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Word order and information structure in New Testament Greek

Kirk, A.

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Author: Kirk, Allison
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Chapter 6. Relative clauses structure

1 Introduction

In the last chapter I examined word order in NT Greek *wh*-questions. One point of focus was the position of the *wh*-interrogatives in the left periphery of the clause. In this chapter, I examine relative clauses. This is another structure in which movement to the left periphery occurs, in this case, movement of the relative pronoun. There are many different descriptive varieties of relative clauses in this language. A significant part of the chapter is dedicated to providing a description of the relative clauses, and to determine what is found and not found in terms of word order.

Relative clauses share many properties with *wh*-questions, for example, the distribution of determiners, as well as the respective position of the head noun and the *wh*- or relative word. A major difference between a *wh*-question and a relative clause is that a relative clause co-occurs with a matrix clause, to which it is linked syntactically and semantically. In this chapter I address the internal structure of relative clauses as well as the larger sentential structure.

NT Greek displays a variety of relative clause types. In a typical head-external relative clause, a head noun or DP that constitutes an argument or adjunct in a matrix clause (the clause introducing or containing the relative clause) precedes a relative pronoun that heads the relative clause. For example, in (1) the DP *tè:n diakonían* "the service", or "the work" is the object of the matrix clause. The relative clause *hè:n parélabes en kurío:i* "which you have received through the lord" modifies this DP and follows it in the string.[70]

(1) Head-external relative clause
Blépe **tè:n** **diakonían**
see.2SG.PRES.IMPV.ACT D.ACC.SG.F service.ACC.SG.F
[**hè:n** parélabes en kurío:i]
REL.ACC.SG.F receive.from.2SG.AOR.IND.ACT in lord.DAT.SG.M
'See to the work which you have received through the lord (that you might fulfill it)'.
Βλέπε τὴν διακονίαν ἣν παρέλαβες ἐν κυρίῳ, (ἵνα αὐτὴν πληροῖς.)
(Col 4:17)

In the example in (2), the head nouns follows the relative pronoun, occurring internal to the relative clauses. I call these head-internal relative clauses.

[70] In the examples in the first two sections, I bracket off the relative clauses for ease of illustration. The brackets are not intended to suggest a syntactic analysis.

(2) Head-internal relative clause

p^{h}érousai	[**hà**	he:toímasan
bring.NOM.PL.F.PRES.PART.ACT	REL.ACC.PL.N	prepare.3PL.AOR.IND.ACT
aró:mata]		
spice.ACC.PL.N		

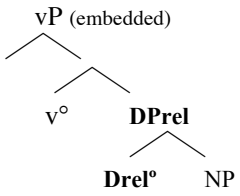
'(they came to the sepulchre), bringing the spices that they had prepared.'
(ἐπὶ τὸ μνῆμα ἦλθον) φέρουσαι ἃ ἡτοίμασαν ἀρώματα. (Lk 24:1)

The relative clauses in (1) and (2) employ the same relative pronoun, and they are traditionally seen to be similar constructions. It seems that in the classics tradition, head-internal relatives are the exceptions to head-external relatives. Head nouns are taken to originate external to the relative clause, and when a head noun surfaces inside the embedded clause, it is referred to as incorporation of the head into the relative clause (see Smyth 1984:521; Robertson 1934:718-719).[71]

One widely held view in current generative literature concerning the derivation of relative clauses is the converse of the classicist's conception. Under the raising analysis of relative clauses, head-external relative clauses are derived through raising of the head noun from its position in the embedded clause (Kayne 1994). Under this analysis, it is possible to unify the two types of relative types in terms of movement of the head noun to a position preceding the relative pronoun in head-external relative clauses versus lack thereof in head-internals (see, for example Bianchi 1999; de Vries 2002; Alexiadou et al (eds.) 2000).

By the raising analysis, the clauses in (1) and (2) are both derived from the basic structure in (3). A relative pronoun, together with the NP form a constituent, DPrel, which is an argument of the embedded verb, in the case of (1) and (2), objects of the embedded verbs.

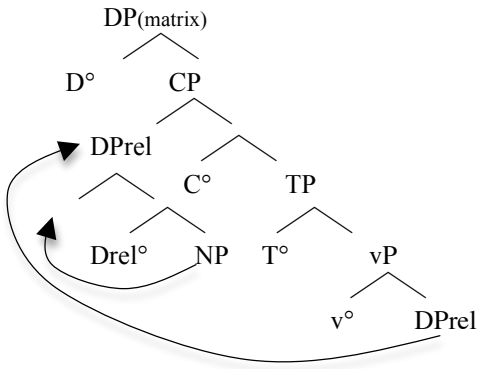
(3)



The relative DP (DPrel) moves in all instances, to the Spec of CP, due to a relative operator feature on C. However, there is variation with respect to movement of the noun. In head-external relative clauses, an external D head, which is an argument or adjunct of the matrix clause, selects the relative CP. This is what links the two clauses together, and I will argue that it also results in attraction of the NP to a higher position within the relative DP, following Bianchi (2000b). This is shown in (4).

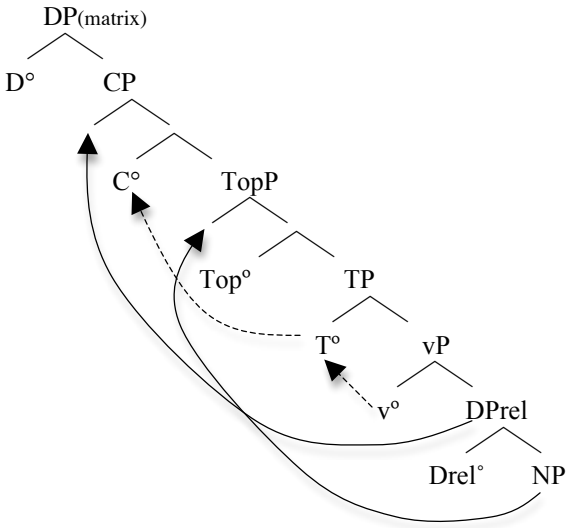
[71] This is not visualized in terms of the underlying and derived structure in generative theory, however the term 'incorporation' suggests that the internal surface position is the exceptional (derived) position.

(4)



I argue that head-internal relative clauses in which the NP is discontinuous from the relative pronoun, as in (2) do not involve movement of the whole relative DP constituent. Instead, the NP is first extracted from the relative DP, and raises to a position intermediary to Spec,CP and its base position. In some instances, it seems clear that the head NP is a topic, therefore it likely moves to a Topic projection. The remnant DPrel undergoes movement to Spec,CP, as shown in (5). Notice that this implies that V to C movement occurs in instances where the NP is split from the relative pronoun, based on the architecture of the Left Periphery built up in Chapter 4. Note that verb movement is illustrated with dashed arrows, and I have not included subjects of RCs, which are often not expressed.

(5)

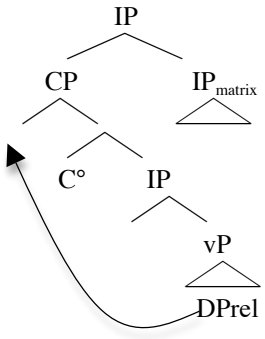


NT Greek also displays correlatives, as shown by (6). In (6), the relative clause occurs preceding the main clause, and there is a co-referential demonstrative pronoun *toûton* in the matrix clause. This demonstrative shows the case from the matrix clause, while the relative pronoun shows case from the embedded clause. There is no head noun in this example.

(6) Correlative
[**hòs** àn epaisk^{h}unt^{h}ê:i me …]
REL.NOM.SG.M PCL be.ashamed.of.3SG.AOR.SUBJ.MID me.ACC.SG
toûton ho huiòs … epaisk^{h}unt^{h}é:setai
DEM.ACC.SG.M D.NOM.SG.M son.NOM.SG.M be.ashamed.of.3SG.FUT.IND.MID
'For, whoever should be ashamed of me (and of my words), the son (of man) will be ashamed of him,'
ὃς γὰρ ἂν ἐπαισχυνθῇ με (καὶ τοὺς ἐμοὺς λόγους), τοῦτον ὁ υἱὸς (τοῦ ἀνθρώπου) ἐπαισχυνθήσεται, (Lk 9:26)

A correlative differs from the relative clauses in (1) and (2) in that there is no constituent that is shared between the two clauses. I will argue that the relative clause is adjoined to the matrix clause, as proposed for Hindi correlatives (for example, Srivastav 1991). In (7), the relative pronoun starts out in the relative clause vP and raises to Spec,CP.

(7)



The crucial difference between the structures in (4) and (5) on the one hand and (7) on the other is that there is no matrix determiner nominalizing the relative clause and linking it to the main clause in (7).

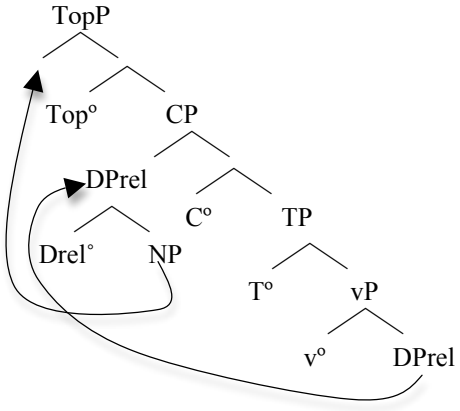
Cross-linguistically, head nouns in correlatives are internal to the relative clause, and this is found in NT Greek, as I show in Section 2. Another pattern is also found in NT Greek, as well as older Greek and Latin, where the head noun precedes the relative pronoun. For example, in (8) the head noun precedes the relative pronoun in the string, as in (1). However, as I discuss further below, it does not seem to have any structural relationship to the matrix clause.

(8) 'Head-external' correlative
[**Lít^{h}on** **hòn** apedokímasan
stone.ACC.SG.M REL.ACC.SG.M reject.3PL.AOR.IND.ACT
hoi oikodomoûntes,] *hoûtos*
the.NOM.PL.M builder.NOM.PL.M DEM.NOM.SG.M
egené:t^{h}e: eis kep^{h}alè:n go:nías]
become.3SG.AOR.IND.PAS to head.ACC.SG.F corner.GEN.SG.F
'Which stone the builders rejected, this one has become head of the corner'.

Λίθον ὃν ἀπεδοκίμασαν οἱ οἰκοδομοῦντες, οὗτος ἐγενήθη εἰς κεφαλὴν γωνίας (Mt 21:42; Mk 12:10; Lk 20:17)

As shown in Chapter 5, there is one topic projection that precedes *wh*-operators in the left periphery. I argue that the NP in (8) is dislocated to this position, as shown in (9). This has already been suggested in Kiparsky (1995) for Sanskrit and Hittite, following Hale (1987). However, as I discuss in Section 5, the movement of the NP to Spec,TopP is a controversial movement operation.

(9)



The conclusion is that relative clauses in correlatives are bare CP structures, like *wh*-questions. This contrasts with head-external and head-internal relative clauses such as in (1) and (2), which are embedded under matrix determiners.

The chapter is organized as follows. In Section 2, I give an overview of the types of attested relative clause types, based on distributional and semantic distinctions. In Section 3 I illustrate patterns of morphological case on relative pronouns and nouns. In Section 4, I show that head-external relative clauses are derived through raising of the NP (Kayne 1994; Bianchi 1999, 2000a, 2000b; de Vries 2002, among others). In Section 4, I discuss the structure of correlatives, focusing on the positions of NPs in correlative relative clauses, case patterns and the structure of correlative sentences. In Section 6 I discuss head-internal relative clauses and in Section 7 I give the conclusions, and outline some questions for further research.

2 An overview of NT Greek relative clauses

NT Greek displays a couple of different relativization strategies, like Classical Greek. Two basic categories are participial relativization versus finite relativization. A participial relative clause contains a participial verb and a definite article, which agree in gender, number and case. A finite relative clause contains a finite verb and a relative morpheme. The relative morpheme is either a declining pronoun or

adjective, or a non-declining adverbial. The examples in (10) and (11) illustrate these two basic strategies.

(10) Participial relative: τὸ ἐκ τοῦ ἀνθρώπου ἐκπορευόμενον
tò ek toû ant^{h}ró:pou
D.NOM.SG.N from D.GEN.SG.M man.GEN.SG.M
ekporeuómenon
come.from.NOM.SG.N.PRES.PART.MID
'what comes out of a man' (Mk 7:20)

(11) Finite relative clause: ὃν ὑμεῖς οὐκ οἴδατε
hòn humeîs ouk oídate
REL.ACC.SG.M you.NOM.PL NEG know.2PL.PERF.IND.ACT
'whom you don't know' (Jn 1:26)

In the NT, a relative pronoun is always the argument or adjunct of a finite verb.[72] The relative morpheme is initial or near-initial within the relative clause, regardless of its grammatical role. In (11), the relative pronoun is the object of the verb *oídate*, but rather than occurring in the canonical postverbal position, the object is initial in the clause. Relative pronouns are like *wh*-interrogatives in this respect.

The focus of this chapter is relative clauses that contain a relative morpheme, as in (11), giving grounds for comparison with *wh*-questions. In the rest of this section I give an inventory of the various descriptive types of relative clauses found in the NT corpus.

2.1 Relative morphemes

The most commonly used relative morpheme is *hós*. It declines for gender, number and case, and so is traditionally called a relative pronoun. The paradigm is shown in Table 1. It consists of the morphology found on declining nominals, and is initiated with an aspirated onset.

[72] This is arguably not the case in Classical Greek, in certain cases of what German scholars have called *relative verschränkung*. In this construction, a relative pronoun is interrupted from the main verb in the relative clause by another subordinate clause. The relative pronoun shows properties indicating that it is structurally part of this intervening subordinate clause, and not structurally related to the main verb of the relative clause. For example, the relative pronoun shows morphological case corresponding to its role in the intervening subordinate clause. In Classical Greek, the intervening clause may be a participial, not a finite clause (see Plato, *Cratylus* 384b4). In the NT, I have found no example instance where the intervening clause is participial, only where it is also finite (see Mt 7:9).

	Singular			Plural		
	Masc	**Fem**	**Neut**	**Masc**	**Fem**	**Neut**
Nom	*hós*	*hé:*	*hó*	*hoí*	*haí*	*há*
Acc	*hón*	*hé:n*	*hó*	*hoús*	*hás*	*há*
Gen	*hoû*	*hê:s*	*hoû*	*hô:n*	*hô:n*	*hô:n*
Dat	*hô:i*	*hê:i*	*hô:i*	*hoîs*	*haîs*	*hoîs*

Table 1: The relative pronoun

The relative pronoun is morphologically distinct from the *wh*-interrogative, unlike in many modern European languages. The Greek relative is thought to have been originally a demonstrative pronoun (Monro 1998; Hahn 1964 and references therein). According to Monro (1998:215), Greek demonstrative pronouns originally had a deictic meaning, and an anaphoric use gradually developed. The development into a relative pronoun is correlated with this newer anaphoric use. In Homeric Greek it is sometimes difficult to distinguish the relative and demonstrative uses, but already in Homer (8th century BC) the main use is the relative.

There are other relative morphemes that occur less frequently, and some classical Greek forms are not found at all. One difference is that on the whole, the indefinite relative *hóstis* is relatively infrequent. This form is made up of the relative morpheme in Table 1, followed by the clitic indefinite *tis*. It occurs in general (or 'free') relative clauses, with a similar meaning as "whoever". In the NT, free/general relative clauses are more commonly formed with the relative morpheme alone, either in combination with the modal particle *án* or *eán* and a subjunctive verb, or just with an indicative verb.[73] An example is shown in (12) with *eán* in combination with the subjunctive.[74]

(12) General / free relative clause
[**hòs** eàn oûn lúse:i mían
REL.NOM.SG.M PCL PCL loose.3SG.AOR.SUBJ.ACT one.ACC.SG.F
tô:n entolô:n toúto:n tô:n helak^{h}ísto:n (...)]
D.GEN.PL.F order.GEN.PL.F DEM.GEN.PL.F D.GEN.PL.F least.GEN.PL.F
'Therefore, whoever should break one of these least commandments, (and should teach men in this way),'
ὃς ἐὰν οὖν λύσῃ μίαν τῶν ἐντολῶν τούτων τῶν ἐλαχίστων (καὶ διδάξῃ οὕτως τοὺς ἀνθρώπους), (Mt 5:19)

Aside from *hós* and *hóstis*, Robertson (1934:710) lists the following attested declining relatives: *hoîos*, *hopoîos*, *hósos* and *he:líkos*. There are also non-declining

[73] Beyer (1968: 145) proposes that this is due to Semitic influence, since there is no indefinite pronoun similar to *tis* in the Semitic languages, but see Maloney (1979: 143-148) for a different view.

[74] As I discussed in Chapter 3, *eán* is roughly equivalent to the conjunction "if" in Classical Greek. Robertson (1934:959) states that it is immaterial whether *án* (the modal particle) or *eán* is found in relative clauses in the NT.

adverbial relative forms, such as *hópou* "in which place", or "where". This form contains the clitic indefinite adverb *pou* "somewhere" shown in Chapter 5, Table 2, following the aspirated onset typical of relative morphemes. These are quite infrequent, and in this chapter I mostly discuss the relatives in Table 1. As I show below, the relatives in Table 1 form argument as well as adverbial relative clauses, depending on their morphological cases.

2.2 Syntactic categories of relative clauses

There are various categories of relative constructions cross-linguistically that are distinguished based on syntactic and semantic criteria (see de Vries 2002, Chapter 2 for a typology). In this subsection I illustrate the types of relative clauses in NT Greek, distinguished from each other with respect to three properties. The first is the presence or absence of a head noun and if present, its position with respect to the relative pronoun. The second is the status of the relative pronoun as an argument or adjunct, and the status of the relative clause as an argument or adjunct of the matrix verb, or the matrix clause. The third is the position of the relative clause within the sentence.

With respect to the presence/absence and position of the head noun, I distinguish headless, head-external and head-internal relative clauses. Although head-external and head-internal relative clauses form an opposing class in this regard, head-internal and headless relative clauses pattern together with respect to their relationship to the matrix clause, and their position in the sentence. Head-external relative clauses are preceded by head nouns that are either arguments or adjuncts of main clause predicates. Head-internal and headless relatives are either adverbial clauses, or they appear to be arguments of the matrix verb. I classify the head-internal relative clauses in NT Greek with headless relative clauses, in the broader category of free relatives.

NT Greek also displays correlatives. The term "correlative" refers to a sentence that contains a relative clause preceding a main clause.[75] The main clause most typically contains a demonstrative pronoun that is co-referential with the relative pronoun and head noun, if present (Downing 1973; Keenan 1985; de Vries 2002). Cross-linguistically, if a relative clause in a correlative sentence has a nominal head, it is internal to the relative clause. The majority of correlatives in the corpus contain headless relative clauses, although internal nouns are also found. There is also an example in which the head noun is external (see Bianchi 2000b for similar examples from Latin).

[75] In classical scholarship, correlatives are words, not constructions. They include the relative, demonstrative, indefinite and interrogative forms that correspond to each other in form and meaning (see Smyth 1984, §340 for a full paradigm, and Robertson 1934:290 for a complete list of the ones attested in the NT). Relatives and demonstratives are the two that occur together in correlative sentences.

2.2.1 Presence / absence of head noun, and its position

I use the term 'head noun' to refer to a nominal constituent to which a relative pronoun refers. In a head-external (or post-nominal) relative clause, the head noun is what is traditionally called the antecedent. The example in (13) shows a head-external relative clause that modifies the head noun *lógôi:* "word", which is the object of the matrix verb. The relative pronoun agrees with the head noun in gender and number, but the two disagree in case. The head noun is the object of the matrix verb *epísteusen* "believe in" or "trust", which occurs with dative objects. The relative pronoun is the object of *eîpen* "say", which occurs with accusative objects.

(13) Head-external relative clause
epísteusen ho ánthro:pos
believe.3SG.AOR.IND.ACT D.NOM.SG.M man.NOM.SG.M
tôi: lógôi: [hòn eîpen
D.DAT.SG.M word.DAT.SG.M REL.ACC.SG.M say.3SG.AOR.IND.ACT
autôi: ho Ie:soûs]
him.DAT.SG the.NOM.SG.M Jesus.NOM.SG.M
'And the man believed the word that Jesus said to him, (and he went away)'.
ἐπίστευσεν ὁ ἄνθρωπος τῷ λόγῳ ὃν εἶπεν αὐτῷ ὁ Ἰησοῦς (καὶ ἐπορεύετο). (Jn 4:50)

In the relative clause in (14), the head noun *aró:mata* "spices" occurs internal to the relative clause, following the relative pronoun and the embedded verb. I call these head-internal relative clauses. As I discuss further in 2.3 below, they are more accurately called head-internal free relatives. The entire relative clause can be described as the object of the matrix participial *phérousai* "bringing". The relative pronoun agrees with the head noun in gender, number and case.[76]

(14) Head-internal (free) relative clause
phérousai [**hà**
bring.NOM.PL.F.PRES.IND.ACT REL.ACC.PL.N
he:toímasan **aró:mata**]
prepare.3PL.AOR.IND.ACT spice.ACC.PL.N
'(On the first day of the week, at early dawn, they went to the memorial,) bringing the spices they had prepared'.
(τῇ δὲ μιᾷ τῶν σαββάτων ὄρθρου βαθέως ἐπὶ τὸ μνῆμα ἦλθον) φέρουσαι ἃ ἡτοίμασαν ἀρώματα. (Lk 24:1)

[76] The pattern that heads and relative pronouns agree in case in head-internals is not really shown by (14), since the case from the matrix clause and the case from the embedded clause are both accusative (see Section 3 below).

The example in (15) illustrates what is often called a headless relative clause, in which there is no head noun. The relative clause itself is the object of the matrix verb *oîda* "know".

(15) Headless (free) relative clause
oîda gàr **[hô:i** pepísteuka]
know.1SG.PERF.IND.ACT PCL REL.DAT.SG.M trust.1SG.PERF.IND.ACT
'(For, I know) the one who I trusted, (and I trust that he is able to guard what I have entrusted to him until that day).'
οἶδα γὰρ ᾧ πεπίστευκα, (καὶ πέπεισμαι ὅτι δυνατός ἐστιν τὴν παραθήκην μου φυλάξαι εἰς ἐκείνην τὴν ἡμέραν.) (2 Tim 1:12)

I refer to (15) and others like it as either headless or free relatives. The term 'free relative' refers to a semantic class of relative clauses, as I discuss in 2.3 below. It seems that, to the best of our knowledge, the two terms can be used interchangeably in describing (15). In the relative clause in (15), there is no external pronominal or determiner-like element. This is a so-called true free relative, and contrasts with the so-called false or semi-free relative in the English translation, where an element such as 'the one' has to be inserted.

In summary, NT Greek shows relative clauses in which there is no head noun, in which the head noun precedes the relative pronoun, and in which the head noun follows the relative pronoun. These can be called headless, head-external and head-internal, respectively. Headless relative clauses are called free relative clauses. Head-internal relative clauses in NT Greek are likely a subtype of free relatives, since they have the reading of free relatives (see 2.3 below). From here on, I classify head-internals with headless relatives, within the broader category of free relatives.

2.2.2 Argument and adjunct relative clauses

A relative clause is called an argument or adjunct relative based on the role that the relative pronoun has within the embedded clause. The examples in (13) – (15) are all argument relative clauses, since the relative pronouns are objects of the embedded verbs. An adjunct relative clause has a relative pronoun that is an adjunct rather than an argument of the embedded verb. An adjunct relative clause with an external head is shown in (16).

(16) Head-external adjunct relative clause
éste:sen **he:méran** [**en hê:i**
set.3SG.AOR.IND.ACT day.ACC.SG.F in REL.DAT.SG.F
méllei krínein
will.3SG.PRES.IND.ACT judge.PRES.INFIN.ACT
tè:n oikouméne:n …]
D.ACC.SG.F inhabited.region.ACC.SG.F
'(Because) he has set a day in which he will judge the world (in righteousness by the man whom he had ordained)'

(καθότι) ἔστησεν ἡμέραν ἐν ᾗ μέλλει κρίνειν τὴν οἰκουμένην (ἐν δικαιοσύνῃ ἐν ἀνδρὶ ᾧ ὥρισεν) (A 17:31)

In this example, the relative pronoun is an adjunct of the embedded predicate "will judge the living world". The relative pronoun is preceded by the embedded preposition *en* "in". Prepositions are obligatorily pied-piped with the relative pronoun, just as in *wh*-questions.

The example in (17) illustrates a headless adjunct relative clause (also cited in Harbert 1983: 237). The relative pronoun is the complement of the embedded preposition *epí* "on", which is pied-piped with the relative. This preposition is not related to the matrix verb *áras* "picking up". The relative clause is the object of the matrix verb.

(17) Headless adjunct relative clause
áras
pick.up.NOM.SG.M.PRES.PART.ACT
[**ep^{h}' hò** katékeito]
on REL.ACC.SG.N lie.3SG.IMPF.IND.MID
'(And immediately standing up before them,) picking up what he was laying on, (he went into his house praising God'.)
(καὶ παραχρῆμα ἀναστὰς ἐνώπιον αὐτῶν,) ἄρας ἐφ' ὃ κατέκειτο, (ἀπῆλθεν εἰς τὸν οἶκον αὐτοῦ δοξάζων τὸν θεόν.) (Lk 5:25)

English and many other modern European languages display what has often been called categorial matching in free relatives, as opposed to in head-external relatives (see Bresnan & Grimshaw 1978; Groos & van Riemsdijk 1981; Hirschbühler 1978; Hirschbühler & Rivero 1983; Harbert 1983; Grosu 1988; Izvorski 1996a; van Riemsdijk 2006, among others). This is illustrated with English in (18a,b). In (18a), the adjunct relative clause modifies the object of the matrix verb, "the girl". The headless version of this is ungrammatical, as shown in (18b). The matrix clause verb selects for an object, but the relative clause is an adjunct relative clause.

(18) a. I pursued the girl with whom he had been talking.
b. *I pursued with whom he had been talking.

This contrast is not present with "that" relatives when prepositions are stranded in English. This is shown by (19a,b), and also by the translation of (17).

(19) a. I pursued the girl (who) he had been talking with.
b. I pursued who(m) he had been talking with.

Matching phenomena have been treated in terms of a restriction against pied-piping of prepositions in some languages (de Vries 2002; 2004).

In summary, NT Greek displays no categorial matching effects. Adjunct relative clauses, in which the relative pronoun is an adjunct of the embedded verb, occur as both objects of matrix verbs with no preposition stranding.

2.2.3 Adverbial relative clauses

NT and Classical Greek display what are called adverbial relative clauses. These correspond to temporal, locative, manner and reason subordinate clauses in English and other modern European languages. They are adjunct relative clauses that are adjuncts to the matrix clause.

Most adverbial relative clauses in the NT are headless or head-internal, and some typical NPs that occur are *hó:ra* "hour" and *he:méra* "day" for temporal clauses, *oikían* "house" and *pólin* "city" for locative clauses, *trópos* "manner" for manner clauses, and *aitían* "reason" for causal clauses that are anaphoric ("for which reason…" = "and for this reason").[77]

An example of an NT Greek temporal adverbial relative clause is in (20). The pronoun is preceded by the preposition *apó* "from", which occurs with genitive case-marked complements, denoting source. In this case, the NP *he:méra* "day" occurs internal to the relative clause, meaning "from which day" / "from that day in which", or "since".

(20) Head-internal relative clause, adjunct to matrix
[ap^{h}' **hês** **he:méras** e:koúsate …]
from REL.GEN.SG.F day.GEN.SG.F hear.2PL.AOR.IND.ACT
'(As also in all the world, bringing forth bruit and increasing, just as also in you), ever since you heard (and knew the grace of God in truth.)'
(καθὼς καὶ ἐν παντὶ τῷ κόσμῳ ἐστὶν καρποφορούμενον καὶ αὐξανόμενον καθὼς καὶ ἐν ὑμῖν), ἀφ' ἧς ἡμέρας ἠκούσατε (καὶ ἐπέγνωτε τὴν χάριν τοῦ θεοῦ ἐν ἀληθείᾳ·) (Col 1:6)

In (21) the temporal relative clause is headless. The relative pronoun shows feminine gender, which presumably comes from the covert NP *he:méra* "day".

(21) Headless relative clause, adjunct to matrix
[ap^{h}' **hês** gàr hoi patéres
from REL.GEN.SG.F PCL the.NOM.PL.M father.NOM.PL.M
ekoimé:t^{h}e:san,] pánta hoúto:s
put.to.bed.3PL.AOR.IND.PAS all.NOM.PL.N thus
diaménei ap' ark^{h}ê:s ktíseo:s
remain.3SG.PRES.IND.ACT from beginning.GEN.SG.F creation.GEN.SG.F
'For, ever since the fathers fell asleep, everything remains as it was from the beginning of creation.'
ἀφ' ἧς γὰρ οἱ πατέρες ἐκοιμήθησαν, πάντα οὕτως διαμένει ἀπ' ἀρχῆς κτίσεως. (2 Pet 3:4)

[77] These constructions provide support for currently pursued avenue of research that likens the structure of adverbial clauses to relative clauses (see for example, Demirdache & Uribe-Etxebarria 2004; Caponigro 2003; Bhatt & Pancheva 2006; Arsenijević 2009).

Much less frequently, the head noun is external to the relative clause, as the example in (22) shows.

(22) Head-external relative clause, adjunct to matrix
en ekeíne: tê:i hó:rai [en hê:i
in DEM.DAT.SG.F D.DAT.SG.F hour.DAT.SG.F in REL.DAT.SG.F
eîpen autô:i ho Ie:soûs
say.3SG.AOR.IND.ACT him.DAT.SG.M D.NOM.SG.M Jesus.NOM.SG.M
'(So the father knew that it happened) in that hour in which Jesus said to him, ("Your son lives on").'
(ἔγνω οὖν ὁ πατὴρ ὅτι) ἐν ἐκείνῃ τῇ ὥρᾳ ἐν ᾗ εἶπεν αὐτῷ ὁ Ἰησοῦς, (Ὁ υἱός σου ζῇ,) (Jn 4:53)

In this case, the antecedent of the relative clause (including the demonstrative, determiner and noun) is an adjunct of the matrix verb, preceded by the preposition *en* "in". The matrix verb is an elided copular that I have translated as "happened". In the relative clause, there is another instance of the preposition *en* preceding the relative pronoun.

The difference between the head-internal and head-external varieties in (20) and (22) respectively, is that in the head-internals, the relative clause is an adjunct of the matrix clause. In the head-external in (22), the head noun is an adjunct of the matrix verb, and the relative clause is embedded under it.

2.2.4 The position of the relative clause in the sentence

A relative clause with an external head is either string adjacent to the head, or is stranded to its right, 'extraposed'. When the two are string adjacent, if the head noun is preverbal, then the relative clause is preverbal, and if the head noun is left-dislocated, the relative clause is left-dislocated, etc. In the case that a head-external relative clause modifies an NP to which it is string adjacent, that NP is usually initial or final in the main clause. Free relatives (headless and head-internal) are most often found at the peripheries of the main clauses, but are also found internal to main clauses.

2.2.4.1 Head-external relative clauses string adjacent to NP heads

In (23), the relative clause modifies the subject DP *pâsa p^{h}uteía* "every plant". This is a preverbal subject of the matrix verb *ekrizo:t^{h}é:setai*. The relative clause initiated by *hé:n* immediately follows the matrix subject.

(23) Preverbal head-external relative clause, subject of matrix
Pâsa **p^{h}uteía** [**hè:n** ouk
every.NOM.SG.F plant.NOM.SG.F REL.ACC.SG.F NEG
ep^{h}úteusen ho paté:r mou
plant.3SG.AOR.IND.ACT the.NOM.SG.M father.NOM.SG.M my.GEN.SG
ho ouránios] ekrizo:t^{h}é:setai
the.NOM.SG.M heavenly.NOM.SG.M root.3SG.FUT.IND.PAS
'Every plant which my heavenly father did not plant shall be rooted up.'
Πᾶσα φυτεία ἣν οὐκ ἐφύτευσεν ὁ πατήρ μου ὁ οὐράνιος ἐκριζωθήσεται (Mt 15:13)

In (24), already shown in (1) above, the relative clause modifies the postverbal matrix object *tè:n diakonían* "the work". The relative clause is followed by a subordinate *hína* "that" or "in order that" clause.

(24) Postverbal head-external relative clause, subject of matrix
Blépe **tè:n** **diakonían**
see.to.2SG.PRES.IMPV.ACT D.ACC.SG.F service.ACC.SG.F
[**hè:n** parélabes en kurío:i]
REL.ACC.SG.F receive.from.2SG.AOR.IND.ACT in lord.DAT.SG.M
hína autè:n ple:roîs
that it.ACC.SG.F fulfill.2SG.AOR.SUBJ.ACT
'See to the work which you have received through the lord, so that you might fulfill it'.
Βλέπε τὴν διακονίαν ἣν παρέλαβες ἐν κυρίῳ, ἵνα αὐτὴν πληροῖς. (Col 4:17)

In (25), the head of the relative clause is left-dislocated. The external head *tò ét^{h}nos* "the nation" is the object of the matrix verb *krinô:*, and it occurs preceding the verb and pronominal subject.

(25) Fronted head-external relative clause, object of matrix
kaì **tò** **ét^{h}nos** **[hôi** eàn
and D.ACC.SG.N nation.ACC.SG.N REL.DAT.SG.N PCL
douleúsousin] krinô: egó:
bind.3PL.FUT.IND.ACT judge.1SG.FUT.IND.ACT I.NOM.SG
'And the nation to which they should ever be in bondage, I will judge.'
καὶ τὸ ἔθνος ᾧ ἐὰν δουλεύσουσιν κρινῶ ἐγώ (A 7:7)

Head-external relative clauses that are adjuncts to matrix verbs also occur in left-dislocated position, as in (26), where the head noun "cup" occurs within a PP that is left-dislocated ahead of the matrix verb "mix".

(26) Fronted head-external relative clause, adjunct to matrix
en **tô:i** **pote:río:i** [**hô:i** ekérasen]
in D.DAT.SG.N cup.DAT.SG.N REL.DAT.SG.N mix.3SG.AOR.IND.ACT
kerásate autê:i diploûn
mix.2PL.AOR.IMPV.ACT her.DAT.SG.F double.ACC.SG.N
'In the cup in which she has mixed it, mix twice as much for her.'
ἐν τῷ ποτηρίῳ ᾧ ἐκέρασεν κεράσατε αὐτῇ διπλοῦν· (Rv 18:6)

In relative clauses that modifiy a matrix preverbal subject or object, I have only found the head of the relative clause preceding it in the string, as in (23), (25) and (26). If the relative clause modifies a postverbal subject or a postverbal object, the external head of the relative clause follows most of the other matrix clause material, as in (24). The only elements I have found to the right of relative clauses that modify postverbal arguments are infinitival or other subordinate clauses, such as the *hína* clause in (25) above. What seems to be lacking in the corpus is a relative clause modifying a clause-medial constituent, for example, a configuration like those in (27).

(27) Not found:
S-O[RC]-V
O-S[RC]-V
V-S[RC]-O
V-O[RC]-S

Although SOV, OSV, VSO and VOS are all attested main clause word orders (see Chapter 2), I have not found the sequences in (27). This may be co-incidental, since relative clauses do not occur very often in matrix clauses containing an overt subject and object. It could also be indicative of a restriction.

2.2.4.2 Extraposed head-external relative clauses

An extraposed relative clause is a head-external relative clause that is not string adjacent to its head, appearing to the right of the base positions of the head noun. The NT Greek example in (28) is an extraposed relative clause.

(28) Extraposed head-external relative clause
ánt^{h}ro:pos ê:n en Ierousalè:m
man.NOM.SG.M be.3SG.IMPF.IND.ACT in Jerusalem
[**hô:i** ónoma Sumeó:n]
REL.DAT.SG.M name.NOM.SG.N Simon.NOM.SG.M
'(And look), there was a man in Jerusalem whose name was Simon.'
(Καὶ ἰδοὺ) ἄνθρωπος ἦν ἐν Ἰερουσαλὴμ ᾧ ὄνομα Συμεών
(Lk 2:25)

The NP head *ánt^{h}ro:pos* "man" is the subject of the matrix clause, and occurs preverbal within this clause, either in Spec,TP or in the left periphery (see Chapter 3). The relative clause appears discontinuous from the head, following the entire

matrix predicate. It follows the PP *en Ierousalè:m*, indicating that it occurs to the right of the base position of the head, the Spec,*v*P subject position.

2.2.4.3 The position of headless relatives

Headless relative clauses are often found preceding matrix clauses. I call these "preposed" relative clauses. They are also found at the right side of the matrix clause. I call these "right-peripheral". They are also found surrounded by matrix clause material, which I call "MC-internal".

In (29), a headless object relative clause *hò blépei* "what he sees" occurs in initial position in the sentence, to the left of the matrix clause.[78]

(29) Pre-posed headless relative clause, object of matrix
[**hò** gàr blépei]
REL.ACC.SG.N PCL see.3SG.PRES.IND.ACT
tís elpízei?
who.NOM.SG.M hope.for.3SG.PRES.IND.ACT
'(For, in hope we have been saved, but hope that has been seen is not hope.) For, who hopes for what he already sees?'
(τῇ γὰρ ἐλπίδι ἐσώθημεν· ἐλπὶς δὲ βλεπομένη οὐκ ἔστιν ἐλπίς·) ὃ γὰρ βλέπει τίς ἐλπίζει; (Rm 8:24)

The matrix clause is a rhetorical subject *wh*-question, and the relative clause is the object of the matrix verb *epiízei* "hopes for". The relative clause occurs ahead of the subject *wh- tís* and the matrix verb. The context shows that the relative clause is familiar in the discourse, as it has just been stated that, "hope that has been seen is not hope". This fits the description of a familiar topic, as I discussed in Chapter 4.

Example (30) below shows an adverbial headless relative clause that follows the main clause. In this instance, the relative pronoun is preceded by the preposition *mék^{h}ris* "until".

(30) Right-peripheral adverbial headless relative
ou mè: parélt^{h}e: he: geneà
NEG NEG pass.3SG.AOR.SUBJ.ACT D.NOM.SG.F generation.NOM.SG.F
aúte: [mék^{h}ris **hoû**
self.NOM.SG.F until REL.GEN.SG.M
taûta pánta géne:tai]
DEM.NOM.PL.N all.NOM.PL.N happen.3SG.AOR.SUBJ.MID
'(Truly, I say to you that) this generation shall not pass away, until all these things happen.'
(ἀμὴν λέγω ὑμῖν ὅτι) οὐ μὴ παρέλθῃ ἡ γενεὰ αὕτη μέχρις οὗ ταῦτα πάντα γένηται. (Mk 13:30)

[78] A pre-posed adverbial free relative is in (21), and a pre-posed adverbial head-internal free relative is in (20) above.

In (31) below, the matrix verb is sentence initial, followed by an adverbial headless relative clause, followed by the object of the matrix verb.[79]

(31) MC-internal adverbial headless relative
émat^{h}en [ap^{h}' **hô:n** épat^{h}en]
learn.3SG.AOR.IND.ACT from REL.GEN.PL.N suffer.3SG.AOR.IND.ACT
tè:n hupakoé:n
D.ACC.SG.F obedience.ACC.SG.F
(Although he was a Son), he learned obedience from the things which he suffered; (καίπερ ὢν υἱὸς) ἔμαθεν ἀφ' ὧν ἔπαθεν τὴν ὑπακοήν·
(H 5:8)

2.2.4.4 Summary

The positions in the sentence where relative clauses occur are summarized as follows. Head-external relative clauses are found either string-adjacent to their NP heads, or extraposed. In the first case, the NP heads are either sentence-initial, or main-clause final. Relative clauses are not found modifying main-clause internal constituents. The found and unfound sequences are summarized in (33), where XP and YP are subjects or objects, and the relative clause modifies the XP that it immediately follows.

(32) Head-external RCs string adjacent to NP heads

Found	**Not found**
XP[RC] – V - (YP)	YP - XP[RC] - V
V - (YP) - XP[RC]	V - XP[RC] - YP
(YP) – V – XP[RC]	

The other variety of head-external relative clauses are extraposed, discontinuous from their heads, as in (28) above.

Free relatives, including headless and head-internals, are usually found at the peripheries of the main clause. There are also a few instances of adjunct free relative clauses that occur with main clause material to the right and left.

2.2.5 Correlatives

As I mentioned in the introduction, NT Greek also displays correlatives. In a correlative sentence, the relative clause occurs preceding the main clause, and contains an internal head, if any. There is a co-referential demonstrative pronoun in the main clause, or another instance or synonym of the NP (Downing 1973: 399;

[79] Head-internal versions of right peripheral and main clause internal free relatives can be found at and Col 1:6, and Jn 11:6, respectively.

Keenan 1985: 164; de Vries 2002: 145). This construction falls under the traditional term *casus pendens*.

The example in (33) shows a headless relative clause in a correlative sentence. In this example, the relative clause precedes the main clause. Within the relative clause, the relative pronoun is fronted to the left periphery, and in the main clause, the co-referential demonstrative pronoun, in italics, is also fronted to the left periphery.

(33) Pre-posed headless relative clause (correlative)
[**hà** gàr àn ekeînos poie:î]
REL.ACC.PL.N PCL PCL this.NOM.SG.M do.3SG.PRES.SUBJ.ACT
[*taûta* kaì ho huiòs homoío:s
DEM.ACC.PL.N also the.NOM.SG.M son.NOM.SG.M likewise
poieî]
do.3SG.PRES.IND.ACT
'For, whatever this man does, the son also does in like manner.'
ἃ γὰρ ἂν ἐκεῖνος ποιῇ, ταῦτα καὶ ὁ υἱὸς ὁμοίως ποιεῖ. (Jn 5:19)

A head-internal relative clause in a correlative sentence is shown in (34). The head noun *zó:io:n* "animals" occurs internal to the relative clause. It is co-referential to the fronted demonstrative *toúto:n* in the main clause.

(34) Pre-posed head internal relative clause (correlative)
[**hô:n** gàr eisp^{h}éretai **zó:io:n**
REL.GEN.PL.M PCL bring.in.3SG.PRES.IND.PAS animal.GEN.PL.M
tò haîma …]
the.NOM.SG.N blood.NOM.SG.N
[*toúto:n* tà só:mata katakaíetai …]
DEM.GEN.PL.M the.NOM.PL.N body.NOM.PL.N burn.3SG.PRES.IND.MID
'For, of which animals the blood is brought in (for sin into the holies through the chief priest), of these the bodies are burned (outside the camp)'.
KJV: 'For the bodies of those animals, whose blood is brought into the sanctuary by the high priest for sin, are burned (outside the camp).'
ὧν γὰρ εἰσφέρεται ζῴων τὸ αἷμα (περὶ ἁμαρτίας εἰς τὰ ἅγια διὰ τοῦ ἀρχιερέως), τούτων τὰ σώματα κατακαίεται (ἔξω τῆς παρεμβολῆς). (Hb 13:11)

In this case, the head noun is the possessor of the DP that linearly follows it, *tò haîma* "the blood". This possessum DP is the subject of the relative clause. As such, it reads "the blood of which animals is brought in".

Another type of correlative attested in NT Greek is the locative correlative. An example is given in (35) (see Bhatt & Lipták 2009 for a comparison with Hindi and Hungarian).

(35) Pre-posed locative free relative clause (locative correlative)
[**hoû** gár eisin dúo e: treîs
REL.GEN.SG.M for be.3PL.PrS.IND.ACT two or three
sune:gménoi …]
gathered.NOM.PL.M
ekeî eimi en méso:i autô:n
there be.1SG.PRES.IND.ACT in midst.DAT.SG.N them.GEN.PL
'For, where there are two or three gathered (in my name), there I am in the midst of them'.
οὗ γάρ εἰσιν δύο ἢ τρεῖς συνηγμένοι (εἰς τὸ ἐμὸν ὄνομα), ἐκεῖ εἰμι ἐν μέσῳ αὐτῶν (Mt 18:20)

In this example, the bare relative pronoun occurs in the genitive case, and means "where", or "around which place". In the main clause, there is a fronted adverb *ekeî*, "there". This is not an expletive element, but comes from the *ekeînos* demonstrative paradigm.

Correlative sentences and sentences containing preposed free relatives look similar to each other. The only difference is the presence or absence of a demonstrative. In NT Greek, overt demonstratives seem to be associated with contrastive topic or focus. The contrastive sentences in example in (36) illustrate this difference. Both sentences contain subject relative clauses that occur preceding the matrix clauses. In the first sentence, there is no co-referential demonstrative in the main clause, while in the second there is.

(36) [**hòs** eàn oûn lúse:i mían
REL.NOM.SG.M PCL PCL loose.3SG.AOR.SUBJ.ACT one.ACC.SG.F
tô:n entolô:n toúto:n tô:n helak^{h}ísto:n (...)]
D.GEN.PL.F order.GEN.PL.F DEM.GEN.PL.F D.GEN.PL.F least.GEN.PL.F
helák^{h}stos klé:t^{h}e:setai (…)
least.NOM.SG.M call.3SG.FUT.IND.PAS
[**hòs** d' àn poié:se:i (…)]
REL.NOM.SG.M PCL PCL do.3SG.AOR.SUBJ.ACT
hoûtos mégas klé:t^{h}e:setai (…)
DEM.NOM.SG.M great.NOM.SG.M call.3SG.FUT.IND.PAS
'Therefore, whoever should break one of these least commandments, (and should teach men in this way), will be called the least (in the kingdom of heaven)'. But whoever should do and teach, this one will be called great (in the kingdom of heaven)'.
ὃς ἐὰν οὖν λύσῃ μίαν τῶν ἐντολῶν τούτων τῶν ἐλαχίστων (καὶ διδάξῃ οὕτως τοὺς ἀνθρώπους), ἐλάχιστος κληθήσεται (ἐν τῇ βασιλείᾳ τῶν οὐρανῶν·) ὃς δ' ἂν ποιήσῃ (καὶ διδάξῃ), οὗτος μέγας κληθήσεται (ἐν τῇ βασιλείᾳ τῶν οὐρανῶν.) (Mt 5:19)

According to Downing (1973: 399), correlatives most typically show full NPs in both the main and the relative clause. However, in some instances, the NP in the main clause, the NP in the relative clause, and the demonstrative may be omitted.

Since NT Greek is a pro-drop language, subjects are often unexpressed. Therefore, the first sentence in (36) can be described as a correlative with a null demonstrative in the main clause.

The correlatives I have shown, which contain demonstratives in the main clause, are not specific to NT Greek. They are typical in Hellenistic Greek, found for example in Epictetus (for example, see *Discourses* 4.6:16). Other instances of *casus pendens* in the NT contain resumptive pronouns rather than demonstratives. These are 'strong' pronominals from the *autós* paradigm. This is illustrated by the anacoluthic sentence in (37).

(37) [**hòs** gàr ék^{h}ei] dot^{h}é:setai
REL.NOM.SG.M PCL have.3SG.PRES.IND.ACT give.3SG.FUT.IND.PAS
autô:i
him.DAT.SG.M
'For, as for the one who has, there will be something given to him. (And as for the one who has not, even what he has will be taken from him).'
ὃς γὰρ ἔχει, δοθήσεται αὐτῷ· καὶ ὃς οὐκ ἔχει, (καὶ ὃ ἔχει ἀρθήσεται ἀπ' αὐτοῦ.) (Mk 4:25)

Maloney (1979: 123-26) claims that this construction with pronominal resumption is not so typical in Hellenistic Greek, and suggests that its common occurrence particularly in the Gospel of Mark is due to Semitic influence.

In the rest of the chapter, I only discuss correlatives with demonstrative resumption, which is the typical among correlatives cross-linguistically, and the typical pattern for old Greek.

2.3 Semantic categories of relative clauses

The lack of native speaker judgments makes it difficult to provide an accurate semantic characterization of relative clauses in NT Greek, so here I briefly illustrate a few important distinctions that have been formulated among living languages. I discuss two semantic distinctions among relative clauses: first, whether relative clauses are modifiers or quantifiers, and second, if they are modifiers whether they are restrictive or appositive.

2.3.1 Modification and quantification

An important distinction that has been made in the literature concerning the semantics of relative clauses is between modification and quantification. Head external relative clauses modify NPs. Some have argued that relative clauses in correlative constructions do not modify NPs, but are quantificational and bind NPs (see Srivastav 1991; Dayal 1996 for a number of asymmetries between Hindi head-external and correlative relatives; Grosu & Landman 1998). An exception to this is Bach & Cooper (1978), who assume that the modification relation is the same in correlatives, and derive it compositionally it at a distance.

Free relatives (including head-internal free relatives), can have either universal or definite interpretations in English (see de Vries 2002, Chapter 2 for similar examples from Dutch). For example, the free relative in (38a) can be paraphrased as (38b), and (39a) by (39b), as shown by Jacobson (1995: 454-55).

(38) a. I ordered what he ordered for desert.
b. I ordered the thing he ordered for desert.
(39) a. Do what the babysitter tells you to do.
b. Do everything that the babysitter tells you to do.

Jacobson (1995) analyzes free relatives as quantification expressions that denote maximal plural entities. They are analyzed in a similar way by Grosu & Landman (1998). According to them, free relatives as well as correlative relatives are semantically maximalizing.

Headless relatives in NT Greek can have either definite or universal interpretations. The example in (40) has a definite interpretation.

(40) Definite free relative
[ep^{h}' **hòn** gàr légetai taûta]
about REL.ACC.SG.M for say.3SG.PRES.IND.PAS DEM.NOM.PL.N
p^{h}ulê:s hetéras metésk^{h}e:ken
lineage.GEN.SG.F other.GEN.SG.F have.part.3SG.PERF.IND.ACT
'For, the one about whom these things are said is from another lineage.'
ἐφ' ὃν γὰρ λέγεται ταῦτα φυλῆς ἑτέρας μετέσχηκεν (Hb 7:13)

Universal interpretations occur when the *eán* or *án* is present, as shown by (41) (also (12) above). The reading seems to be similar to free relatives with *–ever* in English.

(41) Universal free relative
[**hòs** d' àn p^{h}oneúse:i]
REL.NOM.SG.M PCL PCL kill.3SG.AOR.SUBJ.ACT
énok^{h}os éstai tê:i krísei
liable.NOM.SG.M be.3SG.FUT.IND.MID D.DAT.SG.F court.DAT.SG.F
'And whoever should kill will be liable to court.'
ὃς δ' ἂν φονεύσῃ, ἔνοχος ἔσται τῇ κρίσει. (Mt 5:21)

Head-internal relative clauses seem to be a sub-type of free relative clauses that are known as head-internal free relative clauses. The Dutch example in (42), adapted from de Vries (2002: 47) and its English translation illustrate head-internal free relative clauses.

(42) Ik lees welk boek hij ook maar leest DUTCH
I read REL book he -ever reads
'I read whichever book he reads.'

Some head-internal relative clauses in NT Greek contain the modal particle, and have universal readings similar to the Dutch and English sentences in (43).

(43) Head-internal free relative
kaì parastê:te autê:i en
and stand.by.2PL.AOR.IMPV.ACT her.DAT.SG.F in
[**hô:i** àn humô:n k^{h}re:ze:i
REL.DAT.SG.N PCL you.GEN.PL need.3SG.PRES.SUBJ.MID
prágmati]
matter.DAT.SG.N
'And assist her in whichever matter she might have need of you.'
καὶ παραστῆτε αὐτῇ ἐν ᾧ ἂν ὑμῶν χῃζῃ πράγματι (Rm 16:2)

In summary, free relatives as well as correlatives have been analyzed as quantificational expressions rather than modifiers of NPs. Free relatives include both headless and some types of head-internal relative clauses. Headless free relatives have either universal or definite readings. In some languages, such as Dutch and English, head-internal free relatives have universal interpretations. NT Greek headless relatives seem to have either definite or universal interpretations. The meanings of head-internal free relatives are less clear. When *eán* or *án* is present, the interpretation seems to be universal. Head-internal relative clauses without the particles are less clear, but I consider head-internal relative clauses to be a sub-type of free relatives.

2.3.2 Restrictive and appositive relatives

Relative clauses, at least of the head-external variety, are modifiers. A distinction is present between restrictive and appositive modification. Restrictive relative clauses restrict the meaning of the head noun, while appositives specify the meaning of the head noun. For example, the restrictive relative clause in (44a) disambiguates my sister who lives in Burlington from a sister of mine who does not live in Burlington. In (44b), it is not necessarily the case that I have more sisters. The relative clause only adds additional information about the sister that I am discussing. In English and many other languages, the two types of relative clauses have different prosodic properties. Appositives are typically set apart with large breaks from the main clause.

(44) a. My sister who lives in Burlington liked it. RESTRICTIVE
b. My sister, who lives in Burlington, liked it. APPOSITIVE

The example in (45) shows a relative clause in a presentational context that is most compatible with a restrictive meaning, since the relative distinguishes this particular man from other men with other names.

(45) Restrictive relative clause
ánt^{h}ro:pos ê:n en Ierousalè:m
man.NOM.SG.M be.3SG.IMPF.IND.ACT in Jerusalem
[**hô:i** ónoma Sumeó:n]
REL.DAT.SG.M name.NOM.SG.N Simon.NOM.SG.M
'(And look), there was a man in Jerusalem whose name was Simon'.
(Καὶ ἰδοὺ) ἄνθρωπος ἦν ἐν Ἰερουσαλὴμ ᾧ ὄνομα Συμεών
(Lk 2:25)

In (46), on the other hand, the relative clause specifies the meaning of the antecedent, "Mary (who is) called Magdalene". This complex DP contains a participial relative (see (10) above). The participial relative restricts this Mary from other Mary's. However, the finite relative clause that follows this complex DP does not restrict the antecedent from another class of Mary Magdalenes. In the context of this example, women are listed, and the devils and evil spirits that came from them are specified. In the case of Mary Magdalene, the relative clause specifies that seven devils were cast out from her.

(46) Appositive relative clause
María he: kalouméne: Magdale:né:
Mary.NOM.SG.F the.NOM.SG.F called.NOM.SG.F Magdalene.NOM.SG.F
[**ap^{h} hê:s** daimóina heptà exele:lú:t^{h}e:]
from REL.GEN.SG.F devil.NOM.PL.N seven exit.3SG.AOR.IND.PAS
'(and certain women, which had been healed of evil spirits and infirmities): Mary who is called Magdalene, from whom seven devils came out,'
(καὶ γυναῖκές τινες αἳ ἦσαν τεθεραπευμέναι ἀπὸ πνευμάτων πονηρῶν καὶ ἀσθενειῶν,) Μαρία ἡ καλουμένη Μαγδαληνή, ἀφ' ἧς δαιμόνια ἑπτὰ ἐξεληλύθει (Lk 8:2)

It is not always clear whether the NT Greek relatives are restrictive or appositive. When the antecedent is a proper name it is usually an appositive relative, and in presentational contexts the restrictive reading is often more plausible.

There are some examples in NT Greek in which appositional DPs made up of proper names occur in apposition to free relative clauses, as shown in (47).

(47) Free relative with DP in apposition
[**hòn** egò: apekap^{h}álisa] **Io:ánne:n**
REL.ACC.SG.M I.NOM.SG behead.1SG.AOR.IND.ACT John.ACC.SG.M
hoûtos e:gért^{h}e:
DEM.NOM.SG.M wake.3SG.AOR.IND.PAS
'Who I put to death (that is John), he has arisen.'
Ὃν ἐγὼ ἀπεκεφάλισα Ἰωάννην, οὗτος ἠγέρθη. (Mk 6:16)

I don't call these appositive correlatives, since if correlatives are maximalizing, they can't be appositive (see de Vries 2000, 2002: note 26; 2006: note 58).

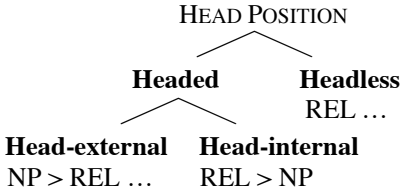
In summary, head-external relative clauses are modificational, and are either restrictive or appositive. Head-internal and headless relatives (free relatives) as well as relative clauses in correlative sentences (which are also head-internal or headless) have been argued to be quantificational expressions (Srivastav 1991; Jacobson 1995; Grosu & Landman 1998), but see Bach & Cooper (1978) for a modificational treatment of correlatives.

2.4 Summary

There are a few varieties of relative clauses in NT Greek. These all contain the same relative morpheme. I have organized these into descriptive categories based on distributional properties, such as the relative position of the head noun and the relative pronoun, and the position of the relative clause in the sentence. I also discussed semantic types of relative clauses, and divided the data into categories. It is difficult to uncover the semantics of a construction in a dead language, and so I have divided the relative clauses into types based on what we know from living languages. The descriptive categories of relative clauses that I distinguished are summarized in the following four diagrams.

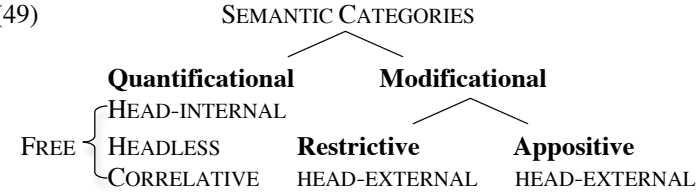
With respect to the presence or absence of an NP head and its position with respect to the relative pronoun, headless relative clauses are distinguished from headed ones. Headed relatives are further divided into head-externals and head-internals, as shown in (48).

(48)



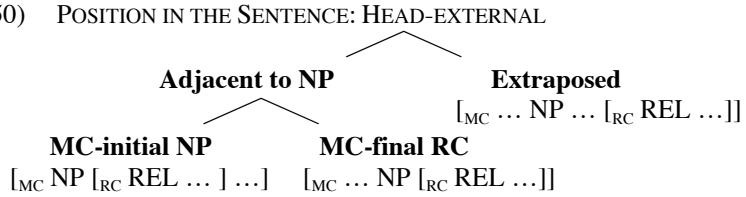
However, the head-internal relative clauses in NT Greek pattern more with what are known as head-internal free relatives in Germanic. Head-internal free relatives are a subtype of free (headless) relatives. With respect to semantics, both headless relatives and head-internal free relatives are semantically maximalizing (Grosu & Landman 1998). These two contrast with head-external relative clauses, which are modificational. The latter are further divided into restrictive and appositive relative clauses, as shown in (49).

(49)



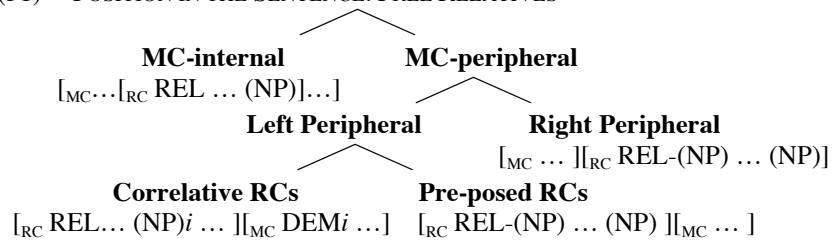
Concerning the position of the relative clause in the sentence, head-external relative clauses are either string adjacent to their NP heads, or stranded (extraposed). When they are string adjacent to NPs, their position varies with the position of the NP. When modified NPs are initial in the main clause, main clause material is found to the right of relative clauses (see (23), (25), (26) above). When head NPs are not initial in the main clause, the relative clauses are found with only subordinate clauses to their right (see (24) above). These positions are summarized in (50).

(50) POSITION IN THE SENTENCE: HEAD-EXTERNAL



A summary of the position of free relatives, including headless and head-internal relatives, is in (51). Free relatives are found either internal or peripheral to main clauses. Left-peripheral relative clauses include correlative relative clauses, and preposed relative clauses. The main difference between these two is that in correlatives, there is a co-referential demonstrative in the main clause and in the others, there is none.

(51) POSITION IN THE SENTENCE: FREE RELATIVES



3 Morphological case in relative clauses

In many modern European languages that show case marking, the external head shows the case corresponding to its role in the matrix clause (m-Case), and the relative pronoun shows the case assigned by the embedded predicate (r-Case). Example (52) from NT Greek illustrates this. The external head is the object of the matrix verb *epísteusen*, which consistently occurs with dative objects, and the relative pronoun is the direct object of the embedded verb *eîpen*, which consistently occurs with accusative objects.

(52) M-Case=DAT, r-Case=ACC
epísteusen ho ánthro:pos
believe.3SG.AOR.IND.ACT D.NOM.SG.M man.NOM.SG.M
tôi: lógôi: [hòn eîpen
D.DAT.SG.M word.DAT.SG.M REL.ACC.SG.M say.3SG.AOR.IND.ACT
autôi: ho Ie:soûs]
him.DAT.SG the.NOM.SG.M Jesus.NOM.SG.M
'And the man believed the word that Jesus said to him, (and he went away)'.
ἐπίστευσεν ὁ ἄνθρωπος τῷ λόγῳ ὃν εἶπεν αὐτῷ ὁ Ἰησοῦς (καὶ ἐπορεύετο). (Jn 4:50)

In NT Greek, as well as older Greek and Latin, relative pronouns sometimes agree in case with head nouns when m-Case and r-Case are distinct. This phenomenon is traditionally divided into two varieties: case attraction, in which the relative pronoun shows m-Case, and inverse attraction, in which the head noun shows r-Case.

3.1 Case attraction

The definition of case attraction is that the case of a relative pronoun attracts to the case of the antecedent (Smyth 1984: 567, §2522). The example in (53) illustrates attraction in a head-external relative clause. The matrix verb *mimne:sko:* "remember" takes genitive objects, such as *toû lógou* "the word" in this instance. The relative pronoun also occurs with genitive morphology, although the embedded verb *eîpon* "said" normally occurs with accusative objects.

(53) Case attraction (ACC to GEN) in a head-external RC
mne:moneúete **toû lógou**
remember.2PL.PRES.IMPV.ACT the.GEN.SG.M word.GEN.SG.M
[**hoû** egò: eîpon humîn]
REL.GEN.SG.M I.NOM.SG say.1SG.AOR.IND.ACT you.DAT.PL
'Remember that word which I said to you: (The servant is not greater than his lord).'
μνημονεύετε τοῦ λόγου οὗ ἐγὼ εἶπον ὑμῖν, Οὐκ ἔστιν δοῦλος μείζων τοῦ κυρίου αὐτοῦ. (Jn 15:20)

Case attraction also occurs in free relative clauses, both headless and head-internal. The example in (54) shows attraction in a headless relative clause. The relative pronoun shows partitive genitive case, introduced by the matrix negative quantifier *oudén*, "nothing". If there were an external NP, it would have genitive case. R-case is accusative, as the relative pronoun is the object of the verb *horáo:* "see".

(54) Case attraction (ACC to GEN) in a headless RC
kaì oudenì apé:ngeilan …
and nobody.DAT.SG report.3PL.AOR.IND.ACT
oudèn [**hô:n** he:ó:rakan]
nothing.ACC.SG.N REL.GEN.PL.N see.3PL.PERF.IND.ACT
'And they told no man (in those days) any of the things which they'd seen'.
καὶ αὐτοὶ ἐσίγησαν καὶ οὐδενὶ ἀπήγγειλαν (ἐν ἐκείναις ταῖς ἡμέραις) οὐδὲν ὧν ἑώρακαν. (Lk 9:36)

The example in (55) shows case attraction in a head-internal free relative. In this example, m-Case is partitive genitive, introduced by the matrix negative quantifier *oudemían aitían* "no charge". R-Case is accusative, as the relative pronoun is the object of the verb *hupenóoun* "suspected". Both the relative pronoun and the internal NP *pone:rô:n* "evils" (which is more accurately a substantivized adjective) show m-Case.

(55) Case attraction (ACC to GEN) in a head-internal RC
oudemían aitían ép^{h}eron
no.ACC.SG.F charge.ACC.SG.F bring.3PL.AOR.IND.ACT
[**hô:n** egò: hupenóoun **pone:rô:n**]
REL.GEN.PL.N I.NOM.SG suspect.1SG.IMPF.IND.ACT evil.GEN.PL.N
'(against whom the accusers, when they stood up,) brought forth no charge of those evil things which I suspected.'
(περὶ οὗ σταθέντες οἱ κατήγοροι) οὐδεμίαν αἰτίαν ἔφερον ὧν ἐγὼ ὑπενόουν πονηρῶν (A 25:18)

3.2 Conditions on case attraction

There are patterns of case attraction, as has been long noted by classical grammarians. Attraction most often takes place from accusative to dative or genitive, and not from dative or genitive to accusative (Smyth 1984:567). According to Smyth (1984:567, §2523), attraction from the nominative and the dative is rare in Classical Greek. He provides one example of attraction of the dative to the genitive, and one of the nominative to the genitive. An interesting twist concerning nominatives is that only nominatives in the neuter gender undergo attraction (also Harbert 1983: note 8).

Blass, Debrunner & Funk (1961: 153, §294) provide a NT Greek example of attraction from the dative to the genitive, shown in (56). In this instance, the head noun is preceded by the preposition *héo:s* until, which occurs with genitive complements, denoting source. In this instance it is temporal, meaning "since". In the relative clause, the relative pronoun would normally be dative, representing a static point in time. Instead, it shows genitive case.

(56) héo:s **tê:s** **he:méras** **hê:s**
until D.GEN.SG.F day.GEN.SG.F REL.GEN.SG.F
anelé:mp^{h}t^{h}e: ap^{h}' he:mô:n
raise.3SG.AOR.IND.PAS from us.GEN.PL
'(Beginning from the baptism of John,) until the day in which he was taken up from us'
(ἀρξάμενος ἀπὸ τοῦ βαπτίσματος Ἰωάννου) ἕως τῆς ἡμέρας ἧς ἀνελήμφθη ἀφ' ἡμῶν, (A 1:22)

Generative theory has shown that structural Case behaves differently from lexical Case. Structural Case is licensed by virtue of the position of the constituent, and through the subcategorization feature of the verb (Chomsky 1981). Nominative and accusative are structural Cases. Lexical Case is idiosyncratic, and selected by particular lexical items.[80] Lexical heads, such as V (verb) and P (preposition) license lexical Case. Lexical Case is not licensed by virtue of the position of the complements of V and P, corresponding to the fact that prepositions occur consistently with particular morphological case marking on their nominal complements in case-marking languages, although their complements occupy the same structural position.

The generalization is that structural Cases attract to lexical Cases, where lexical Case is either assigned by a verb or preposition (Harbert 1983; Young 1988 concerning attraction in free relatives). The pattern of attraction is illustrated by the hierarchy in (57), where attraction takes place rightward.

(57) ACC > DAT > GEN
(structural Case) > (lexical Case) > (lexical Case)

The exception is the nominative, which is a structural Case. I haven't found a clear instance of attraction from the nominative in the NT. It is unclear whether there is a distinction between nominatives of neuter gender and those with masculine or feminine, as in Classical Greek. There are very few instances of subject relative clauses following matrix clauses- most subject relative clauses are pre-posed, and of these, most are in configurations where m-Case and r-Case are both nominative.

An important condition on attraction is locality. Extraposed relative clauses do not display attraction. Attracted relative pronouns are only found near string adjacent to external heads. The locality applies to syntactic configurations, not to linear adjacency. As (58) shows, genitive complements of head nouns do not interrupt case attraction.

[80] Woolford (2006) argues for a tripartite division of Case. Non-structural Case is further divided into lexical and inherent Case. Inherent Case is argued to be associated with certain theta positions, for example, dative Case in ditransitive constructions. In traditional Greek grammars, this type of dative is called the pure dative. In the majority of clauses in NT Greek, the attraction witnessed seems to involve lexical rather than inherent dative Case.

(58) Attraction: ACC to DAT
tê:i paradósei humô:n
D.**DAT.**SG.F tradition.**DAT.**SG.F your.**GEN.**PL
[hê:i paredó:kate]
REL.**DAT.**SG.F hand.down.2PL.AOR.IND.ACT
'(nullifying the word of God) by that tradition of yours that you handed down'
(ἀκυροῦντες τὸν λόγον τοῦ θεοῦ) τῇ παραδόσει ὑμῶν ᾗ παρεδώκατε· (Mk 7:13)

In this example, the head noun *paradósei* occurs with dative case morphology, functioning as an instrumental. The possessive pronoun *humô:n*, in the genitive case, modifies the head noun and follows it in the string. The relative clause that follows is an object relative in which r-Case is accusative. The relative attracts to the dative not the genitive, although the linearly closest case-marked DP is the genitive one.

An interesting property of case attraction is that it does not always take place, even given the appropriate conditions (for example, see (13) above). Smyth (1984: 567, §2524) states that attraction occurs "when the relative clause is essential to complete the meaning of the antecedent. When the relative clause is added merely as a remark, attraction does not take place. An attracted relative clause virtually has the force of an attributive adjective". The distinction that Smyth makes is similar to the distinction between a restrictive and an appositive relative clause. A restrictive can be seen as essential to complete (restrict) the meaning, and an appositive as an additional specification. In generative theory too, restrictive relative clauses are modifiers, as are adjectives. According to Blass, Debrunner & Funk (1961: 154), the normal pattern in the NT is attraction, and they give a finite list of non-attracted exceptions. Note also that there are some variations in the manuscripts as to whether or not attraction takes place.

3.3 Inverse attraction

Inverse attraction is defined as the transfer of case from a relative pronoun to the antecedent (Smyth 1984: §2533). In other words, the head noun shows r-Case rather then m-Case. In head external relative clauses, inverse attraction is found only when the relative clause is pre-posed in the sentence. In head-internal relative clauses, inverse attraction is only found when the internal NP is appositional.

The example in (59) shows an instance of inverse attraction in a pre-posed head-external relative clause. The head *líthon* "stone" precedes the relative pronoun. This NP refers to the subject of the matrix clause, "has become the head of the corner". The relative clause is an object relative clause and as such the relative pronoun has accusative r-Case. The head shows accusative rather than nominative case.

(59) Inverse attraction (NOM to ACC)
Lít^{h}on **hòn** apedokímasan
stone.ACC.SG.M REL.ACC.SG.M reject.3PL.AOR.IND.ACT
hoi oikodomoûntes, [*hoûtos*
the.NOM.PL.M builder.NOM.PL.M DEM.NOM.SG.M
egené:t^{h}e: eis kep^{h}alè:n go:nías]
become.3SG.AOR.IND.PAS to head.ACC.SG.F corner.GEN.SG.F
'Which stone the builders rejected, this one has become head of the corner'.
Λίθον ὃν ἀπεδοκίμασαν οἱ οἰκοδομοῦντες, οὗτος ἐγενήθη εἰς κεφαλὴν γωνίας (Mt 21:42; Mk 12:10; Lk 20:17)

Inverse attraction does not show the same conditions as the case attraction. Inverse attraction in head-external relative clauses takes place when the relative clause is pre-posed. Another difference is that in (59), attraction is from the nominative to the accusative, which is not found in instances of case attraction.

3.4 Summary

In summary, attraction describes the phenomenon of a relative pronoun agreeing in case with an NP head, in environments where matrix Case and embedded Case are distinct. Case attraction is when a relative pronoun takes matrix Case, and inverse attraction when a head noun takes embedded Case. Case attraction occurs in head-external as well as in free (headless and head-internal) relatives. Inverse attraction occurs only in pre-posed relative clauses in which the NP head is external on the surface. The types of relative clauses that undergo attraction and inverse attraction are summarized in (60).

(60) ATTRACTION & INVERSE ATTRACTION

Attraction	**Inverse attraction**
HEAD-EXTERNAL	PRE-POSED HEAD-EXTERNAL
HEADLESS	
HEAD-INTERNAL	

Case attraction is subject to a hierarchy, whereby accusative (a structural Case) is over-ridden by dative or genitive inherent or lexical Case (61). An interesting fact is that nominative relative pronouns are not found attracted, although the nominative is a structural Case. Inverse attraction, on the other hand, does take place from the nominative to the accusative (62).

(61) ATTRACTION:

ACC	> DAT	> GEN
(structural Case)	> (inherent/lexical Case)	> (lexical Case)

(62) INVERSE ATTRACTION:
NOM > ACC
(structural Case) (structural Case)

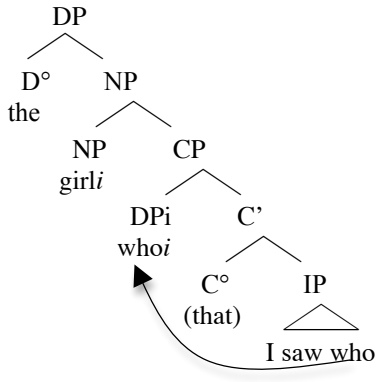
4 Head-external relative clauses

Important aspects of the raising analysis are also consistent with the distribution of definite determiners in relative clauses. The relative DP hypothesis (Bianchi 1999) accounts for why determiners are not found internal to relative clauses. The distribution of determiners is similar to the distribution of determiners in adjectivally modified DPs. This could indicate that the structures are also very similar- they are both 'double D' configurations in which a determiner selects a CP. It has been proposed by Kayne (1994) among others that adjectivally modified DPs are reduced relative clauses.

4.1 The raising analysis of relative clauses

Restrictive head-external (or 'post-nominal') RCs were traditionally analyzed as base-generated adjoined to the right of the NP head (Ross 1967). This is often called the standard analysis. There are various versions of the standard analysis, which vary with respect to the position of the determiner and the noun, and whether the NP is a complement or adjunct of the D (see de Vries 2002: 70-74 for a detailed summary). The structure is shown in (63) for the clause "the girl who I saw".

(63)



The NP "girl" is the complement of the determiner, and the CP is adjoined to the NP. Within the CP, the relative pronoun, which in English is a *wh*-item, raises to Spec,CP (Chomsky 1977). If there is no relative pronoun present, then covert operator movement is posited. The relative pronoun is semantically linked to the head noun through co-indexation or predication. In extra-posed relative clauses, the standard analysis was that the CP moves rightward.

In recent years, many authors have taken the position that the NP starts out inside the embedded CP, and then raises to a position preceding the relative pronoun, at least in restrictive relative clauses. This idea is attributed to Vergnaud (1974) and Schachter (1973) in the literature. Evidence for the low position of NPs comes from binding facts, and the interpretation of idioms.[81] Example (64) illustrates binding facts that motivate the claim that NPs start out in the embedded clause.

(64) Mary discovered the picture of himself*i* that Bob*i* liked PICTURE OF HIMSELF*i*

In (64), the head of the relative clause contains the anaphor "himself", which is co-referential with "Bob", and is embedded in the relative clause. For this interpretation to be possible, the anaphor must occur in a position c-commanded by "Bob".

Kayne (1994, chapter 8) combines the raising hypothesis with the D-Complement hypothesis, which is attributed to Smith (1964). According to the D-Complement hypothesis, an external determiner D selects the relative CP, at least in restrictive relative clauses. One argument supporting this is that expressions that do not normally contain determiners do contain them when a relative clause is added. The contrast in (65) illustrates this with the expression "to make headway".[82]

(65) a. We made (*the) headway
b. The headway we made was great

The D-complement hypothesis together with the internal NP hypothesis form what is currently called the raising analysis of relative clauses. The derivation of the head-external relative clause "the hammer with which he broke it" is given in (66), from Kayne (1994: 89). The constituent *which hammer* starts out in its base position within the CP (66a). The relative D undergoes *wh*-movement to Spec-CP (66b). Finally, the NP moves to the Spec- of the PP as in (66c). Kayne suggests that this movement proceeds through Spec,*which*. He states, "the plausibility of having an underlying constituent *which hammer* here is clear".

(66) a. the [C° [he broke it with which hammer]]
b. the [with which hammer [C° [he broke it [e]]]]
c. the [$_{CP}$ [$_{PP}$ hammer*i* [with which [e]*i*]] C° …

In summary, in the raising analysis, an external matrix D selects for a relative CP as its complement. The head noun is generated inside this CP, as the complement to the relative pronoun. The pronoun has been to be a special kind of determiner, of the

[81] For semantic arguments for the internal interpretation of external head nouns see Bhatt & Pancheva (2006).

[82] Further arguments for the D-complement hypothesis are found in de Vries (2002: 74-76).

category D (Bianchi 1999, 2000b). It raises to a position that linearly precedes the relative pronoun, either within the relative DP or in the CP, and takes on the phi- and case features of the external D. The head noun is linked to its position in the relative clause through a movement chain.

4.2 The distribution of determiners in NT Greek head-external and head-internal relative clauses

Aside from the defining difference between head-internal and head-external relative clauses (the position of the noun), there is an asymmetry between the two concerning the distribution of determiners. While head-internal relative clauses do not show determiners preceding head nouns, head-external relative clauses sometimes do, roughly when the head nouns are definite. Head-internal relative clauses do not contain articles. This general pattern is illustrated by (67) and (68).

(67) Head internal relatives
en **hô:i** gàr **krímati** krínete
by REL.DAT.SG.N for judgment.DAT.SG.N judge.2PL.PRES.IND.ACT
krit^{h}é:sest^{h}e
judge.2PL.FUT.IND.PAS
kaì en **hô:i** **métro:i** metreîte
and by REL.DAT.SG.M scale.DAT.SG.M measure.2PL.PRES.IND.ACT
metre:t^{h}é:setai humîn
measure.3SG.FUT.IND.PAS you.DAT.PL
'For, by which judgment you judge, you will be judged, and by which scale you measure, it will be measured unto you.'
ἐν ᾧ γὰρ κρίματι κρίνετε κριθήσεσθε καὶ ἐν ᾧ μέτρῳ μετρεῖτε μετρηθήσεται ὑμῖν. (Mt 7:2)

(68) Head-external relative
en **tô:i** **pote:río:i** [**hô:i** ekérasen]
in D.DAT.SG.N cup.DAT.SG.N REL.DAT.SG.N mix.3SG.AOR.IND.ACT
kerásate autê:i diploûn
mix.2PL.AOR.IMPV.ACT her.DAT.SG.F double.ACC.SG.N
'In the cup which she has mixed, mix twice as much for her.'
ἐν τῷ ποτηρίῳ ᾧ ἐκέρασεν κεράσατε αὐτῇ διπλοῦν· (Rv 18:6)

In (68) the external head is the object of a PP, which is fronted, and in (67) the relative clause is a pre-posed adjunct free relative. Both of the relative clauses are definite, but (68) and not (69) contains a definite article preceding the noun.

The restriction against an internal determiner in restrictive relative clauses seems similar to the restriction on Ancient Greek DPs containing attributive adjectives (see Bakker 2007; Kirk 2007). There are two ways of forming DPs with attributive adjectives. One variety has two determiners and the other only one. If there is only

one, the sequence must be DAN, where A is an adjective. If there are two determiners, the DN sequence must precede the DA sequence. This is shown in (69).

(69) a. DNDA: ὁ οἶνος ὁ νέος
ho oînos ho néos
D.NOM.SG.M wine.NOM.SG.M D.NOM.SG.M new.NOM.SG.M
'the new wine' (Lk 5:37)

b. DAN: ὁ ἀγαθὸς ἄνθρωπος
ho agat^{h}òs ánt^{h}ro:pos
D.NOM.SG.M good.NOM.SG.M man.NOM.SG.M
'the good man' (Mt 12:35)

c. *DADN: unattested

The restriction on DADN is similar to the restriction on REL[…]D-N, if the relative is a determiner.

4.3 NT Greek head-external relative clause structure

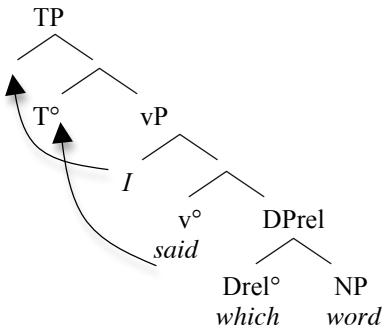
The contrast between head-external and head-internal relative clauses with respect to the distribution of determiners is easily accounted for by assuming that the relative pronoun is a determiner, as argued for extensively in Bianchi (1999, 2000b). The case attraction phenomena illustrated in Section 3 can, at least in part, be accounted for with the raising analysis.

The example in (70) is repeated from (53) above, where the head noun *lógou* is preceded by the determiner *toû*.

(70) Case attraction (ACC to GEN) in a head-external RC
mne:moneúete **toû** **lógou**
remember.2PL.PRES.IMPV.ACT the.GEN.SG.M word.GEN.SG.M
[**hoû** egò: eîpon humîn]
REL.GEN.SG.M I.NOM.SG say.1SG.AOR.IND.ACT you.DAT.PL
'Remember that word which I said to you: (The servant is not greater than his lord).'
μνημονεύετε τοῦ λόγου οὗ ἐγὼ εἶπον ὑμῖν, Οὐκ ἔστιν δοῦλος μείζων τοῦ κυρίου αὐτοῦ. (Jn 15:20)

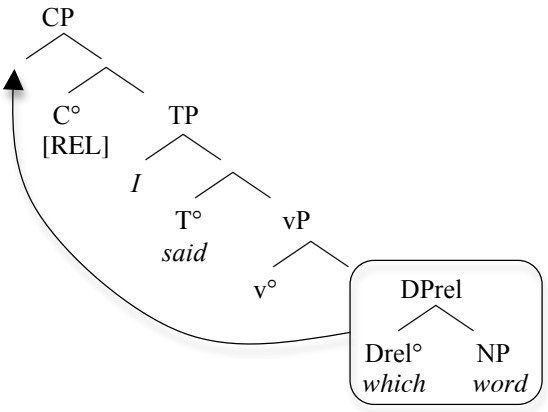
In a head-external relative clause, the determiner preceding the NP corresponds to the matrix determiner. The relative DP, with the relative pronoun as the head and the NP its complement, first occurs in its base position in the embedded clause. The relative DP constituent *hoû lógou* "which word" is first merged in object position in the embedded clause, as shown in (71).

(71)



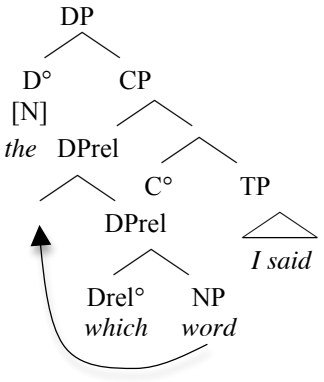
When the C projection hosting the relative operator feature is added, it attracts the relative DP to Spec,CP, as shown in (72).

(72)



When the external DP is added, it takes the relative CP as its complement, as proposed by Kayne (1994) among others. I follow Bianchi (2000b), who argues that the external D also contains a feature, [+N] that selects for a nominal category. This triggers movement of the head NP to the Specifier of the inner relative DP, as shown in (73).

(73)



As I mentioned above, in most European languages the head noun of a restrictive head-external relative clause agrees in gender and number with the external D, if overt, and the relative pronoun. In languages that mark case, the head noun shows the same case as the external D°, if overt, and the relative pronoun shows the case corresponding to its role in the relative clause. In NT Greek, in the majority of instances, the relative pronoun also agrees with the head noun and external determiner. This is the phenomenon of case attraction. In the configuration in (73), CP intervenes between the external D° and the relative DP, which contains the head noun and the relative pronoun, raising the question of how the agreement is established between the external D and the head NP.

Bianchi (2000b: 63) accounts for this through checking under government, arguing that the relation between the external D and the NP qualifies as a proper checking configuration. She adopts Manzini's (1994) definition of minimal domain, given in (74).

(74) The minimal domain of a head X, notated (X), includes all elements that are immediately dominated by, and do no immediately dominate, a projection of X.

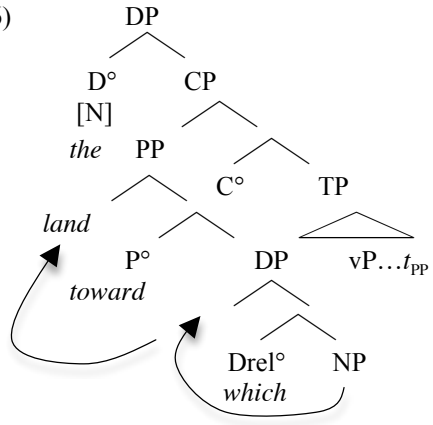
In (73), the NP and relative D° fall under the minimal domain of the external D°, not of the relative D° or the C°. This allows for checking between the external D, NP and relative pronoun. Bianchi assumes that inflectional material is inserted after the syntax, in the Morpho-Phonological component (Halle & Marantz 1993). In her approach, the inflected noun is a lexical head N°, combined with a functional Agr° head that consists of morpho-syntactic features that are spelled out as agreement morphemes. Bianchi assumes that morphological Case agreement occurs in configurations defined as in (74). The feature of the governing head, in this instance the external D°, is copied onto the Agr° head, and the head noun is pronounced with the case morphology of this external D°. In (73), the relative D° is also in the minimal domain of the external D, and therefore the Case feature of the external D can also be copied onto the relative pronoun. This partly explains how genitive case morphology occurs on the relative pronoun in (70).

The configuration in (73) also accounts for why attraction does not take place in adjunct relative clauses in which a preposition is pied-piped with a relative pronoun (also Harbert 1983: 246 concerning free relatives). For example, in (75) below, the head noun (or rather the DP) is preceded by the preposition *epí*, which assigns genitive Case to the external determiner and head noun. The relative pronoun is preceded by the embedded preposition *eis*, which occurs with accusative complements in this directive use. The relative pronoun shows accusative rather than genitive case.

(75) Non-attraction
epì tê:s gê:s
against D.**GEN.**SG.F land.**GEN.SG.F**
[eis hè:n hupê:gon]
toward REL.**ACC.**SG.F head.3PL.IMPF.IND.ACT
'(And immediately the boat came) against the land toward which they were heading.'
(καὶ εὐθέως ἐγένετο τὸ πλοῖον) ἐπὶ τῆς γῆς εἰς ἣν ὑπῆγον.
(Jn 6:21)

Attraction normally does take place from the accusative to the genitive. If there were no embedded preposition, case attraction would be likely to occur, but of course this can't be tested. The generalization that embedded prepositions block case attraction is explained given that the relative pronoun is in the minimal domain of P° rather than of the external D°, and therefore can't copy its Case feature. The configuration after movement of the DPrel (along with the PP) is illustrated in (76). I indicate the base position of the PP with t_{PP}.

(76)



In Bianchi's (2000b) approach, there is also a question of how the Case feature of the embedded predicate is checked. Bianchi (2000b: 69) suggests either that Case features can be optionally erased (Chomsky 1995: 279-282), or perhaps that structural Case can remain morphologically unrealized.

The NT Greek data that I showed in Section 3, which seem parallel with the facts in Classical Greek, indicate that there is a hierarchy of attraction. It is insufficient to say that Case features are optionally erased, as then we would expect that matrix accusative case morphology would show up on a relative pronoun that is assigned embedded dative or genitive Case. The idea that structural Case can remain morphologically unrealized would account for why accusative r-Case (usually) does not surface in the presence of non-structural (dative or genitive) m-Cases. However, under this view, we would expect to find instances of attraction from the nominative, since nominative is a structural Case.

In Latin and Ancient Greek, there is evidence in favour of the fact that the accusative is the default Case (see Calboli 2008 concerning Latin; Sevdali 2005 concerning Ancient Greek; see also McClosley 1985 concerning Irish). In infinitival and gerund clauses, accusative case occurs on subjects. An example is given in (77) of an NT Greek temporal infinitival clause. The copular infinitive is substantivized with the definite article, which is the complement of the preposition *en* "in" / "with" / "during". The pronominal *autón*, which is the subject of the copular infinitive, shows accusative case.

(77) en tô:i eînai autòn
in D.DAT.SG.N be.PRES.INFIN.ACT him.ACC.SG.M
en miâi tô:n póleo:n
in one.DAT.SG.F D.GEN.PL.F city.GEN.PL.F
'(And it happened) while he was in one of the cities, (that they came across a man with severe leprosy.)'
(Καὶ ἐγένετο) ἐν τῷ εἶναι αὐτὸν ἐν μιᾷ τῶν πόλεων (καὶ ἰδοὺ ἀνὴρ πλήρης λέπρας·) (Lk 5:12)

If we assume that default Case is inserted late in the derivation, in the absence of another Case feature, then attraction from the accusative case can be explained. Accusative case does not surface on the relative pronoun because Case from the matrix clause is available to the relative pronoun, before the point at which default Case is inserted. A full development of this analysis awaits future research.

In summary, the fact that matrix Case shows up on relative pronouns in some instances in head-external and head-internal relative clauses indicates that matrix Case is accessible to the relative clause CP. In the raising analysis, the relative clause is linked to the main clause through selection of the relative clause CP by the external matrix determiner. This determiner allows the transfer of Case from the matrix to reach the relative pronoun. However, this does not explain the hierarchy of attraction.

5 Correlatives

There are various surface differences between relative clauses in correlatives and head-external relative clauses. Some defining differences are the fact that correlatives normally have demonstratives or another form of resumption in the main clause. Another difference is that NP heads tend to follow relative pronouns. In this language, another difference is that inverse attraction rather than case attraction is witnessed in correlative relative clauses.

The differences concerning NP positions as well as concerning case patterns can be shown to stem from the fact that a correlative relative clause is not selected by an external matrix D. Many studies of relative clauses in correlative sentences conclude that the relative clause is a bare CP, adjoined to the main clause IP (Srivastav 1991; Dayal 1996; Izvorski 1996b; de Vries 2002; Lipták 2005). This difference aside, there is a commonality in their structures, namely the fact that the relative pronoun

and head NPs originate as complements of the relative D, and undergo raising within the relative clause CP.

5.1 NP positions

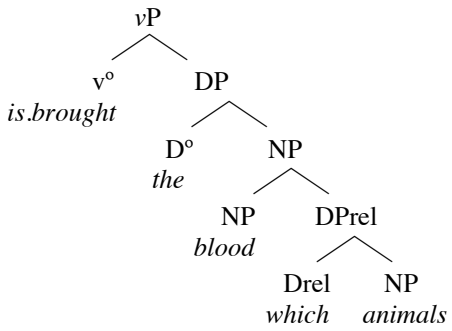
NP positions in correlative relative clauses add an interesting twist to the typology of correlatives. NPs are found following relative pronouns, as is typical cross-linguistically, however one clear correlative example shows that NPs can be stranded from relative pronouns by verbs. This is reminiscent of stranding in *wh*-questions (see Chapter 5). The example is illustrated in (78).

(78) Head internal relative in a correlative sentence
[**hô:n** gàr eisp^{h}éretai **zó:io:n**
REL.GEN.PL.M PCL bring.in.3SG.PRES.IND.PAS animal.GEN.PL.M
tò haîma …]
the.NOM.SG.N blood.NOM.SG.N
[*toúto:n* tà só:mata katakaíetai …]
DEM.GEN.PL.M the.NOM.PL.N body.NOM.PL.N burn.3SG.PRES.IND.MID
'For, of which animals the blood is brought in (for sin into the holies through the chief priest), of these the bodies are burned (outside the camp)'.
ὧν γὰρ εἰσφέρεται ζῴων τὸ αἷμα (περὶ ἁμαρτίας εἰς τὰ ἅγια διὰ τοῦ ἀρχιερέως), τούτων τὰ σώματα κατακαίεται (ἔξω τῆς παρεμβολῆς.)
(Hb 13:11)

In most instances of discontinuous NPs in *wh*-questions, it is unclear whether the NP has moved at all from its base position, as I discussed in Chapter 5. This is due to the fact that there is very little other material in the clause that can serve as a landmark. In the case of the correlative shown in (78), it is clear that the noun has raised from its base position. The relativized NP *zó:io:n* "animals" is the possessor of the DP that linearly follows it, *tò haîma* "the blood". This possessum DP is the subject of the relative clause, giving "the blood of which animals is brought in". The possessor NP "animals" appears preceding the possessum.

The structure of NT Greek possessive DPs is not completely clear, but the possessum should precede the possessor within some kind of complex DP structure. This larger DP occurs as the complement of *v*, since it is the subject of a passive verb, following Chomsky (2008). The structure of the relative clause *v*P is shown in (79).

(79)



The fact that in (78) the possessor NP *zó:io:n* "animals" precedes the possessum DP *tò haîma* "the blood" indicates that it has moved out from its base position. However, it does not move as high as Spec,CP with the relative pronoun. The verb intervenes between the two.

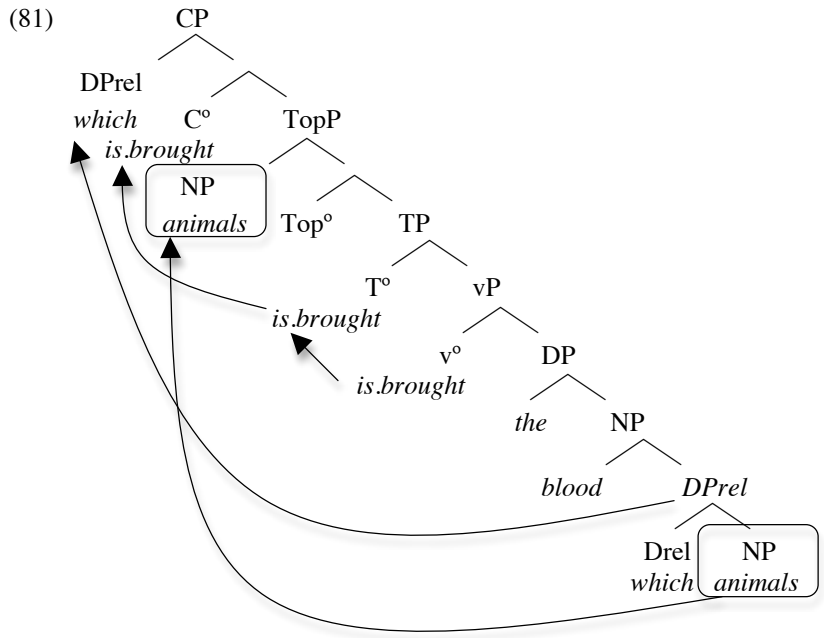
The NP *zó:io:n* "animals" fairly clearly serves a topic function in this example. The verse directly following the example is given in (80).

(80) Context following (78)
διὸ καὶ Ἰησοῦς, ἵνα ἁγιάσῃ διὰ τοῦ ἰδίου αἵματος τὸν λαόν, ἔξω τῆς πύλης ἔπαθεν.
'Wherefore Jesus also, in order that he might sanctify the people through his own blood, suffered outside the camp.' (Hb 13:12)

In the verses in (78) and (80), a comparison is made between the animals and Jesus. The blood of both of them served as a sacrifice for the people, and both suffered outside the camp. In (80), "Jesus" is preceded by the additive particle *kaí*, which shows that at least this constituent is pragmatically marked by lexical means (see Chapter 4). It is also dislocated ahead of the subordinate clause "in order that he might sanctify the people through his own blood". In my view, "Jesus" in (80) and "animals" in (78) are best described as contrastive topics.

Since the NP *zó:io:n* "animals" is outside of its base position, and since topics are dislocated to Topic projections in this language, I suggested in Kirk (2012) that the NP is in a Left Peripheral Topic projection. This implies that the verb has moved to Cº in this example. The structure I propose for the relative clause in (78) is in (81). First the NP is extracted from the vP, and moved to the Topic projection. The verb is raised to Cº, through Tº, and the remnant DPrel is moved to Spec,CP. I assume that the particle *gár* starts higher and lowers after the syntax, to surface as the second phonological word.

(81)



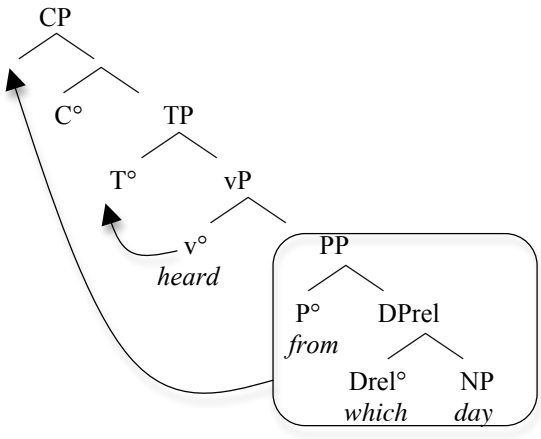
In summary, the example indicates that when NP stranding occurs, the NP is not necessarily in-situ. In the split *wh*-phrases discussed in Chapter 5, it was not possible to say with certainty whether NPs had raised at all. Example (78) could be taken to indicate that when nominal complements of wh-phrases are stranded, they also undergo movement. This could in turn provide more support for the idea that V to C movement occurs in *wh*-clauses with stranded NPs.

Other examples show NPs in preverbal position in the relative clause, for example, the locative head-internal adverbial relative clause shown in (20) above:

(82) [ap^{h}' **hês** **he:méras** e:koúsate …]
from REL.GEN.SG.F day.GEN.SG.F hear.2PL.AOR.IND.ACT
'from which day you heard'
ἀφ' ἧς ἡμέρας ἠκούσατε (Col 1:6)

In instances where the NP and REL are adjacent (aside from intervening second position particles), I assume that the DPrel moves as a phrase to Spec,CP, similarly to in head-external relative clauses. These are presumably cases in which the NPs are not Topics and therefore not first extracted from the relative DP. I propose the derivation in (83) for the relative clause in (82).

(83)



Notice that in this configuration, there is no external D above the CP. This contrasts with head-external relative clauses, as shown in Section 4. In those, the external D has a nominal feature that triggers movement of the NP to Spec,DPrel. In instances where the matrix D is not present, the NP does not raise to Spec,DPrel, thus retaining the order REL > NP.

5.2 Inverse attraction as a failure of attraction

As I discussed in Section 3, in Classical and NT Greek, in some instances, the NP takes the case of the relative pronoun rather than the case corresponding to matrix Case. This is traditionally known as inverse attraction.[83] In (84), the relative clause is pre-posed, and the demonstrative *hoûtos* occurs in the main clause, and shows nominative morphology, corresponding to m-Case.

(84) Inverse attraction in a correlative

Lít^{h}on	**hòn**	apedokímasan		
stone.ACC.SG.M	REL.ACC.SG.M	reject.3PL.AOR.IND.ACT		
hoi	oikodomoûntes,	[*hoûtos*		
the.NOM.PL.M	builder.NOM.PL.M	DEM.NOM.SG.M		
egené:t^{h}e:	eis	kep^{h}alè:n	go:nías	]
become.3SG.AOR.IND.PAS	to	head.ACC.SG.F	corner.GEN.SG.F	

'The stone which the builders rejected has become head of the corner'.

Λίθον ὃν ἀπεδοκίμασαν οἱ οἰκοδομοῦντες, οὗτος ἐγενήθη εἰς κεφαλὴν γωνίας (Mt 21:42; Mk 12:10; Lk 20:17)

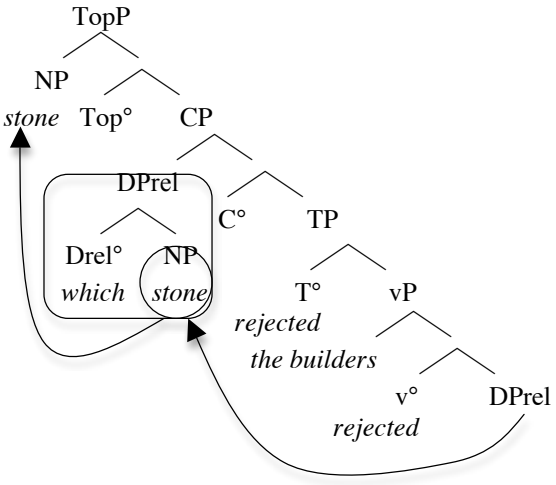
As I mentioned above, it is normally argued that relative clauses in correlatives are bare CPs, not selected by matrix Ds. If there is no external D, there is no Case

[83] What seem to be correlative examples with inverse attraction are also found in Homeric Greek (for example, *Iliad* 1:300), however the form of the demonstrative is different.

feature coming from the matrix clause and being copied onto the head noun and relative pronoun. If examples like (84) are analyzed as correlatives rather than head-external relative clauses, then the phenomenon of inverse attraction can then be seen as a failure of attraction of the NP, in the absence of a matrix Case feature.

The derivation that I propose for (84) is in (85). The noun and the relative pronoun start out as a constituent, as in other relative clauses (i.e., "the builders rejected which stone"). Movement of DPrel proceeds to Spec,CP, as in the other cases. As shown in Chapter 5, there is one Topic projection preceding the CP operator position in the Left Periphery. I suggest that the nominal head is dislocated to this Topic projection.[84]

(85)



The last movement step in (85), of the NP to Spec,TopP is not typical cross-linguistically. The relative DP has undergone movement to Spec,CP and the NP is subsequently extracted from it. The phenomenon is often called 'freezing effects' (Corver 2007 and references therein), or 'criterial freezing' (Rizzi 2006), since sub-constituents of moved constituents are 'frozen' in place. However, there may be a counter-example to the ban on sub-extraction in Spanish, discussed in Chomsky (1986b: 26), who cites Torrego (1985). The crucial example is given in (86).

(86) [$_{CP}$ De qué autora$_i$ C no sabes [$_{CP}$ [qué traducciones t$_i$]$_j$ C [$_{TP}$ t$_j$ han
of what author not know.2SG what translations have.3PL
ganado permios internacionales]]]?
won awards international
'By what author don't you know what translated books have won international awards?'

[84] It has already been suggested in Kiparsky (1995), following Hale (1987), that fronting of head nouns in correlatives in ancient Indo-European languages occurs, but the precise mechanism of fronting is not specified.

Before sub-extraction of the lower *wh*-phrase, the sentence is as in (87). The *wh*-phrase "of what author" is embedded under the *wh*-phrase "what translations".

(87) No sabes [$_{CP}$[qué traducciones [$_{PP}$de qué autora]]$_j$ C [$_{TP}$t$_i$ han ganado
not know.2SG what translations of what author have won
permios internacionales]]
awards international
'You don't know what translations by what author have won international awards.'

The standard analysis would be that the two *wh*-phrases move together to the Spec, of the first CP. Sub-extraction of the embedded *wh*-phrase to the higher CP should not be possible due to freezing, but (86) is judged grammatical by Torrego (1985).

5.3 Correlative sentence structure

Ancient Indo-European languages such as Hittite, Sanskrit and early Latin have adjoined correlative clauses (Haudry 1973; Garret 1994; Hock 1989; Kiparsky 1995; Davison 2009). Davison (2009) argues that the main clause and the relative clause are two adjoined CPs of equal status in Sanskrit. For example, in (88) from Davison (2009:231), *u* "and", *ha* "certainly" and *evá* "indeed" each occur in both the relative and main clauses.

(88) SANSKRIT
yám u ha evá tát paśávo manuṣyèṣu
REL.ACC PCL PCL PCL that cattle.PL.NOM man.PL.LOC
kắmam árohaṃs tám u ha evá
desire.ACC obtain.PRES.3PL that.ACC PCL PCL PCL
paśúṣu kắmaṃ rohati
cattle.PL.LOC desire.ACC obtain.PRES.3S
'The desire which the cattle obtained among men, he obtains the same desire among the cattle.' (S.B.2.1.2.7)

Davison (2009) argues that adjunction is symmetric in Sanskrit, that is, both clauses have the same syntactic status as CPs and the two CPs are adjoined to each other. She links the difference between symmetric adjunction to CP in Sanskrit and asymmetric adjunction to IP in Modern Hindi (as argued in Srivastav 1991) to the fact that Sanskrit did not yet encode syntactic subordination (Kiparsky 1995; Lehmann 1980).

In NT Greek, only one instance of the conjunctive particle *dé* or the conjunctive particle *gár* is found in a given correlative sentence. These are second position particles, and thus surface internal to the pre-posed relative clauses, directly following the relative pronouns. For example, in (89), the particle *gár*, translated as "therefore" follows the relative pronoun in the pre-posed relative clause.

(89) Free relative in a correlative sentence

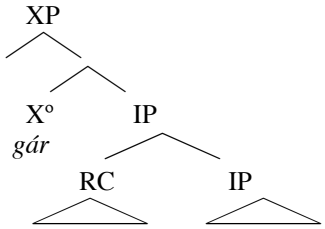
[**hà**	gàr	àn	ekeînos	poie:î	]
REL.ACC.PL.N	PCL	PCL	this.NOM.SG.M	do.3SG.PRES.SUBJ.ACT	
[*taûta*	kaì	ho	huiòs	homoío:s	
DEM.ACC.PL.N	also	the.NOM.SG.M	son.NOM.SG.M	likewise	
poieî	]				
do.3SG.PRES.IND.ACT					

'For, whatever this man should do, the son also does in like manner'.
ἃ γὰρ ἂν ἐκεῖνος ποιῇ, ταῦτα καὶ ὁ υἱὸς ὁμοίως ποιεῖ. (Jn 5:19)

Note that the modal particle *án* also occurs within the pre-posed relative clause. This particle takes scope over only the embedded predicate. The particle *gár*, on the other hand, takes scope over the whole sentence, not just over constituents of the relative clause. This indicates that the particle is structurally higher than the relative clause. I suggest that it moves into the pre-posed subordinate clause after the syntax, due to a phonological deficiency disallowing the particle to surface first (Halpern 1995).

Since the particle occurs seemingly internal to the relative clause, rather than somewhere in the main clause, I suggest that the pre-posed relative clause adjoins below the projection headed by *gár*, which is represented as XP in (90). The fact that only one instance of *gár* is found per correlative sentence indicates that the relative clause itself does not project XP.

(90)



hà àn ekeînos poie:î taûta kaì ho huiòs homoío:s poieî

Although I have termed the main clause IP, it seems that within this main clause IP, there are left peripheral projections that host the fronted demonstratives, for example, *taûta* in (89). In this example, there also appears to be a focused phrase *kaì ho huiòs* "also the son" in left peripheral position (see Chapter 4 for the treatment of focused phrases). Note that the adverb *homoío:s* "in like manner" intervenes between this focused subject constituent and the verb, which is somewhat of an indication that the the focus is in the left periphery.

In older Greek, there are instances of correlative sentences in which one particle occurs per clause. This is particularly common with the particle *dé:* (δή) (distinct from *dé* (δέ)) in the main clause (see Denniston 1954: 225). Further research about this particle in Homeric and Classical is needed to determine whether or not adjunction was symmetric at some point in Greek.

5.4 Summary

The main difference between head-external relative clauses and relative clauses in correlatives is that in the latter, the CP is not selected by an external D. The relative clause is adjoined to the main clause. Matrix Case is therefore not accessible to the relative clause, and the relative pronoun and internal noun show embedded Case. Instances where the NP linearly precedes the relative pronoun and shows embedded Case (what is traditionally called inverse attraction) can be seen as simply a lack, or failure, of attraction. Thus, the fact that a head noun linearly precedes a relative pronoun, does not necessarily indicate that the relative clause is structurally head-external. I have argued that the head is not raised to a DP-internal position, but to a left peripheral position in the relative clause CP.

Concerning the structure of correlative sentences, I have noted that adjunction appears to be asymmetric in NT Greek, meaning that two structurally equivalent CPs are not simply adjoined to each other. The distribution of second position particles in correlative sentences indicates that the relative clause does not project a phrase hosting particles such as *dé* and *gár*. It also indicates that the relative clause is adjoined below the main clause IP projection hosting these particles.

6 Head-internal relative clauses

To this point, I have discussed head-external relative clauses and correlatives. I have not yet addressed the structure of head-internal free relative clauses. These share with correlatives the fact that the NP may be stranded from the relative pronoun, in postverbal position. They share with head-external relative clauses the fact that case attraction occurs. For example, in the head-internal relative clause in (91), the relative pronoun and head noun show matrix-Case, which is partitive (genitive), following the quantified DP *oudemían aitían* "no charge".

(91) oudemían aitían ép^{h}eron
no.ACC.SG.F charge.ACC.SG.F bring.3PL.AOR.IND.ACT
[**hô:n** egò: hupenóoun **pone:rô:n**]
REL.GEN.PL.N I.NOM.SG suspect.1SG.IMPF.IND.ACT evil.GEN.PL.N
'(against whom the accusers, when they stood up,) brought forth no charge of those evil things which I suspected.'
(περὶ οὗ σταθέντες οἱ κατήγοροι) οὐδεμίαν αἰτίαν ἔφερον ὧν ἐγὼ ὑπενόουν πονηρῶν (A 25:18)

Instances of case attraction in free relatives can be used as a diagnostic for their non-correlative structure. If there is matrix case on the relative pronoun, it means that matrix case is accessible to the relative CP. This suggests that there is an external D selecting the relative clause. Since free relatives in general do not show overt Ds, I assume that have null Ds.

This raises two questions considering the difference between head-external and head-internal relative clauses. The first question is how come NPs are not attracted

to Spec,DPrel, assuming that the (null) matrix D has a categorial [N] feature. The second question is how matrix Case surfaces on the NP. As I mentioned above, Bianchi (2000b) assumes that Case checking occurs under government. In the head-external relative clause structure (see Section 4), the NP is in the minimal domain of the external D, and is pronounced with matrix Case. In instances like (91), on the other hand, the NP is post-verbal. It can't be in the minimal domain of the external D. The question of how the head noun and relative pronoun agree in case is left for future research.

7 Conclusions and questions for further research

The first conclusion is that NT Greek head-external relative clauses and correlatives are both raising relatives. The relative pronouns originate as heads of a relative DP, with NPs (nominal 'heads' of relative clauses) as their complements. The major difference between the two is that head-external relative clauses are selected by a matrix determiner, while relative clauses in correlatives are bare CPs, adjoined to main clauses. This structural difference has at least two apparent consequences. First, matrix Case is accessible to the relative clause, and case morphology corresponding to matrix Case appears on the relative pronoun as well as the head noun (in the majority of instances) in head-external relative clauses. In correlatives, only embedded Case is accessible to the relative clause, in the absence of a higher matrix D selecting the CP. When a head noun linearly precedes the relative pronoun in correlatives, we see a failure of attraction of the noun to the matrix Case. This is what is traditionally known as inverse case attraction.

The second consequence of the matrix D is that in a configuration where the entire relative DP is in the Spec- of CP, the head noun raises to a higher position within the relative DP, thus inverting the order of the head noun and relative pronoun from their base REL > NP order, and yielding a restrictive head-external relative clause. In configurations without the matrix D, i.e., correlatives, there is no inversion of the relative pronoun and NP after the relative DP has undergone movement to Spec,CP, since there is no trigger for movement of the NP.

There are also instances of head-internal free relative clauses that are not correlatives. This is witnessed by the fact that matrix Case occurs on relative pronouns and head nouns, indicating that there is a matrix D selecting the CP. These instances are difficult to account for assuming the mechanism of case attraction sketched in Section 4. I have left the structure of these free relatives for future research.

Another conclusion from this chapter is that NPs can be extracted from the relative DP, both prior to and following movement of the relative DP to Spec,CP, although the second scenario is more controversial (see Section 3.4). Specifically, NPs can be moved to the Topic projection below the operator projection, or the one above it. Presumably, these two projections are specified with different features, corresponding to different types of topics, but this can't be tested. Topicalization of the NP to the lower Topic projection can account for some of the instances of head-internal relative clauses in which the noun is stranded from the relative pronoun.

The final conclusion is that many relative clauses are actually ambiguous between head-external raising relatives and correlatives. For example, (92), already shown above, could be a head-external raising relative clause, or a correlative.

(92) Fronted head-external relative clause, object of matrix
kaì **tò** **ét^{h}nos** **[hôi** eàn
and D.ACC.SG.N nation.ACC.SG.N REL.DAT.SG.N PCL
douleúsousin] krinô: egó:
bind.3PL.FUT.IND.ACT judge.1SG.FUT.IND.ACT I.NOM.SG
'And the nation to which they should ever be in bondage, I will judge.'
καὶ τὸ ἔθνος ᾧ ἐὰν δουλεύσουσιν κρινῶ ἐγώ (A 7:7)

At first glance, this clause looks like a typical head-external relative clause, since the head noun is preceded by a determiner. As I mentioned above, the head is the object of the matrix verb *krinô*:, therefore it appears as though the object and the relative clause have been fronted ahead of the matrix verb. However, it is not necessarily the case that *tò ét^{h}nos* "the nation" is the structural object of the matrix verb. This noun is of the neuter gender, and so nominative and accusative case forms are the same, which is a typical trait of Indo-European languages. It is therefore possible that the DP *tò ét^{h}nos* "the nation" is a base-generated Topic (in that case it would be glossed nominative), occurring higher in the structure than the relative clause CP. Support for this analysis comes from the presence of the conditional/ modal particle *eán*, which almost never occurs in head-external relative clauses.

Haudry (1973) proposes that head-external relative clauses emerged from the older correlative strategy. Further research is needed to determine whether this diachronic development also occurred in Greek. The text of the NT constitutes a stage of Greek between Classical (also pre-classical Homeric Greek) and Modern Greek. A detailed study of relative clauses in Classical or Homeric Greek is required to determine to what extent structurally head-external relative clauses were unambiguously attested in these periods.