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## Word order and information structure in New Testament Greek

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Word order and information structure in New Testament  
Greek

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**List of abbreviations**

1	first person
2	second person
3	third person
ACC	accusative
ACT	active
AOR	aorist
DAT	dative
GEN	genitive
F	feminine
IMPF	imperfect
IMPV	imperative
IND	indicative
INDCL	indeclinable
INFIN	infinitive
M	masculine
MID	medio-passive
N	neuter
NOM	nominative
OPT	optative
PART	participle
PAS	passive
PERF	perfect
PCL	particle
PL	plural
PLPF	pluperfect
SG	singular
SUBJ	subjunctive



## Chapter 1. Introduction

Ancient Greek word order has been a rather puzzling matter over many years of scholarship. This has to do with the apparent freedom with which the major sentence elements are found. This thesis addresses word order variation in New Testament Greek in several domains.

The first part of the thesis focuses on the order of clausal elements such as subjects, objects, verbs in declarative clauses. This is framed by a discussion of the notion of basic word order. Although all permutations of these elements are found, there are strong tendencies for particular word orders in the New Testament. My own study and previous work (see Friberg 1982) show that SVO and VSO are both frequently attested. They both seem to constitute pragmatically neutral clauses, and at times, they are used seemingly interchangeably. It looks very similar to the VSO-SVO alternation in Modern Greek. This differs from what scholars think of as the dominant word order pattern in older Classical Greek, which is often considered to be SOV (see the references in Taylor 1994: 1).

To an extent, the order of words in New Testament Greek seems to be determined by pragmatic factors, such as topic and focus, inasmuch as this is possible to determine. In the second part of the thesis, I focus on derived word orders, in which focusing and topicalization occur. I also examine word order in *wh*-questions and relative clauses. The strategy there is to examine the position of operators, such as *wh*-interrogatives and relative pronouns. Since these elements occur at the left edge of the clause, and are strictly ordered with respect to certain surrounding elements, they can provide a landmark in the left edge of the clause, with respect to which the positions of other elements can be identified.

In general, my strategy in this thesis is to place the descriptive generalizations about New Testament word order within a broader cross-linguistic perspective. This allows for a comparison of the New Testament Greek patterns, and word order in modern, spoken languages.

I employ a generative theoretical framework. This theory of language provides explanatory power in accounting for the patterns and the variation found. The thesis is likely to be most useful for scholars who are familiar with the framework, although I provide some background below. The descriptive generalizations formulated can potentially be of use to scholars of any theoretical background, and it is my goal to make the thesis as accessible as possible to linguists or classicists of any theoretical background.

This thesis contributes to Greek linguistics by presenting a detailed study of word order variation in New Testament Greek. New Testament Greek represents an intermediary stage between the older Classical Greek and the modern spoken language. My conclusions can be of use to diachronic research concerning changes from Classical to Modern Greek in the domains of clausal word order in declarative clauses, questions and relative clauses.

## 1 Introduction to New Testament Greek

### 1.1 Time frame and authorship

The New Testament is a collection of literary works that were composed during the first century AD by various authors, who are believed to have been the Jewish disciples of Jesus.

The New Testament is divided into twenty-seven books, some of which are written in the form of letters (the Epistles), others of which are historical narratives describing the life of Jesus (the canonical Gospels), and the book of Revelation, an apocalyptic piece. They are listed below, along with the abbreviations I use in citing the examples.

- Gospels: Matthew (Mt), Mark (Mk), Luke (Lk), John (Jn)
- Acts of the Apostles (A)
- Pauline epistles: Romans (Rm), Corinthians (1 Cor, 2 Cor), Galatians (Gal), Ephesians (Eph), Philippians (Ph), Colossians (Col), Thessalonians (1 Thess, 2 Thess), Timothy (1 Tim, 2 Tim), Titus (Tit), Philomenon (Phil).
- Catholic epistles: Hebrews (H), Jacob (Jc), Peter (1Pet, 2 Pet), John (1 Jn, 2 Jn, Jn 3), Jude (Jd)
- Apocalypse of John/ Revelation (Rev)

There is no firm consensus as to the order in which the pieces were written, or as to whether or not all of their parts were written contiguously. Some of the books are believed by the majority of scholars to have been composed as early as 45-50 AD, with the latest possible composition dating prior to 150 AD. Another view, argued in Robinson (1976) is that all books were composed prior to 70 AD. Detailed discussions of the dating of the compositions are found in Brown (1997). For my purposes, it suffices to assume that the books of the New Testament were composed approximately during the first century AD.

There are many uncertainties as to who the authors of the books were. The question of the authorship of the gospels is often referred to as the “synoptic problem”. The gospels of Matthew, Mark and Luke are called synoptic (roughly “seen together” in Greek), in contrast to the polyoptic gospel of John. The synoptic gospels display many similar stories, and at times use identical wording, suggesting that they shared a common source. The traditional view was that the gospel of Matthew was composed first, and was used as a source by Luke and Mark (see the references in Brown (1997: 113). Currently, it is widely held that the gospel of Mark was the first to be composed (49-50 AD), with Matthew and Luke using Mark as a source (see Ehrman 2004: 85-90). Many scholars agree that Luke the Evangelist was the composer of the gospel of Luke and the Acts of the Apostles (see Ehrman 2004, Chapter 9). Current theory suggests that the Catholic epistles of John, the gospel of John and the Apocalypse of John were written by three separate authors (Ehrman 2004: 467, Chapter 11).

For the purposes of this thesis, it is not of particular significance which of the books were composed first, nor whether a given author composed more than one piece. I treat the texts of the New Testament as belonging to one dialect of Koine Greek. There is, however, significant variation across books with respect to the relative frequencies of word orders in declarative clauses, as I discuss in detail in Chapter 2. One example is that SOV and OVS sentences are quite frequent in Paul's letter to the First Corinthians, and less so in Matthew, Luke and the book of Revelation. As I show in Chapter 2, SOV and OVS are marked word orders. Their high frequency can be connected to the fact that the book is written in the form of a letter, and is rhetorical. There is no reason to adopt the less economical assumption that there is a difference in the authors' grammars.

## 1.2 New Testament Editions

The so-called received text (*textus receptus*) is a compilation of various editions of Erasmus, Estienne (Stephens), Beza and Elzevir. These editions are very similar to one another and are believed to come mostly from Erasmus (1516) (see Hodges & Farstad 1982). The received text is also known as the Byzantine text, since the majority of the manuscript sources are Byzantine.

The received text is distinguished from so-called critical or Alexandrian texts, such as Tischendorf (1869) and Westcott and Hort (1881). The critical texts employed what are believed to be the oldest manuscripts (4<sup>th</sup> century) – the Codex Vaticanus and the Codex Sinaiticus, published by Tischendorf (1867), (1862) (for details concerning the discovery of these manuscripts, see Metzger 1992: 42-48). Westcott and Hort in particular relied very heavily on these two manuscripts, taking their older age as an indication of their authenticity.

Weymouth (1892) published an edition of the New Testament that incorporated readings from both Byzantine and Alexandrian texts. Eberhard Nestle (1898) produced an edition by comparing Tischendorf, Westcott-Hort and Weymouth. Where there were variants he included the option that was employed by two of these three. The Nestle version was revised several times by Erwin Nestle and K. Aland, among other collaborators.

The research in this thesis is based on the 27<sup>th</sup> Nestle-Aland version (Aland et al. 1993), which is commonly taken as the standard. The examples illustrated here were checked against the text of the Westcott-Hort edition by way of the online *Thesaurus Linguae Graecae*. I only discuss differences between these two editions when they are directly relevant to a particular issue.

## 1.3 The language of the New Testament

The Greek of the New Testament (henceforth NT) is in many ways different from any dialect of Classical Greek. When the Greek of the New Testament was first studied, there were a couple of ways in which classical and biblical scholars sought to explain the differences. Modern scholars (for example, Robertson 1934: 3;

Maloney 1979: 5; Porter 1991: 12) report two early opposing schools of thought: the “Purist” school and the “Hebraic” school. The first attempted to view everything in the NT as good Attic (Classical Greek) usage, and the second explained all of the departures from Attic Greek as influences from Hebrew, or as indicating that the New Testament was translated from Hebrew.

At the end of the 19<sup>th</sup> century, Diessmann (1899; reprinted 1991) claimed that the Greek of the New Testament was the vernacular Koine that was being used throughout the Hellenistic world. He showed that New Testament Greek was similar to the Greek in some newly discovered Egyptian non-literary papyri (see Bagnall 2009 concerning the papyri), and also to the Greek of the Hellenistic historian Polybius, who wrote during the second century BC. Furthermore, he saw the Koine as a bridge between older Greek, all the way from Homer, (eighth century BC) to the modern vernacular. That the New Testament Greek is an artifact of Koine Greek became the standard view among late 19<sup>th</sup> and early 20<sup>th</sup> century grammarians such as F. Blass (1898), J.H. Moulton (1906) and Robertson (1934), and it is currently accepted among New Testament scholars and historical linguists (for example, Porter 1991, 1997 and elsewhere; Davies & Dale 1988-1997; Horrocks 1997).

Koine Greek is thought to have been the *lingua franca* in the Near East during the first century. There were many languages spoken in this area, primarily Aramaic, Latin and likely some dialects of Hebrew, among others. The Classical Hebrew of the Old Testament was likely well known (see Watt 2000, Fitzmyer 1991; Porter (ed.) 2000 for details on the languages and dialects of first century Palestine).

It is believed that Aramaic was the first language of the majority of people (Horrocks 1997: 92). There are many obvious Semitic properties in the manuscripts, such as Aramaic words and names, translations from the Hebrew Old Testament, and some have argued, “syntactic Aramaicisms” (see Fitzmyer 1974). For detailed discussions of possible syntactic Semiticisms in the Gospel of Mark, see Maloney (1979), Bubenik (1989: 65-67), Horrocks (1997: 92-95). As these authors discuss, some of the properties can be paralleled in the Greek translation of the Septuagint (the Old Testament), and some have counterparts in modern or old Aramaic and Hebrew. However, some of these phenomena are also attested in the Koine Greek of Egyptian papyri, as well as in Koine authors such as Epictetus and Polybius. These could thus be accidental similarities.

There are a couple of phenomena that I discuss in the following chapters that have been claimed to be due to Semitic influence. The most significant one is the high frequency of verb-initial word orders (see Maloney 1979: 56-57 concerning the gospel of Mark), which I discuss in Chapters 2 and 3. This is a particularly interesting case, since verb-initial orders are typical of Semitic languages, and also of Modern Greek. Another one is the use of personal pronouns as resumptives in relative clauses (Maloney 1979: 121-126), which I discuss in Chapter 6.

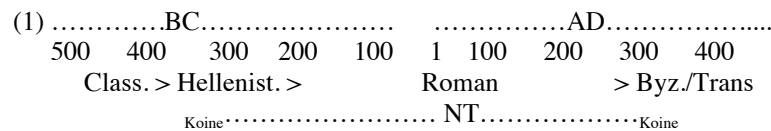
## 1.4 Koine in the history of Greek

Koine, or “common” Greek was the common language written and spoken throughout the Hellenistic world during the Hellenistic and Roman periods

(Horrocks 1997: 33). The Hellenistic period refers to the time during which Greek language and culture spread to non-Greek parts of the world, such as Egypt, Asia, Syria and Persia, due to the conquests of the Macedonian king Alexander the Great. The start of the Hellenistic period is normally dated at 323 BC, the year of Alexander's death. In 200 BC, the Romans declared war on Macedon, and subsequently conquered the Hellenistic kingdoms. The beginning of the Roman period is conventionally dated at 31 BC, when the battle of Actium took place. According to Horrocks (1997: 33), the division between the Hellenistic and Roman periods cannot be drawn very clearly, since Roman involvement in the Greek world began long before the battle of Actium, and Hellenism continued long after it.

Koine Greek emerged out of the Attic dialect of Greek originally spoken in Athens (Robertson 1934: 51-52 and references there; Horrocks 1997: 33-36). Attic Greek came to be used outside of Athens as the standard literary and administrative language already in the late Classical period (5<sup>th</sup> and 4<sup>th</sup> centuries BC), and was adopted by the Macedonian aristocracy. With the Macedonian conquests, Greek was spread throughout Egypt, Syria and Persia. Other dialects of Greek were lost, and the Koine was the standard written and spoken language in Greece and the Hellenistic kingdoms (Robertson 1934: 52-53; Horrocks 1997: 37-41).

The end of the Roman/Koine period is normally considered to be 330 AD, when the Byzantine period began with the foundation of Constantinople in the Greek city of Byzantium.<sup>1</sup> A general time-line of the Greek historical periods is given below, starting with the late Classical Period, extending through the Hellenistic and Roman periods to the Byzantine, or 'transitional' period. The bottom line shows the lower and upper bounds of the Koine period, and the approximate composition of the NT.



## 1.5 General properties of New Testament Greek

Like Classical Greek, NT Greek is highly inflectional with fusional verbal and nominal morphology. This means that inflectional material such as gender, number and case on nominals are fused in one morpheme. Verbs mark tense, aspect, voice and mood distinctions, as well as person and number agreement with subjects. Four different cases appear on nouns: nominative, accusative, dative and genitive, and some nouns have an additional distinct form for the vocative. Nouns show a three-way gender distinction, masculine, feminine and neuter, and two-way number

<sup>1</sup> Jannaris (1897) refers to the period from 300-600 AD as the transitional period, the last phase of Post-Classical antiquity. He dates the Byzantine period from 600 to 1000 AD, while this period is often referred to as the Middle Byzantine Period.

distinctions, singular and plural. These properties are illustrated by the glossed clause in (2).<sup>2</sup>

- (2) *egò:*        *dédo:ka*                    *autoîs*  
 I.NOM.SG   give.1SG.PERF.IND.ACT   them.DAT.SG.M  
*tòn*        *lógon*                    *sou*  
 D.ACC.SG.M   word.ACC.SG.M   your.GEN.SG  
 ‘I gave them your word.’  
 ἐγὼ δέδωκα αὐτοῖς τὸν λόγον σου (Jn 17:14)

The subject is the pronoun *egó:* “I”.<sup>3</sup> The verb *dédo:ka* “gave” has first person singular morphology, corresponding to the subject. The morphology on the verb also indicates perfective aspect, indicative mood and active voice. The pronominal *autoîs* “them” shows dative plural morphology, and is an indirect object. I gloss it as masculine based on the fact that it refers to males, however there is syncretism across genders in the dative plural (masculine and neuter are equivalent). The direct object is *tòn lógon sou* “your word”, literally “the word of you”. The determiner and noun show fused gender, number and case morphology. In (2) the noun is inherently masculine, a feature which also spreads to the determiner. The clitic pronominal *sou* is in the genitive case to indicate possession.

There are various phonological, morphological and syntactic changes that took place during the Koine period. For details on changes in phonetics and orthography, see Robertson (1934, Chapter 6), phonology see Horrocks (1997, Chapter 6); Blass, Debrunner & Funk 1961: 13-20), morphology and word formation see Robertson (1934, Chapter 5), Moulton (1919, Chapter 3), Blass Debrunner & Funk (1961: 25-36).

There are some well-known features of NT Greek syntax that represent intermediary stages between Classical and Modern Greek. For example, the use of the conjunction *hína* (ἵνα) “that”, “in order that” is very common where infinitives are used in Classical Greek (Robertson 1934: 138). This is relevant to the gradual loss of embedded infinitival constructions (see Roberts & Roussou 2003: 58-71; Joseph 1983). Another example is the common use of the preposition *eis* (εἰς) “to” / “toward” with accusative complements in instances where a dative marked nominal is ordinary classical usage (Robertson 1934: 594). For example, the verb *pisteíō:* (πιστεύω) “trust” or “believe in” normally occurs with the dative in Classical Greek, but is attested with *eis* and the accusative in the NT (for example, Mt 18:6). This is taken by Robertson (1934: 138) and Moulton (1919: 62) to be related to the absence of the dative case in Modern Greek (see Horrocks 1997; Browning 1983 concerning the loss of the dative).

<sup>2</sup> Throughout the thesis, I give transliterations, glosses and the Greek text in the examples.

<sup>3</sup> In the example, *egó:* occurs with a grave accent (*egò:*). This is because other material is following it, which changes the accentuation pattern. When I refer to a word in the text, I give the form as it occurs in isolation.

For this thesis, the most important aspect of NT Greek that sets it apart from Classical Greek is word order. I introduce the changes in word order from Classical to NT Greek in Section 2 below, and give a detailed study of word order variation in the New Testament in chapters 2 and 3.

## **1.6 Summary**

Through the history of New Testament scholarship, there has been a lot of debate about the language of the New Testament. Some believed that it was a translation from Hebrew, or a “profane” form of Greek. It wasn’t until the early 20<sup>th</sup> century that scholars were able to compare the text of the New Testament to other Greek texts from a similar time and in a similar register. Today, the text of the Greek New Testament is most widely held to be an artifact of Koine Greek, the common language that was spoken throughout the Hellenistic world during the Hellenistic and Roman periods.

The New Testament was composed by various authors, who are thought to have been bilingual speakers of Greek and Aramaic. Although the text had multiple authors, I refer to NT Greek as a dialect of Koine Greek. Koine Greek represents an intermediary stage between Classical and Modern Greek, and NT Greek shows many properties that are typical of this transitional period.

## **2 Word order variation**

The order of words in the clause has been a central issue in linguistics both from a language-internal and a cross-linguistic perspective. The order of words in Classical Greek has also been a central issue in Greek linguistics and classics. From a linguistic perspective, word order is an interesting issue given that there is so much cross-linguistic variation, and scholars have attempted to establish universals that can provide adequate descriptive coverage. In both linguistics and classics, Greek word order is interesting because it seems to be quite ‘free’ in the sense that all permutations of the orders of the major sentence constituents are possible. This is the case in all periods of Greek. However, in the New Testament there is a strong predominance for SVO and VSO, and the text of the New Testament looks very similar to what is described for Modern Greek.

### **2.1 Cross-linguistic and language-internal variation**

The relative orders of subject (S), verb (V) and object (O) across languages has been a central issue in word order typology. The order in which these elements occur most frequently in the most basic types of sentences (normally considered to be main, declarative sentences) represents the basic or dominant word order. The strategy in typology has been to look at the relative positions of verbs and nominal subjects and objects in main, declarative sentences (Greenberg 1966; Comrie 1989;

English is an example of a head-initial SVO language, since objects follow verbs in main, declarative sentences with subjects, verbs and objects, such as (3).

Turkish is a typical head-final SOV language. The example in (4) from Comrie (1989: 87) illustrates the SOV word order.

Some languages alternate between head-initial and head-final based on whether the clause is main or subordinate, such as German and Dutch. In Dutch main clauses, such as in (5) below, the neutral word order is SVO.<sup>5</sup> In subordinate clauses such as (6), the neutral order is SOV.

(6) S V            I       S            O            V ]            DUTCH  
Ik weet        [dat de muis       de kaas       eet.]  
I know.1SG that the mouse the cheese eat.3SG  
'I know that the mouse is eating the cheese.'

Dryer (2005) distinguishes rigid from flexible word order languages. A rigid word order language is one in which the major sentence elements, S, V and O occur in a particular order in most instances and in neutral contexts. English is often used as an example of a rigid or strict SVO language. When deviations from SVO occur,

Dutch is a so-called verb-second language, therefore other constituents rather than the subject often occur preceding verbs in declarative clauses. The SVO order is, however, a common word order in declarative clauses.

there is a clear difference in meaning. For example, in neutral information-seeking questions, if there is an auxiliary verb, it precedes rather than follows the subject, as shown in (7a). This same order can also yield an exclamative sentence, as in (7b), spoken with different intonation.

- (7) AUX S V O  
 a. Has Mary kissed Sue?  
 b. Has Mary kissed Sue!

A flexible word order language is one in which all possible permutations of S, V and O are attested, within the domain of main, declarative clauses. Some such languages have been shown to have a single dominant order, with the others used in particular pragmatic contexts. Dryer gives Russian as an example of a flexible word order with dominant SVO, corresponding to the fact that SVO is the most common.

Another category of flexible word order languages that has been identified is one in which it is difficult to single out a dominant word order, since all orders are common (see for example Hale 1983, Heath 1986, Simpson 1991). These types of languages have been called nonconfigurational languages. Nonconfigurational languages show various properties that have been taken to indicate that there is no argument structure or constituency (see Devine & Stephens 2000: 143-48) for a list of these properties. Recently, Baker (2008) has brought to light some of the structural similarities between nonconfigurational languages like Mohawk and Warlpiri and configurational ones like English and Italian (see also Adger, Harbour & Watkins 2009).

In other languages with flexible word order, it has been shown that the order is determined at least in part by factors relating to the discourse, such as the status of the constituents as new or given. These types of factors are related to phrasal intonation and word order across languages (Chafe 1976; Halliday 1967). The examples in (8) illustrate the difference between new and given information. The question in (8a) asks what Tom did. In the answer in (8b) Tom is given information, and the answer to the question of what he did is new information. It is pronounced with focus stress, and follows the given information.

- (8) a. What did Tom do?  
 b. [Tom]GIVEN [WASHED THE FLOOR]NEW.

The relationship between pragmatics and word order seems to vary across languages. Languages in which word order is largely governed by discourse factors are called discourse configurational languages (see É. Kiss (ed.) 1995), a typical example being Hungarian. Hungarian has flexible word order of elements in main, declarative clauses: all permutations of S, V and O are grammatical in such clauses. The examples in (9), from A. Lipták (pc) illustrate the different word orders.

- (9) a. A cica megette az egeret. SVO HUNGARIAN  
 the cat PV.eat.PAST.3SG the mouse.ACC  
 'The cat ate the mouse.'

- |    |                 |                 |                 |     |
|----|-----------------|-----------------|-----------------|-----|
| b. | A cica          | az egeret       | megette.        | SOV |
|    | the cat         | the mouse.ACC   | PV.eat.PAST.3SG |     |
| c. | Az egeret       | a cica          | megette.        | OSV |
|    | the mouse.ACC   | the cat         | PV.eat.PAST.3SG |     |
| d. | Az egeret       | megette         | a cica.         | OVS |
|    | the mouse.ACC   | PV.eat.PAST.3SG | the cat         |     |
| e. | Megette         | a cica          | az egeret.      | VSO |
|    | PV.eat.PAST.3SG | the cat         | the mouse.ACC   |     |
| f. | Megette         | az egeret       | a cica.         | VOS |
|    | PV.eat.PAST.3SG | the mouse.ACC   | the cat         |     |

The sentences in (9) are all grammatical, but they are used in different contexts, and differ in their pragmatic content. The SVO sentence in (a) has a reading where the subject “the cat” is what the sentence is about, and where the cat is familiar in the discourse. It is called a topic. In the SOV and OSV sentences in (b) and (c), both the subject “the cat” and the object “the mouse” are topics. In the OVS sentence in (d), the object has topic status, while the verb and subject are interpreted as new information. The verb-initial sentences in (e) and (f) are appropriate in contexts where all of the information is new.

Changing the order of the verb and its arguments does not necessarily result in ungrammaticality in Hungarian, but there are certain pragmatic factors that affect the felicity of the sentences. In some instances, there are sharp contrasts in grammaticality, if certain pragmatically marked constituents do not occur in particular positions. Specifically, if there is a constituent that is focused exhaustively, i.e., singled out as the only one out of a set of alternatives, it must occur preverbally (see É. Kiss 1998, 2008). I give examples in (10) with “only” phrases, which are obligatorily focused. If the object is preceded by *csak* “only”, it is ungrammatical in postverbal position, as (b) shows.<sup>6</sup>

- |      |    |                               |                    |                    |                |
|------|----|-------------------------------|--------------------|--------------------|----------------|
| (10) | a. | S                             | O                  | V                  |                |
|      |    | A cica                        | CSAK AZ EGERET     | ette               | meg. HUNGARIAN |
|      |    | the cat                       | only the mouse.ACC | ate.PAST.3SG PV    |                |
|      |    | ‘The cat ate only the mouse.’ |                    |                    |                |
|      | b. | S                             | V                  | O                  |                |
|      |    | *A cica                       | megette            | CSAK AZ EGERET.    |                |
|      |    | the cat                       | PV.eat.PAST.3SG    | only the mouse.ACC |                |

In summary, there is a great deal of variation across languages with respect to clausal word order. Some languages show rigid word order and others flexible word order of the verb and its arguments. In rigid word order languages, there is one predominant order and deviations from this order occur in different types of clauses, for example, questions or subordinate clauses. In flexible word order languages, there are many possible orders of the verb and its arguments that all occur within

<sup>6</sup> I am simplifying a bit; as shown in É.Kiss (2008: 444), if there is already a preverbal focus, “only” phrases can surface postverbally.

one clause type, for example main declarative clauses. At least in some languages the different word orders correspond to different discourse statuses of the verb and arguments. For example, in Hungarian a given word order is not necessarily characteristic of a particular clause type, but word order does affect the interpretation of the sentence. Ungrammaticality results, for instance, when a constituent that is exhaustive does not occur in a certain position.

## 2.2 Old Greek word order variation

Ancient Greek has been long noted to have flexible word order. Every permutation of S, V and O is found. Scholars have assigned dominant or ‘basic’ word orders to Ancient Greek, the two proposed ones being SVO and SOV (see the division of references in Taylor 1994:1). These characterizations are based on the high frequencies with which these orders are found, in comparison with other orders.

Other research has shown that word order in Ancient Greek reflects pragmatic divisions of labour (see Dik 1995, 2007; Devine & Stephens 2000), which would place Ancient Greek in line with discourse configurational languages as introduced above.<sup>7</sup> Specifically, Dik proposes that the neutral word order is (Setting) > Topic > Focus > Verb > Remaining elements. The example in (11) illustrates two parallel clauses.<sup>8</sup> In the first, the object *tà ák<sup>h</sup>tea* ‘the loads’ occurs preceding the subject *hoi ándres* ‘the men’, which occurs preceding the prepositional phrase *epì tò:n kep<sup>h</sup>aléo:n* ‘on the heads’ and the finite verb *p<sup>h</sup>oréousin* ‘carry’, or ‘bring back and forth’.

- (11) Tà ák<sup>h</sup>tea hoi mèn ándres  
 D.ACC.PL.N load.ACC.PL.N D.NOM.PL.M PCL man.NOM.PL.M  
 epì tò:n kep<sup>h</sup>aléo:n p<sup>h</sup>oréousin  
 on D.GEN.PL.F head.GEN.PL.F carry.3PL.PRES.IND.ACT  
 hai dè gunaïkes epì tò:n ó:mo:n  
 D.NOM.PL.F PCL woman.NOM.PL.F on D.GEN.PL.M shoulder.GEN.PL.M  
 ‘(Among these, the women buy and sell, and the men stay at home and weave. And while others weave pushing the woof up, the Egyptians (push it) down.) While the men carry loads on their heads, the women do so on their shoulders.’  
 (Έν τοῖσι αἱ μὲν γυναῖκες ἀγοράζουσι καὶ καπηλεύουσι, οἱ δὲ ἄνδρες κατ’ οἶκους ἐόντες ὑφαίνουσι. Ὑφαίνουσι δὲ οἱ μὲν ἄλλοι ἄνω τὴν κρόκην ὠθέοντες, Αἰγύπτιοι δὲ κάτω.) Τὰ ἄχθεα οἱ μὲν ἄνδρες ἐπὶ τῶν κεφαλῶν φορέουσι, αἱ δὲ γυναῖκες ἐπὶ τῶν ὤμων.  
 (Her. 2.35)

<sup>7</sup> Devine & Stephens 2000 refer to Ancient Greek as a nonconfigurational language, but their treatment of it reflects the importance of pragmatic factors in word order.

<sup>8</sup> When needed, I provide some preceding and following context in English and Greek below the glossed example. Material that is not glossed is bracketed.

Dik (1995: 27) analyzes the subject constituents *hoi ándres* “the men”, and *hai gunaîkes* “the women” as topics.<sup>9</sup> The preposition phrases, which specify the way in which the topics carry the loads: *epì tô:n kep<sup>h</sup>aléo:n* “on the heads” and *epì tô:n ó:mo:n* “on the shoulders” are foci. The order Topic > Focus > Verb is evident from the first clause: *hoi ándres* > *epì tô:n kep<sup>h</sup>aléo:n* > *p<sup>h</sup>oréousin*.

New Testament Greek, like older varieties of Ancient Greek, shows all permutations of S, V and O within the domain of main, declarative clauses (see Chapter 2), although in the majority of instances of clauses with two-place predicates, S, V and O are not all expressed. A very noticeable property in the New Testament is that verb-initial clauses, particularly VSO clauses, are very frequent in comparison to older Classical texts (Friberg 1982; Robertson 1934; chapters 2 and 3 of this thesis). Although VSO is less frequent than SVO, both are significantly attested, and found in pragmatically neutral contexts, as I show in Chapter 2. The SOV order is fairly well attested in the New Testament, in some books more than others. However, it cannot be seen as a basic word order, given the marked properties of the constituents in SOV strings (details are in Chapter 2).

From the perspective of basic or dominant word order, New Testament Greek patterns more with Modern Greek than with Classical. In Modern Greek, SVO and VSO are both frequent orders. Some have argued that SVO is the basic word order (Greenberg 1966: 107), and some that VSO is the predominant and neutral word order (Tsimpli 1990; Phillipaki-Warbuton 2008; Alexiadou & Anagnostopoulou 1998; Roussou & Tsimpli 2006). The Koine period seems to represent a period of transition from verb-final to verb-initial (see Horrocks 1997: 59; Taylor 1994).

### 2.3 Summary

There is a large degree of variation across languages as to the order of the verb and its arguments. Some languages show rigid word order, meaning that one permutation of S, V and O is the most natural and common in a given clause type. Some languages show flexible word order, meaning that various orders occur frequently in the main, declarative clauses. In some flexible word order languages, such as Hungarian, the order of words reflects the discourse structure of the utterance.

In all periods of Greek, all permutations of S, V and O are attested, within the domain of main, declarative clauses. We can therefore call them “flexible word order” languages. The order of words in Classical Greek has been shown to reflect discourse structure. As I show in Chapters 3 and 4, this is also true to an extent in NT Greek. However, NT Greek shows a dominant VSO and SVO pattern, like the modern language.

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<sup>9</sup> As I discuss in detail in Chapter 4, there are various kinds of topics. In (11), the topics are contrastive topics, or subtopics.

### 3 Theoretical assumptions

#### 3.1 General introduction

Generative Grammar offers a theory of the nature of human language, which shows properties distinct from systems of communication employed by other species. One unique property of humans *qua* language is that children become competent in any language to which they are exposed during the acquisition period, even though they have not been exposed to every expression that they are capable of producing. Speakers have knowledge of their native languages, knowledge that has not been explicitly taught or instructed.

Chomsky (see particularly 1986a) refers to this phenomenon as “Plato’s problem”, making reference to the Socratic dialogue *The Meno*, wherein the origin of knowledge is discussed (*The Meno*, 80-86c). Socrates poses questions concerning some geometric shapes he had drawn to an attendant of Meno, who was uneducated in geometry. The boy was able to understand the concepts of the Pythagorean theorem without being instructed, but only through Socrates’ questioning about the relative sizes and configurations of the shapes. Socrates argues that this knowledge is innate, having been “aroused through questioning to become knowledge” (ἐρωτήσει ἐπεγεῖσθαι ἐπιστήμαι γίγνεται) (86a).

The fact that children are able to acquire languages with limited input is taken to indicate that knowledge of language is innate to humans, being roused by a stimulus. The stimulus is the exposure to a human language. Plato’s problem is often called the “poverty of the stimulus” argument. It supports the claim of the existence of a Universal Grammar (UG) which endows humans with the most primitive aspects of language, allowing them to abstract over the random pieces of input that they get, obtaining language competence (knowledge of language) by which they can formulate new utterances.

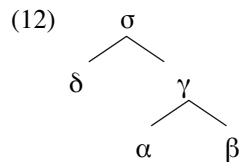
Minimalism is the most current research program of standard generative linguistics. Minimalism is rooted in the Principles and Parameters architecture of the grammar. The initial state, UG, gives universal principles of grammar, and surface variation across languages comes from the settings of various language specific parameter values, which children set during the acquisition process, based on the input, or Primary Linguistic Data they receive. A well-known example is the head parameter, which determines whether a language is head-initial or head-final (head-complement, yielding VO word orders, or complement-head yielding OV word orders). The Minimalist research program aims at understanding the principles of UG.

In the standard model, the lexicon feeds the syntactic component, and the syntactic component interacts with two performance systems: the articulatory-perceptual (A-P) and conceptual-intentional (C-I) components. Simply speaking, these are the sound, and the meaning components. The syntactic component takes elements from the lexicon and puts them together, forming larger structures that are legible to the A-P and C-I components.

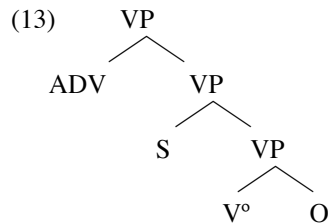
### 3.2 Structure building

The lexicon consists of lexical and functional categories. Lexical categories, or “open-class” categories include words like nouns and verbs. Functional categories, or “closed-class” categories express information about tense, aspect, agreement (for example, number and gender) and definiteness, among others. Relationships are established between lexical and functional categories in language, through the operation Merge and the relation Agree (Chomsky 2000, 2001).

Merge takes two linguistic elements  $\alpha$  and  $\beta$  from the Numeration, which is the inventory of elements that are involved in the derivation of an utterance, having been selected from the lexicon, and concatenates them to form a larger unit  $\gamma$ . This is represented with the two elements in binary branching nodes that form a single node  $\gamma$ . Merging  $\gamma$  with another category  $\delta$  yields a larger structure  $\sigma$  (which may share the same label as  $\gamma$ ). This produces another binary branching node, extending the derivation in a bottom up fashion, as shown in (12).



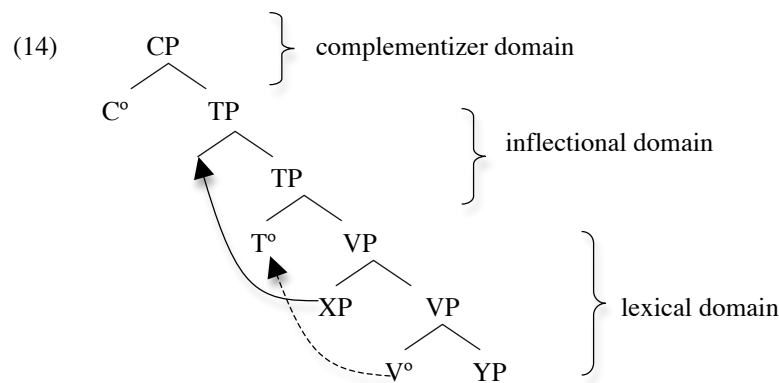
Lexical categories such as nouns and verbs are merged for the first time in the lexical domain of the clause, VP. A transitive verb is first merged with the internal argument (the object), and projects its category, forming a larger unit VP (in (12), this means that the two nodes  $\alpha$  and  $\beta$  are merged, and the new unit  $\gamma$  takes the label of  $\alpha$ ). The item that projects its category is the head of the phrase,  $V^0$  in the case of VP. The external argument (the subject) is merged with the VP, extending the VP projection, by projecting a Specifier position of VP. I assume that adverbs (ADVs) that modify the VP, such as manner adverbs are adjoined to VP, and are phrasal categories (XPs). The structure of the VP is shown in (13).



Functional categories are closed class elements. The ones I will discuss in this thesis head functional projections in the tense or inflectional domain (TP) and the complementizer domain (CP). The inflectional domain is associated with verbal and nominal agreement inflection. Tense projects its category, taking VP as a complement. A lexical category establishes a relation with a higher functional category through Agree. This is implemented with features on the categories. Heads

of functional projections carry features having to do with person, gender, number, case, tense, aspect. Some of these feature attributes are specified with values, and some need to be valued. A relation is established between a linguistic element  $\alpha$  and a feature  $F$  (contained by a linguistic element  $\beta$ ) through Agree. The Agree relation can take place at a distance, or can co-occur with a subtype of Merge, Internal Merge.

Internal Merge refers to syntactic movement. Remerging an element with a functional head results in activation of a Specifier position on the target of movement, in the case that the moved category is a maximal projection XP. If the moved category is a head, it undergoes head movement, or adjunction to a functional head. Arguments are maximal projections (meaning they are phrasal categories), and undergo phrasal movement to Specifier positions. Verbs are heads and undergo head movement, either to T or C, varying across languages. The tree in (14) shows head movement of the verb from the lexical to the T head in the Inflectional domain, and XP movement of the subject, XP to the Specifier of TP.<sup>10</sup>



As shown by (14), a C head takes TP as its complement and once it is merged there, other movement can take place from the inflectional domain. If an XP is re-merged with C, a Specifier is projected.

### 3.3 The structure of CP

The complementizer or CP domain is associated with scope and discourse properties. The CP hosts operator elements that take clausal scope, such as *wh*-interrogatives and relative pronouns (Chomsky 1977). Rizzi (1997) has shown that the complementizer domain, or the expanded left periphery of the clause includes discourse-oriented projections. The extended left periphery, as presented by Rizzi (1997) is shown in (15) below.<sup>11</sup>

<sup>10</sup> Note that there are many proposed categories that I have not included in this simplified representation.

<sup>11</sup> As I discuss in Chapter 4, various hierarchies of discourse projections have been

- (15) ... Force ... (Topic) ... (Focus) ... (Topic) ... Fin

The two projections at the edges of the complementizer layer, Force and Fin, represent the force-finiteness system of a clause. Force, which occurs at the left edge of the CP interacts with the structure above CP. The ‘specification of Force’ (Chomsky 1995) refers to information that a complementizer expresses about a clause, for example, whether it is declarative, interrogative, exclamative, relative, et cetera. This can also be seen in terms of the Clause Typing Hypothesis (Cheng 1991), which states that every clause must be specified as being a certain type. The Fin projection, at the right edge of the complementizer domain is the boundary with the Inflectional (IP) / Tense (T) domain. The interaction between Force and Fin is seen through ‘agreement’ phenomena between C and T, for example the co-occurrence of “that” and a tensed verb, and “for” and an infinitive in English, among others. The relationship between C and T is instantiated in Fin.

Between Force and Fin there are discourse projections, which are relevant for Topic-Comment and Focus-Presupposition articulation.<sup>12</sup> They are shown in brackets in (15) to indicate that they are not obligatorily present. Rizzi (1997) argues that there is at most one Focus projection per clause, which is surrounded by two potential Topic projections.

In general, given information is associated with topicality, and new information with focus. The topic is what the sentence is about, and invokes knowledge that is shared by the speaker and hearer (Strawson 1964; Reinhart 1981). The statement “tell me about *x*” forces a response in which *x* is the topic. This is illustrated in (16), where “the book” is the topic of (16b). The rest of the sentence is the comment.

- (16) a. Tell me about the book.  
b. The book, you should give to Paul (not to Bill).

In Focus-Presupposition articulation, the focus corresponds to new information, while the rest of the sentence expresses information that is shared by the speaker and hearer. In the Alternative Semantics view, focus points out the existence of alternatives that are relevant for a particular linguistic expression (Rooth 1985). In (17) the constituent “the book” receives focus stress, and is compatible with the cancellation of the relevant alternative.

- (17) THE BOOK, you should give to Paul (not the picture).

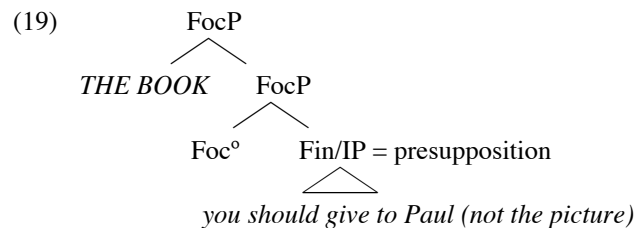
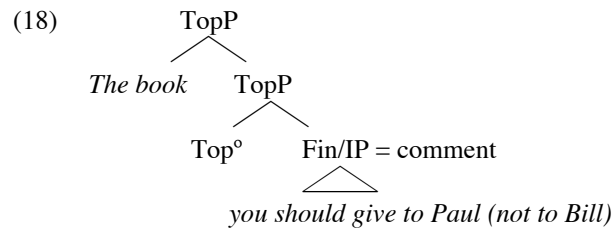
Most sentences can be divided into old and new information, but the crucial point is that sometimes this division is syntactically encoded. If a TopicP is projected

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proposed since Rizzi (1997); see particularly Benincà & Polletto (2004), Frascarelli & Hinterhölzl (2007).

<sup>12</sup> Some have argued that discourse projections may be projected in the IP/T domain (e.g., Belletti 2004) and also in the DP (e.g., Cinque (ed.) 2002), meaning that IP and DP also have Left Peripheries.

in the syntax, the material attracted to the Specifier of the Phrase is syntactically marked as given information, and the rest is the comment. If a FocusP is projected, the constituent attracted to the specifier of the FocP is syntactically encoded as new information, and the rest is presupposed information. This is illustrated for the two sentences in (18) and (19) below.



### 3.4 Summary

Functional Grammar (Dik 1978), which focuses on notions such as topic and focus, is instrumental in analyzing Ancient Greek discourse structure as it relates to word order (see H. Dik 1995; an illustrative example was shown in (11) above). Generative Grammar theory differs from Functional Grammar theories with respect to the core assumption in functional theories, namely that language exists for a communicative function (see Halliday 2009; van Valin & LaPolla 1997; Hengeveld & Mackenzie 2008 for different functional frameworks). In generative theory, language is assumed to exist not for a communicative function. Instead, expression through speech and communication are a by-product of the human Faculty of Language.

Generative theory seeks to account for surface variation observed across languages by way of distinguishing universal properties of human Language from language-specific parameters of Universal Grammar or parameters on lexical items or functional heads. The assumption that notions such as topic and focus are syntactically encoded, and that there is variation with respect to how many functional categories a language puts to use can be used to formulate a connection between old Greek and modern, spoken languages.

## 4 Methodology

### 4.1 Finding the data

Some of the research for this thesis was conducted with the use of the online *Thesaurus Linguae Graecae* (TLG), a digital corpus of ancient Greek texts. This corpus is useful when looking for every instance of a given type of word, such as the *wh*-interrogatives, relative pronouns, quantifiers, or particular strings of words such as negative morphemes in close proximity to particles.

The NT text in TLG comes from the Westcott-Hort edition, and I've cross-referenced the data with the Nestle-Aland text. In some instances, it is not possible to single out a particular lexical item or part of a lexical item to search. In my investigation of the order of subjects, verbs and objects, categories that contain many different lexical items, I conducted the research through extensive reading of primary texts.

### 4.2 Interpreting the data

The data found in the text represent artifacts of externalized language (E-language). The topic of investigation is I-language (internalized/intensional/individual), which is the mental grammar of the speakers (see Chomsky e.g., 1986 on the I-language E-language distinction). A grammar determines the set of possible outputs, and so it is important to know what the set of possible outputs is, in order to discover the nature of the grammar that produces it. Native speaker judgments are crucial for this, since they can tell you whether a sentence is grammatical or not. An ungrammatical sequence can be correlated with a restriction on the grammar.

One challenge when working with a dead language is that we have no access to grammaticality judgments of native speakers. We only have some artifacts. These likely represent grammatical sentences in the language, but they are only a small subset of grammatical sentences. We cannot assume that because a particular sequence is not found, it is necessarily ungrammatical. Hale (2007) states '...there is no reason to believe that the Hittites said (the Hittite equivalent of) "I will destroy his land" more often than they said "Meet me here tonight," but the former sentence, and thus the morphological objects in that sentence, could easily occur in the corpus far more frequently than the (unattested) latter. This is the normal state of affairs when dealing with a dead language' (Hale (2007: note 9 to Chapter 1).

Cross-linguistic comparison and linguistic theory can help us decide on the significance of an absent sequence. To illustrate this with a simple example, in the New Testament there are no attestations of *wh*-words or relative pronouns that are not at or near the left edge of the clause. In answering the question of whether this indicates that a *wh*-word or relative pronoun in another position is ungrammatical or not, it is useful to take a cross-linguistic perspective, and to use the theory as a guideline. For example, many languages show *wh*-words and relative pronouns obligatorily at the left edge of the clause (this is also the long-noted trend in older Greek). It has been theorized that these elements undergo overt syntactic movement

in these languages (Chomsky 1977). Therefore, the absence of *wh*-words and relative pronouns at the right edge of the clause likely corresponds to the fact that NT Greek is a *wh*-movement language, in which the unattested sequences are actually ungrammatical.

This represents the general strategy I take in the thesis. There are particular methodological points that I discuss where they are relevant, for example, in my investigation of basic word order in chapter 2.

## 5 Breakdown of the chapters

Chapters 2, 3 and 4 of the thesis focus on word order in main, declarative clauses. In Chapter 2, I conduct a survey of word orders in main clauses containing overt nominal arguments, set within a discussion of the notion of basic word order. This shows that NT Greek is a flexible word order language, in which SVO and VSO are highly predominant and used in pragmatically neutral contexts. The other word orders show various properties that are marked lexically or in terms of information structure.

In Chapter 3, I focus on the syntactic structure of SVO and VSO clauses. Evidence with respect to the placement of adverbs and particles suggests that there are two separate structures that both yield V(S)O clauses, and similarly that there are two structures that both yield SVO sentences. Each order has a neutral and a non-neutral counterpart. The non-neutral orders correspond to derivations in which movement of the subject or verb to the left periphery takes place.

In Chapter 4, I focus on the structures of the OVS, OSV and SOV sentences that are clearly marked in terms of topic or focus. Further, I examine constructions that are typically regarded as focus constructions cross-linguistically (for example, corrective constructions and “also” phrases), abstracting away from the original clauses under investigation. The respective position of sentence elements such as negation, the modal particle, and focused constituents give a more complete architecture of the left periphery of the clause.

In Chapter 5, I turn to word order in questions, focusing mainly on *wh*-questions. I examine both constituent order in questions, as well as the order of the *wh*-words or question particles, with respect to left peripheral material such as topic and focus constituents. Putting these facts together with the structure of the left periphery constructed in Chapter 4 shows that *wh*-interrogatives occur higher than focused phrases. They occur in the Specifier of the projection that hosts question particles and complementizers.

In Chapter 6, I examine relative clauses, which are the non-interrogative counterparts of *wh*-questions. In this domain, there is word order variation with respect to the relative position of relative pronouns and nominal heads, or antecedents. I argue that one way in which a nominal head can come to linearly precede a relative pronoun is through topicalization of the head.



## Chapter 2. The question of basic word order

### 1 Introduction

The focus of this chapter is the respective position of the subject (S), verb (V) and object (O) in main clauses in New Testament (NT) Greek. All permutations of these elements are found. An example of each order is given in the examples in (1)-(6). These examples are not given in context for the moment, but some will be further discussed in Section 4 and in Chapter 3.

#### (1) SVO clause

Abraàm	egénne:sen	
Abraham.NOM.SG.M	beget.3SG.AOR.IND.ACT	
tòn	Isaák	
D.ACC.SG.M	Isaac.ACC.SG.M	
'Abraham was the father of Isaac'		
Ἀβραὰμ ἐγέννησεν τὸν Ἰσαάκ		(Mt 1:2)

#### (2) VSO clause

megalúnei	he:	psuk <sup>h</sup> é:	mou
exalt.3SG.PRES.IND.ACT	D.NOM.SG.F	soul.NOM.SG.F	my.GEN.SG
tòn	kúrion		
D.ACC.SG.M	lord.ACC.SG.M		
'My soul exalts the lord'			
Μεγαλύνει ἡ ψυχὴ μου τὸν κύριον			(Lk 1:46)

#### (3) SOV clause

hai	aló:pekes	p <sup>h</sup> o:leoùs
D.NOM.PL.F	fox.NOM.PL.F	hole.ACC.PL.M
ék <sup>h</sup> ousin		
have.3PL.PRES.IND.ACT		
'The foxes have holes'		
Αἱ ἀλώπεκες φώλεοὺς ἔχουσιν		(Mt 8:20)

#### (4) OVS clause

toútous	toùs	dó:deka	apésteilen
these.ACC.PL.M	D.ACC.PL.M	twelve	send.forth.3SG.AOR.IND.ACT
ho	Ie:soûs		
D.NOM.SG.M	Jesus.NOM.SG.M		
'Jesus sent forth these twelve'			
Τούτους τοὺς δώδεκα ἀπέστειλεν ὁ Ἰησοῦς			(Mt 10:5)

## (5) VOS clause

épempsen                      p<sup>h</sup>ílous                      ho                      hekatontárk<sup>h</sup>e:s  
 send.3SG.AOR.IND.ACT   friend.ACC.PL.M   D.NOM.SG.M   centurion.NOM.SG.M  
 ‘The centurion sent friends’  
 ἔπεμψεν φίλους ὁ ἑκατοντάρχης (Lk 7:6)

## (6) OSV clause

taûta                      gàr                      pánta                      tà                      é<sup>t</sup>ne:  
 these.ACC.PL.N   PCL   all.ACC.PL.N   D.NOM.PL.M   nation.NOM.PL.M  
 toû                      kósmou                      epize:toûsin  
 D.GEN.SG.M   world.GEN.SG.M   seek.3PL.PRES.IND.ACT  
 ‘For, the nations of the world seek all these [things]’ /  
 ‘For, all the nations of the world seek these things.’<sup>13</sup>  
 ταῦτα γὰρ πάντα τὰ ἔθνη τοῦ κόσμου ἐπιζητοῦσιν (Lk 12:30)

The goal of this chapter is to determine what the basic, or unmarked word order is. In Section 2 I discuss the notion of basic or unmarked word order. There are many different ways to view basic word order, and different methodologies are employed in determining it.

In Section 3 I present the previous work on basic or unmarked word order in NT Greek: Rife 1933, Friberg 1982, Davison 1989, Terry 1993 and Taylor 1994. They show conflicting results and take different stands. In this section I point out some methodological issues that influence the results of these studies. I stress the varying degrees of weight placed on frequencies of occurrence, and the choice of the clauses under investigation.

In Section 4, I present my own survey of word order in main clauses in four books: Matthew, Luke, First Corinthians and Revelation. The idea is to create a pool of clauses that share basic syntactic properties, in order to formulate generalizations about their distributions. In 4.2 I give the breakdown of word orders among the clauses that meet the criteria specified in 4.1 and Appendix I. There is considerable variation among books. Particularly, VSO is frequent in Matthew, Luke and Revelation but absent in First Corinthians. Accordingly, SOV and OVS are more significant in First Corinthians than the other books.

In 4.3 I focus on neutrality. I find that SVO and VSO are both found in neutral contexts, where there is no topic or focus connected with a particular element. In 4.4 I draw generalizations about non-neutral clauses. Particularly, SVO, SOV, OSV and OVS clauses show several marked characteristics, some of which are also discussed in Friberg (1982, Chapter 3) and Davison (1989). Thus, certain SVO and VSO

<sup>13</sup> The strong quantifier *pánta*, as well as the demonstrative *taûta* are neuter plural forms, and could be either nominative or accusative. Since the DP *tà é<sup>t</sup>ne*: “the nations” is also neuter plural, it is not entirely clear whether the quantifier modifies the demonstrative object, or the DP subject. The two translations given represent the two different readings. All bible translations take the first translation given under the example, and the example is glossed this way.

clauses constitute neutral clauses, and certain SVO clauses are clearly marked. In this chapter I employ the somewhat vague term “emphasis” when describing certain marked constituents and refine this in Chapter 4.

In Section 5 I present the conclusions from the chapter.

## 2 The notion of basic word order

In the typological tradition, languages are characterized into types according to their basic word orders. It has been claimed that every language has a single dominant, or basic word order (Steele 1978: 587). Some take the language’s basic word order to be the one that occurs with the highest frequency (Greenberg 1966), and some factor in various notions of neutrality (see Comrie 1989; Croft 1990; Dryer 1995, 2007). Under these criteria, one order is neutral and the other(s) marked in some way.

Markedness theory, very generally, concerns the characterization of linguistic objects as binary opposing categories, for example, a nasal versus non-nasal sound, or singular versus plural. The marked form is in some way more complex than the unmarked; it has an extra feature, or an extra morpheme, possibly corresponding to a more specified meaning or limited distribution (see the introduction in Eckman, Moravcsik & Wirth 1986). Markedness theory has been a widespread notion across various domains of linguistics. It has been a central part of generative phonology (see Chomsky & Halle 1968) and generative syntax. In syntax, markedness has been seen in terms of deviation from a parameter in the Principles and Parameters framework (Chomsky 1981), or in terms of a filter, i.e., a constraint on the grammar (Chomsky & Lasnik 1977). In more current minimalist syntax, the marked-unmarked opposition is discussed in terms of syntactic derivations (see Roberts 2007: Chapter 3; Roberts & Roussou 2003: Chapter 5). Markedness theory is also central to Optimality Theory (OT) phonology and syntax. In these frameworks, markedness constraints are ranked on a hierarchy, which is subject to cross-linguistic variation. For example, see Costa (2001) for an OT account of subject verb inversion in Romance languages. Markedness is also central to many nongenerative functional grammar approaches (see Dik 1989; Givón 1990; Gundel *et al* 1988).

Definitions of markedness differ immensely in the literature (see Haspelmath 2006 for a summary of twelve senses of markedness, and a critique of the term). I discuss three of these definitions of markedness that can be applied to the domain of word order in 2.1, 2.2 and 2.3. While some of them refer to surface orders, some of them refer to syntactic structures. In 2.4 I discuss the role of pragmatics, or information structure in determining basic word order.

### 2.1 Textual rarity

One definition of markedness refers to rarity in texts (Greenberg 1966), given in (7). By this definition, an infrequently found word order is necessarily marked. In this approach, frequency of occurrence is correlated with neutrality.

(7) The neutral order is the most frequent order.

The traditional Greenbergian method takes into account clauses which contain the major sentence elements: a subject, a verb and an object. Notice that for a null subject language such as NT Greek (see Chapter 3, Section 4), clauses with overt subjects are in the minority compared with clauses that have no subjects. Therefore, examining clauses with a subject, a verb and an object already runs counter to the definition in (7). In principle, two conclusions can be drawn from this. One could say that the neutral word order of subject, verb and object is not a good research criterion for NT Greek (as well as older Greek). The other option is to say that the frequency criterion is not well-founded as a criterion for neutrality. As I discuss below, many authors take the latter view (see, for example, Brody 1984; Dryer 1995), and I also take this view here.

## 2.2 Distributional markedness

Another definition describes markedness in terms of distributional restrictions (Haspelmath 2006: 36). Applied to the domain of word order, this would lead to the following definition in (8).

(8) Distributional markedness

If a word order A occurs in restricted environments, and a word order B occurs elsewhere, word order B is unmarked. Word order B is the default word order.

There are many varieties of distributional restrictions. For example, as Comrie (1989: 88-89) discusses, in some dialects of French, SVO is predominant in main clauses, subordinate clauses and relative clauses, but in questions, VSO orders occur. Thus, VSO occurs in the restricted environment of questions, and SVO elsewhere. Similarly, SVO is predominant when the subject and object are noun phrases and proper names, and various strong pronouns. With clitic pronominal objects, however, SOV occurs. SOV is distributionally marked. In these cases, SVO clauses are also the most frequently used, so there is no discrepancy between markedness based on frequency and markedness based on distribution.

However, Dryer (1995) argues that it is not always the case that distributionally restricted word orders appear with lower frequency than the neutral word order. A case in point is found in Brody (1984). She argues that Tojolabal (a Mayan language) has the basic word order VOS, although it occurs much less frequently than SVO in discourse. The claim is that SVO sentences are pragmatically marked, and that a pragmatically marked order cannot be basic. Under the assumption that the basic word order is the pragmatically unmarked order, Dryer's (1995) methodology is to characterize the distributional restrictions on word orders, singling out particular environments in which certain word orders occur. He defines these environments based on pragmatic distinctions. The order that can't be defined

as occurring in a certain pragmatic environment is the basic word order. The studies just mentioned conclude that frequency is not an important factor in determining basic word order.

### 2.3 Markedness in a generative framework

Haspelmath (2006:36) discusses markedness as deviation from a default parameter setting, referring to the Principles and Parameters framework (Chomsky 1981). As I mentioned in Chapter 1, within the Principles and Parameters framework the common language primitives are given by Universal Grammar (UG). Language-specific parameters are acquired by children during the acquisition period, and these parameters are the source of language variation.<sup>14</sup> One of these is the head directionality parameter (see, for example Baker 2001). English is a typical example of a head-initial language (VO) language, while Japanese is head final (OV).

There are examples where the head directionality of a language is not reflected in what would be considered to be the most basic types of clauses according to (7) and (8) above, i.e., main clauses. One example is German. While SVO orders are very common in main clauses, OV occurs in subordinate clauses. Therefore, taking frequency and distribution into consideration, SVO would be more basic than SOV. However, it has been shown that in main clauses, the verb moves to C°, the Complementizer head. The absence of verb movement in subordinate clauses is due to the fact that the C° position is unavailable, already being occupied by the complementizer (den Besten 1983). German is normally treated as an SOV language. Under this view, the basic or unmarked word order of a language can be stated as in (9).

- (9) Unmarked word order is the order that reflects the head directionality of the language.

If Kayne's (1994) theory is adopted, there is no head directionality parameter. Kayne proposes that X-bar theory is not a primitive of UG, but that the Linear Correspondence Axiom (LCA) is. The LCA restricts hierarchical phrase structure to asymmetric c-command relations (specifier-head-complement) by way of a direct mapping of asymmetric c-command to linear order. The LCA then asserts that the basic word order of every language is SVO, if basic word order is understood as an underlying order.

In more recent minimalist approaches to parametric syntax, markedness has been defined in terms of simplicity of derivations (see Roberts 2007, Chapter 5; Roberts & Roussou 2003: 201) define simplicity as in (10).

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<sup>14</sup> For a critique of this view, see Newmeyer (2004), see Roberts & Holmberg (2005) for a reply to this, and see Baker & McCloskey (2007) for a discussion of methodological issues and goals in the fields of typology and syntax.

- (10) Given two structural representations R and R' for a substring of input text S, R is simpler than R' if R contains fewer formal feature syncretisms than R'.

Feature syncretism refers to more than one formal feature occurring in a particular structural position. Here formal features include  $\phi$ -features like person and number, Case features, as well as features that trigger movement (the [EPP] feature as defined in Chomsky 2001).<sup>15</sup>

## 2.4 The role of information structure

It is well known that word order in many languages is affected by information structure, the division of labour between discourse units such as topic and focus, as I introduced in Chapter 1, Section 2. Such languages are often called discourse-configurational (see É.Kiss 1995). It is fairly well accepted that dialects of Greek that pre-date Koine fall into this category (see Devine & Stephens 2000; Dik 1995). Pragmatic considerations are central to proposals that examine word order as both a surface and a non-surface phenomenon. For example, in the functional framework employed in Dik (1995), the surface word order Topic-Focus-V-Remaining Elements is the unmarked word order of Herodotus's Greek (an Ionic dialect from the fifth century BC). This refers to the fact that this is the most commonplace surface order of elements, appearing most frequently. Thus, the definition in (7) is most important.

Pragmatic considerations play a very different role in approaches that examine word order as not only a surface phenomenon. In current generative frameworks, information structure is encoded in the syntax in some way or another. Therefore, a given surface word order can result from a derivation in which a Topic or Focus feature is present, in that syntactic dislocation of an element with particular topic or focus status is motivated by such a feature (see Brody 1990; É.Kiss 1998, Rizzi 1997, *et seq*). A derivation (or syntactic numeration) in which a Topic or Focus

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<sup>15</sup> Roberts & Roussou (2003) propose that the presence of an extra EPP feature makes the representation more complex. Therefore, a derivation in which an item is moved is more complex than one in which there is no movement. The hierarchy in (i) is given as a markedness scale, where > means 'more marked than'.

- (i)  $F^*_{\text{Move/Merge}} > F^*_{\text{Move}} > F^*_{\text{Merge}} > F$

F is the least marked option, having no feature that takes part in Merge, Agree (and hence not Move).  $F^*_{\text{Merge}}$  is more marked, since there are two elements being merged, which both have phonological matrices.  $F^*_{\text{Merge}}$  is less marked than  $F^*_{\text{Move}}$  because the former lacks the EPP feature driving movement. Finally,  $F^*_{\text{Move/Merge}}$  is the most complex, since it involves the merging of two phonological feature matrices, as well as the [EPP] feature.

feature is present is marked in comparison to one in which there is no such extra feature. Accordingly, the utterance yields a meaning with a particular division of labour of topic and focus, and is felicitous only in certain pragmatic contexts. A neutral string can then be defined as in (11), and its corresponding derivation as in (12).

- (11) Definition of a neutral clause:  
A clause in which no element has a special topic or focus interpretation
- (12) Derivation of a neutral clause  
A clause in which no element is derived through topic or focus movement.

Note that the definitions in (11) and (12) do not imply that the marked order(s) will be less frequent than the unmarked. The most frequently found order in a text could be a pragmatically marked order, involving pragmatically driven syntactic operations. It depends on what kind of information is being recorded in a text. It is possible that a given text contains no neutral context. In a language where information structure is reflected through word order to a large extent, then the word order that is unaffected by information structure would be absent. Therefore, the definition of basic word order that one takes on directly affects the methodology taken to determine it.

The different notions of basic order have resulted in different claims made about the basic word orders of many languages. For example, take Modern Greek (MG). Like NT Greek, MG allows all permutations of subject, verb and object, and SVO and VSO are predominant. Phillipaki-Warbuton (2008, and elsewhere) and Roussou & Tsimpli (2006) claim that VSO is a pragmatically neutral word order, since it appears in contexts where there is no topic or focus on a particular constituent, thus adhering to the definition in (11). Similarly, Alexiadou & Anagnostopoulou (1998) argue that SVO clauses involve topicalized subjects, thus VSO is the more basic order, adhering to the definition in (12). However, Greenberg (1966: Appendix 1, pg. 107-108) classifies MG as an SVO language, since he found the order more frequently in texts, adhering to the definition in (7).

In this thesis, I take on the definition in (11) for a neutral clause, and the one in (12) for the derivation that produces (11). Therefore, frequency is not an important factor in my investigation, and a surface string as such is not necessarily a homogeneous class. The goal of the preliminary study I present in Section 4 is to get an idea of which orders occur when certain elements are pragmatically marked. As I show therein, SVO is the most frequent word order, and hence would be the basic word order in the Greenbergian sense. However, as I show in 4.3, both SVO and VSO are used when there is no topic or focus on a particular constituent. Therefore, these are both neutral orders from the pragmatic perspective discussed around (11). Furthermore, as I discuss in Chapter 3, many SVO clauses involve subject topicalization (see also Friberg 1982, Chapter 3). Therefore, the surface order SVO is not basic from the perspective in (12).

## 2.5 Summary

In summary, one line of research treats the basic word order of a language as a surface phenomenon. Within this typologically oriented setting, there are different criteria for markedness, or neutrality. In the Greenbergian tradition the most frequently found order is basic. Others, such as Dryer, focus more on the environments in which certain orders occur, i.e., distributional facts. Another line of research, within the generative framework relates basic word order to parameter settings, syntactic structures or formal features on functional heads.

Before proceeding with the presentation of my own word order investigation, I first give an overview of the conclusions from previous studies on NT Greek clausal word order. The conclusions are not all in consensus, and I discuss how the different notions of basic word order discussed above, along with the different methodologies taken, influence the conclusions.

## 3 Previous work on NT Greek basic word order

NT Greek word order is discussed in NT Grammar books. Blass, Debrunner & Funk (1961: 471) state that “the verb or nominal predicate with its copula stands immediately after the conjunction (the usual beginning of a sentence); then follow in order the subject, object, supplementary participle, etc.”. They suggest that VSO is the most natural word order. This statement is qualified with the statement that V-initial clauses particularly in Mark are due to Semitic influence.<sup>16</sup> Robertson (1934: 417) agrees that the predicate often comes first, but claims that this is so because as a general rule, “the predicate is the most important thing in the sentence”.

Aside from traditional grammar books, there have been some linguistic studies on NT Greek clausal word order: Friberg (1982, Chapter 3), Davison (1989), Rife (1933), Terry (1993) and Taylor (1994).

### 3.1 Friberg (1982, Chapter 3)

Friberg (1982, Chapter 3) provides a rich survey of NT Greek clausal word order. Friberg’s data come from all books of the NT, and include the attested relative positions of the subject and verb, the verb and object, and the subject and object. He

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<sup>16</sup> See Maloney (1979) and references therein for arguments that V-initial orders are due to Semitic influence in the gospel of Mark. The issue of Semitic influence is not a crucial factor for the current discussion. This is related to the fact that frequency does not play a very important role in my study. Frequency does not determine grammaticality. The high frequency of VSO could in some way be due to Semitic influence, however what is important for this chapter is that VSO is a possible order in NT Greek. It was also a possible order in older Classical dialects, and Homeric Greek, so one would not want to say that it is an innovation due to Semitic influence.

concludes that Koine Greek has the unmarked clausal order of VSO, based on cumulative evidence from strings of VS, VO and SO. His strategy is to identify the marked word orders, and rule these out as basic. The one that is most difficult to characterize in terms of markedness is the basic order. This is in the spirit of Dryer's (1995) strategy, as discussed in Section 2. This also corresponds to the fact that frequency does not play such a large role in determining the basic word order. Although SV orders are much more common than VS, VS is nonetheless the unmarked order.

Friberg discusses four ways in which the orders OV, OS and SV are marked, and calls them syntactic, semantic, pragmatic and stylistic markedness. In the discussion of OV orders, by syntactic markedness he refers to relativized objects in relative clauses and questioned objects in *wh*-questions, which obligatorily occur preverbally. Friberg also characterizes the preverbal placement of objects in negative sentences as syntactic markedness.

Notions such as focus, emphasis, contrast and topicalization are treated as semantic markedness. Topicalization is particularly important in his discussion of SV orders (Friberg 1982: 197-204), accounting for a large number of the preverbal subjects. These notions are normally treated as pragmatic in generative and functional linguistic literature, and I follow this tradition.

Although I treat sequences of OV and OS somewhat differently than Friberg, I come to a similar conclusion in terms of SV orders. Many of them can be shown to involve subjects that serve a topic function.

### 3.2 Rife (1933) and Terry (1993)

Rife (1933) illustrates a study of word order in the translation Greek of the Old Testament, with the purpose being to examine to what extent word order can be used as a tool in identifying translation Greek. He contrasts word orders in some Homeric and Classical Greek texts with word orders in Old Testament translation Greek, finding that VSO sequences are far more common in translation Greek than Classical and Homeric. He also provides a comparison with the original Koine Greek of the NT, using Romans (attributed to Paul), Acts (attributed to Luke) and the Gospels.

Terry (1993, section 5.3) focuses on word order in First Corinthians, a letter attributed to Paul. He takes the raw numbers in Matthew, Mark, Luke, John, Acts and Romans from Rife (1933: 350). Terry adds their percentages and the numbers and percentages from First Corinthians. Table 1 is taken from Terry (1993, section 5.3).

Book	VSO	SVO	SOV	VOS	OSV	OVS
Matthew	12.5% (n=1)	62.5% (n=5)	12.5% (n=1)	- (n=0)	- (n=0)	12.5% (n=1)
Mark	16.7% (n=3)	50% (n=9)	22.2% (n=4)	- (n=0)	5.6% (n=1)	5.6% (n=1)
Luke	23.1% (n=9)	48.7% (n=19)	20.5% (n=8)	5.1% (n=2)	- (n=0)	2.6% (n=1)
John	- (n=0)	40.4% (n=4)	30% (n=3)	10% (n=1)	20% (n=2)	- (n=0)
Acts	13.3% (n=6)	68.9% (n=31)	2.2% (n=1)	2.2% (n=1)	2.2% (n=1)	11.1% (n=5)
Romans	- (n=0)	40% (n=4)	50% (n=5)	- (n=0)	- (n=0)	10% (n=1)
1 Cor.	- (n=0)	52.9% (n=9)	23.5% (n=4)	5.9% (n=1)	5.9% (n=1)	11.8% (n=2)

**Table 1: Rife (1933), Terry (1993)**

Terry argues against Friberg's claim that VSO is the basic word order. One major criticism is that he finds no VSO in First Corinthians. For Terry frequency is more important than it is for Friberg. In First Corinthians, SVO and SOV are very common. Terry asserts that if it is possible to assign a basic word order to a 'synthetic' language like Koine Greek, then it is either SVO or SOV. By synthetic, Terry refers to a language in which grammatical relations such as subject and object are marked through case rather than sentence position. Thus, Terry assumes that languages mark grammatical relations in either of these two ways, and not both, based on the traditional assumption that the presence of rich inflectional morphology allows word order to be free.

Terry criticizes Friberg's (1982) stand that SVO sequences involve topicalization of the subject, stressing the fact that some VSO sequences have subjects that are topics. The major argument is that subjects are usually clausal topics anyway, and they should warrant no form of dislocation.

### 3.3 Davison (1989)

Davison (1989) carries out a study on frequency and neutrality in Luke, Acts and Paul's letters. He takes all of the Pauline letters as a whole, which includes Romans and First Corinthians, among others. He compiles Luke and Acts into one category, representing Luke's Greek. The numbers are given in Table 2.

	Paul	Luke, Acts
VSO	8	20
SVO	17	56
SOV	9	8
VOS	2	4
OVS	3	6
OSV	1	1
Total	40	95

**Table 2: Davison (1989:25)**

Rife and Davison come up with similar results for Luke and Acts (if the two are added together in Table 1). The results are also similar if you count Romans and First Corinthians in table 1 and compare it to the first column in Table 2. This is a bit strange since Paul's writing includes more books than just these two. It is possible that there are very few other viable clauses in the rest of these letters. In any case, the two report counting the same types of clauses: declarative clauses where the subject and object are substantive (Rife 1933:250), and declarative clauses with nominal subjects and objects (Davison 1989:24). The authors' criteria must be slightly different, however, because the numbers are not exactly the same. The criteria are not described in detail. Davison finds SVO to be significantly higher in frequency than VSO, however notices that SVO clauses sometimes involve pragmatically marked subjects, particularly subjects that are emphasized or just mentioned. With a cautionary tone, he concludes that the basic word order is an alternation between SVO and VSO.

### 3.4 Taylor (1994)

Taylor (1994) provides a diachronic word order study, focusing on the change from head-final (SOV) to head-initial (SVO) in Greek. Since the parametric change in headedness is the focus of her paper, the position of the finite verb with respect to the object is the most important thing. The relative position of the subject and verb in head-initial orders is not prominent in the discussion.

Taylor includes data from Acts as a representation of Koine Greek, and gives the statistics summarized in Table 3. She divides the clauses into verb-final (which includes SOV and OSV), verb-medial (which includes SVO and OVS) and verb-initial (which includes VSO and VOS). She includes clauses that do not necessarily contain both subjects and objects. Constituents such as PPs, objects and subjects are referred to as X, or Y. In Table 3, the numbers are given in brackets, with the total instances below each clause type, and the combined total in the bottom row.

<b>Verb-final</b>	Luke
SXv	.07 (7)
XYv	.01 (1)
Total	.08 (8)
<b>Verb-medial</b>	
SvX	.56 (57)
XvS	.05 (5)
XvY	.01 (1)
Total	.62 (63)
<b>Verb-initial</b>	
vSX	.25 (25)
vXY	.06 (6)
Total	.31 (31)
<i>N</i>	102

**Table 3: Taylor (1994:10)**

Taylor's results are not really comparable to the others', since her criteria are very different. For instance, she includes all tensed clauses, not only declaratives. In her data there are questions, relative clauses and other subordinate clauses. And, as just mentioned, the clauses do not need to have both subjects and objects. Taylor excludes pronominal arguments, but includes proper names as arguments. And, as I discuss in section 4.1 below, she includes clauses with participial or 'empty' noun subjects. This factor likely makes her percentage of SVO higher.

Taylor argues that Koine Greek is a head-initial SVO language, based entirely on frequency of occurrence.

### 3.5 Section summary

To sum up this section, there is no clear consensus as to the basic, or neutral word order in NT Greek. NT grammar books assign a basic word order of VSO, however, there is a proviso that some VSO is due to Semitic influence. Friberg (1982, Chapter 3) concludes that VSO is the most neutral order, focusing heavily on pragmatics and less so on frequency. Davison (1989) concludes that the basic word order is an SVO-VSO alternation, based on frequency and pragmatic neutrality. Terry (1993) argues against Friberg (1982), arguing that SVO and SOV are the most basic orders.

Some of the studies discussed narrow it down to two (SVO and VSO for Davison and SVO and SOV for Terry). It is unclear what it means for a language to have two basic word orders, and this has to do with the lack of clarity involved in the notion of basic word order, as discussed in Section 2.

It is important to note that when an author puts a lot of weight on frequency of occurrence, it is very important to define the types of clauses under investigation. As mentioned in 3.3, in none of the previous studies are the clauses included in the tables described in detail. It is unclear what Davison considers to be a nominal, and what Rife considers to be a substantive.

## 4 Word order in Matthew, Luke, First Corinthians and Revelation

### 4.1 Introduction

This section shows the results of my own survey of word order in main clauses in the NT. I first collected a pool of clauses from four books: Matthew, Luke, First Corinthians and Revelation. The strategy is to examine clauses that are syntactically similar. Therefore, I look at clauses that meet some descriptive criteria. I limit it to clauses with subjects, verbs and objects. Out of this pool of clauses, I first look for neutral clauses in the sample (based on the definition in (11) above), and second, look at clauses that have very evident pragmatically marked properties. These properties are shown to correlate with particular word orders to an extent.

The reason for the limitation to four books is basically practical. It is time-consuming to collect the data manually.<sup>17</sup> I have chosen four books from different authors in order to get an idea of whether there are major differences among authors that would warrant postulating different grammars for them. The choice of First Corinthians as a representation of Paul is particularly motivated by Terry's (1993) results concerning this book (see subsection 3.2 above). For my purposes, it is important to re-evaluate the evidence brought by Terry, in particular, the absence of VSO.

In 4.3 I focus on the most neutral clauses found in this pool. I find that SVO and VSO both occur in neutral environments while the other orders do not. In 4.4, I concentrate on some of the ways in which particular word orders are marked. I am able to form generalizations concerning O-initial clauses, SOV clauses and SVO clauses. VSO and VOS are more difficult to generalize over. In the case of VOS, this is largely due to the fact there are few attestations.

For my purposes, it is necessary to examine clauses that are syntactically similar, and so I keep various constants steady. These constants concern the clause type, the arguments, and the position of the clause with respect to other clauses. Here I list the most important criteria for the clauses counted, and encourage the reader to look to Appendix 1 for a detailed description of what is included and excluded, illustrated with examples.

- **The clause is a main clause assertion**

In this sample there are no questions, and no relative or other subordinate clauses.<sup>18</sup>

<sup>17</sup> These data were collected manually, and there is therefore a possibility of error.

<sup>18</sup> This is not a completely straightforward matter in the NT. For example, the complementizer *hóti* (ὅτι) introduces both causative subordinate clauses ("because" clauses) and indirect speech ("that" clauses). In the NT, it also frequently occurs with direct speech, as in (ii).

This is because questions and subordinate clauses have different structures than main clauses, and this difference is reflected in terms of word order in many languages.

I include clauses with imperative verbs, as long as they contain overt subjects. These are third person imperatives, such as the SOV clause in (13).

- (13) 3<sup>rd</sup> person imperative (included)  
 hékastos tē:n heautoû gunaîka  
 each.NOM.SG.M D.ACC.SG.F own.GEN.SG wife.ACC.SG.F  
 ek<sup>h</sup>étō:  
 have.3SG.PRES.IMPV.ACT  
 ‘(Because of immoralities), let each man have his own wife.’  
 (διὰ δὲ τὰς πορνείας) ἕκαστος τὴν ἑαυτοῦ γυναῖκα ἔχέτω  
 (1 Cor 7:2)

- **The clause contains a finite verb and an overt subject and object**

The clauses in this survey are limited to transitive clauses, with overt subjects and objects. For details and illustrations of the types of verbs and the types of elements that are counted as overt arguments, see Appendix 1, sections II and III, respectively. There is one restriction on arguments that I mention here in the main text:

- **The subject and object are not participial forms**

The example in (14) is adapted from Taylor (1994, note 6) (I have re-transliterated and re-glossed it, but kept her bracketing and translation). She includes this clause in her survey, and others like it.

- 
- (ii) eîpen gàr hóti t<sup>h</sup>eoû eimi  
 said.3SG.AOR.IND.ACT PCL that god.GEN.SG.M be.1SG.PRES.IND.ACT  
 huiós  
 son.NOM.SG.M  
 ‘For he said, ‘I am the Son of God’.’  
 εἶπεν γὰρ ὅτι Θεοῦ εἰμι υἱός  
 (Mt 27:43)

In (i), the speech verb inflects for 3<sup>rd</sup> person, while the “embedded” verb *eimi*, “I am” is in the 1<sup>st</sup> person. The referents of the verbs are the same. *Hóti* does not function as a complementizer introducing indirect speech, but as a quotative conjunction. The clause containing the reported speech is not necessarily syntactically subordinate. In any case, I haven’t found this use of *hóti* in a clause that meets all of the other criteria.

- (14) [proidò:n ] elále:sen perì  
 foresee.NOM.SG.M.PRES.PART.ACT talk.3SG.AOR.IND.ACT about  
 tê:s anastáseo:s toû K<sup>h</sup>ristoû  
 D.GEN.SG.F resurrection.GEN.SG.F D.GEN.SG.M Christ.GEN.SG.M  
 ‘He foreseeing talked about the resurrection of Christ.’  
 προῖδὼν ἐλάλησεν περὶ τῆς ἀναστάσεως τοῦ Χριστοῦ (A 2:31)

In (14) the nominative participial *proidò:n* “foreseeing” precedes the MC verb *elále:sen* “he talked”, but there is no expressed subject of either clause. Taylor refers to this construction as a participial clause with an empty noun.

Based on the translation provided, the participle itself seems to be rendered as a reduced relative clause subject, “he foreseeing”, or, “the one foreseeing”, but the description of the construction and the bracketing suggests that a null argument is assumed inside the brackets. This would be equivalent to English “He, foreseeing, talked about the resurrection of Christ”, which is definitely a possible reading of this sentence (see the Douay Rheims, Weymouth and Youngs Literal Bible translations for this rendering of the participle).

Since it is not straightforward that the participle is the subject of the finite clause, and in fact, it is highly likely that it is not, I do not include these types of clauses in my survey. In order to be consistent, I exclude all clauses with participial Ss or Os.

## 4.2 The breakdown of word orders

The breakdown of word orders from Matthew, Luke, First Corinthians and Revelation are summarized in Table 4. For the corresponding citations, see Appendix 2.

	<i>Matthew</i>	<i>Luke</i>	<i>1 Cor</i>	<i>Revelation</i>	<b>total</b>
SVO	52 <sup>19</sup>	14	8	11	85
VSO	7	13	0	12	32
SOV	2	5	13	1	21
OVS	3	1	5	0	9
VOS	0	3	1	0	4
OSV	0	1	2	0	3
<b>total</b>	64	37	29	24	

**Table 4: Word orders in Matthew, Luke, First Corinthians and Revelation**

<sup>19</sup> 38 of the 52 SVO clauses in Matthew come from the genealogy list at the beginning of the book.

There is considerable variation among books. I find that in Luke, SVO and VSO are almost equally attested with a substantial number of SOV clauses. VOS, OVS and OSV are also found. Revelation is largely SVO and VSO, with one attestation of SOV. In Matthew I find a very high total of SVO clauses, and VSO is also significantly attested. There are a few OVS and SOV clauses. Interestingly, VSO is absent in First Corinthians, as also found by Terry (1993) (see Table 1, subsection 3.2). SOV is predominant, and SVO and OVS are also significantly attested.

The question of variation across books is an interesting one, but it goes beyond the scope of this chapter and this thesis. I assume that all of the orders are grammatical in all of the dialects. The fact that VSO is absent in First Corinthians does not indicate that it was ungrammatical in Paul's dialect. As Davison (1989) and Terry (1993) note, VSO is found in other Pauline epistles. The absence of VSO in First Corinthians is taken to be coincidental.

My results from Matthew and Luke are significantly different from Rife's, and likewise my results from First Corinthians are significantly different from Terry's. In general, I have more total tokens, and in Luke, I find a smaller difference between SVO and VSO. These differences are due to the different criteria for clauses counted. I presume that I am more free with respect to what counts as an argument (see Appendix 1, section III for my criteria concerning arguments).

As I discussed in section 2.3, the frequencies are not the determining factor of basic word order in this chapter. A relevant example of the necessarily cautionary weight put on frequencies is the genealogy list at the beginning of Matthew. 38 of the 50 SVO clauses in Matthew are listed sequentially here. If we apply statistics to determine the relative percentages of SVO and, for example VSO, it is roughly 81% compared to 11%. But if the genealogy had been shorter, with only 5 clauses, all else being equal the percentage of SVO decreases to 61% and VSO raises to 23%. If there were no list at all, the percentage of SVO would be 54% and VSO roughly 27%.

In the next sub-section I concentrate on distinguishing neutral clauses from clauses that are pragmatically marked in terms of topic and focus.

### 4.3 Neutral clauses

Identifying a neutral clause is very difficult in a dead language. There is no possibility of carrying out elicitations designed to determine the neutral word order, and no negative evidence. This means that even if we can find a neutral environment in the text, we can only predict whether or not a word order other than the one attested would also be felicitous in this context. On top of this, there is no access to intonation, which is a valuable tool for identifying foci and topics, and distinguishing them from one another, and classifying their various sub-types (see, for example, Szendrői 2002, 2003; Frascarelli 2000; Frascarelli & Hinterhölz 2007; Gryllia 2008).

To compensate for the lack of intonational cues and possibility of elicitation, I look at two environments where it is relatively safe to say that the subject is not a topic nor a focus.

At first glance, generic sentences might appear to constitute neutral clauses since the subject of a generic statement does not refer to any salient individual in the discourse. However, the generic sentences in the NT tend to appear in environments of contrast (often contrast through comparison). More specifically, one generic term is predicated, and directly following this statement, a comparative (contrasting) generic term is predicated. The predicates are either the same or different. The example in (15) shows a pair of generic sentences in which the subjects are “husband” and “wife” (literally “man” and “woman”). Only the first of the two is glossed and transliterated, and the second is given in Greek and English.

- (15) he:                      gunè:                      toû                      idíou  
       D.NOM.SG.F    woman.NOM.SG.F    D.GEN.SG.N    own.GEN.SG.N  
       só:matos                ouk                exousiásdei  
       body.GEN.SG.N    NEG            control.3SG.PRES.IND.ACT  
       allà    ho                      anè:r  
       but    D.NOM.SG.M    man.NOM.SG.M  
       ‘(Let the husband give the benevolence she is due: and likewise also the  
       wife unto the husband.) The wife does not control her own body, but  
       rather the husband. (And similarly, the husband does not control his own  
       body, but rather the wife).’  
       (τῇ γυναικί ὁ ἀνὴρ τὴν ὀφειλὴν ἀποδίδωτω, ὁμοίως δὲ καὶ ἡ γυνὴ  
       τῷ ἀνδρί.) ἡ γυνὴ τοῦ ιδίου σώματος οὐκ ἐξουσιάζει ἀλλὰ ὁ ἀνὴρ.  
       (ὁμοίως δὲ καὶ ὁ ἀνὴρ τοῦ ιδίου σώματος οὐκ ἐξουσιάζει ἀλλὰ ἡ  
       γυνή.) (1 Cor 7:4)

In the glossed clause in (15), the subject *he: gunè:* “the wife” precedes the object *toû idíou só:matos* “her own body”, which in turn precedes the negated verb *exousiásdei* “controls”.<sup>20</sup> The subject is corrected with the phrase “but rather the husband”. In other words, the husband controls the wife’s body. The following unglossed clause has a parallel word order, the difference being that “the husband” is the subject, and is corrected by the phrase “but the wife”. As shown by the context preceding the glossed example, the generic terms “husband” and “wife” are salient in the discourse.

Aside from the fact that these terms are salient in the immediate discourse, the generic statements in (15) are contrastive. Contrast is a notion very closely tied to focus and topic (see Vallduví & Vilkuna 1998; Neeleman et al 2009). In this particular instance, the subjects form a contrastive set. They are therefore good candidates for contrastive topics. I discuss this notion further in Chapters 3 and 4. For the purposes of the present discussion, I note that I have not found a generic statement that does not involve contrast or comparison with preceding or following clauses.

In what follows I illustrate the two most neutral contexts I have found. The first

<sup>20</sup> I consider objects to have a patient theta role of a transitive verb. Therefore, not all objects show accusative case. In (15), the verbs occurs with genitive objects (see Appendix 1, Section II for details).

### 4.3.1 Context I: situational sentences

The subjects refer to psychological states, the verbs describe the act of this state taking over and the objects refer to the participants that are affected by the states.<sup>21</sup> Two examples are given in (16) and (17). In the VSO clause in (16), the subject is *p<sup>h</sup>óbos* ‘fear’ and in the VSO in (16), the subject is *ékstasis* ‘amazement’.

- <sup>21</sup> Notice that this construction is not typical of Modern European languages, and literal English translations of (16) and (17) sound odd. It is a specific use of the verb *lambano*: (λαμβάνω) “take” and these clauses are in a sense idiomatic and from this perspective, not good representatives of neutral clauses. However, the active subjects, i.e., the states, are morpho-syntactically equivalent to other subjects, so I take these clauses on a par syntactically with the other clauses in my survey.

The clauses in (16) and (17) occur in similar environments. They both occur directly after the descriptions of miracles performed by Jesus, which resulted in a sick person being healed (in Lk 5:26), and a dead person being revived (in Lk 7:16).<sup>22</sup> In both contexts, the following discourse resumes the strong quantifier objects.

There is one structural difference between (16) and (17). While (16) contains the second position particle *dé* “and”, (17) is initiated with *kaí*. The two have a similar function in these clauses, in that they are both conjunctions. There is no generalization that can be drawn over the V-initial clause with *dé* versus the S-initial clause with *kaí*. In the situational sentence in (18) below, the second position particle *gár* occurs following the preverbal subject *t<sup>h</sup>ámbos* “amazement”.<sup>23 24</sup>

- (18) SVO clause  

<i>t<sup>h</sup>ámbos</i>		<i>gár</i>		<i>periésken</i>
amazement.NOM.SG.M		PCL		surround.3SG.AOR.IND.ACT
<i>autòn</i>	<i>kaí</i>	<i>pántas</i>	<i>toùs</i>	<i>sùn autô:i</i>
him.ACC.SG.M	and	all.ACC.PL.M	D.ACC.PL.M	with him.DAT.SG.M

‘For, he became astonished, and all those with him, (at the catch of fish that they took).’  
 θάμβος γὰρ περιέσχευ αὐτὸν καὶ πάντας τοὺς σὺν αὐτῷ (ἐπὶ τῇ ἄρρᾳ τῶν ἔχθρῶν ὧν συνέλαβον) (Lk 5:9)

#### 4.3.2 Context II: the answer to a broad focus question

One test employed in the literature to elicit neutral sentences is to ask a question with broad focus, such as “What happened?” (see Dik 1978; Li 1976; Costa 2001). The answer to this question does not place narrow focus on any of the constituents. A felicitous answer to this question in English has the order SV(O) as in (19), while a felicitous answer in Modern Greek appears with the VSO order, as in (20) from Roussou & Tsimpli (2006: 318).

- (19) a. What happened?  
 b. John repaired my computer

<sup>22</sup> I do not take the fact that the clauses are uttered after astonishing events to indicate that they are pragmatically marked in the relevant sense. The important thing is that there is no topic or focus on any given word.

<sup>23</sup> The object in (18) is a heavy constituent, consisting of a pronoun conjoined with a complex DP. It is well known that constituent weight often affects word order. What is relevant for the present discussion is the relative positions of the subject, particle and verb.

<sup>24</sup> The example in (18) indicates that the presence of a second position does not consistently result in the preverbal placement of the verb. However, this is not to say that the larger pragmatic context of (18) is the same as that of (16).

- (20) a. *Ti egeneto?*  
 b. *Episkevase o Janis ton ipolojisti mu.*  
 repaired.3S the John the computer mine

Unfortunately, none of the clauses in Table 4 occur in this context. However, I have found one possible candidate for a broad focus question answer pair. The clauses that constitute the answers do not fit all of the criteria set out in Appendix 1. This conversation is given in (21); the question in (a), the answer in (b) and the context in Greek and English in (c).

- (21) a. Question:  
*Pô:s éstai toûto;*  
 how be.3SG.FUT.IND.ACT this.NOM.SG.N  
 ‘How will this be, (since I haven’t been with a man)?’ (Lk 1:34)
- b. Answer:  
*Pneûma hágion epeleúsetai*  
 spirit.NOM.SG.N holy.NOM.SG.N come.upon.3SG.FUT.IND.MID  
*epì sé kai dúnamis*  
 upon you.ACC.SG and power.NOM.SG.F  
*hupsístou episkiásei soi*  
 highest.GEN.SG.M shadow.3SG.FUT.IND.ACT you.DAT.SG  
 ‘The holy ghost will come upon you and the power of the highest will overshadow you.’ (Lk 1:35)
- c. Context in Greek and English:  
*εἶπεν δὲ Μαριὰμ πρὸς τὸν ἄγγελον, Πῶς ἔσται τοῦτο, ἐπεὶ ἄνδρα οὐ γινώσκω; καὶ ἀποκριθεὶς ὁ ἄγγελος εἶπεν αὐτῇ Πνεῦμα ἅγιον ἐπελεύσεται ἐπὶ σέ, καὶ δύναμις ὑψίστου ἐπισκιάσει σοι.*  
 ‘Then Mary said to the angel, How will this be, since I haven’t been with a man? And the angel answered and said to her, “The holy spirit will come upon you, and the power of the highest will overshadow you;”’ (Lk 1:34-35)

The question in (21a) is uttered by Mary, after the angel has told her a few verses above that she will bear a child named Jesus. She asks how this would come about, stating that she has not been with a man, which seems to add an element of surprise or disbelief. There are two answers to this question, given in (21b). The first does not contain a transitive verb, and so only the subject and verb are present, in the order SV. The second contains a transitive verb and the sequence is SVO. However, the object is the pronominal clitic *soi*.

Perhaps the question in (21a) is not an ideal broad focus question, since it is a rhetorical question. Nonetheless, the answer seems to take the question seriously.

### 4.3.3 Context 3: Introductions to parables

Many parables in the bible begin with the introduction of some unspecified person,

and the story told about him is used metaphorically, as a lesson. Introductions to parables are similar to out of the blue utterances, in that none of the arguments are known in the discourse. Out of the clauses that meet the criteria set out in Appendix 1, I have only found the order SVO in parable introductions in Matthew, Luke, First Corinthians and Revelation.

The SVO clause in (22) begins the parable of the Unwilling Guests (see also Lk 15:11, the introduction to the parable of the Prodigal Son).

- (22) SVO clause  
 ánt<sup>h</sup>ro:pós            tis                            epoíei  
 man.NOM.SG.M    INDEF.NOM.SG.M    make.3SG.IMP.F.IND.ACT  
 deîpnon                méga  
 dinner.ACC.SG.N    large.ACC.SG.N  
 ‘(And he said to him), “A certain man made a large dinner, (and invited many people, and he sent his slave on the hour of the feast to those who were invited to say, ‘Come, because it’s already ready’.”)’  
 (ὁ δὲ εἶπεν αὐτῷ), Ἄνθρωπός τις ἐποίει δείπνον μέγα, (καὶ ἐκάλεσεν πολλούς, καὶ ἀπέστειλεν τὸν δούλον αὐτοῦ τῇ ὥρᾳ τοῦ δείπνου εἰπεῖν τοῖς κεκλημένοις, Ἔρχεσθε, ὅτι ἤδη ἔτοιμά ἐστιν.) (Lk 14:16)

#### 4.3.4 Summary

In 4.3 I focused on identifying neutral clauses in Matthew, Luke, First Corinthians and Revelation. I have avoided contexts of comparison and contrast, and environments where an element is previously mentioned or salient in the discourse. I found that backgrounded clauses with subjects that refer to psychological states, and that are unresumed in the following discourse are good candidates. These alternate between SVO and VSO orders.

I’ve also found that the answer to a broad-focus question shows the SV(O) order, and that SVO occurs in introductions to parables, where all of the participants are new.

Therefore, both SVO and VSO appear in neutral contexts (although these are difficult to find), however O-initial, SOV and VOS clauses are not found in these contexts.

#### 4.4 Non-neutral clauses

This section focuses on the non-neutral clauses in Matthew, Luke, First Corinthians and Revelation. There are some pragmatically marked properties that can be generalized across the following word orders: OVS, OSV, SOV and SVO. VSO clauses are more difficult to classify in terms of markedness, as also noted in Friberg (1982: 192). VOS clauses are infrequent and there is no strong generalization concerning information structure that can be made concerning them.

#### 4.4.1 O-initial clauses

##### 4.4.1.1 The object has just been specified

Many O-initial clauses share the property of containing objects that are very salient in the discourse, just having been specified. These often carry demonstratives, such as examples (23) and (24) below.

- (23) OVS clause  

toútous	toùs	dó:deka	apésteilen
these.ACC.PL.M	D.ACC.PL.M	twelve	send.forth.3SG.AOR.IND.ACT
ho	Ie:soûs		
D.NOM.SG.M	Jesus.NOM.SG.M		

‘Jesus sent these twelve’ (Mt 10:5)  
Preceding context: Τῶν δὲ δώδεκα ἀποστόλων τὰ ὀνόματά ἐστιν ταῦτα· πρῶτος Σίμων ὁ λεγόμενος Πέτρος καὶ Ἀνδρέας ὁ ἀδελφὸς αὐτοῦ, καὶ Ἰάκωβος ὁ τοῦ Ζεβεδαίου καὶ Ἰωάννης ὁ ἀδελφὸς αὐτοῦ, Φίλιππος καὶ Βαρθολομαῖος, Θωμᾶς καὶ Μαθθαῖος ὁ τελώνης, Ἰάκωβος ὁ τοῦ Ἀλφαίου καὶ Θαδδαῖος, Σίμων ὁ Καναναῖος καὶ Ἰούδας ὁ Ἰσκαριώτης ὁ καὶ παραδοὺς αὐτόν.  
‘And the names of the twelve apostles are these; The first, Simon, who is called Peter, and Andrew his brother; James the son of Zebedee, and John his brother; Philip, and Bartholomew; Thomas, and Matthew the publican; James the son of Alphaeus, and Lebbaeus, whose surname was Thaddaeus; Simon the Canaanite, and Judas Iscariot, who also betrayed him.’

Example (23) was shown as (4) above, here given with the preceding context in Greek and English. The context is a listing of the names of the twelve apostles, to which the object in (23) refers. Here the resumptive topic function is particularly clear as it follows a list.

The OSV clause from (6) above also has an object that contains a demonstrative pronoun. It is repeated in context in (24). The object *taûta pánta* ‘all these things’ refers to the things just mentioned: the things the addressee will eat and drink.

- (24) OSV clause  

taûta	gàr	pánta	tà	ét <sup>h</sup> ne:
these.ACC.PL.N	PCL	all.ACC.PL.N	D.NOM.PL.N	nation.NOM.PL.N
toû	kósmou	epize:toûsin		
D.GEN.SG.M	world.GEN.SG.M	seek.3PL.PRES.IND.ACT		

‘(And you, do not seek what you will eat, and what you will drink, and do not be uncertain.) For, the nations of the world seek all these things.’  
(καὶ ὑμεῖς μὴ ζητεῖτε τί φάγητε καὶ τί πίνητε, καὶ μὴ μετεωρίζεσθε· ταῦτα γὰρ πάντα τὰ ἔθνη τοῦ κόσμου ἐπιζητοῦσιν· (Lk 12:30)

#### 4.4.1.2 The object is preceded by the particle *kaí*

The other property of objects in O-initial clauses is that they are emphasized, vaguely speaking. A well-known device for emphasis in old Greek is the placement of the focus particle *kaí* directly before the emphasized thing (see Smyth 1984: §2881; Denniston 1954: 323-24). For now, I refer to *kaí* as an additive focus particle (on this notion, see König 1991), but I will refine this later in Chapter 4. Aside from its use as an additive particle, *kaí* is a conjunction initiating clauses and conjoining constituents, meaning “and”.

In the OSV clause in (25), the object is directly preceded by *kaí*.

- (25) OSV clause  
 hoúto:s kaì tà toû t<sup>h</sup>eoû  
 thus also D.ACC.PL.N D.ACC.PL.N god.ACC.PL.N  
 oudeìs éгно:ken  
 no-one.NOM.SG.M know.3SG.PERF.IND.ACT  
 ‘(For, what man knows the things of man, except the spirit of a man  
 which is in him?) Thus, also the things of God no man knows, (except  
 the spirit of God).’  
 (τίς γὰρ οἶδεν ἀνθρώπων τὰ τοῦ ἀνθρώπου εἰ μὴ τὸ πνεῦμα τοῦ  
 ἀνθρώπου τὸ ἐν αὐτῷ;) οὕτως καὶ τὰ τοῦ θεοῦ οὐδεὶς ἔγνωκεν (εἰ  
 μὴ τὸ πνεῦμα τοῦ θεοῦ.) (1 Cor 2:11)

In this instance, *kaí* is not sentence initial, so it is not a conjunction. It directly precedes the object *tà toû t<sup>h</sup>eoû* “the things of God”, emphasizing it. Accordingly, the object is compared to a previously stated and structurally alike object, “the things of man”.

#### 4.4.2 SOV clauses

There is a strong tendency for SOV clauses to have emphasized objects. It is difficult to determine the precise nature of the emphasis, but there are a couple of properties that many SOV clauses share, and they seem to be related to focus. These are discussed in the following three subsections. Another generalization concerning SOV clauses is that they are frequently found with the lexical verbs *ék<sup>h</sup>o*: “have” and *poiéo*: “do”, as discussed in 4.4.2.4.

##### 4.4.2.1 The object contains a reflexive

Particularly in First Corinthians, many SOV clauses show the same pattern of having an object that contains either the adjective (*ho*) *ídios* “one’s own”, or the reflexive pronoun *heautoû* “of his/her own”.<sup>25</sup>

<sup>25</sup> Of the 13 SOV clauses I have found in First Corinthians, 7 show this trait. Aside from the three above, the citations are 3:8, 7:4 (containing two tokens), and 10:24.

An example with *ídios* is given in (26). In (26), the subject is the strong quantifier *hékastos*. Specifically, this quantifier can only have a distributive reading like “each”. In (26), the quantifier has scope over the object, *tò ídion deîpnon* “his own dinner”.

- (26) *hékastos*      *gàr*      *tò*      *ídion*      *deîpnon*  
 each.NOM.SG.M PCL D.ACC.SG.N own.ACC.SG.N dinner.ACC.SG.N  
*prolambáneì*  
 take.first.3SG.PRES.IND.ACT  
 ‘For, each man first takes his own dinner (during eating).’  
 ἕκαστος γὰρ τὸ ἴδιον δεῖπνον προλαμβάνει (ἐν τῷ φαγεῖν)  
 (1 Cor 11:21)

The two clauses in (27) show similar semantics and the same word order as the one in (26). Both subjects are forms of the distributive strong quantifier *hékastos*. The objects in this case contain the reflexive pronoun *heautoû* “of his/her own”.

- (27) *hékastos*      *tè:n*      *heautoû*      *gunaîka*  
 each.NOM.SG.M D.ACC.SG.F own.ACC.SG.F wife.ACC.SG.F  
*ek<sup>h</sup>éto:*      *kaì*      *ekáste:*      *tòn*  
 have.3SG.PRES.IMPV.ACT and each.NOM.SG.F D.ACC.SG.M  
*heautoû*      *ándra*      *ek<sup>h</sup>éto:*  
 own.GEN.SG.M husband.ACC.SG.M have.3SG.PRES.IMPV.ACT  
 ‘(Because of immoralities), let each man have his own wife, and let each woman have her own husband.’  
 (διὰ δὲ τὰς πορνείας) ἕκαστος τὴν ἑαυτοῦ γυναῖκα ἔχέτω, καὶ  
 ἐκάστη τὸν ἴδιον ἄνδρα ἔχέτω.  
 (1 Cor 7:2)

The reflexive adjectives in (26) and (27) emphasize the possessa. Reflexives such as these are often called emphatic reflexives, or pronominal intensifiers in the literature (see König & Gast 2004). I return to this issue in Chapter 4.

#### 4.4.2.2 The object is preceded by *kaí*

As mentioned above in 4.4.1.2, *kaí* is a conjunction, “and”, as well as an additive focus particle, meaning “also” or “even”. Two instances of *kaí* in the sequence of *kaí-X kaí-Y*, is used to mean “both X and Y”, or “not only X but Y” (see Smyth 1984: §2877; Denniston 1954: 323-24).

In the SOV clause in (28) from First Corinthians, the object *tòn kúrion* “the lord” is directly preceded by *kaí*. In the following clause (which is not glossed) the object *he:mâs* “us” is also preverbal, and preceded by *kaí*.

- (28) ho t<sup>h</sup>eòs kai tòn kúrion  
 D.NOM.SG.M god.NOM.SG.M also D.ACC.SG.M lord.ACC.SG.M  
 é:geiren  
 wake.3SG.AOR.IND.ACT  
 ‘And God has awoken both the Lord (and will wake us up too, by his power).’  
 ó δὲ θεὸς καὶ τὸν κύριον ἤγειρεν (καὶ ἡμᾶς ἐξεγερεῖ διὰ τῆς  
 δυνάμεως αὐτοῦ.) (1 Cor 6:14)

It is not entirely clear whether the two *kai*’s are to mean “both X and Y” or whether the first is an additive focus particle and the second a regular conjunction, that is “God raised up both the lord, and he will raise us up [too]”, or whether it is to mean “God raised up even the lord, and he will raise us up”.

Regardless of which is the more adequate translation, there is clearly some kind of emphasis on the preverbal O *tòn kúrion* “the lord”.

#### 4.4.2.3 The object contains *ho autós*, “the same”

As shown above, reflexive pronouns and adjectives are common in SOV orders, and the objects carry emphasis that seems to be related to focus. Some other SOV clauses include the pronominal form *autós*, accompanied by at least a D, (*ho autós*) meaning “the same x”.

The subject in (29) is the strong quantifier *pántes* “all people”, or “everyone”. The object contains the pronominal *autós* “the same”, along with the definite article, the adjective *pneumatikòn* “spiritual” and the noun *brô:ma* “food”. This means something like “the same spiritual food”.

- (29) kai pántes tò autò  
 and every.NOM.PL.M D.ACC.SG.N same.ACC.SG.N  
 pneumatikòn brô:ma ép<sup>h</sup>agon  
 spiritual.ACC.SG.N meat.ACC.SG.N eat.3PL.AOR.IND.ACT  
 ‘And everyone ate the same spiritual food’  
 καὶ πάντες τὸ αὐτὸ πνευματικὸν βρῶμα ἔφαγον (1 Cor 10:4)

The clause in (29) is directly followed by the one in (30). The word order difference is that the head noun of the object DP, *póma* “drink” occurs postverbally.

- (30) kai pántes tò autò  
 and every.NOM.PL.M D.ACC.SG.N same.ACC.SG.N  
 pneumatikòn épion póma  
 spiritual.ACC.SG.N drink.3PL.AOR.IND.ACT drink.ACC.SG.N  
 ‘And everyone drank the same spiritual drink’  
 καὶ πάντες τὸ αὐτὸ πνευματικὸν ἔπιον πόμα (1 Cor 10:4)

This is an interesting case, since part of the object is preverbal and part of it postverbal. For this reason, I did not include it in my preliminary survey (see

Appendix 1, Section III). As I show in Chapter 5 and Chapter 6, discontinuous constituents are common in *wh*-questions and relative clauses. Displacement of the *wh*-word or relative pronoun leaves the NP in its canonical position. By analogy, the NP in (30) marks the ‘base position’ of the objects.

#### 4.4.2.4 SOV with “have” and “do”

Friberg (1982: 181-82) and Davison (1989: 7) note that OV orders are particularly common with the verbs *ék<sup>h</sup>o*: “have”, “hold” and *poiéo*: “do”, “make”. As Friberg discusses, the high frequency of OV orders with *ék<sup>h</sup>o*: is partly due to many instances of phrases such as *k<sup>h</sup>reían ék<sup>h</sup>o*: “have need”, or “need”. As noted in Appendix 1, section II, I have not included these instances in my survey of main clause word orders.

Disregarding instances of complex predicates with *ék<sup>h</sup>o*: and focusing on only the clauses fitting the criteria laid out in Appendix 1, I do find quite a few SOV clauses with *ék<sup>h</sup>o*: and *poiéo*: in Matthew, Luke, First Corinthians and Revelation. An example of each is given in (31) and (32).

In (31), the verb *poiéo*: takes an object consisting of *tò autò* “the same thing”. This same thing being referred to is introduced in the previous discourse, doing good for those who do good for you.

- (31) SOV clause with *poiéo*:, “do”, “make”  
 kaì hoi hamarto:loi  
 also D.NOM.PL.M sinner.NOM.PL.M  
 tò autò poioûsin  
 D.ACC.SG.N same.ACC.SG.N do.3PL.PRES.IND.ACT  
 ‘(And if you do good for those who do good for you, what kind of grace do you have?) Sinners also do the same’.  
 (καὶ [γάρ] ἐὰν ἀγαθοποιήτε τοὺς ἀγαθοποιούντας ὑμᾶς, ποία ὑμῖν χάρις ἐστίν;) καὶ οἱ ἁμαρτωλοὶ τὸ αὐτὸ ποιοῦσιν. (Lk 6:33)

Notice that in (31), the subject is preceded by *kaí*, and is therefore also marked, as discussed above in 4.4.2.2 and 4.4.1.2.

Example (32) shows an SOV clause with *ék<sup>h</sup>o*: “have”. It occurs in a series of statements that compares foxes, birds and the son of man, in terms of the homes that they possess. It is specified that foxes have hole and birds have nests, and it is stressed that the son of man has nowhere to lay his head.

- (32) SOV clause with *ék<sup>h</sup>o*: “have”, “hold”  
 hai aló:pekes p<sup>h</sup>o:leous ék<sup>h</sup>ousin  
 D.NOM.PL.F fox.NOM.PL.F hole.ACC.PL.M have.3PL.PRES.IND.ACT  
 ‘The foxes have holes (and the birds of the air nests; but the son of man has nowhere to lay his head).’  
 Αἱ ἀλώπεκες φωλεοὺς ἔχουσιν (καὶ τὰ πτεινὰ τοῦ οὐρανοῦ κατασκηνώσεις, ὁ δὲ υἱὸς τοῦ ἀνθρώπου οὐκ ἔχει ποῦ τὴν κεφαλὴν κλίνει.) (Mt 8:20)

One proposed explanation for the high occurrence of OV with both *ék<sup>h</sup>o:* and *poiéo:* is that these verbs are “semantically and impressionistically bland” (Friberg 1982: 181-82). They are there only to fill the grammatical function of connecting the subject and object.

It would be appealing to link the co-occurrence of “have” and “do” with SOV orders to the other observation about SOV clauses; that they often involve focus on the object. In my view, the examples in (31) and (32) are possible under a Topic-Focus interpretation. However, it is not possible to tell without access to intonation.

#### 4.4.3 Non-neutral SVO clauses

As I mentioned in Section 3, Davison (1989) and Friberg (1982) point out that many SVO clauses are pragmatically marked through subject topicalization. This was the major motivation for Friberg’s conclusion that NT Greek is a VSO language, and for Davison’s claim that both SVO and VSO are basic word orders.

Many SVO clauses are marked through contrast with parallel clauses. Some subjects in SVO clauses have similar status to objects in O-initial clauses, namely that they refer to just mentioned discourse entities. Finally, some subjects in SVO sentences are preceded by the particle *kaí*.

##### 4.4.3.1 Contrast with parallel clauses

The example in (33) illustrates an SVO clause in a contrastive environment, where two generic statements are contrasted with each other.

- (33) S-PP-V-O
- |                              |               |               |                                 |
|------------------------------|---------------|---------------|---------------------------------|
| ho                           | agathòs       | ánthro:pos    |                                 |
| D.NOM.SG.M                   | good.NOM.SG.M | man.NOM.SG.M  |                                 |
| ek                           | toû           | agathoû       | t <sup>h</sup> e:sauroû ( ... ) |
| from                         | D.GEN.SG.M    | good.GEN.SG.M | treasure.GEN.SG.M               |
| prop <sup>h</sup> érei       | tò            | agathón       |                                 |
| bring.3SG.PRES.IND.ACT       | D.ACC.SG.N    | good.ACC.SG.N |                                 |
| kaì                          | ho            | pone:ròs      | ek toû pone:roû                 |
| and                          | D.NOM.SG.M    | evil.NOM.SG.M | from D.GEN.SG.M evil.GEN.SG.M   |
| prop <sup>h</sup> érei       | tò            | pone:rón      |                                 |
| bring.forth.3SG.PRES.IND.ACT | D.ACC.SG.N    | evil.ACC.SG.N |                                 |
- ‘The good man brings forth a good thing out of the good treasure (of heart). And the evil man brings forth evil from the evil one.’  
 ὁ ἀγαθὸς ἄνθρωπος ἐκ τοῦ ἀγαθοῦ θησαυροῦ (τῆς καρδίας)  
 προφέρει τὸ ἀγαθόν, καὶ ὁ πονηρὸς ἐκ τοῦ πονηροῦ προφέρει τὸ  
 πονηρόν· (Lk 6:45; Mt 12:35)

In this example, both the subjects and objects and the PPs are in direct contrast:

good versus evil.<sup>26</sup> The clauses are parallel in terms of word order. The subjects *ho agathòs ánthro:pos* “the good man” and *ho pone:ròs* “the evil man” are initial, followed by the PPs, followed by the VO sequences.

#### 4.4.3.2 The subject has just been specified

SVO clauses are common when the S has just been identified as belonging to a set. Often, a set of entities is introduced as such and then particular members of the set are individually predicated.

A good example of this is the genealogy list at the beginning of Matthew. The clause in (34) was given in the introduction illustrating an SVO clause ((1) above). Here it is given in context.

- (34) SVO clause  
 Abraàm                      egénne:sen  
 Abraham.NOM.SG.M      beget.3SG.AOR.IND.ACT  
 tòn                      Isaák  
 D.ACC.SG.M      Isaac.ACC.SG.M  
 ‘(This is the book of the genealogy of Jesus Christ, the son of David, the son of Abraham.) Abraham was the father of Isaac (and Isaac the father of Jacob).’  
 (Βίβλος γενέσεως Ἰησοῦ Χριστοῦ υἱοῦ Δαυὶδ υἱοῦ Ἀβραάμ.)  
 Ἀβραάμ ἐγέννησεν τὸν Ἰσαάκ, (Ἰσαάκ δὲ ἐγέννησεν τὸν Ἰακώβ.)  
 (Mt 1:1-2)

The book of Matthew begins with the clauses given under the glossed example in (34). The first clause introduces the book as representing the genealogy of Jesus Christ, who is first specified as being the son of David, and then the son of Abraham. Following this, the complete list is given in chronological order. Abraham is the first to have a son, Isaac. Each clause resumes the object from the previous clause as its subject, ending with David, who begot Jesus. As such, each subject has just been mentioned in the discourse. As mentioned in section 4.2, the list of clauses all appear with SVO orders.

Revelation, Chapter 16 is another environment in which a list of SVO clauses are found, whose subjects have just been introduced as a set. The chapter begins with the following verse, given in Greek and English:

<sup>26</sup> The clauses in (33) appear following a statement about a tree and its fruit. The message is taken to be that just as a tree is known by its fruit, a man is known by the fruits of his labour.

## (35) Revelation 16:1

Καὶ ἤκουσα μεγάλης φωνῆς ἐκ τοῦ ναοῦ λεγούσης τοῖς ἑπτὰ ἀγγέλοις, Ὑπάγετε καὶ ἐκχέετε τὰς ἑπτὰ φιάλας τοῦ θυμοῦ τοῦ θεοῦ εἰς τὴν γῆν.

‘And I heard a great voice out of the temple saying to the seven angels, Go your ways, and pour out the vials of the wrath of God upon the earth.’

The seven angels are already known in the discourse from the preceding chapters. In the verses that follow the one in (35), each of the seven angels empties his ‘vial (of the wrath of God)’ in various places on the earth. All of these clauses appear with SVO orders, such as the clause in (36).

- (36) καὶ ὁ δεύτερος ἐχέῃεν  
 and D.NOM.SG.M second.NOM.SG.M pour.3SG.AOR.IND.ACT  
 τὸν φιάλην αὐτοῦ  
 D.ACC.SG.F vial.ACC.SG.F his.GEN.SG.M  
 ‘And the second one poured out his vial (into the sea).’  
 Καὶ ὁ δεύτερος ἐξέχεεν τὴν φιάλην αὐτοῦ (εἰς τὴν θάλασσαν)  
 (Rev 16:3)

The subjects in (34) and (36) most closely resemble contrastive topics, as I discuss in Chapter 4.

#### 4.4.3.3 The subject is preceded by *καί*

As discussed in 4.4.1.2 and 4.4.2.2 respectively, objects in SOV and O-initial clauses are often found directly preceded by the particle *καί*, as a form of emphasis. The same is true of subjects in some SVO clauses. An example is given in (37).

- (37) ὁ:σαῦτο:s δὲ καὶ οἱ ἑπτὰ  
 likewise PCL also D.NOM.PL.M seven  
 οὐ κατέλιπον τέκνα  
 NEG leave.3PL.AOR.IND.ACT child.ACC.PL.N  
 ‘(For, there were seven brothers. And the first one took a wife and died, childless. And the second, and the third took her.) And likewise, the seven also did not have children, (and they died).’  
 (ἑπτὰ οὖν ἀδελφοὶ ἦσαν· καὶ ὁ πρῶτος λαβὼν γυναῖκα ἀπέθανεν ἄτεκνος· καὶ ὁ δεύτερος καὶ ὁ τρίτος ἔλαβεν αὐτήν,) ὡσαύτως δὲ καὶ οἱ ἑπτὰ οὐ κατέλιπον τέκνα καὶ ἀπέθανον. (Lk 20:31)

The discussion around (37) is about seven brothers who each had the same wife and all ended up dying with no children. First the brothers are introduced, creating a contrast set. Then, a statement is made about the members. The glossed example is the last of these. In addition to the fact that *καί* appears as an additive particle preceding the subject, the clause is initiated with the comparative adverb *ὁ:σαῦτο:s* “likewise”.

#### 4.4.4 Summary of marked properties across word orders

Table 5 is a summary of the marked properties of various word orders that I mentioned in this subsection. The table takes into consideration all of the clauses in my sample, not just the clauses illustrated above. For example, VOS clauses are included, although I haven't discussed them, since the one cited in the table (Lk 16:14) is the only one that clearly shows this property. The "Yes" cells include either references to representative examples that I have shown in this section, or citations of clauses that I have not yet illustrated. I discuss the latter in Chapters 3 and 4. Note that the "Yes" cells do not contain citations to all attested examples displaying a given property, only to at least one representative of that property. The "No" cells mean that none of the clauses in my sample display this property.

	SVO	SOV	OVS	OSV	VSO	VOS
S is emphasized	Yes (37)	No	Yes (1 Cor 12:11)	No	No	No
O is emphasized	No	Yes (26)- (29)	Yes (Lk 2:35)	Yes (25)	No	No
S is just specified	Yes (34), (36)	No	No	No	No	No
O is just specified	No	No	Yes (23)	Yes (24)	No	Yes (Lk 16:14)
Contrast with parallel clauses	Yes (33)	Yes (15)	No	No	No	No

**Table 5: Summary of marked properties across word orders**

In Table 5, I have compiled all forms of emphasis discussed in 4.4. These were further distinguished as follows. In SOV orders, the object is emphasized either with *kaí*, an emphatic reflexive, or emphatic *ho autós* "the same". In O-initial clauses, the object is emphasized either with *kaí*, or *ho autós* (see Lk 2:35 for an example of the latter). In SVO orders, subject is found emphasized with *kaí* (example (37)), as well as *ho autós* (see Mt 3:4).

A subject or object being just specified refers to the specific instances outlined in 4.4.1.1 and 4.4.3.2. An element is just specified if it has just been explicitly introduced. In some cases, it refers back to a list just made (examples (23) and (24)), and some cases it picks out members from an established set (examples (34) and (36)). It may or may not contain a demonstrative pronoun.

It is important to note that not every clause that has the word order sequence associated with marked properties very evidently shows that marked property. The strategy in this section has been to collect a large number of eligible clauses and look for the most revealing clauses with respect to information structure. Clauses that are revealing of markedness tend to carry specific lexical items, for example,

reflexive pronouns in the case of emphatic reflexives, or the particle *kaí* when the argument is emphasized additively. The same goes for object-initial clauses. Some instances are clearer than others. In a context like the one around example (23), where the referent of the object refers to a just mentioned list, and there is a demonstrative pronoun included in the constituent, the resumptive topic function of the preverbal object is very clear.

#### 4.5 Section summary

In Section 4, I showed the breakdown of word orders found in Matthew, Luke, First Corinthians and Revelation, according to the syntactic criteria laid out in 4.1 and Appendix 1. I found that SVO and VSO are both common orders in Matthew, Luke and Revelation. First Corinthians contains no VSO clause, but many SVO and SOV clauses. I took the lack of VSO in First Corinthians to be coincidental, and assumed that the order is grammatical in Paul's dialect. This is consistent with the methodology I employ, in not regarding frequency of occurrence as an indication of basicness.

In 4.3 I attempted to identify a neutral sentence. To avoid the possibility of topicalization or focusing of the subject, I looked at clauses uttered in the middle of narratives, whose subjects are psychological states. They are not resumed in later discourse nor previously mentioned, and are not under comparison or contrast. These kinds of sentences come in both SVO and VSO orders. In an attempt to distinguish between the two, I sought out a broad focus question answer pair. The question was not the most typical question answer pair. The answer showed the SV(O) order.

In 4.4 I discussed the ways in which SVO, SOV, OVS and OSV clauses are pragmatically or otherwise marked. The pragmatically marked properties characteristic of these word orders are summarized in Table 5 above. As seen from the table, none of the characteristics are found in VSO clauses.

In the discussion of SOV, I also mentioned the fact that SOV orders are common with the lexical verbs *ek<sup>h</sup>o*: "have" and *poie:o*: "do", noted in Friberg (1982) and Davison (1989). Of course, clauses with these lexical verbs are often found also in various other orders, so it is not a distributional restriction. I noted that this tendency may also be due to information structure. I return to this in Chapter 3.

### 5 Conclusions

A minor conclusion that I reached in discussing previous research concerns methodology. As I discussed in Section 2, there is no strong consensus as to how basic word order should be defined, and this becomes apparent particularly in languages with a lot of word order variation, even within one clause type. The lack of consensus in previous work regarding basic word order in NT Greek, as discussed in Section 3, illustrates the difficulty. It was noted that the results concerning frequency of occurrence of word orders differ, based on which clauses are counted

in the surveys. When a lot weight is placed on frequency, as in Terry (1993) and Taylor (1994), the precise properties of the clauses considered become very important.

My investigation of main clauses in Matthew, Luke, First Corinthians and Revelation in Section 4 leads me to the conclusion that the frequency with which an order occurs does not correspond to its status as neutral or non-neutral. That is to say, if a word order occurs with a very high frequency, it is not necessarily a neutral order. This is witnessed by the high number of SOV clauses in First Corinthians that have marked objects (see Subsection 4.4.3), as well as the high number of SVO clauses in the genealogy list at the beginning of Matthew (see Subsection 4.2), in which the subjects are pragmatically marked (see Subsection 4.4.3.4). This conclusion is relevant to the methodological concerns brought forth by Dryer (1995) and Brody (1984) concerning basic word order, as I discussed in Section 2.

Another conclusion from this investigation is that SVO and VSO both occur in neutral environments, where neither the subject nor the object is topic or focus material (see Subsection 4.3).

The next conclusion is that many SVO, SOV, OVS and OSV clauses have marked characteristics that can be generalized, as discussed in Subsection 4.4, and summarized in Table 5. However, it is important to note that not every clause with these word orders clearly displays the marked properties, and that some of the properties are found across various word orders.

Therefore, an important conclusion is that it is not possible to isolate a single NT Greek surface word order, as such, as neutral. For example, as I showed in Subsection 4.3, SVO clauses appear in neutral environments, however as illustrated in 4.4.3, some SVO clauses have pragmatically marked properties (a fact already noted in Friberg 1982 and Davison 1989).

If I were to claim, like Friberg, that VSO is the basic or neutral word order, it is difficult to account for neutral SVO sentences such as those in (17), (21b) and (22) in subsection 4.3. If, on the other hand, I made the claim that SVO is the basic order, it makes VSO orders very difficult to explain, since they do not show any particular type of markedness (see the discussion in Friberg 1982:119). I could conclude, like Davison, that the basic (or neutral) order is an SVO-VSO alternation. That is what the data in (16) and (17) suggest. However, leaving the story like this leaves the duality of SVO unexplained. Why is SVO both neutral and non-neutral?

To carry the basic word order issue further, it is useful to make a distinction between surface positions and syntactic positions. One surface word order can be derived in a variety of ways. This can account for the fact that some surface SVO clauses are pragmatically neutral and some are marked. A neutral SVO clause is the result of a configuration in which discourse features such as topic and focus are not there. A different syntactic configuration that involves discourse features which, according to the assumptions I adopt, drive syntactic movement, results in a non-neutral SVO clause. Considering only surface word order, we cannot properly distinguish neutral from non-neutral orders. The next chapter evaluates the generalizations from a syntactic perspective.

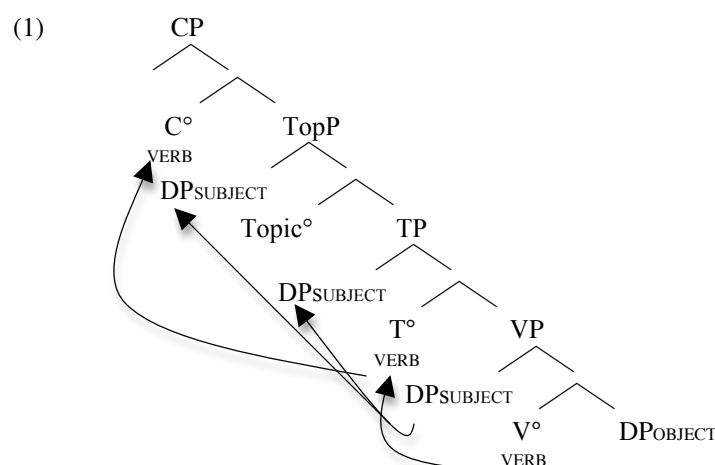
## Chapter 3. The VSO-SVO alternation

### 1 Introduction

In the last chapter I have shown that VSO and SVO clauses constitute neutral clauses in NT Greek, where neutral clauses correspond to clauses in which no arguments are topic or focus material. Other word orders were shown to have particular characteristics typically associated with pragmatic markedness. These include SOV and O-initial clauses. In some instances, the marked properties of objects in O-initial strings were shown to be similar to subjects in some SVO clauses. SVO clauses were shown to be either neutral or non-neutral.

In this Chapter, and in Chapter 4, I examine the relation between linear strings and hierarchical structure. I assume the basic tripartite division of clause structure into the lexical domain, VP, the inflectional domain, TP and the Left Periphery, CP, as introduced in Chapter 1. The focus of this Chapter is the VSO-SVO alternation, where I am mostly concerned with the syntactic positions that subjects and verbs occupy in these surface strings, while Chapter 4 deals with the positions of constituents in the marked word orders. Note that the examples illustrated in this chapter and in Chapter 4 are not all included in the preliminary survey of clauses in Chapter 2. Rather, they come from all over the NT, and I illustrate particular sequences to argue certain points.

Verbs and subjects are both found in more than one surface position, as illustrated in (1). Verbs are first merged in the lexical domain,  $V^\circ$ , and move systematically to  $T^\circ$ . In some instances, verbs surface in this position, and in others they raise further to  $C^\circ$ . Subject DPs surface in three distinct positions: in their VP-internal base position, in the Specifier of the Tense Phrase, Spec,T, and in the Specifier of a dislocated Top(ic) Phrase, Spec,Top.



Section 3 of this chapter focuses on verb movement. The fact that V to T raising always takes place is suggested by the following two theoretical considerations. The NT Greek verbal inflection paradigm shows distinctions for all persons and numbers, and NT Greek is a pro-drop, or null subject language. This property is related cross-linguistically to V to T raising, which is the correlation behind the Rich Agreement Hypothesis (see Rohrbacher 1999; Koenenman 2000; Bobaljik 2002). NT Greek also shows a large variety of synthetic tense-mood-voice distinctions, a phenomenon which has recently been suggested to correspond to V to T raising (Biberauer & Roberts 2010).

The surface position of the verb is determined based on its position with respect to adverbs and particles, which I use as landmarks to distinguish the VP from the TP domain, and the TP from the CP. For example, the modal particle *án* is used to distinguish TP from CP, and the fact that verbs are found following *án* suggests that they are in T°. Verb raising to C° is suggested by the fact that verbs are found preceding the evidential/inferential particle *ára*, which, as I show, must be in the CP domain. Based on the fact that verbs raise to T systematically, but not to C systematically, I speculate that the driving force behind V to C movement is discourse driven. This would form a parallel with Modern Greek, where V to C movement corresponds to focus stress on the verb (see Roussou & Tsimpli 2006). However, this can't be tested for NT Greek, with no access to intonation.

In Section 4, I discuss subject positions. In VS orders, subjects follow adverbs that modify the VP, and they follow shifted object pronouns, in VOS orders. These facts indicate that they do not raise from the VP. The fact that subjects can stay in their base position raises the interesting question of why (and to where) subjects do raise, in SVO strings. If subjects do not have to raise to Spec,T for structural purposes relating to Case or person/number features, and if the canonical subject position, Spec,T does not have to be overtly filled, there is a question of whether it is projected at all. Alexiadou & Anagnostopoulou (1998) argue that this projection is not activated in Modern Greek, as well as in some Romance languages that allow null and postverbal subjects. Under this analysis, all preverbal subjects are left-dislocated, in the Spec,Top projection in Figure 1. This is a claim which has been refuted for many of the Romance languages (see Costa 1998, 2004; Goodall 2001; Cardinaletti 1997; Sheehan 2010).

As I showed in Chapter 2, SVO can be a neutral order in NT Greek, which would suggest that not all preverbal subjects are topicalized, according to the proposed definition of the derivation of a neutral clause given in (12) in Chapter 2, repeated here as (2).

(2) Derivation of a neutral clause:

A clause in which no element is derived through topic or focus movement.

Yet, as I show in Section 4, it is difficult to find preverbal subjects in the Spec,T position. Even subjects that one would expect to occupy Spec,T rather than Spec,Top, such as negative quantifiers, and indefinites are shown to be located higher than Spec,T. Furthermore, there is no evidence for the presence of a null expletive in VS orders, or clauses with no overt subjects, suggesting that Spec,T is

not occupied by a null element. These facts suggest that the Spec,T position is only optionally projected, to host a preverbal subject that is not a topic or focus. This corresponds to the fact that SV and VS clauses occur under the same conditions, with no apparent difference in meaning. Neutral clauses have a derivation in which the subject is in Spec,V (in VS orders), or in Spec,T (in SV orders). Non-neutral clauses host subjects in a dislocated position.

Before presenting the NT Greek facts and the proposed derivations for SVO and VSO orders, I first give an introduction to the notion of a VSO-SVO alternation, illustrating briefly the way in which it instantiates in Modern Standard Arabic and Modern Greek.

## 2 Introduction to the VSO-SVO alternation

An SVO-VSO predominant word order alternation is commonly attested cross-linguistically. This generalization is partly captured by Greenberg's (1966:79) sixth language universal, given in (3).

- (3) All languages with dominant VSO order have SVO as an alternative or as the only alternative basic order.

Some examples of VSO languages that Greenberg lists are Welsh, Hebrew and Berber (Greenberg 1966:Appendix II). Some of these characterizations are refuted in more theoretically oriented literature, and for some, the statement that they have a *basic* SVO alternate is refuted. For example, as Doron (2000) discusses, Modern Hebrew is an SVO language, while Biblical Hebrew was VSO, with SVO as an alternate. Furthermore, Greenberg classifies Modern Greek as an SVO language, while currently scholars say that it is VSO (see Roussou & Tsimpli 2006; Alexiadou & Anagnostopoulou (1998).

Other languages that Greenberg does not mention, but which display the VSO-SVO alternation are Arabic and Modern Greek, which I discuss below.

### 2.1 The VSO-SVO alternation in Arabic

The basic word order of Arabic is usually described as VSO (see Fassi Fehri 1993). This is not uncontroversial, as it has been claimed that the basic order is SVO (Fassi Fehri 1993 gives references in note 9). A neutral VSO clause is given in (4), adapted from Fassi Fehri (1993:19).

- (4) kataba r-rajul-u            r-risaalat-a            MODERN STANDARD ARABIC  
      wrote the-man-NOM the-letter-ACC  
      haadaa    ş-şabaah-a  
      this       the-morning-ACC  
      'The man wrote the letter this morning.'

Arabic allows scrambling of the subject over the verb, as well as the object, as shown by the examples in (5) from Fassi Fehri (1993:20). If there is no overt case morphology on the nominals, as in (5a) and (5b), the interpretation corresponds to first argument being the subject, and the second the object. If there is overt case morphology, as in (5c), an object can linearly precede the verb and subject.

- (5) a. ntaqada ʕisaa mussaa MODERN STANDARD ARABIC  
criticized ʕisaa Muusaa  
'ʕisaa criticized Muusaa.'
- b. ʕisaa ntaqada muusaa  
ʕisaa criticized Muusaa  
'ʕisaa criticized Muusaa.'
- c. zayd-an intaqada muusaa  
Zayd-acc criticized Muusaa  
'Zayd, Muusaa has criticized.'

One famous property of Standard Arabic preverbal versus postverbal subjects is their difference in agreement patterns (see Mohammad 1990; Bahloul & Harbert 1993; Aoun, Benmanoun & Sportiche 1994; Harbert & Bahloul 2002).

Example (6), from Harbert & Bahloul (2002:45) shows that when a plural subject is postverbal, the verb only agrees with the subject in gender and not number (6a). This is referred to as weak agreement. When the plural subject is preverbal, both gender and number agreement occur on the verb, known as full agreement. Weak (only gender) agreement is ungrammatical (6b) in this order.

- (6) a. qadim-a (/ʔqadim-uu) al-ʔawlaadu. MODERN STANDARD ARABIC  
came-3MS came-3MPL the-boys-3MPL  
'The boys came.'
- b. ʔal-ʔawlaadu qadim-uu (/ʔqadim-a).  
the-boys-3MPL came-3MPL came-3MS  
'The boys came.'

Another asymmetry between pre- and postverbal subjects in Arabic concerns agreement with conjoined subjects. The phenomenon is known as closest conjunct agreement, or left conjunct agreement, illustrated in (7), from Doron (2000:77).

- (7) laʕibat maryam wa- zayd fi-l-bayt MODERN STANDARD ARABIC  
played-3FS Mariam-F and Zayd-M in-the-house  
'Mariam and Zayd played in the house.'

In the VS sequence in (7), the feminine subject Mariam is conjoined with the masculine subject Zayd. The agreement on the verb is feminine singular. Thus, the verb shows agreement with the left conjunct of the conjoined subject.

On the other hand, in SV sequences with conjoined subjects, verbs show dual agreement, and in the case of a combination of masculine and feminine genders, the agreement is always masculine, regardless of whether the feminine (8a) or the

masculine noun (8b) is closer linearly to the verb (the examples in (7) are from Harbert & Bahloul (2002:50)).

- (8) a. al-waladu wa ʔal-bintu xaraj-aa      MODERN STANDARD ARABIC  
       the-boy-M and the-girl-F left-MD  
       ‘The boy and the girl left.’  
       b. al-bintu wa ʔal-waladu xaraj-aa  
       the-girl-F and the-boy-M left-MD  
       ‘The boy and the girl left.’

This pattern of closest conjunct agreement with postverbal but not preverbal subjects is also a property of Irish and Welsh (see McCloskey 1986; Bahloul & Harbert 1992), Biblical Hebrew (see Doron 2000), among other languages.

## 2.2 The VSO-SVO alternation in Modern Greek

In Modern Greek (MG), all permutations of subject, verb and object are possible. This is shown in example (9), adapted from Phillipaki-Warbuton (2008: 1), where in all orders *o Janis*, ‘John’ is the subject and *ti Maria*, ‘Maria’ the object.

- (9) a. SVO      MODERN GREEK  
       o Janis filise ti Maria  
       the-NOM John-NOM kissed-3SG the-ACC Mary-ACC  
       ‘John kissed Mary.’  
       b. VSO  
       Filise o Janis ti Maria.  
       c. VOS  
       Filise ti Maria o Janis.  
       d. OVS  
       Ti Maria filise o Janis.  
       e. OSV  
       Ti Maria o Janis filise.  
       f. SOV  
       O Janis ti Maria filise.

MG is an interesting case with respect to the notion of basic word order, since, as I also mentioned in Chapter 2, both SVO and VSO have been claimed to be the basic word order of the language. As I mentioned above, Greenberg (1966: 107) includes MG as an example of an SVO language. Lescaratou (1989: 273) reports that traditional grammar books, citing Tzartanos’ Greek Grammar (1963: 273-277),

claim that the most neutral word order in main clauses is SVO.

Phillipaki-Warbuton (2008, and elsewhere), Tsimpli (1990), Roussou & Tsimpli (2006) argue that the basic order is VSO. Alexiadou (2006: 134) shows that VSO is the word order that is felicitous as the response to a wide focus question such as “What happened?”, as shown in (10). The response can be uttered with neutral intonation (Roussou & Tsimpli (2006:318)). Importantly, the SVO option is not an appropriate response.

- (10) What happened?  
 a. *molis espase o Janis tin kristalini lamba* MODERN GREEK  
     just broke the-John-nom the crystal lamp  
     ‘John just broke the crystal lamp.’  
 b. \**molis o Janis espase tin kristalini lamba*.

A question with narrow focus on the subject, such as “Who repaired my computer?” triggers an SVO response (Roussou & Tsimpli 2006, note 3), as shown in (11). Crucially, the VSO order is not a felicitous answer to this question.

- (11) Who repaired my computer?  
 a. *O Janis episkevas ton ipoljisti mu* MODERN GREEK  
     the John repaired the computer my  
     ‘John repaired my computer’.  
 b. \**Episkevas o Janis ton ipoljisti mu*.

Another interpretational difference between SVO and VSO is that in the former, the indefinite subject has to receive a specific interpretation, while in the latter, the subject can be either specific or non-specific, as reported in Alexiadou & Anagnostopoulou (1998:518).

- (12) a. *Ena pedhi deavase to “Paramithi horis Onoma.”* MODERN GREEK  
       a child read the “Fairy Tale without a Title”  
       ‘A certain child/one of the children read “Fairy Tale without a Title”.’  
 b. *Deavase ena pedhi to “Paramithi horis Onoma”*.

The preverbal subject in (12a) has a ‘strong’ partitive or specific interpretation, as shown by the translation. The postverbal subject in (12b) is noted to have a weak, existential interpretation, most naturally. The important generalization is that preverbal subjects always have a specific interpretation.

NT Greek shares many properties with Modern Greek. As we saw in Chapter 2, all word order permutations of subject, verb and object are attested in NT Greek. Like Modern Greek and unlike Arabic, there is no strong/ weak agreement contrast. Many other similarities come out from the sections to follow. The major difference seems to be that NT Greek would constitute a VSO language with an SVO alternative basic order, while SVO in Modern Greek is a marked order.

### 3 NT Greek verb positions

In this Section, I argue that finite verbs in NT Greek main clauses occur in  $T^{\circ}$  and in  $C^{\circ}$ . These are the two positions in which evidence can be shown to support. It is in theory possible that verbs target positions intermediary to these two (see Ledgeway & Lombardi 2005), however there is a lack of data containing the appropriate diagnostics, namely instances of ordered adverbials that could distinguish one intermediary projection from another, following Cinque (1999). In 3.2 I discuss the relationship between rich verbal inflection and verb raising to T. Particularly, rich person number agreement inflection, as well as a high degree of synthesis in the tense-mood-aspect system have been noted to correlate with verb raising to T.

In 3.3 I show, based on the respective position of verbs and adverbs that modify the VP, that verb raising occurs in NT Greek. I show that in many cases verb movement ends at T, based on the fact that verbs most often follow the modal particle *án*, which constitutes a landmark between the TP and CP domains. However, verbs are also found, although rarely, preceding *án*, suggesting that verbs can raise to  $C^{\circ}$ . There is a complication, however, since this particle displays second position effects, which could suggest that its placement is partly determined by phonological (post-syntactic) factors. The idea that V to C movement takes place is strengthened by the fact that verbs precede the non-second-position inferential particle *ára* ‘then’, or ‘therefore’.

I first provide some very general background on some proposed verb positions in the literature on VSO languages, in 3.1.

#### 3.1 Previous analyses of VSO word orders

There are many ways to derive a string where the verb precedes the subject, as in the Irish clause in (13) from McCloskey (2005:2).

- (13) Sciob an cat an t-eireaball den luch. MODERN IRISH  
cut the cat the tail off-the mouse  
‘The cat cut the tail off the mouse.’

There are two major strands of analysis of VSO word orders. One line of approach assumes head movement of the verb to either the C head position, or a head position in the T domain. The other approach does not assume head movement, but instead remnant XP movement following extraction of the subject and object (see, for example, Massam 2000, 2005; Bury 2010).<sup>27</sup>

In a head-movement approach, the verb can raise to  $T^{\circ}$  or to  $C^{\circ}$ . The oldest variety of the head movement approaches proposes verb movement to  $C^{\circ}$ , applied to the Celtic languages (Emonds 1980; Sproat 1985; Déprez & Hale 1986; Stowell 1989). This analysis generalizes the V to C operation in Germanic V2 languages,

<sup>27</sup> Another approach I haven’t mentioned in the main text is subject lowering into the VP (see, for example, Chung 1998, Chapter 4 concerning Chamorro).

proposed by den Besten (1983).

The V to T approach came about with various theoretical developments, such as the VP internal subject hypothesis (see Kuroda 1988; Sportiche 1988; Koopman & Sportiche 1991 for varying proposals for VP-internal subjects, and the discussion in McCloskey (1997, Section 6)), and the split INFL hypothesis (see Pollock 1989, Chomsky 1993). These developments made it possible to propose verb movement to only to a projection in the INFL (what I have been calling T) domain. There is robust literature arguing for this in Celtic (see, for example, Guilfoyle 1990; Bobaljik & Carnie 1996; McCloskey 1996b, 2001, 2005 for Irish; Roberts 2005 for Welsh). It is also the standard analysis of Arabic (for example, Fassi Fehri 1993; Benmamoun 2000; Harbert & Bahloul 2002) and Modern Greek (for example, Alexiadou & Anagnostopoulou 1998; Tsimpli 1990; Roussou & Tsimpli 2006).

As I discuss in 3.2.3 below, one indication that the verb raising seen in V2 Germanic languages such as German and Dutch is distinct from the one in the Celtic languages, Arabic and Greek, is that there is a root / non-root asymmetry in German and Dutch.<sup>28</sup> Verb movement to C occurs in main, but not subordinate clauses. The verb stays low in subordinate clauses, as shown by the Dutch subordinate clause in (14). In Celtic, Arabic and Greek, on the other hand, VSO is also found in subordinate clauses. The Irish subordinate clause in (15), from Harley, Carnie & Pyatt (2000:42) illustrates this.

- |      |   |              |
|------|---|--------------|
| (14) | <i>that</i> -S-O-V                          | MODERN DUTCH |
|      | Ik denk dat hij de hond heeft gezien.       |              |
|      | I think that he.NOM the dog has.3SG seen    |              |
|      | 'I think that he saw the dog.'              |              |
|      |   |              |
| (15) | <i>that</i> - V-S-O                         | MODERN IRISH |
|      | Ceapaim go bhfaca sé an madra.              |              |
|      | think.PRES.1SG that see.PAST he.NOM the dog |              |
|      | 'I think that he saw the dog.'              |              |

Complementizers are assumed to be C° elements. In Dutch, when the complementizer is present, V to C movement does not occur, which is originally why V to C movement was proposed for V2 languages. In Irish, on the other hand, when C° is filled with the complementizer, the verb still raises.

In summary, there seem to be different targets of movement for verbs across languages. A verb can raise to T° or to C°, and sometimes this is dependent upon the clause type.

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<sup>28</sup> I am leaving aside embedded verb second as found, for example, in North Germanic languages (see Vikner 1995).

### 3.2 Verb movement in NT Greek

In this subsection I first give five arguments for V to T raising in NT Greek, and one clear argument for V to C raising. Starting with V to T raising, the first two arguments concern the relationship between morphological properties of the verb and syntactic raising. NT Greek shows two properties typically associated with V to T movement: rich person and number agreement, and null subjects, or ‘pro-drop’. I discuss these properties in 3.2.1 and 3.2.2, respectively. In 3.2.2 I present a new proposal put forth by Biberauer & Roberts (2010) connecting null subjects and V to T movement. They suggest that the real driving force behind V to T movement is related to morphological properties of tense, rather than person and number. This hypothesis also predicts that NT Greek has V to T raising.

Another argument for V to T raising comes from placement facts. In 3.2.3 I use the respective position of adverbs and verbs as evidence for verb raising. In 3.2.4 I show that NT Greek allows verb initial subordinate clauses, which indicate that verb movement in NT Greek terminates at T. In 3.2.5 I examine the position of verbs with respect to the modal particle *án*. The placement facts indicate that verbs move either to T or to C.

In 3.2.6 I illustrate the distribution of another particle which occupies a C position. Verbs are found preceding this particle, indicating that they are in a C° position. Therefore, NT Greek has both V to T and V to C movement. While the motivation for V to T movement is taken to be related either to rich person and number agreement, or to rich tense synthesis, the motivation for V to C movement is not clear.

#### 3.2.1 The Rich Agreement Hypothesis

There is a long noted correlation between rich person and number inflection on verbs and V to T movement. The idea that the former is what causes the latter has been stated as the Rich Agreement Hypothesis (RAH) (see Vikner 1995, 1997; Rohrbacher 1999; Bobaljik & Thráinsson 1998; Koenenman 2000). This hypothesis has accounted for synchronic variation cross-linguistically, as well as diachronic variation. A synchronic example is the difference between Mainland Scandinavian dialects and Icelandic, with respect to the distribution of verbs and negation.

While Icelandic has relatively rich verbal inflection, showing differentiation across genders, numbers and tenses, Danish, a Mainland Scandinavian dialect only shows a distinction between tenses. The two paradigms in Table 1 below, from Bobaljik (2002:131) illustrate this for the verb “hear”.

	ICELANDIC: <i>heyra</i> ‘hear’		DANISH: <i>høre</i> ‘hear’	
	Present	Preterite	Present	Preterite
1 <sup>st</sup> SG	heyr- <b>i</b>	heyr- <b>ði</b>	hør- <b>er</b>	hør- <b>te</b>
2 <sup>nd</sup> SG	heyr- <b>ir</b>	heyr- <b>ði-r</b>	hør- <b>er</b>	hør- <b>te</b>
3 <sup>rd</sup> SG	heyr- <b>ir</b>	heyr- <b>ði</b>	hør- <b>er</b>	hør- <b>te</b>
1 <sup>st</sup> PL	heyr- <b>um</b>	heyr- <b>ðu-m</b>	hør- <b>er</b>	hør- <b>te</b>
2 <sup>nd</sup> PL	heyr- <b>ið</b>	heyr- <b>ðu-ð</b>	hør- <b>er</b>	hør- <b>te</b>
3 <sup>rd</sup> PL	heyr- <b>a</b>	heyr- <b>ðu</b>	hør- <b>er</b>	hør- <b>te</b>

Table 1: Agreement paradigms of Icelandic and Danish

The difference between Icelandic and Danish respective word order of verbs and negation is shown in (16), taken from Bobaljik (2002: 130), from Platzak (1986: 209). The examples are subordinate clauses, in order to avoid V2 contexts where V is in C.

- (16) a. ... að hann keypti ekki bókina ICELANDIC  
           that he bought not the.book  
           ‘... that he did not buy the book.’  
       b. ... at han ikke købte bogen DANISH  
           that he not bought the.book  
           ‘... that he did not buy the book.’

In Icelandic, the V *keypti*, “bought” precedes the negation, while in Danish the V *købte* follows it. Negation is standardly taken to mark the left edge of the VP in these languages (see Vikner 1995; Bobaljik & Jonas 1996), and so verbs move out of the VP in Icelandic but not in Danish.

The contrast between English and French concerning the relative position of verbs and VP-level adverbs is also accounted for in this way. As (17) shows, in French the adverb *souvent* intervenes between the verb and the object, while the equivalent adverb in English, ‘often’ precedes the verb, leaving the verb and the object string adjacent. The examples in (17) from Pollock (1989: 367) (originally from Emonds 1976) illustrate this.

- (17) a. Jean embrasse souvent Marie FRENCH  
           Jean kisses often Marie  
           ‘Jean often kisses Marie.’  
       b. John often kisses Mary.

Under Pollock’s (1989) analysis, I, or INFL is split into various projections. French verbs raise to an INFL projection, while English ones do not. Many authors have correlated this to the fact that English has fairly poor subject verb agreement morphology, while French has a more rich system (not an uncontroversial claim; see below).

In diachronic syntax, the RAH accounts for the correlation between the loss of verb movement and the loss of agreement inflection in various languages (see Roberts 1993 concerning English; Platzack & Holmberg 1989 concerning Mainland

Scandinavian dialects). I illustrate this with Swedish, with examples from Koenenman (2000). Old Swedish has a more rich verbal paradigm than Modern Swedish. The two paradigms are given in Table 2, for the present tense.

	OLD SWEDISH: <i>älsk-a</i> , ‘love’	MODERN STANDARD SWEDISH: <i>bita</i> , ‘bite’
1 <sup>st</sup> SG	älsk-a(r)	biter
2 <sup>nd</sup> SG	älsk-a(r)	biter
3 <sup>rd</sup> SG	älsk-a(r)	biter
1 <sup>st</sup> PL	älsk-um	biter
2 <sup>nd</sup> PL	älsk-in	biter
3 <sup>rd</sup> PL	älsk-a	biter

**Table 2: Agreement paradigm in Old and Modern Standard Swedish**

Old Swedish shows the opposite pattern of the relative positions of verbs and negation to Modern Swedish, as shown by (18) below, from Koenenman (2000:60-62). Thus, Old Swedish patterns with Icelandic (see (16a) above), and Modern Standard Swedish with Danish (see (16b) above).

- (18) a. ... æn han sivngær ægh thigianda messu... OLD SWEDISH  
           if he sings not silent mass  
           ‘... if he doesn’t sing ‘silent mass’
- b. ... att Johan inte köpte boken MODERN STANDARD SWEDISH  
           that Johan not bought book-the  
           ‘...that John did not buy the book’

The RAH has been stated in a few different ways. One formulation states that V to T movement takes place if and only if the verbal agreement is rich, thus morphology is the driving force behind V to T movement. The hypothesis stated in this way has two implications: first, that every language with rich verbal inflection displays V to T raising, and second that a language with poor verbal inflection does not have V to T raising. Although the correlation between rich verbal inflection and V movement to T is fairly strong at least in Indo-European languages, many have shown that the RAH, formulated as a bi-conditional, is not without exception even among Indo-European languages. For example, as Vikner (1995) discusses, French verbs, when pronounced do not have any distinctions between first, second and third person. Yet, French has V to T raising. Other examples show that certain dialects of Norwegian and Faroese with poor inflection do display V to T raising (see Jonas 1996).

A weaker version of the RAH is unidirectional, only predicting that languages with rich verbal agreement have V to T raising. For example, Bobaljik (2002 and elsewhere) has argued that rich verbal inflection to be a side-effect of the syntactic relationships between V and T, rather than the driving force.

NT Greek has distinct verbal forms for all persons, and singular and plural numbers with no suppletion, at least in most tense-voice combinations.<sup>29</sup> Table 3

<sup>29</sup> One example of syncretism is in the thematic aorist active paradigm, where the 1<sup>st</sup>

shows the present active declension of *lúo*: (λύω) “I loose”. Table 4 does not include dual numbers, as the dual is not used in the NT (Moulton, Howard & Turner 2006: 57). This is the only relevant difference between Classical and NT Greek relating to person and number inflection.

	NT GREEK	
	SG	PL
1 <sup>st</sup>	lú-o: (λύ-ω)	lú-omen (λύ-ομεν)
2 <sup>nd</sup>	lú-eis (λύ-εις)	lú-ete (λύ-ετε)
3 <sup>rd</sup>	lú-ei (λύ-ει)	lú-ousi(n) λύ-ουσι(ν)

Table 3: Subject agreement paradigm of *lúo*: (λύω), “I loose”

The fact that NT Greek shows such rich person and number inflection is an indication that verbs raise to T, under either version of the RAH.

### 3.2.2 Null subjects

The pro-drop, or null subject phenomenon refers to a clause in which no overt subject is expressed, as in the example in (19) from NT Greek.

- (19) *kaì légei autô:i*  
 and say.3SG.PRES.IND.ACT him.DAT.SG.M  
 ‘and he said to him,’  
*καὶ λέγει αὐτῷ,* (Mt 9:9)

Recent typologies of null subjects distinguish various types of null subjects. In some languages, not only subject pronouns, but also object pronouns can be dropped. One example is Chinese (see Huang 1984). This type of pro-drop is recently referred to as radical pro-drop or discourse pro-drop (see Neeleman & Szendrői 2007).

Another pattern of pro-drop is referred to as partial pro-drop (see Holmberg 2005; Biberauer 2010). In partial pro-drop languages, such as Finnish, only expletive, or non-referential subject pronouns can be dropped. Partial pro-drop languages contrast with full pro-drop, or ‘consistent’ null subjects, in Holmberg’s (2005) terminology. In these languages, referential subjects, and not just expletive subjects can be dropped.

There is long held typological correlation between rich person and number inflection and the type of pro-drop found in consistent null subject languages. (Perlmutter 1971; Tarladsen 1980). Roberts and Holmberg (2010: 3) note that this observation was already noted by Ancient Greeks scholars, quoting a passage from Apollonius Dyscolus on Ancient Greek.

The intuition is that verbs that are inflected for person and number do not require further specification as to what the subject is. This intuition has been formulated

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person singular is the same as the 3<sup>rd</sup> person plural.

syntactically in various ways. One option is that the requirement that all clauses have a subject, where this subject occurs in a particular syntactic position, (the Extended Projection Principle of Chomsky 1982), is not universal (see Borer 1986, and a more current variation in Alexiadou & Anagnostopoulou 1998). Under Alexiadou & Anagnostopoulou's (1998) analysis, verb movement to T is sufficient to identify the formal features on T, and therefore subjects are not required in the Spec,TP subject position. Another is that the empty category *pro* occupies the canonical Spec,TP subject position (Rizzi 1982; Chomsky 1982). When a verb moves to T, the person and number features of the verb are copied onto the empty pronominal, licensing it. These proposals imply a direct relationship between V to T movement and pro-drop. Notice, however, that not all languages with V to T movement have consistent null subjects. For example, French has V to T but not pro-drop.

In 3.2.2.1 I first establish that NT Greek is a consistent null subject language, and then in 3.2.2.2 I illustrate a recent proposal from Biberauer & Roberts (2010), concerning the correlation between consistent null subjects, rich tense inflection and V to T movement.

### 3.2.2.1 NT Greek null subjects

NT Greek shows all of the relevant properties defining consistent null subject languages. As already shown by (19) above, referential third person subjects can be dropped, and they often are. Example (20) illustrates dropped first and second person pronouns.

- (20) ouk oída tí légeis  
 NEG know.1SG.PERF.IND.ACT what.ACC.SG.N say.2SG.PRES.IND.ACT  
 'I don't know what you are saying.'  
 Οὐκ οἶδα τί λέγεις (Mt 26:70)

Similarly to other consistent null subject languages, NT Greek second and third person pronouns are expressed when they are emphatic. For example, in (21) below, the referents of the two subject pronouns *egō*: "I" and *autós* "he" are contrasted with one another as to what they use to baptize. The referent of "he" is already familiar in the discourse.

- (21) expressed (focused) S pronouns: 1<sup>st</sup> person, 3<sup>rd</sup> person  
 egō: ebaptisa humās hūdati  
 I.NOM.SG baptize.1SG.AOR.IND.ACT you.ACC.PL water.DAT.SG.N  
 autós dē baptísei humās  
 he.NOM.SG.M PCL baptize.3SG.FUT.IND.ACT you.ACC.PL  
 en pneūmati hagío:i  
 in spirit.DAT.SG.N holy.DAT.SG.N  
 'I baptized you in water, but he will baptize you in the holy spirit.'  
 ἐγὼ ἐβάπτισα ὑμᾶς ὕδατι, αὐτὸς δὲ βαπτίσει ὑμᾶς ἐν πνεύματι  
 ἁγίῳ. (Mk 1:8)

Consistent null subject languages show the following property. In bi-clausal constructions in which a subordinate clause contains an overt subject pronominal, a reading where the subject of the main clause is co-referential with the subject of the subordinate clause is not easily available (see Frascarelli 2007, among others). Example (22), adapted from Roberts & Holmberg (2010: 7) illustrates this.

- (22) a. I Maria jelase afou ikhe ton Yianni MODERN GREEK  
 The Mary laughed after saw the Yiannis  
 ‘Mary<sub>i</sub> laughed after she<sub>i</sub> saw Yiannis.’  
 b. I Maria jelase afou afti ikhe ton Yianni  
 The Mary laughed after she saw the Yiannis  
 ‘Mary<sub>i</sub> laughed after she<sub>?i/j</sub> saw Janis.’

If the pronoun *afti* is present, the reading where ‘Mary’ and ‘she’ are co-referent is not easily available, as indicated by the question mark preceding the co-indexed *i* in (22b). In English, on the other hand, the co-indexed reading is easily available.

In NT Greek, it is the norm that subordinate clauses whose subjects are co-referential with matrix clause subjects do not contain overt pronouns. For example, in (23), the subject of the subordinate clause is unexpressed, and it refers to the subject of the main clause, the demonstrative pronoun *ekeînos*.

- (23) kaì ekeînos oîden hóti ale:tê:  
 and this.NOM.SG.M know.3SG.PERF.IND.ACT that true.ACC.PL.N  
 légei  
 speak.3SG.PRES.IND.ACT  
 ‘(And the one who saw it bore witness, and his testimony is true,) and this one<sub>i</sub> knows that [*pro*]<sub>i</sub> says true things, (so that you also may believe it)’.  
 (καὶ ὁ ἑωρακὼς μεμαρτύρηκεν, καὶ ἀληθινὴ αὐτοῦ ἐστὶν ἡ μαρτυρία,) καὶ ἐκεῖνος οἶδεν ὅτι ἀληθὴ λέγει, (ἵνα καὶ ὑμεῖς πιστεύσητε.) (Jn 19:35)

Furthermore, (24) shows a case in which an expressed third person pronoun, in a clause that is adjoined to a clause that contains an expressed DP subject, does not refer to that DP. Rather, it refers to the subject of the previous clause, “a man”, the clause being the first line of a parable about the man.

- (24) kaì ho spóros blastâi  
 and D.NOM.SG.M seed.NOM.SG.M bring.forth.3SG.PRES.SUBJ.ACT  
 kaì mne:kúne:tai  
 and lengthen.3SG.PRES.SUBJ.MID  
 ho:s ouk oîden autós  
 as NEG know.3SG.PERF.IND.ACT he.NOM.SG.M  
 ‘(Thus is the kingdom of God, as if a man<sub>i</sub> should plant a seed in the ground, and should sleep, and rise night and day,) and the seed<sub>j</sub> should spring up and grow, in a way which he<sub>i</sub> doesn’t know.’

(Οὕτως ἐστὶν ἡ βασιλεία τοῦ θεοῦ ὡς ἄνθρωπος βάλη τὸν σπόρον ἐπὶ τῆς γῆς καὶ καθεύδῃ καὶ ἐγείρεται νύκτα καὶ ἡμέραν.) καὶ ὁ σπόρος βλαστᾷ καὶ μηκύνεται ὡς οὐκ οἶδεν αὐτός. (Mk 4:27)

In the glossed example in (24), the first clause contains the expressed DP subject, *ho spóros* “the seed”. The adjunct clause contains the third person pronoun *autós*, which agrees in gender and number with *ho spóros*. However, *autós* does not refer to *ho spóros*, although the subordinate clause is adjoined to the matrix clause in a similar way to (23) above. Instead, the pronoun refers to a person already previously introduced, “a man” (see the translation or the Greek text).

When pronouns referring back to an expressed subject of a matrix clause are overtly expressed, they are marked. For example, consider (25).

- (25) hò                      epóie:sen                      David   hòte  
REL.ACC.SG.N   do.3SG.AOR.IND.ACT   David   when  
epeínasen                      autòs                      καὶ  
hunger.3SG.AOR.IND.ACT   self.NOM.SG.M   and  
hoi                      met’   autoû  
D.NOM.PL.M   with   him.GEN.SG.M  
‘(Don’t you know this,) what David*i* did when he*i* himself was hungry,  
along with those who were with him?’  
(Οὐδὲ τοῦτο ἀνέγνωτε) ὃ ἐποίησεν Δαυὶδ ὅτε ἐπείνασεν αὐτὸς καὶ  
οἱ μετ’ αὐτοῦ ὄντες;                      (Lk 6:3)

In this example, a “when” clause containing the third person pronoun is adjoined to a preceding matrix clause in which the subject, “David” is spelled out. The pronoun does refer to David. In this case, however, the pronoun is conjoined with another DP, “and those who were with him”. This could be an instance of an intensive use of the pronoun meaning “he himself” (Robertson 1934: 679). It could also be the case that the conjoined phrase needs an overt host.<sup>30</sup>

### 3.2.2.2 Null subjects, tense syncretism and V to T movement

Recently, Biberauer & Roberts (2010) put forth a proposal that covers more typological correlations concerning null subjects, verbal inflection and V to T movement. Crucially, they make a distinction between person and number inflection and tense inflection. In this system, what drives V to T movement is tense inflection, rather than person/number inflection. The gist of the analysis is as follows. Both T and V carry unvalued features, making them active in the derivation. While V lacks a valued Tense feature, T is valued for Tense. T, being a functional head is not specified with respect to argument structure, while V is specified as having argument structure. Within the Agree based system of Chomsky (2000, 2001), this

<sup>30</sup> To say that the conjoined phrase needs an overt host is compatible with a reading in which the postverbal subject is a type of afterthought, or a tail constituent in functional terminology.

means that T and V always establish an Agree relation. In languages like English (as well as V2 Germanic languages), the tense on the verb is licensed in this way, with no movement to T. In null subject languages, on the other hand, T bears an EPP feature, relating to rich tense synthesis, triggering V movement to T.

Biberauer & Roberts (2010) discuss the contrast between Romance languages, which have V to T, and Germanic languages, which do not. A typical example of the latter is English, where verbs do not raise (see (17b) above).<sup>31</sup> The difference is that the Romance languages have more synthetic (non-periphrastic) tense distinctions than the Germanic languages. These tense distinctions also encompass aspect and mood. For example, Italian shows the distinctions in (26a), French those in (26b), while English shows only the distinctions in (26c).

- (26) a. Italian  
*parlo* (present), *parlerò* (future), *parlerei* (conditional), *parlavo* (imperfect), *parli* (present subjunctive), *parlassi* (past subjunctive), *parlai* (preterit)
- b. French:  
*parle* (present indicative/subjunctive), *parlerai* (future), *parlerais* (conditional), *parlais* (imperfect), *parlai* (preterite), *parlasse* (past subjunctive).
- c. English:  
*speak* (present), *spoke* (past)

Biberauer & Roberts' (2010) proposal accounts for more cross-linguistic variation concerning null subjecthood and V to T movement. V to T movement is not available due to rich person and number inflection, but to tense synthesis. Pro-drop, on the other hand, is available due to rich person and number inflection. This explains the contrast between English (also Mainland Scandinavian), French and Italian/ Modern Greek (among other languages). The differences are summarized in Table 4.

	Rich person, number	Pro-drop	Tense synthesis	V to T
MG, Italian	Yes	Yes	Yes	Yes
French	No	No	Yes	Yes
English	No	No	No	No

**Table 4: Cross-linguistic variation concerning V to T movement**

The tense/aspect/mood/voice system in NT Greek is similar to the very complex system in older Classical Greek (for details on the Classical system, see Smyth 1984:112-142; see also Rijksbaron 2006; Lamers & Rademaker 2007). However there are some distinctions that are lost, and periphrastic forms are quite common in the NT, with perfects and imperfects (for example, A 21:33). Furthermore, Robertson (1934:326) points out that the optative mood is infrequent in the NT, and

<sup>31</sup> These authors assume that verb movement to C in the V2 Germanic languages does not proceed through T.

the subjunctive is mostly limited to the aorist and present.

Even though periphrasis occurs, and certain moods are infrequently attested, NT Greek has more synthetic tense/aspect/mood distinctions than Modern Italian and French. Table 1 below illustrates the attested tense, aspect and mood combinations from the verb stem *poié-*, “do”, “make”. Not all of the forms are found in all person/number combinations, so the table includes both third singular and third plural forms. Note however, that the person and number inflection is fused to the tense-aspect-mood stem, and that none of the forms in Table 5 are distinguished only through the person number inflection.

Tense/aspect, mood, voice	form attested	cf.
Present indicative	poiēi (ποιεῖ) (3sg)	Mt 5:32
Aorist indicative	epoie:sen (ἐποίησεν) (3sg)	Mt 12:3
Imperfect indicative	epoion (ἐποίουν) (3pl)	Lk 6:23
Future indicative	poiē:sei (ποιήσει) (3sg)	Mt 21:40
Perfect indicative	perpoie:ken (πεποίηκεν) (3sg)	Mk 5:19
Present subjunctive	poiē:i (ποιῇ) (3sg)	Jn 5:19
Aorist subjunctive	poiē:se:i (ποιήσῃ) (3sg)	Mt 5:19
Aorist optative	poiē:saien (ποιήσαιεν) (3pl)	Lk 6:11

**Table 5: attested tense/aspect/mood forms of *poiéo-*, “do”, “make”**

Old Greek verbs also inflect for voice, however I’ve only included active forms in Table 5. Various tense-aspect-mood combinations are also found in the medio-passive voice, and the aorist tense-aspect has a distinct passive form.

In summary, while the Rich Agreement Hypothesis claims that V to T movement corresponds to rich person and number inflection, Biberauer & Roberts (2010) propose that V to T movement is the consequence of a high degree of tense synthesis. As I have shown in 2.2.2.1 and 2.2.2.2, NT Greek displays both of these properties, and it is therefore expected that V to T movement takes place.

### 3.2.3 The respective position of verbs and VP level adverbs

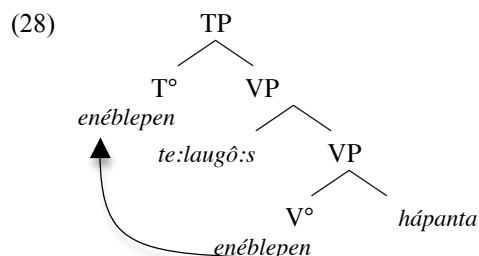
In the last subsection I gave two theoretically motivated reasons for assuming V to T movement, that stem from morphological facts. Here I discuss language-internal placement facts that suggest V to T movement.

A common diagnostic employed in the literature to show that a verb has moved from the VP concerns the respective positions of a verb and a VP level adverb. An adverb (ADV) that modifies the VP is taken to mark the left edge of that VP. Therefore, if the verb linearly precedes the adverb, it suggests that the verb has moved out of the VP.

I have not found manner adverbs in clauses with overt subjects, verbs and objects, however the clause in (27) below shows a sequence of V-ADV-O.

- (27) V-ADV-O  
 kaì enéblepen te:laugô:s hápanta  
 and see.3SG.AOR.IND.ACT clearly all.ACC.PL.M  
 ‘and he saw everyone clearly.’  
 καὶ ἐνέβλεπεν τηλαυγῶς ἅπαντα. (Mk 8:25)

In this example, the manner adverb *te:laugô:s* “clearly” appears after the finite verb *enéblepen*, “he saw”. The strong quantifier object occurs after the V. This indicates that the verb has raised from the VP, and that the object is in-situ in the VP. This is shown schematically in (28) below.



### 3.2.4 VSO in subordinate clauses

As I mentioned above in 3.1, many have argued that verb movement in the Celtic languages is only to T, since there is no root non-root asymmetry in word order. That is to say, VSO is found in main as well as subordinate clauses. Example (29), from McCloskey (1996b: 50) illustrates a VSO subordinate clause in Irish.

- (29) gheall sé go bhfillfeadh sé ar an bhaile MODERN IRISH  
 promised he COMP return[COND] he on home  
 ‘He promised that he would return home.’

As I mentioned in 3.1, the idea is that the C head is filled by the complementizer in subordinate clauses, and since the same word orders appear in main and subordinate clauses, verb movement must only be to T in all clauses.

There is no root non-root asymmetry in NT Greek. VSO orders are commonly found in subordinate clauses, an example in (30). In this example, the VSO clause is initiated by *hóti* “that”.<sup>32</sup>

<sup>32</sup> As I mentioned in Chapter 2 (note 18), the complementizer *hóti* sometimes introduces direct speech, and does not necessarily introduce subordination. However, the clause in (30) is introduced by *é:kousan*, “heard” rather than “said”, and appears to be a true subordinate clause. Furthermore, VSO is also found in “when” clauses initiated by the complementizer *hóte* (for example, Mt 13:53) and in “because” clauses initiated with *hína* (for example, Mk 12:19).

- (30) VSO in a subordinate clause  
 καὶ ἐκούσαν ἡοὶ περὶοικοὶ  
 and hear.3PL.AOR.IND.ACT D.NOM.PL.M neighbour.NOM.PL.M (...)  
 ὅτι ἐμεγάλυνεν κύριος  
 that exalt.3SG.AOR.IND.ACT lord.NOM.SG.M  
 τὸ ἐλεος αὐτοῦ μετ' αὐτῆς  
 the.ACC.SG.N mercy.ACC.SG.N his.GEN.SG.M upon her.GEN.SG.F  
 'And her neighbours (and her cousins) heard that the Lord had exalted his  
 mercy upon her.'  
 καὶ ἤκουσαν οἱ περὶοικοὶ (καὶ οἱ συγγενεῖς αὐτῆς) ὅτι ἐμεγάλυνεν  
 κύριος τὸ ἔλεος αὐτοῦ μετ' αὐτῆς, (Lk 1:58)

This suggests that verb movement in NT Greek is only to T. I note, however, that it is also possible that verb movement in subordinate clauses is distinct from verb movement in main clauses. One approach along these lines is found in Harley, Carnie & Pyatt (2000). They show that in Old Irish, there is a requirement that C° be filled. This is achieved through merging the complementizer in subordinate clauses, and by V to C movement in main clauses. I find no evidence suggesting that C° is always filled in NT Greek.

### 3.2.5 Verb placement with respect to the modal particle *án*

In Classical Greek and NT Greek, the modal particle *án* occurs in so-called irrealis clauses, often with subjunctive or optative verbs. It has a fairly high position in the clause, and Roussou (1998) claims that this particle occurs between the CP and TP domains, approximately Rizzi's (1997) Fin° in Classical Greek.

If this is the case in NT Greek, then the order *án*-V would indicate that the verb is in T, and the order V-*án*, that the verb is in C. In fact, both orders are found, as shown in (31) and (32) below. In (31), a dislocated object precedes *án* and the finite verb follows it. This clause is the apodosis of a conditional sentence. The fronted object *tòn patéra mou* 'my father' is preceded by the particle *καί*, and is defined in a contrasting set with the object in the protasis. It is presumably fronted to the left periphery.

- (31) O – *án* - V  
 καὶ τὸν πατέρα μου  
 also D.ACC.SG.M father.ACC.SG.M my.GEN.SG  
 ἂν ἐῖδετε  
 PCL know.2PL.PLPF.IND.ACT  
 '(if you had known me), you would have known my Father also.'  
 (εἰ ἐμὲ ἤδειτε,) καὶ τὸν πατέρα μου ἂν ἤδειτε. (Jn 8:19)

In (32), on the other hand, the verb precedes *án*, and the indirect object pronoun *ἐμοί* follows *án*.

- (32) V – *án* – O  
 episteúete                      *àn*              *emoí*  
 believe.2PL.IMP.IND.ACT   PCL      me.DAT.SG  
 ‘(For, if you believed Moses), you would believe me, (for he wrote about me.)’  
 (εἰ γὰρ ἐπιστεύετε Μωϋσεῖ,) ἐπιστεύετε ἂν ἐμοί, (περὶ γὰρ ἐμοῦ  
 ἐκεῖνος ἔγραψεν.) (Jn 5:46)

If *án* is really a stable landmark separating T from C, then the verb in (31) is in T, and in (32), in C. However, the situation is not so simple, since the particle *án* shows second position effects in the New Testament, or in other words, is post-positive (Robertson 1934:424). Crucially, it is not found clause-initially.<sup>33</sup> It is usually preceded by a single constituent, as in (31) and (32) above. If other second position particles such as *dé* and *gár* are present, the modal particle follows them (examples are in Chapter 6).

The fact that there seems to be a requirement that the particle *án* occur linearly following one constituent, no matter of its type suggests either that the head of the projection hosting the particle has a requirement that something move into its Specifier, or that the distribution is partly effected by phonological properties. For example, Halpern (1995) proposes that enclitic elements, which need phonological material to their left, undergo a prosodic flip, surfacing after the phonological word that is closest in the syntax (I discuss this in more detail with regard to the second position particles *dé* and *gár* in Chapter 6). If this is the case for *án*, then the fact that verbs are found preceding it does not necessarily indicate that they are in C, since there is a possibility that they are ordered in this way after the syntax. That is to say, whichever element is highest in the syntactic structure will end up preceding *án*, whether it is a C or T element. That the verb precedes the mood particle in (32) then indicates only that it precedes the pronominal object in the syntax, therefore it could be in T. Notice however, that the particle is a stable landmark to identify lower verbs as TP material. That is, even if it is subject to phonological re-ordering, it still has a stable syntactic position, which is Fin°, following Roussou (1998). The phonological properties of the particle would affect its relative position with respect to material to its left, rather than material to its right, since under this hypothesis, it needs a host to its left.

Therefore, example (31) is evidence for terminal verb movement to T°, but (32) is not necessarily evidence for verb movement to C°. It is necessary to use a

<sup>33</sup> More accurately, the modal particle *án* is not found clause-initially. However, the homophonous conditional particle *án* “if” is found as the first word in two instances (e.g., Jn 20:23), in both of which the words following the particle are enclitics. This conditional particle is supposed to be the contracted form of the conditional particle *eán* (ἐάν) “if”, which is supposed to be the concatenation of the conditional *ei* (εἰ) “if” and the modal particle *án* (see Jannaris 1898:419-420). The diachrony of the conditional *án* and the modal *án* is an extremely interesting issue that is left for future research. What is important here is that the modal particle shows second position effects.

landmark that is not possibly subject to phonological re-ordering, in order to identify verbs in C°.

### 3.2.6 Verb placement with respect to the particle *ára*

The particle *ára*, “then” or “therefore” has a stable position in the clause. It is described as an inferential paratactic conjunction (Robertson 1934:1189). The term paratactic conjunction means that it links two main clauses, and does not introduce subordination. Smyth (1984:635) describes it as a ‘connective, confirmatory, and inferential particle marking the immediate connection and succession of events and thoughts’.<sup>34</sup> The important thing for the present purposes is that it is a conjunction of sorts, and is therefore very high in the structure, in the CP domain.

This particle is useful as a landmark to identify the syntactic positions of elements preceding it, since it does not display second position effects. This is witnessed by the fact that it is found frequently as the first word of the clause, as in (33) (see also Robertson 1934:1189-98).

- (33) *ára* - S - V  
*ára hoi pántes apét<sup>h</sup>anon*  
 PCL D.NOM.PL.M all.NOM.PL.M die.3PL.AOR.IND.ACT  
 ‘For, the love of Christ controls us, having concluded this, that one died for all, (therefore everyone died)’.  
 (ἡ γὰρ ἀγάπη τοῦ Χριστοῦ συνέχει ἡμᾶς, κρίναντας τοῦτο, ὅτι εἰς ὑπερ πάντων ἀπέθανεν· ἄρα οἱ πάντες ἀπέθανον· (2 Cor 5:14)

When *ára* is not the first word, only a few types of elements are found preceding it. These include conjunctions and complementizers, *wh*-interrogatives and negation. Examples of these are given in (34) - (36) respectively, below.

In (34), the conjunction *ei* “if” precedes *ára*. The verb follows the particle, and the subject, *he: epínoia tê:s kardías sou* “the thought of your heart” occurs postverbally.

- (34) C – *ára* – V -S  
*ei ára ap<sup>h</sup>et<sup>h</sup>é:se<sup>h</sup>taí soi he:*  
 if PLC discharge.3SG.FUT.IND.PAS you.DAT.SG D.NOM.SG.F  
*epínoia tê:s kardías sou*  
 thought.NOM.SG.F D.GEN.SG.F heart.GEN.SG.F your.GEN.SG.F  
 ‘(Therefore, repent of this wickedness of yours,) if, perhaps, the thought of your heart may be forgiven you.’  
 (μετανόησον οὖν ἀπὸ τῆς κακίας σου ταύτης, καὶ δεήθητι τοῦ κυρίου) εἰ ἄρα ἀφεθήσεται σοι ἡ ἐπίνοια τῆς καρδίας σου· (A 8:22)

<sup>34</sup> The way in which ‘inferential’ is used by Greek grammarians is somewhat from what it means in modern linguistics, where inferentiality is generally seen as a part of an evidential system (see Aikhenvald 2004).

Example (35) shows the *wh*-interrogative *tí* “what” preceding *ára*, in an indirect question.

- (35) *wh*-interrogative - *ára* - V  
 tí                      ára    ho                      Pétros  
 what.ACC.SG.N   PLC   D.NOM.SG.M   Peter.NOM.SG.M  
 egéneto  
 become.3SG.AOR.IND.MID  
 ‘(And when it became day, there was a great stir among the soldiers,) as  
 to what happened to Peter.’  
 (Γενομένης δὲ ἡμέρας ἦν ταραχος οὐκ ὀλίγος ἐν τοῖς στρατιώταις.)  
 τί ἄρα ὁ Πέτρος ἐγένετο. (A 12:18)

The question in (35) is posed by Jesus’ disciples after Jesus’ statement that a rich man can hardly enter the kingdom of heaven. The question expresses the attitude, “if not them, then who?”

Finally, the sentence in (36) is a negated question posed to Paul after the questioner has learned that Paul speaks Greek. In the string, the negative morpheme *ouk* is sentence-initial, preceding *ára*. The subject of the question, *sú* “you” follows the particle. The copular predicate follows the subject.

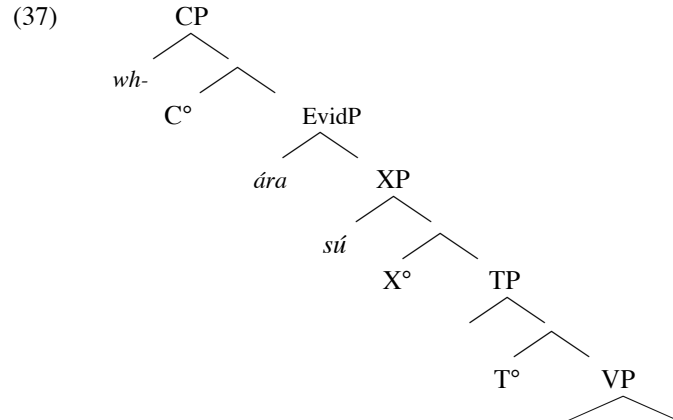
- (36) NEG - *ára* - S - V  
 ouk    ára    sú                      eî  
 NEG   PCL   you.NOM.SG   be.2SG.PRES.IND.ACT  
 ho                      Aigúptios                      ...  
 D.NOM.SG.M   Egyptian.NOM.SG.M  
 ‘Then you are not the Egyptian (who before these days made an uproar  
 and led out into the wilderness four thousand men that were murderers)?’  
 οὐκ ἄρα σὺ εἶ ὁ Αἰγύπτιος (ὁ πρὸ τούτων τῶν ἡμερῶν  
 ἀναστατώσας καὶ ἐξαγαγὼν εἰς τὴν ἔρημον τοὺς τετρακισχίλιους  
 ἄνδρας τῶν σικαρίων;) (A 21:38)

The elements found preceding *ára* share the property of being C elements. Complementizers are assumed to occupy one of the highest positions in the structure, a C head position. Similarly, *wh*-interrogatives are standardly assumed to occupy the Spec- of a projection in the C domain. The position of negation in (36) is not as clear. Greek finite negation is most often found cliticized preceding the predicate/ DP/ modifier that it is negating (see Chapter 4). These negative morphemes, when they occur in questions, are traditionally treated as question particles. In Chapter 5, I argue that these particles occur in C in questions.

Now consider the elements that follow *ára*. In (34) and (35) it is the verbs. In (36) the pronominal subject directly follows *ára*. The presence of an overt personal pronoun is in itself indicative of emphasis, and suggests a left peripheral status of the subject.

Compiling the data in (34) – (35), *ára* should be higher in structure of the Left Periphery than a discourse oriented projection, and lower than the position hosting

*wh*-interrogatives. These elements, taken together, yield the structure in (37). In this depiction, the particle *ára* heads the projection EvidP (Evidential Phrase) in the Left Periphery, and a discourse oriented projection is lower, labeled as XP in (37).



The examples in (38) and (39) show that finite verbs are also found preceding *ára*.

- (38) V - *ára* - O  
 Heurísko: *ára* *tòn* *nómon*  
 find.1SG.PRES.IND.ACT PCL D.ACC.SG.M law.ACC.SG.M  
 ‘Therefore, I find it a law, (that when I want to do good, evil is present with me).’  
 Εύρίσκω ἄρα τὸν νόμον (τῷ θέλοντι ἐμοὶ ποιεῖν τὸ καλὸν ὅτι ἐμοὶ τὸ κακὸν παράκειται.) (R 7:21)
- (39) C - V - *ára*  
 epeì o:p<sup>h</sup>eílete *ára*  
 since ought.2PL.IMP.F.IND.ACT PCL  
 ek toû kósmou exel<sup>h</sup>éin  
 from D.GEN.SG.M world.GEN.SG.M exit.AOR.INFIN.ACT  
 ‘(I wrote to you in a letter not to company with adulterers: Not altogether with the adulterers of this world, or with the covetous, or extortioners, or with idolaters;) for then you would have to go out of the world.’  
 (Ἐγραψα ὑμῖν ἐν τῇ ἐπιστολῇ μὴ συναναμίγνυσθαι πόρνοις, οὐ πάντως τοῖς πόρνοις τοῦ κόσμου τούτου ἢ τοῖς πλεονέκταις καὶ ἄρπαξιν ἢ εἰδωλολάτραις,) ἐπεὶ ὀφείλετε ἄρα ἐκ τοῦ κόσμου ἐξελεῖν. (1 Cor 5:10)

If the structure of the left periphery suggested above is correct, then the verbs in these examples are in the C° position in (37). Notice that examples (38) and (39) do not contain both subjects and objects, and therefore only show that verbs can occupy

this position. It is not clear how frequent V to C movement is, nor what drives it. We know that verb movement does not proceed to C<sup>0</sup> consistently, based on subsections 3.2.4 and 3.2.5 above.

As I discuss in Chapter 5, verb movement to C occurs in object *wh*-questions (that is, direct, not indirect questions), and in that case there is a clear formal trigger. While I take the placement facts concerning *ára* to be strong evidence for verbs in C, there is no clear trigger for the movement. Roussou & Tsimpli (2006) claim that there are two derivations for VSO in Modern Greek; one with the verb in T, and one with the verb in C. The two derivations correspond to different readings. This is shown in example (40), from Roussou & Tsimpli (2006: 329). While the clause in (a) is pronounced with neutral intonation, and can be the response to the broad focus question, “What happened?”, the clause in (b) can be used as an emphatic statement or a yes–no question, if it bears the interrogative intonation.

- (40) a. [T Estile    [o Petros to gramma]]                      MODERN GREEK  
          sent-3SG the Peter the letter  
          ‘Peter sent the letter.’ (neutral clause)  
       b. [C Estile    [o Petros to gramma]]  
          sent-3SG the Peter the letter  
          ‘Peter did send the letter.’ / ‘Did Peter send the letter?’

Roussou & Tsimpli claim that V to C movement involves verb focusing, and if there is an interrogative feature on C, the clause is a question. The Modern Greek facts form an interesting parallel with NT Greek, in that NT Greek seems to show V to C movement in questions, at least content questions and possibly in *wh*-questions (for details, see Chapter 5). Since we do not have access to intonation, we can’t test the prosodic properties of the verbs in (38) and (39). However, we can speculate that the statements are emphatic, as in Modern Greek, but this issue can’t be fully solved here.

### 3.3 Section summary

To summarize this section on NT Greek verb movement, I first presented cross-linguistic and theoretically motivated arguments for verb movement to T, which concern the morphological properties of verbs. NT Greek has rich person and number inflection, which has been linked to V to T movement (see 3.2.2) as well as pro-drop. Furthermore, NT Greek has a large degree of synthesis in the tense-aspect-mood system, which has been shown to correlate to V to T movement (see 3.2.3). I then showed that verbs move out of the VP in NT Greek, based on the fact that they precede adverbs that modify the VP. In 3.2.4 I took the fact that VSO is found in subordinate clauses to indicate that verb movement terminates at T, at least in the usual case. In 3.2.5 I discussed the respective position of verbs and the mood particle *án*. Finally, I showed, based on the relative placement of verbs and the particle *ára*, that V to C movement can take place in NT Greek. The conclusion is that V to T movement is the usual case, and it is evidenced (or possibly driven) by

morphological properties of the verb. Therefore, when a verb moves to C, movement is taken to proceed through T. Verb movement to C is only clearly motivated in *wh*-questions, as I discuss in Chapter 5. In clauses where verbs precede *ára*, I can only speculate that the movement is pragmatically driven, similarly to in Modern Greek.

## 4 Subject positions

We have just seen in Section 3 that there is more than one position for finite verbs in declarative clauses. In this Section, I show that there is also more than one subject position. In principal, there are two neutral positions: Spec,*v* and Spec,T. However, many preverbal subjects are topics, or other kinds of dislocated elements, and therefore non-neutral. There are preverbal subjects that are neutral, in Spec,T, but they are very limited.

### 4.1 VP-internal subjects

In Chapter 2, I proposed that the clause in (41) ((16) in Chapter 2) was neutral in terms of information structure.

- (41) Neutral VSO clause (= (16) in Chapter 2)
- |                       |     |                     |                   |
|-----------------------|-----|---------------------|-------------------|
| élaben                | dè  | p <sup>h</sup> óbos | pántas            |
| seize.3SG.AOR.IND.ACT | PCL | fear.NOM.SG.M       | everyone.ACC.PL.M |
- ‘And everyone became afraid, (and they began to glorify God, saying, ‘A great prophet is risen up among us’ and, ‘God has visited his people’).’
- ἔλαβεν δὲ φόβος πάντας (καὶ ἐδόξαζον τὸν θεὸν λέγοντες ὅτι Προφήτης μέγας ἠγέρθη ἐν ἡμῖν, καὶ ὅτι Ἐπεσκέψατο ὁ θεὸς τὸν λαὸν αὐτοῦ.) (Lk 7:16)

I assume that verb movement is only to T in (41), since as I showed in Section 3, V to T movement is the norm, while V to C is predicted to correspond to emphasis on the verb. The relative linear positions of the subject and verb therefore suggest that the subject is in the VP/*v*P. Furthermore, the fact that the subject does not have a topic or focus interpretation indicates that the subject is in its base position in the VP, rather than moving to a *v*P level left peripheral focus projection, as has been proposed for the Italian clause (see Cardinaletti 1997; Belletti 2001).

Therefore, the interpretation of the subject, and its relative position with respect to the verb indicate that it is in its base position. In the rest of this subsection I provide support for this claim, based on adverb position and the relative position of subjects and shifted objects.

### 4.1.1 Adverb placement

In Subsection 2.2.1 I used VP level adverbs to mark the left edge of the VP. This diagnostic showed that Vs move out of the VP. Now, consider the example in (42).

- (42) *katépéste:san*                      *homot<sup>h</sup>umadòn*    *hoi*  
 step.down.3PL.AOR.IND.ACT    unanimously    D.NOM.PL.M  
*Ioudaîoi*              *tô:i*              *Paúl*  
 Jew.NOM.PL.M    D.DAT.SG.M    Paul.DAT.SG.M  
 ‘(And when Gallio was the deputy of Achaia,) the Jews revolted  
 unanimously against Paul (and brought him to the judgment seat).’  
 (Γαλλίωνος δὲ ἀνθυπάτου ὄντος τῆς Ἀχαΐας) κατεπέστησαν  
 ὁμοθυμαδὸν οἱ Ἰουδαῖοι τῷ Παύλ (καὶ ἤγαγον αὐτὸν ἐπὶ τὸ βῆμα.)  
 (A 18:12)

In the main clause in (42), the V *katépéste:san* “revolted”, or “put their foot down”, precedes the manner adverb *homot<sup>h</sup>umadón* “with one accord”, or “unanimously”. Following the adverb are the subject *hoi Ioudaîoi* “the Jews” and indirect object/PP *tô:i Paúl* “against Paul”.

The fact that the subject follows the adverb indicates that the subject and the PP have not moved out of the vP. Furthermore, there is no contrast involving the subject, and so does not seem to be focus material.

I haven’t found an example of the sequence V-S-X-O in NT Greek, which could suggest that postverbal subjects always stay inside the vP. This forms a contrast with Modern Irish, as shown by (43), from McCloskey (1996a), and Roberts (2005:11).

- (43) *Níor*      *shaotaigh* *Eoghan* *ariamh* *pingin*                      MODERN IRISH  
 Neg-Past    earned    Owen    ever    penny  
 ‘Owen has never earned a penny.’

The adverb *ariamh* is a V/vP level adverb, and so marks the left edge of the V/vP. The subject *Eoghan* occurs to the left of this adverb, showing that it has raised from the V/vP.

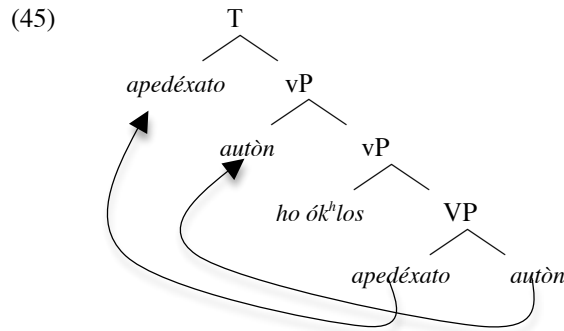
### 4.1.2 Shifted objects

VOS orders are very common with pronominal objects in NT Greek. In the VOS clause in (44), the object pronoun *autón* directly follows the verb, preceding the subject.

- (44) VOS  
*apedéxato*                      *autòn*              *ho*              *ók<sup>h</sup>los*  
 receive.3PL.AOR.IND.MID him.ACC.SG.M D.NOM.SG.M crowd.NOM.SG.M  
 ‘(And when Jesus returned), the crowd received him’  
 (Ὑν δὲ τῷ ὑποστρέφειν τὸν Ἰησοῦν) ἀπεδέξατο αὐτὸν ὁ ὄχλος  
 (Lk 8:40)

Pronominal objects undergo leftward movement in many languages, and are spelled out in a fairly low position in the clause. This process is often referred to as object shift (see Holmberg 1986, 1999; Vikner 1994; 2005 concerning Scandinavian languages). In Chomsky (2000), it is claimed that shifted objects land in a Specifier of *v* (see also Richards 2004).

In NT Greek, adverbs are found preceding subjects (see (42)), suggesting that the subjects stay in-situ, and this is compatible with an analysis of object shift whereby the object is in a Specifier of *v*. I propose the derivation in (45) for the clause in (44). The verb moves to T, which I have claimed is the normal case for declarative clauses in Section 3 above. The pronominal object moves to a Specifier of *v* above the *v*P-internal base position of the subject. As indicated in (45), subjects start in the *v*P, and can also stay inside the *v*P, not raising overtly to Spec,T.



#### 4.1.3 Interim summary

I have just shown distributional evidence supporting the fact that subjects can stay *v*P-internal. The question is now how the syntactic relationship between the subject DP and the verb is established, and what the position of preverbal subjects is. Chomsky (1982) proposes the requirement that all clauses have a subject in a Case position (Chomsky 1982), referred to as the Extended Projection Principle (EPP).<sup>35</sup> In later theorizing, the EPP corresponds to a nominal [D] feature on AgrS (i.e., T) (Chomsky 1995), that triggers movement of the subject to Spec,T. For a subject that is postverbal (or not overt), the standard analysis, for the Romance languages, is that there is a null pronominal, *pro*, in Spec,T (Chomsky (1982; Rizzi (1982)).

There are, however, many other standard and non-standard approaches that do not assume this empty category in Spec,T for null-subject languages with rich subject verb agreement, or ‘free word order’ languages with a rich system of pronominal affixes. Rather, the verbal inflection (or pronominal affixation) itself is the structural subject of the verb, or contains morphemes or features of it. This has been formalized in various ways (see Borer 1986; Ordóñez 1997; Alexiadou & Anagnostopoulou 1998; Platzack 2003 for standard Government and Binding (GB) /

<sup>35</sup> For some history about the EPP, see the introduction in Svenonius (2002).

## 4.2 Alexiadou & Anagnostopoulou (1998)

There are a number of asymmetries between English and MG VS structures. First of all, in English VS orders an expletive *there* is required in Spec,T (46), unlike in Greek (47).

- Second, in English only intransitive verbs can appear in VS orders, while in MG all types of predicates occur in VS(O) orders. The contrast is shown in (48) and (49).

- A well-known property of expletive constructions in English, among other languages, is that they are ungrammatical if the associate of the expletive is definite.<sup>36</sup> An example is given in (50).

<sup>36</sup> There are various counter-examples to this with English existential expletive

- (50) There arrived three men / a man/ \*the man / \*all the men / \*each man / \*every man

The phenomenon is known as the Definite Restriction (DR), or Definiteness Effect (Milsark 1977; Belletti 1988; Moro 1997).

A & A take the DR to indicate that definite subjects are incompatible with an expletive in Spec,T. They show (A & A 1998: 496) how show that this restriction is absent in Modern Greek. This is illustrated in (51) below.

- (51) *irthe to kathe pedi* MODERN GREEK  
 arrived the every child  
 'Each child arrived.'

They take the fact that there is no expletive in VS orders in MG as an indication that the Spec,T position is not filled, and thus, not projected. In their analysis, the verbal inflection in a null subject language is specified enough to satisfy the [EPP], which corresponds to an uninterpretable Definiteness [D] feature on T, when the verb moves to T.

The parametric difference then lies in what exactly the category that checks the [EPP] is. It can be checked either through Move/Merge XP or Move/Merge X° (A & A 1998: 518). Languages with rich verbal inflection such as MG check the [EPP] through V head (X°) movement to T°, and languages with poor agreement such as English check it through XP movement (Move XP), or expletive insertion (Merge XP). Therefore, the [EPP] as a feature is universal, however there is no Spec,T position projected in null subject languages.

A consequence of A & A's analysis is that preverbal subjects in null subject languages are left-dislocated to the left periphery, undergoing A' movement rather than A movement, a proposal also put forth in Barbosa (1994), Dobrovie-Sorin (1994), among others. Postverbal subjects stay in-situ in the VP. This corresponds to the fact that at least in MG, preverbal subjects have the interpretation of topics, while postverbal subjects are pragmatically neutral (i.e, the neutral order is VSO, not SVO). The examples (52) are repeated from (12) above, from A & A (1998: 506).

- (52) a. *Ena pedhi deavase to "Paramithi horis Onoma."* MODERN GREEK  
 a child read the "Fairy Tale without a Title"  
 'A certain child/one of the children read "Fairy Tale without a Title".'  
 b. *Deavase ena pedhi to "Paramithi horis Onoma".*

As I discussed in Section 2 above, the preverbal subject in (52a) has a 'strong' partitive or specific interpretation, while the postverbal subject in (52b) favours a

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constructions, as discussed in Ward & Birner (1995) (see the references there). As a case in point, *there is the so-called List Sentence*, as discussed in Rando & Napoli (1978). Since the English examples only appear in existential constructions, I do not consider this issue further, focusing rather on the contrast between English and Greek non-copular verbs.

non-specific reading.

Further evidence that preverbal subjects in MG are A' moved comes from the contrast between MG and English with respect to scope ambiguities with indefinites and strong quantifiers. The examples in (53) and (54) illustrate this.

- (53) Some student filed every article  
 $\exists > \forall, \forall > \exists$

- (54) a. Kapios fititis stihiothetise kathe arthro MODERN GREEK  
 some student filed every article  
 $\exists > \forall, * \forall > \exists$   
 b. stihiothetise kapios fititis kathe arthro  
 filed some student every article  
 $\exists > \forall, \forall > \exists$

In English, an indefinite subject with a strong quantifier object has ambiguous scope; (53) can either mean that one single student filed every article, or that every article was filed by some student or another. In MG, on the other hand, when the indefinite subject is preverbal as in (54a), the indefinite has to have wide scope; only the reading where one and the same student filed every single article is available. In the VSO order in (54b), the scope is ambiguous as in English.

A & A's (1998: 505) explanation is that if the preverbal subject in (54a) were in an A position, the interpretation should remain ambiguous. A & A provide a number of arguments showing that preverbal subjects in MG are left-dislocated Topics, and I will not repeat them all here. In the following subsection I discuss some of the problems that have been brought up with A & A's account.

### 4.3 Arguments against Alexiadou & Anagnostopoulou (1998)

A & A's (1998) analysis makes a couple of very strong predictions. First, it predicts that all null subject languages have VSO orders, which is not true, for example in Modern Hebrew (see Doron 2000, note 8). Furthermore, even Italian, a consistent null subject language that A & A treat as an exemplar of their proposal, does not easily allow VSO orders (see Cardinaletti 2004; Belletti 2001; Pinto 1997; Sheehan 2010).

The proposal also makes the very strong prediction that all preverbal subjects are left-dislocated in null subject languages, since Spec,T is never projected. Many have shown that this prediction is not born out for the Romance null subject languages (for example, see Costa 1998, Chapter 3 concerning Brazilian Portuguese; Goodall 2001 concerning Spanish; Costa 2004 concerning European Portuguese; Sheehan 2010 concerning Spanish, Italian and European Portuguese). Here I go through some of the evidence that has been proposed suggesting that preverbal subjects are Spec,T subjects in the Romance null subject languages.

- (56) a. Quem chegou?  
who arrived  
'Who arrived?'
- b. Não chegou ninguém  
not arrive no one  
'No one arrived.'
- b'. \*Ninguém chegou.  
no one arrive
- EUROPEAN PORTUGUESE

- (57) a. O que é que ninguém fez?                      EUROPEAN PORTUGUESE  
           what did no one do?  
           ‘What did no one do?’  
       b. Ninguém chegou.  
           no one arrive  
           ‘No one arrived.’  
       b'. \*Não chegou ninguém  
           not arrive no one

If the negative quantifier subject is focus material, it occurs postverbally (56), and when given, preverbally (57). As reported in Sheehan (2010: note 7) Italian and Spanish pattern the same way.

Negative quantifiers are generally thought to be impossible as Topics in many dialects of Italian (Cinque 1990), Spanish (Goodall 2001) and Portuguese (Costa 1998; 2004). In many dialects of Italian including the Veneto dialects, left-dislocated elements are optionally doubled with a clitic (see Cinque 1990; Benincà & Poletto 2004; Poletto 2000). The example in (58) (from Alexiadou 2006:138, from Poletto 2000: 141) shows that negative quantifier subjects can’t be resumed with clitics in the central Veneto dialect, contrasting with other DPs.

- (58) a. Nane el                      magna                      ITALIAN (CENTRAL VENETO)  
           John subject clitic eats  
       b. Nusun (\*el)                      magna  
           Nobody subject clitic eats

Costa (2004) and Goodall (2001) taking the fact that negative quantifiers are non-topicalizable in European Portuguese and Spanish, argue that preverbal negative quantifier subjects such as the one in (57b) are in Spec,T, the canonical Spec,T subject position. However, Alexiadou (2006, note 8) notes the facts in Spanish and Greek are not as clear, and it has been shown that negative quantifiers undergo left-dislocation in Spanish, Italian and Greek (Ordóñez 1997; Giannakidou 2006). The data I show below suggest that preverbal negative quantifiers are moved to the Left Periphery in NT Greek.

### 4.3.3 Minimality

Another issue discussed in Costa (2004:14-15) is the violation of Minimality. Generally and informally speaking, a Minimality violation refers to the impossibility of a configuration in which the head and tail of a movement chain are separated by an intervening element that could potentially be the head of the chain.<sup>37</sup> For example, a *wh*-interrogative undergoing A’ movement across an intervening potential A’ position leads to ungrammaticality in many languages. The examples in

<sup>37</sup> For formal definitions of Minimality within the Government and Binding framework, see Chomsky (1986, Rizzi 1990) and in more recent theory, see Chomsky (2000), where Minimality is defined in terms of intervention.

(59) from Costa (2004: 14-15), illustrate this for European Portuguese. While (59a) is grammatical, (59b) is rejected by some speakers.

- (59) a. Perguntei que livro o Pedro leu. EUROPEAN PORTUGUESE  
I asked which book the Pedro read  
'I asked which book Pedro read.'
- b. \*Perguntei que livro, à Maria, lhe deram.  
I asked which book, to Maria, herCL-DAT they gave  
'I asked which book they gave to Maria.'

According to Costa, (59a) is grammatical because the subject of the embedded *wh*-clause occupies an A position, which is not an intervener for *wh*-movement. In (59b), on the other hand, the left-dislocated phrase *à Maria*, "to Maria" constitutes an intervener for A'-movement of the *wh*-interrogative. In other words, if preverbal subjects always occupied A' positions, there should be no contrast between (59a) and (59b), and example (59b) should be grammatical. If, on the other hand, the subject in (59a) is in Spec,T, its grammaticality is expected, in contrast to (59b), which displays a typical Minimality violation.

#### 4.3.4 Null expletives in VS orders

As I mentioned in 4.2 above, English shows Definiteness Restriction (DR) effects, which refers to the ban on the co-occurrence of expletives and postverbal definite subjects (see (50) above). A and A (1998) use the systematic lack of DR effects as an argument for the absence of a null expletive in Spec,T in MG.

While DR effects are not obviously present in the Romance languages, they are there in certain constructions. Sheehan (2010: 241) notes that DR effects are observed with unaccusative and passive verbs.<sup>38</sup> This is so only if there is an overt locative PP and the subject is not under narrow focus (this was first shown by Belletti (1988) for Italian). Sheehan (2010: 242) gives the following paradigm for European Portuguese (from Ambar 1992).

- (60) a. Chegaram os técnicos ontem  
arrived the technicians yesterday  
'The technicians arrived (here) yesterday.'
- b. A Lisboa chegaram os técnicos ontem  
to Lisbon arrived the technicians yesterday  
Lit. 'In Lisbon arrived the technicians yesterday.'

<sup>38</sup> Unaccusative verbs are intransitive verbs whose subjects do not have agentive semantics, but are semantically similar to objects of transitive verbs (for example, English *die*, *sleep*). Since the DP doesn't show accusative case, but has a theta role similar to DPs that do show accusative case, the verbs are termed unaccusative.

- c. Os técnicos chegaram a Lisboa ontem  
the technicians arrived to Lisbon yesterday  
'The technicians arrived in Lisbon yesterday.'
- d. \*?Chegaram os técnicos a Lisboa ontem.  
arrived the technicians to Lisbon yesterday  
'The technicians arrived in Lisbon yesterday.'

Sheehan (2010) argues that the DR effects are evidence for an element in Spec,T. The argument runs as follows. A null locative element satisfies the [EPP] in (60a), allowing the subject to remain postverbal. This accounts for why (60a) has a reading where the technicians did not just arrive anywhere, but at the location of the speaker. In (60b), the overt locative PP takes care of the [EPP], allowing the subject to remain postverbal. In (60c), the subject itself raises and checks the [EPP], and in (60d), neither the subject nor the locative PP raises. Unlike in (60a), there is an overt locative PP in (60d), precluding a null locative in preverbal position. Under this account, (60d) is unacceptable because the [EPP] is not satisfied.<sup>39</sup>

#### 4.4 NT Greek preverbal subjects

I have just listed a number of problems with the analysis of Alexiadou & Anagnostopoulou (1998), in which it is claimed that null subject languages do not project Spec,T. The proposal seems to leave some very basic facts mysterious, such as the very general fact that SVO is the canonical word order among Romance languages. Nonetheless, other scholars accept the proposal, at least for MG (see Costa 1998:113; Miyagawa 2010). The facts in Romance versus MG are actually quite different (see Alexiadou 2006).

The situation in NT Greek is very interesting, given that SVO and VSO are both seemingly equal in terms of neutrality. Example (17) is repeated from Chapter 2 in (61) below.

- (61) Neutral SVO clause (= (17) in Chapter 2)
- |                        |                       |
|------------------------|-----------------------|
| καὶ ἐκστασίς           | ἐλάβεν                |
| and amazement.NOM.SG.F | seize.3SG.AOR.IND.ACT |
| ἁπάντας                |                       |
| everyone.ACC.SG.M      |                       |
- 'And everyone became amazed, (and they began to God, and they were filled with fear, saying, 'We have seen strange things today').'
- καὶ ἔκστασας ἔλαβεν ἅπαντας (καὶ ἐδόξαζον τὸν θεόν, καὶ ἐπλήσθησαν φόβου λέγοντες ὅτι Εἶδομεν παράδοξα σήμερον).
- (Lk 5:26)

This example suggests that there is a Spec,T subject position in NT Greek, since

<sup>39</sup> For an entirely different approach to these types of data, see Moro (1997).

there is no way to construe the subject in (61) as a topic.

In the remainder of this Section, I try to distinguish subjects that are topicalized from subjects that are in Spec,T. First, in 4.5.1 I identify the left peripheral topic projection, based on instances of adverbs and clauses intervening between subjects and verbs. The fact that NT Greek has an available Topic projection is not at all surprising nor controversial.

Interestingly, I find no evidence of subjects in Spec,T aside from the seemingly neutral clause in (61) above. As I show in 4.5.2 and 4.5.3, even subjects that one would expect to occupy Spec,T clearly do not. These are indefinite subjects, and negative quantifier subjects. I find far more evidence for topicalized subjects than subjects in Spec,T. On the whole, the argumentation against Alexiadou & Anagnostopoulou (1998), presented in Section 3 above does not carry over to NT Greek. In 4.5.4 I discuss the lack of Definiteness Restriction effects, and the lack of null expletives, which suggests that there is no null *pro* in Spec,T. In 4.5.5, I provide a summary and informal analysis.

#### 4.4.1 Identifying TopicP: intervening adverbs and clauses

Subjects are found separated from the verb by at least one adverb. Recalling that in the default case, verbs move to T, this indicates that the subject does not occupy Spec,T, or at least that the subject and verb are not in a Spec-head configuration. Consider the example in (62).

- (62) S-ADV-ADV-V  
 egò:           dè       limô:i  
 I.NOM.SG   PCL   hunger.DAT.SG.M  
 hô:de       apóllumai  
 here       perish.1SG.PRES.IND.MID  
 ‘(And when he came to himself, he said, How many hired servants of my father’s have bread enough and to spare,) and I perish with hunger!’  
 (εἰς ἑαυτὸν δὲ ἐλθὼν ἔφη, Πόσοι μίσθιοι τοῦ πατρὸς μου περισσεύονται ἄρτων,) ἐγὼ δὲ λιμῶ ὥδε ἀπόλλυμαι. (Lk 15:17)

In this example, the subject pronominal *egò*: “I” occurs sentence-initially, followed by the second position particle *dé*. The particle is followed by two adverbial expressions, *limô:i* “with hunger” and *hô:de* “here”. The first is the dative form of the noun *limós* “famine”, or “hunger”, used as an instrumental. The finite verb *apóllumai* “I perish” follows these adverbials, in sentence final position.

Aside from the fact that the two adverbials intervene between the subject and verb, the context of the example suggests that the subject is dislocated. First of all, it is a pronoun, and second it is being contrasted with referents in the previous clause, namely the speaker’s father’s servants. This is conducive to a contrastive topic reading.

In NT Greek, clauses are also found intervening between S and V. Consider the example in (63).

- (63) he:                      gunè:                      [hótan  
 D.NOM.SG.F woman.NOM.SG.F when  
 tíkte:i                      ] lúpe:n                      ék<sup>h</sup>ei  
 labour.3SG.PRES.SUBJ.ACT grief.ACC.SG.F have.3SG.PRES.IND.ACT  
 ‘A woman, when she is in labour, has grief, (because her hour has come.  
 But when the child is born, she no longer remembers her pain because of  
 the joy that a person came into the world. And now you have grief.)’  
 ἡ γυνὴ ὅταν τίκτῃ λύπην ἔχει, (ὅτι ἦλθεν ἡ ὥρα αὐτῆς· ὅταν δὲ  
 γεννήσῃ τὸ παιδίον, οὐκέτι μνημονεύει τῆς θλίψεως διὰ τὴν χαρὰν  
 ὅτι ἐγεννήθη ἄνθρωπος εἰς τὸν κόσμον. καὶ ὑμεῖς οὖν νῦν μὲν  
 λύπην ἔχετε.) (Jn 16:21)

In this instance, the preverbal subject is interrupted from the finite verb by a temporal subordinate clause initiated by *hótan* “when”. The subject is under contrast, in this instance with a participant in a following clause, “you”.

In my preliminary survey of word orders in Matthew, Luke, First Corinthians and Revelation in Chapter 2, Section 4, I excluded clauses like those in (63), (see Appendix 1, Section I). They were excluded since they are not straightforward SVO clauses. We are now in a position to evaluate these clauses from a comparative perspective, with the clauses collected in the survey. Both (62) and (63) support contrastive topic readings of the subject, and the subjects are both separated from the verbs by adverbs, or by an entire clause.<sup>40</sup> Thus, the subject is not a Spec,T canonical subject, but occupies a higher position in the sentence.

#### 4.4.2 Topicalization of specific indefinites

Many SVO clauses don’t contain extra material that can be used to distinguish Spec,Top from Spec,T. Therefore, another means has to be sought to identify the position of the subjects. In this section I use parallelism with object topicalization to argue that subjects in certain SVO clauses are topicalized.

In Chapter 2, I identified SVO clauses as appearing at the beginning of new stories, such as (64), repeated from (22) in Chapter 2.

- (64) ánt<sup>h</sup>ro:pós                      tis                      epoíei  
 man.NOM.SG.M INDEF.NOM.SG.M make.3SG.IMP.F.IND.ACT  
 deîpnon                      méga  
 dinner.ACC.SG.N large.ACC.SG.N  
 ‘(And he said to him), “A certain man made a large dinner, (and called  
 many, and he sent his slave on the hour of the feast to those who were  
 called to say, ‘Come, because it is ready’.”)’  
 (ὁ δὲ εἶπεν αὐτῷ), Ἄνθρωπός τις ἐποίει δείπνον μέγα, (καὶ ἐκάλεσεν  
 πολλούς, καὶ ἀπέστειλεν τὸν δοῦλον αὐτοῦ τῇ ὥρᾳ τοῦ δείπνου)

<sup>40</sup> For more discussion about the structure of sentences such as the one in (63), see Chapter 6.

εἰπεῖν τοῖς κεκλημένοις, Ἐρχεσθε, ὅτι ἤδη ἔτοιμά ἐστιν.)  
(Lk 14:16)

Examples like (64) are neutral in the sense that the referents are both new information, and the clauses are uttered out of the blue, as the introductions to stories. The subject is an indefinite DP, containing the indefinite *tis*, as discussed in Chapter 2. Since the subject is not familiar in the discourse, it might be expected to represent a canonical subject, and to occupy Spec,T. However, the indefinite *tis*, is not just a regular indefinite article comparable to “a”. Rather, it is a specific indefinite, with “a certain *x*”, or “this *x*” being a more suitable translation. Plain indefinites in NT Greek tend to surface as bare nouns.

In (64) above, the constituent *ánthro:pós tis* “a certain man” is the topic of the story that follows, and it refers to a specific man (of course the man does not necessarily exist in the real world). This alone would not be a very valid reason for proposing that the subject is syntactically a topic (i.e., occupying a Topic projection), however dislocation of these types of specific indefinites is clearly visible when they are objects, or other non-subject constituents.

For example, consider the sentence in (65), which introduces the Parable of the Rich Fool. The first constituent, *ánthró:pou tinós plousíou* “of a certain rich man”, labeled GEN, is the genitive complement of the postverbal subject *he: kʰó:ra* “the ground”.

- (65) GEN-V-S  
 Antʰró:pou      tinós                      plousíou  
 man.GEN.SG.M   INDEF.GEN.SG.M   rich.GEN.SG.M  
 eupʰóre:sen                      he:                      kʰó:ra  
 bear.well.3SG.AOR.IND.ACT   D.NOM.SG.F   ground.NOM.SG.F  
 ‘(He spoke the parable to them, saying), “There was a certain rich man, and his ground was fertile (and he thought to himself saying, ‘What will I do? Because I have nowhere to store my fruit’.”.)’<sup>41</sup>  
 (Εἶπεν δὲ παραβολὴν πρὸς αὐτοὺς λέγων,) Ἀνθρώπου τινὸς πλουσίου εὐφόρησεν ἡ χώρα. (καὶ διελογίζετο ἐν ἑαυτῷ λέγων, Τί ποιήσω, ὅτι οὐκ ἔχω ποῦ συνάξω τοὺς καρπούς μου;) (Lk 12:16)

The initial GEN constituent contains the same parts as the specific indefinite subject in (64): the indefinite *tis* (in (65) appearing as *tinós*, in the genitive case), and the NP *ánthro:pos* “man” (also in the genitive case in (65)), with the addition of the adjective *plousíou* “rich”. The discourse following (65) is about the rich man, and not his ground, and so the GEN seems to serve as a topic.

Another parable introduction is shown in (66), which introduces the Parable of the Barren Figtree (also cited in Friberg 1982:181). In this case, the object *sukê:n* “a figtree”, is fronted to preverbal position.

<sup>41</sup> A more literal, but acceptable translation of this clause is “The ground of a certain rich man was fertile”.

- (66) OVS  
 Sukê:n                      eîk<sup>h</sup>én  
 figtree.ACC.SG.F        have.3SG.IMP.F.IND.ACT  
 tis                            pep<sup>h</sup>uteuméne:n                      ...  
 INDEF.NOM.SG.M    plant.ACC.SG.F.PERF.PART.MID  
 ‘A certain man had a figtree planted (in his vineyard, and he came  
 looking for fruit in it and he didn’t find any).’  
 Συκὴν εἶχέν τις πεφυτευμένην (ἐν τῷ ἀμπελῶνι αὐτοῦ, καὶ ἦλθεν  
 ζητῶν καρπὸν ἐν αὐτῇ καὶ οὐχ εὗρεν). (Lk 13:6)

Notice that the object here is indefinite, consisting of just a bare NP with no specific indefinite article.<sup>42</sup> This shows that even indefinites that do not appear with the specific indefinite article *tis* can occur in preverbal position.

The examples in (65) and (66) show that indefinite constituents, either marked explicitly with the specific indefinite article *tis*, or even without an overt *tis*, undergo movement in NT Greek when they are topics of following stories. Thus, the preverbal position of subjects of this kind (as in (64) above) does not seem to be related to their subjecthood.

It would be strange to assume that the position of the subject in (64), the GEN in (65) and the object in (66) occupy distinct positions, but of course it is possible. Assuming, however, that they occur in the same position, one of the following two options emerge: specific indefinites that are preverbal are fronted to a topic projection (along the lines of Alexiadou & Anagnostopoulou 1998), or the Spec,T position is not connected particularly to subjecthood (for approaches along the second line see Miyagawa 2010, Holmberg & Nikanne 2002).

#### 4.4.3 Negative quantifier subjects

In the NT Greek corpus, the large majority of negative quantifier subjects are preverbal. This is true of transitive and intransitive verbs, and negative existential constructions, as shown in (67) – (69).

<sup>42</sup> Although the specific indefinite *tis* is present in this clause, it is not part of the object, but constitutes the entire subject. I did not include this clause in the preliminary sample of word orders in Matthew, Luke, First Corinthians and Revelation in Chapter 2, because this indefinite subject pronoun is a clitic (also, the verb consists of two parts). When it does not cliticize onto a noun or other element with which it forms a constituent, it cliticizes somewhere else; in (66), it cliticizes onto the verb *eîk<sup>h</sup>en*, “had”, noticeable from the raised pitch accent on its second syllable (*eîk<sup>h</sup>én*).

- (67) transitive  
 καὶ οὐδεὶς βάλλει οἶνον  
 and no-one.NOM.SG.M put.3SG.PRES.IND.ACT wine.ACC.SG.M  
 νέον εἰς ἀσκοῦς παλαιοῦς  
 new.ACC.SG.M into vessel.ACC.PL.M old.ACC.PL.M  
 ‘and no one puts new wine into old bottles’  
 καὶ οὐδεὶς βάλλει οἶνον νέον εἰς ἀσκοῦς παλαιοῦς (Lk 5:37)
- (68) intransitive  
 οὐδεὶς ἐρχῆται πρὸς  
 no-one.NOM.SG.M come.3SG.PRES.IND.MID to  
 τὸν πατέρα εἰ μὲν δι’ ἐμοῦ  
 D.ACC.SG.M father.ACC.SG.M if NEG through me.GEN.SG  
 ‘no one comes to the father, unless through me’.  
 οὐδεὶς ἔρχεται πρὸς τὸν πατέρα εἰ μὴ δι’ ἐμοῦ. (Jn 14:6)
- (69) existential  
 οὐδεὶς ἐστὶν ἐκ τῆς  
 no-one.NOM.SG.M be.3SG.PRES.IND.ACT from D.GEN.SG.F  
 συγγενείας σου  
 lineage.GEN.SG.F your.GEN.SG  
 ‘There is no one from your lineage (who is called by that name).’  
 Οὐδεὶς ἐστὶν ἐκ τῆς συγγενείας σου ὃς καλεῖται τῷ ὀνόματι τούτῳ.  
 (Lk 1:61)

As I discussed in 4.3 above, the subjects are taken to start in the VP, and raise to preverbal position. In (69) the negative quantifier raises, stranding the PP that modifies it, *ek tês syngeneías sou* “from your lineage”.

Postverbal negative quantifier subject also occur, although far less frequently. One instance is given in (70). In this instance, a negative quantifier subject occurs postverbally, and the negative morpheme *ou* occurs preverbally.<sup>43</sup>

<sup>43</sup> NT Greek shows some negative concord or negative spread. However, there are also cases in which no negative morpheme occurs alongside a postverbal negative quantifier argument. In this respect, NT Greek does not seem to constitute a negative concord language (see Giannakidou 2000, Zeijlstra 2004 for typologies, and Chapter 4 for more on NT Greek negative doubling/concord).

- (70) all' ou dúnatai oudeis (...)   
 but NEG can.3SG.PRES.IND.MID no-one.NOM.SG.M   
 tà skeúe: autoû diaprásai.   
 D.ACC.PL.N goods.ACC.PL.N his.GEN.SG destroy.AOR.INFIN.ACT   
 'No-one can (having entered into a strong man's house), spoil his goods,   
 (unless first he binds the strong man)'   
 ἀλλ' οὐ δύναται οὐδεὶς (εἰς τὴν οἰκίαν τοῦ ἰσχυροῦ εἰσελθὼν) τὰ   
 σκεύη αὐτοῦ διαρπάσαι (ἐὰν μὴ πρῶτον τὸν ἰσχυρὸν δήσῃ.)   
 (Mk 3:27)

While the examples in (67) – (69) at first glance suggest that the negative quantifier subjects raise to Spec,T, it is not so likely when the position of other negative quantifiers is considered. In NT Greek, the distribution of negative quantifier subjects is the same as that of negative quantifier objects. Negative quantifier objects occur both pre- and postverbally. If postverbal, there is usually a preverbal negative morpheme. The most common constructions are shown in (71) – (73).

In (71), the negative quantifier object pied-pipes the adjective *átupon* “wrong” to preverbal position.

- (71) S-QNEG-V   
 hoûtos dè oudèn átoPON   
 this.NOM.SG.M PCL nothing.ACC.SG.N wrong.ACC.SG.N   
 épraxen   
 did.3SG.AOR.IND.ACT   
 ‘but this one did nothing wrong’   
 οὗτος δὲ οὐδὲν ἄτοπον ἔπραξεν. (Lk 23:41)

In (72), the negative quantifier moves to preverbal position, stranding the NP *aítion*, “blame”. This is parallel to (69) above, where the negative quantifier subject strands the prepositional phrase.

- (72) QNEG-V-NP   
 oudèn heurísko aítion   
 nothing.ACC.SG.N find.1SG.PRES.IND.ACT blame.ACC.SG.N   
 ‘I find no blame (in this man).’   
 Οὐδὲν εὕρισκω αἴτιον (ἐν τῷ ἀνθρώπῳ τούτῳ.) (Lk 23:4)

In (73), the preverbal negative marker *ou(k)* occurs preverbally, and the negative quantifier postverbally. This construction is parallel to (70) above.

- (73) S-NEG-V-QNEG  
 humeîs ouk oîdate oudén  
 you.NOM.PL NEG know.2PL.PERF.IND.ACT nothing.ACC.SG.N  
 ‘You don’t know anything’  
 Ὑμεῖς οὐκ οἴδατε οὐδέν, (Jn 11:49)

These examples suggest that the driving force behind the preverbal placement of negative quantifier subjects is not [EPP] related movement, but rather that the (albeit optional) preverbal placement of negative quantifiers is a more general phenomenon. If it were the case that negative quantifier subjects occupied Spec,T and negative quantifier objects a distinct projection, we might expect an attestation of the sequence negative quantifier object > negative quantifier subject, which is not attested.

Furthermore, if the preverbal negative quantifier subjects were in Spec,T we would expect there to be no material intervening between the subjects and the verbs. This is, however not the case, as shown by (74) and (75).

In (74), there is adverbial material intervening between the negative quantifier subject and the verb. First of all, the manner adverbial “publicly”/ “in public” intervenes. The discourse-oriented adverb *méntoi* ‘indeed’ also intervenes, however it is a second position particle, and therefore it is unclear whether it is an intervener in the syntax, as I discussed in Section 3 above.

- (74) oudeîs méntoi parre:síai elálei  
 no-one.NOM.SG.M indeed public.DAT.SG.F speak.3SG.IMP.IND.ACT  
 perì autoû  
 about him.GEN.SG  
 ‘Indeed, no one spoke publicly about him (for fear of the Jews).’  
 οὐδεὶς μέντοι παρρησίᾳ ἐλάλει περὶ αὐτοῦ (διὰ τὸν φόβον τῶν  
 Ἰουδαίων.) (Jn 7:13)

In (75), the direct object, which contains the reflexive pronoun *heautoû*, intervenes between the negative quantifier subject and the verb. The indefinite *pote*, “sometime” or “ever” also intervenes, alongside the second position particle *gár*. In (75), the subject appears to be fronted to the left periphery.

- (75) oudeîs gár pote tè:n heautoû  
 no-one.NOM.SG.M PCL ever D.ACC.SG.F own.GEN.SG.M  
 sákra emíse:sen  
 flesh.ACC.SG.F hate.3SG.AOR.IND.ACT  
 ‘For, no-one ever hated his own flesh’  
 οὐδεὶς γὰρ ποτε τὴν ἑαυτοῦ σάρκα ἐμίσησεν, (Ep 5:29)

I return to the issue of negative quantifier movement in Chapters 4 and 5. For now I conclude that preverbal negative quantifier subjects do not surface in Spec,T.

#### 4.4.4 Minimality

As I discussed in 4.3.3 above, Costa (2004: 14-15) claims that the contrast in (76) (repeated from (59) above) indicates that the subject in (76a) is in Spec,T.

- (76) a. Perguntei que livro o Pedro leu. EUROPEAN PORTUGUESE  
I asked which book Pedro read  
'I asked which book Pedro read.'  
b. \*Perguntei que livro, à Maria, lhe deram.  
I asked which book, to Maria, herCL-DAT they gave  
'I asked which book they gave to Maria.'

Although I haven't found a clause with parallel word order to (72b) in NT Greek indirect questions, it is possible to dislocate constituents in relative clauses. Consider the pair in (77).

- (77) a. REL-S-V-I.O  
hòn egò: katangéllo: humîn  
REL.ACC.SG.M I.NOM.SG send.1SG.PRES.IND.ACT you.DAT.PL  
'(and that this is Jesus Christ,) whom I send to you'  
(καὶ ὅτι οὗτός ἐστιν ὁ Χριστός, [ὁ] Ἰησοῦς,) ὃν ἐγὼ καταγγέλλω  
ὑμῖν. (A 17:3)
- b. REL-O-V-S  
hō:i kaì dekáte:n apò pánto:n  
REL.DAT.SG.M also ten.ACC.SG.F from all.GEN.PL.N  
emérisen Abraám  
divide.3SG.AOR.IND.ACT Abraham.NOM.SG.M  
'(For, this is Melchisedec, king of Salem, priest of the most high God, who met Abraham returning from the slaughter of the kings, and blessed him), to whom Abraham gave also a tenth of all.'  
(Οὗτος γὰρ ὁ Μελχισέδεκ, βασιλεὺς Σαλήμ, ἱερεὺς τοῦ θεοῦ τοῦ ὑψίστου, ὃ συναντήσας Ἀβραάμ ὑποστρέφοντι ἀπὸ τῆς κοπῆς τῶν βασιλέων καὶ εὐλόγησας αὐτόν,) ᾧ καὶ δεκάτην ἀπὸ πάντων ἐμέρισεν Ἀβραάμ, (H 7:2)

In (77a), we have the word order REL-S-V. One would want to put the subject in Spec,T, if minimality were violated by A' movement of both the subject and the REL. However, in the relative clause in (77b), we have the word order REL-O-V-S. The object is dislocated, and notice that it is preceded by *kaí*, "also". As I pointed out in Chapter 2, and discuss further in Chapter 4, dislocation of constituents preceded by *kaí* is pragmatically motivated, and targets the left periphery of the clause. This means that the constituent *kaì dekáte:n apò pánto:n* "also a tenth of all" in (77b) is in the left periphery, hence movement of the REL and fronting of a constituent to the left periphery are not mutually exclusive in this language.

An argument supporting the subjects in Spec,T that appeals to minimality is therefore not applicable to NT Greek.

#### 4.4.5 An absence of expletives and Definiteness Restrictions

In 4.2 above, I illustrated the lack of overt expletives, and of Definiteness Restriction (DR) in Modern Greek, as contrasted with English. In this regard, NT Greek patterns with Modern Greek. In presentational constructions, the SV-VS alternation is attested, however no expletive is found with the VS order. The examples in (78) and (79) illustrate this. In the English translations below the VS clause in (79), the expletive is required.

- (78) SV presentational clause  
 Kaì se:meîon méga ó:p<sup>h</sup>t<sup>h</sup>e:  
 and sign.NOM.SG.N great.NOM.SG.N see.3SG.AOR.IND.PAS  
 en tô:i ouranô:i  
 in D.DAT.SG.M heaven.DAT.SG.M  
 ‘And a great sign appeared in heaven: (a woman clothed with the sun, and the moon under her feet, and on her head a crown of twelve stars;)’  
 Καὶ σημεῖον μέγα ὤφθη ἐν τῷ οὐρανῷ, (γυνὴ περιβεβλημένη τὸν ἥλιον, καὶ ἡ σελήνη ὑποκάτω τῶν ποδῶν αὐτῆς, καὶ ἐπὶ τῆς κεφαλῆς αὐτῆς στέφανος ἀστέρων δώδεκα.) (Rv 12:1)
- (79) VS presentational clause  
 Kaì ó:p<sup>h</sup>t<sup>h</sup>e: állo se:meîon  
 and see.3SG.AOR.IND.PAS other.NOM.SG.N sign.NOM.SG.N  
 en tô:i ouranô:i  
 in D.DAT.SG.M heaven.DAT.SG.M  
 ‘And there appeared another sign in heaven; (behold, a great red dragon, with seven heads and ten horns, and seven crowns on his heads).’  
 καὶ ὤφθη ἄλλο σημεῖον ἐν τῷ οὐρανῷ, (καὶ ἰδοὺ δράκων πυρρὸς μέγας, ἔχων κεφαλὰς ἑπτὰ καὶ κέρατα δέκα καὶ ἐπὶ τὰς κεφαλὰς αὐτοῦ ἑπτὰ διαδήματα,) (Rv 12:3)

These sentences are uttered in close sequence to one another, and the first is out of the blue, and the second is enumerative. Both use the passive form of the verb *horáo*: (ὁράω) “to see”, which means “appear”.

The examples in (80) and (81) are a contrastive pair of presentational sentences with the copula.

- (80) SV presentational clause  
 Kaì idoù ánthro:pós tis ê:n  
 and look man.NOM.SG.M INDEF.NOM.SG.M be.3SG.AOR.IMPF.ACT  
 hudro:pikòs émprost<sup>h</sup>en autoû  
 dropsied.NOM.SG.M before him.GEN.SG.M  
 ‘(And it happened, as he went into the house of one of the chief  
 Pharisees to eat bread on the Sabbath day, that they watched him.) And  
 look, there was a man with dropsy before him.’  
 (Kaì ἐγένετο ἐν τῷ ἐλθεῖν αὐτὸν εἰς οἶκόν τινος τῶν ἀρχόντων  
 [τῶν] Φαρισαίων σαββάτῳ φαγεῖν ἄρτον καὶ αὐτοὶ ἦσαν  
 παρατηροῦμενοι αὐτόν.) καὶ ἰδοὺ ἄνθρωπός τις ἦν ὕδρωπικὸς  
 ἔμπροσθεν αὐτοῦ. (Lk 14:2)
- (81) VS presentational clause  
 Kaì ê:n tis basilikòs  
 and be.3SG.AOR.IMPF.ACT INDEF.NOM.SG.M nobleman.NOM.SG.M  
 hoû ho huiòs e:st<sup>h</sup>é:nei ...  
 REL.GEN.SG.M D.NOM.SG.M son.NOM.SG.M be.ill.3SG.IMPF.IND.ACT  
 ‘(So he came again into Cana of Galilee, where he made the water wine.)  
 And there was a certain nobleman whose son was sick (in Kapernaum).’  
 (Ἦλθεν οὖν πάλιν εἰς τὴν Κανὰ τῆς Γαλιλαίας, ὅπου ἐποίησεν τὸ  
 ὕδωρ οἶνον.) καὶ ἦν τις βασιλικὸς οὗ ὃ υἱὸς ἦσθένει (ἐν  
 Καφαρναούμ.) (Jn 4:46)

Both of the subjects in (80) and (81) contain the indefinite pronoun *tis* “a certain”, and both are modified by additional material. In the SV clause in (80), the adjective *hudro:pikós* “afflicted with dropsy” follows the verb, marking the origin site of the moved subject. In the VS clause in (81), the relative clause “whose son was sick in Kapernaum” directly follows the postverbal subject.

In NT Greek, VS orders are very common with definite subjects, suggesting off the bat that DR effects are absent. An example is given in (82).

- (82) kaì ê:lt<sup>h</sup>en ho deúteros  
 and come.3SG.AOR.IND.ACT D.NOM.SG.M second.NOM.SG.M  
 ‘and the second one came’  
 καὶ ἦλθεν ὁ δεύτερος (Lk 19:18)

NT Greek examples such as (83) show that there are no DR effects of the type found in Romance (see 4.3.4 above).

- (83) hóti érk<sup>h</sup>etai ho Ie:soûs  
 that come.3SG.PRES.IND.MID D.NOM.SG.M Jesus.NOM.SG.M  
 eis Ierosóluma  
 into Jerusalem.ACC.SG  
 ‘(On the next day, a big crowd which came into the feast, when they  
 heard) that Jesus was coming to Jerusalem,’

(Τῇ ἐπαύριον ὁ ὄχλος πολὺς ὁ ἐλθὼν εἰς τὴν ἐορτήν, ἀκούσαντες)  
 ὅτι ἔρχεται ὁ Ἰησοῦς εἰς Ἱεροσόλυμα, (Jn 12:12)

In (83), the definite subject is postverbal. A locative phrase follows the subject, in clause final position. If locative phrases (either null or overt) were suitable candidates for checking the [EPP], the locative phrase in (83) would be fronted. In other words, if what licenses inversion is the raised PP or a null locative element, it is unclear how inversion is licensed in (83).

These data suggest that there is no expletive or null locative phrase in VS orders, and therefore that the Spec,T position is not necessarily activated in NT Greek.

#### 4.5 Summary

In this Section, I first showed that postverbal subjects surface in the VP, based on their relative position to VP level adverbs and shifted object pronouns. This formed a parallel with Modern Greek, and a contrast with Italian, where subjects in VSO orders are focused.

In my discussion of preverbal subjects, I showed that many preverbal subjects are not in Spec,T, even subjects which you would expect to find there, such as negative quantifiers and indefinites. The lack of expletives and Definiteness Restriction effects suggests that no element occupies Spec,T. The only evidence for the Spec,T position comes from example (61) above, which seems to be a neutral SVO clause. I have shown that in other SVO clauses, which at first sight seem neutral (such as parable introductions), the subjects are not in Spec,T. Therefore, there is much more evidence for dislocated subjects than for subjects in Spec,T.

NT Greek patterns much more with Modern Greek than with the Romance null subject languages. The Romance languages are SVO languages, and they have a canonical subject position, Spec,T, independent of rich verbal morphology. Modern Greek is a VSO language, and lacks Spec,T. Therefore, it seems that the degree of rich inflection doesn't distinguish between the presence or absence of the Spec,T position, it only gives null subjects. Spec,T doesn't universally project, because it is not a canonical subject position in VSO languages (see also McCloskey 1996a concerning Irish; Borer 1986, Doron 2000 concerning Hebrew; Alexiadou & Anagnostopoulou 1998 concerning Modern Greek).

### 5 Conclusions

The main conclusion from this section is that there are two structural positions for verbs in NT Greek, and three positions for subjects. From Section 3 I conclude that verb movement always proceeds to T, and terminates there in the typical case. In some instances, verbs are found in a higher position, which I identified as a projection of C. I suggest that the high position of verbs corresponds to some form of verbal emphasis, as in Modern Greek (see Roussou & Tsimpli 2006), however this is not testable in NT Greek.

From Section 4 I conclude that pragmatically neutral subjects can remain VP-internal, forming a contrast with the Romance languages (see Alexiadou 2006; Beletti 2001; Cardinaletti 2004; Sheehan 2010), and a parallel with Modern Greek (see Alexiadou & Anagnostopoulou 2001, 2007).

Second, pragmatically neutral subjects can move to Spec,T. I conclude, with Alexiadou & Anagnostopoulou (1998), that the Spec,T position is not activated with postverbal or null subjects in NT Greek, but assume that the Spec,T position can project in this stage of Greek.

Finally, the majority of preverbal subjects are in the left periphery. There is a lot of evidence for topicalized subjects (see also Friberg 1982), and also dislocation of negative quantifiers. In the next chapter I put forth a more complete picture of the Left Periphery.

## Chapter 4. Non-neutral word orders and the left periphery

### 1 Introduction

This chapter examines the non-neutral word orders that I identified in Chapter 2, namely OVS, OSV and SOV. The main goal of the chapter is to determine the possible derivations for these word orders. Assuming canonical V to T movement, O-initial and SOV clauses involve left peripheral arguments. For example, in the OVS example in (1a), the object *toûton tòn Ie:soûn* occurs preceding the verb and subject. The object consists of the proper name “Jesus” (along with the definite article), and a demonstrative. As shown by the context in (1b), the referent has been previously introduced. This makes it salient in the discourse, and it serves a ‘resumptive’ topic function.

(1) a. OVS clause

<u>toûton</u>	<u>tòn</u>	<u>Ie:soûn</u>	
this.ACC.SG.M	D.ACC.SG.M	Jesus.ACC.SG.M	
anéstē:sen	ho	t <sup>h</sup> eós	
raise.up.3SG.AOR.IND.ACT	D.NOM.SG.M	God.NOM.SG.M	
‘God raised up this Jesus, (of which we are all witnesses).’			
τοῦτον τὸν Ἰησοῦν ἀνέστησεν ὁ θεός, (οὗ πάντες ἡμεῖς ἐσμεν			
μάρτυρες.) (A 2:32)			

b. Context:

Ἄνδρες Ἰσραηλίται, ἀκούσατε τοὺς λόγους τούτους· Ἰησοῦν τὸν Ναζωραῖον, ἄνδρα ἀποδεδειγμένον ἀπὸ τοῦ θεοῦ εἰς ὑμᾶς δυνάμεσι καὶ τέρασιν καὶ σημείοις οἷς ἐποίησεν δι’ αὐτοῦ ὁ θεὸς ἐν μέσῳ ὑμῶν, καθὼς αὐτοὶ οἶδατε. ‘Men of Israel, listen to these words: “Jesus the Nazarene, a man attested to you by God with miracles and wonders and signs which God performed through him in your midst, as you yourselves know.”’ (A 2:22)

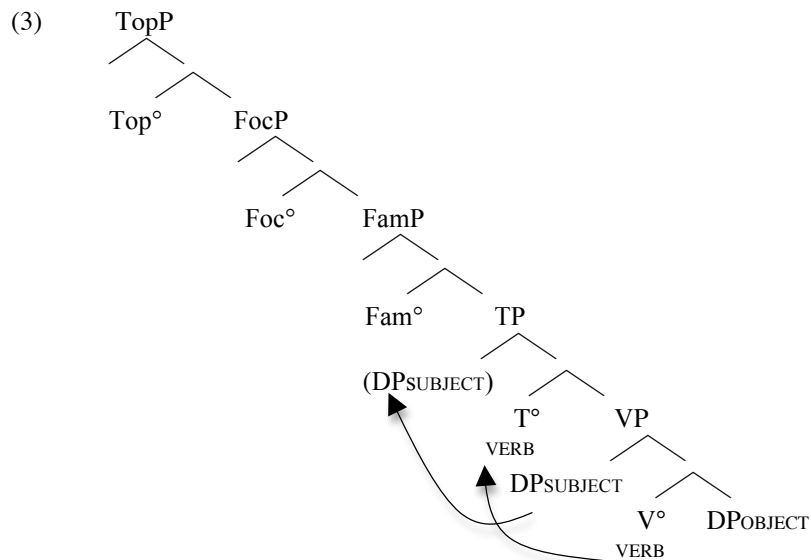
Although the object is clearly dislocated to the left periphery, it is in fact very difficult to determine whether it is a topic or a focus. In this language, there is no access to intonation, which is a very useful tool in identifying topic and focus in living languages. Second, both topicalization and focusing involve movement, and the surface string is not immediately indicative of what is topic and what is focus. Diagnostics such as clitic resumption versus lack thereof (see for example, Cinque 1990; Rizzi 1997; Benincà & Polletto 2004; Frascarelli 2004 concerning Italian) are not applicable. The strategy I take to distinguish topics from foci is to examine particular constructions that are associated with topic and focus in living languages. For example, additive particles such as “also” and “too” are associated with focus, and so I examine constituents preceded by the additive particle *καί* “also”, treating them as foci. Corrective constructions such as “x and not y”, or “not x but y” are

associated with contrastive focus, therefore I examine these constructions in detail.

Recent studies on the left periphery suggest that there are multiple Topic projections therein (Rizzi 1997; Benincà & Poletto 2004), and some have argued that these Topic projections are strictly ordered. Frascarelli & Hinterhölzl (2007) argue for the hierarchy of left peripheral discourse projections in (2).

(2) Shifting topic > Contrastive topic > Focus > Familiar topic

The pragmatic division of labour in sentences in which there are two or three preverbal constituents is, to an extent, indicative of this order of Topic and Focus projections in NT Greek. Many SOV examples in the NT corpus show the order Shifting topic > Familiar topic, Shifting topic > Focus, and Focus > Familiar topic, therefore supporting the order Shifting topic > Focus > Familiar Topic. What is lacking however, is clear evidence for two distinct Topic projections, hosting shifting and contrastive topics respectively, preceding the Focus projection. Although at times, shifting topics and contrastive topics can be distinguished from one another, there are no examples that strongly suggest the presence of both of these. I therefore conclude that there is only one Topic projection preceding the Focus projection, which hosts constituents that fit the descriptions of shifting as well as contrastive topics. The structure of the clause is represented in (3) in tree format, where the discourse projections occur above TP. This illustrates the full potential discourse projections, but that they are only projected in a given derivation if there is a discourse feature in the Numeration to activate them.



Recalling that the arguments are first merged in the lexical domain, VP and that verbs raise to T in the default case, in principle, any one of the four discourse projections can be activated to host objects in OVS clauses, and any two of them can

be activated in SOV and OSV clauses. In the case of OSV, recalling that there is some support for the Spec-T subject position, OSV clauses may also involve subject movement to Spec,T, with topicalization or focusing of only the object. As I discuss below, SOV clauses are the most indicative of the hierarchy of discourse projections in (3).

The rest of the chapter is organized as follows. In the next section, I distinguish topic and focus constructions. I first illustrate thematic and contrastive topics in NT Greek. In the realm of focus, I single out new information focus, contrastive focus and additive focus. In Section 3 I illustrate the order of topic projections in Italian proposed by Frascarelli & Hinterhölzl (2007), and show that this order is reflected in some NT Greek examples with multiple topics, and with topics in combination with foci. In Section 4 I turn to SOV orders, and show that this order of topics and focus projections also gives the right results in terms of the information structure in these clauses. Section 5 deals with the position of dislocated quantifier arguments, as I introduced in Chapter 3, and 6 provides the conclusion.

## 2 Identifying topic and focus

### 2.1 Topic

A sentence topic is what a given sentence is about, and invokes knowledge that is shared by the speaker and hearer(s) (Strawson 1964; Reinhart 1981). Krifka (2007: 41) defines a topic constituent as in (4).

- (4) The topic constituent identifies the entity or set of entities under which the information expressed in the comment constituent should be stored in the CG content.

The CG content refers to Common Ground, information that is known to both the speaker and hearer, and which is constantly being expanded through discourse (Reinhart 1981). These types of topics, which are often called aboutness topics or thematic topics, may be marked with “as for”, “about” or “concerning” in English, as in (5).

- (5) As for Mary, she’s doing a good job.

These kinds of topics are often called aboutness topics, or thematic topics. These do not undergo dislocation, but are base-generated in their surface positions.

In NT Greek, the preposition *perí* introduces nominal and clausal topics, similarly to “as for” or “concerning”. Complements of *perí* occur in the genitive case. *Perí* introduces both nominal, and possibly clausal topics. In (6), *perí* takes the DP *tê:s hairéseo:s taúte:s* “this chosen opinion”, or “this sect” as its complement, and this DP is the topic of the sentence “it is known to us that it is spoken against everywhere”. Notice that two second position particles, *mén* and *gár* intervene between the preposition and its complement.

- (6) *perí* > nominal topic  
 perì mèn gàr tê:s hairéseo:s taúte:s  
 about PCL PCL D.GEN.SG.F sect.GEN.SG.F this.GEN.SG.F  
 gno:stòn he:mîn estin hóti ...  
 known.NOM.SG.N us.DAT.PL be.3SG.PRES.IND.ACT that...  
 ‘(But we want to hear from you what your views are.) For, concerning  
 this sect, it is known to us that (it is spoken against everywhere).’  
 (ἀξιούμεν δὲ παρὰ σοῦ ἀκοῦσαι ἃ φρονεῖς,) περὶ μὲν γὰρ τῆς  
 αἰρέσεως ταύτης γνωστὸν ἡμῖν ἐστὶν (ὅτι πανταχοῦ ἀντιλέγεται.)  
 (A 28:22)

In (7), the preposition *perí* introduces the clausal topic “the fact that the dead rise”. The ‘subject’ of this clause, *tô:n nekro:n* “the dead” raises to a position preceding the complementizer *hóti*, and receives genitive case from the preposition.<sup>44</sup>

- (7) *perí* > clausal topic  
 perì dè tô:n nekro:n  
 concerning PCL D.GEN.PL.M dead.GEN.PL.M  
 hóti egeírontai  
 that raise.3PL.PRES.IND.MID  
 ‘And concerning the fact that the dead rise: (haven’t you read in the book of  
 Moses, about the bush, how God spoke to him, saying, “I am the God of  
 Abraham, and the God of Isaac, and the God of Jacob?”)’  
 περὶ δὲ τῶν νεκρῶν ὅτι ἐγείρονται (οὐκ ἀνέγνωτε ἐν τῇ βίβλῳ  
 Μωϋσέως ἐπὶ οὐκ ἀνέγνωτε ἐν τῇ βίβλῳ Μωϋσέως ἐπὶ τοῦ βάτου πῶς  
 εἶπεν αὐτῷ ὁ θεὸς λέγων, Ἐγὼ ὁ θεὸς Ἀβραάμ καὶ [ὁ] θεὸς Ἰσαὰκ καὶ  
 [ὁ] θεὸς Ἰακώβ;) (Mk 12:26)

Aboutness topics in NT Greek are sometimes left-dislocated and resumed with demonstratives, as shown in the example in (8b) below. (8b) contains three copular sentences, that are stated following the statement in (8a).

- (8) a. ho spéiro:n  
 D.NOM.SG.M sow.NOM.SG.M.PRES.PART.ACT  
 tò kalòn spérma estin  
 D.ACC.SG.N good.NOM.SG.N seed.NOM.SG.N be.3SG.PRES.IND.ACT  
 ho huiòs toû ant<sup>h</sup>ró:pou  
 D.NOM.SG.M son.NOM.SG.M D.GEN.SG.M man.GEN.SG.M  
 ‘The one who sows the good seed is the son of man.’  
 Ὁ σπείρων τὸ καλὸν σπέρμα ἐστὶν ὁ υἱὸς τοῦ ἀνθρώπου  
 (Mt 13:37)

<sup>44</sup> Another possible interpretation is that the subordinate clause is appositional to the DP *tô:n nekro:n* “the dead”, i.e., “concerning the dead, (namely) the fact that they rise”.

- (8) b. ho           dè   agrós            estin  
 D.NOM.SG.M PCL field.NOM.SG.M be.3SG.PRES.IND.ACT  
 ho            kósmos  
 D.NOM.SG.M world.NOM.SG.M  
**tò**           dè   **kalòn**           **spérma**  
 D.NOM.SG.N PCL good.NOM.SG.N seed.NOM.SG.N  
**hoûtoí**       eisin                   hoi           huioi  
 this.NOM.PL.M be.3PL.PRES.IND.ACT D.NOM.PL.M son.NOM.PL.M  
 tê:s        basileías  
 D.GEN.SG.F kingdom.GEN.SG.F  
 tà           dè   zizanía            eisin  
 D.NOM.PL.N PCL weed.NOM.PL.N be.3PL.PRES.IND.ACT  
 hoi           huioi            toû           pone:roû  
 D.NOM.PL.M son.NOM.PL.M D.GEN.SG.N evil.GEN.SG.N  
 ‘And the field is the world; and as for the good seed, these are the sons of  
 the kingdom; and the weeds are the sons of evil.’  
 ὁ δὲ ἀγρός ἐστιν ὁ κόσμος· τὸ δὲ καλὸν σπέρμα, οὗτοί εἰσιν οἱ υἱοὶ  
 τῆς βασιλείας· τὰ δὲ ζιζάνιά εἰσιν οἱ υἱοὶ τοῦ πονηροῦ  
 (Mt 13:38)

In the metaphoric statement in (8a), *tò kalòn spérma* “the good seed” is introduced. In (8b), the metaphor is expanded on, and three copular statements are made. In the second of these, the topic *tò kalòn spérma* “the good seed” occurs preceding the demonstrative *hoûtoí*, which is the grammatical subject of the clause. Notice that this is a metaphorical statement, and the topic and demonstrative subject do not agree in gender and number. The demonstrative subject agrees with the predicative noun *hoi huioi* “the sons”, which is ordinary usage. Demonstrative resumption is the typical kind of resumption in topicalization in NT Greek.<sup>45</sup> However, it does not always occur with topicalization, and on the whole, topicalization is more common with no resumption.

Notice that the particle *dé* occurs in all three statements in (8b). In previous literature (Bakker 1993), the Greek particle *dé* has been associated with topicality. According to Bakker (1993), the use of *dé* corresponds to shifts in topics of discourse, and marks discourse boundaries. The particle is an adversative connective particle, or conjunction, which was originally an adverb meaning “however” or “on the other hand” (Kuhner-Gerth 1904: 261ff; Smyth 1984: 644). At least in the NT, it usually follows the first word of the sentence. For example in (8), it follows the articles of each of the three topic constituents, therefore intervening between the articles and nouns.<sup>46</sup>

<sup>45</sup> There are also some instances of resumption with the strong pronominal *autós* in anacoluthic relative clauses (see Maloney 1979).

<sup>46</sup> In relatively few cases, *dé* follows two words. In many of these cases, one of the words is lacking in pitch accent. For example, certain prepositions such as *apó* occur alongside relative pronouns, preceding *dé*. In this case, the final vowel of the preposition is elided and the final *p* consonant becomes aspirated by

Although it is quite frequent to see topic constituents occurring with *dé*, many other types of words precede *dé* other than topic constituents or sub-parts of topic constituents. For example, *dé* occurs in *wh*-questions (see chapter 5), in conditionals and subordinate clauses and therefore occurs following *wh*-words and conjunctions. It is therefore not a reliable diagnostic for topicality, even though it sometimes occurs with topic constituents.

### 2.1.1 Contrastive topic

While contrast is typically a notion that is tied to focus, there is a variety of topics that have a contrastive property. This category of topics is defined as further specifying the referent of a salient item in the discourse, and inducing alternatives that are salient in the discourse (see Kuno 1976; Büring 1997; Krifka 2007; Frascarelli & Hinterhölzl 2007; Vermeulen 2008; Neeleman *et al.*, 2010). The following example from Krifka (2007: 44) illustrates contrastive topics.<sup>47</sup>

- (9) a. What do your siblings do?  
 b. My sister studies medicine, and my brother is working on a freight ship.

The topic constituents, “my sister” and “my brother” further specify the salient discourse entity “siblings”, and each of these topics is individually predicated in (9b).

In many languages, such as English, Italian and NT Greek (also Modern and Classical Greek), contrastive topics may occur fronted in the clause, in preverbal position. Example (10), from Benicà & Poletto (2004: 67) illustrates fronted contrastive topics in Italian.<sup>48</sup> The context makes the objects “the fruit” and “the vegetables” salient in the discourse. The objects are out of their canonical object position, and fronted to the left periphery.

- (10) Context: a farm producing a set of goods that are known to the people involved in the conversation.  
La frutta la regaliamo, e la verdura la vendiamo. ITALIAN  
 the fruit it<sub>CL</sub> give for free and the vegetables it<sub>CL</sub> sell  
 ‘The fruit we give for free, and the vegetables we sell.’

Contrastive topics are also fronted in NT Greek. In example (11), there are two sentences, each of which contains two conjoined clauses. These clauses contain the preverbal objects “the one” and “the other”. As shown in the context below, these have just been introduced as being two masters.

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assimilation with the aspiration of the relative pronoun, i.e. *ap<sup>h</sup> hê:s dé*.

<sup>47</sup> In the Functional Grammar approach, contrastive topics are called sub-topics, or inferable entities (Dik 1989).

<sup>48</sup> These authors refer to these kinds of topics as List Interpretation topics.

## (11) Contrastive topics

[è: gàr tòn hénà misé:sei  
 either PCL D.ACC.SG.M one.ACC.SG.M hate.3SG.FUT.IND.ACT  
 kaì tòn héteron agapé:sei ]  
 and D.ACC.SG.M other.ACC.SG.M love.3SG.FUT.IND.ACT  
 [è: henòs ant<sup>h</sup>éxetai  
 or one.GEN.SG.M hold.3SG.FUT.IND.MID  
 kaì toû hetérou katap<sup>h</sup>roné:sei ]  
 and D.GEN.SG.M other.GEN.SG.M look.down.on.3SG.FUT.IND.ACT  
 ‘(No house-servant can serve two masters;) either he will hate one and  
 love the other. Or, he will be devoted to one and look down on the other.’  
 (Οὐδεὶς οἰκέτης δύναται δυοὶ κυρίοις δουλεύειν·) ἢ γὰρ τὸν ἕνα  
 μισήσει καὶ τὸν ἕτερον ἀγαπήσει, ἢ ἐνὸς ἀνθέξεται καὶ τοῦ ἑτέρου  
 καταφρονήσει. (Lk 16:13, Mt 6:24)

In summary, aboutness or thematic topics in NT Greek may be preceded by the preposition *perí* “concerning”, or left-dislocated with demonstrative resumption. Contrastively topicalized objects often occur in preverbal position, with no form of resumption. Although the conjunctive particle *δέ* has been associated with topicality, it is not a reliable diagnostic for identifying topic constituents.

## 2.2 Focus

### 2.2.1 New information focus

Traditionally, the role of focus has been identified in constituent question-answer pairs. The constituent that answers the questioned constituent is focus material, as in the question-answer pair in (12) below, adapted from Krifka (2007: 14). Here, capitals signal Focus stress, and F stands for focus.

- (12) a. What did John show Mary?  
 b. John showed Mary [the PICTures]F  
 c. #[JOHN]F showed Mary the pictures.  
 d. #John showed [MAry]F the pictures.

In the Alternative Semantics view, focus points out the existence of alternatives that are relevant for a particular linguistic expression (Rooth 1985). In (b) ‘the pictures’ is evaluated with respect to the possible things which John could have bought. Answers to *wh*-questions are known as new information foci. English new information foci are pronounced with focus stress. In (b), the focus stress is on the constituent that answers the question, and as (c) and (d) show, if the focus stress does not occur on this constituent but on another constituent the result is infelicitous.

New information focus in NT Greek seem to occur in preverbal position, however there is only one example of a question answer pair in which the answer contains a verb, given in (13). The question in (a) is a “what” question. In the

answer in (b), the demonstrative pronoun *toûto*, which answers the question, occurs preverbally.

- (13) a. *Tí* *poié:so:*  
 what.ACC.SG.N do.1SG.FUT.IND.ACT  
 ‘What will I do, (because I have nowhere to store my fruit)?’  
*Tí poiήσω, (ὅτι οὐκ ἔχω ποῦ συνάξω τοὺς καρπούς μου;)*  
 b. *Toûto* *poié:so:*  
 this.ACC.SG.N do.1SG.FUT.IND.ACT  
 ‘(And he said,) “This is what I’ll do. (I’ll pull down my barns, and build greater ones; and I will store my fruits and goods there”.)’  
*(καὶ εἶπεν,) Τοῦτο ποιήσω (καθελῶ μου τὰς ἀποθήκας καὶ μείζονας οἰκοδομήσω, καὶ συνάξω ἐκεῖ πάντα τὸν σῖτον καὶ τὰ ἀγαθὰ μου.)* (Lk 12:17-18)

Notice that the question-answer pair is not ideal, as the poser and the answerer are the same person. It is therefore not a true information seeking question. The speaker rhetorically sets up this answer.

In Modern Greek, new information foci may occur either in pre- or postverbal position, as the examples in (14) from Gryllia (2008: 11-12) show. In this, I-FOC stands for information focus.

- (14) a. *Ti harise metaksi alon o Yanis* MODERN GREEK  
 what give.3SG among other.GEN the.NOM John.NOM  
*stin Ilektra?*  
 to.the.ACC Ilektra.ACC  
 ‘What, among other things, did John give to Ilektra?’  
 b. *Harise [ena vivlio]I-FOC stin Ilektra.*  
 Give.3SG a.ACC book.ACC to.the.ACC Ilektra.ACC  
 c. *[Ena vivlio]I-FOC harise stin Ilektra.*  
 a.ACC book.ACC give.3SG to.the.ACC Ilektra.ACC  
 ‘John gave [a book]I-FOC (among other things) to Ilektra.’

The question in (a) seeks new information only, not an exhaustive answer, as witnessed by *metaksi alon*, ‘among other things’. The answer to the question posed in (a) contains a focused object, since the question seeks to know what John bought. The question can be answered with the object either postverbal (b) or preverbal (c). Gryllia (2008, Chapter 5) shows that the different positions correspond to different intonation patterns of foci.

In summary, there is evidence from NT Greek that new information foci undergo movement. With only one example of a question answer pair in which the answer contains a verb, we can’t say whether new information foci also occur postverbally, as in Modern Greek.

### 2.2.2 Additive focus

Additive particles such as English “also” are focus sensitive, meaning that different realizations of focus stress result in different truth conditions. An example is given in (15).

- (15) a. John also showed Mary the PICTures  
b. John also showed MARY the pictures

While (a) means that John showed Mary the pictures, in addition to showing her other things, (b) means that John showed Mary the pictures, in addition to showing the pictures to at least one more person. In other words, clauses containing additive particles such as “also” entail those same clauses in the absence of the particle, and they presuppose that (at least) one of the alternatives in the context satisfies the denotation of the predicate (König 1991: 61-68).

As I have mentioned in Chapter 2, the particle *kaí* is a focus particle, used both additively like “also”, and also as “even”. The particle does not have a stable position in the clause, but directly precedes the constituent that it ‘emphasizes’ (Denniston 1954: lix-lx). An example of a fronted object preceded by *kaí* is given in (16), where the clause is the apodosis of a conditional. The object *tòn patéra mou* “my father” precedes the verb and the modal particle *án*.

- (16) *Kaí* O > V  
[ei emè                      é:deite                                      ] kaí tòn  
if me.ACC.SG know.2PL.PLPF.IND.ACT also D.ACC.SG.M  
patéra                      mou                      àn é:deite  
father.ACC.SG.M my.GEN.SG PCL know.2PL.PLPF.IND.ACT  
‘If you had known me, you would also have known my father.’  
εἰ ἐμὲ ᾔδειτε, καὶ τὸν πατέρα μου ἂν ᾔδειτε. (Jn 8:19)

In the protasis of the conditional, the pronominal object *emé* “me” is fronted to preverbal position. This object is directly contrasted with the focused object of the main clause. The pronoun *emé* is an alternative that has already been asserted as satisfying the denotation of the main clause verb, since the main and the embedded clause verbs are identical.

Additive foci preceded by *kaí* also occur postverbally. One example is given in (17), where the focused object *kaí tè:n allè:n* “also the other”, referring to the other cheek, occurs postverbally.

- (17) V > I.O. > *kaí* O  
strépson                                      autô:i  
turn.2SG.AOR.IMPV.ACT him.DAT.SG.M  
kaí tè:n                      allè:n  
also D.ACC.SG.F other.ACC.SG.F  
‘(But, whoever should slap your right right cheek), turn the other to him, too.’

(ἀλλ' ὅστις σε ῥαπίζει εἰς τὴν δεξιὰν σιαγόνα [σου]), στρέψον αὐτῷ  
καὶ τὴν ἄλλην· (Mt 5:39)

In summary, additive foci preceded by *kaí* are found both pre- and postverbally.

### 2.2.3 Contrastive focus

Contrastive foci are evaluated within a set of alternatives that possibly satisfy the denotation of the predicate. Contrastive focus is often represented by corrective constructions, as in (18).

- (18) I want RICE, (and) not potatoes.

In English, contrastive foci often occur in-situ, like new information foci, and are pronounced with focus stress. The focused constituent is evaluated within a contrasting set of alternatives, and the corrective “and not” phrase removes one of these alternatives.

In Modern Greek and Italian, contrastive foci may be fronted in the clause (Gryllia 2008; Rizzi 1997, respectively). In (19), adapted from Rizzi (1997:290), the direct object focus “your book” is fronted ahead of the verb.

- (19) IL TUO LIBRO ho comprato (non il suo)  
the your book have.1sg bought (not the your)  
'YOUR BOOK I bought, (not his).'

It is useful to examine these constructions in NT Greek since there is no ambiguity as to what is being focused. The “and not” phrase tells us whether the focus is on a particular constituent of the main clause, or on the VP, or on the proposition. To find the examples, I used digital searches of the three forms of negation, *ou*, *ouk* and *ouk<sup>h</sup>*, directly following *kaí* “and”.<sup>49</sup> It was not feasible to examine every instance of negation, it's possible that I've missed some corrective constructions that do not include *kaí*.

In NT Greek, contrastive foci are found in both pre- and postverbal position, as (20) and (21) show. In (20), the preverbal object *éleos* “mercy” is corrected by *t<sup>h</sup>usían* “sacrifice”.

- (20) éleos t<sup>h</sup>élo: kaì ou t<sup>h</sup>usían  
mercy.ACC.SG.N want.1SG.PRES.IND.ACT and NEG sacrifice.ACC.SG.F  
'I want mercy, and not sacrifice.'  
Ἐλεος θέλω καὶ οὐ θυσίαν· (Mt 9:13, 12:7)

In (21), the postverbal PP *ek písteo:s K<sup>h</sup>ristoû* “from the faith of Christ” is corrected

<sup>49</sup> When a non-aspirate (soft-breathing) vowel follows this NEG, the NEG comes out with a final kappa (*ouk*), and when an aspirate (rough breathing) vowel follows, it has a final chi (*ouk<sup>h</sup>*).

by the PP *ex érgo:n nóμου* “from the works of the law”. The two prepositions are the same, the surface difference (*ek* versus *ex*) is determined by the phonological properties of the following word.

- (21) *hína dikaio:t<sup>h</sup>ô:men ek písteo:s K<sup>h</sup>ristoû*  
 that set.right.1PL.AOR.SUBJ.PAS from faith.GEN.SG.F Christ.GEN.SG.M  
*kaì ouk ex érgo:n nóμου*  
 and NEG from work.GEN.PL.N law.GEN.SG.M  
 ‘(even we have believed in Christ Jesus,) so that we may be justified by faith in Christ and not by the works of the Law,’  
 (καὶ ἡμεῖς εἰς Χριστὸν ἰησοῦν ἐπιστεύσαμεν,) ἵνα δικαιωθῶμεν ἐκ πίστεως Χριστοῦ καὶ οὐκ ἐξ ἔργων νόμου, (Gal 2:16)

According to É.Kiss (1998), the notion of contrastive focus involves the exhaustive identification out of the set of possible alternatives. In contrast to new information focus, she calls exhaustive focus identificational focus (see Brody 1990). In Hungarian, identificational foci are obligatorily moved to the Focus field (the left periphery), while new information foci remain preverbal. This is shown in (22), from É.Kiss (1998: 249).

- (22) a. *Mari egy kalapot nézett ki magának.* HUNGARIAN  
 Mary a hat.ACC picked out herself.ACC  
 ‘It was a hat that Mary picked for herself.’  
 b. *Mari ki nézett magának egy kalapot*  
 Mary out herself.ACC picked a hat.ACC  
 ‘Mary picked for herself A HAT.’

In (a), the interpretation is that Mary picked out a hat for herself, and nothing else. The exhaustive interpretation is not present in (b). The focus corresponds only to new information, which is indicated by small caps on “a hat”.

In English, exhaustive, or ‘identificational’ foci are often clefted to the beginning of the sentence, with a copular verb and a relative clause, as in (23) below. In (a) a set of people are given, who were presumably involved in a crime. In (b) a single member is picked out as having performed the shooting, excluding the possibility that any of the other members took part in this action. Another alternative is to use the exhaustive adverb “only” preceding the focused phrase, as in (c).

- (23) a. The police have arrested Anna, Benjamin and Catherine.  
 b. It was ANna who pulled the trigger.  
 c. Only ANna pulled the trigger.

NT Greek does not appear to display a cleft strategy for exhaustive focus. A digital search of the forms of the copular verb in combination with relative pronouns or the complementizer *hóti* gives no cleft constructions. One way to express exhaustivity is with the adverbial *mónon* “only”. For example, in the corrective construction in (24), the PP *eis heautón* “about himself” is followed by *mónon*

“only”.<sup>50</sup> The whole constituent is fronted ahead of the object *kaúk<sup>h</sup>e:ma* and the verb *héxei*. The PP is corrected with *kaì ouk eis tòn héteron* “and not about another”.

- (24) *kaì tòte eis heautòn mónon kaúk<sup>h</sup>e:ma*  
 and then about self.ACC.SG.M only boast.ACC.SG.N  
*héxei kaì ouk eis tòn héteron*  
 have.3SG.FUT.IND.ACT and NEG about D.ACC.SG.M other.ACC.SG.M  
 (‘But each one must examine his own work,.) and then he will boast about  
 himself only, and not about another.’  
 (τὸ δὲ ἔργον ἑαυτοῦ δοκιμάζτω ἕκαστος.) καὶ τότε εἰς ἑαυτὸν  
 μόνον τὸ καύχημα ἔξει καὶ οὐκ εἰς τὸν ἕτερον. (Gal 6:4)

The presence of *mónon* indicates that the moved focus constituent *eis heautòn* is an exhaustive focus.

It may also be shown that fronted constituents in corrective constructions are not necessarily exhaustive. If *mónon* occurs in the canceled “and not” phrase, that indicates that the focused constituent is not exhaustive. For example, in (25) the fronted PP *ex érgo:n* cancels the PP *ek písteo:s mónon* “by faith only”, implying that a man is indeed justified by faith, but not only by faith. This implies that the fronted PP is not exhaustive.

- (25) *ex érgo:n dikaioûtai ánthro:pos*  
 from work.GEN.PL.N set.right.3SG.PRES.IND.MID man.NOM.SG.M  
*kaì ouk ek písteo:s mónon*  
 and NEG from faith.GEN.SG.F only  
 ‘(You see that) a man is justified by works, and not by faith alone.’  
 (ὁρᾶτε ὅτι) ἐξ ἔργων δικαιοῦται ἄνθρωπος καὶ οὐκ ἐκ πίστεως  
 μόνον. (1 Jac 2:24)

In summary, contrastive foci occur either pre- or postverbally in NT Greek. Contrastive foci that are preverbal sometimes seem to express exhaustive identification, but this is not always the case.

#### 2.2.4 Contrastive focus under negation

Another corrective construction illustrating contrastive focus shows the negation preceding the focus, in the shape “not *x*, but *y*”. This focus construction differs from the ones seen in the last subsection in that negation takes scope over the focused phrase, not the canceled phrase. This type of focus is referred to as bound focus in

<sup>50</sup> There is an additional complication here. The adverb *mónon* does not decline, but the related adjective *mónos* “alone” does. The adverbial is identical in form to the nominative/accusative neuter singular and the accusative masculine singular forms of the adjective. Therefore, in some instances, such as (24), it is unclear whether the form is an adverb, or whether it is an instance of secondary predication.

the literature (see Herburger 2000; Etxepare & Uribe-Etxebarria 2008), since negation takes scope over the focus.<sup>51</sup> An example is shown in (26).

- (26) Sascha didn't visit MontMARTRE, (but PiGALLE)  
(what Sascha visited was not Montmartre)

A digital search of the forms of negation within two lines preceding *allá* “but” reveals that canceled objects occur both pre- and postverbally. The canceled object is directly preceded by the negative morpheme, as shown in (27).

- (27) *kaì* [hòs                    *emè*                    *dék<sup>h</sup>e:tai*                    ]  
and REL.NOM.SG.M me.ACC.SG receive.3SG.FUT.IND.MID  
*ouk*    ***emè***                    *dék<sup>h</sup>e:tai*  
NEG me.ACC.SG receive.3SG.PRES.SUBJ.MID  
*allà*   *tòn*                    *aposteílantá*                    *me*  
but D.ACC.SG.M send.ACC.SG.M.AOR.PART.ACT me.ACC.SG  
‘And whoever should receive me will not receive me, but (he will receive) the one who sent me.’  
*καὶ ὅς ἂν ἐμὲ δέχεται, οὐκ ἐμὲ δέχεται ἀλλὰ τὸν ἀποστείλαντά με.*  
(Mk 9:37)

The ‘subject’ of (27) is the free relative clause, “whoever should receive me”, and it is initial in the string. The object *emé* “me” is directly preceded by the negative marker *ouk*. This places narrow focus on the object, which is witnessed by the fact that the object is corrected in the following *alla* “but” clause/ phrase, by the substantivized participial clause *tòn aposteílantá me* “the one who sent me”.

An example of a postverbal object that is focused under the scope of negation is shown in (28). As in (27), the negation is preverbal, but the object *dikaíous* “the righteous ones” is postverbal. It is clear that there is focus on the object, because it is corrected by the object *hamarto:loús* “the sinners”.

<sup>51</sup> The converse scope relation is called free focus (and this reading is represented by the same clause in (26), tagged with an “and not” expression.

- (i) Sascha didn't visit MontMARTRE, (and not PiGALLE)  
(i.e., what Sascha didn't visit was Montmartre)

I illustrate only bound foci, in the absence of found examples of free foci. I did a digital search of the forms of negation within two lines of direct sequences of *kaí*, “and” and the forms of negation, however I found no examples of the scope ordering in (i).

- (28) ou gàr ê:lt<sup>h</sup>on kalésai  
 NEG PCL come.1SG.AOR.IND.ACT call.AOR.INFIN.ACT  
 dikaíous allà hamarto:loús  
 righteous.ACC.PL.M but sinner.ACC.PL.M  
 ‘For, I came not to call the righteous, but the sinners.’  
 οὐ γὰρ ἦλθον καλέσαι δικαίους ἀλλὰ ἁμαρτωλούς.  
 (Mt 9:13; Mk 2:17; Lk 5:32)

### 2.3 Summary

In this Section, I introduced topic and focus, and showed how these notions can be applied to the NT Greek data. Topics generally show an aboutness property, and are either thematic or contrastive. Some thematic topics in NT Greek are introduced with the preposition *perí* ‘concerning’, and some are resumed with demonstratives. Contrastive topics tend to occur preverbally, with no resumption.

The core notion of focus is evaluation with respect to possible alternatives. There are a few different varieties of focus that I illustrated in NT Greek: new information focus, contrastive and exhaustive focus, and additive focus. Most of these foci are found both pre- and postverbally, the exception being new information focus, of which only the preverbal variety is attested. There is, however, only example of a question-answer pair, which is the context in which new information focus can be found.

## 3 A hierarchy of Topic and Focus projections

In some languages, topic and / or focus particles occur overtly in the Left Periphery. In the example in (29) below, from Aboh (2004: 291), the topicalized constituent directly precedes the topic marker *yà*, in the Specifier of TopP. The focused constituent directly precedes the focus particle *wé*, following the topicalized constituent and topic marker.

- (29) ún dḡ dḡ [dàn lḡ] yà, GUNGBE  
 1SG say.PERF that snake SPF<sub>[+def]</sub> Top  
 [Kòfí] wé ún hù -ì ná  
 Kofi Foc 1SG kill.PERF.3SG for  
 ‘I said that, as for the specific snake, I killed it for KOFI.’

As I mentioned in the introduction, within the cartographic approach, these topic and focus particles are taken to be heads of Topic and Focus projections, which contain Topic and Focus features that trigger movement of a constituent with the same kind of feature. The moved constituents end up in the Specifier of the designated functional projection. Only in some languages the functional heads are overt; in languages without topic or focus particles, the head is assumed to be null.

In Italian, multiple topics are grammatical, and there may be potentially any

number of topics in the left periphery (Cinque 1990; Rizzi 1997). Sequences of multiply fronted foci, on the other hand, are ungrammatical. The examples in (30) and (31), adapted from Rizzi (1997:290), illustrate the possibility of multiple topics but not multiple foci.

- (30) Il libro, a Gianni, domani, glielo darò senz' altro  
 the book to John tomorrow to-him<sub>CL</sub>-it<sub>CL</sub> give.1SG.FUT without other  
 'The book, to John, tomorrow, I'll give it to him for sure.'
- (31) \*A GIANNI IL LIBRO darò (non a Pirio, l'articulolo)  
 TO JOHN THE BOOK give.1SG.FUT, (not to Piero, the article  
 'I'll give the BOOK to JOHN, (not the article to Piero).

When topics co-occur with a focus, they can occur preceding or following the focus, as shown in (32), from Rizzi (1997:291).

- (32) A Gianni, QUESTO, domani, gli dovrete dire  
 To John, THIS, tomorrow to-him<sub>CL</sub> should.2PL.FUT tell  
 'To John, tomorrow, you should tell him THIS.'

In Rizzi's (1997) hierarchy of the left periphery, the Topic Phrase (TopP) is recursive, as signaled by the asterisk, meaning that it has an unlimited number of instantiations, while there is only one Focus Phrase (FocP) per clause. These discourse projections occur between the Force Phrase (ForceP), which specifies the illocutionary force of an utterance, and the Finiteness Phrase (FinP), which is the boundary with the IP, or Tense domain, as I introduced in Chapter 1. This is re-illustrated in (33).

- (33) ForceP...TopP\*...FocP...TopP\*...FinP...IP/TP

More current research has suggested that TopP is not recursive (for example, Benincà & Poletto 2004, Frascarelli & Hinterhölzl 2007). Recent work by Frascarelli & Hinterhölzl (2007) distinguishes three subtypes of topics, which have different functions as well as different intonational contours. They argue that the different types of topics consistently occur in designated Topic projections, and that the order of these Topic projections is fixed in a language. Italian shows the hierarchy in (34).

- (34) Shifting topic [+aboutness] > Contrastive topic > Focus > Familiar topic

Shifting topics are characterized according to one of the properties of Givón's (1983:9) chain initial topic. This definition is given in (35).

- (35) Shifting topic: A newly introduced, newly changed or newly returned topic.

A shifting topic always has an aboutness property. The Italian example in (36) from Frascarelli & Hinterhölzl (2007: 96) illustrates a shifting topic.

- (36) per esempio il CD-rom invece ITALIAN  
 for example the CD-rom instead  
 non l' avevo mai visto  
 not it (CL) have.PAST.1SG never seen  
 'So, for instance, I had never seen a CD Rom before.'

Shifting topics are characterized by the 'L\* + H' contour, which is a complex low tone followed by a high tone. At the onset of the tonic syllable, the low tone rises sharply, and falls sharply again. The constituent forms its own intonational unit (see Frascarelli & Hinterhölzl 2007: 91 for an illustration of the contour).

Below the projection hosting shifting topics, is the projection dedicated to contrastive topics. Frascarelli & Hinterhölzl (2007: 92) show that the intonational contour of a contrastive topic is different from that of shifting topic in Italian. Contrastive topics in Italian are associated with the 'H\*' intonation contour, which shows a different pitch alignment from the L\* + H contour. The example in (37) illustrates a contrastive topic in Italian.

- (37) Invece a lei non l' ha presa come speaker  
 instead to her not her-CL have.3SG taken as speaker  
 'On the contrary he didn't choose her to be the speaker.'

The lowest Topic projection Frascarelli & Hinterhölzl (2007) propose hosts so-called familiar topics. Familiar topics are given or accessible from the discourse, where given-ness is evaluated according to Chafe (1976). Frascarelli & Hinterhölzl (2007: 96) give the following Italian example.

- (38) Io francamente questa attività particolare ITALIAN  
 I frankly this activity particular  
 non me la ricordo.  
 not to.me(CL) it(CL) remember.1SG  
 'Frankly, I don't remember that particular activity.'

The topic *questa attività particolare* is just mentioned, or is somehow salient in the discourse, which in this case corresponds to the presence of the demonstrative pronoun *questa*. Familiar topics are characterized by the L\* intonational contour: a low tone on the tonic vowel, but slightly higher than the lowest tone of the utterance, which occurs right before the topicalized constituent.

The fragment in (39), adapted from Frascarelli & Hinterhölzl (2007: 88) demonstrates the order of topics in Italian. Note that there is no punctuation in the example, since it comes from a recording of running speech.

## (39) ITALIAN

La situazione è questa: l'insegnante come ho detto **ai ragazzi** è in maternità ha una gravidanza difficile e sta usufruendo di quella legge particolare della maternità anticipata per ora ha avuto un mese io penso che non tornerà però lei m'ha detto ah di non dirlo ancora **ai ragazzi** perché per motivi suoi- comunque io signora penso di chiudere l'anno [...] **questo comunque io ai ragazzi non l'ho detto direttamente.**

'This is the situation: the teacher, as I told the students, is pregnant, she's having a difficult pregnancy and she is now having benefits from that specific law that allows early maternity-leave. So far, she has been given one month. I don't think she is coming back, however she told me not to tell the students yet, because- well, she has her reasons. However, I think I will keep the class till the end of the year [...] This, however, I haven't told the students directly.'

Questo, io ai ragazzi non l' ho detto direttamente.

this I to.the boys not it(CL) have.1SG told directly

'I did not tell this [fact] to the students directly.'

In the sentence in question, the direct object *questo* precedes the subject pronoun *io*, which precedes the indirect object *ai ragazzi* (the adverb *comunque* intervenes between *questo* and *io*). *Questo* is a shifting topic (which is an aboutness topic), and it is doubled with a clitic. The pronoun *io* is reported to have the intonational contour of a contrastive topic, which corresponds to the fact that it is being contrasted with the referent in the preceding discourse, *l'insegnante* "the teacher". *Ai ragazzi* "the boys", or in this case "the students" is familiar in the discourse, having been mentioned twice in the context given, and is classified as a familiar topic.

### 3.1 Topic sub-types in NT Greek

The different topic sub-types identified by Frascarelli & Hinterhölzl (2007) can also be identified in NT Greek, and they seem to reflect the same order. As I mentioned above, shifting topics carry an aboutness property, and are either newly introduced topics or newly returned to topics. The passage in (40) illustrates shifting and familiar topics. In (a), there is a shifting topic that is newly introduced. There is a shifting topic that is newly returned to in (c), and there is a familiar topic in (b). The whole passage is given in Greek and English in (d).

- (40) a. gunè: dè tis onómati Márt<sup>h</sup>a  
 woman.NOM.SG.F PCL INDEF.NOM.SG.F name.DAT.SG.N Mart<sup>h</sup>a  
 hupedéxato autón  
 receive.3SG.AOR.IND.MID him.ACC.SG.M  
 'And a certain women named Martha received him.'

- b. *kai tē:de ê:n adelph<sup>h</sup>è:*  
 and this.DAT.SG.F be.3SG.IMP.F.IND.ACT sister.NOM.SG.F  
*kalouméne: Máriam*  
*call.NOM.SG.F.PRES.PART.MID Mary ....*  
 ‘And to her there was a sister called Mary.’
- c. *hè: de Mártha periespâto*  
 D.NOM.SG.F PCL Martha trouble.3SG.IMP.F.IND.MID  
*perì pollè:n diakonían*  
 about much.ACC.SG.F serving.ACC.SG.F  
 ‘But Martha was troubling with a lot of serving.’
- d. Ἐν δὲ τῷ πορεύεσθαι αὐτοὺς αὐτὸς εἰσῆλθεν εἰς κώμην τινά·  
 γυναῖκα δὲ τις ὀνόματι Μάρθα ὑπεδέξατο αὐτόν. καὶ τῇδε ἦν  
 ἀδελφὴ καλουμένη Μαριάμ, [ἡ] καὶ παρακαθεσθεῖσα πρὸς τοὺς  
 πόδας τοῦ κυρίου ἤκουεν τὸν λόγον αὐτοῦ. ἡ δὲ Μάρθα  
 περιεσπᾶτο περὶ πολλὴν διακονίαν· ἐπιστάσα δὲ εἶπεν, Κύριε, οὐ  
 μέλει σοι ὅτι ἡ ἀδελφὴ μου μόνην με κατέλιπεν διακονεῖν; εἰπὲ  
 οὖν αὐτῇ ἵνα μοι συναντιλάβηται.  
 ‘And during their journey, he entered a village. And a certain woman  
named Martha received him. And she had a sister called Mary, who  
 sitting at the feet of the lord, heard his word. But Martha was busy  
 with much serving. And coming up, she said “Lord, do you not care  
 that my sister has left me alone to serve? Then tell her that she should  
 help me.” (Lk 10:40)

In (a), the constituent “a certain woman by the name of Martha” is the preverbal subject. This is the first time in the story that she is introduced. The constituent contains the specific indefinite *tis*, which as I discussed in Chapter 2 is typical of topicalized constituents. In (b), the demonstrative pronoun *tē:de* “to her” refers to Martha, thus is a familiar topic. This pronoun is a possessive dative in a presentational sentence that introduces Martha’s sister Mary. Notice that the newly introduced constituent “a sister called Mary” is postverbal, presumably in the VP, or in a vP internal Focus projection. In (c), the topic of discourse is shifted back to Martha.

The example in (41) illustrates a familiar topic that is a full DP constituent. As shown by the previous context, the speaker has just mentioned that he has authority (ἐξουσίαν, *exousían*). The fronted object *taúte:n tē:n entolē:n* “this command” refers to the aforementioned authority.

- (41) Familiar topic  
*taúte:n tē:n entolē:n élabon*  
 this.ACC.SG.F D.ACC.SG.F commandment.ACC.SG.F take.1SG.AOR.IND.ACT  
*parà toû patrós mou*  
 from D.GEN.SG.M father.GEN.SG.M my.GEN.SG  
 ‘(For, I have the authority to lay it down, and I have the authority to take  
 it back.) This commandment I took from my father.’

(ἐξουσίαν ἔχω θεῖναι αὐτήν, καὶ ἐξουσίαν ἔχω πάλιν λαβεῖν αὐτήν·)  
ταύτην τὴν ἐντολὴν ἔλαβον παρὰ τοῦ πατρὸς μου. (Jn 10:18)

Examples of contrastive topic objects in NT Greek were shown above in (11). In (42) below, contrastive topic subjects are illustrated with two parallel clauses. The contrastive topic subjects are the pronouns *humeis* “you-PL” and *egō*: “I”. The predicates are also contrastive, consisting of prepositional phrases with the copula. These prepositional phrases precede the copulas in both instances. It is possible that the PPs are contrastive foci, but the main point of focus here is the initial contrastive topics.

- (42) Contrastive topics  
Humeis ek tō:n káto: esté,  
 you.NOM.PL from D.GEN.PL.M below be.2PL.PRES.IND.ACT  
egō: ek tō:n áno: eimí  
 I.NOM.SG from D.GEN.PL.M above be.1SG.PRES.IND.ACT  
 ‘You are from those beneath, I am from those above.’  
 ‘Ὑμεῖς ἐκ τῶν κάτω ἐστέ, ἐγὼ ἐκ τῶν ἄνω εἰμὶ’ (Jn 8:25)

Lacking intonational evidence, it is often difficult to distinguish contrastive topics from shifting topics. This is due to the fact that newly returned to topics (classified as shifting topics) are often inferable as belonging to a set that is given in the discourse. For example, consider the example in (43) below, in which the topicalized element is the direct object *tōn sítōn* “the corn”. This example occurs in a parable about the kingdom of heaven, in which it is compared to a man sowing a good seed, which grows into wheat. During the story, it is mentioned that weeds (*tà zizánia*) also grew in the man’s field. The servant of the man suggests that they tear up the weeds, and the man responds with the text in (43).

- (43) tōn dè sítōn sunagágete  
 D.ACC.SG.M PCL corn.ACC.SG.M gather.2PL.PRES.IMPV.ACT  
 eis tē:n apot<sup>h</sup>é:ke:n mou  
 into D.ACC.SG.F barn.ACC.SG.F my.GEN.SG  
 ‘(No, lest while gathering up the weeds, you might uproot the wheat together with them. Let them both grow together until harvest, and in the time of the harvest, I will say to the reapers, “Gather first the weeds and bind them in bundles to burn them up.) And the wheat, gather it into my barn.”’  
 (Οὐ, μήποτε συλλέγοντες τὰ ζιζάνια ἐκριζώσητε ἅμα αὐτοῖς τὸν σῖτον. ἄφετε συναυξάνεσθαι ἀμφοτέρω εἰς τοῦ θερισμοῦ· καὶ ἐν καιρῷ τοῦ θερισμοῦ ἐρῶ τοῖς θερισταῖς, Συλλέξατε πρῶτον τὰ ζιζάνια καὶ δήσατε αὐτὰ εἰς δέσμας πρὸς τὸ κατακαῦσαι αὐτά,) τὸν δὲ σῖτον συναγάγετε εἰς τὴν ἀποθήκην μου. (Mt 13:30)

The object *tōn sítōn* “the wheat” has been previously mentioned, and can be described as a newly returned to topic. It is also contrasted with *tà zizánia* “the

weeds”. Notice further that familiarity in the discourse is the hallmark of a familiar topic. There is therefore some overlap in the properties that the different topics display. Shifting and contrastive topics are often familiar in the discourse. If they display no contrastive or aboutness property in addition to being familiar in the discourse, I consider them to be familiar topics.

### 3.2 The order of topics in NT Greek

With no access to intonation, it is not possible to distinguish topics based on their pitch contours. However, strings of multiple topics seem to occur in a consistent order, based on which properties they display (aboutness, contrast and familiarity). The two passages I illustrate in (44) and (45) below show the order Shifting topic > Familiar topic, and Contrastive topic > Familiar topic.

The example in (44) shows that the shifting topic *tô:i Abraâm* “Abraham” precedes the familiar topic *di’ epangelías* “by command”, which precedes the verb and postverbal subject. The initial shifting topic is more precisely a newly returned to topic, as the context of the example, given in (b), shows. I classify *di’ epangelías* “by command” as a familiar topic, since it has been mentioned many times in the previous discourse, and does not itself carry contrast, and does not display the aboutness property.

- (44) a. Shifting topic > Familiar topic  
       *tô:i \_\_\_\_\_ dè \_\_\_\_\_ Abraâm di’ epangelías*  
       D.DAT.SG.M PCL Abraham by command.ACC.PL.F  
       *kek<sup>h</sup>áristèai ho t<sup>h</sup>eós*  
       say.3SG.PERF.IND.MID D.NOM.SG.M god.NOM.SG.M  
       ‘But to Abraham God gave it by command.’ (Gal 3:18)
- b. Ἀδελφοί, κατὰ ἄνθρωπον λέγω· ὅμως ἀνθρώπου κεκυρωμένην διαθήκην οὐδεὶς ἀθετεῖ ἢ ἐπιδιατάσσεται. τῷ δὲ Ἀβραάμ ἐρρέθησαν αἱ ἐπαγγελίαι καὶ τῷ σπέρματι αὐτοῦ. οὐ λέγει, Καὶ τοῖς σπέρμασιν, ὡς ἐπὶ πολλῶν, ἀλλ’ ὡς ἐφ’ ἑνός, Καὶ τῷ σπέρματί σου, ὅς ἐστιν Χριστός. τοῦτο δὲ λέγω· διαθήκην προκεκυρωμένην ὑπὸ τοῦ θεοῦ ὁ μετὰ τετρακόσια καὶ τριάκοντα ἔτη γεγονώς νόμος οὐκ ἀκυροί, εἰς τὸ καταργῆσαι τὴν ἐπαγγελίαν. εἰ γὰρ ἐκ νόμου ἡ κληρονομία, οὐκέτι ἐξ ἐπαγγελίας. τῷ δὲ Ἀβραάμ δι’ ἐπαγγελίας κεχάριται ὁ θεός.  
       ‘Brothers, I speak in terms of human relations: even though it is only a man's covenant, yet when it has been ratified, no one sets it aside or adds conditions to it. To Abraham the commands were spoken, and to his seed. He does not say, “And to seeds,” as referring to many, but rather to one, “And to your seed,” that is, Christ. What I am saying is this: the Law, which came four hundred and thirty years later, does not invalidate a covenant previously ratified by God, so as to nullify the command. For if the inheritance is based on law, it is no longer based on a command; But to Abraham God granted it by command.’  
       (Gal 3:15-18)

The example in (45) illustrates a contrastive topic preceding a familiar topic, which in turn precedes the verb. In this example, there is another constituent between the contrastive and the familiar topics, whose status is less clear. I have tentatively suggested that this constituent is focused, however it does not show any of the available diagnostics for focus shown in Section 2.

- (45) a. Contrastive topic > (Focus?) > Familiar topic > Verb  
Egò:           polloû           kep<sup>h</sup>alaíou  
 I.NOM.SG       large.GEN.SG.N   sum.GEN.SG.N  
tè:n           politeían           taúte:n  
 D.ACC.SG.F   citizenship.ACC.SG.F   this.ACC.SG.F  
 ekte:sáme:n  
 acquire.1SG.AOR.IND.MID  
 ‘I acquired this citizenship with a large sum of money.’  
 b. Contrastive topic > verb  
Egò:           dè   kai   gegénne:mai  
 I.NOM.SG.M   PCL   even   beget.1SG.PERF.IND.MID  
 ‘But I was even born [Roman].’ (A 22:28)  
 c. προσελθὼν δὲ ὁ χιλίαρχος εἶπεν αὐτῷ, Λέγε μοι, σὺ Ῥωμαῖος εἶ;  
 ὁ δὲ ἔφη, Ναί. ἀπεκρίθη δὲ ὁ χιλίαρχος, Ἐγὼ πολλοῦ κεφαλαίου  
τὴν πολιτείαν ταύτην ἐκτησάμην. ὁ δὲ Παῦλος ἔφη, Ἐγὼ δὲ καὶ  
 γεγέννημαι.  
 ‘And the chief captain came and said to him, “Tell me, you are a Roman?” And he said, “Yes.” And the chief captain answered, “I acquired this citizenship with a large sum of money.” And Paul said, “But I was even born Roman”.’

In the conversation in (45), the speaker in (a), the chief captain, has just heard that the speaker in (b), Paul, is a Roman. After confirming this fact from Paul directly, the chief captain states the clause in (a). The pronoun *egò:* precedes the genitive phrase *polloû kep<sup>h</sup>alaíou* “with a large sum”, referring to a sum of money, which precedes the object *tè:n politeían taúte:n* “this citizenship”, referring to the Roman citizenship. By saying this, the chief captain seems to imply the question of how Paul acquired this citizenship. The first constituent *egò:* “I” is a contrastive topic, since the chief captain is comparing his Roman citizenship with Paul’s. The direct object *tè:n politeían taúte:n* “this citizenship” is a familiar topic, since it refers to the Roman citizenship, which has just been mentioned. The status of the instrumental phrase *polloû kep<sup>h</sup>alaíou* “with a large sum” is less clear. Based on the context, it seems likely that it is emphatically focused, but this can’t be tested.

In Paul’s response in (b), the pronoun *egò:* “I” is a contrastive topic, as he is contrasting himself with the chief captain, with respect to how he acquired the Roman citizenship, which was by birth, not purchase.

### 3.3 Summary

In summary, in this section I have illustrated the hierarchy of Topic and Focus projections in the left periphery of the Italian clause, as proposed by Frascarelli & Hinterhölzl (2007). These authors distinguish various sub-types of topics based on different intonational contours, which occur in designated Topic projections in the left periphery. A shifting topic has an aboutness property, and is newly introduced or newly returned to. A contrastive topic is inferable from the discourse, and carries contrast, and a familiar topic is highly salient in the discourse. The projections hosting these Topics are ordered such that shifting topics precede contrastive topics, contrastive topics precede foci and foci precede familiar topics.

Without intonational facts, it is much more difficult to distinguish topic sub-types, since dislocated constituents often show properties of more than one kind of topic. For example, shifting topics and contrastive topics are often familiar in the discourse, which is the hallmark of a familiar topic. I classify topics as familiar topics if they are familiar in the discourse, but do not have an aboutness or contrastive property. Furthermore, newly returned to topics, which are shifting topics, often carry contrast as well as aboutness (see example (43) above). This makes it difficult to distinguish contrastive from shifting topics. However, in my examination of the NT Greek data, I found that there is evidence for the fact that shifting topics precede familiar topics, and that contrastive topics precede familiar topics. There is an indication that a focused constituent intervenes between the contrastive topic and the familiar topic in (45a) above, however this can't be tested. Evidence for the order Shifting topic > Contrastive topic is lacking. As I show in the next section, evidence for this order is also lacking in SOV clauses, while they provide support for the orders Shifting topic > Familiar topic, Shifting topic > Focus, Contrastive topic > Familiar topic, Focus > Familiar Topic.

## 4 SOV orders

SOV and OSV clauses, in which there are two preverbal constituents allow for further evaluation of the ordering of left peripheral elements. In general, OSV is a very infrequent order (see Chapter 2), and most of the examples contain quantifier arguments. In this section, I discuss SOV orders, and in the next section, I focus on the position of preverbal quantifier arguments. There I discuss some OSV sentences.

I have found SOV clauses in which the two preverbal constituents are either two topics, or a topic and a focus. Both the orders Topic > Focus and Focus > Topic are found. More specifically, I find a contrastive topic preceding a familiar topic, a shifting topic preceding a contrastive focus, a shifting topic preceding an additive focus, and an additive focus preceding a familiar topic. There is also one example with three preverbal constituents, in which the order Shifting topic > Focus > Familiar topic is suggested.

#### 4.1 Contrastive topic > Familiar topic

In the SOV clause in (46), the subject *Mariám* precedes the object *tè:n agat<sup>h</sup>è:n merída* “the good part”, which precedes the finite verb *exeléxato* “chose”.

(46) Contrastive topic > Familiar topic

Mariám      gār      tè:n      agat<sup>h</sup>è:n      merída  
 Maria.NOM.SG   PCL   D.ACC.SG.F   good.ACC.SG.F   part.ACC.SG.F  
 exeléxato  
 choose.3SG.AOR.IND.MID

‘(And Jesus answered and said unto her, “Martha, Martha, you are careful and troubled about many things. But one thing is necessary). And Maria chose the good part (which will not be taken from her)”.’

(ἀποκριθεὶς δὲ εἶπεν αὐτῇ ὁ κύριος, Μάρθα Μάρθα, μεριμνᾷς καὶ θορυβάζῃ περὶ πολλά, ἐνὸς δὲ ἐστὶν χρεία) Μαριὰμ γὰρ τὴν ἀγαθὴν μερίδα ἐξελέξατο (ἥτις οὐκ ἀφαιρεθήσεται αὐτῆς.) (Lk 10:42)

This sentence occurs in a dialogue between Martha and Jesus, as shown in the context. The larger context can be found in example (40) above. Martha has just been complaining that her sister Maria has left her to do all of the serving. She suggests that Jesus tell Maria to help her. The response of Jesus is given in the context of (46), where he states that Martha is troubled about many things, but that there is only one thing that should be troubled over. The fronted object, *tè:n agat<sup>h</sup>è:n merída* “the good part” refers to this one thing, and I therefore classify it as a familiar topic. The subject *Mariám* seems to be a contrastive topic, since Jesus is contrasting Martha, the addressee who is troubled over many things, with her sister Mary, who has chosen the good part to be troubled with.

#### 4.2 Shifting topic > Contrastive focus

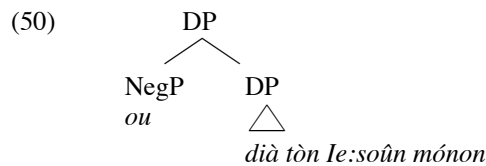
As I mentioned in Section 2, corrective constructions contain contrastively focused phrases. The SOV sentence in (47) below contains a focused object that is under the scope of negation (a “bound focus”), directly following the negative morpheme. The object *tò pneûma toû kósmou* “the spirit of the world” is corrected by *tò pneûma tò ek toû t<sup>h</sup>eoû* “the spirit of God”. In this instance, the pronominal subject *humeîs* “you-PL” precedes the focused phrase (in bold) and the negative morpheme. This pronoun corresponds to a newly returned to topic, and is therefore a shifting topic.

- In this example, the PP *dià tòñ Ie:soûñ mónon* ‘for Jesus only’ is postverbal, directly preceded by the negative morpheme *ou*. This PP is corrected by a clause headed by *hína*, which contains the additively focused phrase *kaí tòñ Lázaron* ‘in

order that they might also see Lazarus”.<sup>52</sup>

Although the canonical position for sentential negation is directly preverbal, the crucial fact is that negative morphemes do occur postverbally in corrective constructions. This means that the preverbal position of negation is not the driving force for movement of corrected objects. It suggests rather that the negation in (27), (47) and (49) is constituent negation rather than sentential negation (see Jackendoff 1972; Payne 1985; Horn 1989). From a semantic perspective, the difference is in scope. If the whole sentence falls under the scope of negation, it is sentential negation, and if only a constituent falls under the scope of negation, it is constituent negation (Zeijlstra 2004: 47).

The difference in scope corresponds to a difference in position of the negative morpheme in NT Greek. In constituent negation, the negative morpheme directly precedes the negated constituent, and in sentential negation, the negative morpheme directly precedes the predicate. I propose that in NT Greek constituent negation, the negative morpheme adjoins to the constituent in its base position, prior to potential extraction. This is the standard analysis of English constituent negation (see Ernst 1992; Embick & Noyer 2001; Kim & Sag 2002). Adjunction of the negative morpheme to the negated PP in (50) is shown in (50).



I assume that the negative morpheme adjoins to the object, and that the object is subsequently moved to Spec,FocP. I do not take a stand as to the status of postverbal corrected constituents such as those in (28) above. It is possible that they move to a vP-internal Focus projection (see Belletti 2001), or remain in their VP-internal base positions.

In summary, I have illustrated an example of an SOV sentence in which the subject is a shifting topic, and the object a contrastive focus. I have argued that the negative morpheme adjoins to the constituent prior to its extraction to Spec,FocP. This accounts for the fact that when a corrected object is fronted, the negative morpheme directly precedes it, interrupting it from the finite verb, while in a pragmatically neutral clause, negation is directly preverbal. It also accounts for examples such as (49), where the cancelled constituent as well as the negative morpheme are preverbal. In this case, focus movement does not apply, however the

<sup>52</sup> There is an additional complication with this example, that the in situ focused PP contains the exhaustivity adverb *mónon*, thus “not only for the sake of Jesus”. The purpose clause that corrects this PP contains an additively focused phrase, *kaí tòn Lázarōn* “also Lazarus”, thus “not only for the sake of Jesus, but in order that they see Lazarus also”. Notice that this focused phrase *kaí tòn Lázarōn* is fronted within the corrective subordinate clause. The example is intended to show only that constituent negation does occur postverbally, albeit rarely.

reason why not is uncertain. This analysis differs from Friberg's (1982) view that the preverbal position of sentential negation is the force driving displacement of corrected objects.

### 4.3 Additive focus > Familiar topic

In Chapter 2 I noted that the SOV order commonly has reflexive, or 'identity anaphoric' objects. These objects include constituents made up of, or containing *hò autós* "the same". In the SOV example in (51), the pronominal subject *humeís* "you-PL" precedes the object *tè:n autè:n énnoian*, which contains *hò autós*.

- (51) Additive focus > Familiar topic
- |                         |               |             |               |                |
|-------------------------|---------------|-------------|---------------|----------------|
| <b>kaì</b>              | <b>humeís</b> | <u>tè:n</u> | <u>autè:n</u> | <u>énnoian</u> |
| and                     | you.NOM.PL    | D.ACC.SG.F  | same.ACC.SG.F | mind.ACC.SG.F  |
| hoplísast <sup>he</sup> |               |             |               |                |
| make.2PL.AOR.IMPV.MID   |               |             |               |                |
- '(Being that Christ has suffered in the flesh), you too, be of the same mind, (because he who has suffered in the flesh has ceased from sin).  
(Χριστοῦ οὖν παθόντος σαρκί) καὶ ὑμεῖς τὴν αὐτὴν ἔννοιαν ὀπίσασθε, (ὅτι ὁ παθὼν σαρκὶ πέπαυται ἀμαρτίας,) (1 Pet 4:1)

The clause is initiated with *kaí*, and as such, *kaí* is ambiguous between the conjunction "and" and the additive particle "also". In this instance, however, the context, given below the example, indicates that *kaí* is an additive focus particle. The object constituent is anaphoric, referring back to manner in which Christ has suffered in the flesh. In this sense, the object is a familiar topic in the discourse.

Another example of a constituent focused with *kaí* that precedes a familiar topic is shown in (52), taken from (31) in Chapter 2. In this instance, the object consists entirely of *tò autò* "the same", meaning "the same thing". This same thing being referred to is introduced in the previous discourse, doing good for those who do good for you.

- (52) Focus > Familiar topic
- |            |               |                     |
|------------|---------------|---------------------|
| <b>kaì</b> | <b>hoi</b>    | <b>hamarto:loi</b>  |
| even       | D.NOM.PL.M    | sinner.NOM.PL.M     |
| <u>tò</u>  | <u>autò</u>   | poiou̓sin           |
| D.ACC.SG.N | same.ACC.SG.N | do.3PL.PRES.IND.ACT |
- '(And if you do good for those who do good for you, what kind of grace do you have?) Even sinners do the same thing'.  
(καὶ [γὰρ] ἐὰν ἀγαθοποιήτε τοὺς ἀγαθοποιούντας ὑμᾶς, ποῖα ὑμῖν χάρις ἐστίν;) καὶ οἱ ἁμαρτωλοὶ τὸ αὐτὸ ποιοῦσιν. (Lk 6:33)

As I mentioned in Section 2, objects preceded by the focus particle *kaí* have a strong tendency to occur preverbally, but are also found postverbally. The fact that constituents preceded by the particle are found both pre- and postverbally indicates

that *kaí* adjoins to the focussed phrase prior to movement of the focussed phrase, as I argued above for constituent negation. It also indicates that movement of the focused phrase is optional in NT Greek, in constructions with focus-sensitive *kaí*.

#### 4.4 Shifting topic > Focus > Familiar topic

An SOV clause with three preverbal constituents is shown in (53), which occurs in a speech made by Jesus, wherein he argues that the testimony that John has given about him is the truth.

- (53) Shifting topic > Focus > Familiar topic  
 egò: dè ou parà ant<sup>h</sup>ró:pou  
 I.NOM.SG PCL NEG from man.GEN.SG.M  
 tè:n marturían lambáno:  
 D.ACC.SG.F testimony.ACC.SG.F take.1SG.PRES.IND.ACT  
 ‘(If I testify about myself, my testimony is not true. There is another who testifies about me and I know that the testimony he gives about me is true. You sent to John, and he testified to the truth.) But I, not from a human being do I receive testimony, (but I say this so that you may be saved).’  
 (ἐὰν ἐγὼ μαρτυρῶ περὶ ἐμαυτοῦ, ἡ μαρτυρία μου οὐκ ἔστιν ἀληθής· ἄλλος ἐστὶν ὁ μαρτυρῶν περὶ ἐμοῦ, καὶ οἶδα ὅτι ἀληθής ἐστιν ἡ μαρτυρία ἣν μαρτυρεῖ περὶ ἐμοῦ. ὑμεῖς ἀπεστάλκατε πρὸς Ἰωάννην, καὶ μεμαρτύρηκεν τῇ ἀληθείᾳ·) ἐγὼ δὲ οὐ παρὰ ἀνθρώπου τὴν μαρτυρίαν λαμβάνω, (ἀλλὰ ταῦτα λέγω ἵνα ὑμεῖς σωθῆτε.) (Jn 5:34)

In the preceding context, Jesus states that he is not the only one to provide testimony about himself. He states that there has been another true testimony about him. He then specifies that this was given by John. Then, he shifts the topic of discourse back to himself, stating that for him, testimony from man is not crucial (later he states that the true testimony comes from the deeds of his father, which he carries out). The subject pronominal *egò*: “I” is in initial position, a shifting topic. The phrase *parà ant<sup>h</sup>ró:pou* “from man” is directly preceded by negation, which suggests that it is under focus, since it is constituent negation rather than sentential negation. The direct object *tè:n marturían* “testimony” is salient in the discourse, already having been mentioned several times.

#### 4.5 Summary

In summary, SOV clauses are suggestive of the order Shifting / Contrastive topic > Focus > Familiar topic > Verb. I have shown examples of a contrastive topic preceding a familiar topic, a shifting topic preceding a contrastive focus, additive foci preceding familiar topics and one example of a shifting topic preceding a contrastive focus, preceding a familiar topic. There is one order that I have not

found, namely a shifting topic preceding a contrastive topic. As I mentioned in Section 3, it is especially difficult to distinguish shifting topics from contrastive topics, and furthermore, there is no evidence for of these co-occurring.

I have not found instances of more than one focus in an SOV clause, or in fact in any clause, which is consistent with the hierarchy of discourse projections proposed by Frascarelli & Hinterhölzl (2007), as well as Rizzi (1997) in Italian. The data are consistent with all types of foci occurring in the same projection, between the two Topic projections.

At face value, Focus movement seems to be optional, since additive foci and contrastive foci are found postverbally. I have argued that constituents that are focused with *kaí* and bound contrastive foci in the NEG-*x* but *y* construction undergo focus movement following adjunction of the negative morpheme or the additive particle to the focused constituent. Therefore, it is not the canonical preverbal position of negation that causes displacement of contrastively focused objects. Rather, it is Focus movement of a constituent that is directly under the scope of negation.

## 5 The position of preverbal quantifier arguments

As I showed in Chapter 3, negative quantifier subjects have similar distributions to negative quantifier objects, and are not likely in the Spec,T subject position. For example, arguments are found intervening between negative quantifier subjects and verbs. The example in (54) is repeated from (75) in Chapter 3. The negative quantifier subject is followed by the indefinite *pote*, “ever” and the object *tè:n heautoû sárka* “his own flesh”, with the verb last in the string.

- (54) oudeis                      gár            pote tè:n            heautoû  
       no-one.NOM.SG.M   PCL        ever   D.ACC.SG.F   self.GEN.SG.M  
       sárka                      emíse:sen  
       flesh.ACC.SG.F   hate.3SG.AOR.IND.ACT  
       ‘For, no-one ever hated his own flesh.’  
       οὐδεὶς γὰρ ποτε τὴν ἑαυτοῦ σάρκα ἐμίσησεν,                      (Ep 5:29)

Universal or ‘strong’ quantifiers such as *πάς* (*pâs*) “all”, “every” in NT Greek also frequently occur in the left periphery. Similarly, the distributive strong quantifier *ἕκαστος* (*hékastos*) “each” occurs as the subject of quite a few SOV sentences, as shown in Chapter 2. As I show below in 5.2, their distribution is similar that of negative quantifiers, and I treat them as structurally similar categories.

### 5.1 Universal quantifiers and negative words in Modern Greek

Modern Greek is a language in which universal quantifiers and negative words may

occur in the left periphery.<sup>53</sup> As I mentioned in Chapter 3, strong quantifiers such as “all” and “every” and negative quantifiers, or negative words such as “nobody” and “nothing” are often ungrammatical as topics. The examples in (55), from Giannakidou (2006: 350) show that bare strong quantifiers and negative words can’t be dislocated and resumed with a clitic in Modern Greek, which is a standard test for topicalization in this language.

- (55) a. \*Kathena, ton idha MODERN GREEK  
           everybody, him saw.1SG  
           ‘\*Everybody, I saw him.’  
       b. \*KANENA, dhen ton idha  
           nobody not him saw.1SG  
           ‘\*Nobody, I didn’t see him.’

Notice that the negative quantifier in (b) is in upper case. This corresponds to the fact that it is pronounced with emphatic stress (see also Puskás 1998 for similar facts in Hungarian). These are known as emphatic negative words, or n-words in the literature (see note 53).

Bare n-words in Modern Greek require a gap, i.e., the absence of a clitic; compare (56) from Tsimpli & Roussou (1996: 58) with (55b) above.

- (56) KANENA, dhen idha  
       nobody not saw.1SG  
       ‘I saw nobody’

Tsimpli & Roussou (1996) and Tsimpli (1995) argue that Modern Greek preverbal n-words undergo Focus movement, similarly to what Brody (1990) argues for Hungarian.

Others have shown that referential strong quantifiers, as well as referential negative words, may be dislocated and resumed with clitics. This is illustrated in (57) from Giannakidou (2006: 350) (see also Giannakidou 1998, 2000; see Cinque 1990 for Italian).

- (57) a. Kathena dhema to paradhosa ston paralipti tu MODERN GREEK  
           every parcel it delivered.1sg in-the recipient its  
           ‘As for every parcel, I delivered it to its recipient.’  
       b. KANENA apo ta vivlia dhen to agorasa telika  
           no from the books not it bought finally  
           ‘I bought none of the books after all.’

The crucial fact is that the quantifiers and negative words have to be linked to the

<sup>53</sup> Negative words such as “nobody” and “nothing” in Modern Greek are polarity items, rather than negative quantifiers, forming a contrast with NT and Classical Greek. Following Giannakidou (2006), I use the term negative words (n-words) when referring to “nobody” and “nothing” in Modern Greek.

discourse, satisfying the referentiality condition (Anagnostopoulou & Giannakidou 1995). In (57), the quantifier is Discourse-linked through the NP *dhema* “parcel”, and the negative word is linked through the partitive *apo ta vivlia* “from the books”.

In summary, strong quantifiers in Modern Greek can be topics if they are referential. Negative words such as “nobody” either under focus movement, or topicalization in the case that they are referential. Notice that in both cases, the negative words are pronounced with emphatic stress. The stress does therefore not necessarily correspond to focus stress (Giannakidou 2006: 331, and references there).

## 5.2 Universal and negative quantifier fronting in NT Greek

The distribution of preverbal universal quantifiers is very similar to that of negative quantifiers in NT Greek. They are each found as subjects and as objects in SOV strings. Following Giannakidou (2006), I assume that a quantifier that is referential can undergo topicalization, and one that is not cannot. If a non-referential quantifier is found in dislocated position (preverbal position at least in the case of oblique quantifier arguments), I will assume that it moves to the Focus projection, following Tsimpli & Roussou’s (1996) analysis of Modern Greek n-word fronting.

However, one interesting complication with the NT Greek data is that in many instances, quantifiers that are linked to the discourse through modifiers are fronted, but the modifiers are stranded in postverbal position. The two examples in (58) and (59) illustrate this. The example in (58) is an OSV clause, of which the subject is the negative quantifier, and the object the DP *tè:n glô:ssan* “the tongue”. The quantifier subject has a genitival complement, *ant<sup>h</sup>rô:po:n* “of men”, which is stranded in postverbal position.

- (58) *tè:n* *dè* *glô:ssan* *oudeis*  
 D.ACC.SG.F PCL tongue.ACC.SG.F no-one.NOM.SG.M  
*damásai* *dúnatai* *ant<sup>h</sup>rô:po:n*  
 overpower.AOR.INFIN.ACT can.3SG.PRES.IND.MID man.GEN.PL.M  
 ‘(And the tongue is fire, the world of inequity, the tongue is set out among our members, and it defiles the entire body, and sets on fire the course of nature and is set on fire by hell. For, every kind of beasts and birds and reptiles and sea creatures is tamed, and has been tamed by the species of man.) But the tongue no man can tame.’  
 (καὶ ἡ γλῶσσα πῦρ, ὁ κόσμος τῆς ἀδικίας, ἡ γλῶσσα καθίσταται ἐν τοῖς μέλεσιν ἡμῶν, ἡ σπιλοῦσα ὅλον τὸ σῶμα καὶ φλογίζουσα τὸν τροχὸν τῆς γενέσεως καὶ φλογιζομένη ὑπὸ τῆς γεέννης. πᾶσα γὰρ φύσις θηρίων τε καὶ πετεινῶν ἐρπετῶν τε καὶ ἐναλίων δαμάζεται καὶ δεδάμασται τῇ φύσει τῇ ἀνθρωπίνῃ·) τὴν δὲ γλῶσσαν οὐδεὶς δαμάσαι δύναται ἀνθρώπων· (Jac 3:8)

The previous context shows that the object *tè:n glô:ssan* “the tongue” is familiar in the discourse, and is also under contrast, with animals, birds, etc. in that unlike

them, it is unable to be tamed. It also fits the description of a shifting topic, since it is a newly returned to aboutness topic. Given that there is contrast and aboutness present, it is either a shifting or a contrastive topic. The quantifier subject can be seen as referential, since it has a genitive complement, i.e., “no-one of men” or “of humankind”. Furthermore, the species of mankind is just mentioned in the previous discourse. The example could thus represent the order Shifting / Contrastive topic > Familiar topic. It is also, of course possible that the quantifier undergoes focus movement. Both of these scenarios are consistent with the order of Topic and Focus projections shown above.

The example in (59) illustrates an SOV clause in which the proper name *he: Mariám* is initial, and the universal quantifier follows. This object quantifier is part of a larger constituent, containing a determiner, an NP and a demonstrative. The quantifier is preverbal, and the other elements are stranded in postverbal position.

- (59) *he:* \_\_\_\_\_ *dè Mariám*      *pánta*      *suneté:rei*  
 D.NOM.SG.F PCL Mary.NOM.SG.F all.ACC.PL.N keep.3SG.IMP.F.IND.ACT  
*tà*      *r<sup>h</sup>émata*      *taûta*  
 D.ACC.PL.N thing.ACC.PL.N this.ACC.PL.N  
 ‘(And all of those who heard it marveled at those things which were told to them by the shepherds.) But Mary kept all these things, (pondering in her heart.)  
 (καὶ πάντες οἱ ἀκούσαντες ἐθαύμασαν περὶ τῶν λαληθέντων ὑπὸ τῶν ποιμένων πρὸς αὐτούς·) ἡ δὲ Μαριάμ πάντα συνετήρει τὰ ῥήματα ταῦτα (συμβάλλουσα ἐν τῇ καρδίᾳ αὐτῆς.) (Lk 2:19)

As shown by the context, the subject *he: Mariám* “Mary” is contrasted with the other people in the discourse, who were wondering, or marveling about the things that they had just heard. Mary, on the other hand, kept them internalized. The constituent *he: Mariám* is then a contrastive topic (or possibly a shifting topic). Similarly to example (58) above, the quantifier in (59) strands the material that makes it referential, in this case the determiner, noun and demonstrative.

The significance of the stranding of referential material is a very complicated issue; first of all, it is not totally clear if the stranded material is sufficient to satisfy the referentiality condition on topicalization. Second, if the referential material is stranded, does that indicate that the quantifier does not undergo topic movement? These issues require a detailed examination of stranding and constituency in the DP, which is not feasible here. I thus leave the status of the fronted quantifiers in (58) and (59) open, pointing out only that contrastive or shifting topics precede quantifiers that are either familiar topics, or foci. These are both consistent with the order of Topic and Focus projections given above.

The example in (60) also shows the pattern of a negative quantifier stranding its modifier. In this case, the negative quantifier is the PP *par’ oudení* “from no-one”, and the modifier is the PP *en tô:i Israél:l* “in Israel”.

- (60) Contrastive topic / Focus > Familiar topic

par' **oudenì** tosaúte:n pístin  
 from no-one.DAT.SG.M such.ACC.SG.F faith.ACC.SG.F  
en tô:i Israè:l heûron  
 in D.DAT.SG.M Israel find.1SG.AOR.IND.ACT  
 '(Truly I say to you,) in no-one in Israel have I found such faith.'  
 (Ἀμὴν λέγω ὑμῖν,) παρ' οὐδενὶ τοσαύτην πίστιν ἐν τῷ Ἰσραὴλ  
 εὗρον. (Mt 8:10)

Notice that it is not completely clear that the second PP modifies the first PP, since the object *tosaúte:n pístin* “such faith” occurs between the two. In principle, it is possible that the second PP modifies this object, i.e., “such faith in Israel”. However, in the preceding context, a centurion has just informed Jesus that his servant did whatever he told him to do. The object, “such faith” then likely refers back to the faithful nature of the servant, which would make the rendition where the locative PP modifies the direct object implausible. Importantly, the direct object is clearly a familiar topic. Therefore, the example still supports a hierarchy of projections in which the Familiar Topic projection follows the other Topic projection and the Focus projection.

In summary, there are many examples in which it is far from trivial to determine whether the dislocated quantifiers are referential topics that undergo topicalization stranding the elements that make them referential, or whether they are dislocated through Focus movement. However, we can still observe from (58) – (60) the fact that familiar topics are relatively low in the sequence of projections, and that shifting or contrastive topics are high. In the next subsection I provide some SOV examples in which the status of the quantifiers is more clear.

### 5.2.1 Quantifier[top] > Contrastive focus

The SOV sentence in (61) illustrates a universal quantifier topic subject, followed by a contrastively focused object. In this case, the quantifier is preceded by the definite article, which reinforces the “they all” or “all of them” referential reading. This instance is not the most straight-forward, since the quantifier refers to an abstract group of members, which has been established as containing nobody comparable to Timothy. Nonetheless, the quantifier is referential, in this case evidenced by the presence of the determiner. It is most accurately described as a shifting topic, since it is newly introduced, or a contrastive topic, since a contrast is being made between “all of them” and Timothy.

- (61) Shifting / Contrastive topic > Contrastive focus

hoi pántes gàr tà **heautô:n**  
 D.NOM.PL.M every.NOM.PL.M PCL D.ACC.PL.N self.GEN.PL.M  
 ze:toûsin ou tà Ie:soû  
 seek.3PL.PRES.IND.ACT NEG D.ACC.PL.N Jesus.GEN.SG.M  
 K<sup>h</sup>ristoû  
 Christ.GEN.SG.M

‘(But I hope in the Lord Jesus to send Timothy to you shortly, so that I also may be encouraged when I learn of your condition. For I have no one comparable who will have genuine interest in the things that concerns you.) For all of them seek their own interests, not those of Jesus Christ. (But you know his worth, that he served with me in the furtherance of the gospel like a child serves his father.)’

(Ἐλπίζω δὲ ἐν κυρίῳ Ἰησοῦ Τιμόθεον ταχέως πέμψαι ὑμῖν, ἵνα καὶ ἐγὼ εὐψυχῶ γνοῦς τὰ περὶ ὑμῶν. οὐδένα γὰρ ἔχω ἰσόψυχον ὅστις γνησίως τὰ περὶ ὑμῶν μεριμνήσει.) οἱ πάντες γὰρ τὰ ἑαυτῶν ζητοῦσιν, οὐ τὰ Ἰησοῦ Χριστοῦ. (τὴν δὲ δοκιμὴν αὐτοῦ γινώσκετε, ὅτι ὡς πατρὶ τέκνον σὺν ἐμοὶ ἐδούλευσεν εἰς τὸ εὐαγγέλιον.)

(Ph 2:21)

The object of this SOV sentence *tà heautô:n* “their own things / interests” is a contrastive focus, which cancels the alternative *tà Ie:soû K<sup>h</sup>ristoû* “the things of Jesus Christ”. This example therefore illustrates the order Shifting topic > Contrastive focus, or Contrastive topic > Contrastive focus, which is consistent with the ordering of topics and foci seen so far.

### 5.2.2 Quantifier[foc] > Familiar topic

The example shown in (62), already introduced above in (54), represents an instance of a non-referential negative quantifier preceding a familiar topic.

(62) Focus > Familiar topic

<b>oudeis</b>	<b>gár</b>	<b>pote</b>	<b>tè:n</b>	<b>heautoû</b>
no-one.NOM.SG.M	PCL	ever	D.ACC.SG.F	self.GEN.SG.M
<b>sárka</b>	<b>emíse:sen</b>			
flesh.ACC.SG.F	hate.3SG.AOR.IND.ACT			

‘(Thus, also men ought to love their wives as their own bodies. He who loves his own wife, loves himself.) For, no-one ever hated his own flesh.’

(οὕτως ὀφείλουσιν καὶ οἱ ἄνδρες ἀγαπᾶν τὰς ἑαυτῶν γυναῖκας ὡς τὰ ἑαυτῶν σώματα. ὁ ἀγαπῶν τὴν ἑαυτοῦ γυναῖκα ἑαυτὸν ἀγαπᾷ,) οὐδεὶς γὰρ ποτε τὴν ἑαυτοῦ σάρκα ἐμίσησεν, (Ep 5:29)

The object is familiar in the discourse, as it has just been mentioned that men should love their wives as they love their own bodies. The quantifier is non-referential and therefore not a viable topic, so it must be a focus. This is consistent with the ordering of topic and focus projections outlined above. The position of the adverb *pote* “ever” is unclear. Note that it is a clitic, and therefore there may be many factors affecting its placement.

An example of a negative quantifier preceded by a topic is shown in (63), repeated from (71) in Chapter 3. The quantifier object *oudén* is fronted, along with the adjective *átupon* “wrong”. The subject demonstrative *hoûtos* precedes this constituent.

- As shown in the context below the example, the demonstrative subject, which refers to Jesus, is being contrasted with the speaker himself, along with another criminal, all of whom are about to be crucified. The speaker states that he and the other criminal deserve this punishment, but Jesus does not. The demonstrative is therefore most consistent with the notion of contrastive topic. The quantifier, although it is specified with the adjective *átopon* “wrong”, is not referential, and therefore not a topic but a focus.

In summary, universal and negative quantifiers in NT Greek have similar distributions. They both occur string-initially with one argument to the right, preceding the finite verb. Preverbal quantifiers are found preceded by one constituent.

I have argued that both universal quantifiers and negative quantifiers in NT Greek can in principle be either topics or foci. To be topics, they must be referential (Giannakidou 2000, 2006). When they are not referential, I suggest that they undergo focus fronting, as has also been argued for Modern Greek (Tsimpli & Roussou 1996; Tsimpli 1995). I noted that it is still difficult in some instances to tell whether the quantifiers are referential or not, and it is unclear what the significance of stranded modifiers that make the quantifiers referential is. However, in cases where it is more straightforward to tease apart topic quantifiers from foci, I have shown that the order of preverbal constituents is consistent with the order found in SOV clauses. Namely, shifting and contrastive topics precede foci, and foci precede familiar topics.

## 6 Conclusion

To conclude, although it is very difficult to make claims about discourse structure in the language of the NT, it is possible to identify at least some kinds of topics and foci. For example, examining corrective constructions and sentences containing the additive particle *kaí* allows for the identification of at least some types of foci. In some cases, the context of the examples provides sufficient evidence to identify various sub-types of topics.

One conclusion from the chapter is that the hierarchy of Topic and Focus projections in the left periphery of the NT Greek clause is as in (64).

- (64) Shifting/Contrastive topic > Focus > Familiar topic

This is similar to the one proposed by Frascarelli & Hinterhölzl (2007) for the Italian clause, the difference being that there is no clear evidence in NT Greek for the fact that shifting topics precede contrastive topics, since there are no examples that clearly show both of these elements in the same clause.

In terms of the derivation of O-initial and SOV clauses, OVS clauses are the counterparts of VSO clauses, with additional movement of the object, to either a Topic or Focus projection. OSV clauses have many potential derivations. It is possible that only objects move to the left periphery, since neutral subjects can theoretically move to Spec,T as discussed in Chapter 3. Some OSV clauses involve a derivation in which both arguments are in the left periphery. Most of the OSV clauses I have encountered in the NT contain one quantifier argument. Since preverbal quantifiers occur in the left periphery, as concluded in Section 5 (see also Chapter 3), an OSV clause in which the subject is a quantifier indicates that both elements are in the left periphery. In SOV clauses, both arguments are in the left periphery, and examination of these clauses has provided support for the order of projections in (64).



## Chapter 5. Word order in questions

### 1 Introduction

The focus of the last three chapters has been on word order in declarative clauses, and the ordering of elements in the left periphery. This chapter is about word order in questions, both questions that look for an answer that is “yes” or “no”, and questions that look for content about a questioned phrase, a “*wh*-phrase”. Example (1) illustrates a yes-no question, and the one in (2) seeks a contentful answer concerning the object.

(1) Yes-no question

Árá ge ginó:skeis  
Q PCL understand.2SG.PRES.IND.ACT  
há anaginó:skeis?  
REL.ACC.PL.N read.aloud.2SG.PRES.IND.ACT  
‘Do you understand what you are reading?’  
Ἄρα γε γινώσκεις ἃ ἀναγινώσκεις; (A 8:30)

(2) Object *wh*-question

tí poié:so:men kaì he:meîs?  
what.ACC.SG.N do.1PL.AOR.SUBJ.ACT also we.NOM.PL  
‘And the soldiers also asked him, saying,) “What should WE do?”’  
(ἐπηρώτων δὲ αὐτὸν καὶ στρατευόμενοι λέγοντες,) Τί ποιήσωμεν καὶ  
ἡμεῖς; (Lk 3:14)

In the yes-no question in (1), the particle *ára* occurs in initial position. This particle is unique to yes-no questions. It is recorded with a pitch accent that is distinct from the inferential or illative particle *ára*, which I introduced in Chapter 3, and which I discuss further below. In (2), the object *wh*-phrase occurs in initial position, while the normal canonical object position is postverbal (Chapter 2).

There are two main goals in this chapter. First, I attempt to determine whether the same derivations are available in questions as in declarative clauses. Second, I try to determine where *wh*-interrogatives and question particles fit into the structure of the left periphery outlined in Chapter 4. To do this, I examine question particles and *wh*-interrogatives with respect to the left peripheral elements identified so far. These include fronted constituents associated with topicality or focus, as discussed in Chapter 4, and the inferential / illative particle *ára*, as introduced in Chapter 3.

With respect to the first question, I show below that similar word order variation is found in questions as in declarative clauses. Yes-no questions are found in SVO, VSO, SOV and OSV orders. This indicates that there is no movement operation that is unique to questions. As for *wh*-questions, some display similar word order variation as declarative clauses. Adjunct *wh*-questions such as “how” and “why” questions show a fairly even mix of *wh*-SVO and *wh*-VSO orders, and also allow

*wh*-SOV orders. Among object questions, for example “whom” and object “what” questions on the other hand, there is a strong trend for *wh*-VS orders. *Wh*-SV is very marginally attested. At first glance, this might suggest that V to C movement takes place in object *wh*-questions, in parallel with verb movement in *wh*-questions in Germanic and Romance languages (Rizzi 1996, among others). However, when more data are considered, it is shown that there is left peripheral material between *wh*-interrogatives and verbs, indicating that verb movement terminates at T in *wh*-questions, like in declarative clauses.

With respect to the second question, where question particles and *wh*-words appear in the left periphery, I propose that the structure arrived at in Chapter 4 be modified as in (3).

- (3) TopP > ForceP > EvidP > FocP > (Fam)TopP

The projection ForceP in (3) is the landing site for *wh*-interrogatives, and is also the projection that question particles and complementizers head. Support for this claim comes from the fact that at most one topicalized constituent occurs preceding question particles, *wh*-interrogatives, and complementizers. To the right of question particles and *wh*-interrogatives, up to two preverbal constituents are found. In many cases, it is not clear whether they constitute topic or focus material. In some cases, however, it is clear that we are dealing with focus material following *wh*-interrogatives. Furthermore, NT Greek displays multiple *wh*-fronting. This means that when there are two interrogatives in a single question, they both undergo movement. The data shown in Section 5 suggest that they move to distinct projections. I argue that the first one moves to Spec,CP and the second to Spec,FocP in (3). This is what has been argued for some cases of Serbo-Croatian multiple *wh*-fronting (see Bošković 2002, 2003).

The remainder of the chapter is broken down as follows. I first provide background on question formation in NT Greek. Section 3 focuses on constituent order in yes-no questions, and Section 4 on constituent order in argument and adjunct *wh*-questions. In Section 5, I evaluate the position of question particles and *wh*-interrogatives with respect to the position of topic and focus material, arriving at the hierarchy in (3).

## 2 Background on question formation

### 2.1 Yes-no questions

Many interrogative sentences look the same as declarative statements. Robertson (1934:1175) points out that in many cases, it is difficult to tell an interrogative from a declarative sentence. First of all, NT Greek yes-no questions are not distinct morphologically from regular declarative statements. There is no obligatory question particle or morpheme. For example, the question in (4) is distinguished from a declarative statement based on the context.

- (4) Suné:kate                      taûta                      pánta  
 understand.2PL.AOR.IND.ACT    this.ACC.PL.N    all.ACC.PL.N  
 ‘Do you understand all these things? (And they said to him, “Yes”).’  
 Συνήκατε ταῦτα πάντα; (λέγουσιν αὐτῷ, Ναί.)                      (Mt 13:51)

Jesus has just spoken a list of parables to the disciples. In the context following, the disciples answer positively. Although this does not necessarily mean that the example is a question, it is an indication.

In NT Greek, particles sometimes occur in questions. Robertson (1934:1175) states that the majority of questions do not occur with particles. The ones attested in NT Greek are *ou/ouk/ouk<sup>h</sup>í*, *mé:/mé:ti* and *âra*. Other particles used in Classical Greek, such as *ê*: are not found in the text (see Robertson 1934:1175-1176, Blass, Debrunner & Funk 1961: 226). The particles add a speaker-oriented opinion as to the expected answer, similarly to in Classical Greek. They usually occur in rhetorical questions.

*Ou/ouk/ouk<sup>h</sup>í* and *mé:/mé:ti* are negative morphemes. The first ones, which I introduced in Chapter 4, are used with the indicative mood, and the second are used with non-indicative moods. In questions, *ou/ouk/ouk<sup>h</sup>í* occur when the expected answer is positive, and *mé:/mé:ti* when the expected answer is negative. For example, in (5) the speaker poses the question and subsequently answers it negatively.

- (5) **mè** he:                      apistía                      autô:n                      tè:n  
 Q    D.NOM.SG.F    disbelief.NOM.SG.F    their.GEN.PL    D.ACC.SG.F  
 pístin                      toû                      t<sup>h</sup>eoû                      katargé:sei?  
 faith.ACC.SG.F    D.GEN.SG.M    god.GEN.SG.M    nullify.3SG.FUT.IND.ACT  
 ‘(What if some did not believe?) Their disbelief won’t nullify the faith of  
 God, will it? ([No], let it not be.)’  
 (τί γάρ εἰ ἠπίστησάν τινες;) μὴ ἢ ἀπιστία αὐτῶν τὴν πίστιν τοῦ θεοῦ  
 καταργήσῃ; (μὴ γένοιτο.)                      (Rm 3:3)

In (6), the particle *ouk* occurs in a question that seems to anticipate a positive response. The speaker asks whether or not he is an apostle, and following this, states, “If to others I am not, at least I am to you”, suggesting that he is of the opinion that he is an apostle.

- (6) **Ouk** eimì                      apóstolos?  
 Q                      be.1SG.PRES.IND.ACT    apostle.NOM.SG.M  
 ‘Aren’t I an apostle? (Haven’t I seen Jesus our lord? Aren’t you my work in  
 the lord? If to others I am not an apostle, at least I am to you; for you are the  
 seal of my apostleship in the lord).’  
 οὐκ εἰμὶ ἀπόστολος; (οὐχὶ Ἰησοῦν τὸν κύριον ἡμῶν ἐώρακα; οὐ τὸ  
 ἔργον μου ὑμεῖς ἐστε ἐν κυρίῳ; εἰ ἄλλοις οὐκ εἰμὶ ἀπόστολος, ἀλλὰ γε  
 ὑμῖν εἰμ.)                      (1 Cor 9:1)

These question particles are distinct from negation in declarative clauses and in *wh*-questions through their position. In neutral declarative clauses, and in *wh*-questions, sentential negation directly precedes the verb (or the mood particle *ân*, which is directly preverbal when present) but is not necessarily string initial. In yes-no questions, the negative particles are string-initial, apart from conjunctions like “and” and “or”, and as I show below, at most one topic constituent. In some cases, the position of negation appears to be the same as that of the question particles, such as in (6) above, since the clause only consists of the negation particle and a predicate. In (5), on the other hand, the negative morpheme precedes the subject as well as the object, initiating an SVO string. In this example it is clear that the negative morpheme occupies a high position in the structure.

The particle *âra* is considered to be strictly an interrogative particle in NT Greek (Robertson 1934: 1176) and Classical Greek (Smyth 1984).<sup>54</sup> It does not necessarily expect an affirmative or negative answer, but “denotes interest on the part of the speaker” (Smyth 1984: 598, §2650). An example from NT Greek is given in (7), where the questioner answers the question himself, negatively. Note that the verb in this clause is an unexpressed copular, or in other words, this is a nominal predicate.

- (7) *âra* K<sup>h</sup>ristòs hamartías diákonos?  
 Q Christ.NOM.SG.M sin.GEN.SG.F minister.NOM.SG.M  
 ‘(But if, while we seek to be justified by Christ, we ourselves are sinners,) is Christ then a minister of sin? (Let it not be.)’  
 (εἰ δὲ ζητοῦντες δικαιωθῆναι ἐν Χριστῷ εὐρέθημεν καὶ αὐτοὶ ἁμαρτωλοί,) ἄρα Χριστὸς ἁμαρτίας διάκονος; (μὴ γένοιτο.) (Gal 2:17)

In summary, NT Greek has no obligatory question morpheme in yes-no questions, but particles may occur in questions, at times adding an indication of expected response, or the level of interest. Two of these particles are synonymous with the negative adverbs; however when these particles occur in questions, they occur in a high position in the left periphery, unlike negation in declarative clauses.

## 2.2 *Wh*-questions

NT Greek *wh*-questions are characterized by *wh*-interrogative, occurring in the left periphery of the clause. This is typical of both Classical and Modern Greek. The system of interrogatives and indefinites in the NT Greek system resembles that of Classical Greek more than Modern Greek. Many significant changes have happened

<sup>54</sup> The particle *âra* is distinct from the inferential / illative particle *ára* discussed in Chapter 3. Orthographically, they are distinct through their different accents (corresponding to the length of the first alpha), however as Robertson (1934: 1176) points out, at times it is doubtful whether the acute or the circumflex is the correct accent (for example, he cites Galatians 2:17, given above in (7)), and it is a question of editing. One distributional difference is that *ára*, but not *âra* is found in *wh*-questions. The latter is found only in yes-no questions.

during or since the Koine period. For example, split *wh*-phrases are typical of Classical and NT Greek, and very limited in Modern Greek (Matheiu & Sitaridou 2005). Another difference is that while Modern Greek allows *wh*-in-situ, it is unfound in Classical and NT Greek. Furthermore, NT and Classical Greek display multiple *wh*-fronting, while this is not possible in Modern Greek (Roussou 1998).

### 2.2.1 Interrogative (*wh*-) words

The *wh*-words summarized in Table 1 are found in the NT (Robertson 1934: 735-41).

<i>tís</i>	<i>who, what, which</i>
<i>poîos</i>	<i>what sort, which</i>
<i>pô:s</i>	<i>how</i>
<i>póte</i>	<i>when</i>
<i>poû</i>	<i>where</i>
<i>pót<sup>h</sup>en</i>	<i>from where</i>
<i>pósos</i>	<i>how much, how great, how many</i>
<i>pe:líkos</i>	<i>how great</i>
<i>potapós</i>	<i>what sort</i>

**Table 1: NT Greek interrogative words**

The last three interrogatives in Table 1 are rarely attested in the NT, and I will not discuss them in what follows. The first two entries, *tís* and *poîos* are declining interrogatives. They can be subject or object interrogatives (corresponding to nominative and accusative / dative / genitive case, respectively), or adjunct *wh*-phrases, if they occur in an oblique case, and/ or are preceded by prepositions. One common example of an adjunct *wh*- is *dià tí*, “why”, which is composed of the preposition *diá*, “through” / “on account of” and the neuter form of *tís*. The interrogatives *pô:s*, *póte*, *poû* and *pót<sup>h</sup>en* are always non-declining adjunct *wh*-phrases.

The *tís* paradigm is far more common than the *poîos*, and *poîos* has undergone some changes in use from the Classical period. One significant change is that it is sometimes used synonymously with *tís*, while it was previously strictly qualitative, meaning “what sort of” (see Robertson (1934: 740).<sup>55</sup>

The *tís* and *poîos* interrogatives may occur alone, as bare *wh*-phrases or in full *wh*-phrases, either with partitive genitive DPs, or NPs that agree with the *wh*-s in gender, number and case. These options are illustrated in (8) – (10). The example in (8) shows two instances of *tís* as bare *wh*-phrases.

<sup>55</sup> The *poîos* stem has become the main interrogative paradigm in Modern Greek, with *tí* only the surviving neuter accusative form from the *tís* paradigm (Matheiu & Sitaridou 2005).

(8) Bare *wh*-phrase

**Tís**                      **estin**                      **he:**                      **mé:te:r**  
 who.NOM.SG.M   be.3SG.PRES.IND.ACT   D.NOM.SG.F   mother.NOM.SG.F  
 mou  
 my.GEN.SG  
**kaì tίνes**                      **eisìn**                      **hoi**                      **adelp<sup>h</sup>oí**  
 and who.NOM.PL.M   be.3PL.PRES.IND.ACT   D.NOM.PL.M   brother.NOM.PL.M  
 mou?  
 my.GEN.SG  
 ‘Who is my mother, and who are my brothers?’  
 Τίς ἐστὶν ἡ μήτηρ μου, καὶ τίνες εἰσὶν οἱ ἀδελφοί μου;                      (Mt 12:48)

The one in (9) shows *tís* in a full *wh*-phrase, followed by a partitive DP initiated with *ek*, “from”.

(9) Partitive *wh*-phrase

**tís**                      **ek**                      **tô:n**                      **dúo**                      **epoíe:sen**  
 who.NOM.SG.M   from   D.GEN.PL.M   two   do.3SG.AOR.IND.ACT  
 tò                      t<sup>h</sup>éle:ma                      toû                      patrós?  
 D.CC.SG.N   will.ACC.SG.N   D.GEN.SG.M   father.GEN.SG.M  
 ‘Which of the two did the will of his father?’  
 τίς ἐκ τῶν δύο ἐποίησεν τὸ θέλημα τοῦ πατρὸς;                      (Mt 21:31)

In (10) *tís* occurs in a full DP *wh*-phrase, where the *wh*-interrogative agrees in gender, number and case with the NP *se:meíon* “sign”.

(10) Full DP *wh*-phrase

**Tí**                      **se:meíon**                      **deiknúeis**                      **he:mîn**  
 what.ACC.SG.N   sign.ACC.SG.N   show.2SG.PRES.IND.ACT   us.DAT.PL  
 ‘What sign do you show us, (that you do these things)?’  
 Τί σημεῖον δεικνύεις ἡμῖν, (ὅτι ταῦτα ποιεῖς;)                      (Jn 2:18)

2.2.2 *Wh*-movement

All *wh*-words appear consistently towards the left edge of the clause, regardless of their grammatical status, as in Classical Greek (Kuhner-Gerth 1904, Vol II: 515). For example, consider the object *wh*-phrase in (10) above. The *wh*-phrase *tí se:meíon* “what sign” is the object of the finite verb in both, and but occurs in initial position, out of its canonical postverbal position (see Chapter 2). This phenomenon is known as *wh*-movement (Chomsky 1977; Cheng 1991). NT Greek seems to be a consistent *wh*-movement language. No *wh*-in-situ is found.

An NP associated with a *wh*- may be pied-piped with the *wh*-, as in (10) or it may be ‘stranded’ in-situ, as in (11), resulting in a split *wh*-phrase. In this respect it patterns with Classical rather than Modern Greek, in which split *wh*-phrases are more restricted (see Mathieu & Sitaridou 2005 for details on split *wh*-phrases in Classical versus Modern Greek).

- (11) *Wh*-movement with NP stranding  
**Τί** οὖν ποιεῖς σὺ  
 what.ACC.SG.N then make.2SG.PRES.IND.ACT you.NOM.SG  
**se:meîon**  
 sign.ACC.SG.N  
 ‘Then what sign do you make, (so that we may see, and believe you)?’<sup>56</sup>  
 Τί οὖν ποιεῖς σὺ σημεῖον, (ἵνα ἴδωμεν καὶ πιστεύσωμέν σοι;) (Jn 6:30)

While pied-piping is optional with NPs, it is obligatory with prepositions, contrasting with English, for example. An adjunct *wh*-phrase that is headed by an overt preposition always pied-pipes the preposition when it moves. This is shown in (12) for the preposition *prós*, “to” / “toward”.

- (12) Preposition pied-piping  
 Κύριε **πρὸς τίνα** ἀπελεύσομεθα?  
 lord.VOC.SG.M to who.ACC.SG.N go.1PL.FUT.IND.MID  
 ‘Lord, who should we go to?’  
 Κύριε, πρὸς τίνα ἀπελεύσομεθα; (Jn 6: 68)

*Wh*-movement also occurs without exception in indirect questions. For example, in the indirect question in (13), the *wh*-object *tí* occurs at the left edge of the interrogative clause, rather than in postverbal position.

- (13) *Wh*-movement in an indirect question  
 ὅτι ho δοῦλος οὐκ οἶden  
 because D.NOM.SG.M slave.NOM.SG.M NEG know.3SG.PERF.IND.ACT  
 [ **τί** ποιεῖ  
 what.ACC.SG do.3SG.PRES.IND.ACT  
 autoû ho kýrios ]  
 his.GEN.SG D.NOM.SG.M master.NOM.SG.M  
 ‘because the servant does not know what his master does’  
 ὅτι ὁ δοῦλος οὐκ οἶden τί ποιεῖ αὐτοῦ ὁ κύριος (Jn 15:15)

Another relevant fact about *wh*-movement is that in questions in which there is more than one *wh*-interrogative, both of them are fronted to the left periphery. This is shown in the indirect question in (14), where the subject interrogative *tís* and the object interrogative *tí* occur preceding the verb.

<sup>56</sup> It is not completely clear what the interpretation of the NP should be; it may have a “what for” reading, as in English “What do you show for a sign...?” or the Dutch “wat voor” equivalent. Another similar possibility is that the NP has a predicative reading similar to “What do you show as a sign...?”. In any case, these are all considered to be split constructions.

(14) Multiple *wh*-fronting

**tís**                      **tí**                      **áre:**  
 who.NOM.SG.M    what.ACC.SG.N    take.3SG.AOR.SUBJ.ACT  
 ‘(And they crucified him, and they divided his garments, casting lots upon them), as to who should take what.’  
 (καὶ σταυροῦσιν αὐτὸν καὶ διαμερίζονται τὰ ἱμάτια αὐτοῦ, βάλλοντες κλῆρον ἐπ’ αὐτὰ) τίς τί ἄρη. (Mk 15:24)

This phenomenon is known as multiple *wh*-fronting in the literature (see Dayal 2006). I discuss it below in Section 5.

## 2.2.3 The interrogative / indefinite system

As is very common cross-linguistically, the NT Greek *wh*-interrogatives have the same morphological shape as indefinites (this is also true of Classical Greek). The two paradigms are distinguished through pitch accent, as shown in Table 2. *Wh*-interrogatives always carry a pitch accent. If bi-syllabic, the accent is on the first syllable. Indefinites carry no pitch accent.

<i>wh</i> -interrogative	indefinite
<i>tís, tí</i> : <i>who, what, which</i>	<i>tis, ti</i> : <i>someone / thing, anyone / thing</i>
<i>pô:s</i> : <i>how</i>	<i>po:s</i> : <i>somehow</i>
<i>póte</i> : <i>when</i>	<i>pote</i> : <i>sometime</i>
<i>poû</i> : <i>where</i>	<i>pou</i> : <i>somewhere</i>
<i>dià tí / tí</i> : <i>why</i>	<i>diá ti</i> : <i>for some reason</i>

**Table 2: NT Greek *wh*-interrogatives and indefinites**

Notice that there are two forms for “why”: *dià tí* and *tí*. As I mentioned above, *dià tí*, is composed of the accusative assigning preposition *diá*, “through” / “because of” and *tí*, “what”. In many cases the short form *tí* is found without the preposition, where the interrogative may not be interpreted as an object, but has to be an adjunct meaning something like “why”.

The clitic indefinites in Table 2 are free choice items or polarity items, for example, “someone” / “something”, “anyone” / “anything”, and so forth.<sup>57</sup> This is also true of Classical Greek (Roussou 1998; Roberts & Roussou 1999). Clitic indefinites occur following the modal particle *án*, if it is present, as shown in (15).

(15) *án* > indefinite

**kat<sup>h</sup>óti án tis**                      **k<sup>h</sup>reían**                      **eĩk<sup>h</sup>en**  
 REL    PCL    indef.NOM.SG.M    need.ACC.SG.F    have.3SG.IMPF.IND.ACT  
 ‘(And they were selling their property and sharing them with everyone,) inasmuch as anyone had need.’  
 (καὶ τὰ κτήματα καὶ τὰς ὑπάρξεις ἐπίπρασκον καὶ διεμέριζον αὐτὰ πᾶσιν) καθότι ἄν τις χρεῖαν εἶχεν· (A 2:45)

<sup>57</sup> As we saw in Chapter 3, *tis* is also a specific indefinite, meaning “a certain”.

*Wh*-interrogatives, on the other hand, appear in a pre-*án* position as in the direct question in (16) and the indirect question in (17).<sup>58</sup>

- (16) *wh*- > *án*  
**Τί**                      ἂν      τ'έλοι                      ho  
 what.ACC.SG.N PCL want.3SG.PRES.OPT.ACT the.NOM.SG.M  
 spermológos                      hoûtos                      légein?  
 babblers.NOM.SG.M this.NOM.SG.M say.PRES.INFIN.ACT  
 'What would this babblers want to say?'  
 Τί ἂν θέλοι ὁ σπερμολόγος οὗτος λέγειν; (A 17:18)
- (17) *wh*- > *án*  
 καὶ      dieláloun                      pròs      allé:lous  
 and discuss.2PL.IMPV.IND.ACT to each.other.ACC.PL.M  
 [ **τί**                      ἂν      ποιέ:saen  
 what.ACC.SG.N PCL do.3PL.AOR.SUBJ.ACT  
 tô:i                      Ie:soû                      ]  
 the.DAT.SG.M Jesus.DAT.SG.M  
 'But they were filled with rage), and they discussed with each other what they might do to Jesus.'  
 αὐτοὶ δὲ ἐπλήσθησαν ἀνοίας, καὶ διελάλουν πρὸς ἀλλήλους τί ἂν ποιήσαιεν τῷ Ἰησοῦ (Lk 6:11)

In (16) and (17), the *wh*-interrogatives have the acute accent typical of *wh*-interrogatives as shown in Table 2. The typical pattern for oxytonic words, which have a high pitch (acute accents) on the final syllable, is that the acute accent comes out grave when the oxytone is followed by another word in the same sentence (Smyth 1984: 37, § 154). What is special about oxytonic *wh*-interrogatives, such as *tís*, is that this acute accent is retained in the presence of a following word (Smyth 1984: 95 §334). Thus, oxytonic *wh*-interrogatives do not conform to the normal processes of phonological pitch changes in speech.

In a few cases in the NT, the indefinite clitic *tis* comes out with the acute accent typical of the *wh*-interrogative. This is limited to when this pronoun is followed by an enclitic, and this is the typical pattern in Classical Greek (Smyth 1984: 42, § 183a). An example is given in (18).

<sup>58</sup> As I mentioned in Chapter 3, the particle *án* shows second position effects in the NT. The fact that indefinites and interrogatives occupy distinct positions can also be shown with the particle *ára*, which does is not a second position particle in NT Greek. Namely, *wh*-interrogatives precede it (for example (41) below), and indefinites follow it (see Mk 11:13 for an example of the latter).

- (18) Stressed indefinite  
 hína tís se ero:tâi  
 that INDEF.NOM.SG.M you.ACC.SG.M ask.3SG.PRES.SUBJ.ACT  
 ‘(Now we know that you know all things and you don’t need) that anyone  
 ask you.’  
 νῦν οἶδαμεν ὅτι οἶδας πάντα καὶ οὐ χρειαν ἔχεις ἵνα τίς σε ἐρωτᾷ.  
 (Jn 16:30)

In (18), the enclitic pronominal *se* “you”, has no pitch accent, and directly follows the indefinite pronoun. In this case, the indefinite is a polarity or free choice item, not an interrogative, yet it shows the accent of a *wh*-. The phonological process by which the pitch on the indefinite in (18) becomes high is distinct from the process that makes the interrogatives in (16) and (17) retain high pitch. The high pitch of *wh*-interrogatives corresponds to their syntactic position and their status as interrogatives, while the high pitch on indefinite clitics followed by clitics is only a phonological process.

In summary, pitch accentuation on indefinite pronouns and their position preceding the mood particle *án* or the inferential particle *ára* corresponds to their status as *wh*-interrogatives. The pitch accentuation of *wh*-interrogatives is not subject to the regular rules of pitch accentuation in Greek. Namely, oxytonic *wh*-interrogatives such as *tís* retain high pitch when followed by other words. This can be seen as a phonological reflex of the interrogative feature on the relevant C head, corresponding to question force.<sup>59</sup> In cases such as (18), where the pronoun is not a *wh*-interrogative although it has a rising pitch accent, there is no relationship established between a *wh*-feature on the relevant C head and the pronoun. This phonological reflex is only a bi-product of the phonological deficiency of the following enclitic.

#### 2.2.4 Summary

In summary, the majority of *wh*-words attested in the corpus are the interrogative counterparts of clitic indefinite pronouns: *tís* “who”, *pôs* “how”, *poû* “where” and *póte* “when”). “Why” interrogatives are composed of the neuter singular accusative form of *tís*, preceded by the preposition *día*, and on occasion *prós* or *eis*, in a parallel fashion to causal indefinites. In many cases, the “what” form occurs with no preposition, in contexts where the question can’t be construed as a “what” question, but appears to be an adjunct reason question. Some *wh*-s, namely instances of *tís*, carry pitch accents that are not subject to the regular rules of pitch changes.

*Wh*-interrogatives undergo movement to the left periphery in both direct and indirect questions. If the *wh*- occurs in a full *wh*-phrase, the NP or the genitival complement is either pied-piped with the *wh*-, or stranded in a position that appears to be in-situ in its base position. Prepositional pied-piping with adjunct *wh*-phrases,

<sup>59</sup> The fact that oxytonic *wh*-interrogatives retain the high pitch could suggest that *wh*-s are focused indefinites, however it would be far from trivial to argue this.

on the other hand, is obligatory. In instances of two *wh*-interrogatives, both of them undergo movement.

### 3 Constituent order in yes-no questions

There is significant word order variation in yes-no, similarly to in declarative clauses as discussed in Chapter 2. In questions, VSO, SVO, SOV and OSV are all attested. The examples in (19) – (22) illustrate this variation. All of the examples are initiated with a variant of the question particle *ou*, which anticipates expects a positive answer, or *mé:*, which anticipates a negative answer. The canonical VSO order following the question particle *ouk<sup>h</sup>i* is shown in (19).

- (19) *ouk<sup>h</sup>i*>VSO  
**ouk<sup>h</sup>i** emó:ranen ho t<sup>h</sup>eòs  
 Q make.foolish.3SG.AOR.IND.ACT D.NOM.SG.M god.NOM.SG.M  
 tè:n sop<sup>h</sup>ían toû kósmou?  
 D.ACC.SG.F wisdom.ACC.SG.F D.GEN.SG.M world.GEN.SG.M  
 ‘Hasn’t God made the wisdom of the world foolish?’  
 οὐχὶ ἐμώρῳανεν ὁ θεὸς τὴν σοφίαν τοῦ κόσμου; (1 Cor 1:20)

In (20), the question particle *mé:ti* occurs preceding the subject, a fronted PP, the verb and the object.

- (20) *mé:ti*>S(PP)VO  
**mé:ti** he: pe:gè: ek tē:s autē:s  
 Q D.NOM.SG.F fountain.NOM.SG.F from D.GEN.SG.F same.GEN.SG.F  
 opê:s brúei tò glukù  
 hole.GEN.SG.F burst.3SG.PRES.IND.ACT D.ACC.SG.N sweet.ACC.SG.N  
 kaì tò pikrón?  
 and D.ACC.SG.N bitter.ACC.SG.N  
 ‘A fountain doesn’t send out sweet and bitter water from the same hole, does it?’  
 μήτι ἡ πηγὴ ἐκ τῆς αὐτῆς ὀπῆς βρῦει τὸ γλυκὺ καὶ τὸ πικρὸν;  
 (Jac 3:11)

In the SOV example in (21), the particle *kaí* occurs directly preceding the subject. In Chapter 4, I discussed its use as an additive focus particle in detail. In the case of (21), it is not additive like “also”, but more like the focus particle “even”. Notice further that the direct object consists of the substantivized pronominal *autós*, meaning “the same thing”. In this instance, it refers to a deed which has just been discussed, namely loving those who love you.

- (21) *ouk<sup>h</sup>t>SOV*  
**ouk<sup>h</sup>** kaì hoi telô:nai  
 Q even D.NOM.PL.M publican.NOM.PL.M  
 tò autò poioûsin?  
 D.ACC.SG.N same.ACC.SG.N do.3PL.PRES.IND.ACT  
 ‘Don’t even the publicans do the same thing?’  
 οὐχὶ καὶ οἱ τελῶναι τὸ αὐτὸ ποιοῦσιν; (Mt 5:46)

In the OSV example in (22), the object and subject are pragmatically marked. The object *toûs éso*: “the ones inside” (referring to those inside the church) is in contrast to *toûs éxo*: “the ones outside”, which is mentioned in both the preceding and following sentences. The pronominal subject *humeîs* “you” is also in contrast to God, who is mentioned explicitly in the next line.

- (22) *ouk<sup>h</sup>t>OSV*  
**ouk<sup>h</sup>** toûs éso: humeîs krínete?  
 Q D.ACC.PL.M inside you.NOM.PL judge.2PL.PRES.IND.ACT  
 ‘(For, why is it up to me to judge those who are outside?) Don’t you judge those who are inside? (And those who are outside, God judges them).’  
 (τί γάρ μοι τοὺς ἔξω κρίνειν;) οὐχὶ τοὺς ἔσω ὑμεῖς κρίνετε; (τοὺς δὲ ἔξω ὁ θεὸς κρίνει.) (1 Cor 5:12)

The examples in (19) – (22) indicate that similar derivations are possible in yes-no questions as in declarative clauses. As I mentioned in Chapter 3, Section 3, Modern Greek allows V to C movement in yes-no questions and verb focusing constructions (Roussou & Tsimpli 2006), however it is not obligatory in questions. Modern Greek interrogative sentences are distinct from declarative clauses only in intonation (Arvaniti 2002; Baltazani 2003). It is possible that V to C movement occurs sometimes in NT Greek questions, but there is no clear evidence showing this.

In Chapter 3 I used the relative position of verbs and the inferential or illative particle *ára* to distinguish V to T from V to C movement. If the verb precedes *ára*, it has moved to a projection of C. Among questions, I find no example of a verb preceding the particle *ára*. When this particle occurs in questions, the verb occurs following it. If a question particle is present, this question particle precedes *ára*. For example, in (23) below the question particle *mé:ti* precedes *ára*, while the verb is last in the string, following *ára* as well as the oblique constituent *tê:i elap<sup>h</sup>rái* “with lightness”.

- (23) [toûto oûn boulómenos] **mé:ti** ára  
 this.ACC.SG.N PCL want.NOM.SG.M.PRES.PART.MID Q PCL  
 tê:i elap<sup>h</sup>rái ek<sup>h</sup>re:sáme:n  
 D.DAT.SG.F lightness.DAT.SG.F proclaim.1SG.AOR.IND.MID  
 ‘And so, when I was wanting this, I didn’t proclaim it with lightness, did I?’

τοῦτο οὖν βουλόμενος μήτι ἄρα τῇ ἐλαφρίᾳ ἐχρησάμην; (2 Cor 1:17)

Notice that the participial clause *toûto boulómenos* “wanting this” precedes the question particle *mé:ti*. The particle *oûn*, which takes scope over the whole sentence, occurs as the second word of the sentence, therefore falling between the two elements of the initial constituent, in this case, the participial clause.

There is no example of a yes-no question in which the verb precedes the particle *ára*. There is therefore no firm evidence for V to C movement in yes-no questions. The fact that constituents occur between question particles and verbs further suggests that verbs move to T in yes-no questions, at least in the neutral case. Note that there are few instances of *ára* in yes-no questions, and it is possible that the string V-*ára* was grammatical in questions.

In summary, yes-no questions show similar word order variation as declarative clauses. The language makes use of particles that occur at or near the left edge questions, however they are not obligatory. I conjecture that the questions are interpreted as such through intonation. VSO, SVO and SOV are all significantly attested. This indicates that no verb movement operation takes place in yes-no questions that is distinct from verb movement in declarative clauses. Note that there is no clear distributional evidence for V to C movement, it is not ruled out as a theoretically possible derivation.

## 4 Constituent order in *wh*-questions

### 4.1 Object and adjunct *wh*-questions

Table 3 below shows the distributions of the relative orders of subjects and verbs in direct *wh*-questions in the NT. I include only the interrogatives that have indefinite counterparts in this survey. This includes the adjunct *wh*-s *pô:s* “how”, *poû* “where” and *póte* “when”, and the interrogatives from the *tís* stem, of which there are the object *wh*-s *tí*, “what” and *tína*, “whom”, and the “why” (adjunct) interrogatives, *dià tí*, and the short form *tí*. Notice that the adjunct *tí* and the argument *tí* are homonymous, and therefore ambiguities are possible in principle. However, I have not found an example in the clauses included in the table in which there is any plausible ambiguity. The table includes both local and long distance *wh*-questions, but excludes local questions with copular verbs. However, I include long-distance questions in which the embedded verb is copular (for example (27) below). Note that the *wh*-VS column includes questions in which there are phrasal elements intervening between the subject and verb. This is also true of the *wh*-SV column.

		<i>wh</i> -VS	<i>wh</i> -SV	total
<b>object</b>	<i>what</i>	15	2 <sup>60</sup>	17
	<i>whom</i>	4	0	4
<b>adjunct</b>	<i>how</i>	15	8	23
	<i>why</i>	3	15	18
	<i>where</i>	0	1	1
	<i>when</i>	0	0	0

**Table 3: Word orders in object & adjunct *wh*-questions**

The table shows that there is a strong tendency for *wh*-VS orders in object questions. There are a significant number of “what” questions with overt subjects and non-copular verbs, seventeen to be precise. Of these, only two show the *wh*-SV order, and as I show below, one of these involves a textual ambiguity. There are only four “whom” questions, and they all show the VS order. There are significant numbers of “how” and “why” questions. There are more *wh*-VS than *wh*-SV “how” questions and more *wh*-SV than *wh*-VS “why” questions. The tendency for *wh*-SV in “why” questions is actually quite strong. There is only one viable “where” clause, which shows the *wh*-SV order, and there are no viable “when” questions. The examples in (24) – (29) illustrate the patterns in Table 3.

In (24), the canonical *wh*-VS order among object *wh*-questions is shown.

- (24) *what*>VS  
allà tí légei  
but what.ACC.S.N say.3SG.PRES.IND.ACT  
he: grap<sup>h</sup>é:  
D.NOM.SG.F scripture.NOM.SG.F  
‘But what does the scripture say? (“Cast out the bondwoman and her son, for the son of the bondwoman will inherit with the son of the free one.”)  
ἀλλὰ τί λέγει ἡ γραφή; (Ἐκβαλε τὴν παιδίσκην καὶ τὸν υἱὸν αὐτῆς, οὐ γὰρ μὴ κληρονομήσει ὁ υἱὸς τῆς παιδίσκης μετὰ τοῦ υἱοῦ τῆς ἐλευθέρας.)  
(Gl 4:30)

One of the two *wh*-SV “what” question involves a discrepancy across editions. The *wh*-SV version appears in the Nestle-Aland edition, as given in (25). In the Westcott-Hort edition, the question shows a S-*wh*-V order as shown in (26).

<sup>60</sup> There is actually only one unambiguously *wh*-SV “what” question. One of these two is recorded as a *wh*-SV clause in the Nestle-Aland edition, but not in the Westcott-Hort edition (see (25) and (26) below).

- (25) *what*>SV (N-A)  
**τί**                      *sù*                      *légeis*                      *perì*  
 what.ACC.SG.N    you.NOM.SG    say.2SG.PRES.IND.ACT    about  
*autoû*                      *hóti*                      *e:néo:ixén*  
 him.GEN.SG    because    open.3SG.AOR.IND.ACT  
*sou*                      *toûs*                      *op<sup>ht</sup>halmóus?*  
 your.GEN.SG    the.ACC.PL.M    eyes.ACC.PL.M  
 ‘(So they said to the blind man again,) “What do you say about him,  
 given that he has opened your eyes?” (And he said, “He is a prophet.”)’  
*λέγουσιν οὖν τῷ τυφλῷ πάλιν, Τί σὺ λέγεις περὶ αὐτοῦ, ὅτι ἠνέωξέν*  
*σου τοὺς ὀφθαλμούς; ὁ δὲ εἶπεν ὅτι Προφήτης ἐστίν.*                      (Jn 9:17)
- (26) *what*>VS (W-H)  
*sù*                      **τί**                      *légeis*                      ...  
 you.NOM.SG    what.ACC.SG.N    say.2SG.PRES.IND.ACT  
 ‘You, what do you say...’

In the Westcott-Hort S-*wh*-V version, the subject pronoun is fronted around the *wh*-, as is commonly found in the NT (see Section 4.2 below). Note that the subject is pragmatically marked, and this seems to correspond to emphatic focus, or contrastive topic. In the previous context, the Pharisees have not been able to come to a consensus among themselves, and so they asked the blind man again what he thought, since it was him who Jesus had apparently healed. In both of the construals in (25) and (26), the subject could potentially occupy a focus or contrastive topic projection. The relevant issue here is that under the Nestle-Aland version, a fronted constituent occurs between the *wh*- and the verb.<sup>61</sup>

There are not very many “whom” questions with overt subjects and non-copular verbs in the corpus, and all four of them show the *wh*-VS order. Three of the four attestations are constructions like the question in (27).

- (27) *whom* >VS  
**τίνα**                      *me*                      *légousin*  
 whom.ACC.SG.M    me.ACC.SG.M    say.3PL.PRES.IND.ACT  
*hoi*                      *ánt<sup>h</sup>ro:poi*                      *eînai?*  
 D.NOM.PL.M    man.NOM.PL.M    be.PRES.INFIN.ACT  
 ‘Whom do men say that I am?’  
*Τίνα με λέγουσιν οἱ ἄνθρωποι εἶναι;*                      (Mk 8:27)

<sup>61</sup> From the point of view of textual criticism, the Nestle-Aland version (*wh*-SV) is the most plausible reading, since it is the minority across manuscripts. The rule of *lectio difficilior potior* “the more difficult reading is stronger” asserts that when many manuscripts conflict, the more difficult or noncanonical is likely the original. The original is likely attested least frequently in manuscripts, since it would have been hypercorrected.

Example (27) is a long-distance question, in which the *wh*-interrogative is the predicate of an embedded copular infinitive. The subject of this infinitive is the clitic pronoun *me* “me”. Both of these show accusative case marking. This is what is traditionally referred to as the accusative plus infinitive construction. In other words, this is an instance of Exceptional Case-Marking. The clitic pronoun is the subject of the embedded infinitival *eînai* “be”, but shows accusative case marking from the matrix verb *légousin* “say”. Notice that the clitic pronoun intervenes between the *wh*-interrogative and the verb, in Wackernagel position (second position). I will not be able to provide an account of clitic placement in the NT in this thesis, but the high position of the clitic is consistent with clitic movement to a C projection, as proposed in Cardinaletti & Starke (1999).

In the *wh*-SV column in Table 2, there are significant attestations of “how” and “why” questions. There are also significant attestations of these in the VS column. Examples of *wh*-VS and *wh*-SV “why” and “how” questions are given in (28) – (31).

(28) *why* > VSO

**διὰ τί** eplé:ro:sen                      ho                      Satanâs  
 why fill.3SG.AOR.IND.ACT D.NOM.SG.M Satan.NOM.SG.M  
 tè:n                      kardían                      sou  
 D.ACC.SG.F heart.ACC.SG.F your.GEN.SG  
 ‘Why did Satan fill your heart (to lie to the holy spirit, and to keep back  
 part of the price of the land)?’  
 διὰ τί ἐπλήρωσεν ὁ Σατανᾶς τὴν καρδίαν σου (ψεύσασθαί σε τὸ  
 πνεῦμα τὸ ἅγιον καὶ νοσφίσασθαι ἀπὸ τῆς τιμῆς τοῦ χωρίου);  
 (A 5:3)

(29) *why* > SV > PP

καὶ **διὰ τί** dialogismoì                      anabaínousin  
 and why thoughts.NOM.PL.M arise.3PL.PRES.IND.ACT  
 en tê:i                      kardíai                      humô:n?  
 in the.DAT.SG.F heart.DAT.SG.F your.GEN.PL  
 ‘(Why are you troubled?) And why do thoughts arise in your hearts?’  
 (Τί τεταραγμένοι ἐστέ,) καὶ διὰ τί διαλογισμοὶ ἀναβαίνουσιν ἐν τῇ  
 καρδίᾳ ὑμῶν;  
 (Lk 24:38)

(30) *how* > VS

**Πῶς** [oûn] e:neó:ik<sup>h</sup>t<sup>h</sup>e:sán                      sou  
 how so open.3PL.AOR.IND.PASS your.GEN.SG  
 hoi                      op<sup>h</sup>t<sup>h</sup>almoí?  
 the.NOM.PL.M eye.NOM.PL.M  
 ‘So, how were your eyes opened?’  
 Πῶς [οὖν] ἠνεώχθησάν σου οἱ ὀφθαλμοί;  
 (Jn 9:10)

- (31) *how* > SV  
 καὶ **πῶς** he:meîs akóuomen hékastos  
 and how we.NOM.PL hear.1PL.PRES.IND.ACT each.NOM.SG.M  
 tê:i idíai dialékto:i he:mô:n  
 D.DAT.SG.F own.DAT.SG.F language.DAT.SG.F our.GEN.PL  
 ‘And how do we each hear in our own language, (with which we were born)?’  
 καὶ πῶς ἡμεῖς ἀκούομεν ἕκαστος τῇ ἰδίᾳ διαλέκτῳ ἡμῶν (ἐν ᾗ ἐγεννήθημεν;)  
 (A 2:8)

There is only one example of a “where” question with an overt subject and non-copular verb. As shown in (32), it shows the *wh*-SV order.

- (32) *where* > SV  
**Ποῦ** hoûtos mellei poreúest<sup>h</sup>ai  
 where this.NOM.SG.M will.3SG.PRES.IND.ACT go.PRES.INFIN.MID  
 ‘Where will this man go, (that we will not find him)?’  
 Ποῦ οὗτος μέλλει πορεύεσθαι (ὅτι ἡμεῖς οὐχ εὐρήσομεν αὐτόν);  
 (Jn 7:35)

In summary, the generalization is that adjunct questions, particularly “why” and “how” questions, show a fairly even mix of *wh*-VS and *wh*-SV orders. In the case of “where”, there is only one example with an overt subject and non-copular verb, and it shows the *wh*-SV order. Object questions, on the other hand, show a very strong tendency for *wh*-VS orders. There is one possible counter-example, given in (26) above. There is also one indisputable counter-example, which I discuss below in Section 4.4 (see example (42) therein).

## 4.2 A V to C account for object questions

At first glance, the trend for *wh*-VS orders among object questions suggests that verb movement proceeds all the way to C (see Kirk 2012). This kind of derivation has been proposed to account for obligatory inversion in Romance (see Torrego 1984; Rizzi & Roberts 1989; Uriagereka 1995), and in English *wh*-questions (Rizzi 1996). In Standard Italian and many other Romance dialects, the canonical order in argument *wh*-questions is *wh*-VS.<sup>62</sup> The example in (33) shows that the *wh*-SV order is ungrammatical and the *wh*-VS grammatical in Standard Italian.

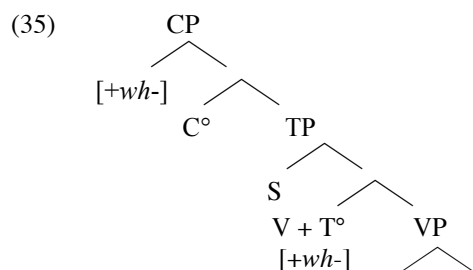
<sup>62</sup> This is a bit of an over-simplification. There is a lot of variation among Romance languages (see, for example, the papers in Hulk & Pollock 2001). Standard Spanish shows obligatory inversion only with argument *wh*-s (Torrego 1984), while Standard Italian shows inversion with all *wh*-questions apart from “why” questions (Rizzi 1999). Furthermore, there is a lot of dialectal variation. I am also leaving aside the issue of Discourse-linked (D-linked) *wh*-phrases, which behave rather differently from bare *wh*-s (see Pesetsky 1987).

- (33) a. \*Che cosa Maria ha detto? STANDARD ITALIAN  
           what        Mary has said?  
       b. Che cosa ha detto Maria?  
           what        has said Mary  
           ‘What did Mary say?’

This is similar to English *wh*-questions, where inversion or “do”-support is obligatory, as shown in (34). This is not true of subject questions, as I discuss below around (39).

- (34) a. \*What Mary has said?  
       b. What has Mary said?  
       c. What did Mary say?

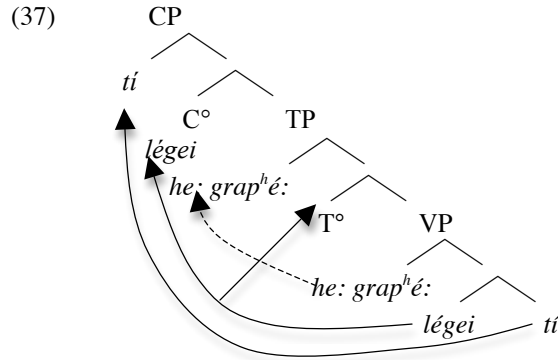
May (1985), and Rizzi (1996) propose the *wh*-criterion to account for obligatory inversion. Rizzi’s version of the criterion states that a *wh*-operator must be in a Spec-head configuration with a head that bears a [+*wh*-] feature, and that a head bearing a [+*wh*-] feature must be in a Spec-head configuration with a *wh*-operator. The assumption is that [*wh*-] features are licensed in an IP (i.e., T) projection. These features move to C° to create the necessary Spec-head configuration with the [*wh*-] feature there. The verb, which has adjoined to T° is moved along to C°, as shown in (35).



Since the *wh*-interrogative and the verb are in a Spec-head configuration, elements may not intervene between these two. Subjects surface following verbs, in Spec,T. An object question such as (24) above, repeated below as (36), has the configuration in (37) under this analysis.

- (36) *what* > V > S  
 allà tí légei  
 but what.ACC.S.N say.3SG.PRES.IND.ACT  
 he: graphé:?  
 D.NOM.SG.F scripture.NOM.SG.F  
 ‘But what does the scripture say?’  
 ἀλλὰ τί λέγει ἡ γραφή;  
(Gl 4:30)

As shown in (37), the verb moves through the T head, to the C head, and the subject either moves to Spec,T or stays in-situ in the VP, as discussed in Chapter 3. This option is shown with a dashed arrow.



Concerning adjunct questions, Kirk (2012) argues that “why” interrogatives do not undergo *wh*-movement at all, but are first merged in their left peripheral position, following Rizzi (1999) and Ko (2005). Furthermore, it is argued that this position is distinct from the one in which object *wh*-interrogatives occur, and it is higher in the structure (Rizzi 1999). This is extended to “how” questions, many of which are not means or manner questions, but “how come” questions, very similar semantically to “why” questions. This accounts for why “how” and “why” questions allow SV orders; there is space between the position of the *wh*- and the verb, namely a Topic projection or the Spec,T position intervenes, hosting preverbal subjects.

The V to C movement approach to object *wh*-questions easily derives the strong tendency for *wh*-VS orders in object questions, and is consistent with what has been argued for in many Germanic and Romance dialects. However, this analysis does not seem to be able to account for some further data, as I present below.

### 4.3 A lack of adjacency between *wh*- and V in argument questions

One prediction that the V to C analysis presented in the last subsection makes is that no elements should intervene between argument *wh*-phrases and verbs. That is, it does not only block the SV order, but any order where an element intervenes between the *wh*- and the verb. This prediction does not seem to be borne out, as elements other than subjects are occasionally found intervening between object interrogatives and verbs.

One example is given in (38). In this double object construction, the reflexive object pronoun *seautòn* intervenes between the object *wh*- and the verb.

(38) *wh*->OV

**Tína** seautòn poieîs?  
 whom.ACC.SG.M self.ACC.SG.M make.2SG.PRES.IND.ACT  
 ‘(Are you then better than our father Abraham, who died? The prophets died, too). Who are you making yourself out to be?’  
 (μὴ σὺ μείζων εἶ τοῦ πατρὸς ἡμῶν Ἀβραάμ, ὅστις ἀπέθανεν; καὶ οἱ  
 προφῆται ἀπέθανον.) τίνα σεαυτὸν ποιεῖς; (Jn 8:53)

By this rhetorical question, the Jews are accusing Jesus of making himself out to be something he is not. They state that Jesus had claimed that anyone who kept to his sayings would be exempt from death, and then point out that both Abraham and the prophets died. It is difficult to say what the information structural status of the pronoun is in this instance. There seems to be contrast, between the addressee and Abraham and the prophets, but lacking intonational evidence it is unclear whether the constituent is topic or focus material. Whatever the status of the pronoun is, it indicates that the verb does not move to the head of the projection hosting the *wh*-interrogative.

Subject questions are also argument questions, although there are certain asymmetries among subject and object questions in some languages such as English. One unique property of English subject questions is that they don’t allow “do”-support (i.e., \**Who did come?* with neutral intonation on *did*). It has been argued that subject *wh*-phrases do not move to Spec,CP like other *wh*-s, but stay in the IP subject position, avoiding what is called Vacuous Subject Movement (George 1980; Chomsky 1986b). It has also been argued that subject *wh*-phrases undergo the same movement to Spec,CP as other *wh*-interrogatives, and that this is due to their status as *wh*-interrogatives, which move to Spec,CP in order to check the interrogative feature on the C head (Cheng 1991: 31-32). Agbayani (2000) proposes that while the *wh*-feature occurs in Spec,C, the *wh*-interrogative itself does not move higher than Spec,IP.

As shown in Chapters 2 and 3, NT Greek is not a strict SVO language, but VSO is a neutral word order. Movement of the subject *wh*- to Spec,CP would not be vacuous movement in a VSO language. Furthermore, topic constituents are found between *wh*-interrogatives and finite verbs. An example of this is in (39), where the pronominal object *he:mas* “us” intervenes between the *wh*- and the verb.

(39) *wh*->O>V

**tís** he:mâs k<sup>h</sup>o:rísei  
 who.NOM.SG.M us.ACC.PL.M separate.3SG.FUT.IND.ACT  
 apò tê:s agápe:s toû K<sup>h</sup>ristoû?  
 from D.GEN.SG.F love.GEN.SG.F D.GEN.SG.M Christ.GEN.SG.M  
 ‘(Who is the one who condemns? Christ [Jesus], who has died, or rather who was risen, who also is at the right side of God, who also intercedes for us.) Who will separate us from the love of Christ?’  
 (τίς ὁ κατακρινών; Χριστὸς [Ἰησοῦς] ὁ ἀποθανών, μᾶλλον δὲ ἐγεροθείς, ὃς καὶ ἐστὶν ἐν δεξιᾷ τοῦ θεοῦ, ὃς καὶ ἐντυγχάνει ὑπὲρ

ἡμῶν.) τίς ἡμᾶς χωρίσει ἀπὸ τῆς ἀγάπης τοῦ Χριστοῦ;  
(Rm 8:35)

As shown by context below the example, the object pronoun *he:mâs* “us” is salient in the discourse, and was just mentioned. This fits the description of a familiar topic, as discussed in Chapter 4. It is also possible that it is under focus, but this can’t be tested.

In Chapter 3, I used the relative position of verbs and the inferential or illative particle *ára* to identify configurations where the verb was in C (see also the discussion of verb movement in yes-no questions in (23) above). In Chapter 3 I noted that *ára* occurs in the left periphery, preceded by elements such as *wh*-words and question particles. Verbs were also found preceding this particle, indicating they had moved to C. The pattern in *wh*-questions is that the verb follows *ára*, as in the subject question in (40) below.

- (40) *wh*->*ára*>V  
 τίς                      ára    δύνатаι                      so:t<sup>h</sup>ê:nai?  
 who.NOM.SG.M    PCL   can.3SG.PRES.IND.MID   save.AOR.IND.ACT  
 ‘Then who can be saved?’  
 Τίς ἄρα δύνатаι σωθῆναι;                      (Mt 9:25)

*Wh*-interrogatives precede *ára* without exception in the corpus. There is no example of both a *wh*- and the verb preceding *ára*. Such an attestation would allow us to say with some certainty that verbs can move to C in *wh*-questions, and by analogy with declarative clauses, for focus. In the absence of such data, it is uncertain whether verbs can move to C in *wh*-questions in NT Greek. That is to say, the lack of attestation of *wh*->V>*ára* could be taken to indicate that focus movement of the verb and *wh*-movement are mutually exclusive, or the sequence could be accidentally unattested, but grammatical.

In summary, argument questions do not show a strict adjacency between the *wh*-interrogative and the verb. This indicates that there is no spec-head configuration established between the *wh*- and the verb.

#### 4.4 A V to T account

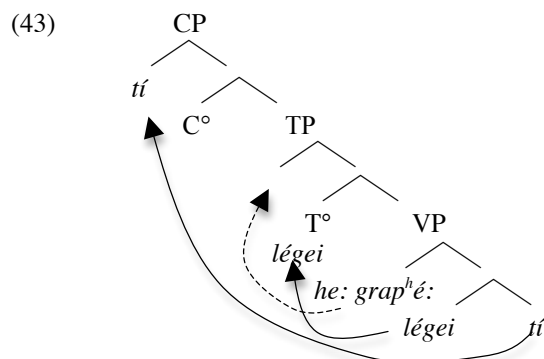
Another possible explanation for the strong tendency for VS in object *wh*-questions is simply that verbs raise to T, and in the majority of examples, subjects stay in-situ, yielding *wh*-VS orders. In Chapter 2, I claimed that both VSO and SVO orders are found in neutral contexts in declarative clauses (see examples (16) and (17) in Chapter 2). I concluded in Chapter 3 that verb movement ends at T in the neutral case, and that the Spec,T position is in fact available for neutral subjects that are preverbal. There is a near minimal pair of *wh*-questions, one of which was already shown in (24) above, as an example of a *wh*-VS clause. The *wh*-VS version is repeated in (41), and the *wh*-SV version is shown in (42).

Aside from the difference in word order, there is one other difference. In (41) the conjunction *allà* “but” occurs, and in (42) the second position particle *gár*, this difference being relevant to the larger discourse structure.

- (41) *what>VS*  
*allà tí* *légei*  
 but what.ACC.S.N say.3SG.PRES.IND.ACT  
*he: grap<sup>h</sup>é:?*  
 D.NOM.SG.F scripture.NOM.SG.F  
 ‘But what does the scripture say? (“Cast out the bondwoman and her son, for the son of the bondwoman will inherit with the son of the free one.”)  
*ἀλλὰ τί λέγει ἡ γραφή;* (Ἐκβαλε τὴν παιδίσκην καὶ τὸν υἱὸν αὐτῆς, οὐ γὰρ μὴ κληρονομήσει ὁ υἱὸς τῆς παιδίσκης μετὰ τοῦ υἱοῦ τῆς ἐλευθέρας.) (Gl 4:30)
- (42) *what>SV*  
*tí gár he: grap<sup>h</sup>è: légei?*  
 what.ACC.SG.N PCL the.NOM.SG.F scripture.NOM.SG.F  
 say.3SG.PRES.IND.ACT  
 ‘Nevertheless, what does the scripture say? (“Abraham believed God, and it was credited to him as righteousness.”)  
*τί γὰρ ἡ γραφή λέγει;* (Ἐπίστευσεν δὲ Ἀβραὰμ τῷ θεῷ, καὶ ἐλογίσθη αὐτῷ εἰς δικαιοσύνην.) (Rm 4:3)

Both of these questions are found in Paul’s letters, and both ask what the scripture says. Paul answers both immediately, giving an account of what the scripture says. These are therefore not true information seeking questions, which is the case for many of the questions in the NT. The similarity in terms of content between these examples is rather striking, and is reminiscent of the declarative SVO – VSO near minimal pair in Chapter 3 (see examples (16) and (17) therein).

I argue that the structure of these *wh*-questions is the same as the structure of the neutral declarative clauses. The verb moves to T in both cases, and in (42) but not (41) the subject moves to Spec,T, as indicated by the dashed arrow in (43).



Canonical V to T movement in *wh*-questions has also been proposed for Modern Greek (Kotzoglou 2006). In Modern Greek, *wh*-SV orders are ungrammatical in argument questions. There are two possible positions for subjects in argument questions: to the left of the *wh*-interrogative, or in postverbal position. The examples in (44) from Kotzoglou (2006:95) illustrate this.

- (44) a. Pjon aghapai i maria? MODERN GREEK  
           who.ACC love.3SG the Maria.NOM  
       b. I maria pjon aghapai?  
           the Maria.NOM who.ACC love.3SG  
       c. \*Pjon i maria aghapai?  
           who.ACC the Maria.NOM love.3SG

Based on the assumption that all preverbal subjects in Modern Greek declarative clauses are left-dislocated topics (Alexiadou & Anagnostopoulou 1998; see Chapter 3 for discussion of this proposal), Kotzoglou (2006) and Anagnostopoulou (1994) propose that *wh*-SV orders are a violation of Relativized Minimality (Rizzi 1990). Informally speaking, this is a prohibition on extraction of the *wh*- in the presence of A' movement, i.e., topicalization. So in argument *wh*-questions topicalization to a preverbal, post-*wh*-position through syntactic movement is not employed. Rather, topics in these questions may appear to the left of the *wh*-, or in a postverbal position. Under this view, topics appearing to the left of *wh*-s must be considered to be base-generated in this position.

NT Greek seems to behave slightly different from Modern Greek, in that *wh*-VS orders are attested, and furthermore, (non-subject) topics are found between *wh*-interrogatives and verbs ((38), (39) above). The fact that *wh*-s are found preceding topics indicates that Minimality as defined by Rizzi (1990), Anagnostopoulou (1994) and Kotzoglou (2006), among others, can be violated in NT Greek, a fact which is also apparent from word orders in relative clauses. The fact that seemingly neutral subjects are found intervening between *wh*-s and verbs in NT Greek further re-inforces the conclusion from Chapter 3, that NT Greek, unlike Modern Greek, has a Spec,T position available for subjects.

In a V to T account of object *wh*-questions, the asymmetry in word order among object and adjunct questions is largely co-incidental. The adjunct questions that are attested involve additional movement of subjects, either to Spec,T or to a left peripheral position, while the majority of object questions have subjects in-situ. It is worth mentioning that most object questions that I investigated in 4.1 contain only a verb, a *wh*- and a subject. If the subject is in-situ, and there are no other constituents that could possibly intervene between the *wh*- and the verb, then *wh*-interrogatives and verbs will be string adjacent, but this of course does not mean that they are adjacent in the syntax, occupying the same projection. In adjunct questions, on the other hand, there are potentially (non-*wh*-) subjects as well as objects present, and indeed many “why” and “how” / “how come” questions contain subjects, verbs and objects. It is not very surprising that these questions display left-dislocated arguments intervening between *wh*-interrogatives and verbs more often than object questions.

#### 4.5 Summary

In terms of the relative position of subjects and verbs in *wh*-questions, there is a very strong tendency for *wh*-VS orders in object questions, and *wh*-SV is marginally attested. In adjunct questions, on the other hand, similar word order variation is found as in declarative clauses and yes-no questions. If one isolates the object questions, one possible account of the lack of significant attestations of *wh*-SV in among these is to propose that verb movement proceeds to C in these questions. In this configuration, there is no position available for subjects that is higher than the C head which the verb occupies, and lower than the position where *wh*-interrogatives sit.

However, I took the view that verb movement typically ends at T in all types of *wh*-questions for the following two reasons. For one, (non-subject) constituents that appear to be topics or foci are found intervening between object *wh*-interrogatives and verbs (see (38) above). Second, in subject questions, which are also argument questions, left peripheral constituents are found between the *wh*-s and verbs (see (39)). Furthermore, the diagnostic that is based on the relative position of verbs and the inferential particle *ára* suggests that there are no instances of V to C movement to the pre-*ára* position. It is possible that V to C movement occurs in *wh*-questions, in instances where this particle is not present, but just as in declarative clauses, the canonical position for the verb in all *wh*-questions seems to be T.

### 5 The position of *wh*-s and question particles in the left periphery

In this section, I examine the position of *wh*-interrogatives and question particles in yes-no questions, with respect to the left peripheral elements, such as topics and foci. I also investigate the relative position of the inferential / illative particle *ára*. In the last chapter I identified the Topic and Focus projections in the NT Greek left periphery in (45a). The first Topic projection hosts shifting and contrastive topics, and the second one familiar topics.

- (45) a. TopP > FocP > (Fam)TopP  
 b. ForceP > (TopP) > FocP > (TopP) > FinP

As I introduced in Chapter 1, Section 3, Rizzi (1997) argues that discourse projections occur between ForceP and FinP in (45b). ForceP is associated with the specification of force of the utterance and FinP is associated with finiteness.

Assuming a split CP, there are a couple of possible landing sites for *wh*-interrogatives. One possibility is that *wh*-s target a projection associated with the specification of Force, corresponding to the clause having the force of a question. In this case, we would expect that *wh*-interrogatives occur in the Specifier of the projection that hosts question morphemes in yes-no questions, and complementizers in subordinate clauses. Another possibility, as many have argued, is that *wh*-movement targets a Focus projection (see Tsimpli 1995 and references therein).

Based on the data found in the NT, there is support for both of these hypotheses.

As I show in 5.1 and 5.2, there is indirect support for the hypothesis that *wh*-movement targets a projection higher than Focus. Namely, in yes-no questions and subordinate clauses, a maximum of one topic constituent is found preceding the question particles and complementizer. In *wh*-questions too, there is a maximum of one topic constituent preceding the *wh*-interrogative. Since topicalization around *wh*-interrogatives is so common in the NT, one might expect to find an instance of two topics preceding a *wh*-, if that were possible. There is also a parallel among yes-no and *wh*-questions in terms of what follows question particles and *wh*-interrogatives. Both of these are found followed by up to two preverbal constituents. In many instances, it is difficult to tease apart topics from foci, in the absence of the particular topic and focus diagnostics discussed in Chapter 4. However, there is support for the order Topic > Focus lower than the question particles, and similarly lower than *wh*-interrogatives. This also suggests that *wh*-interrogatives move to a projection higher than Focus.

The language also displays multiple *wh*-fronting, as introduced in Section 2. There is only example of this, therefore I discuss some supplementary data from Epictetus as well as older Classical Greek texts. The multiple fronting data suggest that one *wh*- moves to the higher Force projection, and one to the lower Focus projection.

## 5.1 *Wh*-interrogatives

### 5.1.1 Material preceding *wh*-s

In single questions, *wh*-interrogatives are found preceded by a maximum of one constituent, possibly in combination with one conjunction or second position particle. The preceding constituents are topics, many of them seem to be contrastive topics, or shifting topics. There seems to be no asymmetry among argument versus object questions in this regard. Most of the *wh*-s are found with preceding topics, but there is no example of *póte* “when” with a preceding topic.

In (46), the subject topic *hoi huiòi humô:n* “your sons” precedes the adjunct *wh*-phrase *en tíni* “by whom”.

- (46) Topic > adjunct *wh*-phrase  
 ei dè egò: en Beelzeboùl ekbállo:  
 if PCL I.NOM.SG by Satan cast.out.1SG.PRES.IND.ACT  
 tà daimónia [hoi huiòi humô:n]  
 D.ACC.PL.N devil.ACC.PL.N D.NOM.PL.M son.NOM.PL.M your.GEN.PL  
**en tíni** ekbállousin? ]  
 by who.DAT.SG.M cast.out.3PL.PRES.IND.ACT  
 ‘And if I cast out devils by Satan, by whom do your children cast them out?’  
 εἰ δὲ ἐγὼ ἐν Βεελζεβοῦλ ἐκβάλλω τὰ δαιμόνια, οἱ υἱοὶ ὑμῶν ἐν τίνι ἐκβάλλουσιν;  
 (Lk 11:19)

The interrogative clause is the apodosis of a conditional sentence. The question is rhetorical, and the speaker is using it as an argument for the fact that he does not cast out devils through Satan. The argument is if the speaker casts out devils through Satan, there is nothing else by which the addressees' own sons could cast out devils. The word orders in the protasis and the *wh*-clause apodosis are both Topic > PP > Verb, and the topics are contrastive.

The example in (47) shows a direct object topic composed of the DP *tòn kairòn* and the demonstrative *toûton*. This constituent precedes the *wh*-interrogative *pô:s* “how”, in a rhetorical question.

- (47) Topic > adjunct *wh*-phrase
- |                       |                       |             |                        |             |            |
|-----------------------|-----------------------|-------------|------------------------|-------------|------------|
| <u>tò</u>             | <u>prôso:pon</u>      | <u>tê:s</u> | <u>gê:s</u>            | <u>kaì</u>  | <u>toû</u> |
| D.ACC.SG.N            | face.ACC.SG.N         | D.GEN.SG.F  | earth.GEN.SG.F         | and         | D.GEN.SG.M |
| <u>ouranoû</u>        | <u>oïdate</u>         |             | <u>dokimázein</u>      |             |            |
| sky.GEN.SG.M          | know.2PL.PERF.IND.ACT |             | discern.PRES.INFIN.ACT |             |            |
| <u>tòn</u>            | <u>kairòn</u>         | <u>dè</u>   | <u>toûton</u>          | <u>pô:s</u> | <u>ouk</u> |
| D.ACC.SG.M            | time.ACC.SG.M         | PCL         | this.ACC.SG.M          | how         | NEG        |
| <u>oïdate</u>         |                       |             | <u>dokimázein?</u>     |             |            |
| know.2PL.PERF.IND.ACT |                       |             | discern.PRES.INFIN.ACT |             |            |
- ‘(Hypocrites,) the face of the earth and the sky you know how to discern;  
but this time, how do you not know how to discern it?  
(ὕποκριταί,) τὸ πρόσωπον τῆς γῆς καὶ τοῦ οὐρανοῦ οἴδατε  
δοκιμάζειν, τὸν καιρὸν δὲ τοῦτον πῶς οὐκ οἴδατε δοκιμάζειν;  
(Lk 12:56)

In this case, the topicalized constituent is the object of the infinitival *dokimázein* “to discern”. In the preceding line, the speaker mentions that the addressees can discern the face of the earth and the sky, but expresses surprise by the fact that they cannot discern this time. In the preceding line, the object “the face of the earth and sky” is also fronted to preverbal position. The pre-posed constituents are contrastive topics.

The example in (48) shows a “why” interrogative preceded by the prepositional phrase topic *perì endúmatos*, “about clothes”, which carries contrast.

- (48) Topic > adjunct *wh*-phrase
- |            |             |                   |           |                       |
|------------|-------------|-------------------|-----------|-----------------------|
| <u>kaì</u> | <u>perì</u> | <u>endúmatos</u>  | <u>tí</u> | <u>merimnâte?</u>     |
| and        | about       | clothing.GEN.SG.N | why       | care.2PL.PRES.IND.ACT |
- ‘And why do you care about clothes?’  
‘(Therefore I say to you, Take no thought for your life, as to what you will eat, or what you will drink; nor for your body, what you will wear. Isn’t life more than meat, and the body more than dress? Consider the birds of the air: for they don’t sow nor reap, nor gather into barns; nonetheless your heavenly father feeds them. Are you much better than them? Which of you, by taking thought, can add one cubit to his height?) And about clothes why do you care?’  
(Διὰ τοῦτο λέγω ὑμῖν, μὴ μεριμνᾶτε τῇ ψυχῇ ὑμῶν τί φάγητε [ἢ τί πίνητε], μηδὲ τῷ σώματι ὑμῶν τί ἐνδύσθητε· οὐχὶ ἡ ψυχὴ πλείον ἐστι

τῆς τροφῆς καὶ τὸ σῶμα τοῦ ἐνδύματος; ἐμβλέψατε εἰς τὰ πετεινὰ τοῦ οὐρανοῦ ὅτι οὐ σπεύρουσιν οὐδὲ θερίζουσιν οὐδὲ συνάγουσιν εἰς ἀποθήκας, καὶ ὁ πατὴρ ὑμῶν ὁ οὐράνιος τρέφει αὐτά· οὐχ ὑμεῖς μᾶλλον διαφέρετε αὐτῶν; τίς δὲ ἐξ ὑμῶν μεριμνῶν δύναται προσθεῖναι ἐπὶ τὴν ἡλικίαν αὐτοῦ πῆχυν ἕνα;) καὶ περὶ ἐνδύματος τί μεριμνᾶτε; (Mt 6:28)

The first line of the context of (47) establishes the topic of conversation as being the level of concern that one should have, on the one hand, about sustaining one's life with aliment, and on the other hand, about dressing one's body with clothes. Jesus, the speaker, commands the listeners not to take thought over what they eat and drink, or what they wear. He then elaborates on the first of these, food and drink. He compares the listeners to birds, who do not take pains to plan their meals, but are nonetheless fed. Later on, he switches the topic to clothes, with the example (47). This is an example of a shifting topic, more precisely a newly returned to topic.

It is not clear whether the topicalized PP is selected by the matrix verb *merimnâte* "take thought" / "care", or whether it is an "as for" topic with *perí*, as I showed in Chapter 4. The verb *merimnáō*: does occur in the NT with PP objects headed by *perí* (see Lk 12:26), which suggests that the verb selects an object headed by *perí*. However, this verb also occurs with genitive objects without the preposition (see Mk 4:19), and accusative objects (see Ph 2:20). It also occurs with indirect questions such as in the first line of the context of (48), where the complement is "what you will eat", and also occurs with no object, as in the instance of the participial in the sixth line of the context below (48).

In the "why" question in (49), the preceding constituent is the dative pronominal object *he:mîn* "on us".

- (49) Topic > adjunct *wh*-phrase  
 è: he:mîn    **tí**    atenízete  
 or us.DAT.PL    why    stare.2PL.PRES.IND.ACT  
 '(Men of Israel, why are you so shocked by this?) Or, why are you staring at us (as though by our own power or holiness we had made this man walk?)'  
 (Ἄνδρες Ἰσραηλῖται, τί θαυμάζετε ἐπὶ τούτῳ,) ἢ ἡμῖν τί ἀτενίζετε (ὥς ἰδία δυνάμει ἢ εὐσεβείᾳ πεποιηκόσιν τοῦ περιπατεῖν αὐτόν;) (A 3:12)

In the preceding context, a man was healed by Peter and John, and the people around were amazed. As shown in the context below the example, Peter then asks them why they are so shocked, and why they were staring at himself, and John. The dative pronoun *he:mîn* "on us" shifts the discourse to Peter and John, and is therefore best described as a shifting topic.

The example in (50) is very similar to the one in (48) above, where the *wh*-question is the apodosis of a conditional statement. In this instance, the interrogative *poû* "where" is preceded by the conjoined subject topic *ho asebè:s kai hamarto:lós*, "the ungodly and the sinner", here being used generically.

- (50) Topic > adjunct *wh*-phrase  
ho asebè:s kai hamarto:lòs  
 the.NOM.SG.M ungodly.NOM.SG.M and sinner.NOM.SG.M  
**poû** p<sup>h</sup>aneítai?  
 where appear.3PL.FUT.IND.MID  
 ‘(And if the righteous scarcely be saved), the ungodly and the sinner,  
 where will they appear?’  
 (καὶ εἰ ὁ δίκαιος μόλις σῶζεται,) ὁ ἀσεβὴς καὶ ἁμαρτωλὸς ποῦ  
 φανεῖται;  
 (1 Pt 4:18)

The topic subject is in contrast to a referent in the protasis: the righteous man. Note that this constituent is also preverbal in its clause. These seem to be best described as contrastive topics.

In (51) below the object *wh*-interrogative *tína*, “whom” is preceded by the topic *humeîs*, “you”.

- (51) Topic > argument *wh*-  
Humeîs dè **tína** me légete  
 you.NOM.PL PCL who.ACC.SG.M me.ACC.SG.M say.2PL.PRES.IND.ACT  
 eînai?  
 be.PRES.INFIN.ACT  
 ‘(“Who do men say is the Son of man?” And they said, “Some say John the Baptist; some, Elija; and others, Jeremias, or one of the prophets.” And he said to them,) “And you, who do you say that I am?”’  
 (Τίνα λέγουσιν οἱ ἄνθρωποι εἶναι τὸν υἱὸν τοῦ ἀνθρώπου; οἱ δὲ εἶπαν, Οἱ μὲν Ἰωάννην τὸν βαπτιστήν, ἄλλοι δὲ Ἡλίαν, ἕτεροι δὲ Ἰερεμίαν ἢ ἓνα τῶν προφητῶν. λέγει αὐτοῖς,) Ὑμεῖς δὲ τίνα με λέγετε εἶναι;  
 (Mt 16:15; Mk 8:29; Lk 9:20)

In the preceding context, Jesus asked his disciples who men are saying the son of man is, that is, who he himself is. After they reply, Jesus inquires of the disciples who they say that he is. This seems to be an instance of a shifting topic, since it shifts the perspective from what others say about him to what the addressees themselves say.

The example in (52) shows a subject *wh*-interrogative preceded by the direct object topic *tò ale:t<sup>h</sup>inòn* “the true”, here referring to true wealth. The interrogative is followed by the preverbal indirect object pronoun *humîn* “to you”.

- (52) Topic > argument *wh*- > Topic/Focus  
tò ale:t<sup>h</sup>inòn **tís** humîn  
 D.ACC.SG.N true.ACC.SG.N who.NOM.SG.M you.DAT.PL  
 pisteúsei?  
 entrust.3SG.FUT.IND.ACT  
 ‘(Therefore, if you have not been faithful in the unrighteous wealth,) who will commit to your trust that which is true? (And if you have not been

faithful in what is another's, who will give you what is your own?')  
 (εἰ οὖν ἐν τῷ ἀδίκῳ μαμωνᾷ πιστοὶ οὐκ ἐγένεσθε,) τὸ ἀληθινὸν τίς  
 ὑμῖν πιστεύσει; (καὶ εἰ ἐν τῷ ἀλλοτρίῳ πιστοὶ οὐκ ἐγένεσθε, τὸ  
 ὑμέτερον τίς δώσει ὑμῖν;) (Lk 16:11)

Like (46) and (50) above, the question in (52) is the apodosis of a conditional sentence, and is rhetorical.<sup>63</sup> The statement asserts that if one is not faithful to unjust wealth, then there is no one who will put true wealth into his trust. In the protasis, the PP *en to:i adiko:i mamō:nai* “in unjust wealth” is fronted to preverbal position, in parallel with *tò ale:t<sup>h</sup>inōn* “the true”. I therefore consider these to be contrastive topics. As for the post-*wh*-, preverbal pronominal, the context suggests that it is under focus, but this can't be tested without access to intonation.

Fronting of one constituent ahead of the *wh*-interrogative is possible in indirect questions. In (53), the PP topic *en Elíai*, “in Elíai” occurs preceding the argument *wh*-interrogative *tí* “what”. This PP modifies the embedded *wh*-clause.

- (53) Topic > argument *wh*-  
 è: ouk oídate [en Elíai  
 or Q-POS know.2PL.PERF.IND.ACT in Elías.DAT.SG.F  
 tí légei he: graphé: ]  
 what.ACC.SG.N say.3SG.PRES.IND.ACT D.NOM.SG.F scripture.NOM.SG.F  
 ‘or don’t you know what the scripture says in the passage about Elías?’  
 ἢ οὐκ οἴδατε ἐν Ἠλίᾳ τί λέγει ἡ γραφή; (Rm 11:2)

There are a couple of different renditions of (53) across translations. Some take the fronted PP to mean “about Elíai”, as a complement of the embedded verb *légei*, “says”. Others take the PP to mean “in the passage about Elíai”. This rendition seems more plausible, since the preposition *en* does not normally mean “about” or “concerning”, but often has a locative meaning. Regardless of which is more accurate, the PP modifies the embedded clause, and is fronted to initial position in this clause, preceding the *wh*-.

In summary, both argument and adjunct *wh*-interrogatives are found preceded by a maximum of one topic constituent. Topic constituents are subject and DPs, PPs and indirect objects. Topicalization around *wh*-s is also found in indirect questions.

### 5.1.2 Material following *wh*-s

Each of the *wh*-interrogatives is found with at least one fronted constituent following it, in preverbal position. Most of the examples show only one fronted constituent, and I have found a maximum of two. In most instances, it is difficult to tease apart topics from foci, as most of the clauses do not contain the elements that

<sup>63</sup> Following this conditional statement is a parallel conditional statement, given in the context below the example. The protasis and the apodosis of this conditional statement also host contrastive topics, the one in the apodosis being a *wh*-clause.

were shown to be focus related in Chapter 4, for example, focus particles and corrective constructions. However, there are some examples in which constituents focused with *kaí* occur. In many other instances, the constituents are under contrast, or are familiar in the discourse. However, it is very difficult to make claims as to the status of these, lacking intonational evidence. I am able to show that there are two projections between the projection hosting the *wh*-interrogative and the one hosting the verb, T in the default case. It is fairly certain that one of these is a Focus projection, and that one is a Topic.

The “why” question in (54) shows the object demonstrative pronoun *toûto* “this” directly following the interrogative and preceding the finite verb.<sup>64</sup>

- (54) *wh->O>V*  
**Tí** toûto akoúo: peri soû?  
 why this.ACC.SG.N hear.1SG.PRES.IND.ACT about you.GEN.SG  
 ‘Why am I hearing this about you?’  
 Τί τοῦτο ἀκούω περὶ σοῦ; (Lk 16:2)

In the context preceding (54), a story is being told about a rich man’s house servant. Someone has informed the master that his servant had been stealing goods from him. The master approaches the servant and asks the question in (54). What is referred to by the demonstrative *toûto* is therefore information that is known in the discourse. This fits the description of what I have been calling a familiar topic in Chapter 4.

In the *wh*-SVO “why” question in example (55), the subject is the pronoun *humeîs* “you”, directly preceded by the focus particle *kaí*.

- (55) *wh-> kaiS>V>O*  
**Dià tí** kai humeîs parabáinete  
 why also you.NOM.PL transgress.2PL.PRES.IND.ACT  
 tè:n entolè:n toû t<sup>h</sup>eoû  
 the.ACC.SG.F commandment.ACC.SG.F the.GEN.SG.M god.GEN.SG.M  
 dià tè:n parádosin humô:n?  
 through the.ACC.SG.F tradition.ACC.SG.F your.GEN.PL  
 (‘Then came to Jesus scribes and Pharisees, which were of Jerusalem, saying, “Why do your disciples transgress the tradition of the elders? For they don’t wash their hands when they eat bread”. But he answered and said to them,) “Why do you also transgress the commandment of God by your tradition?”’  
 (Τότε προσέρχονται τῷ Ἰησοῦ ἀπὸ Ἱεροσολύμων Φαρισαῖοι καὶ γραμματεῖς λέγοντες, Διὰ τί οἱ μαθηταί σου παραβαίνουν τὴν παράδοσιν τῶν πρεσβυτέρων; οὐ γὰρ νίπτονται τὰς χεῖρας αὐτῶν

<sup>64</sup> This could also be construed as a “what” question with an elided copular, and an elided relative morpheme, i.e., “What is this (that) I hear about you?”. However, in the NT, I haven’t seen any instances of relative pronoun (or complementizer) deletion, making this rendition of the structure less plausible.

ὅταν ἄρτον ἐσθίωσιν. ὁ δὲ ἀποκριθεὶς εἶπεν αὐτοῖς,) Διὰ τί καὶ ὑμεῖς παραβαίνετε τὴν ἐντολὴν τοῦ θεοῦ διὰ τὴν παράδοσιν ὑμῶν;  
(Mt 15:3)

The question in (55) is itself the response to the question, ‘Why do your disciples transgress the tradition of the elders?’. This, along with the presence of the focus particle indicates that the constituent is focused.

The example in (56) is a “how” question in which the object precedes the verb. The question is not strictly a manner or means “how” question, but more like a rhetorical question, asserting “it is not possible that”.

- (56) *wh->O>V*  
**Pô:s** toîs emoîs r<sup>h</sup>é:masin pisteúsete?  
 how the.DAT.PL.N my.DAT.PL.N word.DAT.PL.N believe.2PL.FUT.IND.ACT  
 ‘(For, if you believed Moses, you would believe me: for he wrote of me. But if you don’t believe his writings,) how will you believe my words?’  
 (εἰ γὰρ ἐπιστεύετε Μωϋσεῖ, ἐπιστεύετε ἂν ἐμοί, περὶ γὰρ ἐμοῦ ἐκεῖνος ἔγραψεν. εἰ δὲ τοῖς ἐκείνου γράμμασιν οὐ πιστεύετε,) πῶς τοῖς ἐμοῖς ῥήμασιν πιστεύετε;  
 (Jn 5:47)

This rhetorical question concludes chapter 5 of the Gospel of John. It is the apodosis of a conditional sentence. Directly preceding this conditional statement, the speaker states another condition, ‘If you believed Moses, you would believe me’, and indicates that the reason is that Moses wrote about him. Following this, Jesus asserts that if the listeners do not believe in these things that Moses wrote about him, there is no way that they will believe his own words. There is explicit contrast between the two objects “the writings of Moses” and “my words”, and both of them are fronted to preverbal position in their respective clauses. They could potentially be contrastive topics, or contrastive foci.

The example in (57) is a “how” question in which the subject and the object follow the *wh*-, and precede the verb.

- (57) *wh->S>O>V*  
**Pô:s** hoûtos grámmata oíden  
 how this.NOM.SG.M letter.ACC.PL.N know.3SG.PERF.IND.ACT  
 ‘How does this man know how to read, (not having learned)?’  
 Πῶς οὗτος γράμματα οἶδεν (μὴ μεμαθηκώς); (Jn 7:15)

The subject is a demonstrative pronoun, referring to Jesus, who had just begun to teach in the temple. The speaker is surprised that Jesus knows how to read (literally that he knows the letters). The fact that the demonstrative subject refers to someone who is salient in the discourse could indicate that it is a topic constituent. Of course, it could also be a focus constituent. The status of the object *grámmata*, “letters” is also unclear.

In summary, a maximum of two fronted constituents are found following *wh*-s and preceding verbs. In most cases, only one constituent is found there. The

discourse status of these constituents is often unclear, in the absence of intonation. However, in some instances such as (55), it is fairly clear that the preverbal constituent is a focus. The data then suggest that *wh*-s do not occupy the Focus projection in (45) above.

## 5.2 Yes-no questions

There are relatively few examples of topicalization in questions in which one of the question particles is present. A maximum of one constituent (excluding second position particles) is found preceding the question particle. Fronting of two constituents is observed to a position between the question particle and the verb.

### 5.2.1 Material preceding question particles

In the yes-no question in (58), the topic constituent *hai adelp<sup>h</sup>ai autoû* “his sisters” precedes the question particle *ouk<sup>h</sup>i*, which expects a positive response.

- (58) Top > QPCL  
 kai hai adelp<sup>h</sup>ai autoû  
 and D.NOM.PL.F sister.NOM.PL.F his.GEN.SG  
*ouk<sup>h</sup>i* pāsai pròs he:mās eisin?  
 Q all.NOM.PL.F with us.ACC.PL be.3PL.PRES.IND.ACT  
 ‘(Isn’t this man the carpenter’s son? Isn’t his mother called Mary? And his brothers Jacob, Joseph and Simon and Judas?) And his sisters, aren’t they all with us?’  
 (οὐχ οὗτός ἐστιν ὁ τοῦ τέκτονος υἱός; οὐχ ἡ μήτηρ αὐτοῦ λέγεται Μαριάμ καὶ οἱ ἀδελφοὶ αὐτοῦ Ἰάκωβος καὶ Ἰωσήφ καὶ Σίμων καὶ Ἰούδας;) καὶ αἱ ἀδελφαὶ αὐτοῦ οὐχὶ πᾶσαι πρὸς ἡμᾶς εἰσιν;  
 (Mt 13:56)

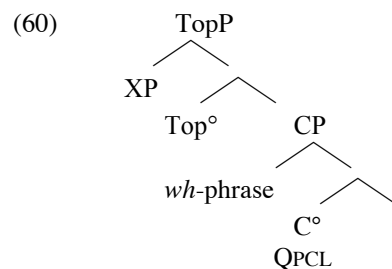
In the context preceding the example, a crowd of people are astonished by the teachings of Jesus, and they are seeking to know where he got such wisdom, and they ask the series of rhetorical questions in (58). The first states that, to the best of the speakers’ knowledge, Jesus is the carpenter’s son. The second states that, to the best of the speaker’s knowledge, Jesus’ mother is called Mary, and also lists the names of his brothers. The text following is the glossed example, in which the constituent *hai adelp<sup>h</sup>ai autoû* “his sisters” occurs preceding the question particle. This constituent is a shifting topic, or possibly a contrastive topic. Notice that the particle *kai* occurs preceding this constituent. I take it to be a conjunction rather than a focus particle.

In example (59), one constituent and one second position particle precede the question particle *mé:ti*. In this instance, the preceding constituent is a participial clause, consisting of a participle and an object. The particle *oûn* surfaces between the participle and its preceding object.

- (59) [toútō oûn boulómenos] **mé:ti** ára  
 this.ACC.SG.N PCL want.NOM.SG.M.PRES.PART.MID Q PCL  
 tê:i elap<sup>h</sup>rái ek<sup>h</sup>re:sáme:n  
 D.DAT.SG.F lightness.DAT.SG.F proclaim.1SG.AOR.IND.MID  
 ‘And so, when I was wanting this, I didn’t proclaim it with lightness, did I?’  
 τοῦτο οὖν βουλόμενος μήτι ἄρα τῇ ἐλαφροῖᾳ ἐχρησάμην; (2 Cor 1:17)

It is a typical property of Ancient Greek for participial clauses to precede main clauses, giving a temporal reference point (see Buijs 2005 for details on clause combining in Ancient Greek narratives). Regarding the grammatical structure, the participial clause seems to occupy the same projection as the DP topic constituent in (58).

In summary, a maximum of one topic constituent is found preceding question particles in the NT. In this respect, there is a parallel with *wh*-interrogatives, which are found preceded by a maximum of one topic constituent. A structure in which the question particle occurs in the head of the projection to which *wh*-interrogatives are moved captures this parallelism. This is shown in (60).



The tree in (60) shows that if a *wh*-phrase occupies Spec,CP and a question particle  $C^\circ$ , one topic constituent will precede both of these, in the one available Topic projection. Although the question particle occupies the head of CP and the *wh*-phrase the Specifier, and therefore a phrase could potentially occur in Spec,CP in a yes-no question, it is not expected to be a topic constituent, given the assumptions that I adopt in Chapter 1, Section 3. The fact that only one topic constituent occurs to the left of question particles and *wh*-s therefore suggests that these elements occupy the projection directly below the highest Topic Phrase, which is ForceP in (45).

Topicalization is possible to a position preceding the complementizer in subordinate clauses. These examples fall under the term *prolepsis* in classical grammars (see Smyth 1984:488, §2182). An example is given in (61), where the fronted constituent is accusative, in an accusative + infinitive construction.

- (61) Topic >
- that*

légo:n [tòn huiòn toû  
 say.NOM.SG.M.PRES.PART.ACT D.ACC.SG.M son.ACC.SG.M D.GEN.SG.M  
 ant<sup>h</sup>ró:pou hóti deî [paradot<sup>h</sup>ē:nai ]]  
 man.GEN.SG.M that be.necessary.3SG.IMP.F.IND.ACT deliver.AOR.INFIN.PAS  
 ‘(Remember how he spoke to you while he was still in Galilee,) saying  
 that the son of man must be delivered (into the hands of sinning men, and  
 be crucified, and on the third day rise again.)’  
 (μνήσθητε ὡς ἐλάλησεν ὑμῖν ἔτι ὢν ἐν τῇ Γαλιλαίᾳ,) λέγων τὸν υἱὸν  
 τοῦ ἀνθρώπου ὅτι δεῖ παραδοθῆναι εἰς χεῖρας ἀνθρώπων  
 ἀμαρτωλῶν καὶ σταυρωθῆναι καὶ τῇ τρίτῃ ἡμέρᾳ ἀναστῆναι.  
 (Lk 24:7)

The larger bracketed clause in (61) is embedded under the participial *légo:n*, “saying”. The complementizer *hóti* does not immediately follow, but is interrupted by the fronted constituent *tòn huiòn toû ant<sup>h</sup>ró:pou* “the son of man”. This constituent shows accusative case, as the object of the embedded impersonal verb *deî* “it is necessary”. This constituent is the subject of the embedded infinitival *paradot<sup>h</sup>ē:nai* “to be delivered”, thus “it is necessary that the son of man be delivered”. The crucial point is that the object of *deî*, (or the subject of *paradot<sup>h</sup>ē:nai*) is fronted ahead of the subordinator.

The fact that topics are found preceding complementizers indicates that a Topic projection precedes the C head position occupied by complementizers. It would therefore be consistent to propose that *wh*-interrogatives occupy the Specifier of this same C projection.

### 5.2.2 Material following question particles

As I showed above in Section 3.4.2 (example (40)), *wh*-interrogatives precede the inferential / illative particle *ára*. Question particles are found consistently preceding the particle *ára*, and no example of the reverse is attested. In (62) below, the particle *ouk*, which expects a positive answer, occurs preceding *ára*. The subject pronominal *sú* “you” occurs directly following *ára*, preceding the copular verb.

- (62) Q >
- ára*

ouk ára sù eî  
 Q PCL you.NOM.SG be.2SG.PRES.IND.ACT  
 ho Aiguptios  
 D.NOM.SG.M Egyptian.NOM.SG.M  
 ‘Aren’t you rather the Egyptian (who before these days made an uproar  
 and led four thousand men that were murderers out into the wilderness)?’  
 οὐκ ἄρα σὺ εἶ ὁ Αἰγύπτιος (ὁ πρὸ τούτων τῶν ἡμερῶν  
 ἀναστατώσας καὶ ἐξαγαγὼν εἰς τὴν ἔρημον τοὺς τετρακισχιλίους  
 ἀνδρας τῶν σικαρίων;) (A 21:38)

A captain poses this question to Paul after he has heard Paul speaking Greek. He expresses surprise that Paul speaks Greek, apparently because he had been under the impression that Paul was the Egyptian who did the actions listed in the example. The subject pronominal is overt, which suggests that carries pragmatic information, but it is unclear whether it is a topic or a focus.

In the SOV example in (63), it is more clear what the division of pragmatic labour is. This example closely resembles the SOV examples seen in Chapter 2, Section 4.4, and discussed further in Chapter 4.

- (63) SOV  
**ouk**<sup>h</sup> *kaì* *hoi* *et<sup>h</sup>nikoì*  
 Q even D.NOM.PL.M publican.NOM.PL.M  
*tò* *autò* *poioûsin?*  
 D.ACC.SG.N same.ACC.SG.N do.3PL.PRES.IND.ACT  
 ‘Don’t even the publicans do the same thing?’  
*οὐχὶ καὶ οἱ ἐθνικοὶ τὸ αὐτὸ ποιοῦσιν;* (Mt 5:47)

The subject is preceded by the focus particle *kaí*, and the object is anaphoric, consisting of the substantivized pronominal: *tò autò* ‘the same’. In this case it refers to a deed that was under discussion, greeting your brothers only. This is suggestive of the order focus > familiar topic, following the question morpheme.

In summary, up to two preverbal constituents are found in yes-no questions, in a position following question particles. The order Question particle > Focus > Familiar topic is consistent with a structure in which question particles head the higher CP projection.

### 5.3 Interim summary

In the last two subsections I have compared fronting in *wh*-questions, yes-no questions and subordinate clauses. A maximum of one constituent is found preceding both argument and adjunct *wh*-interrogatives. In yes-no questions, a maximum of one topic constituent is found preceding the question particle, if one is present. In subordinate *hóti* clauses, a maximum of one topicalized constituent is found preceding the complementizer *hóti*. These data are consistent with the idea that the landing site for *wh*-s is the same in direct and indirect questions, and with the idea that *wh*-s move to the CP (Force) projection hosting the complementizer ‘that’, rather than a Focus projection.

Preverbal material is found following *wh*-interrogatives and question particles. Most often, there is only one preverbal constituent following the *wh*- but in some instances there are two (see the SOV example in (57) above). In yes-no questions, there is clear evidence for the order Question particle > Focus > Familiar topic in SOV strings ((63) above).

The inferential / illative particle *ára* follows both *wh*-interrogatives and question particles. The reverse order is unattested. Fronted constituents are found following this particle, suggesting that it occurs between the CP projection hosting the

question particle / *wh*-interrogative and the discourse projections. The preliminary version of the left periphery given in Chapter 4 may then be modified as in (64) below. I refer to the projection headed by complementizers and question particles as CP.

- (64) TopP > CP > EvidP > FocP > (Fam)TopP > TP

#### 5.4 Multiple *wh*-fronting

There is only one example of multiple fronting in the NT corpus, repeated here as (65). This question appears to be indirect. Unfortunately there are no other co-occurrences of two uncoordinated *wh*-interrogatives in one clause in the NT.

- (65) Indirect question: Subject > Object  
**tís**                      **tí**                      **áre:**  
 who.NOM.SG.M    what.ACC.SG.N    take.3SG.AOR.SUBJ.ACT  
 ‘(They divided his garments, casting lots upon them), as to who should take what.’  
 (καὶ σταυροῦσιν αὐτὸν καὶ διαμερίζονται τὰ ἱμάτια αὐτοῦ,  
 βάλλοντες κλήρον ἐπ’ αὐτὰ) τίς τί ἄρη. (Mk 15:24)

As discussed above in Section 2, overt *wh*-movement suffices to check the [*wh*-] feature on C in movement languages, which signals that the clause is a question (Cheng 1991). Fronting of one *wh*- is enough to type the clause as a question. Multiple fronting can be taken to indicate that more than one goal can move to a single target position by implementing multiple specifiers (Richards 1997, Pesetsky 2000), or that the *wh*-interrogatives have a requirement of their own that they be fronted. This movement is often taken to be Focus fronting, in languages where a left peripheral Focus projection is available (i.e., where Focus is marked through movement) (Bošković 1997, 2002; Stjepanović 2003; Roussou 1998). As was also shown in Section 2, many of the interrogatives are distinct from indefinite pronouns only through their positions and pitch accents. In Section 2 I assumed that indefinites are variables that must move to the left periphery to obtain quantificational force and be interpreted as interrogatives (as also argued by Roussou 1998 for Classical Greek). I conclude below that this can be achieved through movement to SpecCP as identified in Section 4, or to the lower Spec,FocP.

##### 5.4.1 Supplementary data from Classical Greek and Epictetus

As Roussou (1998) discusses, multiple *wh*-fronting is found in Classical Greek texts (see also Smyth 1984: 597, §2646; Kühner-Gerth 1904: 522), but is absent in Modern Greek (Sinopoulou 2008). I show below that multiple *wh*-fronting is also found in Arrian’s *Discourses* of Epictetus, from a similar time period (first to second centuries AD). Some multiple fronting examples from Classical Greek are given in (66) - (70).

In (66), the subject interrogative *póteros*, “which” and the object interrogative *póteron*, “which” both precede the verb. The clause is initiated with the topic constituent *díduma tékea* “the two children”, to which the two interrogatives refer. The first interrogatives follow, and are interrupted from one another by the particle *ára*.

- (66) Direct question: Subject > Object CLASSICAL GREEK  
 díduma tékea **póteros** ára  
 two.fold.NOM.PL.N child.ACC.PL.N which.NOM.SG.M PCL  
**póteron** haimáxei?  
 which.ACC.SG.M draw.blood.from3SG.FUT.IND.ACT  
 ‘Out of the two children, which will draw blood from the other?’  
 (Euripides *Phoenissae* 1288) (K-G II, 1904: 522)

In the indirect question in (67), the *wh*-clause is the subject of the main clause, and occurs preceding the predicate. The sentence is initiated by the topic constituent *apò tou̐to:n*, “from these”, referring to some letters which are previously established in the discourse. Notice that the particle *gár* disrupts this constituent, following the first word of the sentence. In the *wh*-clause, the two fronted *wh*-interrogatives, *tís* “who” and *tínos* “for what” are both fronted to a position preceding the copular predicate *aítiós esti* “is responsible”.

- (67) Indirect question: Subject > Adjunct CLASSICAL GREEK  
 apò gár tou̐to:n **tís** **tínos**  
 from PCL this.GEN.PL.N who.NOM.SG.M who.GEN.SG.M  
 aítiós esti  
 responsible.NOM.SG.M be.3SG.PRES.IND.ACT  
 gené:setai p<sup>h</sup>anerón  
 become.3SG.FUT.IND.MID clear.NOM.SG.N  
 ‘From these, it will become clear who is responsible for what.’  
 ἀπὸ γὰρ τούτων τίς τίνας αἰτιός ἐστι γενήσεται φανερόν.  
 (Demosthenes 19,73) (Roussou 1998, ex. 5c)

In the direct question in (68), the object *wh*- *tínas* and the adjunct *wh*-phrase *hupò tíno:n* are both fronted to preverbal position. The second position particle *oûn* directly follows the first *wh*-. The parenthetical *ep<sup>h</sup>é*: “he said” also intervenes between the two *wh*-phrases.

- (68) Direct question: Object > Adjunct CLASSICAL GREEK  
**tínas** oûn ep<sup>h</sup>é: **hupò tíno:n**  
 who.ACC.PL.M PCL say.3SG.IMP.IND.ACT by who.GEN.PL.M  
 heúroimen àn meízo:  
 find.1PL.AOR.OPT.ACT PCL greater.ACC.PL.M  
 eue:rgete:ménous  
 do.good.ACC.PL.M.PERF.PART.MID  
 ‘Whom, he said, would we find more benefitted by whom, (than children

by their parents?')  
 τίνας οὖν, ἔφη, ὑπὸ τίνων εὔροισιν ἂν μείζω εὐηργετημένους (ἢ  
 παῖδας ὑπὸ γονέων;) (Xenophon, *Memorabilia* 2.2.3) (Roussou 1998: ex. 5a)

The examples in (69) and (70) show multiple fronting in Arrian's *Discourses* of Epictetus, recorded between the 1<sup>st</sup> and 2<sup>nd</sup> Centuries AD.<sup>65</sup> This is close to the time frame of the composition of the NT.

Example (69) shows two instances of multiple *wh*- fronting. In each, there is one subject interrogative (*tí*) and one dative marked interrogative (*tíni*). In both questions, the subject interrogative precedes the oblique.

- (69) Direct question: Subject > Object/Adjunct<sup>66</sup> EPICTETUS' GREEK  
**tí** **tíni** akolout<sup>h</sup>eî  
 what.NOM.SG.N what.DAG.SG.N follow.3SG.PRES.IND.ACT  
**tí** **tíni** mák<sup>h</sup>etai  
 what.ACC.SG.N what.DAG.SG.N fight.3SG.PRES.IND.MID  
 è: anomologóúmenón estin  
 or inconsistent.NOM.SG.N be.3SG.PRES.IND.ACT  
 è: asúmp<sup>h</sup>o:non?  
 or disharmonious.NOM.SG.N  
 'What follows what? What contradicts, or is out of agreement or harmony  
 with what?'  
 τί τίνι ἀκολουθεῖ, τί τίνι μάχεται ἢ ἀνομολογούμενόν ἐστιν ἢ  
 ἀσύμφωνον; (*Discourses* 2:24:14)

In (70), the subject interrogative *tína* and the adjunct interrogative *tíno:n* are both fronted.

- (70) Direct question: Subject > Adjunct EPICTETUS' GREEK  
**Tína** **tíno:n** antikatalaktéon?  
 what.NOM.PL.N what.GEN.PL.N exchange.NOM.PL.N.FUT.PART.MID  
 'What things should be exchanged for what things?'  
 Τίνα τίνων ἀντικαταλλακτέον; (*Discourses* 4:3:t1)

In summary, in Classical texts as well as Arrian's *Discourses* of Epictetus, multiple fronting is found regularly. I have not come across any instances of multiple questions in which both interrogatives do not front. Although there is only one multiple question in the NT corpus, I assume that multiple fronting is a property of Koine Greek.

<sup>65</sup> Some other multiple fronting examples are found in Epictetus 4:10:23-24.

<sup>66</sup> The instances of *tíni* in (69) are traditionally called a dative complement, and in (68), the adjunct *wh- tíno:n* "for what" is traditionally called a genitive complement.

### 5.4.2 The positions of the *wh*-s

Roussou (1998) argues that the Classical Greek *wh*-interrogatives move to distinct CP Specifier projections. This connects the availability of multiple fronting to the availability of multiple CP projections instantiated by second position particles. Second position particles and multiple *wh*-fronting are both absent in Modern Greek. She proposes that Classical Greek *wh*-interrogatives are indefinites that obtain quantificational force through Focus movement. However, it is not specified whether the *wh*-interrogatives move to Focus projections, or to Specifier projections of the second position particles.

In Classical Greek example (68), a parenthetical occurs between the two *wh*-s. Some multiple fronting languages, such as Bulgarian and Romanian do not allow parentheticals to intervene between *wh*-s, while others such as Serbo-Croatian, Czech and Polish allow them (Rudin 1988; Bošković 1997, 2002, 2003). It has been proposed that the *wh*-s form a single constituent in Spec,CP (Rudin 1988), and more recently that the *wh*-s occupy multiple Specifier of C (Richards 1997; Pesetsky 2000). Material such as parentheticals that intervene between the *wh*-s in the Serbo-Croatian type languages have been taken to indicate that the *wh*-s occupy distinct positions in the left periphery (Rudin 1988; Bošković 1997). The parenthetical then indicates that the *wh*-s occur in distinct Specifier projections (as also concluded by Roussou 1998).

In (66) from Classical Greek, the particle *ára* intervenes between the two *wh*-s. This is the particle that I discussed in Section 4 above, and in Chapter 3. If we could treat the Classical data on par with the NT data, this would indicate that the two *wh*-interrogatives occur in distinct projections surrounding *ára*. We have already seen that *wh*-s in single questions always precede the particle. We could place the higher *wh*- in the Specifier of CP, and the lower one in the lower Focus projection identified in Chapter 4. This is represented in (71).<sup>67</sup>

(71) TopP > CP > EvidP > FocP

Another relevant fact is that in all of the examples in (65) - (70), the *wh*-interrogatives are ordered in a specific way, such that subjects precede objects ((65), (66)), objects precede adjuncts ((68), (70)), and subjects precede adjuncts ((67),

<sup>67</sup> However, it is noted that the position of *ára* in Classical Greek is a very complicated issue, and its behavior has undergone significant changes from Classical to Koine Greek. In Classical, it seems to show properties of a second position particle, and often follows the first constituent. Robertson (1934: 1189) claims that it is post-positive (second position) in Classical, but Smyth (1984: 635) does not consider it as such. There are also complications with topicalization. In (63) above, *ára* occurs after the topicalized constituent and after the first *wh*-, thus in second position as defined after topicalization (see Hale 1987 concerning Vedic Sanskrit). As I discussed in Chapter 3, the particle *ára* is not a second position particle in NT Greek, and thus seems to have undergone significant changes from Classical to Koine.

(69)). All of the multiple *wh*-fronting examples I have seen in Smyth and Kühner-Gerth are consistent with the order Subject > Object > Adjunct, but I have not seen a single example containing all three. Of course, we are lacking the crucial negative evidence required to determine whether other orders were possible. Nonetheless, the attested data are an indication that superiority effects are operative in old Greek multiple *wh*-fronting.

A strict ordering of multiple fronted *wh*-s is found in the Bulgarian type languages (Rudin 1988), and in certain environments in the Serbo-Croatian type (see Bošković 2002 for details). This restriction has been analyzed in terms of Superiority. Superiority refers to the restriction against movement of a category to a target which can potentially attract another category that is more local.<sup>68</sup> It is a phenomenon that is associated with *wh*-movement, and not other A' movement such as topicalization and focusing, although the reasons for this are not entirely clear (see the discussion in Boeckx & Grohmann (2003: 8).

In Section 4 above I argued that *wh*-s in single questions move to Spec,CP, which is higher than the Focus Phrase identified in Chapter 4. The fact that superiority does seem to surface in Classical and Koine Greek is consistent with the claim that NT Greek *wh*-movement is *wh*-movement proper, and not only Focus movement. Given that there is evidence for both a Focus projection and a higher CP projection hosting question particles and complementizers, I conclude that the first *wh*-undergoes movement to the higher Spec,CP and the second to the lower FocP. This suggests that movement to Spec,FocP is sufficient to license *wh*-s, but that the higher C head has to attract one *wh*- in order to type the clause.

## 6 Conclusions

The first conclusion is that there is no asymmetry in word order in declarative clauses versus questions, and therefore that there is no overt movement operation unique to questions. Yes-no questions show similar word order variation as declarative clauses- SVO and VSO are very common, and SOV is also significantly attested. In *wh*-questions, there is a trend among object questions for the VS order, however SV is also very marginally attested. I concluded in Section 3 that this does not correspond to an asymmetry in verb movement between declarative clauses and *wh*-questions, contrary to what is argued in Kirk (2012). Rather, V to T movement is the typical operation, based on the fact that verbs follow the mood particle *án*, and the fact that left peripheral material is found between *wh*-interrogatives and verbs. It

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<sup>68</sup> Chomsky (1973) states this as a condition on transformations in surface syntax, later it was derived from the Empty Category Principle (Lasnik & Saito 1984), and subsequently by a combination of both (Cheng & Demirdash 1990). More recently, Superiority is derived from Economy Principles (see Chomsky 1993; Bošković 1997, 2002).

is theoretically possible that V to C movement occurs as a form of verb focusing in *wh*-questions, but there is no clear evidence from the NT supporting this.

The second conclusion, based on the data presented in Section 4, is that *wh*-movement ultimately targets the Specifier projection that hosts complementizers and question particles. This is because a maximum of one topic constituent precedes *wh*-s, complementizers and question particles. *Wh*-movement does not seem to target the lower Focus projection identified in Chapter 4, since up to two left peripheral constituents are found following *wh*-s, one of them being a focus (see (55)).

However, in light of the multiple *wh*-questions discussed in Section 5, I conclude that in multiple questions, the *wh*-interrogative that is structurally higher prior to extraction is attracted to Spec,CP, and the one that is structurally lower moves to the lower Focus projection. *Wh*-movement is therefore a clause typing mechanism, but it also somehow related to Focus. A relevant difference between *wh*-movement and Focus fronting of quantifiers, which I discussed in Chapter 4, is that *wh*-movement is obligatory, while quantifier fronting seems to be optional, like other instances of Focus movement discussed in Chapter 4.<sup>69</sup> A more detailed comparison of *wh*-fronting and quantifier fronting is left for further research.

Finally, given the fact that constituents that are either topics or foci occur following the inferential / illative particle *ára* (see (62) above), it seems that this particle precedes the Focus and Familiar Topic projections identified in Chapter 4. This addition yields the depiction in (72).

$$(72) \quad \text{TopP} > \text{ForceP} > \text{EvidP} > \text{FocP} > (\text{Fam})\text{TopP} > \text{TP}$$

In Chapter 3, I used the relative position of verbs and the particle *ára* as a diagnostic for verb movement to C in declarative clauses. Specifically, a verb preceding the particle indicates that it is in the CP domain, given that only other CP elements are found preceding *ára*. In the absence of a clear trigger for movement to C, I suggested that it could be a focusing mechanism, in parallel with Modern Greek. However, when the structure of the left periphery is examined further, there is an indication that *ára* occurs preceding FocP. The position of verbs that precede *ára* seems to be the higher CP projection in (72). It is therefore unclear whether verb movement to this CP projection achieves focusing or not. Furthermore, the particle is now shown to be a diagnostic for verbs in the highest CP projection. This opens up the possibility that verb movement to a lower CP projection is also possible, however there are no clear landmarks that we can use to distinguish such a projection from TP.

<sup>69</sup> For an example of a stranded negative quantifier that appears to be in-situ, see Jn 10:41.



## 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.<sup>70</sup>

(1) Head-external relative clause

Blépe	<b>tè:n</b>	<b>diakonían</b>	
see.2SG.PRES.IMPV.ACT	D.ACC.SG.F	service.ACC.SG.F	
[ <b>hè:n</b>	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.

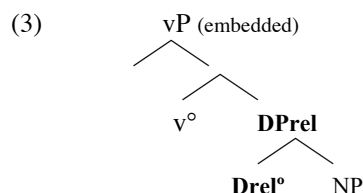
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<sup>70</sup> In the examples in the first two sections, I bracket off the relative clauses for ease of illustration. The brackets are not intended to suggest a syntactic analysis.

- p<sup>h</sup>érouesai                      [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)

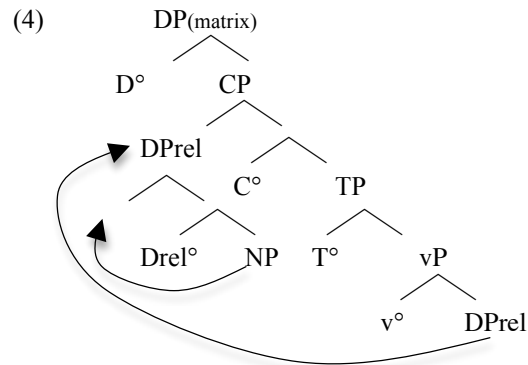
One widely held view in current generative literature concerning the derivation of relative clauses is the converse of the classicist's conception. Under the raising analysis of relative clauses, head-external relative clauses are derived through raising of the head noun from its position in the embedded 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.

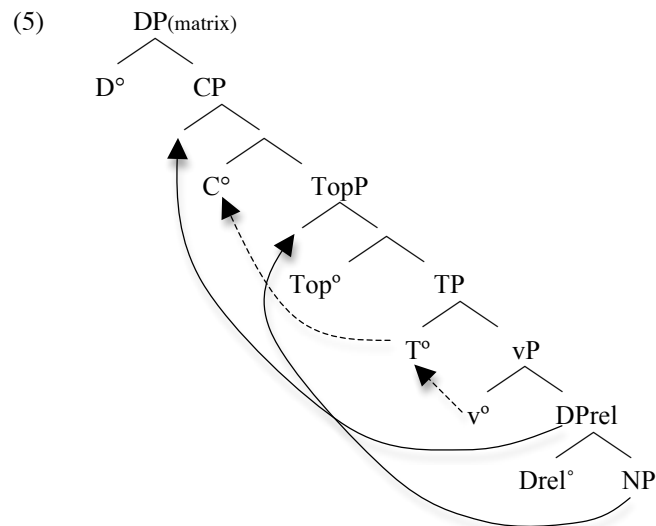


The relative DP (DP<sub>rel</sub>) moves in all instances, to the Spec of CP, due to a relative operator feature on C. However, there is variation with respect to movement of the noun. In head-external relative clauses, an external D head, which is an argument or adjunct of the matrix clause, selects 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).

<sup>71</sup> 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.



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.



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.

[illegible]

(7)

IP

CP IP<sub>matrix</sub>

C° IP

vP

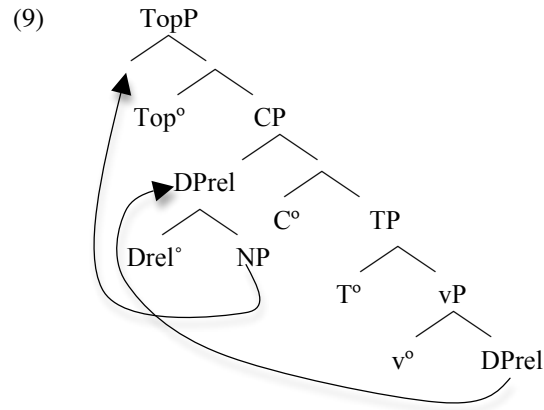
DPrel

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.

[**Lít<sup>h</sup>on**                      **hòn**                      apedokímasan  
stone.ACC.SG.M           REL.ACC.SG.M           reject.3PL.AOR.IND.ACT  
hoi                      oikodomóntes,           ] *hoûtos*  
the.NOM.PL.M           builder.NOM.PL.M           DEM.NOM.SG.M  
egené:<sup>h</sup>e:                      eis           kep<sup>h</sup>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.



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

(10) Participial relative: τὸ ἐκ τοῦ ἀνθρώπου ἐκπορευόμενον  
**tò** ek toû anthrô:pou  
 D.NOM.SG.N from D.GEN.SG.M man.GEN.SG.M  
 ekporeuômenon  
 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 oîdate  
 REL.ACC.SG.M you.NOM.PL NEG know.2PL.PERF.IND.ACT  
 ‘whom you don’t know’ (Jn 1:26)

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

<sup>72</sup> 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
<b>Nom</b>	<i>hós</i>	<i>hé:</i>	<i>hó</i>	<i>hoí</i>	<i>haí</i>	<i>há</i>
<b>Acc</b>	<i>hón</i>	<i>hé:n</i>	<i>hó</i>	<i>hoús</i>	<i>hás</i>	<i>há</i>
<b>Gen</b>	<i>hoû</i>	<i>hê:s</i>	<i>hoû</i>	<i>hō:n</i>	<i>hō:n</i>	<i>hō:n</i>
<b>Dat</b>	<i>hō:i</i>	<i>hê:i</i>	<i>hō:i</i>	<i>hoîs</i>	<i>haîs</i>	<i>hoîs</i>

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.<sup>73</sup> An example is shown in (12) with *eán* in combination with the subjunctive.<sup>74</sup>

(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<sup>h</sup>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),’  
ὅς 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

<sup>73</sup> 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.

<sup>74</sup> 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.<sup>75</sup> 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).

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<sup>75</sup> 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 *lógoi*: “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 *epístēusen* “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  
 epístēusen                      ho                      ánthro:pos  
 believe.3SG.AOR.IND.ACT   D.NOM.SG.M   man.NOM.SG.M  
**tôi:**                      **lógoi:**                      [**hòn**                      eîpen  
 D.DAT.SG.M   word.DAT.SG.M   REL.ACC.SG.M   say.3SG.AOR.IND.ACT  
 autô:                      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 *p<sup>h</sup>érouσαι* “bringing”. The relative pronoun agrees with the head noun in gender, number and case.<sup>76</sup>

- (14) Head-internal (free) relative clause  
 p<sup>h</sup>érouσαι                      [**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 μᾶ τῶν σαββάτων ὄρθρου βαθέως ἐπὶ τὸ μνήμα ἦλθον)  
 φέρουσαι ἃ ἠτοίμασαν ἀρώματα.  
 (Lk 24:1)

<sup>76</sup> 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 [hō:i                      pepisteuka                      ]  
 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 ὃν 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 hē:i  
 set.3SG.AOR.IND.ACT day.ACC.SG.F in REL.DAT.SG.F  
 mēllei                      krínein  
 will.3SG.PRES.IND.ACT judge.PRES.INFIN.ACT  
 tē:n                      oikouménē: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 ἧ ἔλλει κρίνειν τὴν οἰκουμένην (ἐν  
δικαιοσύνῃ ἐν ἀνδρὶ ᾧ ὤρισεν) (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’ hò katékeito ]  
 on REL.ACC.SG.N lie.3SG.IMP.F.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’ ᾧ 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”).<sup>77</sup>

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<sup>h</sup> **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 καρποφοροῦμενον καὶ αὐξανόμενον καθὼς καὶ ἐν ὑμῖν), ἀφ’ ἧς ἡμέρας ἤκούσατε (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<sup>h</sup> **hês** gâr hoi patéres  
 from REL.GEN.SG.F PCL the.NOM.PL.M father.NOM.PL.M  
 ekoimé:t<sup>h</sup>e:san, ] pánta hoúto:s  
 put.to.bed.3PL.AOR.IND.PAS all.NOM.PL.N thus  
 diaménei ap’ ark<sup>h</sup>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)

<sup>77</sup> 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: tē:i hó:rai [en hē:i**  
 in DEM.DAT.SG.F D.DAT.SG.F hour.DAT.SG.F in REL.DAT.SG.F  
 eîpen autō:i ho Iē: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”).’  
 (ἐγὼ οὖν ὁ πατήρ ὅτι) ἐν ἐκείνῃ τῇ ὥρᾳ ἐν ᾗ εἶπεν αὐτῷ ὁ Ἰησοῦς,  
 (‘Ο 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<sup>h</sup>utela* “every plant”. This is a preverbal subject of the matrix verb *ekrizo:t<sup>h</sup>ē:setai*. The relative clause initiated by *hē:n* immediately follows the matrix subject.

- (23) Preverbal head-external relative clause, subject of matrix  
**Pâsa p<sup>h</sup>uteía [hè:n ouk**  
 every.NOM.SG.F plant.NOM.SG.F REL.ACC.SG.F NEG  
 ep<sup>h</sup>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<sup>h</sup>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  
 ἐκρίζωθήσεται (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 éthnos* “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 éthnos [hôi èàn**  
 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 δουλεύουσιν 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 modify 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<sup>h</sup>ro:pos**    ê:n                en Ierousalè:m  
 man.NOM.SG.M be.3SG.IMPV.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 Ἱερουσαλὴμ ᾧ ὄνομα Συμεών  
 (Lk 2:25)

The NP head *ánt<sup>h</sup>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,vP 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.<sup>78</sup>

- (29) Pre-posed headless relative clause, object of matrix  
 [hò gār 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·) ὁ 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 *epízei* “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<sup>h</sup>ris* “until”.

- (30) Right-peripheral adverbial headless relative  
 ou mè: parélt<sup>h</sup>e: he: geneà  
 NEG NEG pass.3SG.AOR.SUBJ.ACT D.NOM.SG.F generation.NOM.SG.F  
 aúte: [mék<sup>h</sup>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)

<sup>78</sup> 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.<sup>79</sup>

- (31) MC-internal adverbial headless relative  
 émat<sup>h</sup>en [ap<sup>h</sup>’ hō:n épat<sup>h</sup>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 ὄν 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  

<b>Found</b>	<b>Not found</b>
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;

<sup>79</sup> Head-internal versions of right peripheral and main clause internal free relatives can be found at 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)
- |                     |      |              |               |                      |   |
|---------------------|------|--------------|---------------|----------------------|---|
| [ <b>hà</b>         | gàr  | àn           | ekeínos       | poie:î               | ] |
| REL.ACC.PL.N        | PCL  | PCL          | this.NOM.SG.M | do.3SG.PRES.SUBJ.ACT |   |
| [ <i>taûta</i>      | kai  | ho           | huiðs         | homóio: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 *ζό:ιο:n* “animals” occurs internal to the relative clause. It is co-referential to the fronted demonstrative *τούτο:n* in the main clause.

- (34) Pre-posed head internal relative clause (correlative)
- |                  |                |                           |                       |
|------------------|----------------|---------------------------|-----------------------|
| [ <b>hô:n</b>    | gàr            | eisp <sup>h</sup> éretai  | <b>zó:io:n</b>        |
| 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 |                           |                       |
| [ <i>τούτο:n</i> | 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 ζώων 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)  
 [hōū 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) [hōs eàn oûn lúse:i mían  
 REL.NOM.SG.M PCL PCL loose.3SG.AOR.SUBJ.ACT one.ACC.SG.F  
 tō:n entolō:n touto:n tō:n helak<sup>h</sup>isto:n (...)]  
 D.GEN.PL.F order.GEN.PL.F DEM.GEN.PL.F D.GEN.PL.F least.GEN.PL.F  
 helák<sup>h</sup>stos klé:t<sup>h</sup>e:setai (...)  
 least.NOM.SG.M call.3SG.FUT.IND.PAS  
 [hōs d’ àn poié:se:i (...)]  
 REL.NOM.SG.M PCL PCL do.3SG.AOR.SUBJ.ACT  
 hoûtos mégas klé:t<sup>h</sup>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)’.  
 ὅς ἐάν οὖν λύσῃ μίαν τῶν ἐντολῶν τούτων τῶν ἐλαχίστων (καὶ  
 διδάξῃ οὕτως τοὺς ἀνθρώπους), ἐλάχιστος κληθήσεται (ἐν τῇ  
 βασιλείᾳ τῶν οὐρανῶν·) ὅς δ’ ἂν ποιῇ (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<sup>h</sup>ei                      ] dot<sup>h</sup>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).’  
 ὅς γὰρ ἔχει, δοθήσεται αὐτῷ· καὶ ὅς 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 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<sup>h</sup>      **hòn**                      gàr      légetai                      taûta                      ]  
 about REL.ACC.SG.M for say.3SG.PRES.IND.PAS DEM.NOM.PL.N  
 p<sup>h</sup>ulê:s                      hetéras                      metésk<sup>h</sup>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 ἐτέρας 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<sup>h</sup>oneúse:i                      ]  
 REL.NOM.SG.M PCL PCL kill.3SG.AOR.SUBJ.ACT  
 énok<sup>h</sup>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.’  
 ὅς 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 |
| [hō:i           | ân                        | humô:n     | k <sup>h</sup> re:ze:i |    |
| REL.DAT.SG.N    | PCL                       | you.GEN.PL | need.3SG.PRES.SUBJ.MID |    |
| <b>prágmati</b> | ]                         |            |                        |    |
| matter.DAT.SG.N |                           |            |                        |    |
- ‘And assist her in whichever matter she might have need of you.’
- καὶ παραστήτε αὐτῇ ἐν ᾧ ἂν ὑμῶν χρῆζῃ 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<sup>h</sup>ro:pos** ê:n en Ierousalè:m  
 man.NOM.SG.M be.3SG.IMP.F.IND.ACT in Jerusalem  
**[hō: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 Ἱερουσαλὴμ ὃ 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<sup>h</sup> hē:s** daimónia heptà exele:lú:t<sup>h</sup>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 γυναῖκες τινες αἱ ἦσαν τεθεραπευμένοι 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

**[hōn** egò: apekap<sup>h</sup>álisa ] **Io:ánnē:n**  
 REL.ACC.SG.M I.NOM.SG behead.1SG.AOR.IND.ACT John.ACC.SG.M  
 hoútōs e:gért<sup>h</sup>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)

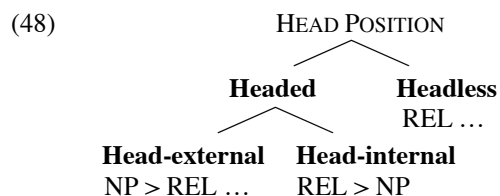
I don’t call these appositive correlatives, since if correlatives are maximalizing, they can’t be appositive (see de Vries 2000, 2002: note 26; 2006: note 58).

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.

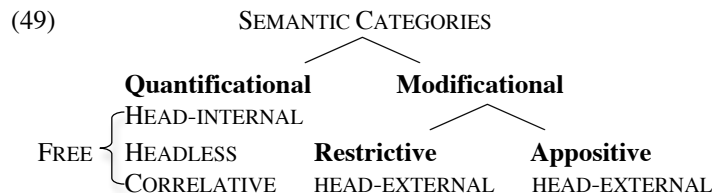
## 2.4 Summary

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).

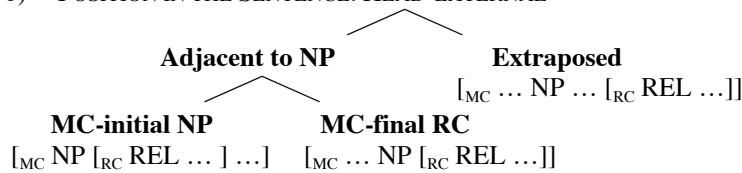


However, the head-internal relative clauses in NT Greek pattern more with what are known as head-internal free relatives in Germanic. Head-internal free relatives are a subtype of free (headless) relatives. With respect to semantics, both headless relatives and head-internal free relatives are semantically 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).



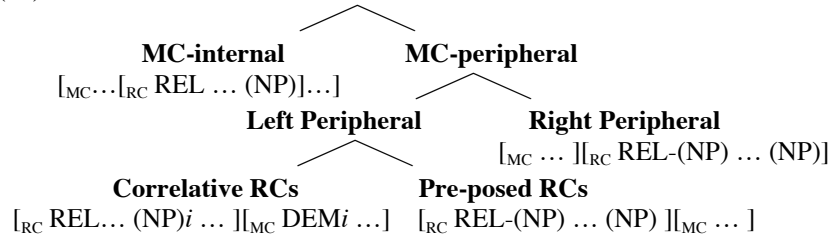
Concerning the position of the relative clause in the sentence, head-external relative clauses are either string adjacent to their NP heads, or stranded (extraposed). When they are string adjacent to NPs, their position varies with the position of the NP. When modified NPs are initial in the main clause, 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 pre-posed 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 *epístēusen*, 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  
 epístēusen                      ho                      ánt<sup>h</sup>ro:pos  
 believe.3SG.AOR.IND.ACT D.NOM.SG.M man.NOM.SG.M  
**tôi:**      **lógoi:**                      **[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 λόγου* “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**                      **λόγου**  
 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 δούλος  
 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  
 καὶ οὐδενὶ ἀπέγγειλαν ...  
 and nobody.DAT.SG report.3PL.AOR.IND.ACT  
 οὐδὲν [ἡὲ: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 épheron  
 no.ACC.SG.F charge.ACC.SG.F bring.3PL.AOR.IND.ACT  
 [ἡὲ:n egd: 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 tē:s he:méras hē:s**  
 until D.GEN.SG.F day.GEN.SG.F REL.GEN.SG.F  
**anelé:mp<sup>h</sup>t<sup>h</sup>e: ap<sup>h</sup> 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.<sup>80</sup> 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.

<sup>80</sup> 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  
 tē:i paradósei humō:n  
 D.DAT.SG.F tradition.DAT.SG.F your.GEN.PL  
 [hē: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 ἣ  
 παρεδώκατε (Mk 7:13)

In this example, the head noun *paradósei* occurs with dative case morphology, functioning as an instrumental. The possessive pronoun *humō: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 than 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 *lithon* “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<sup>h</sup>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<sup>h</sup>e:                      eis kep<sup>h</sup>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
- |   |  |
|---|--|
| <b>Attraction</b><br>HEAD-EXTERNAL<br>HEADLESS<br>HEAD-INTERNAL | <b>Inverse attraction</b><br>PRE-POSED HEAD-EXTERNAL |
|---|--|

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) |

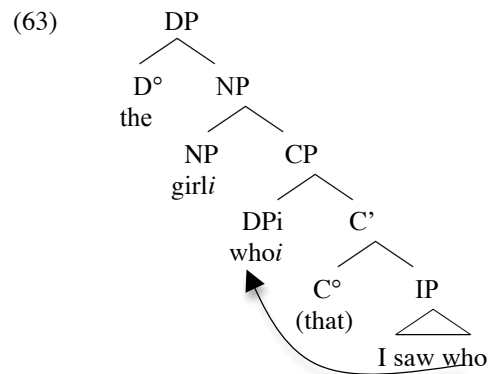
- (62) INVERSE ATTRACTION:  
 NOM > ACC  
 (structural Case) (structural Case)

#### 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”.



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.<sup>81</sup> Example (64) illustrates binding facts that motivate the claim that NPs start out in the embedded clause.

- (64) Mary discovered the picture of himself<sub>i</sub> that Bob<sub>i</sub> liked PICTURE OF HIMSELF<sub>i</sub>

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”.<sup>82</sup>

- (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 [<sub>CP</sub> [<sub>PP</sub> hammer<sub>i</sub> [with which [e]<sub>i</sub>]] 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

<sup>81</sup> For semantic arguments for the internal interpretation of external head nouns see Bhatt & Pancheva (2006).

<sup>82</sup> 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 **hō:i**                      gàr **krímati**                      krínete  
 by REL.DAT.SG.N for judgment.DAT.SG.N judge.2PL.PRES.IND.ACT  
 krit<sup>h</sup>é:sest<sup>h</sup>e  
 judge.2PL.FUT.IND.PAS  
 kaì en **hō:i**                      **métro:i**                      metreíte  
 and by REL.DAT.SG.M scale.DAT.SG.M measure.2PL.PRES.IND.ACT  
 metre:t<sup>h</sup>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 μετρεíte  
 μετρηθήσεται ὑμῖν. (Mt 7:2)
- (68) Head-external relative  
 en **tō:i**                      **pote:río:i**                      [**hō: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<sup>h</sup>òs ánt<sup>h</sup>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.

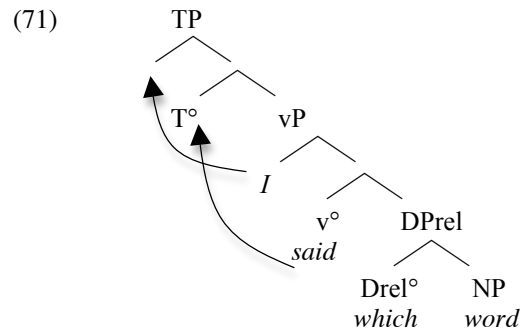
### 4.3 NT Greek head-external relative clause structure

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.

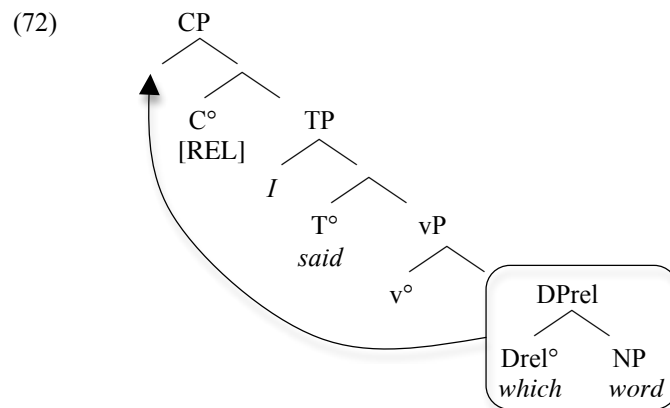
The example in (70) is repeated from (53) above, where the head noun *lógon* is preceded by the determiner *toû*.

- (70) Case attraction (ACC to GEN) in a head-external RC
- |  |              |               |
|--|--------------|---------------|
| mne:moneúete   | <b>toû</b>   | <b>lógon</b>  |
| remember.2PL.PRES.IMPV.ACT                           | the.GEN.SG.M | word.GEN.SG.M |
| [ <b>hoû</b> egò: eípon 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)

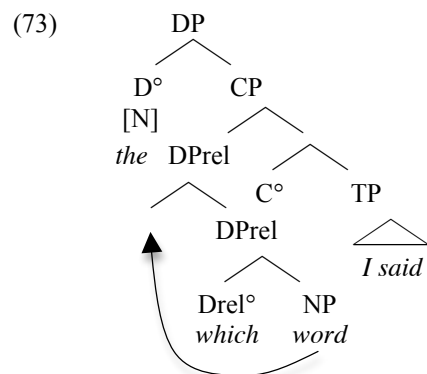
In a head-external relative clause, the determiner preceding the NP corresponds to the matrix determiner. The relative DP, with the relative pronoun as the head and the NP its complement, first occurs in its base position in the embedded clause. The relative DP constituent *hoû lógon* ‘which word’ is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



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



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).

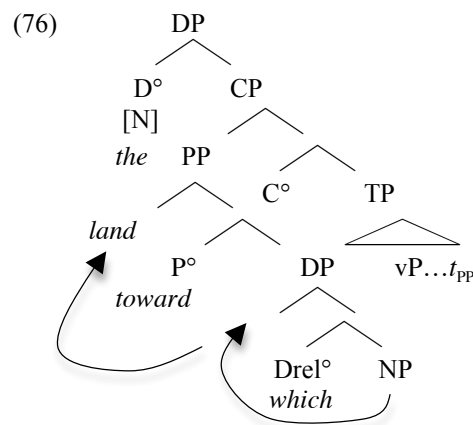
- (74) The minimal domain of a head X, notated (X), includes all elements that are immediately dominated by, and do not immediately dominate, a projection of X.

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 tē:s gē:s  
 against D.GEN.SG.F land.GEN.SG.F  
 [eis hē:n hupē:gon ]  
 toward REL.ACC.SG.F head.3PL.IMP.F.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 ὑπήγον.  
 (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  $P^\circ$  rather than of the external  $D^\circ$ , 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  $t_{pp}$ .



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.

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.

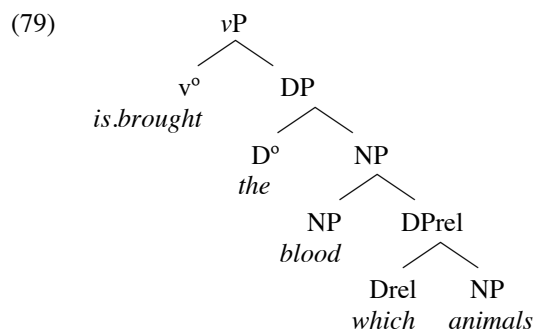
### 5.1 NP positions

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
- |                  |                |                           |                       |
|------------------|----------------|---------------------------|-----------------------|
| [ <b>hō:n</b>    | gàr            | eisp <sup>h</sup> éretai  | <b>zō:io:n</b>        |
| 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 |                           |                       |
| [ <b>toúto:n</b> | 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)’.
- ὅν γὰρ εἰσφέρειται ζώων 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 *zō: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 *vP* is shown in (79).



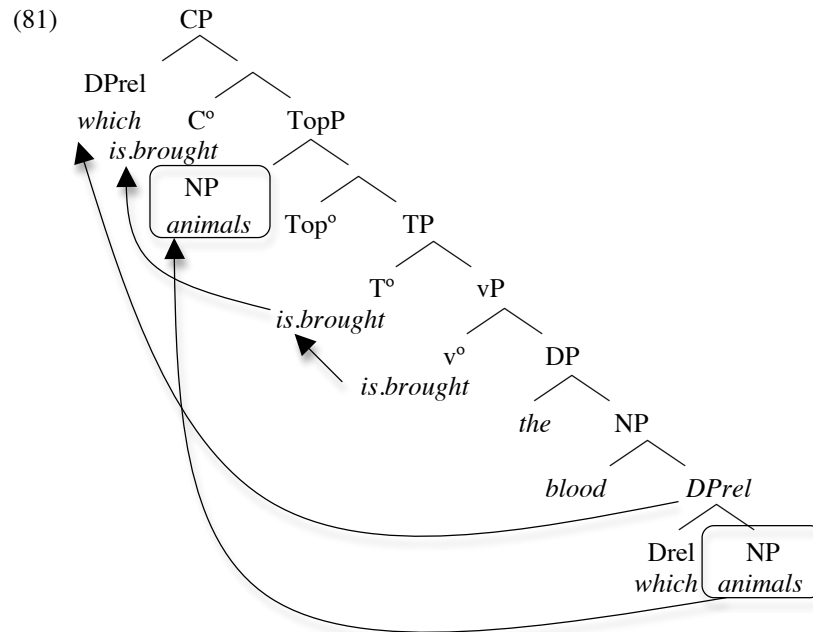
The fact that in (78) the possessor NP *zô:io:n* “animals” precedes the possessum DP *tò haîma* “the blood” indicates that it has moved out from its base position. However, it does not move as high as Spec,CP with the relative pronoun. The verb intervenes between the two.

The NP *zô: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 ἀγιάσῃ 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 *καί*, 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 *zô: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 C° 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 C°, through T°, 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.

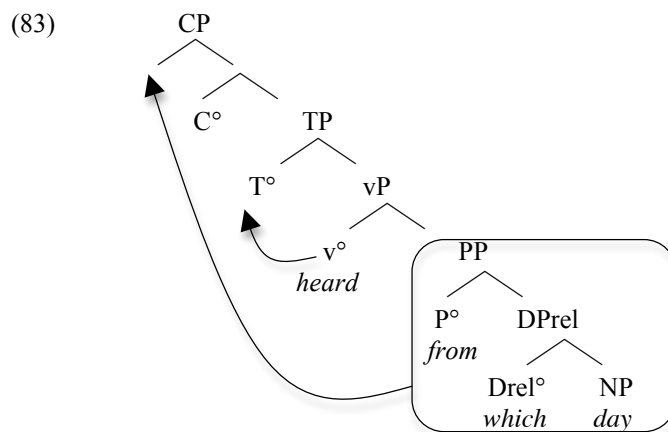


In summary, the example indicates that when NP stranding occurs, the NP is not necessarily in-situ. In the split *wh*-phrases discussed in Chapter 5, it was not possible to say with certainty whether NPs had raised at all. Example (78) could be taken to indicate that when nominal complements of *wh*-phrases 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<sup>h</sup>    **hês**                    **he:méras**    e:koúsate                    ...]  
          from REL.GEN.SG.F day.GEN.SG.F hear.2PL.AOR.IND.ACT  
          ‘from which day you heard’  
          ἄφ’ ἧς ἡμέρας ἤκούσατε                    (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).



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.<sup>83</sup> 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.

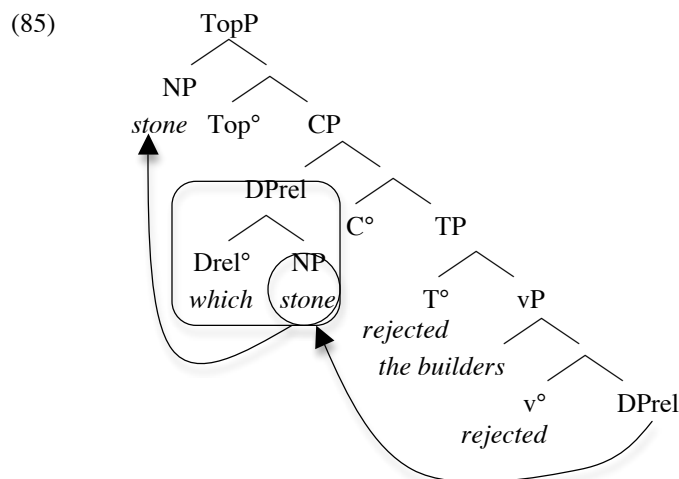
- (84) Inverse attraction in a correlative
- |                          |                  |                        |
|--------------------------|------------------|------------------------|
| <b>Lít<sup>h</sup>on</b> | <b>hòn</b>       | apedokímasan           |
| stone.ACC.SG.M           | REL.ACC.SG.M     | reject.3PL.AOR.IND.ACT |
| hoi                      | oikodomoûntes,   | [ <i>hoûtos</i>        |
| the.NOM.PL.M             | builder.NOM.PL.M | DEM.NOM.SG.M           |
| egené:t <sup>h</sup> e:  | eis              | kep <sup>h</sup> alè:n |
| become.3SG.AOR.IND.PAS   | to               | head.ACC.SG.F          |
|                          |                  | go:nífas               |
|                          |                  | 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

<sup>83</sup> 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.<sup>84</sup>



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) [<sub>CP</sub> De qué autora<sub>i</sub> C no sabes [<sub>CP</sub> [ qué traducciones <sub>t<sub>i</sub></sub>]<sub>j</sub> C [<sub>TP</sub> <sub>t<sub>j</sub></sub> 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?’

<sup>84</sup> 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 [<sub>CP</sub> [ qué traducciones [<sub>PP</sub> de qué autora]]<sub>i</sub> C [<sub>TP</sub> <sub>i</sub> han ganado permios internacionales]]  
 not know.2SG what translations of what author have won 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 pásávo manuṣyèṣu  
 REL.ACC PCL PCL PCL that cattle.PL.NOM man.PL.LOC  
 kāmam árohaṃs tám u ha evá  
 desire.ACC obtain.PRES.3PL that.ACC PCL PCL PCL  
 pásúṣu kāmam 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).

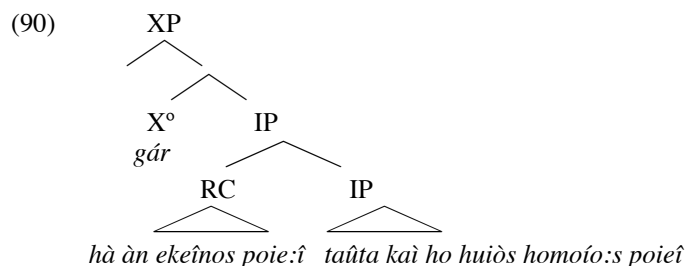
In NT Greek, only one instance of the conjunctive particle *de* or the conjunctive particle *gar* is found in a given correlative sentence. These are second position particles, and thus surface internal to the pre-posed relative clauses, directly following the relative pronouns. For example, in (89), the particle *gar*, 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*                    *kai*    *ho*                    *huiòs*                    *homóio: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.



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 *kai ho huiòs* “also the son” in left peripheral position (see Chapter 4 for the treatment of focused phrases). Note that the adverb *homóio: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 aítían* “no charge”.

- (91) *oudemían aítían épheron*  
 no.ACC.SG.F charge.ACC.SG.F bring.3PL.AOR.IND.ACT  
 [hō:n egō: hupenóoun pone:rō:n ]  
 REL.GEN.PL.N I.NOM.SG suspect.1SG.IMP.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 οὐ 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 é<sup>h</sup>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 δουλεύουσιν 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 é<sup>h</sup>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 é<sup>h</sup>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 *eàn*, 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.

## Chapter 7. Conclusions

This thesis set out to examine word order in the Koine Greek of the New Testament. I focused on the following domains: declarative clauses, questions, and relative clauses. The important questions were what the basic or neutral word order of the language is, and how the orders are derived. In this final chapter, I summarize the findings of my study.

In Chapters 2 and 3, it was shown that NT Greek is best described as VSO language. It has an SVO alternative basic order, which has been claimed to be the case for all VSO languages (Greenberg 1966).

In Chapter 2 I discussed the notion of basic word order. I illustrated the different conclusions found in previous work on NT Greek basic word order, showing that the conclusions vary based on many factors. For example, it seemed to vary based on which books are examined, and based on which types of clauses are considered. Also, different conclusions stemmed from differing ideas of what basic word order is. I conducted a survey of main declarative clauses in four books of the NT: Matthew, Luke, First Corinthians and Revelation, looking at the relative positions of subjects, verbs and objects. The results are repeated in Table 1 below.

	<i>Matthew</i>	<i>Luke</i>	<i>1 Cor</i>	<i>Revelation</i>	<b>total</b>
SVO	52	14	8	11	85
VSO	7	13	0	12	32
SOV	2	5	13	1	21
OVS	3	1	5	0	9
VOS	0	3	1	0	4
OSV	0	1	2	0	3
<b>total</b>	64	37	29	24	

**Table 1: Word orders in four books (Table 4, Chapter 2)**

I took the view that the frequency of occurrence is not the most important factor in determining what the most basic word order is. For one, frequency of occurrence seems to be somewhat skewed by particular text types. For example, in Matthew, SVO is attested 52 times, but 38 out of these instances occur in the genealogy list. Secondly, taking the Greenbergian approach (Greenberg 1966) in defining markedness as being directly related to frequency is problematic given that most frequently, clauses do not contain both subjects and objects in this language. Clauses with null subjects are very common in the text.

My study was intended to assist in creating generalizations about the types of constituents that occur in these orders and what their status is to the broader context, rather than to weigh their relative frequencies. I adopted the view that a neutral clause is one in which any given constituent is not topic or focus material. Both

(1) VSO clause

(2) SVO clause

Table 2: Marked properties of word orders (Table 5, Chapter 2)

Given that SVO and VSO are both significantly attested at least in some books, and that they are both found as neutral clauses led me to narrow down the basic word order to SVO and VSO. The fact that both seemingly neutral clauses and clauses that are clearly pragmatically marked are found in SVO orders indicated that while an SVO surface string is described as a single entity, there is a structural duality among SVO clauses. To gain more insight into the structure of SVO and VSO clauses, and determine which of these is the underlying order, I examined the SVO-VSO alternation from a cross-linguistic and theoretically oriented perspective in Chapter 3.

In Chapter 3, I argued that NT Greek is a verb-initial (VSO) language with an SVO alternative basic order. Regarding the syntactic position of verbs, theoretical considerations such as the correlation between rich inflection and V to T movement suggest that verbs raise at least to T in this language. It was, however, difficult to determine whether verb movement proceeded beyond T or not. That is, given the data available, TP could not always be clearly distinguished from CP. Digital searches of instances of adverbs collected from NT lexica were not revealing as to whether there is a strict ordering of adverbs. Had such an ordering been apparent, it would have been possible to use adverbials as landmarks between TP and CP, adopting for example the theory developed in Cinque (1999). Adverbs are commonly found string-initially, and appear to be topicalized, therefore not providing firm landmarks.

The relative position of verbs and the modal particle *án*, at first sight, might seem to be a useful tool in distinguishing TP from CP. It has been argued that in Classical Greek, this particle instantiates the Fin(iteness) head in Rizzi's (1997) version of the left periphery (Roussou 1998). If this were the case in NT Greek, one could say that there is both V to T and V to C movement, since verbs are found both following and preceding the particle. However, unlike Classical Greek, the NT Greek modal particle always occurs in second position. It is therefore not necessarily a firm landmark for identifying the syntactic projections of the elements surrounding it.<sup>85</sup> The distribution of *án* in Classical and NT Greek is a very interesting avenue for future research.

One diagnostic that I used to identify verbs that were in C was the inferential or illative particle *ára*. This particle is clearly not a second position particle. Therefore, it is a more solid landmark for identifying syntactic positions. It likely heads an evidential projection in the left periphery. Along with CP material such as *wh*-interrogatives and question particles, verbs are occasionally found preceding this particle. This diagnostic was useful in identifying certain verbs as being in a high C projection; however, it did not provide a firm barrier between T and C. As shown in Chapter 5, the particle is very high in the left periphery, since left peripheral

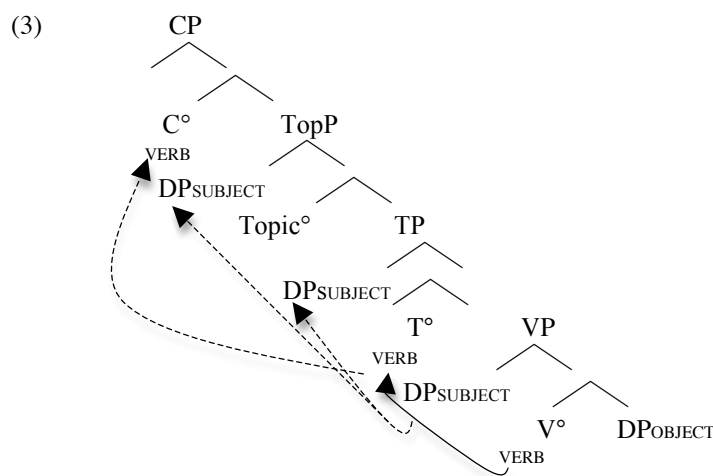
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<sup>85</sup> There are many complications with the particle. It is traditionally viewed as distinct from the conditional particle *án*, which is the reduced form of the conditional *án*. In Modern Greek, *án* is a conditional particle, which does not occur in second position (Jannaris 1898: 419). The Koine Greek of the NT represents an intermediary stage between Classical and Modern Greek, and is therefore relevant for a diachronic investigation of the modal/ conditional.

material is found following it. It is therefore possible that there is a V to C operation in declaratives, but there is nothing to differentiate this from V to T in most instances.

Concerning subject positions, it was argued that subjects occur inside the VP/vP, based on the fact that VP level adverbials are found preceding subjects. Also, shifted pronominal objects occur following verbs and preceding subjects. Recent research has shown that shifted pronouns in various languages target a projection of vP (Chomsky 2000; Richards 2004). This indicates that postverbal subjects are vP-internal. Concerning preverbal subjects, it was shown that certain types of subjects such as specific indefinites and negative quantifiers are not in the Spec,T subject position. This was based on the parallel (preverbal) distribution of negative quantifier objects and specific indefinite objects or genitive complements. Also, negative quantifier subjects were shown to be separated from verbs by argument and adverbial material, suggesting they are higher than Spec,T. Thus, even subjects that one would expect to be in Spec,T really do not seem to be. The only evidence for the Spec,T subject position comes from the fact that a few seemingly neutral clauses, namely the situational sentences, show the SVO order ((2) above).

The possible derivations for SVO and VSO clauses are summarized in (3). The arrows with dashed lines indicate movement that does not always take place.



The verb consistently moves to T, and in some instances moves to C. DP subjects remain in the VP, move to Spec,T, or move to a left peripheral topic projection.

In summary, the facts discussed in Chapter 3 suggest that although SVO is the most frequent order, the language is verb-initial. Looking at relative frequencies of clauses containing overt subjects, verbs and objects makes the frequency approach counter-intuitive, as mentioned above. The null subject property that this language displays can be related to its verb initial nature. That is, there is no obligatory Spec,T subject projection, along the lines of Alexiadou & Anagnostopoulou (1998). In less formal terms, this means that the rich person and

number agreement on verbs allows the subjects to be null. In this language, when subjects are overt, they are often pragmatically marked in preverbal position.

In Chapter 4, I investigated the marked word orders identified in Chapter 2. These were O-initial and SOV clauses. In order to account for these word orders, I examined topicalization and focus constructions in detail. This is difficult in a dead language, where we have no access to intonational contours. This is a valuable tool in distinguishing topics from foci. To gain a better understanding of topicalization and focusing in this language, it was necessary to first abstract away from the marked clauses discussed in Chapter 2, and to consider isolated instances of topics and foci. In particular, I looked for specific lexical items that are associated with topic and focus. For example, I investigated the focus particle *kaí*, which places focus on the constituent that it directly precedes. In most of the instances I discussed, the focus was additive. I also examined corrective focus constructions of the form ‘not *x*, but *y*’ and ‘*x*, and not *y*’, and the adverb *mónon* ‘only’, which is indicative of exhaustivity. Regarding topics, I investigated the ‘as for’ topic marker, the preposition *perí*. With this strategy, it is possible to conduct digital searches with the *Thesaurus Linguae Graecae*, which provides one with many instances, from which it is possible to form generalizations. Another strategy I used was to look at narratives, in which new participants are introduced and re-introduced, and topics of discourse are shifted. This research showed that foci are often fronted, but are also found in what appears to be their base position. Topics are very often fronted, but I have not examined the issue of postverbal topics, since these are more difficult to identify, and the main focus was on the left periphery.

Recent research on the left periphery has suggested that the hierarchy proposed by Rizzi (1997) should be modified. In particular, it has been argued that Top(ic)P is not recursive (Benincà & Poletto 2004; Frascarelli & Hinterhölzl 2007). The latter authors argue that different varieties of topics occur in a specific order. They distinguish subvarieties of topics, based on different intonational contours. In the Italian clause, Topic projections are ordered such that shifting topics (in ShiftP) precede contrastive topics (in ContrP), contrastive topics precede foci (in FocP), and foci precede familiar topics (in FamP). In my view, the NT Greek data provide many instances of the order focus > familiar topic. There is also a strong indication that contrastive topics and shifting topics precede foci. However, there is no strong indication that shifting topics and contrastive topics co-occur in a particular order. This seems to be partly due to the fact that it is difficult to distinguish shifting topics from contrastive topics without access to intonational evidence. What appear to be shifting topics often carry contrast. I proposed the hierarchy of Topic and Focus projections in (4).

(4) TopP > FocP > FamP

Returning to SOV and O-initial clauses, it was shown that in many instances of SOV clauses, one element is a topic and one a focus. In many instances, subjects are shifting or contrastive topics, and objects are foci. In others, subjects are foci and objects are suggestive of familiar topics. Thus, SOV clauses are derived through

movement of both constituents to the left periphery. They further re-enforce the level of discourse projections in (4).

In Chapter 4, I also resumed the issue of the position of fronted quantifiers, namely, universal and negative quantifiers. As concluded in Chapter 3, preverbal negative quantifiers occur in the left periphery. The distributions of universal and negative quantifiers suggest that they are foci. I suggested that they undergo focus movement, in parallel with what has been argued for Modern Greek fronted negative quantifiers (Tsimpli & Roussou 1996).<sup>86</sup> In some instances, however, quantifiers did not appear to occur in the Focus projection, particularly those that were referential. I suggested that quantifiers that are referential and linked to the discourse might be topicalized (Giannakidou 2000, 2006 concerning Modern Greek).

Chapter 5 was an investigation of word order in yes-no and content (*wh*-) questions. I focused both on the relative positions of subjects and verbs, and on the position of question particles and *wh*-interrogatives in the left periphery.

I concluded that there is no strong evidence for a movement operation distinct from canonical V to T movement in declarative clauses. There was shown to be a strong predominance for *wh*-VS orders among object questions, while adjunct questions such as “how”, “where” and “why” and yes-no questions showed similar word order variation as declarative clauses. That is, *wh*-SVO, *wh*-VSO and *wh*-SOV are all attested. At first, this was indicative of an argument versus adjunct asymmetry, and it suggested that V to C movement applies in object questions, forming a parallel with V to C movement in *wh*-questions in English and other modern European languages. For example, Rizzi (1996) proposes that V to C movement applies in *wh*-questions, placing the verb in the head of the projection hosting the *wh*-. However, upon closer inspection, it was shown that constituents other than subjects do intervene between object *wh*-interrogatives and verbs. Furthermore, subject questions do not show an adjacency between the subject *wh*- and the verb. Therefore there does not, in fact, seem to be an argument versus adjunct asymmetry in the data.

Since NT Greek is a verb-initial language, the object questions can all be accounted for with V to T movement, and in-situ subjects. Examples such as (5) below, shown in Chapter 5, can also be easily accounted for by assuming V to T movement.

(5) *wh*->OV

**Τίνα**                      σεαυτὸν                      ποιεῖς?  
 whom.ACC.SG.M    self.ACC.SG.M    make.2SG.PRES.IND.ACT  
 ‘(Are you then better than our father Abraham, who died? The prophets died, too). Who are you making yourself out to be?’  
 (μὴ σὺ μείζων εἶ τοῦ πατρὸς ἡμῶν Ἀβραάμ, ὅστις ἀπέθανεν; καὶ οἱ  
 προφῆται ἀπέθανον·) τίνα σεαυτὸν ποιεῖς;                      (Jn 8:53)

<sup>86</sup> As I mentioned in Chapter 4, negative words that are quantifiers in Classical and NT Greek are considered to be polarity items in Modern Greek.

In (5), the reflexive pronoun *seautón* intervenes between the *wh*- and the verb. The preceding context suggests that this constituent is a topic or a focus. In a V to T account, this example is the structural counterpart of an OV declarative clause with the addition of the object *wh*-interrogative.

The contrast in word orders between object and adjunct *wh*-questions (namely, the strong trend for *wh*-VS in object questions, and the freedom among adjunct questions) can be speculated on with a V to T account. Namely, in most object questions, the *wh*- is the only object constituent, and there is usually at most a subject and a verb in the sentence. In adjunct questions, on the other hand, the *wh*- is not an argument. There happen to be many adjunct questions that contain subjects, verbs and objects. The fact that *wh*-SOV occurs is therefore not surprising, if the same derivations are available in *wh*-questions and declarative clauses. The double object construction in (5) is an exception to the generalization that in most object questions, the *wh*- itself is the only object. In this example, the order *wh*-OV is witnessed.

While the V to T easily accounts for more of the data, it does not immediately explain the strong trend for *wh*-VS orders in object questions. Throughout this thesis, I have maintained the view that frequency of occurrence should not be the most important factor in investigating the structure of dead languages. It is plausible that the strong trend among object questions is merely coincidental; the subjects in these instances happen to be in-situ. Another possibility, of course, is that V to C movement does apply. However, there is no clear evidence for this in the absence of a clear landmark separating T from C, a situation that is familiar from the study of declarative clauses. Thus, I conclude that V to T is the normal operation in *wh*-questions.

Regarding the syntactic position of *wh*-interrogatives and question particles, I concluded that they occur in the same maximal projection. This was based on distributional parallels. A maximum of one topic constituent is found preceding question particles and *wh*-interrogatives. Similarly, one topic constituent is found preceding complementizers. This suggests that all of these elements occur within the same maximal projection. Question particles and *wh*-interrogatives are associated with interrogative force; complementizers are associated with declarative force. Therefore, I call the projection hosting complementizers, question particles and *wh*-interrogatives ForceP, using Rizzi's (1997) split-CP terminology.

Left peripheral material was shown to follow *wh*-interrogatives and question particles. Specifically, focused elements occur between *wh*-s (also question particles), and verbs. This provided more support for the fact that *wh*-interrogatives occur in Spec,ForceP, and not Spec,FocP, in the hierarchy of left peripheral projections in (6).

- (6) TopP > ForceP > EvidP > FocP > (Fam)TopP > Fin/IP

Given that the inferential particle *ára* is found preceding foci and following *wh*-interrogatives and question particles, I concluded that it heads an evidential projection, labeled EvidP. As I also discussed in Chapter 5, NT and Classical Greek are multiple *wh*-fronting languages, and the data from Classical Greek suggest that

there are superiority effects. I concluded that the structurally higher *wh*-interrogative moves to Spec,ForceP, and the structurally lower one to Spec,FocP, as argued in Bošković (2002, 2003) concerning Serbo-Croatian multiple *wh*-fronting.

In Chapter 6, I examined NT Greek relative clauses. There are a few surface varieties of relative clauses that all employ the same relative morpheme: head-external, headless (free) relatives, head-internal free relatives and correlative relative clauses. Some representative examples are repeated in (7) – (9).

(7) Head-external relative clause

mne:moneúete                      toû                      lógou  
remember.2PL.PRES.IMPV.ACT    the.GEN.SG.M    word.GEN.SG.M  
[hoû                      egð:                      eípon                      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)

(8) Head-internal free relative clause

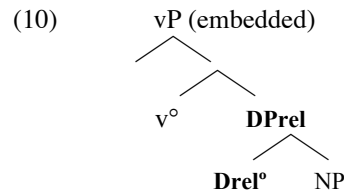
oudemían                      aítían                      éph'eron  
no.ACC.SG.F    charge.ACC.SG.F    bring.3PL.AOR.IND.ACT  
[hð:n                      egð:                      hupenóoun                      pone:rð:n    ]  
REL.GEN.PL.N    I.NOM.SG    suspect.1SG.IMPV.IND.ACT    evil.GEN.PL.N  
'(against 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)

(9) Correlative

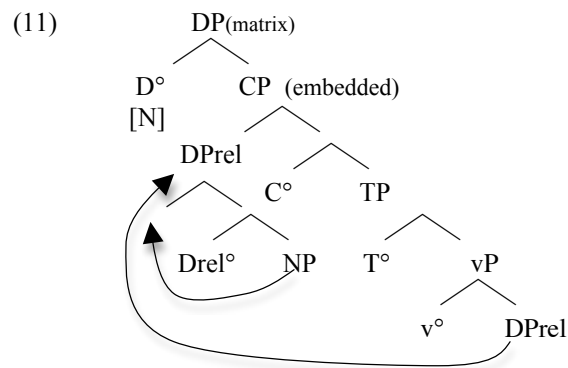
[Lít<sup>h</sup>on                      hðn                      apedokímasan  
stone.ACC.SG.M    REL.ACC.SG.M    reject.3PL.AOR.IND.ACT  
hoi                      oikodomoúntes, ]    hoûtos  
the.NOM.PL.M    builder.NOM.PL.M    DEM.NOM.SG.M  
egené:t<sup>h</sup>e:                      eis    kep<sup>h</sup>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)

I concluded that both head-external relative clauses and correlative relative clauses are derived through raising of the relative pronoun and of the head noun, if present. Following Kayne (1994) and Bianchi (1999), I argued that the NP associates (or 'heads') of head-external, head-internal and correlative relative clauses originate as complements of relative pronouns, which are one variety of determiners, Ds. For example, in an object relative clause, the relative DP (DPrel) starts off as the object

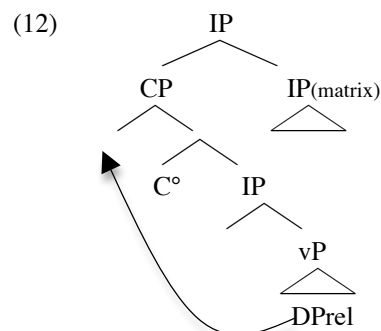
of the embedded verb. The head NP originates as the complement of  $D_{rel}^{\circ}$ , as shown in (10).



The different surface orders are due to different movement operations affecting NPs. Different movement operations affecting NPs seem to be due to the presence versus absence of a matrix determiner. Head-external relative clause CPs are selected by matrix Ds. In a head-external relative clause like (7), after the DPrel has moved to Spec,CP, the NP is attracted to the Spec, of DPrel. This is due to a nominal feature [N] on the matrix D, as shown in (11).



In a correlative, on the other hand, there is no matrix  $D^{\circ}$  selecting the CP. The CP is adjoined to the matrix clause, IP, which contains a demonstrative that is co-referential with the relative and NP, if present. This is re-illustrated in (12).



In instances where the entire DPrel moves to Spec,CP, the surface order is [REL>NP]. Inversion does not take place, given there is no matrix D carrying a nominal feature. In other instances, the NP is first extracted from the DPrel, and is topicalized to a projection below the CP operator projection. This potentially yields the order [REL > V > NP], where the NP is stranded from the REL. In most instances, however, it is unclear whether the NP has moved from its base position or not.

The presence versus absence of a matrix determiner is also the source of the different morphological case patterns observed in relative clauses. The phenomenon of case attraction, illustrated by (9) above, indicates that matrix Case is accessible to the constituents contained in DPrel. In correlatives, there is no matrix D, and therefore no access to matrix Case. The conclusion is thus that inverse attraction, as illustrated by (9), is actually a failure of attraction of the NP to the Case of the matrix. Although the NP linearly precedes the relative pronoun, it is not an external head. It is not connected to the matrix clause through an external D. This corresponds to the fact that the matrix clause contains a co-referential demonstrative, which takes the matrix Case. I have not been able to account for case attraction in (non-correlative) head-internal relative clauses, where the NP is discontinuous from the relative pronoun, such as in (8) above. This is a very interesting avenue for future research.

In summary, this thesis has dealt with various aspects of NT Greek word order and clause structure. I have argued that NT Greek is a head-initial language, meaning that syntactic heads consistently precede their complements in the base structure. This is seen in various domains of surface word order. For example, the canonical position for the object is post-verbal. Deviations to this base order arise when objects are topicalized or focused, or undergo *wh*-movement. The head-initial nature is also observed in the realm of the DP, where relative pronouns precede their NP complements in the base structure. This order is also preserved on the surface in some instances, namely in head-internal relative clauses. Deviations to this order come about in the presence of a formal feature triggering movement of the NP complement.

Koine Greek has many aspects of clause structure that are on the surface similar to Modern Greek clause structure, but often the details of clausal syntax are significantly different (see Horrocks 1997; Mattheiu & Sitaridou). Future research will necessarily seek to understand the diachronic processes that have led from the syntactic structures of Koine described in this thesis to those in Modern Greek.

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## Appendix I: Criteria for the clauses included in Chapter 2, Section 4.

### I. Clausal elements and structure

#### 1 The clause contains at least an S, V and O

Table 4 in Section 4.2 contains clauses that contain at least an S, V and O, I do include clauses that contain more than just these elements. Indirect objects (IOs), prepositional phrases (PPs), negation, particles and adverbs can also be present in the clauses, and can intervene between S, V and O. For example, I include the SVO clause in (1), where an adverb occurs initially, and negation intervenes between the S and V.

- (1) ADV-(dé)-S-NEG-V-O (included)  
ho:saúto:s dè kaì hoì heptà  
similarly PCL also D.NOM.SG.M seven.INDCL  
ou katélipon tékna  
NEG leave.3PL.AOR.IND.ACT child.ACC.PL.N  
'And similarly, the seven did not leave children.'  
ὡσαύτως δὲ καὶ οἱ ἑπτὰ οὐ κατέλιπον τέκνα (Lk 20:31)

#### 2 The clause is continuous

The clause is not necessarily an isolated sentence. I include, for example, the apodoses of conditionals, and conjoined clauses. I also include clauses like (2).

- (2) S V O [PARTP] (included)  
kaì hoì telô:nai edikaíô:sin  
and D.NOM.PL.M publican.NOM.PL.M justify.3PL.PRES.IND.ACT  
tôn t<sup>h</sup>ēōn [baptist<sup>h</sup>éntes ... ]  
D.ACC.SG.M God.ACC.SG.M baptize.NOM.PL.AOR.PART.PAS  
'And the publicans justified God, being baptized (with the baptism of John).'  
καὶ οἱ τελῶναι ἐδικαίωσιν τὸν θεὸν βαπτισθέντες (τὸ βάπτισμα Ἰωάννου)  
(Lk 7:29)

In (2), a participial clause (PARTP) modifies the subject of the MC. The PARTP does not interrupt the MC elements, occurring following all of them. I include clauses like these, whether the participial clause refers to the S or the O.

However, I don't include clauses in which Ss or Os are modified by subordinate clauses that interrupt the elements of the MC. An example of this excluded case is given in (3).

## (3) S [PARTP] VO (excluded)

pâs anè:r [proseuk<sup>h</sup>ómenos  
 each.NOM.SG.M man.NOM.SG.M pray.NOM.SG.M.PRES.PART.MID  
 è: prop<sup>h</sup>e:teúo:n ] [ ... ]  
 or prophesy.NOM.SG.M.PRES.PART.ACT  
 kataisk<sup>h</sup>únei tē:n kep<sup>h</sup>alē:n  
 dishonour.3SG.PRES.IND.ACT D.ACC.SG.M head.ACC.SG.M  
 autoû  
 his.GEN.SG  
 ‘Every man, when praying or prophesying, (and having his head down),  
 dishonours his head.’  
 πᾶς ἄνθρωπος προσευχόμενος ἢ προφητεύων (κατὰ κεφαλῆς ἔχων)  
 καταισχύνει τὴν κεφαλὴν αὐτοῦ. (1 Cor 11:4)

In (3), the S *pâs anè:r* “every man”, is interrupted from the finite V, *kataisk<sup>h</sup>únei* “dishonours” by three participial clauses. The first two are disjunct, “praying or prophesying”, and the third, “having his head covered” is appositional to these, i.e., is also used predicatively. I have left the third participial clause out of the glossed example.

I exclude this construction from the pool of clauses because the relationship between the S and the finite V is not at all straightforward, and the structure is likely different from a regular SVO clause. Similarly, I would exclude clauses in which a participial clause modifying an O intervenes between O and the other main clause elements, however I have not found this.

- S and O are not embedded in a participial clause (PARTP)

This criterion is related to the restriction just stated about participial arguments, or participial clauses. Consider the clause in (4).

## (4) [PartP...S...] V O (excluded)

[Idô:n dē ho hekatontárk<sup>h</sup>e:s  
 see.NOM.SG.M.PRES.PART.ACT PCL D.NOM.SG.M centurion.NOM.SG.M  
 tò genómenon ]  
 D.ACC.SG.N happen.ACC.SG.N.AOR.PART.MID  
 edóxasden tòn t<sup>h</sup>eòn  
 glorify.3SG.IMP.F.IND.ACT D.ACC.SG.M god.ACC.SG.M  
 ‘And seeing what was done, the centurion glorified God.’  
 Ἰδὼν δὲ ὁ ἑκατοντάρχης τὸ γενόμενον ἐδόξαζεν τὸν θεόν  
 (Lk 23:47)

The nominative participial clause *Idô:n dē ho hekatontárk<sup>h</sup>e:s tò genómenon* “The centurion seeing what was done”, appears preceding the MC, *edóxasden tòn t<sup>h</sup>eòn* “[he] glorified God”. *Ho hekatontárk<sup>h</sup>e:s* “the centurion” seems to be the subject of the MC and of the participial clause. In this instance, this subject occurs in a medial position, i.e., is embedded within the PARTP.

The structure of this bi-clausal construction is unclear. How are these clauses linked? Since the relationship between the DP and the finite verb is so unclear, I leave these constructions out.

## II. The Verb

### 3 The verb is transitive

As stated in section 4.1, the verb must be finite, and transitive. This requirement excludes all instances of the following copular verbs, as well as all intransitive predicates. Some examples are given in (5) and (6).

(5) Copular predicates (excluded)

εἰμί	γίνομαι	ὑπάρχω
eimí	gígnomai	hupárk <sup>h</sup> o:
“be”	“become”	“be”

(6) Intransitive verbs (excluded)

-ἔρχομαι	πορεύμαι
-έρk <sup>h</sup> omai	poreúomai
“come”, “go”	“travel”, “journey”, “depart”

### 4 The verb assigns ACC, GEN, or DAT to an argument that is a patient or theme

I consider direct objects to be patients or themes. They most often occur in the accusative case in Greek, but not always. Certain verbs consistently occur with patients that carry dative or genitive case. In some cases, the V carries a prepositional prefix, and the case that this preposition assigns is the case that appears on the direct object. I include clauses with these verbs. The ones I have found in my survey are in (7). If a prepositional prefix occurs, it is bolded.

(7) Verbs that take non-accusative Os (included)

βοηθέω (boe:t<sup>h</sup>é:o:), “help”, “assist” + DAT (Rev 12:16)  
 προσρήγνυμι (**prosré:gnumi**), “dash against” + DAT (Lk 6:48)  
 ἐπετίμαω (**epetímao:**), “rebuke” + DAT (Lk 9:42)  
 ἐξουσιάζω (**exousiásdo:**), “exercise power over” + GEN (1 Cor 7:4)  
 μμνήσκω (mimné:sko:), “remind” +GEN (Mt 26:75)  
 ὑπομμνήσκω (**hupomimné:sko:**), “remind” +GEN (Lk 22:61)

- The verb consists of one word

That the verb must consist of one word covers the following restrictions.

• **The verb is not periphrastic**

I exclude periphrastic verbal forms, which contain an auxiliary (AUX) and a participial (PART).<sup>87</sup> These are not very common in the NT, but there are a significant number of them. Consider (8), which contains the finite auxiliary *estin* “is”, and the participle *poioûn* “making”.

(8) Periphrastic verb (excluded)

ou	gàr	<b>estin</b>	déndron	kalòn
NEG	PTCL	is.3SG.PRES.IND.ACT	tree.NOM.SG.N	good.NOM.SG.N
<b>poioûn</b>			kárpòn	sapròn
make.NOM.SG.N.PRES.PART.ACT			fruit.ACC.SG.M	rotten.ACC.SG.M

‘For, a good tree does not make rotten fruit, (nor does a rotten tree make good fruit).’  
 οὐ γὰρ ἐστὶν δένδρον καλὸν ποιοῦν κάρπὸν σαπρὸν (οὐδὲ πάλιν δένδρον σαπρὸν ποιοῦν κάρπὸν καλόν.) (Lk 6:43)

The practical reason for excluding these constructions is that the auxiliary is often split from the participle in the string, and it’s unclear which should be treated as the verb.

Aside from this, there are various possible readings and structures of the clause in (16), and other sequences of AUX...PART. With respect to (16), an episodic reading would mean that at the moment of the utterance there was no good tree in the middle of making rotten fruit. All Bible translations give this clause a gnomic (generic) interpretation, meaning that as a general rule, a good tree doesn’t make rotten fruit.

Aside from the semantic interpretation, the structure of (16) is unclear. The possible parses, and paraphrases of these are summarized below.

- i. True periphrastic construction (*déndron kalón*, “a good tree” is the subject of the AUX):  
lit., “A good tree isn’t making rotten fruit.”
- ii. Negative existential construction:  
lit., “There is not a good tree making rotten fruit.”
- iii. Cleft construction:  
lit., “It is not the good tree making rotten fruit”
- iv. Predicative adjective reading (*déndron*, “tree” is the subject of the AUX):  
lit., “A tree is not good, [if/when] making rotten fruit.”

• **The verb is not a modal + infinitival**

I exclude modal verbs with infinitival complements, such as (9).

<sup>87</sup> I use ‘periphrastic’ rather loosely, referring to sequences of AUX... PART.

## (9) Infinitival complement (excluded)

t<sup>h</sup>emélion                      gâr              állon                      oudeïs  
 foundation.ACC.SG.M   PRTCL   other.ACC.SG.M   no-one.NOM.SG.M  
**dúnatai**                      **t<sup>h</sup>eînai**  
 can.3SG.PRES.IND.MID   put.AOR.INFIN.ACT  
 ‘For, no one can lay another foundation (than what is laid).’  
 θεμέλιον γὰρ ἄλλον οὐδεὶς δύναται θεῖναι (παρὰ τὸν κείμενον)  
 (1 Cor 3:11)

## • The predicate is not complex

I exclude clauses with complex predicates containing the light verb *ék<sup>h</sup>o*: “have”. A fairly common example is the complex *k<sup>h</sup>reían ék<sup>h</sup>o*: “have need”, or “need”. It occurs with a genitive complement, which is the thing needed. For example, in (10), *k<sup>h</sup>reían* “need” occurs preverbally, and the genitive complement *toû he:líou* “the sun” occurs postverbally.

(10) Complex predicate *k<sup>h</sup>reían ék<sup>h</sup>ei* (excluded)

kaì he:                      polis                      ou   **k<sup>h</sup>reían**  
 and D.NOM.SG.F   city.NOM.SG.F   NEG   need.ACC.SG.F  
 ék<sup>h</sup>ei                      **toû**                      **he:líou**  
 have.3SG.PRES.IND.ACT   D.GEN.SG.M   sun.GEN.SG.M  
 ‘And the city does not have need of the sun.’  
 καὶ ἡ πόλις οὐ χρειάν ἔχει τοῦ ἡλίου                      (Rev 21:23)

## III. The arguments

## 5 Arguments are DPs or QPs

I include clauses with arguments that are either NP/DPs (Determiner Phrases) or QPs (Quantifier Phrases). This includes nouns, and many other categories. For example, proper names are syntactically NP/DPs, so I include them. Various other categories, such as adjectives and adverbs are used as DPs (substantivized) with the article, and I include these as arguments. The constituents may also contain additional genitive complements or adjectives. Examples of the types of phrases included as DPs are summarized in Table 1.

DP	Example
Bare noun (anarthrous noun)	φίλους p <sup>h</sup> ilous friend.ACC.PL.M (Lk 12:30) ((1) above) “friends”
Noun + indefinite	ἄνθρωπός τις ánt <sup>h</sup> ro:pós tis man.NOM.SG.M INDEF.NOM.SG.M “a man” (Lk 14:6) ((61) below)
Article + noun	τὸν κύριον tòn kúrion D.ACC.SG.M lord.ACC.SG.M “the lord” (Lk 1:46) ((2) above)
Bare proper name	Ἀβραάμ Abraam “Abraham” (Mt 1:2)((1) above)
Article + proper name	τὸν Ἰσαάκ tòn Isaak D.ACC.SG.M Isaac, “Isaac” (Mt 1:2)((1) above)
Article + adjective	ὁ ἄγαμος ho ágamos D.NOM.SG.M unmarried.NOM.SG.M “the unmarried [one]” (1 Cor 7:32)
Article + genitive <sup>88</sup>	τὰ τοῦ κυρίου tà toû kuríou D.ACC.PL.N D.GEN.SG.M lord.GEN.SG.M “the [things] of the lord” (1 Cor 7:32)
Article + adverb	τοὺς ἔξω toùs éxo: D.ACC.PL.M without “the [ones] without” (1 Cor 5:13)
Article + pronoun	τὸ ἐαυτοῦ tò heautoû D.ACC.SG.N himself.GEN.SG.M “the [thing] of his own” (1 Cor 10:24)

Table 1: DPs included as arguments

The quantified expressions that I find as arguments are summarized in Table 2. I organize these into the categories strong and weak, as distinguished in Milsark (1977).

<sup>88</sup> I have only found this in First Corinthians.

QP	Q type	Example
Bare Q	Strong	ἕκαστος hékastos each.NOM.SG.M “each [man]” (1 Cor 3:8) ((35) above)
	Strong (negative)	οὐδεὶς oudeis no-one.NOM.SG.M “no-one” (Lk 5:37)
Article + Q	Weak	οἱ ἑπτὰ hoi heptà D.NOM.PL.M seven.INDCL “the seven” (Lk 20:31)
Demonstrative + Q	Strong	ταῦτα πάντα taûta pánta DEM.ACC.PL.N all.ACC.PL.N “all these things” (L 13:30) ((8)above)
Q + article + noun	Strong	πάντα τὰ ῥήματα pánta tà r <sup>h</sup> é:mata all.ACC.PL.N D.ACC.PL.N thing.ACC.PL.N (Lk 2:51)
Article + Q + noun	Weak	αἱ ἑπτὰ βρονταὶ hai heptà brontai D.NOM.PL.F seven.INDCL thunder.NOM.PL.F “the seven thunders” (Rev 10:3)
Q + noun	Strong	πάσα σὰρξ pâsa sàrx all.NOM.SG.F flesh.NOM.SG.F “all flesh” (Lk 3:6)
	Weak	πέντε μνᾶς pénte mnâs five.INDCL mina.ACC.PL.F “five minas” (Lk 19:18)
Q + GenP (partitive)	Weak	εἰς τις ἐξ αὐτῶν one.NOM.SG.M “one of these” (Lk 22:50)

Table 2: QPs included as arguments

## 6 Arguments are not pronominal forms

Pronouns are known to behave differently syntactically than NP/DPs. The position of clitic pronominals, such as the indefinite pronoun *tis* is also partly due to phonology. Therefore, the arguments considered must not consist entirely of

pronouns.

- (11) Pronominal O (excluded)  
 Tóte paralambánei **autòn** ho diábolos  
 then take.3SG.PRES.IND.ACT him.ACC.SG D.NOM.SG.M devil.NOM.SG.M  
 ‘Then the devil took him (into the holy city).’  
 Τότε παραλαμβάνει αὐτὸν ὁ διάβολος (εἰς τὴν ἁγίαν πόλιν)  
 (Mt 4:5)

This applies to the pronominal paradigms listed in table 3.

Personal pronouns	Reflexive pronouns	Demonstrative pronouns	Indefinite pronouns
ἐγώ (egó:) “I” (strong & weak forms)	ἐμαυτοῦ (emautoû) “myself”	οὗτος (hoûtos) “this”	τις (tis) “some x”, “any x”, “a (certain) x”
σύ (sú) “you” (strong & weak forms)	σεαυτοῦ (seautoû) “yourself”	ἐκεῖνος (ekeînos) “that”	
αὐτός (autós) “pro-self” / “him”	ἐαυτοῦ (heautoû) “himself”		

**Table 3: bare pronouns excluded as arguments**

However, I do include clauses whose arguments contain pronominal forms, along with other elements. For example, example (12) is included, since the pronoun (from the *autós* paradigm) is part of a larger DP.

- (12) OVS clause (included)  
 pánta dè taûta energeî  
 all.ACC.PL.N PRTCL DEM.ACC.PL.N operate.3SG.PRES.IND.ACT  
**τὸ ἓν καὶ τὸ αὐτὸ**  
 D.NOM.SG.N one.NOM.SG.N and D.NOM.SG.N same.NOM.SG.N  
**pneûma**  
 spirit.NOM.SG.N  
 ‘And one and the same spirit works all these things, (distributing to each [one] equally, as he wishes.)’  
 πάντα δὲ ταῦτα ἐνεργεῖ τὸ ἐν καὶ τὸ αὐτὸ πνεῦμα, διαιροῦν ἰδίᾳ ἐκάστῳ καθὼς βούλεται. (1 Cor 12:11)

*Autós* used in this way is traditionally called an adjective pronoun (see Smyth 1984:302, §1205). It has the meaning “the same”, when preceded by the definite article. In (12), combined with the other S elements, yields the meaning “one and the

same spirit”. Notice also that the O in this example contains the demonstrative *taûta*, but it occurs along with the strong quantifier *pánta*, and so is counted as an object.

If a pronominal S or O is conjoined with a full DP object, I include the clause. In (13) the pronoun *autòn* “him” is conjoined with the QP *pántas toûs sùn autô:i* “all those with him”.

- (13) O pronoun conjoined with full DP (included)
- |                      |     |               |                          |                   |
|----------------------|-----|---------------|--------------------------|-------------------|
| t <sup>h</sup> ámbos |     | gâr           | periésk <sup>h</sup> en  |                   |
| amazement.NOM.SG.M   |     | PCL           | surround.3SG.AOR.IND.ACT |                   |
| <b>autòn</b>         | kai | <b>pántas</b> | <b>toûs</b>              | <b>sùn autô:i</b> |
| him.ACC.SG           | and | all.ACC.PL.M  | D.ACC.PL.M               | with him.DAT.SG   |
- ‘For, he became amazed, and all those with him, (at the catch of fish).’
- θάμβος γὰρ περιέσχεν αὐτὸν καὶ πάντας τοὺς σὺν αὐτῷ (ἐπὶ τῇ ἁγρᾷ τῶν ἔχθρῶν) (Lk 5:9)

Finally, if a pronoun is preceded by the definite article, it is included, as already shown in Table 1.

## 7 Arguments are continuous strings

If arguments consist of more than one word, the words have to be in continuous strings. For example, the clause in (14) is excluded, as the object consists of both *déka*, “ten” and *mnâs*, “mina” (a currency measure). The first occurs preverbally and the second postverbally. It could be described as SVO or SOV, so I exclude it.

- (14) Split argument (excluded)
- |             |                         |               |
|-------------|-------------------------|---------------|
| he:         | mnâ                     | sou           |
| D.NOM.SG.F  | mina.NOM.SG.F           | your.GEN.SG   |
| <b>déka</b> | prose:grásato           | <b>mnâs</b>   |
| ten.INDCL   | produce.3SG.AOR.IND.MID | mina.ACC.PL.F |
- ‘(Master), your mina made ten minas.’
- (κύριε), ἡ μνᾶ σου δέκα προσηγάσατο μνᾶς (Lk 19:16)

## 8 Arguments are not clausal

I do not include arguments that are clausal, such as participles, relative clauses, infinitivals and indirect questions. I illustrate the restriction against participle subjects in Chapter 2, subsection 4.1. In example (14) therein, the participle is bare.

I also exclude participles that are preceded by the definite article. Example (15) is an illustration of this.

- The participle *egert<sup>h</sup>eis* “having awoken” inflects with nominative morphology, and is preceded by the definite article, and so the D and the participle could form a constituent of the MC, “the one who awoke took the child”. However, none of the standard translations give this interpretation. They give a translation structured like the one I have given below the example, where the participial clause is used predicatively, “when he awoke”, or “having awoken”. Such a translation reflects a structure where there is no explicit subject of the participial clause or the main clause, other than the determiner, which would function as an independent pronoun.

In (16) the D occurs with no complement, morphologically agreeing with the verb *eīpan* “they said”. The D resumes referents from the previous discourse, in this case, the chief priests and scribes of the people. It behaves like an independent pronoun. This opens up the possibility that nominative participles following the definite article do not necessarily form constituents with these articles. I exclude all arguments made of participles to be consistent.

(17) O = Adjunct free relative clause (excluded)  
 ho                    dè                    huiðs    (...) ouk    ék<sup>h</sup>ei  
 D.NOM.SG.M    PRTCL    son.NOM.SG.    NEG    have.3SG.PRES.IND.ACT  
**poû            tè:n            kep<sup>h</sup>alè:n            klíne:i**  
 where    D.ACC.SG.F    head.ACC.SG.F    lay.3SG.PRES.SUBJ.ACT  
 ‘but the son (of man) does not have anywhere to lay his head.’  
 ὁ δὲ υἱὸς τοῦ ἀνθρώπου οὐκ ἔχει ποῦ τὴν κεφαλὴν κλίνει.  
 (Mt 8:20: Lk 9:58)

## Appendix II: Citations corresponding to Table 4, Chapter 2

### Matthew

SVO (52)	VSO (7)	OVS (3)	SOV (2)
1:1 – 1:16 <sup>89</sup>	9:35	10:5	8:20
3:4	10:21	13:34	16:4
6:15	13:41	27:1	
9:16	14:1		
11:27	17:1		
12:35	19:5		
13:22	22:24		
19:11			
21:1			
21:8			
21:28			
24:29			
25:4			
26:20			
26:65			

### Luke

SVO (14)	VSO (13)	SOV (5)	VOS (3)	OVS (1)	OSV (1)
1:13	1:32	6:33	5:29	2:35	12:30
2:51	1:46	7:30	7:6		
5:9	3:6	9:58	16:14		
5:26	5:37	10:42			
5:37	6:48	11:39			
6:45	7:16				
6:45	9:42				
7:29	10:1				
14:16	15:27				
15:11	16:8				
16:15	19:43				
19:18	22:50				
20:9	22:61				
20:31					

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<sup>89</sup> Within verses 1-16, there are 38 SVO clauses listing the genealogy of Christ.

**First Corinthians**

SOV (13)	SVO (8)	OVS (5)	OSV (2)	VOS (1)
3:8	2:14	1:27	2:11	15:33
4:9	2:15	1:27	5:13	
6:9-10	3:20	1:28		
6:14	7:32	5:7		
7:2	7:34	7:28		
7:2	12:18	12:11		
7:3	12:24			
7:4	15:38			
7:4				
10:3				
10:24				
11:21				
14:26				

**Revelation**

<b>VSO (12)</b>	<b>SVO (11)</b>	<b>SOV (1)</b>
7:17	12:4	22:11
8:15	13:2	
9:6	16:3	
10:3	16:4	
12:16	16:8	
12:16	16:10	
14:19	16:12	
16:21	16:17	
18:5	20:6	
18:21	20:13	
20:13	21:24	
22:19		

## Samenvatting in het Nederlands

Het onderwerp van deze dissertatie is de relatie tussen variatie in woordvolgorde enerszijds, en informatiestructuur anderszijds, in de taal van het Nieuwe Testament, het Koinè Grieks. In het Nieuw Testamentisch Grieks vinden we een grote variatie in de volgorde van de belangrijke zinsdelen: werkwoorden, objecten en subjecten. Alle permutaties van deze elementen (respectievelijk V, O en S) zijn te vinden in declaratieve hoofdzinnen:

### (1) SVO clause

Abraàm	egénne:sen	
Abraham.NOM.SG.M	verwekken.3SG.AOR.IND.ACT	
tòn	Isaák	
de.ACC.SG.M	Isaac.ACC.SG.M	
'Abraham werwakte Izac'		
Ἀβραάμ ἐγέννησεν τὸν Ἰσαάκ		
(Mt 1:2)		

### (2) VSO clause

megalúnei	he:	psuk <sup>h</sup> é:	mou
groot.maken.3SG.PRES.IND.ACT	de.NOM.SG.F	ziel.NOM.SG.F	mijn.GEN.SG
tòn	kúrion		
de.ACC.SG.M	Heere.ACC.SG.M		
'Mijn zeil maakt groot de Heere.'			
Μεγαλύνει ἡ ψυχὴ μου τὸν κύριον			
(Lk 1:46)			

### (3) SOV clause

hai	aló:pekes	p <sup>h</sup> o:leoùs
de.NOM.PL.F	vos.NOM.PL.F	hol.ACC.PL.M
ék <sup>h</sup> ousin		
hebben.3PL.PRES.IND.ACT		
'De vossen hebben holen'		
Αἱ ἀλώπεκες φώλεοὺς ἔχουσιν		
(Mt 8:20)		

### (4) OVS clause

toútous	toùs	dó:deka	apésteilen
deze.ACC.PL.M	de.ACC.PL.M	twaaif	uitzenden.3SG.AOR.IND.ACT
ho	Ie:soûs		
de.NOM.SG.M	Jesus.NOM.SG.M		
'Deze twaaif zond Jesus uit.'			
Τούτους τοὺς δώδεκα ἀπέστειλεν ὁ Ἰησοῦς			
(Mt 10:5)			

### (5) VOS clause

épempsen	p <sup>h</sup> ílous	ho	hekatontárk <sup>h</sup> e:s
sturen.3SG.AOR.IND.ACT	vriend.ACC.PL.M	de.NOM.SG.M	hoofdman.NOM.SG.M
'de hoofdman stuurde enekele vrienden'			
ἔπεμψεν φίλους ὁ ἑκατοντάρχης			
(Lk 7:6)			

## (6) OSV clause

taûta	gàr	pánta	tà	ét <sup>h</sup> ne:
deze.ACC.PL.N	PCL	al.ACC.PL.N	de.NOM.PL.M	volken.NOM.PL.M
toû	kósmou	epize:toûsin		
de.GEN.SG.M	werld.GEN.SG.M	zoeken.3PL.PRES.IND.ACT		

‘Want naar al deze dingen zoeken de volken van de wereld’  
ταῦτα γὰρ πάντα τὰ ἔθνη τοῦ κόσμου ἐπιζητοῦσιν (Lk 12:30)

Talen met een grote variatie in woordvolgorde worden vaak gekenschetst als talen met 'vrije woordvolgorde,' of 'nonconfigurationele' talen. In dit proefschrift stel ik dat in de onderzochte taal woordvolgorde allerm minst vrij is, maar dat de variatie beperkt wordt door consituentstructuur en gedeeltelijk bepaald wordt door informatiestructuur en informatiestructuur, zoals bijvoorbeeld Topic en Focus. Informatiestructuur betreft de verdeling van pragmatische arbeid, of het gaat om nieuwe of reeds bekende informatie, en of de informatie contrastief is. Het is dus correcter om te stellen dat het Nieuw Testamentisch Grieks 'informatie-configurationeel' is (É. Kiss 1995). Ik volg een aanpak waarin kenmerken van informatiestructuur in de syntaxis gecodeerd zijn, en waarin deze kenmerken verplaatsing van constituenten ontketenen. Specifieker, deze verplaatsing gaat van de basispositie of projecties op TP-niveau naar hogere posities in de linkerperiferie.

In hoofdstuk 2 behandel ik standaard woordvolgorde, terwijl ik een aantal definities behandel die eerder zijn voorgesteld. De term 'standaard woordvolgorde' is problematisch in een taal met een hoge mate van variatie in woordvolgorde. Ik neem een definitie van standaard woordvolgorde aan, die rekening houdt met zowel frequentie als pragmatische neutraliteit. Ik presenteer een eerste overzicht van declaratieve hoofdzinnen uit vier Nieuw Testamentische boeken (*Matteüs, Lucas, 1 Korinthiërs* en *Openbaring*), die zowel een subject, een werkwoord als een object bevatten. Zowel SVO als VSO komen geregeld voor, hoewel opgemerkt dient te worden dat SVO frequenter is. Daarnaast is er aanzienlijk verschil tussen de vier boeken. In 1 Korinthiërs, bijvoorbeeld, komt geen enkele VSO-zin voor, terwijl Openbaring grotendeels VSO- en SVO-zinnen bevat, en vrijwel geen andere volgorde. Een gedetailleerder inspectie leert dat SVO en VSO in een pragmatisch neutrale omgeving voorkomen, in tegenstelling tot SOV, OVS, OSV en SVO. Preverbale constituenten, bijvoorbeeld, zijn òf contrastief, òf lexico-semantic gemarkeerd. In sommige gevallen worden preverbale constituenten vooraf gegaan door het partikel *kaí* “en”/ “ook”, en soms bevatten preverbale constituenten reflexieve of anaforische modificeerders. Ik concludeer dat we de standaard woordvolgorde het best kunnen beschrijven als VSO, met SVO als alternatieve standaard woordvolgorde. Deze situatie doet zich regelmatig voor in andere talen (Greenberg 1966).

In hoofdstuk 3 ga ik verder in op de VSO-SVO alternantie, vanuit een typologisch en theoretisch perspectief. Ik concentreer daar op de structurele positie van subjecten en werkwoorden. Ik bespreek correlaties tussen *rich verb agreement*, *rich*

*tense synthesis* en nul-subjecten en werkwoordsverplaatsing naar T, waarbij ik concludeer dat V-naar-T verplaatsing voorkomt in deze taal. Deze conclusie wordt verder ondersteund door distributieve feiten, betreffende de relatieve positie van werkwoorden en adverbia op VP-niveau, en de relatieve positie van werkwoorden en modale en evidentieële partikelen. Met betrekking tot de positie van het subject laat ik zien dat er distributieve evidentie is voor subjecten binnen de VP. Een voorbeeld van deze evidentie is de positie van het subject in relatie tot adverbia op VP-niveau, en verplaatste (*shifted*) objectpronomina. Er blijkt weinig evidentie te zijn dat subjectconstituenten in de standaard Spec,T subjectpositie staan. Aan de hand van distributieve evidentie blijkt dat preverbale subjecten hoger in de structuur staan dan Spec,T. Daarnaast hebben veel preverbale subjecten gemarkeerde eigenschappen, en hebben ze dezelfde distributie als objecten van dezelfde lexicale categorie (bijvoorbeeld, sterke en negatieve quantoren en specifieke indefiniëte nomina of pronomina). Dit doet vermoeden dat deze constituenten niet preverbaal zijn met als doel om het [EPP]-kenmerk te checken; dat zij dus niet in Spec,T staan. Alexiadou en Anagnostopoulou (1998) stellen dat de Spec,T-positie in het moderne Grieks niet geactiveerd is, en ik laat zien dat Nieuw Testamentisch Grieks in dit opzicht eigenschappen deelt met Modern Grieks. Voorbeelden hiervan zijn de afwezigheid van nul-expletieven en *Definiteness Restriction*-effecten.

In hoofdstuk 4 behandel ik de in hoofdstuk 2 als gemarkeerd aangeduide woordvolgordes OVS, OSV, SOV en SVO. Ik stel dat deze afgeleid zijn door middel van topicalizatie en focusverplaatsing van preverbale argumenten. Na een overzicht van de literatuur over de termen Topic en Focus bestuurde ik topicalizatie en focusconstructies in het Nieuw Testamentisch Grieks. Ik behandel de distributie van foci van nieuwe informatie, correctieve foci, additieve foci en contrastieve foci. Met betrekking tot Topic maak ik verschil tussen *shifting* topics, contrastieve topics en bekende topics, op de manier die beschreven is in Frascarelli & Hinterhölzl (2007). Ik vind evidentie voor de volgorde Topic Phrase > Focus Phrase > Familiar Topic Phrase, waarbij in de hoogste Topic Phrase of contrastieve, of *shifting* topics voorkomen. Daarnaast wordt de distributie van quantificationale argumenten opnieuw geëvalueerd. Hier beargumenteer ik dat sterke quantoren topicalizatie of focusverplaatsing ondergaan, terwijl negatieve quantoren zich op focusprojecties richten.

Hoofdstuk 5 gaat over woordvolgorde in vraagzinnen. Ik onderzoek zowel de volgorde van constituenten in vragen, als de volgorde van vraagwoorden en vraagpartikels in relatie tot ander materiaal in de linkerperiferie, zoals topic- en focusconstituenten. Ik laat hier zien dat vraagzinnen dezelfde variatie in woordvolgorde toelaten als declaratieve zinnen. Zowel SV als VS komt voor, en ik stel dat werkwoord- en subjectverplaatsing op dezelfde manier plaatsvindt als in declaratieve zinnen. Het belangrijkste verschil in de derivatie van vraagzinnen ten opzichte van declaratieve zinnen is dat bij de eersten er sprake is van *wh*-verplaatsing van het bevroegde argument of adjunct. Ik evalueer de structurele positie van *wh*-interrogatieven en vraagpartikels met betrekking tot getopicalizeerde en gefocuste constituenten, en het inferentiële partikel *ara*. Ik laat zien dat *wh*-

interrogatieven vóór gefocuste frasen voorkomen, en dat getopicaliseerd materiaal zowel vóór als na *wh*-interrogatieven en vraagpartikels voorkomt. Ik concludeer dat *wh*-interrogatieven en vraagpartikels in de Specifier staan van de projectie die modificeerders huisvest. Evidentie over meervoudige *wh*-verplaatsing ondersteunt het voorstel verder dat een projectie, die Force-specificatie tot doel heeft, plaats biedt aan *wh*-interrogatieven. De conclusie van dit hoofdstuk is dat de linkerperiferie van het Nieuw Testamentisch Grieks de volgorde heeft die weergegeven is in (7), waar *wh*-elementen en vraagpartikels in Spec,ForcP staan, en het partikel *ára* het hoofd is van EvidP.

(7) TopP > ForceP > EvidP > FocP > (Fam)TopP > Fin/IP

In hoofdstuk 6 onderzoek ik relatiefzinnen, de niet-bevragende tegenhangers van *wh*-vragen. Dit hoofdstuk laat zien dat dezelfde constituentvolgordes mogelijk zijn in zowel relatiefzinnen, vraagzinnen als declaratieve zinnen. Een belangrijk aandachtsgebied in dit hoofdstuk is de variabele positie van relatieve pronomina en nominale hoofden of antecedenten, en de syntactische structuur van subordinatie in relatiefzinnen. In het Nieuw Testamentisch Grieks komen zowel ingebedde (hoofd-extern) als aangrenzende (correlatieve) relatiefzinnen voor. In correlatieven volgt het nominale hoofd op een relatief pronomina, terwijl in ingebedde bijzinnen de volgorde omgekeerd is. In sommige gevallen van correlatieven, echter, komt het nominale hoofd vóór het relatieve pronomenen. Ik stel dat het Nieuw Testamentisch Grieks bewijs vormt voor de *raising analysis* van relatiefzinnen, waarin het antecedent binnen de bijzin gegenereerd wordt en vervolgens omhooggeplaatst wordt naar een positie die – lineair gezien – vóór het relatieve pronomenen staat (Kayne 1994; Bianchi 1999; de Vries 2002). Het cruciale verschil tussen een hoofd-externe bijzin en een correlatief is dat de eerste een genominaliseerde bijzin is, geselecteerd door een *Determiner*-hoofd in de hoofdzin. Correlatieven, aan de andere kant, zijn niet genominaliseerd, maar zijn quantificerende expressies die variabele demonstratieven binden (Dayal 1996; Grosu & Landman 1998). Een consequentie hiervan is dat de NP niet omhoogverplaatst naar een positie die lineair aan het relatieve pronomenen vooraf gaat, maar dat deze lager in de bijzin blijft. In het geval van correlatieven met antecedenten die lineair voorafgaan aan relatieve pronomina, stel ik dat deze hoofdnomina topicalizatie ondergaan, en wel naar de hoogste TopP in (7). Hierdoor staan zij lineair vóór het relatieve pronomenen, welke in Spec,ForcP staat. Ik geef ook bewijs dat NPs ook in de lagere TopP in (7) staan, waarmee ik het model van de linkerperiferie verder uitbreid naar het relatieve domein.

Nieuw Testamentisch Grieks is een VSO-taal, met een alternatieve SVO standaard woordvolgorde. De standaard woordvolgorde bevat een VP-intern subject en object, en een werkwoord in de T-projectie. De gemarkeerde woordvolgordes OVS, OSV, SOV en een enkele SVO-zin hebben gemeen dat er sprake is van dislocatie van de gemarkeerde constituent naar de linkerperiferie. De activatie van projecties in de linkerperiferie lijkt in hoge mate gelijk te zijn in declaratieve, vragende en relatieze

zinnen. Dit heeft theoretische consequenties voor, onder andere, Minimaliteit en de relatie tussen Inflectie en *wh*-operatoren.



## **Cirriculum Vitae**

Allison Kirk was born on 24 October 1981 in Vermilion, Alberta, Canada. In 1999 she began studying linguistics, French and Spanish, and Greek and Latin at University of Alberta. She obtained her Bachelors degree in linguistics with distinction in 2004. Following that, she began a Masters degree at Concordia University in Montreal where she studied Indo-European languages and theoretical linguistics, completing her thesis *A syntactic account of word order in Herodotus* in 2007. In May 2008 she became a PhD student at Leiden University Centre for Linguistics and this dissertation is the result of her research there.