

# On the Emergence of Prenominal and Postnominal Relative Clauses in Pharasiot Greek



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## 1 Introduction: Relative clauses in Asia Minor Greek (AMG)

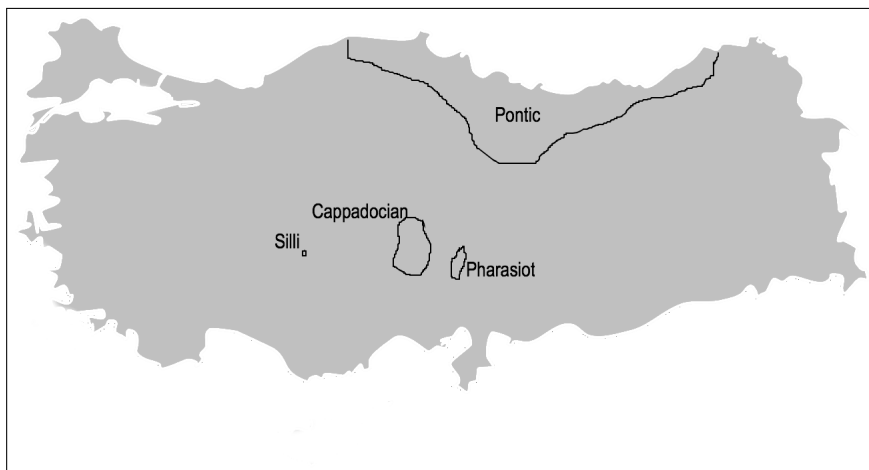
### 1.1 Some background information on AMG

#### 1.1.1 Asia Minor Greek

- *Asia Minor Greek* (AMG): Modern Greek dialects spoken in the regions of Cappadocia, Pharsa and Pontus; and in the village of Silli in Asia Minor (Turkey) until the population exchange of 1923 between Greece and Turkey (Dawkins 1910; 1916; 1937b, Triandaphyllidis 1938, Trudgill 2003, Karatsareas 2011, Sitaridou 2013b, Tzitzilis to appear).
- Main properties of AMG dialects:
  - from Eastern Koiné (Thumb 1910, Chatzidakis 1905:115, Dawkins 1940, Kontossopoulos 1983),
  - early linguistic separation from Metropolitan Greek (of Constantinople and mainland Greece),
  - heavy contact with Turkish after the Turkic influx (ca. 11th c.).
- Cappadocian: a few hundreds of speakers mostly in central and northern Greece (Janse 2008a;b;c; forthcoming, Janse and Papazachariou 2012).

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Asia Minor Greek dialects

- Pontic: ≈300.000 ppl. in Greece alone (as of 1999, Drettas 1999:15).<sup>1</sup>
- Silliot: now extinct.
- Pharasiot Greek (PhG): ≈ 25 ppl. in few villages in northern Greece (Bağrıaçık in preparation).

## 1.2 Relative clauses in PhG

- Both headed relative clauses and free relative clauses in PhG are finite clauses introduced by the morpheme *tu* (Andriotis 1948:66, Dawkins 1916:651, Anastasiadis 1976:168).

### 1.2.1 Prenominal RCs

- Relative clauses (RCs) in the texts written prior to the population exchange and for decades after that (1886–1960s) are exclusively linearly prenominal (see Dawkins 1916:200, §382, Andriotis 1948:85, Favis 1948:184–188 on the obligatory prenominal character of the relative clauses within the period indicated):

(1) [[ *tu* *ɣiraléske*] *o* *líkos*] *ínete* *tu* *sčílí* *o* *masxarás*.  
 TU grow.old.PFV.PST.3SG the.NOM wolf.NOM become.IPFV.3SG the.GEN dog.GEN the laughing.stock  
 ‘The wolf that grows old becomes the laughing-stock for dogs.’ (Levidis 1892:148, §225)

- Prenominal RCs is the main RC-formation strategy today:

(2) *điaváskami* [[ *tu* *ferínkani* *o* *tatá* *m*] *to* *yazæté*].  
 read.IPFV.PST.1PL TU bring.IPFV.PST.3SG the father my the.ACC newspaper.ACC  
 ‘we used to read the newspaper that my father would bring.’

- These prenominal RCs are head-external ( [DP [CP ... ] N ] ) rather than head-internal ( [DP [CP ... N ] ] ):  
 (a) the head must be in an absolute clause-final position (cf. (3) to (2)):<sup>2</sup>

<sup>1</sup> An archaic and a conservative (cf. Sitaridou 2013a;b) variety of Eastern Pontic, i.e. Romeyka, is still being spoken in the valley of Of (Çaykara) Sürmene and around Tonya today by around 5 thousand Muslims (cf. Mackridge 1987), although according to Özkan (2013) the number of speakers today is considerably higher.

<sup>2</sup> Instances recorded by Loukopoulos and Loukatos (1951), reproduced mistakenly from Dawkins (1937a) (cf. (i.a)–(i.b)), where the head seems to be internal to the relative clause (in the sense that it is not string-wise in an edge position of the relative clause) are rejected by Anastasiadis (1976). See also Theodoridis (1939) for the fact that the head is always string-wise in the final position):

(i) a. [ *tu* *irízi* *to* *krasí* *ksíđi*] *ínete* *vinató*.  
 TU turn.IPFV.3SG the wine vinegar become.IPFV.3SG strong  
 ‘the wine that becomes vinegar, becomes strong.’ (Loukopoulos and Loukatos 1951:44, §232)

- (3) \* ... [ **tu** ferínkani **to** **yazætá** o tatá m].  
TU bring.IPFV.PST.3SG the.ACC newspaper.ACC the father my  
'int.: ... the newspaper that my father would bring.'

(b) the case of the head noun is always assigned by a matrix clause case-assigner (predicate/preposition etc.), never by any case-assigner inside the RC:

- (4) a. [[ **tu** íðini] **o** **ípnos**] čav kámi ítun.  
TU see.PFV.PST.3SG the.NOM dream.NOM very bad be.PST.3SG  
'the dream that he saw was rather bad.'
- b. \* [[ **tu** íðini] **ton** **ípno**] čav kámi ítun.  
TU see.PFV.PST.3SG the.ACC dream.ACC very bad be.PST.3SG  
'the dream that he saw was rather bad.'

### 1.2.2 Postnominal RCs

- Despite the fact that they were not available in the corpus, today postnominal RCs are available in PhG:

- (5) ðiaváskami [ **to** **yazætá** [ **tu** ferínkani o tatá m]].  
read.IPFV.PST.1PL the.ACC/NOM newspaper.ACC/NOM tu bring.IPFV.PST.3SG the father my  
'we used the newspaper that my father would bring.' (cf. (2))

- This is pointed out already in Anastasiadis (1976:174, γ): "the head can precede the relative clause if it is focused" (our translation). However, no such focus constraint exists today; both prenominal and postnominal RCs are produced without any detectable semantic/pragmatic difference.

### 1.2.3 Free RCs

- Free RCs in PhG differ from headed relative clauses only minimally. Whereas in the latter there is a DP head which the RC modifies, in free RC no such (overt) DP head:<sup>3</sup>

- (6) záir [ **tu** tavrí mašéri] a ipá mo to mašéri.  
clearly TU draw.IPFV.3SG knife FUT go.PFV.NPST.3SG with the knife  
'clearly (the one) who/whoever draws a sword, will die by a sword.'  
(de Lagarde 1886:10, 1; Matthew 26.52)

- (7) ðiaváskami [ **tu** ferínkani o tatá m].  
read.IPFV.PST.1PL tu bring.IPFV.PST.3SG the father my  
'we used to read the things that/whatever my father would bring.'

- b. [ **tu** irízete s to krasí **to** **ksíði**] ínete vinató.  
TU turn.PASS.IPFV.3SG from the wine the vinegar become.IPFV.3SG strong  
'the vinegar that turns from wine becomes strong.' (Dawkins 1937a:150, §246)

<sup>3</sup> There is at least one relative *wh*-pronoun in PhG, *ótis* 'whoever.NOM' / *ótina* 'whoever.ACC' which is consistently attested in the collection of idioms/proverbs in Loukopoulos and Loukatos (1951):

- (i) ótis píni veresé krasí, meθά ðio foréðes.  
whoever.NOM drink.IPFV.3SG on.credit wine get.drunk.IPFV.3SG two times  
'whoever drinks wine on credit gets drunk twice.' (Loukopoulos and Loukatos 1951:18)

The same free RCs are also easily constructed today as free RC introduced by *tu*. We will not discuss the case in (i) or possible differences between (i) and free RC introduced by *tu*.

### 1.3 Aims of the paper

- Demonstrate that pre- and postnominal RCs in PhG are structurally different.
- Provide a diachronic account of the synchronic situation in present day PhG.
- Compare the syntax of RCs in PhG with a number of related AMG dialects, viz. (varieties of) Cappadocian and Pontic.
- Contribute to the ongoing debate on whether or not it is necessary to assume both raising and matching derivations for RCs.

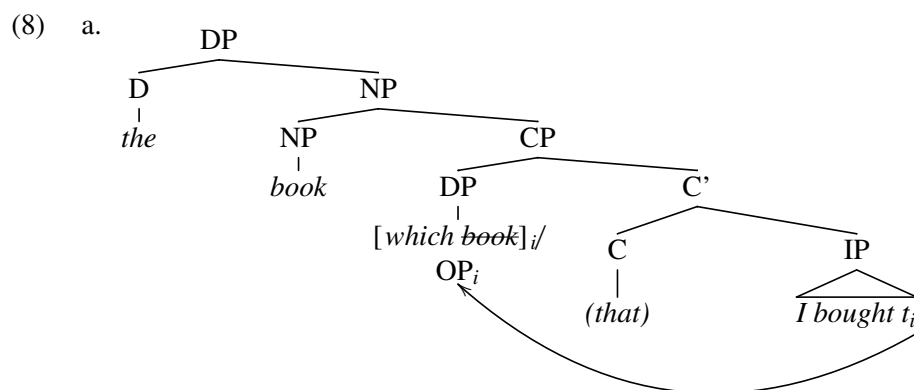
#### STRUCTURE OF THE TALK:

- Section 2: ‘matching’ and ‘raising’ RCs in PhG.
- Section 3: RCs in the history of Greek.
- Section 4: the emergence of prenominal and postnominal RCs in PhG.
- Section 5: some notes on RCs in other AMG varieties.
- Section 6: conclusions and avenues for future research.

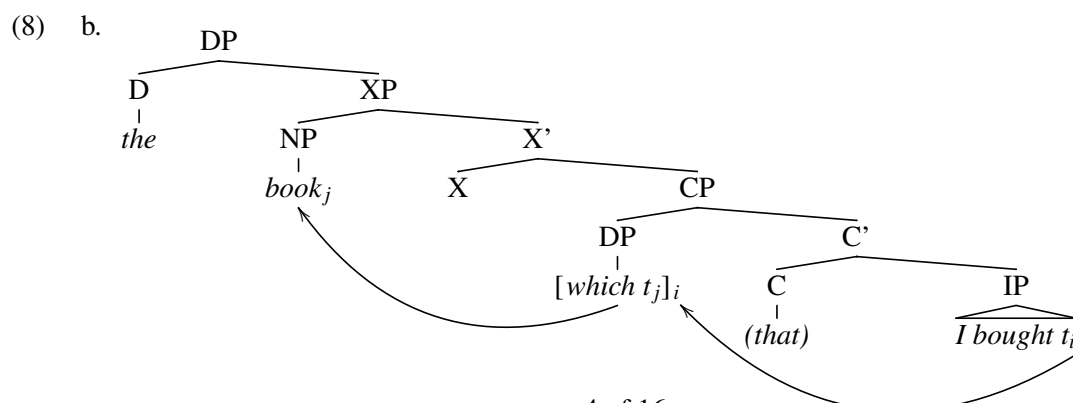
## 2 A remarkable discrepancy

### 2.1 ‘Raising’ and ‘matching’ in RCs

- Two competing analyses of (headed) RCs: ‘raising’ vs. ‘matching’ RCs (cf. Cinque 2015:2 for a summary):
  - **matching** (Lees 1961, Chomsky 1965:137ff, Platero 1973, Hale and Platero 1974, Sauerland 1998; 2000, Hulseley and Sauerland 2006): movement of an internal head, which is deleted under identity with an external head (8a). Alternatively, what raises from within the RC is an empty operator (co-indexed with the external head, cf. Chomsky 1977):



- **raising** (Lees 1961, Chomsky 1965:137ff, 145, Platero 1973, Vergnaud 1974, Hale and Platero 1974, Kayne 1994, Bianchi 1999, Sportiche 2014 among others): only one head, which moves from within the RC to a position where it is structurally contiguous to an external determiner (8b):



- Cinque (2003; 2005; 2008; 2015; in preparation), Hulsey and Sauerland (2006): both types of derivations exist. Diagnostics to tell apart raising and matching RC:
  - reconstruction effects (idioms, quantifier scope),
  - weak island sensitivity,
  - amount readings.

## 2.2 Raising and matching RCs in PhG

### 2.2.1 Diagnostic 1: V-O idiom chunks

- V-O idiom chunks where the article is ungrammatical (Brame 1968, Kayne 1994, Cinque 2005, Bianchi 1999:43–45), e.g.

- (9) a. make \*a/\*the headway  
b. the headway that he made...

- Interpretation of (9b): the idiomatic interpretation arises through reconstruction of the nominal head *headway*.
- PhG also possesses such V-O idiom chunks:

- (10) a. tro \*an/\*to pušmáni  
eat \*a/the regret  
'to regret'
- b. éxu \*an/\*to xáxxuu  
have \*a/\*the right  
'to be right'

- Objects of V-O idiom chunks can be relativized only in postnominal RCs:

- (11) \* [ tu éffain to pušmáni ] xa da skotosi.  
TU eat.PFV.PST.3SG the regret FUT.IRR him kill.PFV.NPST.3SG  
int.: 'the regret that he had would kill him.' (prenominal)
- (12) [ to pušmáni tu éffain ] xa da skotosi.  
the regret TU eat.PFV.PST.3SG FUT.IRR him kill.PFV.NPST.3SG  
'the regret that he had would kill him.' (postnominal)

- By assumption, the idiomatic interpretation is only available under reconstruction since the relativized object of the idiom chunk must be reunited at LF with the rest for interpretation.
- As a result, only the postnominal RCs involve head-raising.

### 2.2.2 Diagnostic 2: Scope Q > Num

- In raising RCs, the nominal head can be interpreted in the scope of a (universal) quantifier in the RC (Bianchi 1999:45–46, 122–123, Aoun and Li 2003:98–99, Krapova 2010:1247).
- Indefinite NPs with a numeral modifier can appear in the scope of a universal quantifier, yielding a distributive reading (13a). No such reading is possible with a definite object NP (13b):

- (13) a. Xer to čoúxi yapá ðíu pejkíra.  
every the child love.IPFV.3SG two horses  
'every child loves two horses.' (reading 'every >> 2' = ✓)
- b. Xer to čoúxi yapá ta ðíu ta pejkíra.  
every the child love.IPFV.3SG the two the horses  
'every child loves the two horses.' (reading 'every >> 2' = \*)

- PhG: contrast between postnominal and prenominal RCs:

- In the postnominal relative construction in (14a), the QP *đíu pejkíra* ‘two horses’ has to be interpreted in the scope of the universally quantified subject *xer to čočúxi* ‘every child’ → distributive interpretation (twice as many horses as children).
- This narrow scope reading is not present in prenominal RCs (14a).
- This too suggests that the head reconstructs only in postnominal RCs only.

- (14) a. *joxlátsa* [<sub>RC</sub> *ta đíu ta pejkíra tu* *ɣapá* *xer to čočúxi*].  
check.PFV.PST.1SG the two the horses TU love.IPFV.3SG every the child  
‘I checked the two horses that every child loves.’ (postnominal, reading ‘every ≫ 2’ = ✓)
- b. *joxlátsa* [<sub>RC</sub> *tu ɣapá* *xer to čočúxi ta đíu ta pejkíra*].  
check.PFV.PST.1SG TU love.IPFV.3SG every the child the two the horses  
‘I checked the two horses that every child loves.’ (prenominal, reading ‘every ≫ 2’ = \*)

### 2.2.3 Diagnostic 3: Weak island (WI) sensitivity

- Aoun et al. (2001), Cinque (2003; 2015; in preparation): Only raising RCs are sensitive to WIs:
- In PhG, only postnominal RCs are sensitive to WIs:

- (15) a. *rótsin* [<sub>WI</sub> *tuz xa íni* *an zóri askéri*].  
ask.PFV.PST.3SG how FUT.IRR become.PFV.NPST.3SG a good soldier  
‘he asked how he would become a good soldier.’
- b. ? *éni xaré* [<sub>RC</sub> *tu rótsin* [<sub>WI</sub> *tuz xa íni* *e<sub>i</sub>*] *to zóri to askéri<sub>i</sub>*].  
be.3SG now TU ask.PFV.PST.3SG how FUT.IRR become.PFV.NPST.3SG the good the soldier<sub>i</sub>  
‘now he is the good soldier that he asked how he would become.’  
(prenominal)
- c. \* *éni xaré* [<sub>RC</sub> *to zóri to askéri<sub>i</sub> tu rótsin* [<sub>WI</sub> *tuz xa íni* *e<sub>i</sub>*]].  
be.3SG now the good the soldier TU ask.PFV.PST.3SG how FUT.IRR become.PFV.NPST.3SG  
int.: ‘now he is the good soldier that he asked how he would become.’  
(postnominal)

WI-insensitivity is observed also when what is relativized on is not a predicate ((16a) vs (16b)):

- (16) a. *rótsa ta* [<sub>WI</sub> *tuz xa nási* *ton tópu*].  
ask.PFV.PST.1SG him how FUT.IRR plough.PFV.NPST.3SG the field  
‘I asked him how he would plow the field.’
- b. ? [<sub>RC</sub> *tu rótsa ta* [<sub>WI</sub> *tuz xa nási* *e<sub>i</sub>*] *o tópus<sub>i</sub>*] *čav sérti ni*.  
TU ask.PFV.PST.1SG him how FUT.IRR plough.PFV.NPST.3SG the field very hard be.3SG  
‘the field that I asked him how he would plough is rather hard.’ (prenominal)
- c. \* [<sub>RC</sub> *o tópus<sub>i</sub> tu rótsa ta* [<sub>WI</sub> *tuz xa nási* *e<sub>i</sub>*]] *čav sérti ni*.  
the field TU ask.PFV.PST.1SG him how FUT.IRR plough.PFV.NPST.3SG very hard be.3SG  
int. ‘the field that I asked him how he would plough is rather hard.’ (postnominal)

### 2.2.4 Diagnostic 4: Amount relatives

- Amount relatives (Carlson 1977), a type of maximalizing relatives (Grosu and Landman 1998, Grosu 2002) in which the relativized “head” does not denote a set of individuals (cf. Sauerland 1998), but a set of amounts.
- Characterized as bona fide raising structures in Cinque (2015).

- (17) a. It will take us the rest of our lives to drink the champagne {*that/Ø*/\*which} they spilled at evening.  
(Sauerland 1998:68, ex. (60), from Heim 1987)

- b. No linguist would read the many books {*that/Ø/\*which*} Gina will need for vet school.  
(Sauerland 1998:64, ex. (54))

- Amount reading available only in postnominal relative clauses:

(18) *prenominal*

- a. kanís čo porí na ðiavási [[ tu préftinkin na ðiavási i  
noone not can.3SG SBJV.PRT read.PFV.NPST.3SG TU have.to.pst.3SG SBJV.PRT read.PFV.NPST.3SG the  
Nerkíza] ta vivlía] (na íni xekím tejí).  
Nerkiza the books SBJV.PRT become.PFV.NPST.3SG doctor COMP  
'noone can read the books that Nerkiza read to become a doctor.'
- b. \*There is a number n, such that Nerkiza reads n-many books (to become a doctor) and noone can read identical n-many books (and become a doctor).
- c. There is a set  $\sigma$  of books, such that Nerkiza reads  $\sigma$  (to become a doctor) and noone can read identical  $\sigma$  (and become a doctor).

(19) *postnominal*

- a. kanís čo porí na ðiavási [ ta vivlía [ tu préftinkin na  
noone not can.3SG SBJV.PRT read.PFV.NPST.3SG the books TU have.to.pst.3SG SBJV.PRT  
ðiavási i Nerkíza]] (na íni xekím tejí).  
read.PFV.NPST.3SG the Nerkiza SBJV.PRT become.PFV.NPST.3SG doctor COMP  
'noone can read [all] the books that Nerkiza read to become a doctor.'
- b. There is a number n, such that Nerkiza reads n-many books (to become a doctor) and noone can read identical n-many books (and become a doctor).
- c. ??There is a set  $\sigma$  of books, such that Nerkiza reads  $\sigma$  (to become a doctor) and noone can read identical  $\sigma$  (and become a doctor) .

TO SUM UP:

Test	Prenominal RCs	Postnominal RCs
1. Reconstruction of idiom chunks	NO	YES
2. WI-sensitivity	NO	YES
3. Scope: Quant. > Num	NO	YES
4. Amount reading	NO	YES

Table 1: Differences between prenominal and postnominal RCs<sup>4</sup>

<sup>4</sup> Prenominal RCs in PhG extend lower in the Accessibility Hierarchy (cf. Keenan and Comrie 1977:66) than postnominal RCs:

(i) SU > DO > IO > \*OBL > \*GEN > \*OCOMP (postnominal)

(ii) SU > DO > IO > OBL > \*GEN > \*OCOMP (prenominal)

where SU: subject, DO: direct object, IO: indirect object, OBL: oblique case NPs, GEN: genitive, OCOMP: object of comparison.

- (iii) a. ánapsa ti nistía mo to kirpíti.  
light.PFV.PST.1SG the fire with the matchstick  
'I lit the fire with the matchstick.'
- b. [[ tu ánapsa ti nistíja to kirpíti.]  
TU light.PFV.PST.1SG the fire the match  
'the matchstick (with) which I lit the fire.' (prenominal)
- c. \* [ to kirpíti [ tu ánapsa ti nistía]].  
the matchstick TU light.PFV.PST.1SG the fire  
int. 'the matchstick (with) which I lit the fire.' (postnominal)

- systematic syntactic differences between pre- and postnominal RCs, which suggests that these two types of structures do not only differ in terms of linear word order.
  - Nominal head reconstructs in postnominal RCs → raised internal head spelled out overtly.
  - It does not reconstruct in prenominal RCs → external head spelled out overtly.
- in what follows, we will try to account for these differences by looking at the historical origins of the relevant patterns.

### 3 RCs in the history of Greek

- Linear order: prenominal and postnominal RCs
- Different relativizers:
 

<i>relative pronouns</i>	}	$\phi$ -agreement with the head noun.
<i>relative articles</i>		
<i>invariant complementizers</i>		non-agreeing.
- Variation and change with respect to presence and position of definite article

#### 3.1 Postnominal RCs

##### 3.1.1 RCs introduced by an agreeing relativizer

- Two strategies:
  - **relative pronouns** (20a): most common relativization strategy in Ancient Greek, do not survive in any present day variety.
  - **relative articles** (20b), which are morphologically identical to definite articles (with the proviso that masculine and feminine relative articles bearing nominative case are not attested): relatively rare in earlier texts, then gradually gain ground, quite common in (Early) Medieval Greek (Bakker 1974, Gignac 1981, Manolessou 2004, Kriki 2013).

(20) a. [...] *épese* ke [ **i** **lóŋxi** **in** *ekráti* to  
 fall.PFV.PST.3SG and the.F.SG.NOM spear-head.F.SG.NOM which.F.SG.ACC hold.IPFV.PST.3SG the  
*áyalma*].  
 statue

‘[...] also the spear-head that the statue used to hold fell down.’

(Chr. Mal., 18.118.4. 6th c.)

b. **ta** **xalkómata** **ta** *éxis* *pará* *si* [...].  
 the.N.PL.NOM/ACC bronze.materials.N.PL.NOM/ACC the.N.PL.NOM/ACC have.2SG beside you

‘the bronze materials you have with you [...].’

(SB 7253, PMich. 221.8, ca. 296 AD)

- Other relative pronouns exist, e.g., emphatic pronoun *óspēr*, indefinite pronoun *óstis* (see Mayser 1970, Bakker 1974, Gignac 1981, Manolessou 2004, Kriki 2013, Probert 2015).
- If definite, the nominal head (typically) has a definite determiner (article) of its own.

##### 3.1.2 RCs introduced by an invariant complementizer

- Invariant complementizer (*ó*)*pu* around 5th c. AD first with temporal, circumstantial, and causal usages and later as a generic relativizer (Bakker 1974:87–94, Gignac 1981:179, Nicholas 1998:200ff, §5, Manolessou 2004):

(21) [...] *lávontes* [ **ton** **aðelfón** **ópu** *íxe* *pros* *aftón* *tin* *lípin*].  
 bringing the.M.SG.ACC brother.M.SG.ACC OPU have.PST.3SG towards him the pain



‘bringing the brother who had distressed him.’

(Apophth. Patr.300 B, 5th c. AD, cited in Bakker 1974: 91)

- spatial (locative/temporal) *u* < genitive of the masculine/neuter relative pronoun (decline of spatial use after Koine according to Nicholas 1998: 201):

(22) a. elálishan en [ **ti** **póli** **u** o profítis o presvítis katóki en aftí].  
speak.PFV.PST.3PL in the.F.SG.DAT city/F.SG.DAT U the prophet the old settle.IPFV.PST.3SG in it  
‘they spoke in the city where the old prophet dwelled (in it).’

(LXX, KingsIII, 13.25)

b. **akrivá** **práymata** **u** u fthíronte.  
expensive things.N.PL.NOM/ACC U not wear.OUT.IPFV.PASS.3PL  
‘expensive things which do not become worn.’

(Book of the High Porte 31b, 3d; cited in Liosis and Kriki 2013)

- The same *u* is well attested as a generic complementizer introducing complement clauses to prepositions:

(23) a. [...] prín **u** is ta áno méri apélthi.  
before U in the upper places come.PFV.NPST.3SG  
‘before he goes up country.’

(3rd c. AD. SB 3, 6262, 18-20)

b. [...] éos **u** sxí páxos mélitos.  
until U bear.PFV.NPST.3SG thickness honey.GEN  
‘until it gets the thickness of honey.’

(7th cent. CE P.Nic.34,27)

### 3.2 Prenominal RCs

- Main properties of DPs containing a prenominal RC:
  - obligatorily interpreted as definite,
  - despite no (overt) definite determiner being present.

- Examples with a relative pronoun (24a) and relative article (24b) (and twice case attraction, which should not distract us):

(24) a. [ ek [...] [[ **on** épempsas] **ðraxmón** **ðiakosíon**]].  
from which.F.PL.GEN send.PFV.PST.2SG drachma.F.PL.GEN 200  
‘from the 200 drachmas you sent.’

(*rel. pronoun*; p.sarap. 80, 2nd c. AD)

b. éfiye [ ðia [ **ton** [ íxe meθ’ eafthú] **plíon**]].  
leave.PFV.PST.3SG by.means.of the.N.PL.GEN have.PAST.3SG with self ship.N.PL.GEN  
‘He fled in the ships he had with him.’

(*rel. article*; Chr. Mal. 5.95.8, 6th c. AD)

- Interestingly, one isolated example with an invariant complementizer features the relativizer *tou* (25):

(25) pémpso ðe si arýrion eán antipémpsis mi [ **tu** písás mi  
send.FUT.1SG PRT to.you silver if send.back.PFV.NPST.2SG to.me TU make.PFV.PST.2SG to.me  
**oθoníðia**].  
linen.cloths

‘I will send you some money if you send back to me the linen cloths which you have made.’

(P.Oxy 15, 1765, 10-13, 3rd cent.)

- At least in some, the relevant structures are head-external, given that typically (i) the head noun follows the RC and (ii) it receives case from a case assigner in the matrix clause, not from a source within the RC.<sup>5</sup>

## 4 The emergence of prenominal and postnominal RCs in PhG

- In a nutshell:
  - PhG *tu* historically derives from (i) the *t-* element of a definite determiner and (ii) the generic relative complementizer *u* (cf. example (22)).
  - Prenominal RCs: reanalysis of the string ‘Det – RC – N’ → no landing site for head raising → **matching** structure.
  - Postnominal RCs: structure borrowing from Standard Modern Greek → **raising** structure.

### 4.1 Prenominal RCs: Reanalysis

- we adopt a version of an idea put forward in Tzitzilis (to appear) as it is reported in Liosis and Kriki 2013:20: “*tu* derives from *u* with the analogical addition of *t-*.”
- *tu* came into being through reanalysis rather than analogy. Input structure = linear string ‘external determiner (from the ‘*t*-set’, with elision of a final vowel) + *u*-complementizer’.
- ‘light/silent headed’ RCs → reanalysed as genuine free relatives ((6)–(7)).
- Headed RCs with the word order ‘Det – RC – N’ (not available in Ancient Greek).
- definite article (‘D’) followed by (and linearly adjacent to) relative pronouns (‘C’) are attested (but it has to be added that examples are scarce and from later texts):

- (26) a. [...] [<sub>PP</sub> *katá* [<sub>DP</sub> *tin* [<sub>CP</sub> *in* *íxe* *metá ton apokrisiaríon* *simfonían*]]].  
 according the.F.SG.ACC which.F.SG.ACC have.PST.3SG with the representatives  
 agreement.F.SG.ACC  
 ‘according to the agreement that he had with the representatives.’  
 (A.Metaphr. Alexiad., 417. 3, 12th c. AD)
- b. *astoxísantes* [<sub>DP</sub> *ton* [<sub>CP</sub> *on* *íxon* *skopón*]] *os xasméni*  
 miss.PTCP.PL.PST.M the.M.SG.ACC which.M.SG.ACC have.PST.3PL aim.M.SG.ACC as failed  
*ipéstrepsan*.  
 return.PFV.PST.3PL  
 ‘Having missed the aim they had, they returned back failed.’  
 (A.Metaphr. Alexiad., 359. 4, 12th c. AD)

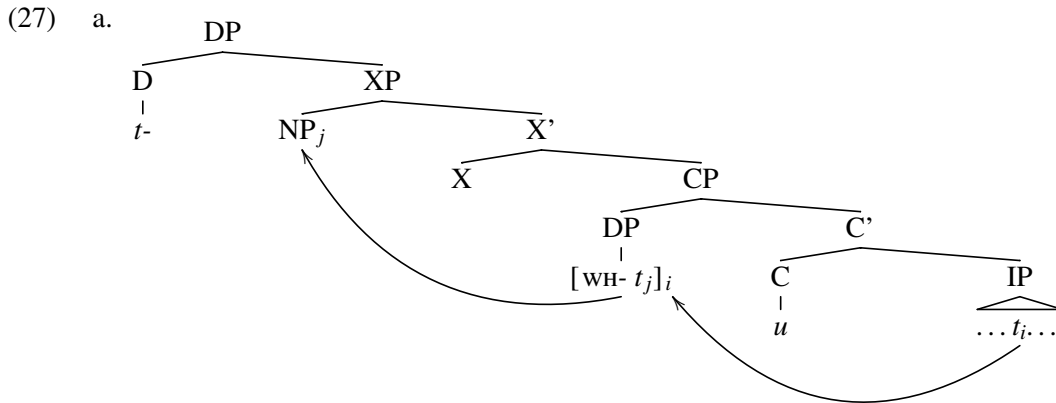
- A structure like (26a) is presumably best analysed as a ‘matching’ RC, in which the head noun *simfonían* ‘agreement’ is first merged outside the RC.
- Morphological fusion of the external D (*t-*) and the generic complementizer *u*:
  - *t-* and *u* need to be linearly adjacent, in the sense that no phonologically overt material can intervene between the D and the C position.

<sup>5</sup> This is not to say that we reject the existence of head internal RCs with relative pronouns in Ancient Greek and perhaps later times (Late Imperial Koine/Early Medieval Greek), even for cases in which the head occupies the final position (see Fauconnier 2014, Kriki 2013 for certain arguments). A good example might be (i), which seems to involve movement of a remnant PP, containing only a trace of the nominal:

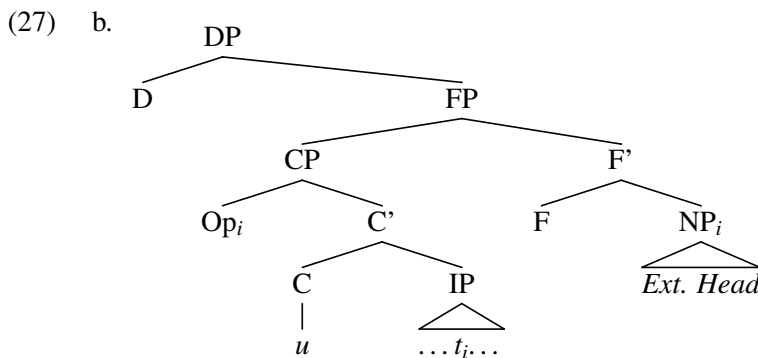
(i) [ *eis* [ *de hēn* *t<sub>i</sub>*]<sub>j</sub> *aphikonto* *kōmēn<sub>i</sub>* *t<sub>j</sub>* *megalē* [...] *ēn*.  
 to PRT which.F.SG.ACC arrive.PFV.PST.3PL village.F.SG.ACC large.F.SG.NOM be.3SG  
 ‘The village at which they arrived was big.’ (Xen. An. 4.4.2, cf. (29a,c), 5th-4th c. BC)

However, the existence of this structure is tangential to our discussion, as it does not seem to survive in any present day variety.

- A ‘head raising’ structure like (27a) cannot be the input structure of the proposed reanalysis operation, as the raised nominal head (in SpecXP in (27a)) (i) would always be phonologically overt and (ii) intervene between the D and C.
- Note that the presence of phonologically null/elided material in SpecCP in the input structure would not be problematic for D (*t-*) and C (*u*) to be reanalysed as a single morpheme.
- We therefore correctly predict that prenominal *tu* RCs in PhG do not display any characteristics of raising RCs.



- Structure for *tu*-RCs after reanalysis: matching, spell out of external head (27b), movement of a null operator inside the RC.



- Loss of definiteness effect observed with prenominal RCs in PhG (e.g., (28)), possibly through reanalysis of *tu* as a complementizer (loss of all D-features, cf. (29) → no definiteness restriction in PhG RCs:

- (28) a. s értune [[ tu kóftune čufále] ḏfo].  
PRT.OPT COME.PFV.NPST.3PL TU cut.IPFV.3PL heads two  
 ‘let (any) two (men) come who cut heads.’ (PhG, Dawkins 1955:278. 17)
- b. [[ tu čo kačéf] to čočúxi/a čočúxi]  
TU not speak.IPFV.3SG the child/a child  
 ‘a child/the child who does not speak’ (PhG)

(29) [DP [CP *tu* [IP .....]]]

- The prenominal nature of RCs is further reinforced by Turkish influence (this cannot be denied since all modifiers are obligatorily prenominal).
- The emergence of reverse ODS, similar to other AMG dialects. The lower determiner as a **classifier** (Revithiadou and Spyropoulos 2012 for Pontic; Lekakou and Karatsareas 2016 for Cappadocian).

## 4.2 Postnominal RCs: Structure borrowing from Modern Greek

- Recent development: borrowing from MG raising RCs

- Postnominal RCs formed on MG postnominal RC structure, by identifying *tu* as the MG complementizer *pu*.
- MG relatives with *pu* (which do not involve resumptives, cf. Kotzoglou and Varlokosta 2005) are analyzed as raising structures (Alexiadou and Varlokosta 1996, Alexiadou 1998, Alexopoulou 2007).
- Speakers confuse *tu* with *pu* in postnominal RCs.
- Supporting evidence from word order:
  - in prenominal RCs constituents of the RC can occur before *tu*:

(30) [[ [ mo ti ðevosína]<sub>i</sub> [ tu θorí t óryo e<sub>i</sub>]] o nomát]  
 with the fiendishness TU see.IPFV.3SG the deed the man  
 ‘the man who does his work with fiendishness’

(PP (circumstantial) adjunct: outside the RC, subject: relativized)

- in postnominal RCs *tu* occupies a complementizer position above which no topic position is available = no constituent of the RC can occur before *tu* in postnominal RCs:

(31) \* [ o nomát [[ mo ti ðevosína]<sub>i</sub> [ tu θorí t óryo e<sub>i</sub>]]]  
 the man with the fiendishness TU see.IPFV.3SG the deed  
 ‘the man who does his work with fiendishness’

- The ungrammaticality of (31) is the same as in *pu* relatives in MG (cf. Roussou 2000):

(32) θélun [ éna voiθó [ (\*ta agglíka) pu na ta milái kalá]].  
 want.IPFV.3PL an assistant the English PU PRT.SBJV them speak.IPFV.3SG well  
 ‘They want an assistant who speaks English well.’

(Modern Greek, Roussou 2000: 78, ex. (18c) (slightly adapted))

## 5 Prenominal RCs in other AMG dialects

- Three important properties about headed RCs in Cappadocian<sup>6</sup> and Pontic<sup>7</sup>:

<sup>6</sup> Cappadocian data in this subsection and elsewhere comes from the *Mištiotika* variety of Cappadocian (which is a dialect chain once spoken in numerous villages of Cappadocia, Dawkins 1910; 1916, Janse 1994 seq).

<sup>7</sup> The picture of relative clauses in Pontic is much more complex than the way it is depicted here. To begin with, Pontic Greek is not a homogenous dialect and should be divided at least into two groups: Western and Eastern (Dawkins 1937b:26, Mackridge 1990:206). Sitaridou (2013b:et seq) also righteously argues for the recognition of Romeyka as a different variety. Within this variation, variation in relative clause formation is also expected. Noteworthy is also the emergence of the relativizer *do*, which is reported to be grammaticalized out of the cleft structure *ti íne to* ‘what is REL’ > *nto = do* (Liosis and Kriki 2013:251). It is also used as the indefinite interrogative pronoun ‘what?’. *Do* and the singular article *to* are not readily differentiated anymore (Drettas 1990; 1997). *Do* has a generalized use, i.e., it introduces relative clauses modifying both singular and plural antecedents and these relative clauses can be both prenominal or postnominal:

- (i) a. *postnominal + singular antecedent*:

to ksílon d=efáyamen epékseven.  
 the beating DO=eat.PFV.PST.1PL pay.back.PFV.PST.3SG

‘the beating we got paid back.’

(Giresun/Kerasúnta, Papadopoulos 1955:198)

- b. *prenominal + singular antecedent*:

s emén simás apán to méros to stek i Iríni  
 to me near to upper the part DO stand.IPFV.3SG the Eirene

‘The ‘Eirene’ that stands in the upper side’

(Şebinkarahisar/Nikópoli, Papadopoulos 1955:218)

- c. *postnominal + plural antecedent*:

... ta mesélæ to eksérts  
 the tales DO know.IPFV.2SG

‘... the tales you know’

(Oikonomidis 1958:246)

- d. *prenominal + plural antecedent*:

- obligatorily prenominal,
- introduced by relative articles (homophonous with the third singular/plural neuter definite articles),
- entire complex NP is always interpretively definite.

(33) *Cappadocian*

- a. [[ **du**                    γόrais]                    **du**                    **basturmás**]                    itá ni mi?  
the.N.SG.NOM buy.PFV.PST.2SG the.N.SG.NOM pastrami.N.SG.NOM this is Q  
‘is this the pastrami which you bought?’
- b. [[ **da**                    tírpsin                    du fšáx] **da**                    **yabáxa**]. . .  
the.N.PL.NOM/ACC pierce.PFV.PST.3SG the child the.N.PL.NOM/ACC pumpkin.N.PL.NOM/ACC  
‘the pumpkins that the child pierced. . .’

(34) *Pontic*

- a. kseváli                    [[ **to**                    fórine]                    **to**                    **rúxo**].  
take.off.PFV.PST.3SG the.N.SG.ACC wear.IPFV.PST.3SG the.N.SG.ACC garment.N.SG.ACC  
‘he took off the garment which he was wearing.’ (Samsun/A.Amisos, Papadopoulos 1928:188. 30)
- b. fórese                    [[ **ta**                    íše]                    **t álla ta**                    **rúxa**].  
wear.PFV.PST.3SG the.N.PL.ACC have.PST.3SG the other the.N.PL.ACC garment.N.PL.ACC  
‘he wore the other garments he had.’ (Samsun/A.Amisos, Papadopoulos 1928:188. 22)

- given (i) the homophony between the definite article and the RC-introducing particle and (ii) the obligatory definiteness of the head noun (both absent in PhG), it seems plausible to assume that Cappadocian and Pontic RCs derive from Medieval Greek prenominal RCs introduced by a relative article (modulo reduction in  $\phi$ -agreement).
- Table 2 offers a succinct summary of the relevant variation across AMG:

Dialect	Relativizer		Definite Article		[+def] restriction on the Head
	Singular	Plural	Singular	Plural	
<i>Cappadocian</i>	du	da	du	da	YES
<i>Pontic</i>	to	ta	to	ta	YES
<i>Pharsiot</i>		tu	to	ta	NO

Table 2: Relativizers, definite articles and definiteness restriction on head across AMG

## 6 Conclusions and avenues for future research

- Historical sources of RCs in present day AMG:
  - The PhG complementizer *tu* derives from the combination of an external determiner (*t-*) and a generic complementizer (*u*).

so kifáli mu apán do éxo ta tría t aniyáræ  
on.the head my above do have.IPFV.1SG the three the keys

‘the three keys that I have on my head’

(Giresun/Kerasúnta, Papadopoulos 1955:190)

Relative clauses can also be introduced by *pu* (or its variants) (cf. Drettas 1990:66–70, 79–80; 1997:362–363):

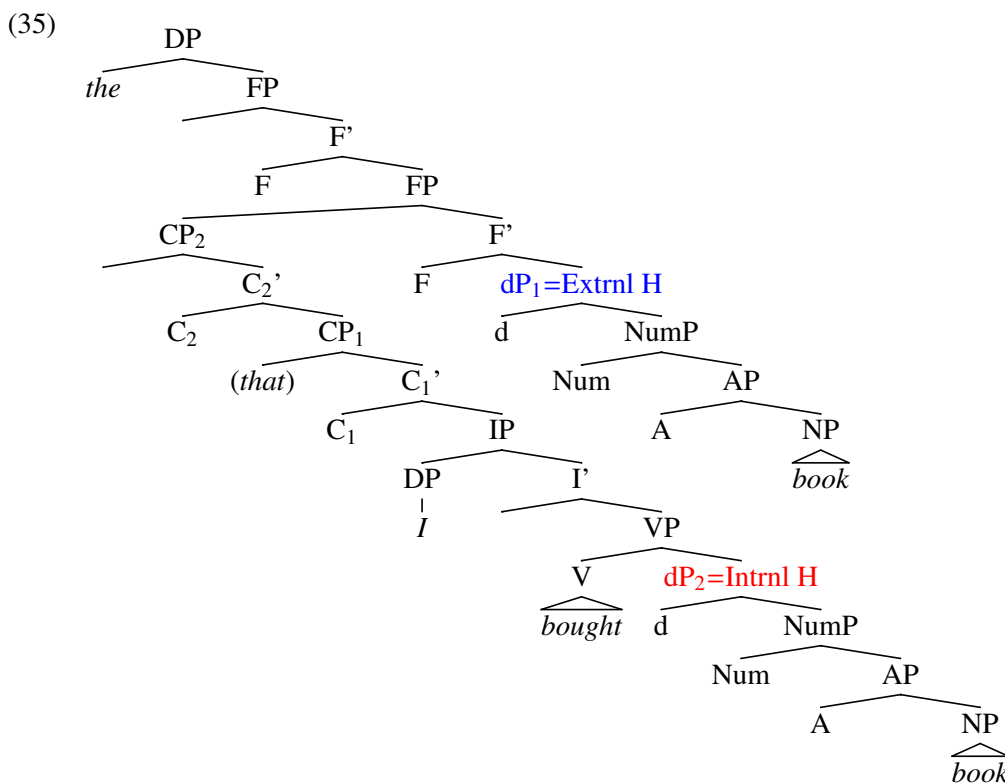
- (ii) O Xristianón pu íšen atá ípen. . .  
The Christian pu have.PST.3SG them say.PFV.PST.3SG

‘The Christian who had them said. . .’

(Dumanlı/Sánta, Papadopoulos 1955:216)

Romeyka variety is reported to make use of the invariant relativizer *pe* that is ultimately derived from the Ancient Greek relative pronoun *óper* (cf. Sitaridou 2013b:100). Therefore, the emerging picture of Pontic Greek RCs is rather complex. Despite this complex picture however, there exist certain Pontic varieties, such as the one of Amisos, in which occurrence of prenominal RCs with relative articles is well attested.

- Despite (superficial) formal resemblances, Pontic/Cappadocian RCs have different historical sources, and are continuations of earlier structures introduced by a relative article.
- Raising vs. matching status:
  - Present-day PhG prenominal RCs are of the ‘matching’ type, as predicted by our diachronic analysis.
  - Just like Modern Greek RCs, present-day PhG postnominal RCs are of the ‘raising’ type, which is in line with our hypothesis that this pattern was borrowed.
  - Raising/matching status of Pontic and Cappadocian RCs remains to be investigated more closely (similar remark for RCs in historical stages of the Greek language).
- The broader picture:
  - It would be interesting to investigate whether our data can be reconciled with/shed light on recent proposals by Cinque (2003; 2005; 2008; 2015; in preparation) on the syntax of (H)RCs.
  - According to Cinque, (i) RCs are always first merged in the specifier of a functional projection of a noun, and (ii) a head noun is present both inside and outside the RC (one of which is deleted ‘under identity’).
  - Parametric variation is not related to a different base structure, but rather to differences with respect to whether or not the external (and perhaps the internal) head noun undergoes movement. Basic structure:



(Cinque 2015, 4)

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