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Word order and information structure in New Testament Greek

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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 apocalyptical 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 (4th 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 27th 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 19th 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 19th and early 20th 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 (5th and 4th 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.[1] 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) ……BC…… ……AD……....

500 400 300 200 100 1 100 200 300 400

Class. > Hellenist. > Roman > Byz./Trans

Koine…… NT……Koine

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

[1] 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).[2]

(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".[3] 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 *pisteúo:* (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).

[2] Throughout the thesis, I give transliterations, glosses and the Greek text in the examples.

[3] 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 20th 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;

Dryer 1992). Typologists have identified SOV, SVO, VSO, VOS and OVS languages (see Dryer 2005: 330) for examples).[4] It is not clear whether OSV is a basic word order in any language (see Comrie 1989: 87). SOV and OVS are head-final orders, meaning that the head V follows its complement O, while SVO, VSO and VOS are head-initial orders, meaning that the verb precedes its complement O.

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).

(3) S AUX V O
Mary has kissed Sue.

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

(4) S O V
Hasan öküz-ü aldi. TURKISH
Hasan ox-ACC bought
'Hasan bought the ox.'

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.[5] In subordinate clauses such as (6), the neutral order is SOV.

(5) S V O
De muis eet de kaas. DUTCH
the mouse eat.3SG the cheese
'The mouse is eating the cheese.'

(6) S V [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.'

The alternation in Dutch and German corresponds to a structural distinction. SVO and SOV are both neutral orders, but they occur in different types of clauses.

Dryer (2005) distinguishes rigid from flexible word order languages. A rigid word order languages 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,

[4] Dryer (1997), is an exception to the six-way typology of word orders, arguing for a typology based on two parameters: OV vs. VO and SV vs. VS.

[5] 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.[6]

(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

[6] 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.[7] Specifically, Dik proposes that the neutral word order is (Setting) > Topic > Focus > Verb > Remaining elements. The example in (11) illustrates two parallel clauses.[8] In the first, the object *tà ák^{h}t^{h}ea* "the loads" occurs preceding the subject *hoi ándres* "the men", which occurs preceding the prepositional phrase *epì tô:n kep^{h}aléo:n* "on the heads" and the finite verb *p^{h}oréousin* "carry", or "bring back and forth".

(11) Tà ák^{h}t^{h}ea hoi mèn ándres
D.ACC.PL.N load.ACC.PL.N D.NOM.PL.M PCL man.NOM.PL.M
epì tô:n kep^{h}aléo:n p^{h}oréousin
on D.GEN.PL.F head.GEN.PL.F carry.3PL.PRES.IND.ACT
hai dè gunaîkes epì tô: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.'
(Ἐν τοῖσι αἱ μὲν γυναῖκες ἀγοράζουσι καὶ καπηλεύουσι, οἱ δὲ ἄνδρες κατ' οἴκους ἐόντες ὑφαίνουσι. Ὑφαίνουσι δὲ οἱ μὲν ἄλλοι ἄνω τὴν κρόκην ὠθέοντες, Αἰγύπτιοι δὲ κάτω.) Τὰ ἄχθεα οἱ μὲν ἄνδρες ἐπὶ τῶν κεφαλέων φορέουσι, αἱ δὲ γυναῖκες ἐπὶ τῶν ὤμων.
(*Her*. 2.35)

[7] 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.

[8] 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.[9] The preposition phrases, which specify the way in which the topics carry the loads: *epì tô:n kep^{h}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^{h}aléo:n* > *p^{h}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-Warburton 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.

[9] 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 ἐπεγερθεῖσαι ἐπιστῆμαι γίγνονται) (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.

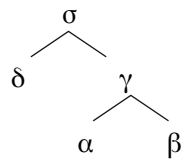
In the standard model, the lexicon feeds the syntactic component, and the syntactic component interacts with two performance systems: the articulatory-perceptual (A-P) and conceptual-intentional (C-I) components. Simply speaking, these are the sound, and the meaning components. The syntactic component 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).

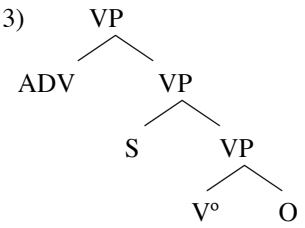
Merge takes two linguistic elements α and β from the Numeration, which is the inventory of elements that are involved in the derivation of an utterance, having been selected from the lexicon, and concatenates them to form a larger unit γ. This is represented with the two elements in binary branching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

(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 α and β are merged, and the new unit γ takes the label of α). The item that projects its category is the head of the phrase, V° 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).

(13)

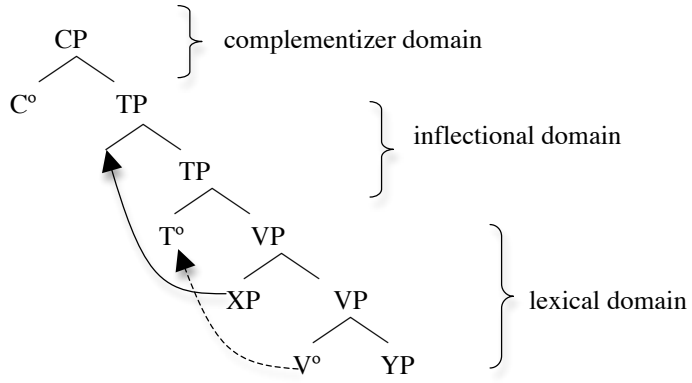


Functional categories are closed class elements. The ones I will discuss in this thesis head functional projections in the tense or inflectional domain (TP) and the complementizer domain (CP). The inflectional domain is associated with verbal and nominal agreement inflection. Tense projects its category, 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 α and a feature F (contained by a linguistic element β) 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.[10]

(14)



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.[11]

[10] Note that there are many proposed categories that I have not included in this simplified representation.

[11] 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.[12] 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).

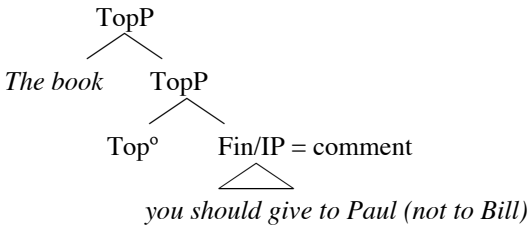
Most sentences can be divided into old and new information, but the crucial point is that sometimes this division is syntactically encoded. If a TopicP is projected

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

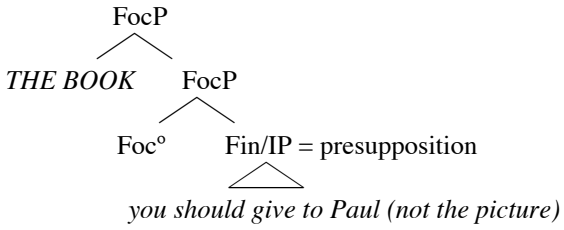
[12] Some have argued that discourse projections may be projected in the IP/T domain (e.g., Belletti 2004) and also in the DP (e.g., Cinque (ed.) 2002), meaning that IP and DP also have Left Peripheries.

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.

(18)



(19)



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.