas	sas	tus	tis	ta

In addition to that, they have the same syntactic distribution in non-imperative clauses as the ordinary pronouns of the language[6]– they immediately precede the verb as illustated in (14a) and (14b):

[5]Not all languages behave according to McCloskey (2002)'s claim. Vata, for instance, (Koopman, 1982) has special pronouns to denote resumption and Kaqchikel (Falk, 2002), a Mayan language, appears to have a resumptive that is not a pronoun.

[6]As Philippaki-Warburton (1985, p. 82) suggests, clitics "precede the inflected non-imperative verb, but follow the imperative and gerund [forms]". Since the verb in a RRC cannot be in the imperative or the gerund form, it therefore follows that RPs may only precede the verb of the relative clause.

(14) a. **Resumptive pronoun**

I ghata pu tis edosa to gala.
the.FSG.NOM cat.FSG.NOM that CL.3.FSG.GEN gave.1SG the milk

'The cat that I gave (her) the milk.'

b. **Ordinary Clitic form of the personal pronoun**

Tis edosa to gala.
CL.3.FSG.GEN gave.1SG the milk

'I gave the milk to (her).'

3.2 Resumptive pronouns are not alternative manifestations of gaps

Another issue regarding the status of RPs in relative clauses discussed in Asudeh (2004), concerns their relationship to gaps, and in particular whether the dependency between the resumptive pronoun and its binder (Binder-Resumptive Dependency) can be analysed similarly to a Filler-Gap Dependency. Several analyses have been proposed in the literature which argue that Greek RPs are (more or less) similar to gaps. Among others, Alexiadou and Anagnostopoulou (2000) propose an analysis of RPs in MG RRCs following Kayne (1994)'s antisymmetric analysis, suggesting that RPs behave similarly to gaps and that BR-DCs are triggered by the same mechanism as FG-DCs. In addition to that, Alexopoulou (2006), following Shlonsky (1992), argues in favour of treating RPs as a variable at LF claiming that unlike Hebrew, Greek "resumptive relative clauses have the same meanings as gap relatives" (Alexopoulou, 2006, 81).

In this section we put to the test the behaviour of RPs and gaps in Modern Greek using Asudeh (2004)'s criteria for Hebrew, Irish and Swedish. Asudeh (2004) claims that resumptive relative clauses are not the same as gap relative clauses, and supports his argument by providing the reader with a number of constructions where RPs behave differently from gaps, such as island sensitivity, weak-crossover effects, across-the-board extraction from coordinated conjuncts, licensing of paracitic gaps and form-identity effects.

3.2.1 Island Sensitivity

One of the arguments that Asudeh (2004, p. 124–128) puts forward arguing against a gap-like account of resumptives involves the issue of *island sensitivity*. In particular, he suggests that resumptive pronouns occur freely in islands, or rather that "the dependency between a resumptive and its binder is island sensitive" (Asudeh, 2004, 127), whereas gaps are disallowed in the same environment. Here, we consider the two kinds of island constructions, also discussed in McCloskey (1979) for Irish: *the wh-island* (15a) and *the complex-NP island* (15b):

(15) a. Gnorisa mia gineka pu den ksero pjos tin /
met.1SG a.FSG.ACC woman.FSG.ACC that not know.1SG who.MSG.NOM CL.3.FSG.ACC
*Ø pantreftike.
married.3SG

'I met a woman that I do not know who married her.'

b. Afti ine mia glossa pu tha sevomoun ekinon pu
this.FSG.NOM is.3SG a.FSG.NOM language.FSG.NOM that would respect.1SG the one that
tha ti / *Ø miluse.
would CL.3.FSG.NOM speak.3SG

'This is a language that I would respect the one who would speak it.'

The ungrammaticality of the examples involving a gap where a RP is expected suggests that RPs, contrary to gaps, occur freely in islands, evidence supportive of the argument that MG RPs are not alternative manifestations of gapped elements.

3.2.2 Weak Crossover Effects

Further evidence supporting the claim that gaps and RPs are distinct, according to McCloskey (1990, p.236-237), comes from weak crossover (WCO) effects. In particular, sentences manifesting WCO effects are ungrammatical if a gapped element is present (16a). If the gap is replaced with a RP, however, the sentence becomes grammatical, as shown in (16b) (both examples from Alexopoulou (2006, p.26, ex.43)):

(16) a. O fititis$_i$ pu tu$_i$ estile ta vivlia i daskala tu$_{i/j}$.
the.MSG.NOM student.MSG.NOM that CL.3.MSG.GEN sent.3SG the books the teacher his.MSG.GEN
'The student that his teacher sent him the books.'

b. *? O fititis$_i$ pu Ø$_i$ estile ta vivlia i daskala tu$_{i/j}$.
the.MSG.NOM student.MSG.NOM that sent.3SG the books the teacher his.MSG.GEN
'The student that his teacher sent him the books.'

3.2.3 Across-the-board Extraction

Zaenen et al. (1981), Sells (1984) and Engdahl (1985) among others have argued in favour of a common treatment of gaps and resumptives based on evidence from across-the-board extraction, i.e. extraction from all conjuncts of a coordinate structure. In other words, if we can extract the RPs from all the conjuncts of a coordinate structure, and the output is still grammatical, then this would provide evidence in favour of a common treatment of gaps and resumptive pronouns. (17a) shows a coordinated structure where none of the resumptives is removed. If gaps and resumptives are the same, it should be possible to replace both resumptives with a gap, simultaneously maintaining the grammaticality of the sentence. This however is not the case in Modern Greek, as exemplified in (17b):

(17) a. Efige i gata pu o Jiannis tin
left.3SG the.FSG.NOM cat.FSG.NOM that the.MSG.NOM John.MSG.NOM CL.3.FSG.ACC
agapai poli ke pu tin prosehi san na ine pedi tu.
love.3SG very much and that CL.3.FSG.ACC looks after as to be child his.
'The cat that John loves very much and looks after as if it was his own child left.'

b. * Efige i gata pu o Jiannis Ø agapai
left.3SG the.FSG.NOM cat.FSG.NOM that the.MSG.NOM John.MSG.NOM love.3SG
poli ke pu Ø prosehi san na ine pedi tu.
very much and that look.3SG after like to be child his.
'The cat that John loves very much and looks after as if it was his own child left.'

The sentence's grammaticality is ameliorated if we extract the resumptive pronoun from the conjunct closer to the modifying element. This could also be related to the fact that resumptives become more obligatory the more deeply embedded in a sentence they are, as shown in (18):

(18) ? Efige i gata pu o Jiannis Ø aghapai
left.3SG the.FSG.NOM cat.FSG.NOM that the.MSG.NOM John.MSG.NOM love.3SG
poli ke pu tin prosehi san na ine pedi tu.
very much and that CL.3.FSG.ACC look.3SG after like to be child his.
'The cat that John loves very much and looks after as if it was his own child left.'

3.2.4 Parasitic Gaps

Engdahl (1985) suggests that if the RP licenses a parasitic gap, this fact can be considered as evidence in favour of the view that RPs are spelled-out gaps. Evidence from Modern Greek RRCs in (19) shows that parasitic gaps are not licensed:

(19) O mathitis pu den borusan i kathigites na tu_i
the.MSG.NOM student.MSG.NOM that not could.3PL the professors to CL.3.MSG.GEN
eksigisun oti ihe apovlithi horis na $Øp_i$ kalesun sto grafio efige.
explain.3PL that had.3SG been expelled without to invite.3PL to the office left.3SG
'The student that the professors could not explain (to him) that he had been expelled without inviting him to the office left.'

The same applies to parasitic gaps on adjuncts as in (20a), although if the parasitic gap is licensed by a gap, the grammaticality of the sentence is improved as in (20b):

(20) a. * Na ta vivlia pu ta_i edhose horis na $Øp_i$
there are the.NPL.NOM books.NPL.NOM that CL.3.NPL.ACC gave.3SG without to
dhiavasi.
read

b. ? Na ta vivlia pu $Ø_i$ edhose horis na $Øp_i$ dhiavasi.
there are the.NPL.NOM books.NPL.NOM that gave.3SG without to read
'There are the books which she gave without reading them.'

3.2.5 Form - Identity Effects

Another argument put forward by Merchant (2001) in favour of a different treatment of gaps and resumptives is that contrary to Filler-Gap Dependency constructions, Binder-Resumptive Dependency "constructions exhibit certain *form-identity effects*" (Asudeh, 2004, p. 128) such as case-marking. In other words, in a Binder-Resumptive Dependency the binder cannot receive the case of the argument position of the resumptive, since this case is assigned to the resumptive pronoun itself. On the contrary, in Filler-Gap Dependencies the filler is understood as sharing its position with the gap, and consequently receives (among other things) the case of the gap. Modern Greek exhibits this behaviour as illustrated in (21):

(21) a. Pjos itan o fititis pu tu edoses
who.MSG.NOM was.3SG the.MSG.NOM student.MSG.NOM that CL.3.MSG.GEN gave.2SG
hastuki?
slap
'Who was the student you slapped?'

b. * Pjon itan o fititis pu tu edoses
who.MSG.ACC was.3SG the.MSG.NOM student.MSG.NOM that CL.3.MSG.GEN gave.2SG
hastuki?
slap
'Who was the student you slapped?'

This argument is further reinforced by Mackridge (1985, p. 252)'s observation of cases of *anakoluthon*, where *pu* is used without a resumptive pronoun in which case ambiguity arises, as is (22):

(22) a. Tus monus pu Ø akuse i dikastis itan
the.MPL.ACC only.MPL.ACC that heard.3SG the.FSG.NOM judge.FSG.NOM were
i astinomiki.
the.MPL.NOM policemen.MPL.NOM
'The policemen were the only (people) the judge listened to.'

Mackridge (1985) suggests that in such constructions, the "antecedent, instead of a relative pronoun, indicates government by the verb of the relative clause or by a preposition which equally belongs to the relative clause" (Mackridge, 1985, p. 252). If the resumptive pronoun was in the position of the gap, the example would be ungrammatical, as illustrated in (23):

(23) *Tus monus pu tus akuse i dikastis itan
the.MPL.ACC only.MPL.ACC that CL.MPL.ACC heard.3SG the.FSG.NOM judge were
i astinomiki.
the.MPL.NOM policemen.MPL.NOM
'The policemen were the only (people) the judge listened to.'

4 LFG Analysis

As we have observed, the overwhelming majority of the test results in Section 3.2 indicate that gap and resumptive relative clauses in Modern Greek are dissimilar. Based on this evidence, we adopt an alternative approach to that of Alexiadou and Anagnostopoulou (2000) and Alexopoulou (2006): we argue in favour of a distinct treatment of resumptive pronouns and gaps. Thus, we distinguish between two types of dependencies, Binder-Resumptive Dependencies and Filler-Gap Dependencies, and outline an LFG analysis along the lines of Asudeh (2004)'s account for Irish, Swedish and Hebrew.

To begin with, based on the claim (section 3.1) that RPs in MG RRCs are the normal pronouns of the language, we define RPs in the lexicon similarly to pronouns – having, that is, 'PRO' as the value of their PRED value and bearing marking for case, number, gender and person. However, its type is contributing additional information by the $(\uparrow \text{PRONTYPE}) = \text{RP}$ equation, which indicates that it is resumptive pronoun. The lexical entry for the third person feminine RP in Genitive case, for example, is as in (24):

(24) *tis* NP
$(\uparrow \text{PRED}) = \text{'PRO'}$
$(\uparrow \text{GEND}) = \text{F}$
$(\uparrow \text{NUM}) = \text{SG}$
$(\uparrow \text{CASE}) = \text{GEN}$
$(\uparrow \text{PERS}) = 3$
$(\uparrow \text{PRONTYPE}) = \text{RP}$

In addition to that, we define the lexical entries for the relativisers *pu* and *opios* as in (39) and (40) (the lexical entry for the MSG.NOM form of the relative pronoun is shown):

(25) *pu* C
$(\uparrow \text{PRED}) = \text{'PRO'}$
$(\uparrow \text{RELFORM}) = pu$

(26) *opios* NP
($\uparrow$ PRED) = 'PRO'
($\uparrow$ RELFORM) = *opios*
($\uparrow$ PERS) = 3
($\uparrow$ GEND) = M
($\uparrow$ NUM) = SG
($\uparrow$ CASE) = NOM
($\uparrow$ DEF) $=_c$ +

Both *pu* and *opios* have a RELFORM (RELativiser FORM) feature with different values (pu and $opios$ respectively). Contrary to *opios*, however, *pu* does not have any agreement marking for gender, case or number. Furthermore, the constraining equation ($\uparrow$ DEF)$=_c$ + on the *opios* lexical entry, ensures that it will be preceeded by a definite article.

The different grammatical category and the different value for the RELFORM feature is what differentiates *pu* from *o opios*-RRCs, which together with the case and the grammatical function specification on the resumptive pronoun node is essential to our account of the distribution of resumption in *pu* and *opios*-RRCs.

In addition to the lexical entries for the resumptive pronoun and the relativisers, we propose the following phrase structure rules for *pu* and *o opios*-RRCs. The DP rule in (27) accounts for the relationship between the modified nominal phrase (D') and the modifying RRC (CP). The modified element is the head and the set membership function $\downarrow\in$ ($\uparrow$ ADJUNCT) on the optional CP node, suggests that the relative clause will be treated as an adjunct on the head D'.

(27) DP $\rightarrow$ D' (CP).
$\uparrow=\downarrow$ $\downarrow\in$ ($\uparrow$ ADJUNCT)

The rule in (28) assumes the simplest phrase structure possible inside the nominal head-element.

(28) D' $\rightarrow$ D NP.
$\uparrow=\downarrow$ $\uparrow=\downarrow$

Appropriate agreement relations between the NP and the D are established through the appropriate agreement feature marking on the lexical entries, as shown in (29) and (30).

(29) *o* D
($\uparrow$ GEND) = M
($\uparrow$ NUM) = SG
($\uparrow$ CASE) = NOM
($\uparrow$ DEF) = +

(30) *skilos* NP
($\uparrow$ PRED) = 'DOG'
($\uparrow$ PERS) = 3
($\uparrow$ GEND) = M
($\uparrow$ NUM) = SG
($\uparrow$ CASE) = NOM

In addition to the above, the CP rule in (31) accounts for the relationships inside *pu-* and *o opios*-RRCs. In particular, it successfully accounts for the internal constituent order of the RRCs: they are introduced either by an element of grammatical category C (for complementizers like *pu* (that)) or by a DP (such as the relative pronoun *o opios* (who.MSG.NOM)) followed by an S_{rel}. The disjunction on the two grammatical categories ensures that the complementizer and the relative pronoun will be mutually exclusive.

(31) CP → { C
(↑ TOPIC) =↓
(↑ CLAUSE-TYPE) = REL

| DP
(↑ TOPIC) =↓
(↑ CLAUSE-TYPE) = REL
(↑ RELPRO) = (↑ TOPIC)
(↓ RELFORM) =$_c$ *opios*
((ADJUNCT ∈ ↑)NUM) = ((ADJUNCT ∈ ↑) ∈ ADJUNCT RELPRO NUM)
((ADJUNCT ∈ ↑)GEND) = ((ADJUNCT ∈ ↑) ∈ ADJUNCT RELPRO GEND)
{ (↑ SUBJ) =↓ (↓ CASE) = NOM
| (↑ OBJ) =↓ (↓ CASE) = ACC
| (↑ OBJ2) =↓ (↓ CASE) = GEN} }

S_{rel}.
↑=↓

In particular, the (↑ CLAUSE-TYPE) = REL specification on the C node states that the modifying element is a relative clause and the (↑ TOPIC) =↓ equation indicates that the information from the lexical entry of the relativizer will be part of the mother's TOPIC f-structure. Furthermore, as observed before, since *pu* is unmarked for number, case and gender, no agreement related information is necessary.

On the DP node, the first two equations work similarly to those appearing on the C node. Moreover, the (↑ RELPRO) = (↑ TOPIC) annotation coindexes the RELPRO f-structure with the TOPIC f-structure and the (↓ RELFORM) =$_c$ *opios* equation ensures that the DP introducing a Relative Clause is a relative pronoun and not any DP. Furthermore, we account for the fact that the relative pronoun gets its case depending on the grammatical function it fulfils in the RRC by defining a set of disjoint equations. (↑ OBJ) =↓ (↓ CASE) = ACC, for instance, ensures that if the relative pronoun is in ACC case, it will be an OBJ. On the other hand, number and gender agreement between the relative pronoun and its antecedent is accounted by inside-out functional uncertainties, reproduced in (32):

(32) ((ADJUNCT ∈ ↑)NUM) = ((ADJUNCT ∈ ↑) ∈ ADJUNCT RELPRO NUM)
((ADJUNCT ∈ ↑)GEND) = ((ADJUNCT ∈ ↑) ∈ ADJUNCT RELPRO GEND)

Finally, the {C|DP} disjunction ensures that the two relativisers will appear in mutually exclusive environments.

Last, but not least, the S_{rel} rule in (33) contains information on the elements of the RRC following the relativizers.

(33) $S_{rel} \rightarrow \{ \epsilon$
$\{ (\uparrow \text{TOPIC}) = (\uparrow \text{GF}) \ (\uparrow \text{TOPIC RELFORM}) =_c opios$
$| \ (\uparrow \text{TOPIC}) = (\uparrow \{\text{SUBJ}|\text{OBJ}\}) \ (\uparrow \text{TOPIC RELFORM}) =_c pu \ \}$
$((\text{ADJUNCT} \in \uparrow)\text{NUM}) = ((\text{ADJUNCT} \in \uparrow) \in \text{ADJUNCT RELPRO NUM})$
$((\text{ADJUNCT} \in \uparrow)\text{GEND}) = ((\text{ADJUNCT} \in \uparrow) \in \text{ADJUNCT RELPRO GEND})$

$|$ NP
$(\downarrow \text{PRON-TYPE})=_c \text{RP}$
$\{ (\uparrow\text{OBJ}) = \downarrow \ (\downarrow \text{CASE}) = \text{ACC} \ \{ (\uparrow \text{RELFORM})=_c pu \ | \ (\uparrow\text{RELFORM})=_c o\ opios \ \}$
$| \ (\uparrow\text{OBJ2}) = \downarrow \ (\downarrow \text{CASE}) = \text{GEN} \ (\uparrow \text{RELFORM})=_c pu \ \}$
$((\text{ADJUNCT} \in \uparrow)\text{NUM}) = \downarrow \text{NUM})$
$((\text{ADJUNCT} \in \uparrow)\text{GEND}) = \downarrow \text{GEND}) \ \}$

V
$\uparrow = \downarrow$

DP*.
$\{ (\uparrow \text{SUBJ}) = \downarrow \ (\downarrow \text{CASE}) = \text{NOM}$
$| \ (\uparrow \text{OBJ}) = \downarrow \ (\downarrow \text{CASE}) = \text{ACC}$
$| \ (\uparrow \text{OBJ2}) = \downarrow \ (\downarrow \text{CASE}) = \text{GEN}\}$

The S_{rel} consists of an empty string ϵ or an NP (the resumptive pronoun) followed by a V and zero or more DPs. In our analysis the distribution of RPs in *pu*- and *o opios*-RRCs is accounted by employing a disjunction over the ϵ and the NP node. The difference in the functional information contributed accounts for the difference in the distribution of resumptive pronouns and gaps in RRCs and consequently for the different status of gaps and resumptives.

In particular, with reference to the functional information on the ϵ[7], the $(\uparrow \text{TOPIC}) = (\uparrow \text{GF})$ equation (where $\text{GF} = \{\text{SUBJ}|\text{OBJ}|\text{OBJ2}\}$) ensures that the only kind of dependency the TOPIC can be involved in when a RP is absent is a Filler-Gap Dependency, where the gap shares the same f-structure information with the relevant grammatical function. In addition to the above, the absence of the resumptive pronoun is predicted by the use of a disjunction of equations (reproduced in (34)): its first part accounts for the absence of resumptives in *o opios*-RRCs whereas its second part accounts for its absence in *pu*-RRCs when the clause is in SUBJ and OBJ relativised positions.

(34) $\{ (\uparrow \text{TOPIC}) = (\uparrow \text{GF}) \ (\uparrow \text{TOPIC RELFORM}) =_c opios$
$| \ (\uparrow \text{TOPIC}) = (\uparrow \{\text{SUBJ}|\text{OBJ}\}) \ (\uparrow \text{TOPIC RELFORM}) =_c pu \ \}$

Furthermore, appropriate number and gender agreement information between the head element and the relative clause is contributed by the equations in (35):

(35) $((\text{ADJUNCT} \in \uparrow)\text{NUM}) = ((\text{ADJUNCT} \in \uparrow) \in \text{ADJUNCT RELPRO NUM})$
$((\text{ADJUNCT} \in \uparrow)\text{GEND}) = ((\text{ADJUNCT} \in \uparrow) \in \text{ADJUNCT RELPRO GEND})$

[7]The empty string ϵ represents absence of a c-structure element, but presence of f-structure information. As Dalrymple (2001, p. 175-176) points out a rule with an ϵ in it "does not license the presence the presence of an empty category or node in the c-structure tree; it simply constitutes an instruction to introduce some functional constraints in the absence of some overt word or phrase. No empty node is introduced into the tree," something which will become apparent in the examples following our analysis.

On the other hand, the NP node requires from its daughter f-structure to have a feature PRONTYPE of value RP, using the equation $(\downarrow \text{ PRON-TYPE})=_c \text{ RP}$, thus ensuring that the NP will be a resumptive pronoun. Moreover, the environments where a resumptive pronoun is present are described using a disjunction of equations (repeated in (36)). The first part of the disjunction accounts for the cases when the RP is in OBJ position in both *pu*- and *o opios*-RRCs, whereas the second part of the disjunction accounts for the presence of the RP in more oblique positions (OBJ2) in *pu*-RRCs, also ensuring appropriate case assignment depending on the grammatical function the RP fulfils within the relative clause:

(36) $\{ (\uparrow \text{OBJ}) = \downarrow \quad (\downarrow \text{CASE}) = \text{ACC} \quad \{ \; (\uparrow \text{RELFORM})=_c \textit{pu} \quad | \; (\uparrow \text{RELFORM})=_c \textit{o opios} \quad \}$
$\quad | \; (\uparrow \text{OBJ2}) = \downarrow \quad (\downarrow \text{CASE}) = \text{GEN} \quad (\uparrow \text{RELFORM})=_c \textit{pu} \quad \}$

Finally, appropriate assignment of number and gender and agreement of the resumptive pronoun with its antecedent is ensured by the use of inside-out equation in (37):

(37) $((\text{ADJUNCT} \in \uparrow)\text{NUM} = \downarrow \text{NUM})$
$\quad ((\text{ADJUNCT} \in \uparrow)\text{GEND} = \downarrow \text{GEND}) \quad \}$

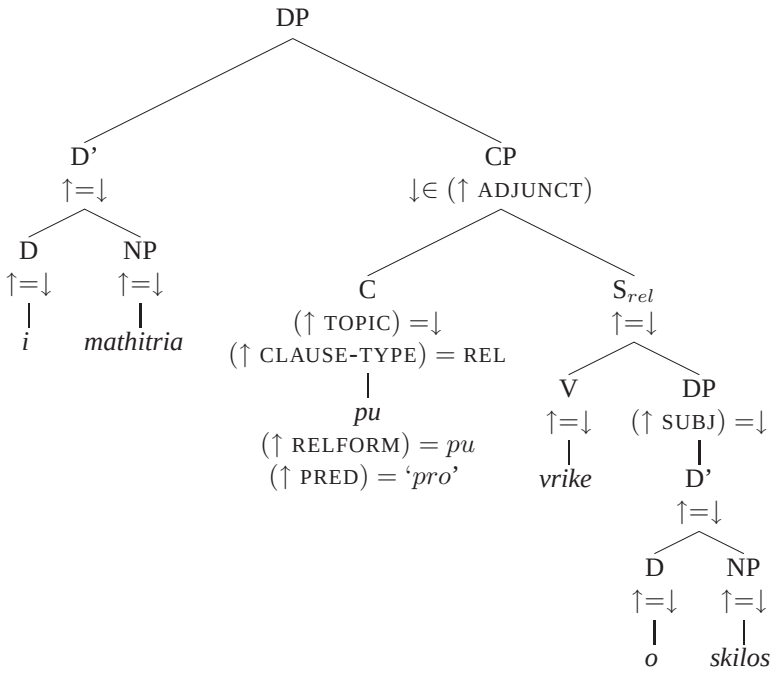
Some examples of *pu*- and *o opios*-RRCs with and without resumptives with their relevant c- and f-structures are shown in examples (38) to (41)[8]:

(38) ***pu*-RRC in Object Position with a Gap**

I	mathitria	pu	Ø	vrike	o	skilos.
the.FSG.NOM	student.FSG.NOM	that		found.3SG	the.MSG.NOM	dog.MSG.NOM

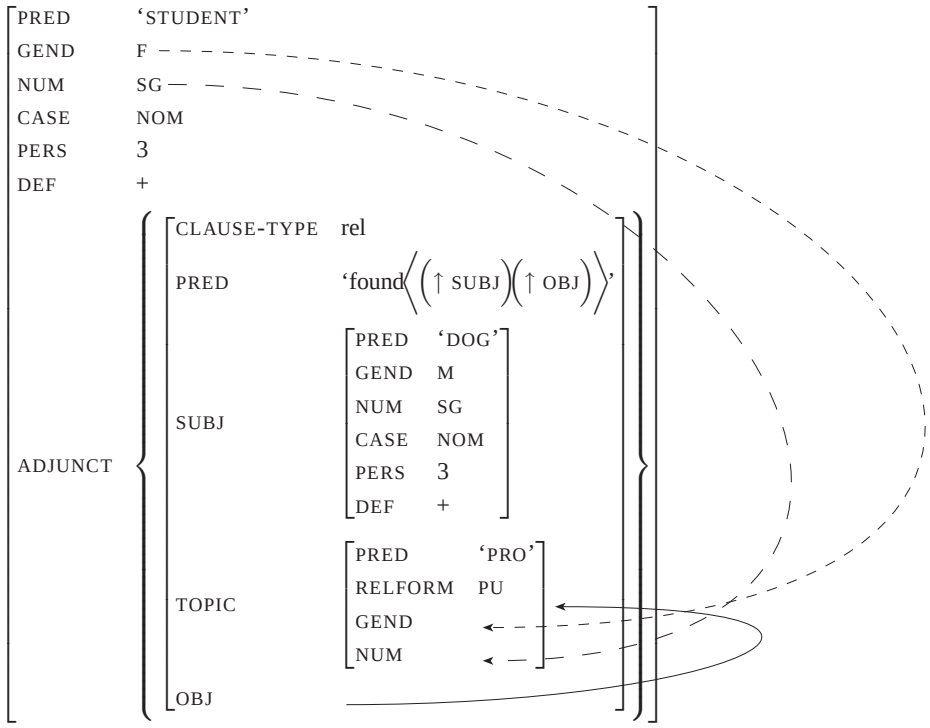
'The student that the dog found.'

a.



[8]Due to space limitations, we have only annotated in detail the nodes which play an important role in our treatment of resumption.

b.

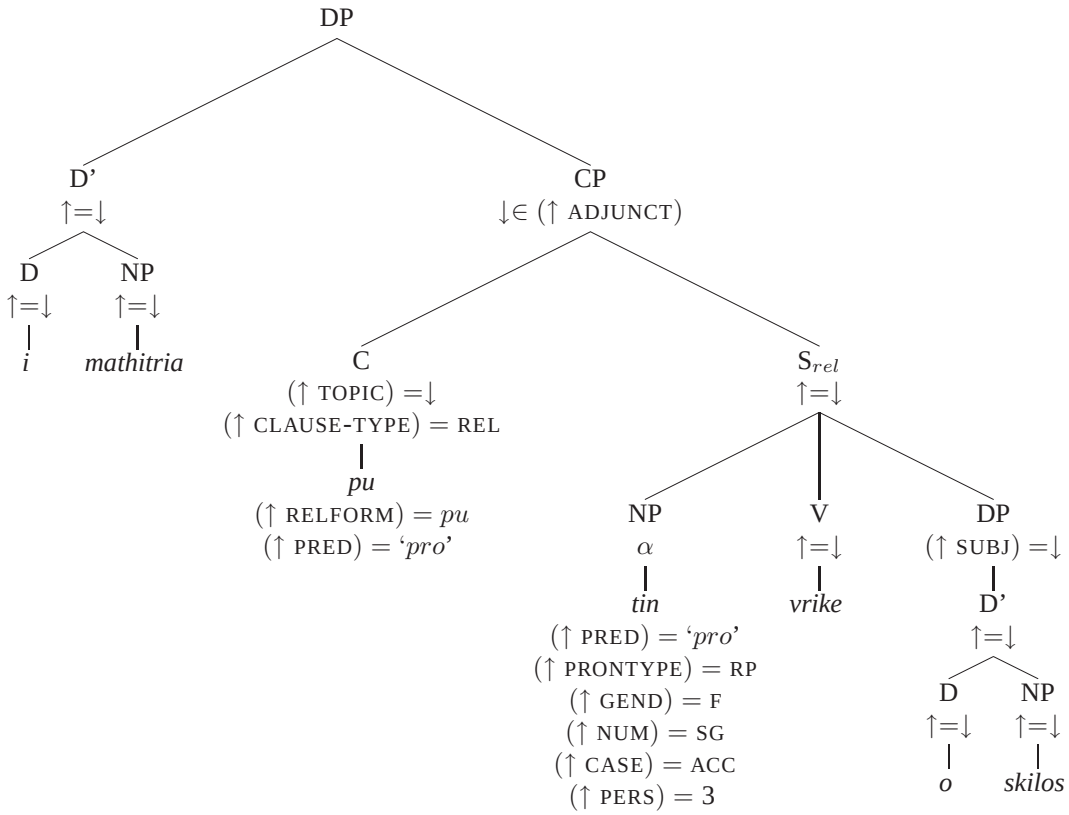


(39) ***pu*-RRC in Object Position with a RP**

I mathitria pu tin vrike o skilos.
the.FSG.NOM student.FSG.NOM that CL.3.FSG.ACC found.3SG the.MSG.NOM dog.MSG.NOM

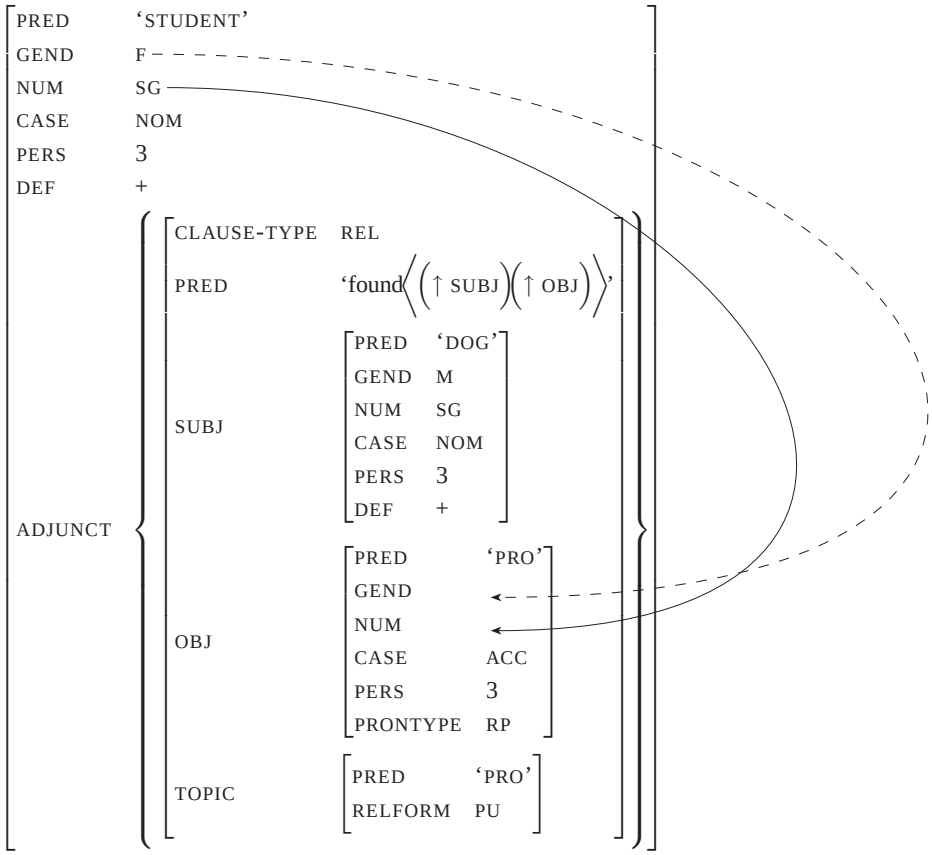
'The student that the dog found (her).'

a.



where α = $(\downarrow$ PRON-TYPE$)=_c$ RP
$\{ (\uparrow$ OBJ$) = \downarrow$ $(\downarrow$ CASE$) =$ ACC $\{$ $(\uparrow$ RELFORM$)=_c pu \mid$ $(\uparrow$ RELFORM$)=_c oopios$ $\}$
$\mid$ $(\uparrow$ OBJ2$) = \downarrow$ $(\downarrow$ CASE$) =$ GEN $(\uparrow$ RELFORM$)=_c pu$ $\}$
$(($ADJUNCT $\in \uparrow)$NUM$) = (\downarrow$ NUM$)$
$(($ADJUNCT $\in \uparrow)$GEND$) = (\downarrow$ GEND$)$ $\}$

b.

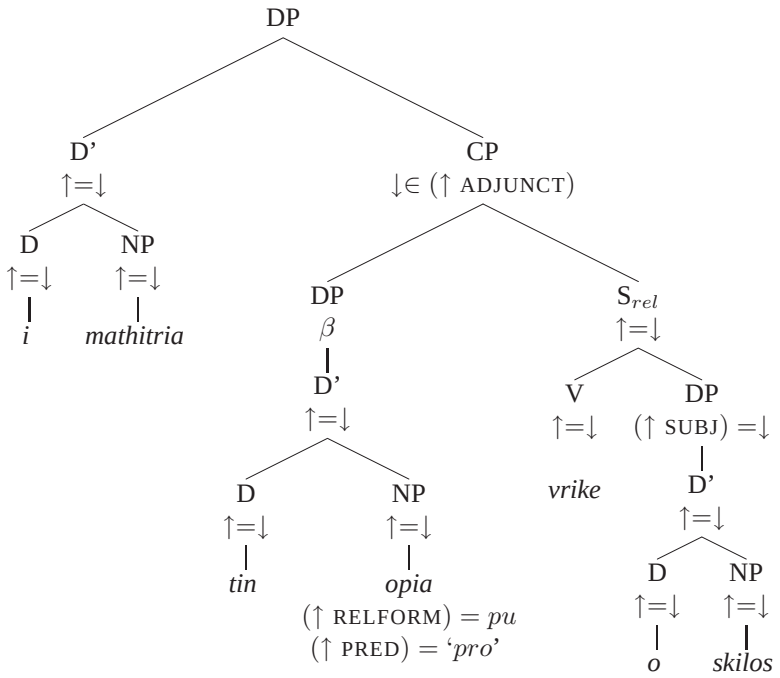


(40) ***o opios*-RRC in Object Position with a Gap**

I	mathitria	tin	opia	Ø vrike	o
the.FSG.NOM	student.FSG.NOM	the.FSG.ACC	who.FSG.ACC	found.3SG	the.MSG.NOM
skilos.					
dog.MSG.NOM					

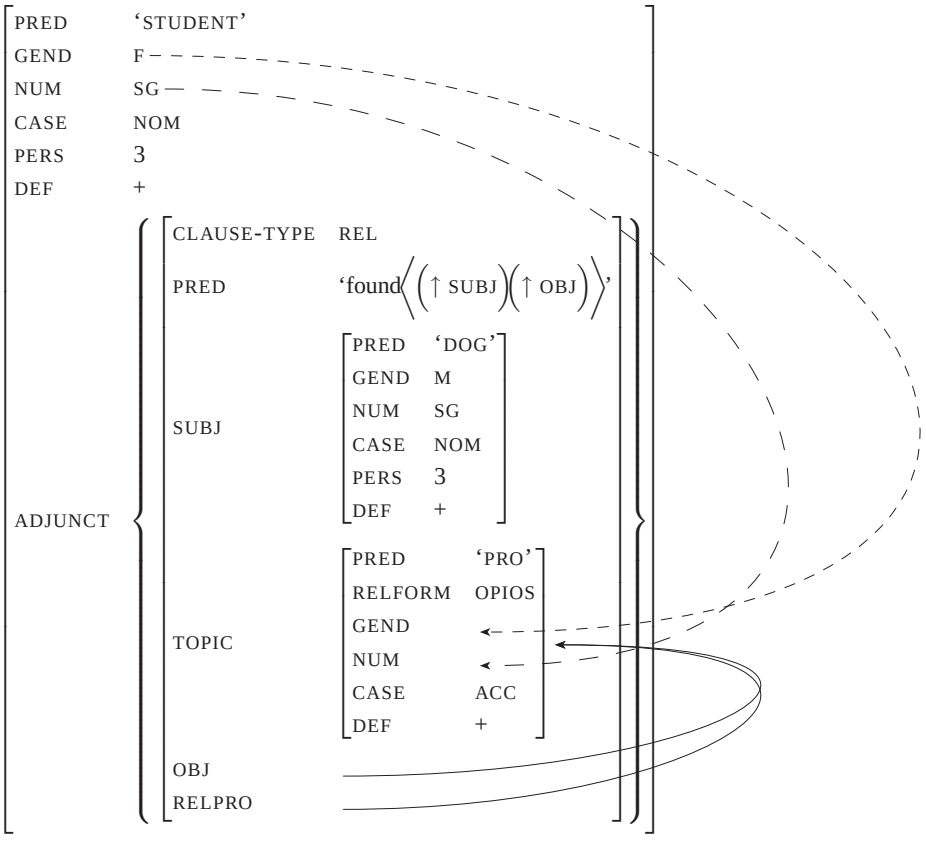
'The student that the dog found.'

a.



where β = $(\uparrow \text{TOPIC}) = \downarrow$
$(\uparrow \text{CLAUSE-TYPE}) = \text{REL}$
$(\uparrow \text{RELPRO}) = (\uparrow \text{TOPIC})$
$(\downarrow \text{RELFORM}) =_c \textit{opios}$
$((\text{ADJUNCT} \in \uparrow)\text{NUM}) = ((\text{ADJUNCT} \in \uparrow) \in \text{ADJUNCT RELPRO NUM})$
$((\text{ADJUNCT} \in \uparrow)\text{GEND}) = ((\text{ADJUNCT} \in \uparrow) \in \text{ADJUNCT RELPRO GEND})$
$(\uparrow \text{OBJ}) = \downarrow$

b.

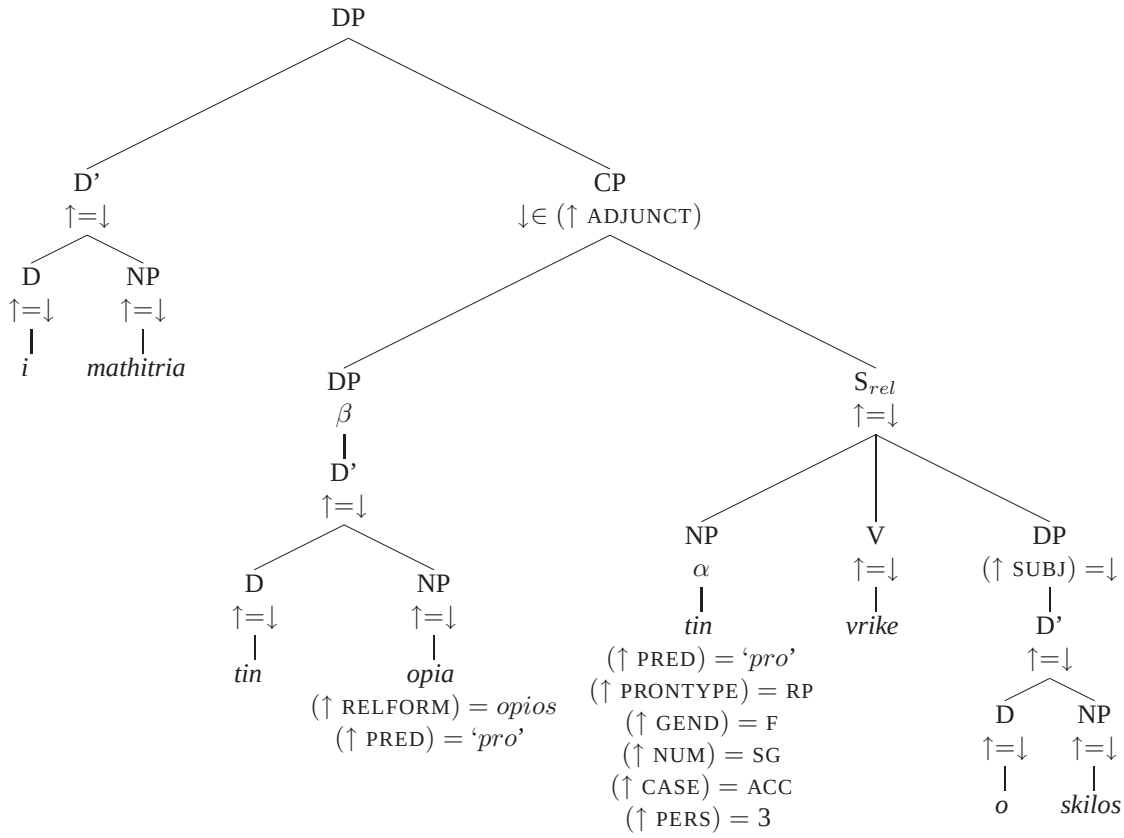


(41) ***o opios*-RRC in Object Position with a RP**

I	mathitria	tin	opia	tin	vrike
the.FSG.NOM	student.FSG.NOM	the.FSG.ACC	who.FSG.ACC	CL.3.FSG.ACC	found.3SG
o	skilos.				
the.MSG.NOM	dog.MSG.NOM				

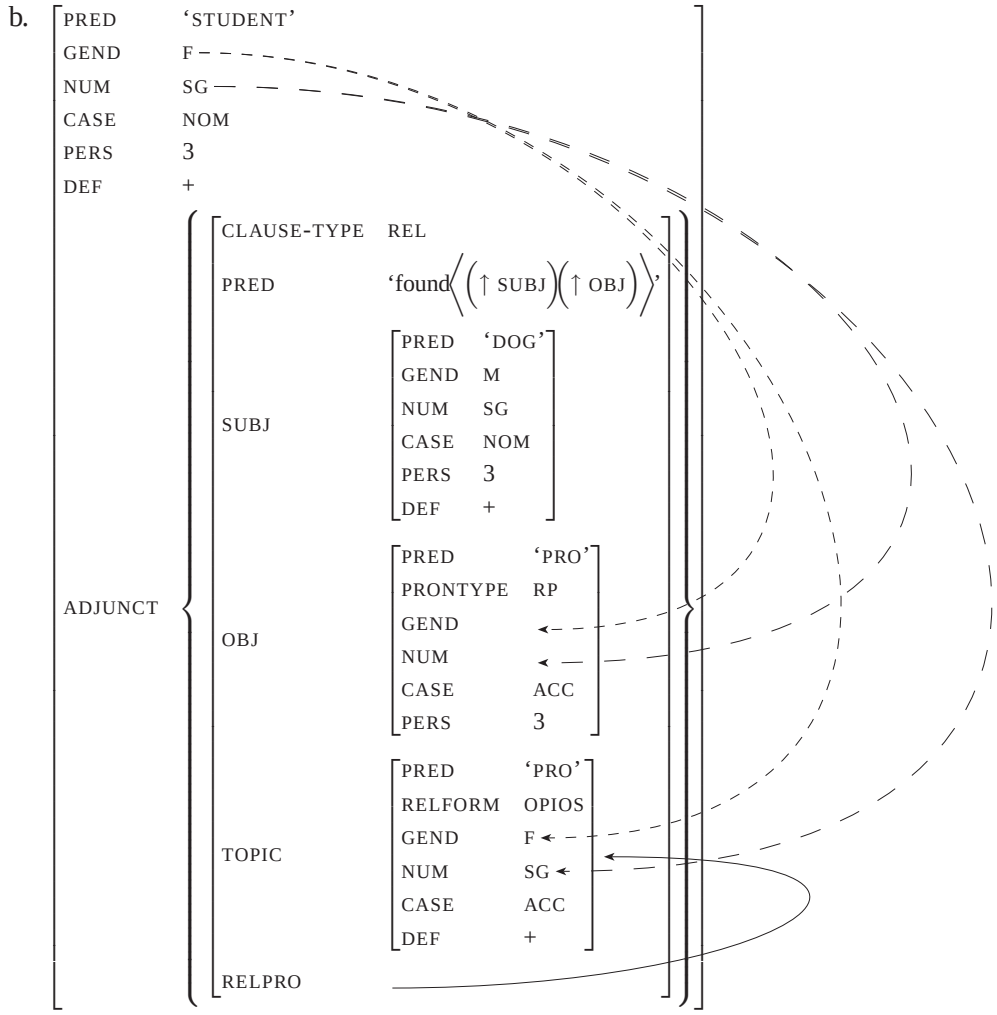
'The student whom the dog found (her).'

a.



where α = $(\downarrow \text{PRON-TYPE})=_c \text{RP}$
$\{ (\uparrow \text{OBJ}) = \downarrow \ (\downarrow \text{CASE}) = \text{ACC} \ \{ (\uparrow \text{RELFORM})=_c \textit{pu} \mid (\uparrow \text{RELFORM})=_c \textit{o opios} \}$
$\mid (\uparrow \text{OBJ2}) = \downarrow \ (\downarrow \text{CASE}) = \text{GEN} \ (\uparrow \text{RELFORM})=_c \textit{pu} \}$
$((\text{ADJUNCT} \in \uparrow)\text{NUM}) = (\downarrow \text{NUM})$
$((\text{ADJUNCT} \in \uparrow)\text{GEND}) = (\downarrow \text{GEND})$

and β = $(\uparrow \text{TOPIC}) = \downarrow$
$(\uparrow \text{CLAUSE-TYPE}) = \text{REL}$
$(\uparrow \text{RELPRO}) = (\uparrow \text{TOPIC})$
$(\downarrow \text{RELFORM}) =_c \textit{opios}$
$((\text{ADJUNCT} \in \uparrow)\text{NUM}) = ((\text{ADJUNCT} \in \uparrow) \in \text{ADJUNCT RELPRO NUM})$
$((\text{ADJUNCT} \in \uparrow)\text{GEND}) = ((\text{ADJUNCT} \in \uparrow) \in \text{ADJUNCT RELPRO GEND})$
$(\uparrow \text{OBJ}) = \downarrow$



5 Conclusion

In this paper we discussed the status of Modern Greek Resumptive pronouns in restrictive relative clauses. We argued that resumptive pronouns are the ordinary pronouns of the language and that they are not alternative manifestations of gaps, basing our argumentation on a series of tests put forward by Asudeh (2004). For this purpose dependencies involving resumptives and dependencies involving gaps were accounted for separately. Finally, based on these arguments, we presented an LFG analysis in which resumptive restrictive relatives and gap restrictive relatives get a distinct treatment similarly to Asudeh (2004)'s account of the syntax of resumption for Hebrew, Irish and Swedish.

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Aikaterini K. Chatsiou
Department of Language and Linguistics, University of Essex
Wivenhoe Park, Colchester, CO4 3SQ, UK
e : achats@essex.ac.uk
w : http://privatewww.essex.ac.uk/∼achats/