

Verb-Initial Clauses in Ancient Greek Prose:

A Discourse-Pragmatic Study

by

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Abstract

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Word order in Ancient Greek, a ‘free word order’ or discourse-configurational language, depends largely on pragmatic and information-structural factors, but the precise nature of these factors is still a matter of some controversy (Dik 1995, Matić 2003). In this dissertation, I examine the set of constructions in which a verb appears in first position in its clause, and consider the conditions under which such constructions appear and the roles they play in structuring Greek discourse. I distinguish between topical and focal initial verbs, and show that the former class (which are the main concern of the study) in fact occur as part of larger units definable in terms of both prosody and pragmatics. The function of such units, I argue, is to mark specific kinds of transitions between the implicit questions that structure discourse (Questions Under Discussion [QUDs], Roberts 1996). I describe and categorize the types of QUD transitions marked by verb-initial units in a corpus of five fifth-and fourth-century Greek prose authors, and relate these to transitions marked by other classes of constructions, including a newly identified contrastive-topic construction. My account improves on preceding models by unifying a number of phenomena previously treated as disparate. It also represents the first large-scale application of the QUD model to real discourse.

*To the memory of my grandfather, Moshe Yotvat*

*1923 – 2013*

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And, finally, to Violet:

ἄλλος ἰοβλεφάρῳ τερπέσθῳ Μούσῃ, ἐμοὶ δὲ  
πιστακιοβλέφαρον γλαυκὸν Ἴον γλύκιον.



## Chapter One

# Introduction

Surely every scholar is acquainted with the stories of Plato's passion for taking pains, especially that of the tablet which they say was found after his death, with the beginning of the *Republic* ("I went down yesterday to the Piraeus together with Glaucon the son of Ariston") arranged in elaborately varying orders.

Dionysius of Halicarnassus, *On Literary Composition* 25.209  
(trans. W. Rhys Roberts)

## 1 Goals of this study

Ancient Greek is a 'free word order' language, or more precisely a discourse-configurational language (Hale 1983, Kiss 1994): that is, a language in which the order of words in a sentence is determined – at least in the case of clause-level constituents, though to some extent in lower ones too – not by their syntactic roles but by the pragmatic functions that they play in the discourse context. The question of how to understand these discourse-pragmatic factors and their effects on Greek sentence structures is almost as old as the study of Greek grammar itself, though recent decades have seen considerable progress in this field thanks to the application of updated theoretical concepts in pragmatics and information structure. Still, this work has only touched the surface of the multifarious and sometimes baffling array of word-order phenomena that even the simplest Greek prose texts display, and many important constructions have received little attention. In

this dissertation, I take as my subject one of the most frequent of these constructions, the verb-initial clause.

Verb-initial clauses are a common enough feature of Greek prose: indeed, Plato ended up choosing to begin the *Republic* with a verb. But what are we, as readers, expected to understand from such a choice? What are the kinds of discourse contexts in which Greek writers use initial verbs and why? In which contexts do they never use such verbs? What can the initial placement of a Greek verb tell us about the relationship between the sentence in which it appears and the surrounding text? How do the discourse functions of initial verbs compare with those of other clause-initial words, such as nouns? Finally – an important aspect of the question that is often overlooked because of the putative lack of evidence – what role does the prosodic and intonational structure of sentences play here, and how does prosody complement and interact with word order in shaping the pragmatics of Greek texts? These are the kinds of questions that this study attempts to answer.

I envision the audience of this study as composed of both linguists and classicists, and I intend it to be equally useful to both. Linguists concerned with word order and its pragmatic determinants – and especially, with how this issue relates to prosodic structure – will, I hope, be interested in my investigation of these questions in a less commonly studied, but textually very rich, language such as Greek. Classicists who work on Greek texts will perhaps find that attention to word order and prosodic segmentation can shed light on the logical architecture of texts beyond the sentence level, as well as suggesting interesting new readings (for a recent example, see Goldstein 2013); they will at least find new ways of formalizing their existing intuitions about word order in Greek. Not least, since word order is a subject that is all but ignored in existing Greek textbooks, and one which students often find perplexing, such formalization can be of considerable pedagogical utility.

A word about the limitations of studies such as this. My theory of course aims to be maximally predictive, but no theory of information structure in discourse can be fully so. This is because discourse pragmatics, more than most other parts of grammar, is open to deliberate manipulation by speakers. As the anecdote of Plato's tablet shows, the same information can be packaged in more than one way. We can therefore never hope for absolute determinism, such that, given a knowledge of the message to be conveyed, we could predict with certainty the form it would take.<sup>1</sup> By the same token, there will inevitably be cases in which

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<sup>1</sup>Daneš (1966) introduced the term *allosentences* to refer to alternative ways of packaging the same information. The impossibility of fully predicting a speaker's choice between possible

the same sentence is open to more than one discourse-pragmatic interpretation, and in fact these become fairly numerous as soon as one moves beyond the made-up examples of much information-structure work to the analysis of a real text of any complexity. The methodological difficulty this presents can never be wholly surmounted; but it can be minimized by beginning with clear cases, where only one interpretation is likely to arise, and generalizing the form-meaning correspondences thus established to more ambiguous cases. A reasonable procedure when faced with a difference of opinion on the intended pragmatic force of sentence X is to say, 'This same construction is used in sentence Y, where there is no doubt as to its meaning; we can therefore assume the same meaning in sentence X unless there is specific evidence to the contrary.'

This difficulty is not at all peculiar to the study of information structure, though it is especially common here; it arises whenever speakers have a choice between truth-conditionally equivalent constructions. In the case of verbal aspect, for example, one occasionally encounters Greek sentences in which an aorist is used where an imperfect might have been thought to have been equally appropriate, or vice versa, and in such cases one concludes that the author was faced with the options of presenting an event as being bounded or unbounded in time, and has chosen one or the other. The impossibility of predicting the choice does not mean that we lack an adequate theory of the meaning of verbal aspect, only that our theory should not be expected to be strictly deterministic.

## 2 The corpus

My main corpus for this study consists of 594 verb-initial clauses meeting the criteria described below. These include all such clauses from each of the following works: Herodotus, book III; Thucydides, book I; Xenophon's *Cyropaedia*, book I; Plato's *Republic*, book I; and Lysias XII (*Against Eratosthenes*). The total size of the corpus is approximately 75,000 words. These authors were selected to give a synchronic sample of Greek literary prose texts in the fifth and fourth centuries BC. The question of diachronic change in word order, though a fascinating one, is complex enough to deserve separate study (see e.g. Holland 1980); and the same goes for word order in verse, where issues of meter, as well as the highly stylistically marked nature of at least some Greek verse, present significant complications (on word order in Greek tragedy, see Dik 2007). It therefore seemed best

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allosentences in a given discourse context has been well captured by Bolinger (1972) in the title of a well-known article: 'Accent is predictable (if you're a mind reader)'.

to restrict my corpus in both genre and period.

The criteria for counting a clause as verb-initial were as follows. I considered all main-clause finite verbs. I did not consider verbs in subordinate clauses, nor infinitives or participles: although I suspect that the placement of all types of verbal elements in Greek follows largely similar principles, it seemed preferable to keep the analysis syntactically unitary. I did not count verbs constituting a complete clause by themselves, nor ones introducing quoted discourse if there was no other element outside the quote besides the verb. In the common sentence type in which a main clause is preceded by a participial phrase whose head is in agreement with an NP in the main clause (including the ‘successive participle’ construction, Goldstein 2010:193ff.), I regarded the participial phrase as forming its own clause, so that such main clauses were included in the corpus when verb-initial.<sup>2</sup>

Though the large majority of the examples in this study come from the corpus just described, I have also occasionally used examples from other works, or other parts of the same works, when this seemed useful.

The translations I use are mostly those of the Loeb Classical Library editions of the texts, but I have often modified these to better reflect the word order of the original, and in a few cases have given my own translation instead.

### 3 Outline

This dissertation is structured as follows. Chapter 2 presents an overview of the theoretical frameworks that I will be relying on in my discussions of information structure and discourse pragmatics: the Question Under Discussion (QUD) model, topic and focus, and so on. It then surveys and critiques some of the most influential recent work on word order in Greek, especially insofar as this relates to initial verbs.

In Chapter 3, I begin the analysis of initial verbs by considering their prosodic status. After a discussion of the types of diagnostics that enable us to know anything about prosodic structure in a dead language such as Greek, I argue that initial verbs are usually part of a larger prosodic unit, not heretofore recognized,

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<sup>2</sup>Sometimes a successive participle phrase contains within it a nominative noun that functions as the subject of the main verb, as in Hdt. 3.1 *πέμψας Καμβύσης ἐς Αἴγυπτον κήρυκα αἰτέε Ἄμασιν θυγατέρα* *pémpsas Kambúsēs es Aígypton kēruka aitée Ámasin thugatéra* ‘Cambyses having sent a herald to Egypt asks Amasis for his daughter’; such cases were not included, though the distinction is admittedly somewhat artificial.

and that this unit has a clear pragmatic function definable in terms of topicality and of QUD structure. I then distinguish this type of topical initial verb (with which the rest of the dissertation will be concerned) from another, focal type, which appears under specifiable discourse conditions.

Chapter 4 then moves into a deeper examination of the roles of verb-initial units in Greek prose, and argues that they serve the function of signaling transitions between stretches of discourse governed by different QUDs. I present a taxonomy of such QUD transitions, consisting of movement between superquestion and subquestion, frame completion, identification, and metapragmatic justification. I also discuss clause-initial nominals and compare their discourse roles with those of initial verbs; under this rubric, I describe a Greek construction that has not been identified before, the contrastive topic construction, as well as showing how recognizing this construction addresses flaws of previous accounts of Greek word order. The principles of Chapter 4 are then illustrated by application to a longer passage of continuous prose, from the *Republic*.

Chapter 5 turns to consider the specific discourse-pragmatic phenomenon of counter-presuppositional focus (including additive, adversative, and exclusive focus). In Greek, such focus often correlates with the appearance of initial verbs. I argue that this correlation is easily accounted for in a QUD framework, and show how this again improves on previous theories, which have either ignored counter-presuppositional focus or devised *ad hoc* solutions for the problems it presents.

Finally, Chapter 6 concludes the thesis by considering the implications of my findings both for Greek and for research into the pragmatics of word order generally.

## Chapter Two

# Discourse pragmatics and word order in Ancient Greek

My aim in this chapter is to lay the foundations for the analyses that follow by introducing the main theoretical concepts I will be using in this study, and by discussing the strengths and limitations of existing accounts of word order in Greek. In Section 1, I describe the information-structural and discourse-pragmatic concepts and models that will be central to this study: topic and focus, pragmatic accommodation, and most importantly the Question Under Discussion framework. In Section 2, I survey some of the most influential recent work on Greek word order, especially as it relates to the issue of initial verbs.

## **1 Information structure and discourse pragmatics: some central concepts**

### **1.1 The Question Under Discussion framework**

The model of discourse I will mainly be using is the Question Under Discussion (QUD) framework developed by Roberts (1996) and in subsequent work. The main advantage that this model has for our purposes over other models of how information is structured in discourse is that, as described below, it emphasizes units of text larger than the sentence; as I will be arguing in this study, word order in Greek cannot be adequately understood without looking beyond the sentence level and considering the kinds of thematically related, hierarchical discourse units that the QUD model is intended to capture.

The QUD approach has its foundations in two basic discourse-pragmatic concepts introduced by Stalnaker (1979): the *common ground*, defined as the set of propositions which participants in a discourse behave as if they believe to be true; and the *context set*, defined as the set of possible worlds in which all the propositions in the common ground are true. For Stalnaker, the goal of discourse is to reduce the context set to a single possible world, the actual world. Participants do this by making two types of conversational moves: ‘set-up moves’, which introduce a new question into the discourse, and ‘payoff moves’, which assert something about such a question. Such assertions, if accepted, become part of the common ground.

Roberts (1996, 2004), followed by Büring (1999, 2003, 2006), builds on this framework to argue that the structure of discourse is best understood as being shaped by a set of conversational goals shared by the interlocutors and by the “strategies of inquiry” that they employ to achieve these goals. (An important but less formally elaborate proposal had been made along similar lines by Carlson 1983.) The overarching goal of discourse, as in Stalnaker’s framework, is answering the question *What is the way things are?*, that is, narrowing the set of possible worlds to the single actual world; but importantly, in Roberts’ model this question can be and generally is subdivided into a hierarchical series of smaller, more immediate subquestions. Discourse thus consists of a set of such *questions under discussion* which participants attempt to answer. QUDs come in all levels of generality, and they can be ‘nested’ in the sense that establishing the answer to a more general question can require, or be equivalent to, answering a set of more specific ones. For example, a superquestion such as *What do animals eat?* can be divided into a set of subquestions – *What do cats eat? What do dogs eat?* etc. – such that answering all the subquestions amounts to giving an answer to the superquestion. Thus there can be more than one question that is open at a time; but at any time there is only one question which is immediately ‘under discussion’, i.e. which a given sentence attempts to answer.

QUDs are usually implicit, rather than being explicitly raised and agreed upon by the interlocutors. Since this is so, the QUD must be *retrievable* by the interlocutors from the discourse: there must be ways of identifying the QUD implied by a given utterance in order to evaluate its relevance to the current strategy of inquiry. It is focus structure that makes this possible: the focus of an utterance expresses a proposed answer to the QUD, and given this, the QUD itself can be reconstructed. (This idea that focus corresponds to an answer to an implicit question goes back to Halliday [1967:226], who regards focus as ‘replacing the wh-element in a presupposed wh-question’.) Consider examples (1)-(2), in which

capital letters mark prosodic focus:

- (1) Karen ate the PASTA.
- (2) KAREN ate the pasta.

In (1), focus on *pasta* tells us that this is being proffered as an answer to the QUD, which we can thus retrieve as having the form of (3); likewise, focus on *Karen* in (2) tells us that the QUD is (4):

- (3) What did Karen eat?
- (4) Who ate the pasta?

Indeed, in a discourse situation in which (3) has been asked explicitly, it would be infelicitous to answer with (2); and likewise it would be infelicitous to answer an explicit (4) with (1). In Roberts' terms, such answers would be *incongruent*, as their foci do not represent possible answers to the QUD.

Since most work in the QUD framework has been on English, a language in which focus is marked most often by prosody, it is specifically prosodic focus that has been seen as important for the retrieval of QUDs. In Greek texts, of course, such prosodic information is (at least on the face of it) absent, but this does not generally pose a problem for QUD identification: as long as the focus domain of a sentence – which I define (following Lambrecht 1994; see the discussion of focus below) as the part of the sentence that sets out the information by which the assertion being made differs from the propositions currently existing in the common ground – is identifiable by some means (and if it is not, the sentence will be incomprehensible in context), the QUD will be retrievable. It seems likely, of course, that Greek did mark focus domains by prosodic prominence (on this question see Devine and Stephens 1994); the correlation of focus with prosodic prominence appears to be a linguistic universal.<sup>1</sup> But, given that we can identify the focus domain of a Greek sentence even without the benefit of prosodic information, there is usually no difficulty in reconstructing the QUD it attempts to answer.<sup>2</sup>

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<sup>1</sup>This is explicitly claimed by Givón (2001:247ff.). Roberts (1998) argues that Hungarian, which has been widely studied as an example of a language in which focus marking is syntactically expressed, in fact additionally uses prosodic prominence to mark focus. For a recent cross-linguistic survey of the typology of focus expression, see Büring (2009).

<sup>2</sup>Occasionally, as readers of Greek will know, one does come across a Greek sentence in which it is difficult to decide what the focus domain is, and which lends itself to different interpretations given different choices of which word or words are focused. Insofar as it seems unlikely that such ambiguities arose in spoken Greek, this in itself is evidence that Greek focus was probably marked prosodically.



The QUD model as currently conceived is, of course, not without its shortcomings. As with other theories of information structure in discourse, these shortcomings proceed partly from a too-narrow view of the nature and aims of communication, and partly from the fact that the examples used as a basis for analysis are mostly made up rather than naturally occurring. It is far from the case that all human discourse has the goal of answering the question ‘What is the way things are?’, or indeed any question: for example, a significant part of natural communication is not assertive at all but directive. It is unclear whether and how the QUD model should be adapted to deal with imperative clauses, for instance. In addition, when one considers actual texts, it quickly becomes apparent that simple argument-question QUDs such as ‘Who ate the pasta?’ are in fact not as common in real discourse as adjunct-question QUDs of the form ‘Why...?’, ‘Where...?’, etc., which the model as set out so far does not explicitly recognize (though it can, I think, easily be extended to include them). And of course there is the predictable fact that the QUDs that govern real discourse are not always obvious and can often be phrased in several different ways. Despite these difficulties, I hope readers will find the QUD model to have practical explanatory value for the issues this study addresses; I also hope that the exercise (undertaken here for the first time, to my knowledge) of applying the model to real texts will suggest ways in which it can be modified and improved.

## **1.2 QUDs and topics**

The concept of a QUD shares some similarities with that of ‘discourse topic’ or ‘aboutness topic’, as defined in the tradition represented by Reinhart (1982). This approach sees topichood as a cognitive indexing phenomenon: topics are likened to file cards in a filing system, and any new (focal) information which is to be added to the common ground is associated with such a topic-file. The relation between focal information and its topical ‘anchor’ is not unlike the relation between an answer and a QUD; in fact, it can be paraphrased as a question-answer sequence, with the question being something like ‘What is known about Topic X?’. But the QUD model, to my mind, has a number of important advantages over the discourse-topic model. First, its relation with actual discourse is more dynamic, in the sense that it explicitly recognizes that information processing is shaped by the needs of a specific discourse situation and the strategies of inquiry which that situation suggests; this enables the QUD model to more effectively deal with stretches of text above the sentence level. Also, importantly for my specific purpose of studying verb usage, the QUD model does not presume that discourse is

structured around single nominal referents, i.e. entities that are denotable by NPs, as the discourse-topic approach does. As a simple illustration, even in example (1) above it is not obvious that there is a single nominal discourse topic: is the information to be filed under ‘Karen’, or under a subfile such as ‘What Karen ate’, or simultaneously under two files ‘Karen’ and ‘Food eaten’? Though the single-topic assumption is useful in specific types of cases, and I will not avoid speaking of ‘topics’ or ‘discourse topics’ where such a characterization seems appropriate, the ease with which the QUD model accommodates more complex content, and in particular verbal content, renders it a more profitable approach for the purposes of this study.<sup>3</sup>

Still, there is a rough isomorphism between the QUD model and topic-based models to the extent that, in a given sentence, the content of the active QUD often corresponds to something that can be considered a discourse topic. This should be kept in mind specifically in the context of theories of Greek word order (on which see Section 2 below) because in some such theories, especially that of Matic (2003), the concept of an ‘*introduced*’ or ‘*discontinuous*’ discourse topic’ is an important one. This refers to a discourse topic that differs from that of the preceding sentence; such topics in Greek generally stand first in their clause. In the QUD framework, this corresponds to a question discontinuity: that is, a point in the text at which the QUD changes. I will be arguing that the clause-initial position of verbs as well as other material in Greek often plays the role of signaling such question discontinuities.

### 1.3 Accommodation

An important concept in the context of introduced topics, due to Lewis (1979), is that of *pragmatic accommodation*. In many cases, Lewis observes, the set of propositions that a given assertion seems to presuppose cannot in fact be said to have existed in the common ground before the assertion was made. As a simple example, one can address the utterance ‘Fred’s children are asleep’ to a listener who does not know that Fred has children, yet this is not infelicitous despite the fact that the common ground does not, at the moment of utterance, include the proposition ‘Fred has children’. Such a proposition is ‘accommodated’ by the listener, that is, it is treated as though it were already presupposed, and thus becomes part of the common ground *as a result of* (and not just as a basis for) the assertion being made. Assertions can thus simultaneously call new presuppo-

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<sup>3</sup>For a recent example of how a QUD-based analysis can shed light on the behavior of constructions where a discourse-topic analysis could not, see Kubota and Matsui (2010).

sitions into existence and use them as an informational basis, and this is in fact very common in actual discourse, including the kinds of literary texts with which this study is concerned.

Pragmatic accommodation is specifically relevant to this point of our discussion because it often operates in the introduction of new discourse topics. Although in many cases an introduced topic represents a referent that is part of the common ground, this need not always be true: a new referent can serve as the basis for an assertion in the same utterance in which it is introduced. This is the case with ‘Fred’s children are asleep’, when addressed to a listener whom the speaker knows to be ignorant of Fred’s having children. *Fred’s children* is nevertheless topical in this sentence, despite being discourse-new and even hearer-new. The speaker has not asserted the proposition ‘Fred has children’, but has implicitly requested the listener to treat it as part of the common ground. This possibility of hearer-new topics is the reason that some information-structure work avoids defining topicality in terms of hearer-familiarity or the common ground, using such criteria as ‘aboutness’ instead. Such an approach, though not without its usefulness, has the disadvantage that it obscures an important pragmatic difference: the propositions behind introduced topics and foci are not ‘new’ in quite the same sense. A focus asserts a hearer-new proposition; an introduced topic, though it can bring into the discourse a proposition which is strictly speaking hearer-new, presents it as if it were hearer-old.

## 1.4 Focus

As with other terms in the information-structure literature, competing definitions of ‘focus’ abound. (For a recent survey of approaches to focus and to other information-structure terms, the reader is referred to Krifka 2007.) In this study, I will largely follow the concept of focus developed by Lambrecht (1994), which sees focus as that element of information whereby the *presupposition* evoked in a sentence differs from the *assertion* expressed by that sentence. These two terms, in turn, are defined in the following way (Lambrecht 1994:52):

The *pragmatic presupposition* is the set of propositions lexicogrammatically evoked in a sentence which the speaker assumes the hearer already knows or is ready to take for granted at the time the sentence is uttered.

The *pragmatic assertion* is the proposition expressed by a sentence which the hearer is expected to know or take for granted as a result of

hearing the sentence uttered.

As a simple illustration, take the exchange in example (5) (= Lambrecht's 2.7/5.1):

(5) Q: Where did you go last night?

A: I went to the MOVIES.

The presupposition behind the second utterance here includes a proposition which can be formulated as “Speaker went somewhere last night” or “Speaker went to *x* last night”. This is an “open proposition”, in the sense that it contains a variable whose value is as yet unknown. The assertion expressed in the same utterance is “Speaker went to the movies last night”; the focus, then, defined as the element whereby the two propositions differ, is identifiable as the expression *the movies*.

Specifically, this is an example of what Lambrecht calls *argument focus*, since the focus domain consists of an argument of the verb.<sup>4</sup> Two other types of focus structure are *predicate focus* (6) and *sentence focus* (7):

(6) Q: What happened to your car?

A: My car / It broke down.

(7) Q: What happened?

A: My car broke down.

In (6), the presupposition contains not only the denotatum of *my car*, but the additional assumption that this referent is “pragmatically available as a topic for discussion”; Lambrecht expresses this as an open proposition of the form “Speaker's car is a topic for comment *x*”. The focus domain thus consists of the predicate, the VP *broke down*.

In (7), by contrast, the utterance *My car broke down* does not, by Lambrecht's analysis, evoke any presupposition at all; the focus domain thus consists of the entire sentence. (Such sentences are often referred to as “thetic”, following Marty 1918. For recent work on thetic sentences, see Sasse 1987, Ladusaw 1994, McNally 1998, Haberland 2006, Szekely 2015.) Lambrecht considers and rejects

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<sup>4</sup>Strictly speaking, it is the PP *to the movies* that is directly an argument of the verb, while in Lambrecht's analysis the focus in this example is on the NP *the movies*; but this syntactic quibble does not seem to cause any difficulty for his model.

the possibility that such an example presupposes a proposition such as “Something happened”, because, he says (233), “such a presupposition is merely situationally implied, not lexicogrammatically evoked in the sentence”. One might argue, however, that such features of the sentence as its subject-predicate structure and the past-tense marking on the verb can be said to grammatically evoke this highly, but not maximally, general proposition. I will not go into this argument here, sincethetic or sentence-focus constructions will not play a major part in this thesis.

Importantly, however, these three types of focus structure do not exhaust either the logical or the actually occurring possibilities. Two additional types are exemplified in (8)-(9):

(8) Q: What happened to your car?

A: A friend of mine crashed it.

(9) Q: What did John do to your car?

A: He crashed it.

In (8) the presupposition is the same as in (6) above, but the focus, by Lambrecht’s definition, must consist not of the predicate but of the expression *a friend of mine crashed*, i.e. the subject plus the verb (not a syntactic constituent under any theory of sentence structure)<sup>5</sup>. In (9), on the other hand, there is a presupposition of the form “John did *x* to Speaker’s car”, and the focus appears to be restricted to the verb, *crashed*.

If Lambrecht’s concept of focus is considered from the viewpoint of the Question Under Discussion framework, it will be seen that it corresponds to the answer to the QUD, while the presupposition corresponds to the QUD itself, though stated as a declarative sentence rather than as a question. (Roberts [2011] uses the terms *theme* and *rheme* to refer to the parts of an utterance that lay out and that answer the QUD, respectively; her *theme* thus seems to be synonymous with Lambrecht’s *presupposition*, and her *rheme* with his *focus*.) It should be noted, however, that researchers in the QUD tradition often use *focus* in a different sense, to mean any site of prosodic prominence in an utterance (sometimes called ‘prosodic focus’). Although focus in the sense described here is in fact generally (and possibly universally) marked by prosodic prominence, it is not the only pragmatic feature thus marked; contrastive topic phrases<sup>6</sup>, for example, tend to be prosodically promi-

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<sup>5</sup>An alternative analysis might be that *A friend of mine* in this utterance should be regarded as an introduced topic and hence not part of the focus domain, but it seems difficult to see this sentence as being in any sense “about” the referent of *A friend of mine*.

<sup>6</sup>On whose expression in Greek see the discussion in Chapter 4, section 5.

ment, but they are not focused as that term is employed here. This prosodic definition of *focus* leads some scholars (e.g. specifically for Greek, Devine and Stephens 2006) to speak of contrastive topics as “focused topics”; in the terminological framework adopted here, however, such a description constitutes a contradiction in terms.

A final point about focus is that, although it is sometimes equated with the “new information” in a discourse, and topic with the “old information”, these correlations are inaccurate in that topic and focus are not features of the information in a discourse *per se*, but of its relation to other information in a given utterance. To see that focused information does not have to be discourse-new, consider (10) (= Lambrecht’s (5.1’), 211):

(10) Q: Where did you go last night, to the movies or to the restaurant?

A: We went to the restaurant.

In this example, the referent of *the restaurant* is obviously discourse-old in the answer, but it is nevertheless the focus of that utterance; what is new, i.e. asserted, is its relationship to the presupposition “Speaker went to *x*”. Conversely, topics can be discourse-new, even if they are to be accommodated as if they were part of the common ground (see the discussion of accommodation and introduced topics above).

## 1.5 Discourse prominence and discourse activeness

The fact that, in English as in many other languages, both foci and introduced topics are marked by prosodic prominence has led to a debate in the pragmatics literature about whether the two categories can be unified theoretically. I will not go into this question here; for detailed discussion and references (as well as experimental evidence that the categories are distinct) see Katz and Selkirk (2011). In the QUD model, these categories correspond to fundamentally different phenomena (focus representing the answer, topic the question), and I will treat them as such. Nevertheless, because of the similarity in their prosodic behavior, it will prove convenient sometimes to be able to refer to both under a blanket term, and to distinguish them from things that are neither part of an introduced topic nor part of a focus. For this practical purpose, I will be using the term *discourse-prominent* to refer to any content that represents either an introduced topic or a focus, and the term *discourse-active* to refer to content that represents neither of these.

Discourse-active content (also called ‘discourse-given’) is that content which is part of the common ground – either because it has been explicitly mentioned in the preceding discourse, or because it is inferable based on that discourse or on general world knowledge or both – and which is not being presented as a new discourse topic in the sentence in which it appears. It is ‘active’ in the sense of being cognitively available to the participants in the given discourse context. Such material tends to be prosodically weak, i.e. unaccentuated. In QUD terms, it is content that is neither part of an answer (focus), nor part of a QUD that is new relative to the preceding stretch of discourse (introduced topic); instead, discourse-active content comprises material that is continuous with the preceding context or is semantically general enough that it can be viewed as being cognitively available at all times.

The distinction between discourse-prominent and discourse-active is of importance because, as I will be arguing, there is a fundamental difference between the prosodic behavior of the two categories in Greek: namely, prosodic units always begin with discourse-prominent material (whether this is topical or focal), or stated conversely, discourse-active material does not stand first in a prosodic unit.

## **2 Greek word order in a discourse-pragmatic perspective**

The study of Greek word order is a vast field, almost as old as the study of Greek grammar itself, and I will not attempt to survey it all here; rather, I will focus on a number of (mostly recent) studies that I see as most influential and that are of direct relevance to this study. For more thorough recent overviews of the field, with exhaustive bibliographies, the reader is referred to Janse (1994) and de Jonge (2007).

### **2.1 Dik 1995**

The influential work of Dik (1995) on word order in Herodotus (later followed up by a similar study of word order in tragedy, Dik 2007) was the first major study to examine Greek word order within an explicitly discourse-pragmatic framework.

Dik, following an analysis of Hungarian word order by de Groot (1981)<sup>7</sup>, proposed a basic order for constituents in the Greek clause:

(11) Topic - Focus - Verb - remaining elements

This template can be optionally preceded by “Setting” elements of various types, such as temporal PPs and other such adverbials; and the Topic slot may be empty, in which case the clause will be focus-initial. Furthermore, the verb itself may be assigned Topic or Focus function, and will then stand in the relevant slot; on this see further below.

Dik defines Topic and Focus as follows (Dik 1995:24; the former definition is modified from Hannay 1991):

*Topic function* is assigned to an element that refers to an entity which the speaker takes to be part of or inferable from the shared pragmatic information of speaker and addressee and which the speaker regards as an appropriate foundation for constructing a message which is relevant to the subject matter of the discourse.

*Focus function* is assigned to an element expressing the information that the speaker considers the most urgent part of the message s/he wants to convey to the addressee.

Dik’s definition of Focus is obviously rather vague, as no procedure is given for identifying the “most urgent part” of a message; however, this part of her model seems to work well when a definition of Focus along the lines of Lambrecht’s, described in the previous section, is substituted, and this is perhaps what is intended. The definition of Topic is clearer, and is a bipartite one: for Dik, a Topic is discourse-active or -inferable (“the shared pragmatic information of speaker and addressee” is presumably equivalent to the common ground), and it is “an appropriate foundation for constructing a message”. The latter criterion seems to correspond more or less to the notion of “aboutness topic”; in fact Dik proposes an explicit “aboutness” definition immediately afterwards as an alternative (“A constituent with Topic function presents the element ‘about’ which the predication predicates something in the given setting”, 25), but rejects it because “there are no acid tests for ‘aboutness’” (though needless to say, there are no acid tests for speakers’ psychological states as assumed in the above definition, either).

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<sup>7</sup>The work of Kiss (1981, 1987), not cited by Dik, incorporates de Groot’s and other ideas into a broader generativist account of word order in Hungarian.



This definition of Topic does on the whole work fairly well for Dik’s analysis, but it presents two specific kinds of problems.

First, brand-new topics, introduced into the discourse for the first time, certainly appear in Dik’s Topic slot, as in e.g. (12) (= her (2), p. 26), in which the subject ‘Croesus’, which Dik adduces as an example of a Topic, is mentioned in this text for the first time:

(12) Κροῖσος ἦν Λυδὸς μὲν γένος, παῖς δὲ Ἀλυάττεω (Herodotus 1.6)

*Kroïsos ên Ludòs mèn génos, paîs dè Aluátteō*  
 K. was Lydian PART birth son PART of-A.  
 ‘Croesus was a Lydian by birth, and the son of Alyattes’

It is not clear if such referents fit the description just quoted. Is a brand-new referent such as ‘Croesus’ here “part of or inferable from the shared pragmatic information of speaker and addressee”? Possibly the idea is that Croesus is assumed to be familiar to the reader and is thus part of the common ground despite not having been mentioned before. Alternatively, perhaps an accommodation analysis is intended here: Croesus is being presented as if he is part of the common ground, and the reader is invited to go along with this pretense. Dik’s own discussion suggests the latter (the sentence “is a statement *about* Croesus, effectively skipping a separate introduction”), but the question is not explicitly addressed and her framework does not seem to include the concept of accommodation. In fact, as I have argued above, accommodation is often operative in the introduction of new topics, and definitions of topic should explicitly acknowledge this fact.

A second and more frequently encountered difficulty is that very many discourse-active or -inferable elements in Greek do not in fact appear in Dik’s clause-initial Topic slot. Take the example of ‘Gyges’ in (13) below (= Dik’s (3-4), p. 26):

(13) ἐσελθοῦσαν δὲ καὶ τιθεῖσαν τὰ εἴματα ἐθηεῖτο ὁ Γύγης (Herodotus 1.10)

*eselthoûsan dè kai tithêisan tà heímata ethêeîto ho Gúgēs*  
 going-in PART and putting-aside the clothes beheld the G.

‘[Candaules concealed Gyges in his wife’s chamber.]’ ‘When she had come in and was laying aside her garments Gyges beheld her.’

‘Gyges’ here is obviously discourse-active, or “part of or inferable from the shared pragmatic information of speaker and addressee”, but appears in clause-final position. Dik states that this is because ‘Gyges’ does not fulfill the second part of her definition of Topic, being “an appropriate foundation for constructing a message”: “Gyges ... does not have Topic function ... He does not serve as the orientation point for that clause”. But again, without a procedure for identifying an “orientation point” or an “appropriate foundation”, it is difficult to evaluate this. Intuitively, it is certainly true that there is a discourse-pragmatic difference between the status of ‘Gyges’ in (13) and that of ‘Croesus’ in (12), but Dik’s definitions do not do a very good job of capturing it. (To anticipate, under the analysis I will offer in this study, the non-initial position of ‘Gyges’ in this sentence has to do with the fact that its referent is here discourse-active rather than discourse-prominent, or put otherwise, that the QUD is continuous with that of the preceding stretch of text; see Chapter 4, section 3.)

Despite these difficulties of definition, Dik’s template in (11) does account for the structure of a large subset of Greek clauses (as long as certain assumptions are made about the identification of Topic and Focus), and her work may be argued to represent the single most valuable contribution to the understanding of Greek word order so far.

As I will be arguing in this thesis for the importance of prosodic rather than syntactic units for the analysis of Greek word order, it should be mentioned that Dik makes the same point, though somewhat too casually: after discussing the importance of postpositives as diagnostics of intonational boundaries in Greek, she concludes (36) that the resulting intonational units “will constitute the basic units for the analysis of word order, taking precedence, in principle, over syntactically defined clauses, with which, however, they often coincide”. But very little use is made of this insight in her study, and she does not, as might have been expected, proceed to examine the structures and functions of these basic units of analysis. (The first to do so in a discourse-pragmatic framework, to my knowledge, was Goldstein 2010, on which see the discussion below.)

Of direct relevance to this study is the fact that Dik devotes a separate chapter to topical initial verbs (Ch. 7, and also a shorter discussion in Ch. 4, 64-70). She makes the important observation (69-70) that such verbs can be followed by other material (e.g. a subject or object) with which they seem to form a pragmatic unit, and refers to such units as “extended Topics”, as for example the boldfaced string in (14) (= Dik’s (9)):

(14) **ἔστρατεύετο δὲ ὁ Κροῖσος ἐπὶ τὴν Καππαδοκίην** τῶνδε εἴνεκα (Herodotus 1.73)

*estratēúeto*                      *dè*    *ho*   *Kroîsos*   *epì*        *tèn*   *Kappadokièn*  
made-an-expedition   PART   the   K.            against   the   K.

*tônde*                      *heíneka*  
the-following   because-of

‘Croesus made an expedition against Cappadocia for the following reasons.’

The focus here, as is clear in context, is τῶνδε εἵνεκα *tônde heíneka* ‘for the following reasons’, and Dik cogently argues that the entire preceding string should be taken as the Topic: a paraphrase might be ‘Croesus’ expedition against Cappadocia took place for the following reasons’. But again, little further use is made of this insight: Dik does not identify this type of pragmatic unit with an intonational unit (as can often be done using clitic and other diagnostics, though possibly not in this particular example), nor does she attempt to differentiate between the information status of the elements within the Topic unit (here, verb, subject NP, and PP) in such a way that might explain why the verb, rather than one of the other constituents, appears first.

Dik’s Ch. 7, “Predicates Can Be Topics”, is largely devoted to a semantic-pragmatic classification of the verbs that appear in Topic position in her corpus. Her categories include verbs that are lexical repetitions of a verb in a preceding clause; verbs that are synonymous or near-synonymous with a preceding verb; verbs that stand in some other close semantic relation to a preceding verb (e.g. antonymy), and whose content is hence “highly inferable” in the discourse context; and verbs which are less “inferable”, but which are related to some cognitive frame which has been evoked by the preceding context. This approach has some commonalities with the one I will be presenting in Chapter 4, especially in the use of frames. A weakness of Dik’s analysis, however, is that no attempt is made to unify the various categories in any way so as to account for their formal similarity; I will argue that this can best be done in a QUD framework. It should be noted also that the characterization of these initial-verb topic units as “predicates” is inaccurate: in many cases, as (14) above illustrates, they do not correspond to predicates, nor to any other syntactically definable unit.

## 2.2 Matic 2003

Matic (2003) modifies and elaborates Dik’s model to account for several categories of systematic exceptions. As his is perhaps the most detailed model of Greek word

order that has yet been proposed, I will here devote some time to describing and evaluating it.

Matić's main contributions are three:

1. The distinction between “narrow” and “broad” focus domains – the latter including the verb, the former not – and the word order patterns associated with them;
2. The division of Greek topical elements into various types – “extraclausal topics”, “frame-setting topics”, “exclusive contrastive topics”, “continuous topics” – which, he claims, differ in their functions and behavior;
3. The proposal that Greek has two competing systems of rules for determining word order, the “major model” and the “minor model”, the choice between them in any particular case being largely arbitrary.

I will discuss these three points in order.

The two types of focus domain Matić distinguishes are ‘narrow focus’, which is confined to a single argument of the verb, and ‘broad focus’, which includes the verb itself.<sup>8</sup> Narrow focus implies a ‘presupposed open proposition’: that is, an incomplete proposition containing a free variable, which, in a given utterance, is to be completed with the argument that is in focus. As an English example, *It is Peter I saw*, with narrow focus on *Peter*, implies the presupposed open proposition *I saw X*, and asserts that  $X = Peter$ . The assertion thus differs from the presupposition only in that it identifies the free variable with the argument that is in focus.

Broad focus, on the other hand, comprises the verb as well as, optionally, one or more of its arguments. (The term *argument* is here understood broadly, to include adjuncts as well as constituents required by the valency of the verb.) An utterance like *I saw Peter* can have a narrow-focus reading, in which the focus domain is *Peter*, if it is presupposed that *I saw X* and the point of the utterance is to identify X; but if there is no such presupposition, then the focus domain is *saw Peter*. In this broad-focus reading, the content of the verb is part of the assertion, but is not part of any previously existing open proposition.

(It should be noted that the term ‘broad focus’ has been used with a different meaning in the information-structure literature: Devine and Stephens 1994:258,

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<sup>8</sup>This distinction is similar to, though not identical with, one drawn using the same terminology by Ladd (1980), which Matić does not cite.

following Gundel 1985, use it to refer to ‘thetic’ sentences, i.e. Lambrecht’s ‘sentence focus’ type.)

In the framework of Lambrecht (1996), described above, ‘narrow focus’ can thus be seen to correspond straightforwardly to argument focus. ‘Broad focus’, though it overlaps with Lambrecht’s predicate focus, is not the same: the focus domain can comprise the predicate, as in the example just given, but it does not have to; any focus domain that includes the verb counts as broad focus for Matic’ic, so that not only the answer in (6) above, but also those in (8)-(9), have broad focus domains.

In Greek, as Matic’ic shows, it is specifically narrow focus that tends to be expressed preverbally, not all types of focus as in Dik’s model. With broad focus, on the other hand, the verb precedes, rather than follows, its focused arguments. A pair of Greek examples, reproduced from Matic’ic’s (13a-b), illustrates broad (15) and narrow (16) focus:

- (15) Ἐπορευόμεν μὲν ἐξ Ἀκαδημείας εὐθὺς Λυκείου τὴν ἔξω τεῖχος ὑπ’ αὐτὸ τὸ τεῖχος  
(Plato *Lysis* 203A)

*Eporeuómēn mēn eks Akadēmeías euthù Lukeíou tēn éksō*  
I-was-going PART from Academy towards Lyceum the outside  
*teíkhou hup’ autò tò teíkhou*  
wall under itself the wall

‘I was going from the Academy towards the Lyceum by the road outside the wall, just under the wall’

- (16) ἐξ Ἀκαδημείας, ἦν δ’ ἐγώ, πορεύομαι, εὐθὺς Λυκείου (Plato *Lysis* 203A)

*eks Akadēmeías, ên d’ egō, poreúomai, euthù Lukeíou*  
from Academy said PART I I-am-going towards Lyceum

‘I am going, I said, from the Academy towards the Lyceum’

In (15), which opens this text, the verb and all its following arguments constitute a focus domain: there are no presupposed open presuppositions at this point. (16), by contrast, follows an explicit question from Socrates’s interlocutor: “Where are you going and where are you coming from?” This sets up an open proposition of the form *Socrates is coming from X*. (16) answers this by identifying X with the argument ἐξ Ἀκαδημείας *eks Akadēmeías* ‘from the Academy’; this argument is thus in narrow focus and precedes the verb.

This correlation between scope of focus and verb-argument order holds up fairly well, but is not without its problems. Note, for example, that even the neat pair of examples above presents a difficulty: in (16), it is not only the PP ‘from the Academy’ that fills an open proposition, but also the PP ‘towards the Lyceum’. Clearly there is a presupposed open proposition of the form *Socrates is going to X*, which is filled in this sentence by  $X = \epsilon\upsilon\theta\grave{\upsilon} \Lambda\upsilon\kappa\epsilon\acute{\iota}\omicron\upsilon\upsilon$  *euthù Lukeíou* ‘towards the Lyceum’. But that PP appears after the verb, rather than before it, as Matic’s account predicts.

The distinction between broad and narrow focus can be translated straightforwardly into QUD terms, based on the fact that focus domains correspond to a proffered answer to the current QUD. The difference then becomes whether the content of the verb is being presented as part of the answer (broad focus) or as part of the question (narrow focus). Thus in (16), the QUD has just been explicitly stated as ‘Where is Socrates coming from and where is he going?’, so that the verbal content ‘go’ is part of the question; while in (15) there is no active QUD that can be said to contain the content ‘go’ (if there is a QUD at all – this being the beginning of the text – it is presumably a highly general one such as ‘What happened?’).

Since the broad vs. narrow focus distinction will not occupy a central place in this thesis (as most of the initial verbs I analyze fall into neither of the word-order patterns above; the exception is the class of focused initial verbs discussed in Chapter 3, section 4), I will not seriously attempt here to improve upon this part of Matic’s account, which I believe is on the whole insightful and largely sound. I will instead present a sketch of a possible complementary approach to the question of verb-argument order in Greek, which I hope to be able to substantiate in future work, and which relies on a presumed correlation between prosodic prominence and discourse status.

This approach takes as its starting point the fact that cross-linguistically, discourse-active status (or ‘given’ status, as it is sometimes called) appears to correlate with prosodic weakness, i.e. deaccentuation; while on the other hand, both focus and introduced topic status strongly correlate with prosodic prominence. (For some approaches to the discourse-pragmatic functions of deaccentuation cross-linguistically, see Chafe 1976; Gussenhoven 1984; Hirschberg 1993, 1999; Selkirk 1995; Cruttenden 2006). This can be seen as an instantiation of Givón’s (1985; 2001:249) *code quantity principle*: “The less *predictable* the information is, or the more *important*, the more prominent, distinct or large will be the code element(s) that convey it.” I conjecture additionally that in Greek, prosod-

ically weak words of any kind could not begin an intonational unit<sup>9</sup>; instead, they were constrained to follow prominent words to which they attached prosodically, forming a single intonational unit with these. The observation that lexical elements in Greek, including verbs, sometimes seem to pattern prosodically like enclitics or ‘postpositives’ goes back to Wackernagel (1892:430f.); and Dover (1960:41ff.) further notes that it is specifically those elements which are most predictable in the discourse context, ‘concomitants’ in his terms, that behave in this quasi-postpositive way. Matić (599) makes the same point about his ‘continuous topics’, which he conceives of in somewhat similar terms (see the discussion on these below).

If this is so, then discourse-active verbs, i.e. those whose content is part of an active presupposition, being prosodically weak, would have had to attach to some more prominent word.<sup>10</sup> The prominent word to which the verb attached would naturally most often be a focused argument, though if an introduced topic was present, the verb could also attach to that, a pattern which does in fact occasionally occur in Greek<sup>11</sup>; and if there was more than one focused argument, as in (16) above, the verb could attach to any of them. In such a model, the Argument-Verb order of narrow focus clauses would thus result from pragmatically determined prosodic features of the argument and verb. In broad focus clauses with a Verb-Argument order, on the other hand, the verb and argument, being both focused, would each form its own intonational unit; the word order could then be assumed to directly reflect an underlying SVO order assumed for Greek by various scholars (e.g. Agbayani and Golston 2010). The idea would then be that SVO is the order of Greek constituents when they are prosodically prominent, but that those which are not must attach to a prosodically prominent host, which can result in different orders. Alternatively and perhaps more satisfactorily, the Verb-Argument order too may somehow be the result of pragmatic-prosodic factors, rather than representing any underlying order (for some further discussion of the possibility of accounting for all Greek word order phenomena with such factors, see Chapter 6,

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<sup>9</sup>Proclitics such as prepositions are not included here, as these do not form their own prosodic word.

<sup>10</sup>The hypothesized prosodic weakness of such verbs perhaps goes back to Proto-Indo-European, as it fits in well with the patterns of verb accentuation in Vedic, where main verbs are deaccentuated unless they are sentence-initial. The Vedic situation might then represent a development in which the prosodic weakness originally associated with discourse-active verbs was generalized to all non-initial main verbs.

<sup>11</sup>Matić’s examples (56) and (59), which represent a fairly common type, can be seen as reflecting such a pattern. On this ‘contrastive topic construction’ see the discussion in Chapter 4, section 5.

section 1). Any account along such lines, of course, needs to be substantiated with prosodic evidence, e.g. from clitic placement; it is presented here as a hypothesis in need of further investigation.

As for the second of Matic’s contributions listed above, the distinctions he draws between different types of topics in Greek, these strike me as being, with one exception, less cogent. Some of these distinctions are syntactic, others pragmatic. Syntactically, he distinguishes between “extraclausal” topics, which form “clausal domain[s] of [their] own” (p. 580), and an unnamed, more frequent type which are integrated into the main clause. This is relevant for our purposes because topical verbs, for Matic, fall into the “extraclausal” class – either some or all of them, though it is not clear which. The following three examples (= Matic’s (1), (8), and (9) respectively) illustrate an ordinary or “intraclausal” topic (17), a nominal “extraclausal” topic (18), and a verbal “extraclausal” topic (19); topics are in boldface:

(17) **στρουθὸν** δὲ οὐδεὶς ἔλαβεν (Xenophon, *Anabasis* 1.5.3)

*strouthòn dè oudeìs élaben*  
ostrich PART no-one caught  
‘**An ostrich**, nobody has caught.’

(18) ἐν τούτῳ δὲ καὶ **οἱ ἐκ τοῦ πεδίου** οἱ μὲν πελτασταὶ τῶν Ἑλλήνων δρόμῳ ἔθεον πρὸς τοὺς παρατεταγμένους, Χειρίσοφος δὲ βάδην ταχὺ ἐφείπετο σὺν τοῖς ὀπλίταις (Xenophon, *Anabasis* 4.6.25)

*en toutōi dè kai hoi ek tou pedíou hoi mèn peltastàì tōn*  
in this PART also the from the plain the PART peltasts of-the  
*Hellénōn drómōi étheon pròs toùs paratetagménous, Kheirísophos*  
Greeks at-a-run ran towards the drawn-up Kh.  
*dè bádēn takhù ephéipeto sùn toîs hoplítaiis*  
PART marching quickly followed with the hoplites  
‘Meanwhile, (as for) **those in the plain**, the peltasts charged at a run upon the enemy’s battleline and Kheirisophos followed at a quick-step with the hoplites.’

(19) **οὐρέουσι** αἱ μὲν γυναῖκες ὀρθαί, οἱ δὲ ἄνδρες κατήμενοι (Herodotus 2.35.3)



*ouréousi hai mèn gunaïkes orthaí, hoi dè ándres katémenoi*  
 urinate the PART women standing the PART men sitting  
 ‘They [the Egyptians] urinate, the women standing, the men sitting’

Now, there is clearly a syntactic difference between the boldfaced topics of (17) and (18): in (17), στρουθόν *strouthón* ‘ostrich’ is an argument of the verb, while in (18), οἱ ἐκ τοῦ πεδίου *hoi ek tou pedíou* ‘those from the plain’ does not stand in an immediate syntactic relation to either of the two verbs of the following clauses, which have their own subjects. In this sense the topic of (18) is indeed ‘extraclausal’; however, it is not clear to me that this syntactic fact has any discourse-pragmatic correlates that might lead us to want to distinguish between *pragmatic* classes of “intraclausal” and “extraclausal” topics in Greek. Matic’ claims that such a functional difference exists: “These extraclausal elements, though undoubtedly topical, are pragmatically not exactly the same as their clause-integrated, valency-bound counterparts ... Extraclausal topics ... represent a superordinate point of view under which the assertions are made, in contrast to the valency-bound aboutness topics, which serve as predication bases and mental address devices” (p. 580). But it is hard to see why οἱ ἐκ τοῦ πεδίου *hoi ek tou pedíou* ‘those from the plain’ in (18) is not an aboutness topic (Matic’'s own translation of this example, “(as far as) the main body of the Greeks in the plain (is concerned)”, certainly suggests such a reading), nor why it should not be described as serving as a predication base (seeing as the rest of the sentence is concerned precisely with predicating actions of the two groups of “those from the plain”).

It is certainly the case that Greek possesses Left Dislocation-type constructions, in which an initial topical phrase is coreferential with an *in situ* resumptive pronoun, as in (20)-(21) below (in which the initial topic is boldfaced and the resumptive pronoun underlined):

(20) [‘The Persians punish boys for the usual crimes, but also for ingratitude.’]  
 ὃν ἂν γνῶσι δυνάμενον μὲν χάριν ἀποδιδόναι, οὐκ ἀποδιδόντα δέ, κολάζουσι καὶ  
 τοῦτον ἰσχυρῶς (Xen. Cyr. 1.2.7)

*hòn àn gnôsi dunámenon mèn khárin apodidónai, ouk*  
 whom ever they-know able PART favor to-return not  
*apodidónτα dé, kolázousi kai tou̓ton iskhurôs*  
 returning PART they-punish also that-one severely  
 ‘And whoever they know is able to return a favor and does not do so,  
 they punish him also severely’

(21) [‘We have inquired into who Cyrus was, what kind of person he was, and how he was educated.’]

ὄσα οὖν καὶ ἐπυθόμεθα καὶ ἡσθησθαι δοκοῦμεν περὶ αὐτοῦ, ταῦτα πειρασόμεθα διηγήσασθαι (Xen. Cyr. 1.1.6)

*hósa oûn kai eputhómetha kai eîsthêsthai dokoûmen*  
such PART both we-have-found-out and to-know we-seem

*perì autoû, taûta peirasómetha diêgêsasthai*  
about him these-things we-will-try to-present

‘**What we have found out or think we know concerning him, that we shall endeavor to present**’

But I do not see, and no one to my knowledge has convincingly argued, that any specific discourse-pragmatic or information-structural features distinguish this construction in Greek from the case of ordinary initial topics, as in example (17) above.<sup>12</sup>

As for Matic’s verbal-topic example (19), although syntactically the verb appears here to be preposed outside a coordination and can thus perhaps be described as “extraclausal” (presumably under an analysis in which the two coordinated units represent gapped clauses, though this is not explained), again there seems to be no discernible discourse-pragmatic or other functional difference between such an example and (22) below (= Matic’s (49)), where the verbal topic appears to be “intraclausal”:

(22) ῥεῖ δ’ οὗτος<sup>13</sup> ἐκ τοῦ ὄρους ὅθενπερ καὶ ὁ Νέστος (Thucydides 2.96.4)

*rheî d’ hoûtos ek toû órous hóthenper kai ho Néstos*  
flows PART this from the mountain whence also the N.

‘[The territory of the Trers extends to the east as far as the river Oskius.]

**This [river] flows** from the same mountains as the Nestus’

<sup>12</sup>A detailed comparison of the two constructions, though it might be difficult because of the relative infrequency of Left Dislocation constructions in Greek, could be enlightening, but is outside the scope of this study. A plausible conjecture is that Left Dislocation in Greek is triggered by the syntactic weight of the topical constituent. In the examples above, the resumptive pronoun appears to be the focus of its clause – clearly so in (20), somewhat less clearly but still plausibly in (21). These Left Dislocation constructions look like a way of avoiding focused elements that are both syntactically heavy and discourse-new by first presenting their referents as clause-external topics.

<sup>13</sup>For the inclusion of the subject within the topic domain here compare the examples in Chapter 3, section 2.2.

The discourse-pragmatic functions and information status of the two verbs, οὐρέουσι *ouréousi* ‘(they) urinate’ in (19) and ῥεῖ *rheî* ‘(it) flows’ in (22), appear to be the same: they both set up incomplete predications which are filled in by the following focused elements (‘standing’/‘sitting’, ‘from the same mountains as the Nestus’). In the QUD terms espoused in this study, they introduce the QUDs *How do the Egyptians urinate?* and *From where does this river flow?* respectively. It is hard to see why the former verb but not the latter should be said to “represent a superordinate point of view”, or to set “a spatial, temporal or individual framework within which the main predication holds” (Chafe 1976, quoted by Matic’ as another characterization of “extraclausal topics”).

It would seem, then, that the parameter of “extraclausality” is not a particularly significant one in analyzing the discourse functions – as opposed to the syntax – of Greek topics, verbal or otherwise. It should also be noted that, although Matic’ presents this parameter as a syntactic one, it does not seem to represent a unified syntactic phenomenon: witness the fact that in (18) the topic is followed by complete clauses, while in (19) it is not. In fact, as I argue in greater detail in Chapter 3, the relevant units of analysis here are prosodic ones, rather than syntactic ones. The topics in these examples (and introduced topics in Greek generally) all constitute intonation units; this is why enclitic particles such as μέν *mén*, which Matic’ claims “confirm this *syntactic* analysis” (581, my italics), appear after the topic rather than within it, as such particles appear second within intonation units (which do not not necessarily correspond to syntactic units) in Greek.

Another distinction Matic’ draws is between “frame-setting topics” and “exclusive contrastive topics”; this distinction is of interest here because verbal topics are claimed to belong to the latter class.<sup>14</sup> The former term encompasses most left-periphery topical phrases in Greek: i.e. newly introduced or reintroduced topics, which can imply some degree of contrast with other potential topics but do not have to (588-591). The term “frame-setting” strikes me as an infelicitous one; it is explained as “positing a referential frame within which the utterance is to be interpreted” (591), with reference to Jacobs (2001), but the functions of such topics in Greek in fact do not usually correspond to Jacobs’ category of “frame-setting”. For Jacobs, “frame-setting” comprises such elements as e.g. *In my dream, Peter was a crocodile; Physically, Peter is well; If the team win, they*

<sup>14</sup>It is not clear to me what the intended relationship is between the syntactic class of “extraclausal” topics and these two classes, which are mostly semantically defined: i.e., whether frame-setting and exclusive contrastive topics are supposed to be extraclausal, either sometimes or always, or whether this is true of one class but not the other.

will receive a commendation from the president. These are obviously different in both form and function from the nominal topics of Matic’s discussion; in Jacobs’ framework, the function of the latter is described rather as “addressation” (Jacobs 2001:650ff.).

“Exclusive contrastive topics” are claimed to differ from “frame-setting topics” in several ways. First, they always occur first in their clause, “allowing only for sentence adverbials and complementizers to appear to their left, although even this occurs very rarely” (Matic 2003:604), unlike frame-setting topics, which can be preceded by another topic<sup>15</sup>. Second, they can be non-referential, including non-specific indefinites, predicative nominals, infinitives, and finite verbs. Third, they express a different kind of contrast from frame-setting topics: “while normal contrast simply entails membership in one set, utterances containing ECTops [exclusive contrastive topics] convey some kind of implicit modal assertion, whereby on one hand the assertion is restricted to the denotatum of the ECTop, and on the other it is implied that there are other denotata in the universe of discourse, for which the assertion either does not hold (strong exclusion) or the speaker does not want to commit her/himself to any claim about them (weak exclusion) ... Normal FS [frame-setting] contrastive topics do not trigger this type of implication” (605). In this case too, however, none of the proposed criteria seem clearly distinctive.

To take the last point first, it is hard to see how the contrast conveyed by exclusive contrastive topics differs from that expressed by frame-setting topics, in cases where these latter are clearly contrastive (which, as stated above, is not always). Examples (23)-(24) below, corresponding to Matic’s (44) and (23), illustrate an “exclusive contrastive topic” and a “frame-setting topic” respectively, both nominal:

(23) Σκύθας δὲ Ἕλληνας ὠνόμασαν (Herodotus 4.6.2)

*Skúthas dè Hállēnes ōnómasan*  
 Scythians PART Greeks named

[There are three Scythian tribes. ‘All these together bear the name of Skoloti ...’] ‘Scythians, the Greeks named them’

(24) χολήν δ’ ἔχει ὁμοίως τοῖς ἰχθῦσιν (Aristotle, *Historia Animalium* 508A)

<sup>15</sup>Matic correctly points out (600-603) that a Greek clause may contain more than one topic phrase, a possibility not envisioned in Dik’s model. This kind of pattern, among others, is explored further by Scheppers (2011).

*kholēn d' ékhei homoiōs toîs ikhthûsin*  
bile PART it-has similarly to-the fish

['Snake's liver is long, and it has a short and curved spleen, like lizards.']  
'The bile, it has similar to fish'

The structure of both of these examples is similar: in both (23) and (24), the initial noun represents an introduced discourse topic, and this topic is followed (though not in the same order) by a focused argument (Ἕλληνες *Héllēnes* 'Greeks', ὁμοίως τοῖς ἰχθύσιν *homoiōs toîs ikhthûsin* 'similarly to fish') and a discourse-active verb.<sup>16</sup> It is hard to see any difference in the type of contrast the topics express. Certainly in (23) "it is implied that there are other denotata in the universe of discourse" for which the assertion may not hold: other people call the Scythians by a different name than the Greeks do. But the same seems to hold for (24): other parts of the snake's anatomy are not stated to be similar to those of fish. This kind of exclusion of alternative assertions seems to be a defining feature of any kind of contrastiveness.<sup>17</sup>

The contrast-based distinction between the two types of topics, then, does not seem to hold up. As for the other two claims about exclusive contrastive topics, that they are always clause-initial and that they can be non-referential, these can only be of interest if they are shown to correlate: that is, if non-referential topics in Greek can be shown always to be clause-initial, and are never preceded by another topic phrase, then they should be considered to form a coherent class. This is, as far as I can tell, an open question, since both clauses with multiple topics and non-referential topics are relatively infrequent in Greek, and sentences possessing both features are necessarily even more so. As a possible counterexample, however, consider (25):

(25) Ἀπάγω μὲν Ἀστυάγης δίκην ταύτην ἐπέθηκε (Herodotus 1.120)

<sup>16</sup>Note that (24) is a counterexample to Matic's generalization that narrow focus precedes the verb. This is a case in which a discourse-active verb attaches to the topic rather than the focus, as described above. On the specific pragmatic value of this construction, see again the discussion of the 'contrastive topic construction' in Chapter 4, section 5.

<sup>17</sup>A further point here is that, since in Matic's typology all topical verbs belong to the exclusive contrastive class, it should follow that topical verbs always express this specific kind of exclusive contrast, rather than the kind expressed by contrastive frame-setting topics. Since the difference between the two proposed kinds of contrast is unclear to me, I cannot evaluate this possibility. For the distinction between the two types of contrast Matic cites Szabolcsi (1980), which is in Hungarian, a language I do not read.

*Harpágōi mèn Astuágēs díkēn taútēn epéthēke*  
to-Harpagus PART A. penalty this imposed  
‘On Harpagus the penalty that Astyages imposed was this’

Here ‘Harpagus’ is an introduced topic and ‘Astyages’ is discourse-active. But *díkēn* ‘penalty’ apparently must be seen as a second introduced topic. The sentence cannot be translated ‘Astyages imposed *this penalty* on Harpagus’ because *díkēn taútēn díkēn taútēn* does not seem to form a constituent: the canonical structure of Greek demonstrative NPs is [Demonstrative - Definite Article - N], so that ‘this penalty’ would be *ταύτην τὴν δίκην taútēn tēn díkēn*<sup>18</sup>. A precise translation would thus be ‘On Harpagus, as for a penalty, Astyages imposed this.’ But *díkēn díkēn* ‘a penalty’ is then a generic indefinite (just like *ὑποψίαι hypopsíai* ‘suspicions’ in Matic’s example (43), p. 604), and should thus be an exclusive contrastive topic in Matic’s typology, but it does not stand first in the clause.

Likewise, if there are examples in Greek of topical verbs that are preceded by another topical phrase, these too will disprove the suggested correlation, since Matic considers all topical verbs to be exclusive-contrastive, and these always stand in absolute first position. Such examples in fact exist, as shown by (20) above and by (26) below:

(26) [‘There are public contests between the groups of youths.’]

ἐν ἧ δ’ ἂν τῶν φυλῶν πλεῖστοι ὄσι δαημονέστατοι καὶ ἀνδρικότατοι καὶ  
εὐπιστότατοι, ἐπαινοῦσιν οἱ πολῖται καὶ τιμῶσιν οὐ μόνον τὸν νῦν ἄρχοντα αὐτῶν,  
ἀλλὰ καὶ ὅστις αὐτοῦς παῖδας ὄντας ἐπαίδευσε (Xen. Cyr. 1.2.12)

*en hê d’ àn tōn phulōn pleístoi ôsi daēmonéstatoi kai*  
in which PART PART of the divisions most are expert and  
*andrikótatoi kai eupistótatoi, epainoúsin hoi polítai kai timôsin ou*  
manly and reliable praise the citizens and honor not  
*mónon tòn nûn árkhonta autôn, allà kai hóstis autoùs paídas*  
only the now leading them but also whoever them boys  
*óntas epáideuse*  
being trained

<sup>18</sup>This, at least, is the traditional view of Greek demonstrative phrases as espoused in grammars. An alternative analysis, in which such phrases as *díkēn taútēn díkēn taútēn* do in fact represent a constituent and constitute a kind of indefinite demonstrative phrase, is perhaps worthy of investigation.

‘And whatever division has the greatest number of the most expert, the most manly, and the best disciplined young men, the citizens praise and honor not only its present chief officer but also the one who trained them when they were boys’

In both of these examples the initial relative clauses are certainly topical, but so are the following verbs. In (20) *κολάζουσι kolázousi* ‘they punish’ continues the discussion of which offenses are punished by the Persians, while in (26) *ἐπαινοῦσιν epainoûsin* ‘they praise’ introduces a new topic of ‘praising and honoring’, or in QUD terms, a new QUD *Whom do the citizens praise and honor?*; both verbs are followed immediately by narrow focus domains.<sup>19</sup> Such cases, then, undermine the coherence of the proposed distinction between frame-setting and exclusive contrastive topics, and I will therefore not make use of such a distinction in this study.

To conclude the discussion of Matic’s typology of topics in Greek, I will briefly discuss his category of “continuous topics” (591-600). These correspond straightforwardly to the class of words with discourse-active referents. The behavior of such words in Greek is very different from that of introduced topics, as they never occur first in their clause. In fact, the correct generalization appears to be (as conjectured above) that words with discourse-active referents cannot stand first in their intonation unit, unlike both introduced topics and foci, which seem always or usually to begin an intonation unit. For this reason, in this study I have chosen not to refer to these as “topics” of any sort, since they seem to constitute a fundamentally different discourse-pragmatic category. Other than this terminological difference, I have little to add to Matic’s cogent and insightful discussion, except that (again as noted above) the category should probably be expanded to include discourse-active *verbs* as well as nominals, and that in this case the prosodic weakness of such words (which he notes, 599-600) can perhaps explain the post-focal position of these verbs.

Finally, a troublesome part of Matic’s article is his idea of a ‘minor model’ of Greek word order, posited to accommodate cases that his main theory cannot account for. The idea is that Greek word order is influenced by two competing sets of rules, one of which (the ‘major model’) wins out in the majority of cases, but occasionally fails for reasons we cannot identify. This is obviously problematic, as it precludes any possibility of complete predictive adequacy for the proposed

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<sup>19</sup>Since both these examples contain postverbal narrow foci, they would fall under Matic’s ‘minor model’, on which see below, but I do not see that this affects the argument. See Chapter 5 for further discussion of such counter-presuppositional focus cases.

account, and on the basis of Matic'ć's own examples it seems to me that it should be possible to eliminate the minor model. Since one of the main categories of problem cases for Matic'ć consists of sentences with additive focus, I postpone the discussion of his 'minor model' to the part of the thesis (Chapter 5) dealing with counter-presuppositional focus (of which additive focus is a subtype); there I will attempt to unify these with other types of verb-initial clauses, as well as accounting for some of Matic'ć's other specific examples, and thus show that the idea of a secondary model of Greek word order is unnecessary.

### 2.3 Goldstein 2010

An important recent study of the interaction of word order and discourse pragmatics in Greek is the dissertation of Goldstein (2010) (to appear, with modifications of approach and conclusions, as Goldstein [2015]). To my knowledge, this is the first study to seriously employ a prosodic approach to Greek word order: Goldstein begins by identifying intonation units on the basis of clitic placement, and then proceeds to examine their discourse-pragmatic functions. In Ch. 6-7 he considers and taxonomizes two classes of such units, which he calls "strong topic" and "strong focus"; the former class corresponds to what I have been calling introduced topics.<sup>20</sup> The "strong topic" class includes initial-verb topics, or instances of "verb preposing" in Goldstein's terms; these, however, are dealt with very briefly (147f., with only two examples).

Goldstein analyzes Greek verb preposing as performing a function of 'scalar affirmation', in the sense defined by Ward (1988, 1990) in his analysis of English preposed VPs: such VPs not only affirm a proposition that is already present in the discourse, but imply that the predicate of this proposition "is construable as a scale upon which the (referent of the) subject is assigned a high value" (Ward 1988:151). Thus, for Ward, the preposed VP in the second sentence of his example "Kenny Rogers had asked his fans to bring cans to his concerts to feed the hungry in the area. And *bring cans* they did" can be interpreted to mean that "Kenny

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<sup>20</sup>As for the latter class, it is not clear to me to what extent there are adequate grounds for distinguishing these "strong focus" constructions – which include counterassertive information, exhaustive readings, and presupposition canceling (126) – from ordinary informational focus in Greek, since this latter type is not exemplified or explicitly contrasted with the former by Goldstein; and it is worth pointing out that the "counterassertive focus" cases in his section 7.2.1, e.g. "Without a magus it is not licit for them to perform sacrifices", do not seem to be focus domains at all, but should be analyzed as either Topic or Setting constituents, depending on one's choice of framework.



Rogers' fans brought an extraordinarily large number of cans to the concert" (Ward 1990:752f.).

As will become clear from later discussions, I do not subscribe to the scalar analysis of Greek verb preposing; in fact, I do not find that it accounts satisfactorily for the two Greek examples that Goldstein himself adduces, especially the first, which I reproduce here with his translation and comments, adding interlinear glosses:

(27) (= Goldstein's 6.49) καί μιν ἀνελόμενον τῆσι αὐτῆσι ἵπποισι ἄλλην Ὀλυμπιάδα κατέλαβε ἀποθανεῖν ὑπὸ τῶν Πεισιστράτου παίδων, οὐκέτι περιέοντος αὐτοῦ Πεισιστράτου. **κτείνουσι** δὲ οὗτοί μιν κατὰ τὸ πρυτανήιον νυκτὸς ὑπέισαντες ἄνδρας. (Hdt. 6.103.14)

*καί μιν ἀνελόμενον τῆσι αὐτῆσι ἵπποισι ἄλλην Ὀλυμπιάδα*  
and him having won with the same horses another Olympiad  
*κατέλαβε ἀποθανεῖν ὑπὸ τῶν Πεισιστράτου παίδων, οὐκέτι*  
it befell to be killed by the of Peisistratus sons no longer  
*περιέοντος αὐτοῦ Πεισιστράτου. κτείνουσι δὲ οὗτοί μιν κατὰ τὸ*  
living himself P. kill PART they him at the  
*πρυτανεῖον νυκτὸς ὑπέισαντες ἄνδρας.*  
Prytaneion at night having placed in ambush men

‘And after he [= Miltiades] won another Olympiad with the same horses, it befell (him) to die at the hands of the sons of the Peisistratids, although Peisistratus himself was no longer alive. **They killed** him at the Prytaneion at night, having placed men in ambush.’

“Verb preposing serves not merely to affirm that Miltiades was in fact killed, but also to emphasize that this event has an (unexpectedly?) high position on a scale of killing. Herodotus does just this by adding that Miltiades was killed in a particularly treacherous way, being ambushed near the Prytaneion at night. A more full paraphrase of the final sentence of (6.49) would thus run: ‘Indeed, they didn’t just kill him [low position on the scale ‘kill’], but they killed him at the Prytaneion at night, having placed men in ambush [high position on the scale ‘kill’].” (Goldstein 2010:147)

I do not share Goldstein’s intuition that Herodotus intends here to imply a ‘high position on a scale of killing’, but think that he is simply providing further

information about the killing without evaluating it. Note that this example could not in fact be felicitously rendered in English with VP preposing: ‘it befell him to be killed by the Peisistratids... #And kill him they did’; this suggests that an analysis in Ward’s terms is unsuitable here. A further difficulty, as Goldstein concedes, is that it is difficult to see a relation between this scalar affirmation function and the other pragmatic functions he finds for preposing in Greek. My account of such verbs does not involve the concept of scalar affirmation; in my analysis, the initial position of κτείνουσι *kteínousi* ‘they kill’ in this sentence is explicable in terms of the new QUD it introduces, namely “When/where/how did they kill him?”

My other point of difference with Goldstein’s account is that, whereas he states that verb preposing seems to occur only with single verbs and not verb phrases or other larger units, in fact (as I show in Chapter 3, and as Dik’s discussion described above hints at, though without taking meaningful account of prosody) a verb-initial intonation unit can consist of a verb plus one or more following elements. The syntactic function of the additional elements (object, subject, adjunct) is unimportant; the only requirement, as I will argue, is a discourse-pragmatic one, namely that their referents be topical in the broadest sense, i.e. either discourse-active or part of an introduced topic (in QUD terms, part of the QUD being introduced).

## 2.4 Other studies

In contrast to these information-structural studies, a more narrative-centered approach is taken by Luraghi (1995), who compares the roles of sentence-initial verbs in structuring narratives in several ancient Indo-European languages (Hittite, Old Norse, Latin, and Greek). This is one of the only studies I know of to focus specifically on the role of initial verbs. However, Luraghi’s list of the narrative functions of initial verbs in Greek, consisting of geographical descriptions, background information, presentatives, and foregrounded information that is presented as unexpected or rapidly developing, strikes me as highly disjointed, suggesting that this kind of narrative analysis is perhaps not the most fruitful approach. That said, her claim that initial verbs mark narrative discontinuity appears to be true in many cases, and is somewhat similar to my own argument in this thesis that the function of such verbs is to mark specific types of transitions between QUDs; although by ‘narrative discontinuity’ Luraghi seems to mean specifically shifts between backgrounded and foregrounded material, which I think is overly restrictive.

Agbayani and Golston (2010), though not specifically about initial verbs, is an account of fronting in Greek as being due to phonological, rather than syntactic, movement. They point out (cf. Chapter 3) that preposed strings in Greek do not necessarily correspond to syntactic constituents and cannot easily be derived by a syntactic movement analysis; they conclude that such fronting is prosodically motivated, and that it can be captured by constraints aligning intonational units with elements that are characterized by ‘pragmatic prominence’. Though their formal account is cogent as far as it goes (leaving aside the basic question of whether Greek in fact has an underlying SVO word order from which surface order is derived by movement, which they assume it does), the question of what constitutes ‘pragmatic prominence’ is hardly addressed. The authors distinguish between two types of prominence, ‘maximal’ and ‘minimal’, which they claim correspond to different types of movement and hence to different word-order patterns, but the two types are never defined. This makes it impossible to evaluate statements such as “If maximal prominence appears on the entire VP, the phonological phrase that contains it is fronted and we get VOS order ... maximal prominence on just the prosodic word that contains the verb gives us VSO order ... maximal prominence on the [phonological phrase] that contains the object and minimal prominence on the [prosodic word] that contains the verb gives OVS order” (160). As will have become clear by now, I think there is no doubt that prosodic-pragmatic structure (rather than syntactic structure) is the key to understanding clause-level word order in Greek, and Agbayani and Golston adduce excellent arguments for this position; but, that established, the question becomes what *kinds* of pragmatic features correlate with specific prosodic phenomena in Greek, and absent definitions of the relevant types of prominence, their model does not answer that question.<sup>21</sup>

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<sup>21</sup>Though it is not directly relevant to the matter at hand, I would like to point out that Agbayani and Golston’s account (p. 162) of why Greek disallows repeated identical forms of the definite article, as in their constructed example \*τῆς δὲ τῆς ἄλλης δουλείας *tês dê tês állês douleías*, cannot be correct as stated: their proposed undominated constraint \*ECHO, forbidding phonologically identical syllables within a prosodic word, is in fact violated in Greek, for example by reduplicated perfect participles such as δεδεμένος *dedeménos*. In fact this prohibition is not quite absolute, but is violated once or twice by Aristotle: in addition to the example from *Metaphysics* 2.1089 which Golston (1995 fn. 9) dismisses as a text-division error, there is *Poetics* 1459a τὸ γὰρ εἶ μεταφέρειν τὸ τὸ ὅμοιον θεωρεῖν ἐστὶν *tò gàr eî metaphéreîn tò tò hómoion theōreîn estin*. Whether such units as articular infinitives, which can be quite long and syntactically complex, should in fact be regarded as prosodic words is not clear to me, and the same goes for nested NPs/DPs of the type Agbayani and Golston consider. There is certainly a strong morphophonological constraint against such repetitions, however it is to be characterized.

The work of Dover (1960), which is often neglected in recent work on Greek word order because of its date and its rather eclectic and idiosyncratic analytical approach, nevertheless deserves a mention here, as some of Dover's ideas strike me as highly insightful and still valid, if in need of some theoretical updating. Specifically, in his central chapter on 'Logical determinants' (that is, pragmatic or information-structural factors affecting word order), Dover draws a distinction between two classes of words which he calls 'concomitants' and 'nuclei'. Several complementary definitions are offered for these categories, but the main one is this: 'I call an element *N*[*ucleus*] if it is indispensable to the sense of the utterance and cannot be predicted from the preceding elements, and *C*[*oncomitant*] in so far as it is deficient in either of those qualities' (40). Dispensability or predictability (the two amount to basically, though not exactly, the same thing for Dover) are, of course, a matter of discourse context, and also to some extent a matter of degree (36-7). Dover illustrates the concepts of nucleus and concomitant with an English example of a sentence whose 'logical' structure differs depending on the context of utterance:

(28) 'Dogs bite.'

There are three possible discourse scenarios here. If (28) is uttered in the context of a discussion of the habits of dogs, then for Dover, *Dogs* is a concomitant (because it is predictable or dispensable in that context), while *bite* is a nucleus. If the context is a discussion of animals that bite, the opposite is true: *Dogs* is a nucleus and *bite* is a concomitant. Finally, if the discussion is about 'the means by which animals defend themselves', then both *Dogs* and *bite* are nuclei, since both are unpredictable and indispensable.

Let us translate this example into QUD terms. The first possibility corresponds to a QUD 'What do dogs do?' – which is continuous with the preceding context (since, in this scenario, we are already discussing the habits of dogs) – and an answer 'bite'. Thus *bite* is focus, while *Dogs* is discourse-active: it is not being set up as a new topic but is a referent carried over from the QUD structure that precedes. In the second scenario, the QUD – again continuous rather than new in this utterance – is 'Which animals bite?' and the answer is 'Dogs', so *Dogs* is focus and *bite* is discourse-active. Finally, we can capture the third scenario using nested questions. There is an active superquestion 'How do animals defend themselves?'; the utterance (28) then introduces a subquestion 'How do dogs defend themselves?', and answers it 'They bite'. In this case *bite* is a focus (since it is the answer), but *Dogs* is here an introduced topic, i.e. it represents the new material in a (sub-)QUD that begins (and ends) with this utterance.

It can be seen that, in the theoretical framework I described in section 1, Dover's two categories have straightforward analogues. Nuclei correspond to both foci and introduced topics – in other words, to the blanket category I called 'discourse-prominent' (1.4); concomitants, on the other hand, correspond to what I have been calling 'discourse-active' referents. Given this, some of Dover's conclusions fall in line with ideas I have been suggesting in this chapter: namely, his claim (41ff.) that concomitants are often treated in Greek as postpositives. Though Dover's theoretical apparatus does not explicitly include prosodic segmentation, he points out the strong tendency of Cs to follow Ns in the same way that enclitics and other postpositives follow their prosodic hosts, paralleling my claim above that in Greek, it is only discourse-prominent words that can begin a prosodic unit, while discourse-active words are constrained to attach to these and follow them.

Finally, highly indebted to Dover's work (and equally independent in its theoretical approach) is the recent study of Scheppers (2011). Scheppers takes as his starting point the work of Eduard Fraenkel on 'cola' or prosodic units in Greek (on which see section 1 of the next chapter), and attempts to extend this into an exhaustive theory of Greek word order that is based wholly on prosodic-pragmatic principles. Scheppers's work covers a vast amount of ground, much of it not directly relevant to this study, and to attempt to do justice to it here would take us too far afield (for one well-informed mixed response see Goldstein 2012). As will be seen in the chapters that follow, I think there is much mileage to be got out of the colon-based or prosodic-segmentation approach to word order in Greek, and I certainly agree with Scheppers that pragmatics and prosody are a much more fruitful field in which to seek explanations for Greek word-order phenomena than syntax. It is not clear to me, however, that Scheppers has successfully made the case that cola have the absolute primacy which he ascribes to them: his claim that 'the colon is the elementary discourse unit, in other words: discourse *essentially* comes in cola' (433; his italics) seems specifically difficult to square with cases in which a word that is syntactically and semantically part of one colon appears in another (for such examples see Chapter 3, section 5). More germanely for our purposes, in Scheppers's study as in most such work, initial verbs are puzzlingly underrepresented: this far from uncommon word-order phenomenon receives attention only in a small handful of pages (126-9, 205-6), and these are mostly concerned with enumeration rather than analysis.

This chapter will hopefully have provided the reader with a satisfactory overview both of the theoretical approach I will be using in this study and of the current state of our understanding of Greek word order (and specifically –

what there is of it – of the roles of initial verbs). In the next chapter, I proceed to examine initial verbs as part of the larger prosodic-pragmatic units in which they generally appear, while the chapters that follow investigate the functions of these verb-initial units in structuring Greek prose texts.

## Chapter Three

# Preposed Verb-initial Units

### 1 Prosodic segmentation in Greek

A fact that has often gone unremarked in previous analyses of clause-initial verbs in Greek is that many such verbs are fronted along with additional material: that is, initial verbs can be followed by one or more other constituents or subconstituents with which they appear to form a unit. Such units are definable in both informational and prosodic terms. Understanding the functions of initial verbs, as I hope to show in this study, requires an understanding both of these additional elements and of the function of these units as a whole.

I will refer to such initial units—both those consisting of a verb by itself and those consisting of a verb followed by one or more other elements—as ‘preposed verb-initial units’ or PVUs. As an example, in (1) below I have boldfaced the PVU, which consists of a verb, a discourse particle, and a subject NP:

- (1) **πορεύονται γὰρ αἱ ἀγέλαι** ἧ ἂν αὐτὰς εὐθύνωσιν οἱ νομεῖς (Xen. Cyr. 1.1.2)

***poρεύονται γὰρ*** *hai agélai hēi*      *àn autàs euthúnōsin hoi*  
go                      PART the herds wherever PART them lead                      the  
*nomeîs*  
herders

‘For the herds go wherever the herders lead them’

The PVU appears to be a prosodic-informational unit rather than a syntactic one: as I will show below, it need not and usually does not correspond to a

syntactic constituent. In terms of its informational or pragmatic function, as I will argue in more detail in the next chapter, the PVU plays a specific role in structuring Greek discourse: namely, it marks the beginning of a stretch of discourse that is governed by a new Question Under Discussion. In terms of prosody, some PVUs can be formally shown to be intonational units ('cola' in the classicist terminology of Fraenkel 1932 etc.) by the evidence of clitic placement or by other diagnostics of this kind; in other cases, such direct evidence for an intonational boundary happens to be absent, but the formal and functional equivalence of such PVUs with the former ones strongly suggests that they too constitute intonational units.

Before proceeding to a discussion of the forms that PVUs can take, I will give a brief account of the kinds of diagnostic criteria that enable us to discern the presence of prosodic boundaries in Ancient Greek texts. (More thorough discussions of the relevant scholarship can be found in Goldstein 2010 ch. 2 and in the introduction to Scheppers 2010.) These diagnostics fall into two classes: the presence of *postpositive* words, i.e. those which are constrained to occur following the first prosodic word in an intonation unit; and that of *introductory* words, i.e. those which always or generally begin a new intonation unit. Finding a postpositive allows us to identify a prosodic boundary before the word which it follows; finding an introductory allows us to identify a prosodic boundary immediately before it.

Postpositives, being both more numerous in texts and more unusual in their behavior, have received more attention than introductory. The observation that certain words in Greek and other early Indo-European languages—including but not limited to unaccented enclitics—tend to appear second in the clause is due to Wackernagel (1892). 'Wackernagel's Law', however, stated in this way, could not account for the fairly frequent appearance of these postpositives (the term is due to Dover 1960) *later* in the clause than 'second position'. These exceptions remained unexplained until a series of articles by Fraenkel (1932, 1933, 1964, 1965) demonstrated that the relevant unit for defining the placement of postpositives is not the clause but the 'colon', or in modern linguistic terminology, the intonational phrase. (The identification of the Fraenkelian colon with an intonational phrase appears to be due to Janse 1993.) Finding a postpositive that is not in clause-second position thus enables us to deduce the presence of a prosodic boundary: the host of the postpositive, the prosodic word preceding it, must begin an intonational phrase.<sup>1</sup> On the basis of these observations Fraenkel was able to

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<sup>1</sup>The picture is slightly complicated by the fact that postpositives can appear in clusters and by the additional existence in Greek of proclitics, which form a single prosodic word with a host



form a basic typology of intonational phrases in Greek, which was later developed by Marshall (1987) and, more recently, by Goldstein (2010) and Scheppers (2011).

The generally recognized postpositive forms in Greek fall into the following categories:

- the counterfactual particle ἄν *án*;
- a large number of particles with discourse-pragmatic functions, e.g. δέ *dé*, μέν *mén*, οὖν *oûn* (for discussion of the specific functions of these see Denniston 1954, Rijksbaron 1997);
- the conjunctive enclitic τε *te* ‘and’;
- the indefinite pronoun τις *tis* ‘someone, anyone’, and indefinite adverbs such as πῶς *pôs* ‘somehow’;
- the oblique cases of personal pronouns, e.g. με *me* ‘me (acc.)’, σέ *sé* ‘you (acc. sg.)’, αὐτόν *autón* ‘him (acc. sg.)’, when these are discourse-active (on this see further below);
- most present indicative forms of εἶναι *eînai* ‘be’ in its copular uses and of φάναι *phánai* ‘say’ (this category, since it consists of postpositive finite verb forms, is obviously not relevant to our purpose of examining verb-initial clauses).

Some notes on the second-to-last category, that of the personal pronouns, are in order. These pronouns are postpositive in Greek only when their referent is discourse-active (or ‘unemphatic’ as classical grammars and textbooks often put it). This is the reason why only their oblique forms are relevant here: discourse-active subjects are simply omitted in Greek, so such nominatives do not occur. In the case of the first-person pronoun, it is easy to tell whether it is discourse-active as its forms differ based on its informational status: discourse-active μου *mou* (gen.), μοι *moi* (dat.), με *me* (acc.); discourse-prominent (topical or focal) ἐγώ *egô* (nom.), ἐμοῦ *emoû* (gen.), ἐμοί *emoí* (dat.), ἐμέ *emé* (acc.). For the other pronouns, however, the forms are the same, although by editorial convention, the

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which they precede; for these details the reader is referred to the discussions in Goldstein and Scheppers.

second-person singular pronoun is written without an accent when it is judged to be discourse-active.<sup>2</sup>

The third-person pronoun αὐτός *autós* is generally treated in grammars and textbooks as having two distinct functions, or even as representing two different pronouns: an ‘intensive’ use translatable as ‘-self’ (as in *He himself said it*), and a standard or ‘unemphatic’ pronominal use translatable as ‘him, her, it’, in which latter function it does not occur nominatively. However, this apparent semantic or lexical distinction is in fact simply a distinction of discourse-activeness, just as in the case of the other personal pronouns. ‘Intensive’ uses of αὐτός *autós* are simply those in which it is discourse-prominent, i.e. represents either an introduced topic or a focus; ‘unemphatic’ uses are those in which it is discourse-active (and hence lacks a nominative for the same reason noted above for the first- and second-person pronouns). In its discourse-active use αὐτός *autós* is postpositive, and has thus been used as a colon-boundary diagnostic by writers in the Fraenkelian tradition.

The fact that discourse-active pronouns do not stand first in an intonational phrase is, I believe, part of the larger generalization I proposed in Chapter 2: in Greek, *words of any class* whose referent is discourse-active (or more precisely, is being presented as such, rather than as discourse-prominent) cannot begin an intonational phrase.

Postpositive forms, then, can be used as colon-boundary diagnostics because their presence implies that the word they follow is the first prosodic word in its intonation unit. Introductives, by contrast, themselves stand first in their intonation unit, either absolutely or as a tendency. The term appears to be due to Scheppers<sup>3</sup>, and I here follow his typology (2010:72ff.). The main types of introductives are the following:

- interrogatives, e.g. τίς *tís* ‘who?’, πῶς *pôs* ‘how?’;
- the negators, οὐ *ou* and μή *mé* (both ‘not’), and their compounds, e.g. οὐδέν *oudén* ‘nothing’;
- subordinators, including conjunctions and relative pronouns;
- coordinators, e.g. ἀλλά *allá* ‘but’, καί *kaí* ‘and’ (though see below on this word).

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<sup>2</sup>And similarly for the third-person indirect reflexive pronoun, which in Attic occurs almost exclusively in the dative, οἷοι *hoî/hoi*.

<sup>3</sup>Dover (1960) refers to these as ‘prepositives’, but I avoid this term here as it is used by some authors as synonymous with ‘proclitic’.

As the discourse functions of *καί* *kaí* and its status as an introductory will be important in a later chapter (Chapter 5), a note on the behavior of this word will be appropriate here. *καί* *kaí* has two syntactically and pragmatically distinct functions. First and more commonly, it is the general, semantically neutral coordinator in Greek, conjoining units of all syntactic types, and translatable as ‘and’. Second, it can occur as a marker of counter-presuppositional focus, more specifically additive focus; in this latter use, *καί* *kaí* is generally translatable as ‘also’ or ‘even’.

*καί* *kaí* is listed by Scheppers as an introductory, but he concedes that there are many instances in which this word cannot be plausibly seen as beginning an intonation unit, e.g. short coordinations of the type ἄρχων καὶ βασιλεύς *árkhōn kai basileús* ‘ruler and king’. In fact, as will be argued in Chapter 5, it is only the counter-presuppositional use of *καί* *kaí* that is always introductory (specifically, it begins an intonational unit with additive focus pragmatics); in its coordinating use, the second coordinand can in some cases be shown to constitute an intonational unit, but often cannot, so that *καί* *kaí* is not a reliable diagnostic in that function.

In the section that follows, I use these kinds of diagnostics to establish the status of PVUs as intonational units. I first present examples in which the non-verbal elements in PVUs are of different syntactic types—subjects, objects, adjuncts, or parts of such constituents—in order to demonstrate that such elements are not syntactically constrained: that is, the PVU is not a syntactically defined category (but rather a prosodic-pragmatic one). In the next section, I then discuss the pragmatic conditions that license inclusion of non-verbal elements in a PVU. In the examples, the prosodic boundary is marked by | and the postpositive or introductory is underlined. (As in most of the examples in this study, I mark only the prosodic boundaries that are relevant to the point at issue, not necessarily all those which can be identified.)

## 2 A syntactic inventory of PVUs

### 2.1 PVUs consisting of a bare verb

The simplest kind of PVU is that consisting of a verb by itself, as in examples (2)-(3):

(2) ὀνομάζουσι | τὸν μὲν Διόνυσον Ὀροτάλτ, τὴν δὲ Οὐρανίην Ἀλιλάτ (Hdt. 3.8)

*onomázousi* | *tòn mèn Diónusun Orotált, tèn dè Ouraniēn Alilát*  
 they call the PART D. O. the PART O. A.  
 ‘They call Dionysus Orotalt, and Aphrodite Alilat.’

- (3) προεῖπον | Ἐπιδαμνίων τε τὸν βουλόμενον καὶ τοὺς ξένους ἀπαθεῖς ἀπιέναι (Thuc. 1.26.5)

*proeîpon* | *Epidamniōn te tòn boulómenon kai tous*  
 they proclaimed Epidamnian PART the wishing and the  
*ksénous apatheís apiénai*  
 foreigners unharmed to go away  
 ‘They proclaimed that the foreigners and any Epidamnian who wished  
 might go away in safety’

In these examples, the prosodic boundary is shown by the position of the post-positive particles *mèn* and *te*.

More often, though, since most sentences in Greek are linked to the preceding context by a postpositive discourse particle, we find PVUs consisting of a verb plus such a particle, as in the examples below. In (4)-(6) the prosodic boundary after the PVU is assured by another, later postpositive:

- (4) ἔκειντο γὰρ | δίφροι τινὲς αὐτόθι κύκλῳ (Pl. Rep. 328C)

*ékeinto gàr* | *díphroi tinès autóthi kýklōi*  
 lay PART chairs some there in a circle  
 ‘There were some chairs there in a circle’

- (5) ἔρχεται δ’ | αὐτή τε ἡ Μανδάνη πρὸς τὸν πατέρα καὶ τὸν Κῦρον τὸν υἱὸν ἔχουσα (Xen. Cyr. 1.3.1)

*érkhetai d’* | *autē te hē Mandánē pròs tòn patéra kai tòn*  
 goes PART self PART the M. to the father and the  
*Kûron tòn huiòn ékhousa*  
 Cyrus the son having  
 ‘Mandane herself went to her father and took her son Cyrus with her’

- (6) φαίνεται γὰρ | ναυσί τε πλείσταις αὐτὸς ἀφικομένος καὶ Ἀρκάσι προσπαρασχών  
(Thuc. 1.9.3)

*phaínetai gâr | nausí te pleístais autòs aphikoménos*  
he appears PART with ships PART most himself having come  
*kaì Arkási prosperaskhôn*  
and to the Arcadians having supplied

‘For it is clear that he himself brought the greatest number of ships and that he had others with which to supply the Arcadians.’

In (7)-(8) below, the prosodic boundary that follows the PVU is marked by introductives:

- (7) ἐπράχθη τε | οὐδὲν ἀπ’ αὐτῶν ἔργον ἀξιόλογον (Thuc. 1.17.1)

*eprákhthē te | oudèn ap’ autôn érgon aksiólogon*  
was done PART nothing by them deed worth mentioning

‘No achievement worthy of mention was accomplished by them’

- (8) συνήνεικε δὲ | καὶ ἄλλο τι τοιόνδε πρῆγμα γενέσθαι (Hdt. 3.4)

*sunéneike dè | kaì állo ti toiónde prêgma genésthai*  
happened PART also other some such thing to occur

‘There happened to occur another thing, too, of the following kind.’

Note that in (8), the prosodic boundary is doubly assured by both types of diagnostic, a postpositive and an introductive (since καί *kaí* here appears in its counter-presuppositional, additive focus function, rather than in its coordinating function; for further discussion of this use of καί *kaí* and its prosodic status, see Chapter 5).

## 2.2 PVUs consisting of Verb + Subject

More complex than bare-verb PVUs are PVUs that consist of a verb followed by another constituent (usually again separated by a postpositive discourse particle). Examples (9)-(10) illustrate the inclusion of an NP (or DP) subject in a PVU:

- (9) [‘Herds of animals are much more obedient to their herders than people are to their leaders.’]

πορεύονται γὰρ αἱ ἀγέλαι | ἧ̃ ἂν αὐτὰς εὐθύνωσιν οἱ νομεῖς (Xen. Cyr. 1.1.2)

*poreúontai* γὰρ *hai agélai* | *hēi* *àn* *autàs euthúnōsin hoi*  
go PART the herds wherever PART them lead the  
*nomeîs*  
herders

‘For the herds go wherever the herders lead them’

- (10) τετύχηκε δὲ τὸ αὐτὸ ἐπιτήδευμα | πρὸς τε ὑμᾶς ἐς τὴν χρεῖαν ἡμῶν ἄλογον καὶ ἐς τὰ ἡμέτερα αὐτῶν ἐν τῷ παρόντι ἀξύμφορον (Thuc. 1.32.3)

*tetúkhēke* δὲ τὸ αὐτὸ *epitēdeuma* | *prós* *te* *humās es tēn*  
happens PART the same policy towards PART you to the  
*khreían hēmōn álogon* καὶ *es tà hēmétera autōn en tōi*  
demand of us inconsistent and to the our own in the  
*parónti aksúmphoron*  
circumstance disadvantageous

‘Our policy happens to have been both, for you, inconsistent with our petition, and, for ourselves, disadvantageous under the present circumstances’

In (11)<sup>4</sup>, the PVU consists of a verb with a pronominal subject:

- (11) [Following a description of the first three phases of training of Persian men]

ἐπειδὴν δὲ τὰ πέντε καὶ εἴκοσιν ἔτη διατελέσωσιν, | **εἶψαν μὲν ἂν οὗτοι** | **πλεῖόν τι**  
**γεγονότες ἢ τὰ πενήκοντα ἔτη ἀπὸ γενεᾶς**, | ἐξέρχονται δὲ τῆνικαῦτα εἰς τοὺς  
γεραιτέρους ὄντας τε καὶ καλουμένους (Xen. Cyr. 1.2.13)

<sup>4</sup>The boldfaced sentence in this example is a parenthesis inserted between a subordinate clause and the main clause of another sentence, but as the parenthesis is syntactically complete on its own, I see no reason not to count this as a PVU.

*epeidàn dè tà pénte kai eíkosin étē diatelésōsin, | eíēsan*  
 when PART the five and twenty years they complete would be  
*mèn àn hoútoi | pleíon ti gegonótes è tà*  
 PART PART these more somewhat of age than the  
*pentékonta étē apò geneás, | eksérkhontai dè tēnikaûta eis*  
 fifty years from birth they go out PART then to  
*toùs geraitérous óntas te kai kalouménous*  
 the older being PART and called

‘And when they have completed the twenty-five years—**these men would be somewhat more than fifty years of age**—they then take their place among those who are and are called the elders’

Given that, in constituency-based theories of syntax, the verb and its subject are not regarded as forming a constituent together to the exclusion of other arguments of the verb, the existence of this type of PVU structure is in itself sufficient to show that the PVU cannot be defined as a syntactic unit, but must be a unit of some other kind. For further discussion of this point, and for examples of another type of PVUs that are clearly not susceptible to a syntactic definition, see section 2.5, below.

### 2.3 PVUs consisting of Verb + Object

Another common structure is that in which a PVU consists of a verb followed by an object, which may be direct or indirect, nominal or pronominal. Example (12) shows a nominal object:

(12) [directly continuing (9) above]

*νέμονται τε χωρία | ἐφ’ ὅποια ἄν αὐτὰς ἐπάγωσιν* (Xen. Cyr. 1.1.2)

*némontai te khōría | eph’ hopoîa àn autàs epágōsin*  
 they graze PART lands to which PART them they lead

‘They [= the herds] graze lands to which they [= the herders] lead them’

Pronominal direct objects are illustrated in (13)-(14):

(13) οὐδὲ ἐσεγράψαντο ἑαυτοὺς | οὐτε ἐς τὰς Ἀθηναίων σπονδὰς οὐτε ἐς τὰς  
 Λακεδαιμονίων (Thuc. 1.31.2)

*oudè esegrápsanto heautoùs | oúte es tàs Athēnaíōn spondàs*  
 nor they enrolled themselves neither in the Athenians' alliance  
*oúte es tàs Lakedaimoníōn*  
 nor in the Lacedaemonians'

'They had not enrolled themselves either in the alliance of the Athenians or in that of the Lacedaemonians'

(14) προεῖπον δὲ ταῦτα | τοῦ μὴ λύειν ἕνεκα τὰς σπονδάς (Thuc. 1.45.3)

*proeîpon dè taûta | toũ mē lúein héneka tàs spondás*  
 they ordered PART these the not to break in order the treaty  
 'They gave these orders in order not to break the treaty.'

PVUs with nominal indirect objects happen not to be attested in my corpus, but pronominal indirect objects appear in (15)-(16):

(15) ἐστρατήγει δὲ αὐτῶν | Λακεδαιμόνιος τε ὁ Κίμωνος καὶ Διότιμος ὁ Στρομβίχου καὶ Πρωτέας ὁ Ἐπικλέους (Thuc. 1.45.2)

*estratégei dè autôn | Lakedaimoníōs te ho Kímōnos*  
 commanded PART them L. PART the son of Kimon  
*kaì Diótimos ho Strombíkhou kaì Prōtéas ho Epikléous*  
 and D. the son of Strombikhos and P. the son of Epikles  
 'They [the ships] were commanded by L. son of K. and D. son of S. and P. son of E.'

(16) Δηλοῖ δέ μοι | καὶ τόδε τῶν παλαιῶν ἀσθένειαν οὐχ ἥκιστα (Thuc. 1.3.1)

*Dēloî dé moi | kaì tóde tōn palaiōn asthéneian oukh hékista*  
 proves PART to me also this the ancients' weakness not least  
 'This fact too about the ancients chiefly proves to me their weakness'

This last example (16) is another illustration of the failure of PVUs to correspond to syntactic constituents: though the indirect object μοι *moi* is a sister of the verb, the PVU does not correspond to a VP, since the direct object, ἀσθένειαν *asthéneian* 'weakness', appears outside it, and is separated from it by the subject and by a prosodic boundary.



## 2.4 PVUs consisting of Verb + Adjunct

The additional material in a PVU is not restricted to arguments of the verb in the strict sense. It can comprise adverbial adjuncts, as in (17)-(18):

- (17) [‘When we arrived at Polemarchos’s house, there were present there Lysias, Euthydemos, etc.’]

ἦν δ’ ἔνδον | καὶ ὁ πατήρ ὁ τοῦ Πολεμάρχου Κέφαλος (Pl. *Rep.* 328B)

*ên d’ éndon | kai ho patêr ho toû Polemárkhou Képhalos*  
was PART inside also the father the of the Polemarkhos K.  
‘Polemarchos’s father Kephalos was also inside.’

- (18) [How the Persian boys live when hunting]

φέρονται δὲ οἴκοθεν | σῖτον μὲν ἄρτον, ὄξον δὲ κάρδαμον (Xen. *Cyr.* 1.8)

*phérontai dè oíkothen | sîton mèn árton, ókson dè*  
they bring PART from home food PART bread relish PART  
*kárdamon*  
cress

‘They bring from home bread for their food, cress for a relish’

The post-PVU part of (18) above has the interesting feature of containing a two-part coordination, each apparently with its own topic and focus (‘as for food, bread; as for a relish, cress’); for further discussion of this example, see Chapter 4, section 5 (end).

## 2.5 PVUs consisting of Verb + Subconstituent

The most unexpected type of PVU from a syntactic viewpoint is that in which the verb is followed by an element that is not an argument of the verb at all, but is a subconstituent of such an argument; the rest of the verbal argument appears later in the sentence, outside the PVU. I have found two examples of this type in which the PVU is identifiable by an explicit diagnostic, (19)-(20). In both of these examples, the subconstituent that appears in the PVU is a pronominal modifier, αὐτῶν *autôn* ‘of them’, while its head (ἀποδοσμός *apodasmôs* ‘portion’ in (19), τὰς ναῦς *tàs naûs* ‘the ships’ in (20)) is separated from it by other words and by at least one prosodic boundary:

(19) [‘The Boeotians arrived in Boeotia sixty years after the Trojan War.’]

ἦν δὲ αὐτῶν | καὶ ἀποδασμὸς ἐν τῇ γῆ ταύτῃ πρότερον (Thuc. 1.12.3)

*ên dè autôn | kai apodasmòs en têi gêi taútēi próteron*  
was PART of them also portion in the land that before  
‘A portion of them, too, had been in that land before’

(20) [‘Orders had been given by Phormio not to attack until he should give the signal.’]

ἤλπιζε γὰρ αὐτῶν | οὐ μενεῖν τὴν τάξιν ... τὰς ναῦς (Thuc. 2.84.2)

*êlpize gàr autôn | ou meneîn tēn táksin ... tàs naús*  
hoped PART of them not to-keep the line the ships  
‘For he hoped that their ships would not hold the line’

In (19), *αὐτῶν autôn* seems to raise out of its NP and into the PVU; in (20), it seems to move not only out of its NP but completely outside and preceding the subordinate clause that NP is the subject of, ‘that their ships would not hold the line’. This kind of movement is difficult to account for in syntactic terms (for arguments to this effect see Agbayani and Golston 2010), and it is clear that the resulting PVU cannot be considered a syntactic constituent.

This type of example also does away with a potential objection that could be offered to the PVU analysis, namely, that these sentences might possibly display not preposing but postposing. That is, one might make an argument that, in transformational terms, it is not the PVU that moves to the beginning of the clause, but the rest of the material that (for whatever reason) moves to the end, so that the PVU is a spurious unit. But as movement is generally agreed to target syntactic constituents, the fact that the material after the prosodic boundary in (19)-(20) is not a full constituent should be sufficient to rule this hypothesis out. Further evidence of this type is provided by (16) above, where the ‘postposed’ material would have to consist of the subject and the direct object, which do not form a constituent together.

This concludes the inventory of the syntactic types of PVU structures I have found in my corpus. More complex structures than these, for example Verb + Subject + Object or the like, do not occur in my corpus; nevertheless, there seems to be nothing to rule out the existence of such longer PVUs, and I would predict that they should occur in appropriate discourse-pragmatic circumstances (though these may be rare).

### 3 The status of non-verbal elements in PVUs

The inventory just given has shown that the conditions licensing inclusion of non-verbal elements in a PVU cannot be syntactic, as all kinds of syntactic material can appear in PVUs. Rather, these conditions are discourse-pragmatic. Specifically, I argue that the inclusion of non-verbal elements in a PVU is licensed by the following discourse-pragmatic criterion:

The referents of non-verbal elements in a PVU must either (a) be discourse-active or discourse-inferable, or (b) form part of an introduced topic together with the verb. Stated otherwise, they must be part of the common ground, either (a) actually, or (b) by requested accommodation.

This criterion holds for all PVUs in my corpus. Before proceeding to the discussion of examples, I should say that the distinction between conditions (a) and (b) is intended as practically useful rather than theoretically watertight, since even newly introduced topics can often be regarded as discourse-inferable in some way. (Phrased in terms of the Question Under Discussion framework, a new question usually stands in some definable relation to a previously active question.). As was pointed out in the previous chapter, introducing a new topic is equivalent as a discourse move to a request that it be accommodated as part of the common ground, so the difference between ‘new topic’ and ‘discourse-inferable topic’ comes down to a question of how much accommodation is being requested, so to speak. In terms of the QUD model, both types of elements can be described as expressing part of the QUD being introduced – which is the main function of PVUs generally, as the next chapter argues – rather than part of its answer. I will have more to say below about the broader generalization underlying the two types.

#### 3.1 Non-verbal elements with discourse-active or -inferable referents

Most of the examples already given—in fact, all except (12)—fall under this type. In some, the referent is clearly discourse-active as it is expressed by a repeated lexeme or by an anaphor. Thus in (9), the subject *αἱ ἀγέλαι* *hai agélai* ‘the herds’ is repeated from the previous sentence (*πάσας τοίνυν ταύτας τὰς ἀγέλας ἐδοκοῦμεν ὄρᾶν μᾶλλον ἐθελούσας πείθεσθαι τοῖς νομεῦσιν ἢ τοὺς ἀνθρώπους τοῖς ἄρχουσι pásas toínun*

*taútas tàs agélas edokoûmen horân mâllon etheloúsas peíthesthai toîs nomeûsin ê toîs anthrôpous toîs árkhousi* ‘Well, we thought we saw all those herds more willing to obey their herders than people their rulers’): i.e. its referent is explicitly discourse-active. In (11), the subject οὔτοι *hoûtoi* ‘these [men]’ is an anaphoric pronoun, and thus stands for a discourse-active referent by its nature; the same holds for for the modifier αὐτῶν *autôn* in (19).

In other cases, the referent is not explicitly discourse-active but is discourse-inferable in the given context by virtue of its semantic relationship with other, discourse-active referents. Thus in (17), ἐνδον *éndon* ‘inside’ is discourse-inferable given the immediately preceding reference to ‘Polemarchos’ house’, with which it stands in a part/whole relation. In (18), οἴκοθεν *oíkothen* ‘from home’ is discourse-inferable in the context of ‘going hunting’; this follows from basic world knowledge, as going hunting implies a journey away from home. Example (21) below is of a similar kind:

(21) [‘There are public contests between the groups of youths.’]

ἐν ἧ δ’ ἂν τῶν φυλῶν πλεῖστοι ὧσι δαημονέστατοι καὶ ἀνδρικότατοι καὶ εὐπιστότατοι, | ἐπαινοῦσιν οἱ πολῖται καὶ τιμῶσιν | οὐ μόνον τὸν νῦν ἄρχοντα αὐτῶν, ἀλλὰ καὶ ὅστις αὐτοὺς παῖδας ὄντας ἐπαίδευσε. (Xen. Cyr. 1.2.12)

*en hê d’ ân tôn phulôn pleîstoi ôsi daēmonéstatoi kai*  
in which PART PART of the divisions most are expert and  
*andrikótatoi kai eupistótatoi, | epainoûsin hoi polítai kai timôsin*  
manly and reliable praise the citizens and honor  
| *ou mónon tôn nûn árkhonta autôn, allà kai hóstis autoûs*  
not only the now leading them but also whoever them  
*paídas óntas epaídeuse*  
boys being trained

‘And whatever division has the greatest number of the most expert, the most manly, and the best disciplined young men, **the citizens praise and honor not only its present chief officer but also the one who trained them when they were boys.**’

Here the referent of the subject NP οἱ πολῖται *hoi polítai* ‘the citizens’ has not been mentioned explicitly before, but world knowledge includes the fact that public contests are held before citizens, so the immediately preceding mention of such contests makes ‘the citizens’ discourse-inferable in this context.

### 3.2 Non-verbal elements forming part of an introduced topic

In example (12), the object χωρία *khōría* ‘lands’ can be argued not to be discourse-active or inferable in context; instead, it appears to be licensed for inclusion in the PVU by the fact that it forms a newly introduced topic together with the verb. This topical function of the VP should be clear in the context of the complete sentence, reproduced below as (22), in which example (12) is the second of three coordinated clauses:

- (22) [‘Herders, horse-rearers and the like can be considered rulers of their herds, just as human rulers are of their subjects. Well, all these herds obey their rulers much more willingly than humans do.’]

πορεύονται τε γὰρ αἱ ἀγέλαι | ἧ ἄν αὐτὰς εὐθύνωσιν οἱ νομεῖς, | νέμονται τε χωρία | ἐφ’ ὅποια ἄν αὐτὰς ἐπάγωσιν, | ἀπέχονται τε | ὧν ἄν αὐτὰς ἀπείργωσι (Xen. Cyr. 1.1.2)

*poreúontai te gâr hai agélai | hêi ân autàs euthúnōsin*  
 go PART PART the herds where PART them lead  
*hoi nomeîs, | némontai te khōría | eph’ hopoîa ân autàs*  
 the herders graze PART lands to which PART them  
*epágōsin, | apékhontai te | hōn ân autàs apeírgōsi*  
 they lead keep out PART of which PART them they exclude

‘For the herds go wherever the herders direct them, they graze whatever lands they lead them to, and they keep out of those places from which they exclude them’

This sentence consists of a sequence of similar constructions: initial PVUs followed by focus domains. Under the broad QUD ‘What is the behavior of herds of animals toward their herders?’, Xenophon introduces three lower-level QUDs: ‘Where do herds go?’, ‘What do they graze on?’, and ‘Where don’t they go?’. Each of these is set up in a PVU, whose prosodic independence is shown unambiguously in this case by the placement of the particle ἄν, and is answered by a following focus domain. In each case the answer is similar, paraphrasable as ‘The herds do what the herders direct them to’; this (together with further such details given in the next couple of sentences) establishes an answer to the broader QUD about the behavior of herds, namely ‘Herds are obedient to their herders’, allowing the narrative to continue with a comparison of the behavior of human subjects toward their rulers.

The VP *νέμονται χωρία νέμονται κηῶρία* ‘they graze lands’ is, then, an introduced topic in its clause, the focus being the PP headed by *ἐφ’ εἰς*: a more information-structurally faithful paraphrase would be ‘The lands they graze are those to which the herders lead them’. Since *χωρία κηῶρία* does not seem to be obviously discourse-active or discourse-inferable in this context, I conclude that its inclusion in the PVU is licensed by the fact that it forms part of the introduced topic.

Alternatively, one might argue that *χωρία κηῶρία* ‘lands’ is in fact discourse-inferable in context, either because the idea of ‘lands’ is available through world knowledge in a discussion of herds, or more specifically because speaking of ‘grazing’ implies ‘lands’. The latter analysis, however, seems misguided inasmuch as *νέμονται τε χωρία νέμονται τε κηῶρία* ‘they graze lands’ is here a single intonational, and thus presumably also informational, unit. At the beginning of the unit *νέμονται τε χωρία*, the discourse context does not yet include ‘grazing’, and the context is only ‘updated’ at the end of an informational unit, by definition (on this see Chafe 1987, 1994:71-81). The discourse status of *χωρία κηῶρία* can therefore not depend on that of *νέμονται νέμονται*. As for the idea that the referent ‘lands’ is discourse-available through world knowledge of the habits of herds, this is certainly arguable, and in fact it is difficult to disentangle this kind of status from that of being part of an introduced topic. After all, new topics are not introduced into a discourse at random: they tend to have some semantic relationship to what has already been said, so that most introduced topics can be seen as discourse-available in some respect. Establishing a new topic, as I suggested above, is in a sense a request for accommodation: though the topic may not so far have been part of the common ground, the speaker ‘moves’ (as it were) that it should henceforth be considered such. It is therefore easily understandable that discourse-active and -inferable elements should in some ways pattern together with elements in newly introduced topics.

Despite this ontological ambiguity, in many cases it nevertheless seems more natural to speak of an NP in a PVU as ‘part of an introduced topic’ than as a ‘discourse-active element’. I include here another similar example, even though in this case there is no clitic evidence for a prosodic break:

- (23) [‘Justice is nothing but the advantage of the strong. Some cities are democratic, others autocratic, and so on, and the ruling party is strong in each.’]

Τίθεται δὲ τοὺς νόμους ἐκάστη ἢ ἀρχὴ | πρὸς τὸ αὐτῆ ἕξιμμερον, δημοκρατία μὲν δημοκρατικούς, τυραννὶς δὲ τυραννικούς, καὶ αἱ ἄλλαι οὕτω (Plato *Rep.* 338E)

*Títhetai dè toùs nómous hekástē hē arkhē | pròs tò hautēi ksumphéron, dēmokratía mèn dēmokratikoús, turannìs dè turannikoús, kaì hai álloi hoútō*  
 enacts PART the laws each the government towards the  
 for itself advantageous democracy PART democratic tyranny PART  
 tyrannical and the others likewise

‘And each form of government enacts the laws with a view to its own advantage, a democracy democratic laws, a tyranny tyrannical ones, and the others likewise’

It might be objected against the inclusion of this example here that *τίθεται δὲ τοὺς νόμους ἐκάστη ἢ ἀρχή* *Títhetai dè toùs nómous hekástē hē arkhē* ‘And each form of government enacts the laws’ is not demonstrably a PVU, as there is not clitic or other formal diagnostic for the prosodic boundary. But I would argue that, once we have an account of the pragmatic functions of PVUs such as this chapter aims to provide, we need no longer remain agnostic about the prosodic status of examples like this, where a clitic happens not to occur. The fact that newly introduced topics are coded as their own intonational phrase in all cases where clitic evidence is present—and this holds both for topics introduced by PVUs, as this chapter shows, and for topics introduced by NPs and PPs, as Goldstein (2010 ch. 7) shows—strongly suggests that such topics in Greek always constitute an intonational phrase, and thus that we can safely deduce the existence of a prosodic break whenever we can identify a boundary between an introduced topic phrase and the following focus domain. (The same conclusion is reached by Scheppers 2011).

We see such an introduced topic in (23), namely *τίθεται τοὺς νόμους ἐκάστη ἢ ἀρχή* *títhetai toùs nómous hekástē hē arkhē* ‘each government enacts the laws’; the focus domain is the PP *πρὸς τὸ αὐτῇ ζυμφέρον* *pròs tò hautēi ksumphéron* ‘with a view to its own advantage’. This is clear from a consideration of the current QUDs: the QUD in this sentence is ‘How do governments enact laws?’, part of the higher QUD ‘What is justice?’. Further evidence for this analysis is that the same topic-focus structure also holds for the verbless clauses that continue the sentence, *δημοκρατία μὲν δημοκρατικούς, τυραννὶς δὲ τυραννικούς* *dēmokratía mèn dēmokratikoús, turannìs dè turannikoús* ‘a democracy democratic [laws], a tyranny tyrannical ones’: these briefly consider two more specific QUDs (‘How do democracies make laws?’, ‘How do tyrannies make laws?’) as a way of answering the more general one, just as we saw in the preceding example (22) from Xenophon.

Τίθεται δὲ τοὺς νόμους ἐκάστη ἡ ἀρχὴ *Títhetai dè toùs nómous hekástē hē arkhē* is therefore an introduced-topic PVU. As for the status of the object τοὺς νόμους *toùs nómous* ‘the laws’, it is, like χωρία *khōría* in (12), not obviously discourse-active or -inferable: the discussion prior to this sentence has been about ‘justice’ in human behavior generally, not specifically as it is expressed in laws. It might again be objected that ‘laws’ are a predictable referent when ‘justice’ is discussed. (The claim that ‘laws’ is discourse-inferable due to τίθεται *títhetai* ‘enacts’ is countered by the same argument given for νέμονται τε χωρία *némontai te khōría* above, namely that the two are part of the same informational unit. Moreover, it is only after the reference to ‘laws’ that the reader can interpret the highly general verb τίθεται *títhetai*, which has a wide range of possible meanings including ‘place’, ‘set’, etc., as meaning specifically ‘enact’.) But this amounts to saying that ‘the enactment of laws’ makes a predictable introduced topic in this context, or that passing from a general QUD about justice to a more specific QUD about laws is a natural discourse move. This brings out again the fuzziness of the boundary between these two types of referents. The fact that they are coded alike in this construction (though not in all Greek constructions) suggests that a higher generalization is needed to capture the conditions that license inclusion of non-verbal elements in PVUs: namely, that they be ‘topical’ in the broadest sense—that is, that they be part of the common ground, either actually (discourse-active and inferable referents) or by requested accommodation (referents in introduced topics). In terms of the QUD framework, as the next chapter will argue, this fact is related to the general discourse function of PVUs as a whole, which is to mark the transition into a new QUD.

## 4 Initial verbs in focus

Before moving on, in the next chapter, to consider the roles that PVUs play in structuring Greek discourse, I need to distinguish a class of clause-initial verbs that have not yet been discussed: namely, those that, though initial, do not seem to part of any prosodic or informational unit that can be identified as a PVU. Not all initial verbs in Greek fall into the pattern we have seen so far – i.e., begin an informationally topical unit which is then followed, after a prosodic boundary, by a distinct focal unit. In a minority of cases, instead, the sentence contains no initial topical unit, but begins directly with the focus domain; and since this can itself, under specific circumstances, begin with a verb, the result is that a minority of initial verbs in Greek are focal rather than topical. In my corpus, these focused verbs represent 210 out of the total of 594 clause-initial verbs (35%). The initial



placement of such verbs, as I will show, is in a sense epiphenomenal, as it is due partly to the absence of other (topical) elements which, if present, would precede the verb. In this section I discuss the specific combination of conditions that results in the clause-initial placement of a focused verb.

For this purpose, recall from the previous chapter the two basic templates of the ‘major model’ of Greek word order proposed by Matić, here somewhat modified and simplified, with the permissible positions of focused verbs shown in boldface:

‘Frame-setting’ (discontinuous) topic	‘Broad focus’: [ <b>Verb</b> + Argument(s)] <sub>FOC</sub> ‘Narrow focus’: Argument + <b>Verb</b> <sub>FOC</sub>
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Following the initial topic slot, one of two patterns appears: in ‘broad focus’, the focus domain is comprised of the verb plus one or more arguments, while in ‘narrow focus’, only an argument of the verb is in focus, while the verb itself is outside the focus domain. In the former case the verb precedes, in the latter case follows, its argument(s).

Although, as I argue in other chapters, this model is not a wholly adequate account of Greek word order, it will serve as a good enough approximation for the present purposes. From the above schema it is clear that, for a focused verb to appear initially, the leftmost (‘discontinuous topic’) slot must be empty; and furthermore any arguments of the verb must not be narrowly focused, because otherwise they will precede the verb. It is notable that these criteria do not have to do with the features of the verb itself so much as with the presence and type of other elements in the clause. In this sense, this focal category of initial verbs is thus qualitatively different from the others considered in this study, in which initial position can be plausibly ascribed to the informational or discourse-pragmatic status of the verb itself. Focused verbs that meet the conditions just described appear clause-initially in Greek; their initial placement, however, principally results not from any feature of their own, but is a consequence of the information status of other constituents in the clause, or of the absence of certain types of constituents. The possibility of such ‘epiphenomenal’ initialness is straightforwardly due to the fact that Greek word order is determined by information-structural templates, in which particular slots can be empty.<sup>5</sup> Thus when we encounter any element in initial position, there is always the possibility that it

<sup>5</sup>This characterization is intended as strictly surface-descriptive; the nature of the syntactic mechanisms that may underlie such templates is a different question, which I do not attempt to tackle here.

is initial not because it is filling an initial slot, but because it is following one or more slots which happen to be empty.

The first of the criteria above, the lack of a discontinuous topic, can be straightforwardly translated into the terms of the Question Under Discussion model. In the QUD framework, the introduction of a new topic, or the resumption of a previously active one after a break, correspond to the introduction or reintroduction of a QUD. Sentences that lack a discontinuous topic are thus ones in which no new QUD is being introduced: i.e., they occur in stretches of a discourse in which the active QUD remains constant.

The second criterion – that there should be no narrowly focused argument which could precede the verb – can also be expressed in QUD terms. Since in the QUD framework, a focus domain corresponds to an answer that is being proffered to the active QUD, the issue comes down to whether the content of the verb is being treated as part of that answer or not. If it is, the result is ‘broad focus’, i.e. a focus domain that includes the verb. If not, the result is ‘narrow focus’, where the proffered answer consists of an argument alone; in this latter case, the verbal content, since it is not part of the answer, is presumably to be regarded as part of the QUD itself.

In the ‘broad focus’ pattern, the verb can still possess arguments, but these follow it rather than preceding it. The distinction in pragmatic status between such arguments and the ‘narrowly focused’ arguments of the alternative pattern appears to be, in QUD terms, that the latter represent content which is being regarded as the central part of the answer to the QUD, while the former represent content that is not so regarded. That is, in ‘narrow focus’, the QUD answer being proffered is expressed chiefly or wholly by the preverbal argument, while the content of the verb is either not part of the answer at all (but rather part of the QUD), or is a semantically or pragmatically less important part of the answer – e.g. because the verb’s meaning is highly general or is naturally inferable in the discourse context. In ‘broad focus’, the opposite is true: the most important part of the QUD answer is given in the verb, while the following arguments, if any, are presented either as not part of the answer or as a less important part given the particular context of the discourse. Often, these will represent material that is discourse-active or discourse-inferable.

We can thus restate the criteria for the appearance of focused initial verbs in QUD terms as follows:

A focused initial verb appears in Greek when

- (a) the QUD is continuous with that of the preceding stretch of discourse, and
- (b) the content of the verb represents the chief part of the proffered answer to the QUD, while any arguments that may appear are either not part of the answer or a less important part of it.

Let us consider a few examples to illustrate these principles.

(24) Λύουσι γάρ, ἔφη, οἱ ἔνδεκα Σωκράτη (Plato *Phaedo* 59E)

*Líousi gár, éphē, hoi héndeka Sōkrátē*  
release PART he said the Eleven S.

‘The Eleven, he said, are releasing Socrates’

The context of this utterance, and of the entire dialogue, is the imprisonment and impending execution of Socrates.<sup>6</sup> A QUD expressible as roughly ‘What is going to happen to Socrates?’ has been active since the beginning of the dialogue. Of the NPs in the clause, Σωκράτη *Sōkrátē* ‘Socrates’ is therefore obviously part of the QUD. οἱ ἔνδεκα *hoi héndeka* ‘the Eleven’, though not mentioned before, is discourse-inferable in context, since the authorities in charge of the execution can be presumed to be part of the common ground. Neither referent is here being introduced as a discontinuous topic, that is, as the basis for a new QUD: Socrates because he is already continuously part of the active QUD, the Eleven because the QUD is not about them (the sentence is not asking ‘What are the Eleven doing?’). No new QUD is being introduced here; the sentence is intended to answer a continuously active QUD. Therefore neither the subject nor the object can appear in the initial topic slot, and this remains empty. But neither can they appear in the

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<sup>6</sup>An interesting, if not directly relevant, question is raised in this sentence by the position of ἔφη *éphē* ‘he said’. One might assume that such meta-narrative interpolations should occur at a prosodic break; by my model, however, there should not be a major prosodic break before οἱ ἔνδεκα *hoi héndeka* ‘the Eleven’, as this content is discourse-inferable and should not be able to begin an intonational unit. It is possible that there is a break here, but it is of a lower type in the prosodic hierarchy than those that the diagnostics described at the beginning of this chapter identify; or there may very well be no break at all, as in fact such quotative markers can be so closely incorporated prosodically with their surroundings as to intervene between an unaccented enclitic and the word that would otherwise be its host: e.g. Plato *Rep.* 4.11 Μηδέν, ἦν δ’ ἐγώ, πῶ πάνυ παγίως αὐτὸ λέγωμεν.

narrow-focus preverbal position, because neither of them represents the central part of the answer: this is expressed by the verb, Λύουσι *Líousi* ‘release’, which thus stands in initial position.

Example (25) is similar:

(25) [Description of the training of Persian youths]

χρῶνται δὲ τοῖς μένουσι τῶν ἐφήβων αἱ ἀρχαί, ἥν τι ἢ φρουρήσαι δεήσει ἢ  
κακούργους ἐρευνῆσαι ἢ ληστὰς ὑποδραμεῖν ἢ καὶ ἄλλο τι ὅσα ἰσχύος ἢ τάχους  
ἔργα ἐστί. (Xen. Cyr. I.2.12)

*chrōntai dè toîs ménousi tōn ephēbōn hai arkhaí, én*  
use PART the remaining of the youths the authorities if  
*ti è phrourêsai deésēi è kakoúrgous ereunēsai*  
in any way either to guard it is necessary or wrongdoers to arrest  
*è lēistàs hupodrameîn è kai állo ti hōsa iskhíos*  
or robbers to capture or also other anything such as of strength  
*è tákhous érga estí.*  
or of speed works are

‘The authorities employ those of the youths who remain behind, whether they are needed for garrison duty or for arresting criminals or for hunting down robbers, or for any other service that demands strength or dispatch.’

Here again, τοῖς μένουσι τῶν ἐφήβων *toîs ménousi tōn ephēbōn* ‘those of the youths who remain behind’ and αἱ ἀρχαί *hai arkhaí* ‘the authorities’ are both discourse-active in this context. Both referents have been mentioned before and are a continuing part of the immediate QUD, ‘How are Persian youths trained (by the authorities)?’ The answer to this QUD is given mainly by the verb χρῶνται *chrōntai* ‘use’, which thus appears initially.

So also in (26):

(26) ἀλλὰ μὴν ἄρχουσί γε αἱ τέχναι καὶ κρατοῦσιν ἐκεῖνου, οὐπὲρ εἰσι τέχναι (Pl. Rep. 342C)

*allà mèn árkhousí ge hai tékhnai kai kratoúsin ekeînou,*  
but surely rule PART the arts and are strong of that  
*hoúpér eisi tékhnai*  
of which they are arts

‘But surely the arts hold rule over and are stronger than that of which they are the arts.’

Here, Socrates and Thrasymachus have for some time been discussing a QUD that can be phrased as ‘What is the relationship between an art or skill, considered *per se*, and its subject or material in the world?’ In this sentence, Socrates offers an answer, namely that the art rules over its material. There is no new QUD being introduced here, so the initial topic slot is empty. As for the verbal arguments – the subject αἱ τέχναι *hai tékhnai* ‘the arts’ and the indirect object ἐκεῖνου, οὗπέρ εἰσι τέχναι *ekeînou, hoûpér eisi tékhnai* ‘that of which they are the arts’ (i.e. their material) – these are both part of the active QUD, not part of the answer, so cannot stand in the preverbal position. The answer itself is given in the near-synonymous verbs ἄρχουσί ... καὶ κρατοῦσιν *árkhousí ... kai kratóusin* ‘rule and are stronger than’. The first verb of this coordination thus stands initially (after the extra-clausal conjunction and particle sequence ἀλλὰ μὴν *allà mèn*). Because of the general freedom of placement of discourse-active elements in Greek, the two-verb coordination, even though it is the focus domain, can here be broken up by the non-focal subject αἱ τέχναι *hai tékhnai*, which attaches to the prosodically strong first verb; such interleaving patterns of focal and non-focal words often occur in Greek when the focus domain is complex.

Example (27) illustrates a postverbal argument whose status is somewhat different from that of the ones we have considered so far, in that it is clearly part of the answer to the QUD:

(27) Προσευξάμενοι δὲ καὶ θεωρήσαντες **ἀπῆμεν πρὸς τὸ ἄστυ**. (Plato *Rep.* 327B)

*Proseuksámenoi dè kai theōrésantes apêimen*  
having prayed PART and having spectated we were going away  
***pròs tò ástu.***  
toward the town

‘After we had said our prayers and seen the spectacle **we were leaving for town.**’

(The initial participial phrase Προσευξάμενοι δὲ καὶ θεωρήσαντες *Proseuksámenoi dè kai theōrésantes* is, of course, not part of the main clause, so that the finite verb is clause-initial under the criteria of this study.) This sentence occurs very near the beginning of the *Republic*, before the dialogue proper has begun; Socrates has opened the story by describing his visit to the Peiraeus to see a festival. In this

broadly narrative context, there seems to be no QUD more specific than ‘What happened next?’ The answer being offered is ‘We left for town’. It seems clear that, though the referent of ‘town’ (that is, Athens) is discourse-inferable here, it is nevertheless an important part of the answer to the QUD. The reason the verb nevertheless precedes is that its content is an even more central part of the answer. That is, ‘For town’ by itself cannot be a congruent answer to the question ‘What happened next?’, while ‘We left’ can. Conversely, if the QUD were ‘Where did you go next?’, then ‘For town’ would be a possible answer, and in such a context we would expect the argument to precede the verb, *πρὸς τὸ ἄστυ ἀπῆμεν πρὸς τὸ ἄστυ ἀπῆμεν*.

An example of a similar kind is (28), which I include here because it is formally problematic for the QUD framework as currently conceived:

(28) ὃ Κρίτων, ἔφη, ἀπαγέτω τις αὐτὴν οἴκαδε. (Plato *Phaedo* 60B)

ὁ Κρίτων, ἔφη, ἀπαγέτω τις αὐτὴν οἴκαδε.  
 O Crito he said let take away someone her home  
 ‘Crito, he said, let someone take her home.’

The ‘her’ is Socrates’ wife Xanthippe, who has become emotional at her husband’s impending execution and is thus hindering the progress of logical discussion. The status of αὐτὴν *autēn* ‘her’ is thus discourse-active (as is usual for such pronouns), and this accounts for its position after the verb. As for οἴκαδε *oikade* ‘home’, this seems not to be discourse-active or -inferable in this context (there has been no talk about home, or about Xanthippe at all), but is clearly an important part of the focus domain, along with the verb ἀπαγέτω *apagētō* ‘let take away’, which is the central part of this imperative sentence and thus stands clause-initially (after an extra-clausal vocative). The relationship of ἀπαγέτω *apagētō* and οἴκαδε *oikade* is comparable to that of ἀπῆμεν *apēimen* and πρὸς τὸ ἄστυ *prōs tō ástu* in the previous example. In this sense, the sentence presents no particular problem for my account. The QUD model as currently conceived, however, does not to my knowledge reckon with the possibility of non-declarative clauses. The examples given in QUD work (which are generally made-up rather than naturally occurring) always take the form of declarative sentences; these are, of course, easy to regard as possible answers to an implicit question. But the fact that imperative clauses, as here, can lend themselves to the same type of analysis as declarative ones suggests that the framework can be fruitfully expanded beyond declaratives. A possible

tack might be to consider imperatives as pragmatically equivalent to modal declarative sentences, such as in this case ‘Someone should take her home’, and thus as answers to the same type of QUD that such declaratives would answer, as here ‘What should happen next?’. This type of ‘performative paraphrase’ approach to reducing imperatives into truth-conditionally evaluable declaratives, perhaps ultimately ascribable to Husserl (2001 [1913]), is identified with Lewis (1975) and subsequent work, and is far from uncontroversial; for detailed discussion, see Jary and Kissine (2014:212-257). I will not go into the debate here, but in any case, if such an expansion of the QUD framework is possible, then the strong tendency of imperatives to stand clause-initially, both in Greek and in other languages, might then be related to the fact that the content of the verb is generally the central part of the answer to QUDs of this sort.

I hope to have shown in this section that, although this study is mainly concerned with initial verbs that play a topical or QUD-introducing role, there is no straightforward equation between “initial” and “topical” verbs in Greek, because there also exists a class of initial verbs whose function is focal. However, the two classes are easily distinguishable because the latter, focal type of initial verb occurs only under a specifically definable set of discourse-pragmatic conditions.

## 5 Conclusion

This chapter has demonstrated the existence in Greek of ‘preposed verb-initial units’ (PVUs), which are prosodic-pragmatic units consisting of a clause-initial verb optionally followed by additional elements. The PVU, rather than the verb by itself, should thus be considered as the relevant unit for the examination of the discourse functions of verb-initial clauses in Greek texts. (However, not all initial verbs are part of a PVU; a minority, identifiable by clear pragmatic criteria, are not, but are instead part of a verb-initial focus domain.) The post-verbal elements in a PVU can be of any syntactic type, as the PVU is not a syntactic unit. The criterion that licenses their inclusion in the PVU appears to be discourse-pragmatic: such elements are always ‘topical’ in the broad sense, that is, their referents are either actually part of the common ground or to be accommodated as such. In the former category we find discourse-active and discourse-inferable referents; to the latter category belong elements which form part of an introduced topic together with the verb. In the next chapter, I examine PVUs as a whole within the Question Under Discussion framework, and investigate the roles they play in articulating

the logical structure of Greek prose discourse.



## Chapter Four

# Verb-initial clauses and QUD structure

### 1 QUD structures and transitions in Greek

The previous chapter established the existence in Greek of a type of clause-initial intonational phrase which I refer to as a preposed verb-initial unit, or PVU. In this chapter, I will argue that the main function of PVUs in Greek prose is to mark transitions between Questions Under Discussion (QUDs). PVUs serve to introduce a new QUD into the discourse, to reopen a QUD that has been closed, or to restate an open QUD before answering it. I will specifically consider four main types of such discourse moves that PVUs can perform and the conditions under which their use is licensed.

As a way of examining the formal marking of transitions between QUDs in Greek prose, let us begin by considering two passages from Herodotus and Xenophon which conveniently illustrate these strategies in especially explicit ways.

Consider first example (1) from Herodotus, a dialogue between King Croesus and his just-arrived suppliant Adrastus. In this passage, Croesus wants Adrastus to answer a complex QUD which might be phrased as ‘Who are you and why are you here?’. What makes the dialogue illuminating for our purposes is that Croesus explicitly divides this QUD into three sub-QUDs that Adrastus is to answer; and Adrastus then gives answers to three sub-QUDs in three successive clauses.<sup>1</sup> In

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<sup>1</sup>It is true that Adrastus’s three answers do not exactly correspond to the questions Croesus has posed – rather than saying ‘what place in Phrygia he comes from’ he gives the names of his father and grandfather – but the substitution is not problematic since his three answers still add up to a satisfactory response to Croesus’s larger QUD.

the text and translation below, I have bracketed the domains of each of these sub-QUDs with {} to make the transitions more visible. Here and elsewhere, I have slightly modified the Loeb translation in order better to reflect the structure of the Greek.

- (1) ὄνθρωπε, {τίς τε ἐὼν} καὶ {κόθεν τῆς Φρυγίης ἦκων} ἐπίστιός μοι ἐγένεο; {τίνα τε ἀνδρῶν ἢ γυναικῶν ἐφόνευσας}; ὁ δὲ ἀμείβετο ὦ βασιλεῦ, {Γορδίου μὲν τοῦ Μίδεω εἰμι παῖς}, {ὀνομάζομαι δὲ Ἄδρηστος}, {φονεύσας δὲ ἀδελφεὸν ἐμεωυτοῦ ἀέκων} πάρεμι ἐξεληλαμένος τε ὑπὸ τοῦ πατρὸς καὶ ἐστερημένος πάντων. (Hdt. 1.36)

ὄnthrōpe, {tís te eōn} καὶ {kóthen tēs Phrugíēs hēkōn} epístiós moi egéneo? {tína te andrōn ἢ gunaikōn ephónēusas?} ho dè améibeto ὦ basileû, {Gordíeō mèn tou̅ Mídeō eimì país}, {onomázomai dè Ádrēstos}, {phoneúsas dè adelphēon emeōutoû aékōn} páreimi ekxelēlaménos te hupò tou̅ patròs kai esterēménos pántōn.’

‘Friend, {who are you} and {from what place in Phrygia do you come} to be my suppliant? {What man or woman have you killed?}’ He answered, ‘O king, {I am the son of Gordias the son of Midas}; {my name is Adrastus}; {having killed my brother against my will} I have come here banished by my father and bereft of everything.’

Let us examine the marking of transitions between the three sub-QUDs in Adrastus’s reply. The first sub-QUD, ‘Who am I?’, is not formally marked with any type of introduction; the clause begins with a focus domain giving the QUD’s answer, Γορδίω τοῦ Μίδεω *Gordíeō tou̅ Mídeō* ‘of Gordias the son of Midas’. The second sub-QUD, ‘What is my name’, is introduced with the bare-verb PVU ὀνομάζομαι *onomázomai* ‘I am named’, followed by a focus domain giving the answer Ἄδρηστος *Ádrēstos* ‘Adrastus’. The third sub-QUD, ‘Whom have I killed?’, is introduced with a participle, φονεύσας *phoneúsas* ‘having killed’, followed by a focus domain giving the answer ἀδελφεὸν ἐμεωυτοῦ *adelphēon emeōutoû* ‘my brother’.<sup>2</sup>

The QUD structure of Adrastus’s speech can be schematized as follows:

<sup>2</sup>In fact, it seems that ἀέκων *aékōn* ‘unwilling’ is also part of the focus domain here, since the answer to this sub-QUD appears to be something like ‘I killed my brother, but unwillingly’. In this case we are either dealing with a focus domain that does not consist of a syntactic constituent, or with two separate focus domains placed in succession. The question of the possible structures of Greek focus domains is an interesting one, but the answer does not directly bear upon the current discussion.

QUD. ‘Who am I and what am I doing here?’

QUD 1. ‘Who am I?’

Introduction: (none)

Answer: the son of Gordias son of Midas

QUD 2. ‘What is my name?’

Introduction: ὀνομάζομαι *onomázomai* ‘I am named’

Answer: Adrastus

QUD 3. ‘Whom have I killed?’

Introduction: φονεύσας *phoneúsas* ‘having killed’

Answer: my brother

This passage thus illustrates three strategies of QUD transition: zero introduction (QUD 1), introduction by a single-verb PVU (QUD 2), and introduction by a participle (QUD 3).<sup>3</sup> To continue the inventory, consider next a lengthier and more complex passage from Xenophon’s *Cyropaedia* (1.1.6-1.2.2). The context of this passage is the following. Xenophon opens his work by describing the difficulty of successfully ruling over people, especially in the case of absolute monarchs (1.1.1-1.1.2); he then introduces Cyrus as a famous counterexample to this generalization (1.1.3-1.1.5). This contrast establishes the overarching QUD at this point of the text, namely: ‘Why was Cyrus so successful?’ This QUD is not explicitly stated, but the contrast between the opening generalization and the description of Cyrus’s success as a ruler is obviously intended as a way of raising it in the reader’s mind.

To answer this QUD, Xenophon proceeds to break it down into sub-QUDs, which he lists in an introductory paragraph, 1.1.6, as an explicit plan of attack. This paragraph briefly describes the three questions to be discussed in the following section of the text: namely, in the words of the Loeb translation, ‘who he was in his origin, what natural endowments he possessed, and what sort of

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<sup>3</sup>It appears likely to me that the discourse functions of clause-initial participles in Greek largely overlap with those of clause-initial finite verbs, and that the second and third strategies should really be regarded as the same. For the purposes of an initial investigation like this one, however, it seemed better to restrict the study to a single morphosyntactic class (finite verbs in main clauses); the next step should be to ascertain whether the conclusions reached here can be generalized further to other verbal forms such as participles and infinitives, as well as finite verbs in embedded clauses.

education he had enjoyed, that he so greatly excelled in governing men'. Having stated this plan, Xenophon then proceeds to address these questions one by one in that order, beginning in 1.2.1. (The last of the three questions, of course, actually requires a much longer discussion to answer—in fact most of the first book of the *Cyropaedia* is concerned with answering it. It is only the transition into this QUD that is of interest to us here.) The first QUD about Cyrus's lineage is further divided into two sub-QUDs, 'Who was his father?' and 'Who was his mother?'; the second QUD about his 'natural endowments' is likewise subdivided into 'What did he look like?' and 'What was his character?'.

(2) 1.1.6 ἡμεῖς μὲν δὴ ὡς ἄξιον ὄντα θαυμάζεσθαι τοῦτον τὸν ἄνδρα ἐσκεψάμεθα τίς ποτ' ὦν γενεὰν καὶ ποῖαν τινὰ φύσιν ἔχων καὶ ποῖα τινὶ παιδευθεὶς παιδεία τοσοῦτον διήνεγκεν εἰς τὸ ἄρχειν ἀνθρώπων. ὅσα οὖν καὶ ἐπυθόμεθα καὶ ἠσθηῆσθαι δοκοῦμεν περὶ αὐτοῦ, ταῦτα πειρασόμεθα διηγήσασθαι.

1.2.1 {{πατὴρ δὲ ὁ Κῦρος λέγεται γενέσθαι Καμβύσου Περσῶν βασιλέως· {ὁ δὲ Καμβύσης οὗτος τοῦ Περσειδῶν γένους ἦν· {οἱ δὲ Περσεῖδαι ἀπὸ Περσέως κλήζονται·}} {μητὴρ δὲ ὁμολογεῖται Μανδάνης γενέσθαι· {ἡ δὲ Μανδάνη αὕτη Ἀστυάγους ἦν θυγάτηρ τοῦ Μήδων γενομένου βασιλέως·}} {φῦναι δὲ ὁ Κῦρος λέγεται καὶ ἄδεται ἔτι καὶ νῦν ὑπὸ τῶν βαρβάρων {εἶδος μὲν κάλλιστος,} {ψυχὴν δὲ φιλανθρωπότατος καὶ φιλομαθέστατος καὶ φιλοτιμώτατος, ὥστε πάντα μὲν πόνον ἀνατλήναι, πάντα δὲ κίνδυνον ὑπομῆναι τοῦ ἐπαινεῖσθαι ἕνεκα.}}

1.2.2 φύσιν μὲν δὴ τῆς μορφῆς καὶ τῆς ψυχῆς τοιαύτην ἔχων διαμνημονεύεται· {ἐπαιδευθὴ γε μὴν ἐν Περσῶν νόμοις· οὗτοι δὲ δοκοῦσιν οἱ νόμοι ἄρχεσθαι τοῦ κοινοῦ ἀγαθοῦ ἐπιμελούμενοι οὐκ ἔνθενπερ ἐν ταῖς πλείσταις πόλεσιν ἄρχονται. ...}}

1.1.6 hēmeîs mèn dè hōs áksion ónta thaumázesthai toúton tôn ándra eskepsámetha tíς pot' ὦν geneàν kaì poían tinà phúsin ékhōn kaì poíai tini paideutheîs paideíai tosoúton diēnegken eis tò árkhain anthrṓpōn. hōsa oún kaì eputhómetha kaì eîsthêsthai dokoumen perì autoû, taúta peirasómetha diēgêsasthai.

1.2.1 {{patròs mèn dè ho Kûros légetai genésthai Kambúsou Persōn basiléōs: {ho dè Kambúsēs hoútos toû Perseidōn génous ên: {hoi dè Perseídai apò Perséōs kléizontai:}} {mētròs dè homologeítai Mandánēs genésthai: {hē dè Mandánē haútē Astuágous ên thugátēr toû Médōn genoménou basiléōs.}} {phûnai dè ho Kûros légetai kaì hâidetai éti kaì nûn hupò tôn barbárōn {eîdos mèn kállistos,} {psukhèn dè

philanthrōpótatos kai philomathéstatos kai philotimótatos, hōste pánta mèn pónon anatlênai, pánta dè kíndunon hupomeînai toû epaineísthai hénéka.}

1.2.2 phúsin mèn dè tês morphês kai tês psukhês toiaútēn ékhōn diamnēmoneúetai:} {epaideúthē ge mèn en Persōn nómois: hoûtoi dè dokoûsin hoi nómoi árkhesthai toû koinoû agathoû epimeloúmenoi ouk énthenper en taís pleístais pólesin árkhontai. ...}

1.1.6 Believing this man to be deserving of all admiration, we have therefore investigated who he was in his origin, what natural endowments he possessed, and what sort of education he had enjoyed, that he so greatly excelled in governing men. Accordingly, what we have found out or think we know concerning him we shall now endeavour to present.

1.2.1 {{The father of Cyrus is said to have been Cambyses, king of the Persians: {this Cambyses belonged to the stock of the Persidae, and {the Persidae derive their name from Perseus.}}} {His mother, it is generally agreed, was Mandane; {this Mandane was the daughter of Astyages, sometime king of the Medes.}}} {He was of a nature, as the barbarians recount even to this day in story and in song, {in person most handsome,} {and in character most generous of heart, most devoted to learning, and most ambitious, so that he endured all sorts of labour and faced all sorts of danger for the sake of praise.}}

1.2.2. The natural endowments, physical and spiritual, that he is reputed to have had were, then, of such a kind.} {He was educated in conformity with the laws of the Persians; and these laws appear in their care for the common weal not to start from the same point as they do in most states. ...}

Let us again consider in turn how each QUD transition is marked. The first QUD about Cyrus's lineage is not formally introduced in itself, but each of the two sub-QUDs it contains, about his father and his mother, is introduced by a sentence-initial noun: πατρός *patrós* 'of a father', μητρός *mētrós* 'of a mother'. Each of these sub-QUDs leads into one or more further sub-QUDs, introduced by initial noun phrases, intended to provide more information about his father Cambyses and his mother Mandane in turn. The second main QUD, about his 'nature' or 'natural endowments' (φύσις *phúsis*) is introduced by the sentence-initial infinitive φῦναι *phûnai*, here meaning 'to be of some nature'; this QUD is also divided into two sub-QUDs, about Cyrus's appearance and personality, each introduced by a noun,

εἶδος *eîdos* ‘appearance’ and ψυχὴν *psukhên* ‘personality’. A sentence recapping this second QUD and its answer is then given as a conclusion, introduced by the sentence-initial NP φύσιν τῆς μορφῆς καὶ τῆς ψυχῆς *phúsin tês morphês kai tês psukhês* ‘the nature of his bodily form and personality’, before the transition to the third QUD. This third and final QUD, about Cyrus’s education, is introduced by a PVU consisting of the bare verb ἐπαιδεύθη *epaideúthē* ‘he was educated’.<sup>4</sup>

The QUD structure of 1.2.1-1.2.2 can be schematized as follows:

QUD. ‘Why was Cyrus so unusually successful as a ruler?’

QUD 1. ‘What was Cyrus’s origin?’

QUD 1.1. ‘Of what father was he born?’

Introduction: πατρός *patrós* ‘of a father’

Answer: Cambyses

QUD 1.1.1 ‘Who was Cambyses?’

Introduction: ὁ δὲ Καμβύσης *ho dè Kambúsēs* ‘Cambyses’

Answer: One of the Perseidae

QUD 1.1.1.1 ‘Who are the Perseidae?’

Introduction: οἱ δὲ Περσεῖδαι *hoi dè Perseîdai* ‘The Perseidae’

Answer: Descendants of Perseus

QUD 1.2. ‘Of what mother was he born?’

Introduction: μητρός *mētrós* ‘of a mother’

Answer: Mandane

QUD 1.2.1 ‘Who was Mandane?’

Introduction: ἡ δὲ Μανδάνη *hē dè Mandánē* ‘Mandane’

Answer: The daughter of Astyages

QUD 2. ‘What was Cyrus’s nature?’

Introduction: φῦναι *phúnai* ‘[he is said] to have been of a nature’

QUD 2.1. ‘What did he look like?’

<sup>4</sup>Although particle usage is not a principal concern of this thesis, it is worth pointing out that discourse particles also play a part in structuring the discourse in this example. The bipartite structure of QUDs 1 and 2 is explicitly marked with the particle coordination μέν ... δέ *mén ... dé*. A different particle coordination, μέν ... γε μήν *mén ... ge mēn*, marks the transition from the conclusion of QUD 2 to the beginning of QUD 3; cf. Denniston (1954:347) on the ‘progressive’ use of γε μήν *ge mēn*. The functions of such particles in structuring Greek discourse are still only partially understood; some recent work in this area is collected in Rijksbaron (1997).

Introduction: εἶδος *eîdos* ‘in regard to appearance’

Answer: most handsome

QUD 2.2. ‘What was his personality?’

Introduction: ψυχὴν *psukhēn* ‘in regard to personality’

Answer: he was generous, devoted to learning, and ambitious

Conclusion:

Introduction: φύσιν *phúsin* ‘nature’

Answer: of such a kind [as just stated]

QUD 3. ‘How was Cyrus educated?’

Introduction: ἐπαιδεύθη *epaideúthē* ‘he was educated’

Answer: according to the Persian customs, which are... (etc.)

This passage illustrates two types of locus where QUD transitions are formally marked: at the beginning and end of QUDs. These types of transition marking may be called ‘introduction’ and ‘conclusion’ respectively. Conclusions are formally more complex than introductions, as they consist of a recap of the discussion of the QUD and thus contain their own introduction and summary answer. They are also less frequent (as shown by the Herodotus passage in (1), where QUD conclusions are not marked): most QUDs are not marked with a conclusion, but are marked with an introduction.

(2) also illustrates several formal means of marking QUD introductions: by finite verb (QUD 3), infinitive (QUD 2), and noun (QUDs 1.1, 1.2, 2.1, 2.2, and the conclusion of 2). These seem to serve similar discourse functions, and in fact the same QUD can be introduced by either nominal or verbal means, as in QUD 2 above, introduced first with the infinitive φῦναι *phûnai* ‘be of a nature’ and later (in its conclusion) with the cognate noun φύσιν *phúsin* ‘nature’. My analysis in this chapter will focus on the finite-verb introduction of QUDs; I discuss nominally marked QUD transitions more briefly in section 4 below.

My main claim in this chapter is that the function of PVUs in Greek prose is as follows:

- (3) Preposed verb-initial units in Greek prose serve to mark transitions into a new or resumed Question Under Discussion.

To state this claim in a different way, in terms of the criteria that license the use of verbal QUD transition, I claim that such transition is licensed in Greek as follows:

- (4) The introduction of a Question Under Discussion by a preposed verb-initial unit implies that the QUD being introduced is expressible by an interrogative clause containing the verb in question as its main verb. It is therefore licensed when the introduction of a QUD of such a form is a possible discourse move.

The notion of a ‘possible discourse move’ is of course not definable with absolute precision, communication being an activity subject to human free will, but its explanatory power is nevertheless high. This is because introduced QUDs tend to fall into a small number of describable types, enabling an adequate ostensive definition; while on the other hand, in the case of many or most non-preposed verbs, a plausible QUD of the necessary form does not suggest itself, so that the reason for the lack of licensing is clear. In the following section of this chapter, I illustrate four types of introduced QUDs which are frequently marked by PVUs. I do not claim completeness for this inventory—other types can no doubt be found—but these are the principal ones I have identified.

## **2 A taxonomy of verbal QUD transitions in Greek**

### **2.1 Movement between superquestion and subquestion**

Examples (1)-(2) above illustrate movement up and down the QUD hierarchy: either from a general question to a set of more specific questions that it implies, or from a specific question to the more general question that it is part of. The former type—the move from a general QUD into a series of more specific sub-QUDs, whose answers together comprise a complete or partial answer to the general QUD—tends to be explicitly marked by an ‘introduction’, whether verbal or otherwise; the latter can be marked by a ‘conclusion’, but often is not. A more concise example of the first kind is (5), repeated from (22) in Chapter 3. The context is this: Xenophon is arguing that humans are especially difficult to rule in comparison with herd animals, which are docile and obey their herders. The QUD of this and the following few sentences is thus ‘What is the behavior of herds?’ In this sentence Xenophon gives a partial answer to this QUD by again dividing it into three sub-QUDs, each posed and answered in one of three coordinated verb-initial clauses:

- (5) [‘Herders, horse-rearers and the like can be considered rulers of their



herds, just as human rulers are of their subjects. Well, all these herds obey their rulers much more willingly than humans do.']

πορεύονται τε γὰρ αἱ ἀγέλαι | ἧ ἄν αὐτὰς εὐθύνωσιν οἱ νομεῖς, | νέμονται τε χωρία | ἐφ' ὅποια ἄν αὐτὰς ἐπάγωσιν, | ἀπέχονται τε | ὧν ἄν αὐτὰς ἀπείργωσι (Xen. Cyr. 1.1.2)

*poreúontai te gâr hai agélai | hêi ân autàs euthúnōsin*  
 go PART PART the herds where PART them lead  
*hoi nomeîs, | némontai te khōría | eph' hopoîa ân autàs*  
 the herders graze PART lands to which PART them  
*epágōsin, | apékhontai te | hōn ân autàs apeírgōsi*  
 they lead keep out PART of which PART them they exclude

'For the herds go wherever the herders direct them, they graze whatever lands they lead them to, and they keep out of those places from which they exclude them'

The three sub-QUDs can be stated as follows: 1. 'Where do herds go?', introduced by the PVU *πορεύονται αἱ ἀγέλαι poreúontai hai agélai* 'the herds go'; 2. 'What places do they graze in?', introduced by the PVU *νέμονται χωρία némontai khōría* 'they graze (in) places'; 3. 'What places do they keep out of?', introduced by the single-verb PVU *ἀπέχονται apékhontai* 'they keep out'. The answer to each sub-QUD is given in the focus domain of the clause. Taken together, these comprise an answer to the superordinate QUD, namely 'Herds behave as their herders direct them'.

The opposite type of discourse move is transition from a subquestion to its superquestion. This type, which appears to be the least common in my taxonomy, differs from the others in that the introduced QUD is not new in the discourse: rather, it is one that is or has been active, but has not yet been answered. However, the discourse has reached a point where this QUD can be answered, so it is explicitly reintroduced and provided with its answer. We saw this at the end of QUD 2 in example (2), with the nominal introduction *φύσιν phúsin* 'nature'. There appear to be no verbal examples of this type in my corpus proper; an example from Xenophon's *Anabasis* is given below as (6). The context is this: in *Anabasis* 3.1.4 we have been told that 'there was a man in the army named Xenophon, an Athenian, who was accompanying the expedition despite being neither general nor captain nor private'. This immediately raises the QUD 'Why was Xenophon accompanying the expedition?', and this is answered in detail in the following

sections, 3.1.4-3.1.9, describing the invitation Xenophon received, his consultation of the oracle, and, most importantly for his decision, the false reports of the expedition's purpose by which he was misled. We are now in a position to answer this QUD, so it is reintroduced with the verb ἐστρατεύετο *estrateúeto* 'he was accompanying the expedition' and given a summary answer in the focus domain οὕτως ἐξαπατηθεῖς *hoûtōs eksapatētheís* 'thus deceived':

(6) ἐστρατεύετο δὲ | οὕτως ἐξαπατηθεῖς (Xen. *Anab.* 3.1.10)

<i>estrateúeto</i>	δὲ		<i>hoûtōs</i>	<i>eksapatētheís</i>
he was accompanying the expedition	PART		thus	deceived
'He was accompanying the expedition thus deceived'				

Although the QUD in this type of example is not new, this is nevertheless a type of QUD transition, since the narrative 'pops' back up from the discussion of the various sub-QUDs about the invitation, oracle, and false reports, to reconsider the main QUD which these were introduced in order to answer (compare the schematized structure of QUD 2 in example (2)).

## 2.2 Frame completion

The next and most frequent type of QUD transition is what I will call 'frame completion'. In this type of discourse move, an assertion already made calls forth a cognitive frame of world knowledge which is in some way incomplete, and this incompleteness prevents the satisfactory answering of an active QUD. The introduced QUD then aims to fill in this frame with the information that is missing. In this sense, the introduction of such a QUD can be seen as a natural discourse move.

The basic idea behind the concept of cognitive frames (and closely related concepts such as 'scripts' [Schank and Abelson 1977], 'schemata' [Rumelhart 1975], and 'idealized cognitive models' [Lakoff 1987]) is that humans schematize the world on the basis of recurring experiences and the patterns in which these bundle together: 'people have in memory an inventory of schemata for structuring, classifying and interpreting experiences' (Fillmore 1976:25). In linguistics, frame semantics is most closely associated with the work of Charles Fillmore, who defines cognitive frames as follows:

By the term 'frame' I have in mind any system of concepts related in such a way that to understand any one of them you have to understand

the whole structure in which it fits; when one of the things in such a structure is introduced into a text, or into a conversation, all the others are automatically made available. (Fillmore 1982:111)

To use a common example, the ‘Commercial Transaction Frame’ contains, at a minimum, the elements of a buyer, a seller, merchandise, and a price, none of which can be understood without reference to the overall frame. Mentioning any of these elements in a discourse is sufficient to invoke the entire frame in the hearer’s mind. In a given discourse situation, however, not all elements of a frame need to be ‘filled in’: for example, the utterance *Mary sold her car* presupposes the existence of a buyer and a price, but whether or not these will be specifically identified depends on the communicative goals of the interlocutors—that is, in our terms, on the QUD structure.

In Greek, frame-completing QUD transitions occur in contexts in which some element of an evoked frame needs to be filled in so that an active QUD can be satisfactorily answered. The PVU then functions to introduce a subquestion concerning that particular element, which is provided with an answer in the focus domain. For example, the active QUD in (7) is ‘How did the king of the Arabians provide water for Cambyses’ army to enable it to cross the desert?’ Herodotus tells us that one possible answer is that he made use of a certain river:

(7) [‘There is a great river in Arabia called Corys.’]

ἐκδιδοῖ δὲ οὗτος | ἐς τὴν Ἐρυθρὴν καλεομένην θάλασσαν (Hdt. 3.9)

*ekdidoî dè hoûtos | es tèn Eruthrèn kaleoménēn thálassan*  
flows PART this to the Red called sea

‘This flows into the sea called Red.’

The QUD introduced by ἐκδιδοῖ οὗτος *ekdidoî hoûtos* ‘this flows’ is ‘Where does this river flow?’ The frame of world knowledge which we use to think about rivers tells us, among other things, that rivers flow into seas, but we have not been told where the Corys flows, so the frame is incomplete; and its incompleteness prevents an answer to the larger QUD, because we need to know whether the river’s location could make it useful for the purpose of providing water for Cambyses’ army. The necessity of introducing this QUD thus accounts for the appearance of the PVU ἐκδιδοῖ οὗτος *ekdidoî hoûtos* ‘this flows’.

Similar are examples (8)-(9) below, describing Pausanias’ correspondence with the Persian king. The ‘letter’ frame includes as one of its elements the fact that

letters contain written messages, so once a letter has been mentioned, as immediately before (8), a natural, and in this context necessary, QUD is ‘What was written in it?’. This accounts for the initial placements of the bare-verb PVUs *ἐνεγέγραπτο* *enegégrapto* ‘had been written’ and *ἀντενεγέγραπτο* *antenegégrapto* ‘had been written in reply’:

- (8) [‘Pausanias sent a letter to the Persian king.’]

ἐνεγέγραπτο δὲ | τάδε ἐν αὐτῇ (Thuc. 1.128.7)

*enegégrapto* δὲ | *táde* *en autêi*  
 was written PART the following in it  
 ‘There was written in it the following.’

- (9) [‘The king sent a letter in reply.’]

ἀντενεγέγραπτο δὲ | τάδε (Thuc. 1.129.2)

*antenegégrapto* δὲ | *táde*  
 was written in reply PART the following  
 ‘It was written in reply as follows.’

The introduced QUD in example (10) below is a natural discourse move in light of the frame of world knowledge in which people who have died are buried somewhere. The QUD ‘Where was he buried?’ is introduced by the bare-verb PVU *ἐτάφη* *etáphē* ‘(he) was buried’:

- (10) [‘Amasis died after reigning for forty-four years.’]

ἀποθανὼν δὲ καὶ ταριζευθεὶς | ἐτάφη | ἐν τῇσι ταφῆσι ἐν τῷ ἱερῷ (Hdt. 3.10)

*apothanōn* δὲ καὶ *tarizeutheis* | *etáphē* | *en*  
 having died PART and having been embalmed he was buried in  
*têisi taphêisi en tōi hierōi*  
 the burial place in the temple

‘Being dead and embalmed he was buried in the burial-place in the temple.’

Causation is an important part of many conceptual frames, so a common subtype of frame completion is the introduction of a QUD that asks for the cause of an assertion just made, as in (11)-(12):

- (11) πέμψας Καμβύσης ἐς Αἴγυπτον κήρυκα αἶτεε Ἄμασιν θυγατέρα, | αἶτεε δε | ἐκ βουλῆς ἀνδρὸς Αἰγυπτίου (Hdt. 3.1)

*pémpsas Kambúsēs es Aígypton kéruka aítee Ámasin thugatéra,*  
 having sent Cambyses to Egypt herald he asks A. daughter  
 | *aítee de | ek boulês andròs Aiguptíou*  
 he asks PART of counsel of a man Egyptian

‘Cambyses sent a herald to Egypt asking Amasis for his daughter; **he asked this by the counsel of a certain Egyptian**’

Here the second, clause-initial αἶτεε *aítee* ‘asks’ is a bare-verb PVU that serves to pose the explanatory QUD ‘Why did he ask this?’. This QUD is then given its answer in the following focused PP, ἐκ βουλῆς ἀνδρὸς Αἰγυπτίου *ek boulês andròs Aiguptíou* ‘by the counsel of an Egyptian man’. The repetition of the same verb form in successive clauses (particularly common in Herodotus), as here with αἶτεε *aítee*, is often ascribable to this type of explanatory move.<sup>5</sup>

Another Herodotean example, this time without lexical repetition, is (12):

- (12) [‘Cambyses next made Psammenitus’ son march past him with two thousand Egyptians of similar age, all with ropes bound round their necks and bits in their mouths.’]

ἤγοντο δὲ | ποιῆν τίσοντες Μυτιληναίων τοῖσι ἐν Μέμφι ἀπολομένοισι σὺν τῇ νηί (Hdt. 3.14)

*égonto dè | poìhèn tísonτες Mutilēnaíōn toísi en*  
 they were led PART penalty paying of the Mytilenaeans the at  
*Mémphi apoloménoisi sùn têi nēi*  
 M. having perished with the ship

‘These were led forth to make atonement for those Mytilenaeans who had perished with their ship at Memphis.’

The single-verb PVU ἤγοντο *égonto* ‘were led’ here introduces an explanatory QUD which is natural in the context of the preceding clause, namely ‘Why were they led forth like this?’

<sup>5</sup>In this kind of repetition, the usual pattern is that the first token of the verb is in focus, while the second token is, or is part of, a PVU; this is the case in (11), where the clause-initial (after a participial phrase) position of the first αἶτεε *aítee* is an example of initial-verb focus (on which see Chapter 3, section 4).

Example (13) is of a type common in historiographers. The mention of a military force, here ‘seventy-five ships and two thousand hoplites’, invokes a frame of world knowledge in which such forces are commanded by leaders, and the identification of such leaders is an important concern of historiography. The QUD ‘Who commanded this force?’ is thus a natural and necessary one. This type of discourse move accounts for the frequent initial position of verbs like στρατηγέω *stratēgēō* ‘be in command’, as here:<sup>6</sup>

(13) [‘The Corinthians set out for Epidamnus with seventy-five ships and two thousand hoplites.’]

ἐστρατήγει δὲ | τῶν μὲν νεῶν | Ἀριστεύς ὁ Πελλίχου καὶ Καλλικράτης ὁ Καλλίου  
καὶ Τιμάνωρ ὁ Τιμάνθους, | τοῦ δὲ πεζοῦ | Ἀρχέτιμος τε ὁ Εὐρυτίμου καὶ Ἰσαρχίδα  
ὁ Ἰσάρχου (Thuc. 1.29.2)

*estratēgei*    *dè*    |    *tôn mèn neôn*    |    *Aristeüs ho Pellíkhou kai*  
commanded PART    the PART ships    A.    the son of P. and  
*Kallikrátēs ho Kallíou kai Timánōr ho Timánthous,* | *toû dè*  
K.    the son of K. and T.    the son of T.    the PART  
*pezou*    |    *Arkhétimos te ho Eurutímou kai Isarkhídas ho*  
infantry    A.    PART the son of E.    and I.    the  
*Isárkhou*  
son of I.

‘Commanding the ships were Aristeus the son of Pellikhos and Kallikrates the son of Kallias and Timanor the son of Timanthes, and the infantry, Arkhetimos the son of Eurutimos and Isarkhidas the son of Isarkhos.’

In (14), the mention of ‘the Curse of Athena of the Brazen House’ calls forth a frame of world knowledge in which curses are incurred due to particular actions, raising the QUD ‘How did the curse come about?’. This QUD is introduced with the bare-verb PVU ἐγένετο *egéneto* ‘(it) came about’:

(14) [‘The Athenians bade them drive out the curse of Athena of the Brazen House.’]

ἐγένετο δὲ | τοιόνδε (Thuc. 1.128.2)

<sup>6</sup>In this example, the part of the sentence following the PVU is further subdivided in two, with nominal topics ‘the ships’ and ‘the infantry’ each followed by its own focus domain; for a similar example, cf. (18) in Ch. 2.

*egéneto*      *dè*      |      *toiónde*  
 came about    PART      the following  
 ‘It [the curse] came about as follows.’

The bare-verb PVU εἶχον *eíkhon* ‘held, possessed’ in (15) is accounted for by the necessity of answering the sub-QUD ‘Who held Byzantium?’, evoked by the reference to the ‘capture’ of the city, since world knowledge includes a frame in which cities are captured from their previous rulers:

(15) [‘Pausanias had captured Byzantium.’]

εἶχον δὲ | Μηῆδοι αὐτό (Thuc. 1.128.5)

*eíkhon*      *dè*      |      *Mêdoi*      *autó*  
 possessed    PART      Persians    it  
 ‘It was in the possession of the Persians.’

In (16), the bare-verb PVU βούλομαι *boúlomai* ‘I want’ introduces the final clause of a letter from Themistocles to the Persian king Artaxerxes. Themistocles has not yet stated the purpose of the letter, but has explained why he thinks Artaxerxes owes him a favor. A natural question in Artaxerxes’ mind at this point (given a highly general frame in which human actions have motivations) is therefore ‘Well, what do you want?’ This is the QUD introduced by the PVU and answered in the focus domain:

(16) βούλομαι δ’ | ἐνιαυτὸν ἐπισχῶν | αὐτός σοι περὶ ὧν ἤκω δηλῶσαι (Thuc. 1.137.4)

*boúlomai* *d’*      |      *eniautòn* *episkhōn*      |      *autós*      *soi*      *perì*  
 I want    PART      year      having waited      myself    to you    about  
*hōn*      *hékō*           *dēlōsai*  
 what    I have come    to explain  
 ‘My desire is to wait a year and then in person explain to you that for which I have come.’

In (17), the active QUD ‘What did Pausanias do when he was pursued by the Spartans?’ has just been answered with ‘He took refuge in the temple of Athena’. But this answer may raise (for a reader unfamiliar with Spartan geography) the sub-QUD ‘Where was the temple?’, which Thucydides now introduces with the bare-verb PVU ἦν *ên* ‘was’, and then answers in the focus domain ἐγγὺς *eggûs* ‘nearby’:

(17) [‘Pausanias being pursued took refuge in the temple of Athena.’]

ἦν δ’ | ἐγγὺς τὸ τέμενος (Thuc. 1.134.1)

*ên d’ | eggùs tò témenos*  
was PART nearby the precinct  
‘The sacred precinct was nearby.’

In (18), the active QUD is the maximally general one in the context of Thucydides’ work, namely ‘What is the history of the Peloponnesian War?’

(18) [‘The Peloponnesian War was the most protracted and disastrous war in Greek history.’]

ἤρξαντο δὲ αὐτοῦ | Ἀθηναῖοι καὶ Πελοποννήσιοι λύσαντες τὰς τριακοντούτεις σπονδάς (Thuc. 1.23.4)

*êrksanto dè autoû | Athēnaîoi kaì Peloponnēσιοι lúsantes*  
began PART it Athenians and Peloponnesians having broken  
*tàs triakontóuteis spondás*  
the thirty years’ truce  
‘The Athenians and the Peloponnesians started it by breaking the thirty years’ truce.’

The assertion paraphrased in brackets has evoked the frame of warfare, which includes the assumption that wars break out because of specific actions on the part of one or both sides; but this information has not yet been provided, and the general QUD cannot be satisfactorily answered in its absence. The PVU ἤρξαντο δὲ αὐτοῦ Ἀθηναῖοι καὶ Πελοποννήσιοι *êrksanto dè autoû Athēnaîoi kaì Peloponnēσιοι* ‘The Athenians and the Peloponnesians started it’ thus introduces the necessary additional QUD ‘How did the Athenians and Peloponnesians start this war?’, which is answered by the participial phrase that follows.<sup>7</sup>

<sup>7</sup>It is equally possible on the face of it to analyze this sentence as beginning with a shorter PVU ἤρξαντο δὲ αὐτοῦ *êrksanto dè autoû*, followed by a focus domain beginning with Ἀθηναῖοι καὶ Πελοποννήσιοι *Athēnaîoi kaì Peloponnēσιοι*; the QUD would then be ‘Who started the war?’ and the answer ‘The Athenians and Peloponnesians, breaking the thirty years’ truce’. The lack of a diagnostic clitic or other such marker means that both analyses are superficially possible as we cannot know for certain where the intonational-phrase boundary is. But, as D. J. Mastronarde reminds me, by this point in Thucydides’ text the reader knows who started the war, so this is no longer an open question.



Similar is (19), whose context is the description of the quarrels between allies of the Athenians and the Spartans, which culminated in drawing them into direct conflict. The active QUD in this context is ‘What happened to draw the Athenians and the Spartans into war with each other?’

(19) [‘There was a battle between the Corinthians and the Corcyraeans.’]

καί ἐνίκησαν | οἱ Κερκυραῖοι παρὰ πολλοῦ (Thuc. 1.29.5)

*kaí eníkēsan | hoi Kerkuraîoi parà polloû*  
and won the Corcyraeans by much  
‘And the Corcyraeans won, far and away.’

The assertion that there was a battle has evoked a frame in which battles have winners, and knowing the winner of this one is important for answering the active QUD. Therefore ἐνίκησαν *eníkēsan* ‘won’ introduces the QUD needed to complete the frame: ‘Who won this battle?’

In (20) the active QUD (itself originally introduced to answer QUD 3 from example (2), ‘How was Cyrus educated’) is ‘How are Persian youths trained?’ We have been told that some of them serve in the king’s bodyguard:

(20) [‘Whenever the king goes hunting, he takes with him half of his bodyguard.’]

ποιεῖ δὲ τοῦτο | πολλάκις τοῦ μηνός. (Xen. Cyr. 1.2.9)

*poiēi dē toûto | pollákis toû mēnós.*  
he does PART this many times the month  
‘And he does this many times a month.’

The continuation of this passage explains how hunting constitutes effective training for the youths because of its similarity to warfare. But the frame of ‘habitual activities’ evoked by ‘whenever the king goes hunting’ is incomplete in an important way since we have not been told the frequency of the activity, which is relevant for evaluating its effectiveness as a training method and thus for answering the active QUD. The QUD ‘How often does he do this?’, introduced by the PVU ποιεῖ τοῦτο *poiēi toûto* ‘he does this’, is intended to provide this information.

Another common type of frame completion is metalinguistic: it consists of giving the name of an entity just introduced. In other words, when a new referent

has just been introduced into the discourse, a natural QUD is ‘What is he/she/it called?’. This type of move explains the frequent clause-initial position of verbs like ὀνομάζομαι *onomázomai* ‘be named’, as in (21), where it is part of a PVU with the subject NP ὁ χώρος οὗτος *ho khôros hoûtos* ‘this place’:

- (21) [‘The expedition came to the Oasis, where Samians live, and which is seven days’ march across the desert from Thebes.’]

ὀνομάζεται δὲ ὁ χώρος οὗτος | κατὰ Ἑλλήνων γλῶσσαν Μακάρων νῆσος (Hdt. 3.26)

*onomázetai dè ho khôros hoûtos | katà Hellênōn glôssan*  
 is named PART the place this by of Greeks language  
*Makárōn nêsos*  
 of the Blessed island

‘This place is called in the Greek language the Island of the Blessed.’

### 2.3 Identification

Somewhat similar in conceptual structure to the last example in the preceding section are instances of QUD introduction which can be described as ‘identification’. This type of QUD introduction occurs under the following circumstances: in the preceding discourse, a concept has been described without being precisely identified. The new QUD is then intended to inquire into the identity of this concept. This type, as might be expected, is not uncommon in philosophical writers such Plato, as in (22) below. Here, Plato’s speaker introduces a concept first by describing it, ‘the most consummate form of injustice’, rather than by using its name, ‘tyranny’. This rhetorical move naturally raises the QUD ‘What is the most consummate form of injustice?’, which is raised and answered in the following sentence. Again the PVU is of the form ‘verb + subject’, ἔστι τοῦτο *ésti toûto* ‘this is’:

- (22) [‘And the easiest way of all to understand this matter will be to turn to the most consummate form of injustice, which makes the man who has done the wrong most happy and those who are wronged and who would not themselves willingly do wrong most miserable.’]

ἔστι δὲ τοῦτο | τυραννίς (Pl. *Rep.* 344A)

*ésti dè toûto | turannís*  
 is PART this tyranny  
 ‘And this is tyranny.’

An example of the same type is (23), where Socrates first refers to ‘what I am able (to pay)’ without specifying what this is, thus implying the QUD ‘What am I able to pay?’, which he poses and answers in the next sentence:

(23) [‘You are mistaken in saying I don’t pay for what I learn from others. I do pay what I am able.’]

*δύναμαι δὲ | ἐπαινεῖν μόνον* (Pl. *Rep.* 338B)

*dúnamai dè | epaineîn mónon*  
 I can PART praise only  
 ‘And I am able only to give praise.’

## 2.4 Metapragmatic justification

The final type of discourse move I will discuss is a metapragmatic one, which consists of providing a justification for an assertion already made. Phrased generally, it introduces a QUD of the form ‘How do we know?’. This type of introduced QUD is the explanation for the frequent initial position of epistemic verbs such as τεκμηριῶ *tekmēriōō* ‘give evidence’, δηλώω *dēlōō* ‘make clear’, and others of similar meaning. As might be expected, this move is frequent in historiographers, especially Thucydides:

(24) *πρὸ γὰρ τῶν Τρωικῶν οὐδὲν φαίνεται πρότερον κοινῇ ἐργασαμένη ἡ Ἑλλάς· δοκεῖ δέ μοι, οὐδὲ τοῦνομα τοῦτο ξύμπασά πω εἶχεν... τεκμηριοῖ δὲ μάλιστα | Ὅμηρος· πολλῶ γὰρ ὕστερον ἔτι καὶ τῶν Τρωικῶν γενόμενος οὐδαμοῦ τοὺς ξύμπαντας ὠνόμασεν* (Thuc. 1.3.2-3)

*prò gàr tōn Trōikōn oudèn phaínetai próteron koinēi*  
 before PART the Trojan War nothing appears earlier in common  
*ergasamēnē hē Hellás: dokeî dé moi, oudè*  
 to have accomplished the Greece seems PART to me not even  
*toúnoma toúto ksúmpasá pō eîkhen... tekmērioî dè málista |*  
 the name this as a whole yet it had witnesses PART most

*Hómēros: pollōi gàr hústeron éti kai tōn Trōikōn*  
 Homer much PART later yet even than the Trojan War  
*genómenos oudamoû toûs ksímpantas ōnómasen*  
 being born nowhere the all he named

‘Before the Trojan War, Hellas, as it appears, engaged in no enterprise in common. Indeed, it seems to me that as a whole it did not yet have this name, either ... **The best evidence of this is given by Homer**; for, though his time was much later even than the Trojan war, he nowhere uses this name of all’

(25) [‘Piracy was not disgraceful in those days, but even conferred glory.’]

δηλοῦσι δὲ | τῶν τε ἠπειρωτῶν τινὲς ἔτι καὶ νῦν, οἷς κόσμος καλῶς τοῦτο δρᾶν  
 (Thuc. I.5.2)

*dēloúsi dè | tōn te ēpeirōtōn tinēs éti kai nūn,*  
 show PART of the PART mainlanders some yet even now  
*hoís kósmos kalōs toúto drân*  
 to whom honor well this to do

‘This is shown by the practice, even at the present day, of some of the peoples on the mainland, who still hold it an honor to be successful in this business’

In (24), τεκμηριοῖ *tekmērioi* ‘gives evidence’ introduces the QUD ‘What or who gives evidence for this assertion?’ In (25), δηλοῦσι *dēloúsi* ‘make clear’ introduces a similar QUD, ‘What or who shows this to be true?’

To conclude this section with a comment about classification. One might argue that ‘frame completion’ is a broad enough concept that it could cover the examples discussed in the last two subsections: identifications and assertion justifications, after all, are generally provided when an assertion might otherwise be felt to be incomplete in some way. But the difference in the case of assertion justifications is that the ‘frame’ being completed is a metapragmatic one: a QUD like ‘Why do I say this?’ is ‘above’ the level of the narrative in a way that a QUD like ‘Where does this river flow?’ is not. Similarly, providing a name for a concept already described (identification) is a meta-discursive move, in a sense which is not true of providing additional narrative information as the ordinary frame-completion examples do. For presentational purposes, it therefore seems clearest to distinguish these types, even though at a more a general level they can be seen as related and there will inevitably be cases whose classification is not obvious.

### 3 Verb placement in continuous QUDs

The main claim proposed in this chapter so far is that PVUs in Greek function to mark QUD transitions, i.e. to introduce a new QUD or to resume an old one. A prediction of the current account is thus that, whenever a QUD is continuous between two clauses, the use of a PVU in the second of the two should be disallowed.

It is of course methodologically difficult to draw generalizations about what structures are disallowed in a dead language, as we cannot have recourse to native-speaker intuitions. Nevertheless, given a large enough corpus we can be fairly confident that structures which fail ever to appear are likely to be ungrammatical, or at any rate highly infelicitous. This, I claim, is true in the current case. Especially instructive for our purposes are passages which consist of a dialogue in which a question is explicitly posed and then provided with an answer, since in such cases we can be fairly certain of the intended QUD structure. Consider example (26) from Herodotus:

- (26) Καμβύσης δὲ εἶπε... “ἐμοὶ δὲ τίς ἂν εἴη Περσέων ὁ ἐπανεστεῶς ἐπιβατεύων τοῦ Σμέρδεως οὐνόματος;” ὃ δὲ εἶπε “ἐγὼ μοι δοκέω συνιέναι τὸ γεγονὸς τοῦτο, ὃ βασιλεῦ· οἱ Μάγοι εἰσὶ τοι οἱ ἐπανεστεῶτες” (Hdt. 3.63)

*Kambúsēs dè eἶpe... “emoì dè tíς ἂν eἶē*  
 Cambyses PART said to me PART who PART would be  
*Perséōn ho epanesteōs epibateúōn toû Smérdeōs ounómatos?”*  
 of the Persians the rebelling usurping the of Smerdis name  
*hó dè eἶpe “egó moi dokéō suniénai tò gegonòs*  
 he PART said I to me seem to understand the having happened  
*toúto, ὃ basileû: hoi Mágoi eἰsí toi hoi epanesteōtes”*  
 this O king the Magians are PART the rebelling  
 Cambyses said... “Who can this Persian be who rebels against me and  
 usurps the name of Smerdis?” Prexaspes replied, “I think, sire, that I  
 understand what has been done here: it is the Magians who are the rebels”

In this exchange the QUD remains constant: ‘Who has rebelled against Cambyses?’<sup>8</sup> The answer, ‘the Magians’, is in focus. This enables us to account

<sup>8</sup>Prexaspes’ parenthetical comment “I think that I understand what has been done here” does not, of course, introduce a separate sub-QUD, but pragmatically sets up his answer to the current one.

for the structure of the clause *οἱ Μάγοι εἰσί τοι οἱ ἐπανεστεῶτες* *hoi Magoi eisi toi hoi epanesteōtes* ‘it is the Magians who are the rebels’. This clause does not contain a PVU, and by my model a PVU would in fact be specifically disallowed here: there is no QUD transition, so there is nothing to license the use of a PVU. If my account is correct, the following modified version of (26), in which the clause in question begins with a PVU, would be infelicitous:

- (27) Καμβύσης δὲ εἶπε... “ἐμοὶ δὲ τίς ἂν εἴη Περσέων ὁ ἐπανεστεῶς ἐπιβατεύων τοῦ Σμέρδεως οὐνόματος;” ὃ δὲ εἶπε “ἐγὼ μοι δοκέω συνιέναι τὸ γεγονός τοῦτο, ὃ βασιλεῦ· \*εἰσί τοι | οἱ Μάγοι οἱ ἐπανεστεῶτες” (Hdt. 3.63)

Kambúsēs dè eîpe... “emoî dè tíς ἂν εἰῆ Perséōn ho epanesteōs epibateúōn tou̅ Smérdeōs ounómatos?” hó dè eîpe “egó moi dokéō suniénai tò gegonòs tou̅to, ô basileû: \*eisi toi | hoi Magoi hoi epanesteōtes”

A similar question-and-answer sequence, again behaving as predicted, is (28). Artabanus is objecting to Xerxes’ proposed expedition against Greece. This dialogue again contains a single, constantly active QUD, raised by Xerxes: ‘What do you find fault with (the army, the navy, or both)?’ The answer ‘Neither’ is in focus:

- (28) “κότερά τοι ὁ πεζὸς μεμπτὸς κατὰ πλῆθος ἐστὶ καὶ τὸ Ἑλληνικὸν στρατεύμα φαίνεται πολλαπλήσιον ἔσεσθαι τοῦ ἡμετέρου, ἢ τὸ ναυτικὸν τὸ ἡμέτερον λείψεσθαι τοῦ ἐκείνων, ἢ καὶ συναμφότερα ταῦτα; (...)” ὃ δ’ ἀμείβετο λέγων “ὃ βασιλεῦ, οὔτε στρατὸν τοῦτον, ὅστις γε σύνεσιν ἔχει, μέμφοιτ’ ἂν οὔτε τῶν νεῶν τὸ πλῆθος” (Hdt. 7.48-49)

“kóterá toi ho pezòs memptòs katà plêthos estì kai  
whether PART the infantry at fault in terms of numbers is and  
tò Hellēnikòn stráteuma phaínetai pollaplésion ésesthai tou̅  
the Greek army appears many times more to be than the  
hēmetérou, è tò nautikòn tò hēméteron léipsesthai tou̅  
ours or the navy the ours will fall short of the  
ekéinōn, è kai sunamphótera taúta? (...)” hò d’ améibeto  
theirs or even both these he PART answered  
légōn “ô basileû, oúte stratòn tou̅ton, hóstis ge súnesin  
saying O king neither army this whoever PART judgment  
ékhei, mémphoit’ àn oúte tōn neōn tò plêthos”  
has would blame PART nor of the ships the number

[Xerxes said,] “Do you find fault with the numbers of my land army, and suppose that the Greek host will be many times greater than ours? Or think you that our navy will fall short of theirs? Or that the fault is in both? (...)” Artabanus answered, “O king, neither with this army nor with the number of your ships could any man of sound judgment find fault”

Since the QUD is constant, the model proposed here accounts for the lack of a PVU in the clause οὔτε στρατὸν τοῦτον, ὅστις γε σύνεσιν ἔχει, μέμφοιτ’ ἂν οὔτε τῶν νεῶν τὸ πλῆθος *oúte stratòn toúton, hóstis ge súnesin ékhei, mémphoit’ àn oúte tòn neôn tò plêthos* ‘neither with this army nor with the number of your ships could any man of sound judgment find fault’. A made-up variant of this clause with a PVU, \*μέμφοιτ’ ἂν ὅστις γε σύνεσιν ἔχει οὔτε στρατὸν τοῦτον | οὔτε τῶν νεῶν τὸ πλῆθος *mémphoit’ àn hóstis ge súnesin ékhei | oúte stratòn toúton oúte tòn neôn tò plêthos*, should be disallowed in this context because the PVU is not licensed by a QUD transition.

Although passages such as these, in which a QUD is presented explicitly as an interrogative clause, are quite rare in my texts (the above are the only two really clear examples I was able to find in a search of the entire corpus of Herodotus), the situation in which a stretch of discourse is governed by a single, continuous implicit QUD is a common one (for some further examples see section 6, below); the fact that PVUs are not found in such QUD-continuous passages constitutes strong confirmation of this chapter’s claim that their function is to mark QUD transitions.

## 4 Nominal QUD transition

Although the focus of this study is on clause-initial verbs and their discourse-pragmatic functions in Greek, a discussion of the functions of other types of clause-initial elements is in order here insofar as these functions are comparable to those of verbs. As we saw above in the long example from the *Cyropaedia* (2), QUD transitions can be marked by nouns and NPs/DPs; they can also be marked by PPs, as in one of the transitions in (29) below, and those in the next section’s example (36). I will refer to all these types under the general rubric of *nominal QUD transition*.

Just like verbal QUD transitions, nominal transitions are often used to map out the structure of a complex hierarchy of questions. A particularly clear example is (29) below. Here, Herodotus is giving an account of the different tribes of Thracians:

(29) οὐνόματα δ' ἔχουσι πολλὰ κατὰ χώρας ἕκαστοι, νόμοισι δὲ οὗτοι παραπλησίοισι πάντες χρέωνται κατὰ πάντα, πλὴν Γετέων καὶ Τραυσῶν καὶ τῶν κατύπερθε Κρηστωναίων οἰκεόντων. τούτων δὲ τὰ μὲν Γέται οἱ ἀθανατίζοντες ποιεῦσι, εἴρηταί μοι· Τραυσοὶ δὲ τὰ μὲν ἄλλα πάντα κατὰ ταῦτα τοῖσι ἄλλοισι Θρήξι ἐπιτελέουσι, κατὰ δὲ τὸν γινόμενόν σφι καὶ ἀπογινόμενον ποιεῦσι τοιάδε· τὸν μὲν γενόμενον περιζόμενοι οἱ προσήκοντες ὀλοφύρονται, ὅσα μιν δεῖ ἐπεῖτε ἐγένετο ἀναπλῆσαι κακά, ἀνηγεόμενοι τὰ ἀνθρωπία πάντα πάθεα, τὸν δ' ἀπογενόμενον παίζοντές τε καὶ ἡδόμενοι γῆ κρύπτουσι, ἐπιλέγοντες ὅσων κακῶν ἀπαλλαχθεῖς ἐστι πάση εὐδαιμονίῃ. (Hdt. 5.3-4)

ounómata d' ékhousi pollà katà khōras hékastoi, nómoisi dè hoūtoi paraplēsioisi pantes khréontai katà pánta, plēn Getéōn kai Trausōn kai tōn katúperthe Krēstōnaíōn oikeóntōn. tούtōn dè tà mèn gétai hoi athanatízontes poieûsi, eírētaí moi; Trausoì dè tà mèn álla pánta katà tautà toîsi álloisi Thrēiksi epiteléousi, katà dè tòn ginómenón sphi kai apoginómenon poieûsi toιάde; tòn mèn genómenon periizómenoi hoi prosékontes olophúrontai, hósá min deî epeíte egéneto anaplēsai kaká, anēgeómenoi tà anthrōpía pánta páthea, tòn d' apogenómenon paízontés te kai hēdómenoi gēi krúptousi, epilégontes hósōn kakōn apallakhtheís esti pásēi eudaimoníēi.

They have many various names in different parts of the country, but their customs are much the same with the exception of the Getae, the Trausi, and the people north of Creston. The customs of the Getae, who believe themselves immortal, I have already described; the Trausi follow the normal customs of Thracians in general, except in one particular – their behavior, namely, on the occasion of a birth or death. When a baby is born the family sits around and mourns at the thought of the sufferings the infant must endure now that it has entered the world, and goes through the whole catalogue of human sorrows; but when somebody dies, they bury him with merriment and rejoicing, and point out how happy he now is and how many miseries he has at last escaped.

In this passage, each of the clause-initial elements marks a branch of a binary QUD subdivision; the overall structure is this:

QUD. ‘What are the tribes of the Thracians?’

QUD 1. ‘What are their names?’

Introduction: οὐνόματα ‘names’



Answer: Various

QUD 2. ‘What are their customs?’

Introduction: νόμοισι ‘customs’

Answer: All the same except the Getae etc.

QUD 2.1. ‘What are the customs of the Getae?’

Introduction: τὰ μὲν Γέται ... ποιῶσι ‘what the Getae do’

Answer: As has been described

QUD 2.2. ‘What are the customs of the Trausi?’

Introduction: Τραυσοὶ ‘Trausi’

QUD 2.2.1. ‘What are their general customs?’

Introduction: τὰ μὲν ἄλλα ‘other things’

Answer: Same as the other Thracians

QUD 2.2.2. ‘What are their customs relating to birth and death?’

Introduction: κατὰ δὲ τὸν γινόμενόν σφι καὶ ἀπογινόμενον ‘in the case of the one who is born and the one who dies’

QUD 2.2.2.1. ‘What are their customs relating to birth?’

Introduction: τὸν μὲν γενόμενον ‘the one who is born’

Answer: They lament

QUD 2.2.2.2. ‘What are their customs relating to death?’

Introduction: τὸν δ’ ἀπογενόμενον ‘the one who dies’

Answer: They rejoice

Two things are worth noting about this passage. First, all the verbs that occur in the topical parts of each sentence (i.e. not in a focus domain) are highly general in meaning: ἔχουσι *ékhouisi* ‘they have’, χρέωνται *khreōntai* ‘they use’, ποιῶσι *poieōsi* ‘they do’, ἐπιτελέουσι *epiteléousi* ‘they perform’ (here synonymous with ‘do’). The brunt of the topical content is provided by the nouns—e.g. ‘names’, ‘customs’—and given these the verbs are practically predictable. Nominal QUD introduction, then, appears to be preferred in contexts where the main content of the QUD being introduced is most naturally expressed nominally rather than verbally.

Second, it is noteworthy that each nominal introductory phrase sets out what is *new* in the hierarchy of QUDs at that point. Thus for example in QUD 2.2, though the QUD is ‘What are the customs of the Trausi?’, the introducer is simply

‘Trausi’, because ‘customs’ is already part of the higher QUD 2. A general principle governing the content of QUD introductors, whether nominal or verbal, in a hierarchical structure, appears to be this:

- (30) The introducer of a nested QUD begins with the content that is new or contrastive in comparison with the content of the rest of the question hierarchy.

I say ‘begins with’ rather than simply ‘contains’ because, as in the case of PVUs, nominal introductors can contain additional material following the initial nominal element. In fact, just like PVUs, nominal introductors too are prosodic as well as pragmatic units; the work of demonstrating this fact with clitic and other evidence has been done thoroughly by Scheppers (2011), to which the reader is referred. Thus for example, although there happens to be no diagnostic clitic in the first clause of (29) above, the focus domain is clearly *πολλά κατὰ χώρας ἕκαστοι* *pollà katà khōras hékastoi* ‘many [names] in different parts of the country’; this allows us to assume an immediately preceding prosodic boundary and thus to identify the initial sequence *οὐνόματα δ’ ἔχουσι* *ounómata d’ ékhousi* ‘They have names’ as a single intonational phrase. This particular type of QUD-introducing prosodic unit, consisting basically of a noun plus a verb in that order, in fact has a specifically definable discourse role in Greek—that of marking contrastive topics—and deserves a separate discussion.

## 5 The contrastive topic construction

In this section, I examine a Greek word order pattern which has not been previously identified, but which, I will claim, has a specifically definable discourse-pragmatic significance. I will refer to this pattern, which is a subtype of nominal QUD introduction, as the *contrastive topic construction*.

My analysis of the Greek construction is based on one proposed for English by Büring (2003), which considers the pragmatics of contrastive topics in a QUD framework. Although the nature of the marking used in the two languages is different—a specific pitch-accent contour for English, word order for Greek<sup>9</sup>—the discourse functions of the constructions appear to be identical.

The identification of ‘contrastive topic’ as a discourse-pragmatic category goes back to Jackendoff’s (1972) observation that in English there exist two distinct

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<sup>9</sup>Though very probably accompanied, in this case as in others, by prosodic features which we cannot recover.

types of intonational contour (*A accent* and *B accent* in his terminology) which differ in their discourse-pragmatic implications. In Jackendoff's (1972:261) illustration (example numbers and contour markers modified):

“We presuppose ... that there were a number of people and a number of things to eat, and that various people ate various things. Speaker A in the discourse is asking questions of the form *Who ate what?* and Speaker B is answering. For the first intonation pattern, A is asking person by person:

(31) A: Well, what about FRED? What did HE eat?

∨                    \

B: FRED ate the BEANS.

For the second pattern, A is asking by foods:

(32) A: Well, what about the BEANS? Who ate THEM?

\                    ∨

B: FRED ate the BEANS.

In each example we find the typical fall-rise of the B pitch accent and the fall of the A accent, but in different positions: [(31)] has B on *Fred* and A on *beans*, and [(32)] is the other way around.”

Jackendoff's A accent clearly functions as a marker of focus, as it is associated with the constituent that expresses the answer to each question. The B accent marks the topic of each answer sentence, but it does more than this: it indicates that there are other implied topics with which that topic is being contrasted, i.e. that these topics are contrastive elements within a larger set. As Roberts (1996) pointed out in her original exposition of the QUD framework, this kind of function can be conveniently captured in her model because of its hierarchical nature. Thus in this example, either of the two questions above can be seen as a subquestion of an implied larger QUD of the form ‘Who ate what?’. In Büring's words, sentences containing contrastive topics “are related to two contextually given questions at the same time, which form a question-subquestion strategy.” The different accent patterns, however, correspond to different strategies, that is, different sets of implied subquestions. In the first example, contrastive topic accent on *Fred* indicates that *Fred* is to be the variable part of the question:

(33) Who ate what?

What did Fred eat?	FRED <sub>CT</sub> ate the BEANS <sub>F</sub> .
What did Mary eat?	MARY <sub>CT</sub> ate the EGGPLANT <sub>F</sub> .
What did ... eat?	...

—and similarly for the second example, contrastive accent on *beans* means it is the foods that will vary:

(34) Who ate what?

Who ate the beans?	FRED <sub>F</sub> ate the BEANS <sub>CT</sub> .
Who ate the eggplant?	MARY <sub>F</sub> ate the EGGPLANT <sub>CT</sub> .
Who ate the ...?	...

In the answers, I have marked the focus constituent with subscript F and the contrastive topic with subscript CT. In English, as these examples illustrate, the accent patterns by themselves are sufficient to indicate the function of each constituent; word order remains, or at least may remain, the same.<sup>10</sup> In Greek, however, as I will demonstrate, the different pragmatic functions are reflected in a difference of word order.

Namely, the marking of contrastive topic in Greek involves a specific type of intonational phrase: one in which the contrastive topic stands first and is immediately followed by the verb. This unit is then followed by the focus domain (which, as usual, forms its own intonational phrase). The Greek contrastive topic construction, then, in its simplest form is this:

(35) *Topic*    *Verb*    |    *Focus*

(As usual in Greek, the initial topic may be separated from the verb by particles, or by other prosodically weak and positionally flexible elements such as discourse-active NPs.)

In QUD terms, the contrastive topic construction in Greek implies three types of relevant question:

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<sup>10</sup>Fronting of contrastive topics is also allowable in English, e.g. *The BEANS<sub>CT</sub>, FRED<sub>F</sub> ate*. For this type of fronting see e.g. Prince (1981, 1997)].

1. an immediate subquestion of the form (e.g.) *What did Topic Verb?*;
2. a set of alternative subquestions in which only the topic differs (*What did Topic<sub>2</sub>/Topic<sub>3</sub>/etc. Verb?*); and
3. a superquestion that generalizes over this set of topics (*What did each Topic Verb?*).

To illustrate the construction, let us consider two examples taken from Matic' (2003). I choose these examples because they are part of the troublesome set of sentences which Matic's main model cannot capture, and which therefore lead him – unnecessarily, as I believe – to posit a secondary, competing ‘minor model’. (For further discussion of Matic's minor model, see Chapter 5, section 5.) I reproduce them here, adding prosodic boundary markers, with Matic's context descriptions and translations (the latter slightly modified):

(36) ταῦτα ἐκλογιζόμενος | οὔτε πρὸς τοὺς Φωκέας ἐξηγόρευε | οὐδὲν | πρὸς τε τοὺς Θεσσαλοὺς ἔλεγε | τάδε

*taûta eklogizómenos | oúte pròs toûs Phōkéas eksēgóreue |*  
 these-things reasoning nor to the Phocians he-said  
*oudèn | pròs te toûs Thessalòus élege | táde*  
 nothing to and the Thesalians he-said these-things

[‘Artabazus knew that if he told them the truth, his life would be in danger.’] ‘Reasoning thus, he said nothing to the Phocians, and to the Thesalians he said the following.’ (Hdt. 9.89.2; = Matic' 2003's (56))

(37) ἡ δὲ τύχη ἐστρατήγησε | κάλλιον

*hē dē tíkhē estratēgēse | kállion*  
 the PART fortune planned better

[The Greek ally Ariaius explained his plan for the retreat. ‘This plan of campaign meant nothing else than effecting an escape, either by stealth or by speed.’] ‘But fortune planned better.’ (Xen. *Ana.* 2.2.13; = Matic' 2003's (59))

What makes such sentences as the above problematic for Matic's account is that the focused constituents follow the verb, which does not itself seem to be in focus. Thus, in Matic's analysis (with which I agree), the focus domains of the

two coordinated main clauses in (36) are οὐδὲν *oudèn* ‘nothing’ and τὰδε *táde* ‘the following’, while the focus of (37) is κάλλιον *kállion* ‘better’. These are ‘narrow focus’ domains in Matic’s terminology—i.e., they do not include the verb—and should thus, according to his main model, precede the verb rather than following it.

But considering these examples in context it is clear that they both involve a comparison being drawn or implied between topics that are being presented as contrastive elements in a set. In (36), the contrast is explicit: Artabazus’s behavior toward the Phocians is the opposite of his behavior toward the Thessalians, and the two groups are each set up in turn as the topic of a finite clause. Although the verbs of the two clauses are lexically different, they are practically synonymous; the two QUDs do not differ in their verbal content, only in (part of) their nominal content. In this example, at least in the first of the two clauses, there is a clear marker of the prosodic boundary between the verb and the focus domain, namely the negator οὐδὲν *oudèn* ‘nothing’ (recall from Chapter 3, section 1, that negators in Greek function prosodically as ‘introductives’, i.e. they tend to stand first in an intonational phrase). In the second clause, τὰδε *táde* ‘the following’ is not among the words that have been identified as introductives (though probably it should be); but in any case, as has been amply shown in this study, focus domains in Greek correlate closely with prosodic units whether or not an explicit diagnostic is present, so we are safe in assuming a prosodic boundary before τὰδε. Similarly in (37), once κάλλιον *kállion* ‘better’ is identified as the focus of the clause, the presence of a prosodic boundary immediately preceding it can be taken for granted.

These are, then, contrastive topic examples, with the topics being in (36) ‘the Phocians’<sup>11</sup> and ‘the Thessalians’ and in (37) ‘Ariaius’ and ‘fate’. The implied QUD structure of these two examples can be shown thus, following that given for Büring’s English examples above:

(38) What did Artabazus say to which group of people?

What did Artabazus say to the Phocians? To the PHOCIANS<sub>CT</sub> he said NOTHING<sub>F</sub>.

What did Artabazus say to the Thessalians? To the THESSALIANS<sub>CT</sub> he said THIS<sub>F</sub>.

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<sup>11</sup>The presence of the negator οὔτε *óute* ‘nor’ before the topic in this clause should not prevent us from seeing it as a contrastive topic construction: the *Topic Verb | Focus* structure of the clause is still clear.

(39) Who planned what?

What did Ariaius plan?      ARIAIUS<sub>CT</sub> planned (AS DESCRIBED)<sub>F</sub>.

What did fortune plan?      FORTUNE<sub>CT</sub> planned BETTER<sub>F</sub>.

The pattern that Matić calls ‘postverbal narrow focus’, then, does not occur at random but marks (at least in one of its functions) a specific type of QUD structure, namely a set of subquestions containing contrastive topics.

Note, by the way, that a prediction of the present account is that we should *not* find evidence of a prosodic boundary between the topic and the verb in a Greek contrastive topic clause. That is, in such contexts the verb is predicted never to begin its own intonational phrase. This is a consequence of the principle posited above (Chapter 2, section 2.2) that discourse-active elements cannot stand first in an intonational phrase, combined with the nature of the QUD hierarchy in a contrastive-topic context. That is: the contrastive topic construction, in addition to the immediate subquestion it invokes, also implies a (normally unstated) superquestion containing the same verbal content; and since, in terms of the pragmatic structure of discourse, a superquestion is by necessity logically prior to its subquestions, this implication suffices to cause the verb to be treated by speakers as discourse-active even if this verbal content has not been explicitly mentioned. Encountering a contrastive topic clause, the listener or reader is asked to construct the entire relevant part of the QUD hierarchy (as QUDs are rarely explicitly stated in real discourse). The superquestion therefore becomes part of the common ground by accommodation, and its content is naturally treated as discourse-active when we are inside one of its subquestions. This approach thus accounts for both the non-initial position of the verb in the contrastive topic construction (since it is discourse-active) and its position before the focus (since it is part of the subquestion being introduced, and so naturally appears within the prosodic unit that introduces it).

An important fact about the relationship here posited – that between the syntactic pattern I am calling the contrastive topic construction and the type of discourse-pragmatic context that consists of contrasting subquestions under a general question – is that it is one-way: my claim is that the contrastive topic construction always marks this particular QUD structure, but not that whenever such a QUD structure is present it must be marked by a contrastive topic construction. The formal marking, though reliably informative when it occurs, is not obligatory but optional. As Büring points out, the same is true in English: not all topics that are contrastive in QUD-hierarchy terms are obligatorily marked with the ‘B accent’, but when this accent does occur it marks such topics. This should not be

surprising: it is to be expected, based on general Gricean principles of communication, that speakers should not necessarily express information (including meta-pragmatic information) which they think is known to the addressee, so that in a context where the QUD structure is clear, they may choose not to mark it explicitly.

This can help us to understand Greek cases where one of a set of coordinated clauses is marked with the contrastive topic construction but another is not. Such a case occurs in the long example from the *Cyropaedia*, (2), discussed near the beginning of this chapter. I reproduce the relevant part of the passage as (40) below:

(40) πατὴρὸς μὲν δὴ ὁ Κῦρος λέγεται γενέσθαι | Καμβύσου Περσῶν βασιλέως· ... μητρὸς δὲ ὁμολογεῖται | Μανδάνης γενέσθαι

*patròs mèn dè ho Kûros légetai genésthai | Kambúsou*  
of-a-father PART PART the Cyrus is-said to-have-been of-Cambyses  
*Persôn basiléōs: ... mētròs dè homologeîtai |*  
of-the-Persians king of-a-mother PART he-is-agreed  
*Mandánēs genésthai*  
of-Mandane to-have-been

The father of Cyrus is said to have been Cambyses, king of the Persians ...  
His mother, it is generally agreed, was Mandane.

Though the syntactic structure of both of these clauses is complicated by the presence of an infinitive subordinate to the main finite verb of speech, it is clear that in the first clause about Cyrus's father, we have a contrastive topic construction. The focus domain is Καμβύσου Περσῶν βασιλέως *Kambúsou Persôn basiléōs* '(of) Cambyses, king of the Persians'; everything that precedes it is the QUD-introducing colon. Within this latter unit we find an initial topic πατὴρὸς *patròs* '(of a) father' and a verbal complex λέγεται γενέσθαι *légetai genésthai* 'is said to have been'; these are separated by two particles and a discourse-active NP ὁ Κῦρος *ho Kûros* 'Cyrus', but this does not affect the basic Topic-Verb structure of the colon. And of course, a contrastive topic construction is to be expected in this context: Xenophon is tackling the question 'Who were Cyrus's parents?' by breaking it up into two subquestions about his father and his mother, which are going to be provided with different answers.

Nevertheless, the second clause appears not to contain a contrastive topic construction: at least, the position of the infinitive γενέσθαι *genésthai* 'to have



been’, which appears within the focus domain, seems to preclude such an analysis.<sup>12</sup> But given the discourse context, this is easily understood. Once the first of the two clauses, beginning *πατρός patrós*, has signaled a contrastive QUD structure, it is obvious that the second, beginning *μητρός mētrós*, is going to continue the contrast, and there is no need to mark this explicitly.

Though the construction described in this section seems to be the most common way of signaling contrastive subquestions in Greek, it is not the only one. A different strategy is seen in (41), reproduced from the previous chapter:

(41) [How the Persian boys live when hunting]

φέρονται δὲ οἴκοθεν | σῖτον μὲν ἄρτον, ὄξον δὲ κάρδαμον (Xen. Cyr. 1.8)

*phérontai* δὲ *oíkothen* | *síton* *mèn* *árton*, *ókson* δὲ  
 they bring PART from home food PART bread relish PART  
*kárdamon*  
 cress

‘They bring from home bread for their food, cress for a relish’

The QUD structure here appears to be this: a superquestion of the form ‘What do the Persian boys bring with them when hunting?’ is divided into two subquestions, ‘What do they bring for food?’ and ‘What do they bring for a relish?’; each of these subquestions is introduced by a noun (*σῖτον síton* ‘food’, *ὄξον ókson* ‘relish’). Unlike in previous examples, here the entire hierarchy of superquestion and subquestions is telescoped into a single sentence, with the verb *φέρονται phérontai* ‘they bring’ to be supplied in both of the following gapped clauses. Such a strategy is obviously useful when the subquestions and their answers can be expressed succinctly (as here, with single words); in other cases the resulting structure would presumably be too unwieldy for easy comprehension. Though I cannot pursue the question further here, this construction and its pragmatic relationship to the more common contrastive-topic construction are worthy of further investigation.<sup>13</sup>

<sup>12</sup>The subordinating syntax here raises the question of whether, in such cases, the contrastive topic construction would demand that both the matrix and the subordinate verb should follow the topic, or just one of the two. If the latter, then in this clause as in the first we have a straightforward contrastive topic. As the contrastive topic construction is not verb-initial, the details of its syntactic structure have not been among the main concerns of this study, but this question would certainly repay further investigation.

<sup>13</sup>Although the diachrony of Greek word order patterns is a topic beyond the scope of this

## 6 An extended illustration

It may be useful to conclude this chapter with a somewhat more extensive passage illustrating some of the concepts I have been discussing. For this purpose, let us examine in detail the following portion of dialogue from Plato's *Republic*, book 2 (369b-d).

The context, in QUD terms, is this. Socrates (speaking in the first person as the narrator) and his interlocutors have been engaged since the beginning of the dialogue in answering a highly general QUD that can be phrased as 'What is justice?'. Just before the beginning of our passage, Socrates has made two proposals about the form that the discussion should now take: first, he suggests that this question should be tackled by first answering a more specific sub-QUD, namely 'What is justice in a city?'; then, that this subquestion should itself be approached by way of another subordinate question, 'How does a city come into being?'. Our passage now begins (I forgo transliteration and glosses in this section for reasons of space):

γίγνεται τοίνυν, ἦν δ' ἐγώ, πόλις, ὡς ἐγῶμαι, ἐπειδὴ τυγχάνει ἡμῶν ἕκαστος οὐκ αὐτάρκης, ἀλλὰ πολλῶν ὧν ἐνδεής· ἢ τίς οἶει ἀρχὴν ἄλλην πόλιν οἰκίζειν; οὐδεμίαν, ἦ δ' ὅς.

"The origin of the city, then," said I, "in my opinion, is to be found in the fact that we do not severally suffice for our own needs, but each of us lacks many things. Do you think any other principle establishes the state?" "No other," said he.

Socrates' sentence beginning γίγνεται 'arises' is a clear example of initial-verb QUD introduction. The PVU appears to be γίγνεται τοίνυν πόλις 'a city, then, arises'<sup>14</sup>. This is then followed by a focus domain beginning ἐπειδὴ 'when, since' proposing an answer to the question. After a short confirmatory exchange, the discussion continues:

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study, it is noteworthy that the contrastive topic construction appears to go back at least as far as Mycenaean. Hajnal (2004) has identified a consistent alternation in Linear B texts between OV and VO orders in the specific case of the phrase *o-na-to e-ke* vs. *e-ke-qe o-na-to* 'has as a right'. The latter pattern occurs in the context of lists in which the subject (the possessor of the right) varies; in my terms, this is a contrastive topic construction under an overall QUD of the form 'Who has which right?'.<sup>14</sup>

<sup>14</sup>The interpolation of ἦν δ' ἐγώ 'I said' raises the interesting question of whether and when such meta-narrative comments can be inserted into the middle of a prosodic unit, as here seems to be the case. Presumably this possibility is allowed because of such units' relative lack of prosodic emphasis.

οὕτω δὴ ἄρα παραλαμβάνων ἄλλος ἄλλον, ἐπ’ ἄλλου, τὸν δ’ ἐπ’ ἄλλου χρεία, πολλῶν δεόμενοι, πολλοὺς εἰς μίαν οἴκησιν ἀγείραντες κοινωνοὺς τε καὶ βοηθοὺς, ταύτη τῇ συνοικίᾳ ἐθέμεθα πόλιν ὄνομα· ἦ γάρ; πάνυ μὲν οὖν.

“As a result of this, then, one man calling in another for one service and another for another, we, being in need of many things, gather many into one place of abode as associates and helpers, and to this dwelling together we give the name city or state, do we not?” “By all means.”

Here we have no initial verb, and none is to be expected: Socrates has not moved on to a new QUD but is expanding on his answer to the current one by fleshing out what it means that ‘we do not severally suffice for our own needs’. Continuous QUDs, as stated above, are not given introductions, whether by PVUs or otherwise. The sentence thus begins with a long preposed phrase οὕτω δὴ ... καὶ βοηθοὺς, which is then recapped by a resumptive demonstrative phrase ταύτη τῇ συνοικίᾳ ‘to this dwelling together’; this serves as the focus of the main clause, appearing, as narrow foci generally do, directly before the verb ἐθέμεθα ‘we give’. The main clause ταύτη τῇ συνοικίᾳ ἐθέμεθα πόλιν ὄνομα appears to be a single prosodic unit, in which the continuous QUD content ἐθέμεθα πόλιν ὄνομα ‘we give the name *city*’, being prosodically weak, follows the prosodically strong focus phrase.

Next, Socrates introduces a subquestion:

μεταδίδωσι δὴ ἄλλος ἄλλῳ, εἴ τι μεταδίδωσιν, ἢ μεταλαμβάνει, οἰόμενος αὐτῷ ἄμεινον εἶναι; πάνυ γε.

“And between one man and another there is an interchange of giving, if it so happens, and taking, because each supposes this to be better for himself.” “Certainly.”

Having established that exchange takes place in a city, he now asks for the motive for this, and identifies it as self-interest. The QUD, which can be phrased as something like ‘Why do people engage in exchange?’, is introduced by a PVU μεταδίδωσι δὴ ἄλλος ἄλλῳ ‘one man shares with another’ (followed by a couple of short qualifying phrase), and is answered with a participial focus domain οἰόμενος αὐτῷ ἄμεινον εἶναι ‘supposing it to be better for himself’.

To continue:

ἴθι δὴ, ἦν δ’ ἐγώ, τῷ λόγῳ ἐξ ἀρχῆς ποιῶμεν πόλιν· ποιήσει δὲ αὐτήν, ὡς ἔοικεν, ἢ ἡμετέρα χρεία. πῶς δ’ οὔ;

“Come, then, let us create a city from the beginning, in our theory. Its real creator, as it appears, will be our needs.” “Obviously.”

About the hortatory sentence ‘let us create a city...’, the QUD framework has little or nothing to say, as it is only concerned with declarative utterances; the question of what determines word order in exhortations and other similar speech acts, interesting as it is, must be left for further research. The next sentence, however, fits neatly into our model: the question ‘What is the origin of a city?’, or put otherwise, ‘What creates a city?’, has just been answered, so the QUD and its answer can be set out in a PVU, ποιήσει δὲ αὐτήν ‘creates it’, and a focus domain, ἡ ἡμετέρα χρεία ‘our need’. This sentence can thus be seen as an example of QUD conclusion or movement from subquestion to superquestion, as in section 2.1 above.

Socrates now moves to a new QUD about ‘needs’. This QUD is not introduced directly, but is instead divided into a number of subquestions, each of which is given a nominal introduction:

ἀλλὰ μὴν πρώτη γε καὶ μεγίστη τῶν χρειῶν ἡ τῆς τροφῆς παρασκευὴ τοῦ εἶναι τε καὶ ζῆν ἔνεκα. παντάπασί γε. δευτέρα δὲ οἰκήσεως, τρίτη δὲ ἐσθῆτος καὶ τῶν τοιούτων. ἔστι ταῦτα.

“Now the first and chief of our needs is the provision of food for existence and life.” “Assuredly.” “The second is housing and the third is raiment and that sort of thing.” “That is so.”

The structure of each of these clauses is the same: they are verbless sentences with an implied copula, which are divisible into a nominal QUD-introducing phrase followed by an answer phrase. Thus the phrase πρώτη γε καὶ μεγίστη τῶν χρειῶν introduces the subquestion ‘What is the first and most important need?’, which is then answered in the focus domain ἡ τῆς τροφῆς παρασκευὴ τοῦ εἶναι τε καὶ ζῆν ἔνεκα ‘the provision of food for existence and life’; and likewise in Socrates’ next two clauses, where the questions ‘What is the second / third most important need?’ are provided with brief answers. As these subquestions, being copular in their semantic structure, obviously have little or no verbal content, it is natural that they should be introduced by nominal phrases.

The next and final part of our passage is this:

φέρε δὲ, ἦν δ’ ἐγώ, πῶς ἡ πόλις ἀρκέσει ἐπὶ τοσαύτην παρασκευήν; ἄλλο τι γεωργὸς μὲν εἶς, ὁ δὲ οἰκοδόμος, ἄλλος δὲ τις ὑφάντης; ἢ καὶ σκυτοτόμον

αὐτόσε προσθήσομεν ἢ τιν' ἄλλον τῶν περὶ τὸ σῶμα θεραπευτῆν; πάνυ γε εἴη δ' ἂν ἢ γε ἀναγκαιοτάτη πόλις ἐκ τεττάρων ἢ πέντε ἀνδρῶν.

“Tell me, then,” said I, “how our city will suffice for the provision of all these things. Will there not be a farmer for one, and a builder, and then again a weaver? And shall we add thereto a cobbler and some other purveyor for the needs of body?” “Certainly.” “The indispensable minimum of a city, then, would consist of four or five men.”

I focus again on the only declarative clause, that is, the last sentence, beginning εἴη δ' ἂν... This is another QUD-conclusion example and has the expected structure. With the preceding rhetorical questions about farmer, builders, etc., Socrates has implicitly provided an answer to a QUD, ‘How many people would the smallest possible city consist of?’. He now sets out this QUD explicitly with a PVU, εἴη δ' ἂν ἢ γε ἀναγκαιοτάτη πόλις<sup>15</sup> ‘The minimum possible city would consist’, and gives the answer in the focus domain, ἐκ τεττάρων ἢ πέντε ἀνδρῶν ‘of four or five men’. Note that the initial, i.e. prosodically and informationally strong, position of the verb ‘to be’ is here straightforwardly accounted for: unlike in the immediately preceding exchange, in which an implied copula was omitted, here εἴη is not copular, but has more definite semantic content in its sense of ‘consist’, which is central to the new QUD.

The more or less sentence-by-sentence analysis of this passage will hopefully have been of use in illustrating how a QUD-centered approach can both shed light on word-order choices in a continuous prose text, and bring out more clearly the architecture of ideas in such a text. Noting the types of formal QUD transitions (verbal, nominal) as well as the places where no transition is marked can help map out the hierarchical relations between the different parts of a complex passage, providing us with a lucid picture of its conceptual structure.

## 7 Conclusion

I have argued in this chapter that a number of clause-initial intonational phrase types in Greek serve to mark transitions between Questions Under Discussion in

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<sup>15</sup>The position of the selective-emphasis particle γε presents an interesting problem here. As a postpositive, the placement of γε would seem to suggest that there is here an additional prosodic boundary before the definite article ἢ, and thus that this PVU, assuming it is one, is actually more complex than others we have seen. Such cases are not particularly common, and I have unfortunately not been able to collect enough of them to present a plausible analysis here.

a discourse. Most importantly, the verb-initial type (PVUs) functions to set up a new QUD which can be expressed with the verb in question as its main verb; its appearance is thus licensed whenever such a transition occurs in the discourse. Such transitions fall into a number of definable classes: movement up and down the QUD hierarchy, completion of a cognitive frame, identification, and metapragmatic justification. In addition, nominal intonational phrases (ones beginning with nouns or NPs/DPs or PPs) also serve a QUD transition function, but they set up a QUD that has little or no specific verbal content in comparison with the preceding parts of the question hierarchy. A subtype of this nominal class is represented by the contrastive topic construction, in which the nominal element is followed by a verb within the same intonational phrase; this construction marks a subregion of the question hierarchy in which the verb remains constant within subquestions while different nominal referents alternate as contrastive topics. Schematically, we can correlate the types of Greek topical intonational phrases with the types of QUD they introduce, as shown in Table 1:

<b>Type of Topic Colon</b>	<b>Type of QUD introduced</b>
Verb (+ NP(s))	“What did <i>NP Verb?</i> Who <i>Verbed NP?</i> ” etc. (section 2)
NP	“What about <i>NP?</i> ” (section 4)
NP + Verb	“What did <i>NP<sub>CT</sub> Verb?</i> Who <i>Verbed NP<sub>CT</sub>?</i> ” etc. (section 5)

Table 1: Greek topic cola and QUD structures

## Chapter Five

# Initial verbs and counter-presuppositional focus

## 1 Counter-presuppositional focus in Greek

In this chapter, I examine the behavior of a specific class of verb-initial clauses in Greek: those whose focus domains involve ‘counter-presuppositional’ focus. Counter-presuppositional focus (I adopt the term from Dik 1989:282-5, following Dik 1995:38) differs from simple focus in that, as the term suggests, it implies the assumed existence of some presupposition in the hearer’s mind which the focused information is intended to replace or modify in some way. In terms of the QUD model, the function of counter-presuppositional focus constructions is to provide a QUD with an answer that is different from the one which the hearer (or reader) may be assumed to believe. Counter-presuppositional focus clauses (when they have been considered at all) have been problematic for accounts of Greek word order, because the position of the focus domain in such clauses is predominantly postverbal, thus running counter to the usual pattern of preverbal focus in Greek. The frequent appearance of initial verbs in such clauses has been noticed (Dik 1995:39, and several of her following examples; Matić 2003) but not satisfactorily explained. I will argue that the reason for the postverbal position of the focus domain in such clauses is that they contain PVUs, and are thus identical in structure to the other classes of verb-initial clauses examined in this study. I will furthermore propose a discourse-pragmatic analysis of counter-presuppositional focus which relates it to QUD introduction, and which thus accounts for this structural identity.

In this chapter, I follow the three-type taxonomy of focus developed by Toosarvandani (2010) in his study of focus-associating expressions in English. This is largely congruent with the taxonomy given for Greek by Dik (1995:39ff.), except that Dik adds a fourth type, “selecting focus”, marked in Greek by the particle  $\gamma\epsilon$  *ge*. Since, as Dik herself concedes,  $\gamma\epsilon$  *ge* is not in fact a focus marker at all but a marker of contrast, which can appear with topics as well as foci, I leave it out of the discussion.<sup>1</sup>

The three pragmatic types of counter-presuppositional focus, then, are the following:

- (a) additive focus (Dik’s “expanding focus”), which adds information to an existing presupposition;
- (b) adversative focus (Dik’s “replacing focus”), which replaces some part of the information in an existing presupposition with other information;
- (c) exclusive focus (Dik’s “restricting focus”), which retains some part of the information in an existing presupposition but discards some other part.

I have found no difference in the formal behavior of these three classes of counter-presuppositional focus in Greek. Of the three, by far the most preponderant class in my corpus is additive focus; specifically, clauses in which the focus domain is introduced by the additive focus marker  $\kappa\alpha\acute{\iota}$  *kaí* ‘also, even’ are extremely common in Greek, and most of the examples in this chapter will therefore be of that type.

## 2 Additive-focus $\kappa\alpha\acute{\iota}$

A frequent construction, occurring 66 times in my corpus (11% of all verb-initial clauses), is that in which an initial verb or PVU is followed by an argument introduced by the particle  $\kappa\alpha\acute{\iota}$  *kaí*. In Greek  $\kappa\alpha\acute{\iota}$  has two distinct but related senses, only one of which is relevant to this discussion. Most often, it is the unmarked simple coordinator, translatable as *and*. Its other use, and the one that is of interest here, is as a marker of additive focus, translatable as *also* or *even*. In this construction,

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<sup>1</sup>The exclusion of  $\gamma\epsilon$  from the focus taxonomy is further justified by the fact that sentences in which the focus is marked with  $\gamma\epsilon$  are much less likely to be verb-initial than those with true counter-presuppositional focus markers, suggesting that  $\gamma\epsilon$  has a different type of function. In fact  $\gamma\epsilon$  can even mark the topicalized verb of a PVU: see Chapter 4 section 1, fn. 4.



the focused argument that follows *καί* may apparently be of any syntactic type, and the focus may be on the entire argument or only on part of it (in the latter case, the part that immediately follows *καί*<sup>2</sup>). An example is (1), in which the subject is focused:

- (1) [after giving two accounts of the reasons for Cambyses' expedition against Egypt]

λέγεται δὲ καὶ ὅδε λόγος (Hdt. 3.3)

*légetai dè kai hóde lógos*  
 is told PART also the following story  
 'The following story is also told'

The part that counter-presuppositional focus constructions such as those marked by additive *καί* play in determining word order in Greek has received very little attention to date. Dik (1995:39ff.) discusses the focus function of *καί* in her inventory of counter-presuppositional focus markers, but she does not give a satisfactory explanation of the fact that phrases focused by *καί* (which I henceforth call 'καί-phrases', and the clauses in which they appear, 'καί-clauses') usually fail to conform to her main proposed clause pattern: *καί*-phrases are predominantly postverbal, rather than occupying a preverbal focus slot. (Dik does mention, correctly, that in several of her *καί* examples the verb is topical, but it is not explained *why* counter-presuppositional focus and verb topicalization should frequently co-occur. The role of *καί* is not mentioned in her chapter on topical initial verbs, ch. 7.) Matic' (2003:618) mentions this anomaly but cannot account for it except by positing a 'minor model' of Greek word order as an alternative to the dominant pattern, without providing an explanation for the variation. (On this minor model see the further discussion below, section 5.) A part of the problem that has been overlooked so far is the status of what precedes the *καί*-phrase: namely, as I will show, this is a PVU, since the initial verb and optional arguments that precede *καί* probably constitute an intonational phrase. I will argue in this chapter that such PVUs, both in sentences with *καί* and with other counter-presuppositional focus markers, serve the same discourse-pragmatic function as other PVUs in Greek, namely that of marking a QUD transition, and thus that the verb-initial structure of such clauses is straightforwardly accounted for by the model proposed here.

<sup>2</sup>Occasionally, but infrequently, some other word or words intervene between *καί* and the focus: some examples are given in Denniston's (1954) discussion of *καί*, esp. pp. 325ff.

In the semantic typology of focus-associating expressions given by Toosarvandani (2010:17), *καί* is a one-place, non-scalar additive.<sup>3</sup> Its function may be defined as follows:

Additive-focus *καί* entails that the common ground includes a partial answer to some QUD that contains some element A. The *καί*-clause asserts that the proposition in which A is replaced with the additively focused element B is also a partial answer to this QUD.

I will use the term ‘preexisting proposition’ to describe the existing QUD answer which the *καί*-clause implies and which is the basis for the additional assertion. To illustrate, take example (2):

(2) [‘There is a city called Epidamnos.’]

ταύτην ἀπόικισαν μὲν Κερκυραῖοι ... ξυνόικισαν δὲ καὶ Κορινθίων τινὲς καὶ τοῦ ἄλλου Δωρικοῦ γένους. (Thuc. 1.24)

*taútēn apōikisan mēn Kerkuraîoi ... ksunōikisan dē kai*  
 this founded PART Corcyraeans co-founded PART also  
*Korinthiōn tinēs kai toū álloū Dōrikoū génous.*  
 of Corinthians some and of the other Dorian race

‘This city the Corcyraeans founded... And some Corinthians and other people of Dorian stock co-founded it too.’

The preexisting proposition that is evoked by the *καί*-clause is ‘The Corcyraeans founded Epidamnos’, a partial answer to the QUD ‘Who founded Epidamnos?’. In the *καί*-clause, the additively focused element is the subject phrase Κορινθίων τινὲς καὶ τοῦ ἄλλου Δωρικοῦ γένους *Korinthiōn tinēs kai toū álloū Dōrikoū génous* ‘some Corinthians and other people of Dorian stock’, and it is asserted that substituting this for the subject of the proposition above yields another part of the answer to the QUD: ‘Some Corinthians and other people of Dorian stock (also) founded Epidamnos’.

(2) also illustrates a lexical fact about the choice of initial verb in sentences with additive-focus *καί*: namely, the lexeme chosen does not have to be one

<sup>3</sup>By ‘non-scalar’ I mean only that *καί* does not *necessarily* entail that the focused element and its implied alternative are ordered upon some scale, as English *even* does. In many specific sentences such an ordering may be evoked, and then *καί* will probably be translated ‘even’, but in others it will not, and then *καί* will be translated ‘also’ or ‘too’. It might be more precise to say that *καί* is unmarked for scalarity.

which would be precisely suitable in expressing the preexisting proposition itself, even though I have said that the only difference between that proposition and the current one is in the additively focused element. The preexisting proposition behind (2) would not be felicitously expressed by the verb *ξυνώκισαν* *ksunōikisan* ‘co-founded’, but only by a verb meaning ‘founded’, since we do not know that the Corcyraeans were not the only founders of Epidamnos before we come to the *καί*-phrase of (2). The additive meaning of *καί* has here been incorporated semantically into the verb, so that we have to subtract it out, so to speak, in order to get the verb of the preexisting proposition. This phenomenon, though trivial, will be significant in the analysis of a later example, (22).

The question of whether *καί* begins a new intonational phrase, and thus whether the material preceding it can be called a PVU, is in most cases not directly answerable, because of the absence of a diagnostic clitic. (Note that, since in this construction *καί* is not followed by a verb, only clitics generated in an NP could potentially appear in the *καί*-phrase, and thus there are many fewer types of potential evidence; especially the modal particle *ἄν* cannot be of service here.) Nevertheless, in the following two examples (3)-(4)<sup>4</sup> the placement of the postpositives *αὐτοῦ* *autoû* and *τι* *ti* guarantees a prosodic boundary before *καί*:

- (3) μαρτυρεῖ δὲ | καὶ τοῦνομα αὐτοῦ (Xen. *Symp.* 8.30)

*martureî dè | kai toúnoma autoû*  
 is witness PART also the name his  
 ‘His name also is witness to this’

- (4) Συνήνευκε δὲ | καὶ ἄλλο τι τοιόνδε πρῆγμα γενέσθαι (Hdt. 3.4)

*Sunēneike dè | kai állo ti toíonde prêgma genésthai*  
 happened PART also other some such thing to occur  
 ‘Another thing too, of the following sort, happened to occur’

The prosodic structure of such examples seems to be that *καί* is proclitic to the lexical word that follows (*τοῦνομα* *toúnoma*, *ἄλλο* *állo*), while the postpositive is enclitic to it; thus the prosodic boundary is to be placed before *καί*. The alternative analysis, in which the prosodic boundary immediately precedes the lexical word, leaving *καί* in the preceding unit (e.g. *καί | τοῦνομα αὐτοῦ* *kai | toúnoma autoû*),

<sup>4</sup>And see also (14), below.

seems to be untenable. Informationally, *καί* modifies the following material, not the preceding, and prosodic units tend to correspond to informational ones; moreover, the fact that *καί* never occurs in Greek at clause end, or at the end of a verse line, strongly suggests that it is proclitic.

On the basis of such examples in which diagnostic clitics appear, then, it seems simplest to assume that *καί* in its additive sense always begins a new intonational phrase, even in those cases where there is no evidence either way. (It may of course be that additive *καί* only sometimes begins such a phrase and sometimes not, for as yet undetermined reasons, but Occam’s razor favors the simpler hypothesis.) This is likely *a priori* in any case because, as stated above and as many of the examples in this study show, focus domains in Greek usually or always correspond to intonational phrases (on this see further Scheppers 2011). I will therefore mark prosodic boundaries before *καί* in the examples in this section and will speak of the material preceding a *καί*-phrase as a PVU.<sup>5</sup> It will be seen that the non-verbal elements in such units obey the same discourse-pragmatic constraint that I have shown to license inclusion in PVUs (namely that they must be discourse-active or -inferable), supporting this prosodic analysis.

In the following section, I give examples of the additive *καί* construction, categorized for presentational purposes by the syntactic function of the additively focused word or words, with the preexisting proposition that is implied in each case.

## 2.1 Subject or partial subject focus

In example (5), Herodotus has just given two possible accounts of the reasons for Cambyses’ expedition against Egypt:

(5) λέγεται δὲ | καὶ ὄδε λόγος (Hdt. 3.3)

*légetai dè* | *kaì hóde* *lógos*  
 is told PART also the following story  
 ‘The following story is also told’

The QUD that this sentence answers is ‘What accounts are told of the reasons for Cambyses’ expedition?’ The partial answer already in the common ground is ‘The

<sup>5</sup>Note that, here as elsewhere, I do not attempt to mark all possible prosodic boundaries in the data, only those that are relevant to the discussion.

two accounts just given'; the additively focused element is the subject pronoun ὄδε *hóde* 'the following'.<sup>6</sup>

(6) occurs in his account of the events leading up to the departure of the expedition:

(6) Συνήνεικε δὲ | καὶ ἄλλο τι τοιόνδε πρῆγμα γενέσθαι (Hdt. 3.4)

*Sunéneike dè | kai állo ti toiónde prêgma genésthai*  
 happened PART also other some such thing to occur  
 'Another thing too, of the following sort, happened to occur.'

The QUD to be answered in this sentence is 'What happened before the expedition?', to which a partial answer has been provided in the sections that precede; the preexisting proposition can thus be expressed as 'These things (just described) happened before the expedition'. The additively focused element is the subject phrase ἄλλο τι τοιόνδε πρῆγμα *állo ti toiónde prêgma* 'another thing of the following sort', or more precisely only the string of modifiers ἄλλο τι τοιόνδε *állo ti toiónde*, since πρῆγμα *prêgma* 'thing' is part of the preexisting proposition. The placement of discourse-active πρῆγμα *prêgma* directly after the focus domain, and presumably in the same prosodic unit, is in accord with the general principle about the position of such words which I suggested in Chapter 2, section 2.2.

(7) occurs after Xenophon has given a description of the ways in which Persian youths compete with each other athletically:

(7) εἰσὶ δὲ | καὶ δημόσιοι τούτων ἀγῶνες (Xen. Cyr. 1.2.12)

*eisì dè | kai dēmósioi toutōn agōnes*  
 are PART also public of these contests  
 'There are also public contests of this sort'

<sup>6</sup>The syntactic structure of this sentence is actually not straightforward. ὄδε λόγος *hóde lógos* does not, apparently, form a single constituent (since ὄδε ὁ λόγος *hóde ho lógos* would be expected); therefore the subject is ὄδε *hóde* alone. Pragmatically, λόγος *lógos* is discourse-inferable and its position is understandable in the same way as that of πρῆγμα *prêgma* in the following example (6), but how best to describe its syntactic status is not clear to me. The construction is syntactically reminiscent of the oft-cited Hdt. 1.120 Ἀρπάγῳ μὲν Ἀστυάγης δίκην ταύτην ἐπέθηκε *Harpágoi mèn Astuágs díkēn taútēn epéthēke* 'On Harpagus Astyages imposed the following penalty', but in that sentence the 'topic' δίκην *díkēn* 'penalty' (if such it is) precedes the pronoun. For other comparable examples see Kühner-Gerth, vol. 1, sect. 465 (pp. 628-629).

The preexisting proposition is ‘Informal athletic contests take place between the Persian youths’, a partial answer to a QUD such as ‘How do the youths train?’. The additively focused element is the modifier δημόσιοι *dēmósioi* ‘public’: in addition to the informal contests described so far, which take place in private, there are also public ones. Note again, as in (6), the postfocal position of the discourse-active words τούτων ἀγῶνες *τούτων ἀγῶνες*.

(8) shows a more complex PVU:

- (8) [‘When we arrived at Polemarchos’s house, there were present there Lysias, Euthydemos, etc.’]

ἦν δ’ ἔνδον | καὶ ὁ πατὴρ ὁ τοῦ Πολεμάρχου Κέφαλος (Pl. *Rep.* 328B)

*ên d’ éndon | kai ho patêr ho tou Polemárkhou Képhalos*  
was PART inside also the father the of the Polemarkhos K.

‘Polemarchos’s father Kephalos was also inside.’

In (8) the καί-phrase is preceded not by a single verb but by a PVU consisting of a verb + adverb, ἦν ἔνδον *ên éndon* ‘was inside’. The placement of the adverb with the verb is understandable since they are both part of the QUD ‘Who was in Polemarchos’s house?’: i.e. the adverb’s referent is discourse-active and it is thus licensed for inclusion in the PVU.

It is difficult to characterize the difference between cases like (8), in which a discourse-active word appears in the first prosodic unit (the PVU), and those such as (5)-(7), in which such words appear in the second prosodic unit (attaching to the focus domain). It might be hypothesized that the noun remains in place in (5)-(7) because of a constraint against breaking up constituents, but (apart from the obvious objection that Greek is generally not loath to break up syntactic constituents) the following example disproves this:

- (9) [‘The Boeotians arrived in Boeotia sixty years after the Trojan War.’]

ἦν δὲ αὐτῶν | καὶ ἀποδασμὸς ἐν τῇ γῆ ταύτῃ πρότερον (Thuc. 1.12.3)

*ên dê autôn | kai apodasmòs en têi gêi taútēi próteron*  
was PART of them also portion in the land that before

‘A portion of them, too, had been in that land before’

Here the genitive αὐτῶν *autôn* ‘of them’ is a modifier in the subject NP αὐτῶν ἀποδασμός *autôn apodasmós* ‘a portion of them’, but it nevertheless appears in the PVU preceding the καί-phrase. Its placement with the verb is licensed, again, by the fact that it is part of the QUD ‘What were the migrations of the Boeotians?’, i.e. its referent is discourse-active (which also, of course, accounts for this referent’s expression by an anaphoric pronoun).<sup>7</sup> An account based on the inherently post-positive nature of pronominal αὐτός *autós* might perhaps be attempted (i.e. that such postpositives are more likely to appear in the PVU than other discourse-active material), but the explanatory value of such an approach seems limited insofar as ‘postpositivity’, in the view proposed here, is simply the prosodic reflection of discourse-active status, and is thus not confined to the traditional list of ‘postpositives’ such as αὐτός. A possible syntactic account would be that modifiers of subjects (like αὐτῶν *autôn* in (9)) are more easily fronted than heads (as in (8-9, 11)); I do not at present have enough data to confirm or refute this theory. The question of which prosodic unit discourse-active elements appear in is complex enough to demand a separate study; the most that can be said here is they can appear in the PVU (8-9), but do not have to (5-6), and that this flexibility is part of the general freedom of placement of such words in Greek.

## 2.2 Object or partial object focus

In (10), Xenophon has been describing the principles on which Persian youths are educated:

- (10) διδάσκουσι δὲ τοὺς παῖδας | καὶ σωφροσύνην ... διδάσκουσι δὲ αὐτοὺς | καὶ  
πειθεσθαι τοῖς ἄρχουσι (Xen. Cyr. 1.2.8)

*didáskousi dè toùs paîdas | kaì sōphrosúnēn ... didáskousi dè*  
they teach PART the boys also self-control they teach PART  
*autoùs | kaì peíthesthai toîs árkhousi*  
them also to obey the officers

‘They teach the boys self-control also ... They teach them also to obey the officers’

<sup>7</sup>Note that this example shows a more complex information structure than the preceding ones, since the adverb πρότερον *próteron* ‘before’ is also in focus. (In fact, the alternative structure ἦν δὲ αὐτῶν καὶ πρότερον ἐν τῇ γῆ ταύτῃ ἀποδασμός *ên dè autôn kai próteron en têi gêi taútēi apodasmós*, with additive focus on the adverb rather than the subject head, strikes me as completely equivalent here.)

In both clauses of (10) the QUD is ‘What do the Persians teach their youths?’, to which a partial answer – “justice, honesty, and gratitude” – has been given in the text that precedes. There is thus a preexisting proposition of the form ‘The Persians teach their youths justice, etc.’. The additively focused argument in both clauses is the second object of the trivalent verb διδάσκω *didáskō* ‘teach’: a noun σωφροσύνην *sōphrosúnēn* ‘self-control’ in the first clause, an infinitival VP πείθεσθαι τοῖς ἄρχουσι *peíthesthai toîs árkhousi* ‘to obey the officers’ in the second. This example too, like (8) above, contains PVUs larger than a single verb – διδάσκουσι τοὺς παῖδας *didáskousi toûs paîdas*, διδάσκουσι αὐτούς *didáskousi autoûs* – and again the discourse-active status of the additional material ‘the boys’, expressed by an NP τοὺς παῖδας *toûs paîdas* in the first clause and an anaphor αὐτούς *autoûs* in the second, licenses (though it does not require) its inclusion.

(11) [‘Money enables one not to have to cheat people or fear dying in debt.’]

ἔχει δὲ | καὶ ἄλλας χρείας πολλάς (Plato *Rep.* 331B)

*ékhei dè | kai állas khreías pollás*  
 it has PART also other uses many  
 ‘It also has many other uses.’

The QUD is ‘What uses does money have?’, the preexisting proposition is that stated in the immediately preceding sentence. The additively focused elements are the modifiers of the object, ἄλλας πολλάς *állas pollás* ‘many other’. Note that here, as in (8-9) but in contrast to (10), the discourse-inferable noun χρείας *khreías* ‘uses’ is presumably licensed for inclusion in the PVU, but nevertheless remains within the focus domain.<sup>8</sup>

In (12), which continues example (7) above, the preexisting proposition is made explicit by the use of the adversative construction οὐ μόνον ... ἀλλὰ καὶ *ou mónon ... allà kai* ‘not only ... but also’.<sup>9</sup> In this example it is the presence of the negator οὐ *ou*, known to be generally introductive (Scheppers 2011:74-5), that allows us to identify a PVU by positing a prosodic boundary before the first focus domain:

<sup>8</sup>An interesting question, though not directly relevant for my analysis, is whether the two focused modifiers in cases such as this constitute two separate intonational units. The occurrence of a discourse-inferable noun between them would seem to suggest that they do, i.e. that there is another prosodic boundary before *πολλάς pollás*, but to answer this question more confidently, clitic evidence would be helpful.

<sup>9</sup>It is thus similar in structure to some of the adversative-focus examples in the following subsection, and seems, like them, to contain two separate intonational units corresponding to the two focus domains.



(12) [‘There are public contests between the groups of youths.’]

ἐν ἧ δ’ ἂν τῶν φυλῶν πλεῖστοι ὧσι δαημονέστατοι καὶ ἀνδρικότατοι καὶ  
εὐπιστότατοι, | ἐπαινοῦσιν οἱ πολῖται καὶ τιμῶσιν | οὐ μόνον τὸν νῦν ἄρχοντα  
αὐτῶν, | ἀλλὰ καὶ ὅστις αὐτοὺς παῖδας ὄντας ἐπαίδευσεν. (Xen. Cyr. 1.2.12)

*en hê d’ àn tôn phulôn pleïstoi ôsi daēmonéstatoi kai*  
in which PART PART of the divisions most are most expert and  
*andrikótatoi kai eupistótatoi, | epainoûsin hoi polítai kai*  
most manly and most reliable praise the citizens and  
*timôsin | ou mónon tôn nûn árkhonta autôn, | allà kai*  
honor not only the now leading them but also  
*hóstis autoûs paídas óntas epáideuse*  
whoever them boys being trained

‘And whatever division has the greatest number of the most expert, the most manly, and the best disciplined young men, **the citizens praise and honor not only its present chief officer but also the one who trained them when they were boys.**’

The preexisting proposition ‘The citizens honor the winning officers’, though it has not been stated explicitly before this sentence, presumably belongs to world knowledge (it is obvious that the leaders of the winning team should be praised) and can thus be expressed here as an implicit part of the common ground in the οὐ μόνον *ou mónon* phrase, as a foil for the additive focus in the ἀλλὰ καὶ *allà kai* phrase.

Indirect object focus is illustrated by (13):

(13) [‘The men who harmed me say they have done nothing wrong. I wish they were telling the truth.’]

μετῆν γὰρ ἂν | καὶ ἐμοὶ τούτου τὰγαθοῦ | οὐκ ἐλάχιστον μέρος (Lysias 12.22)

*metên gâr àn | kai emoi toutou tagathou ouk*  
would have accrued PART PART also to me of that benefit not  
*elákhiston méros*  
smallest share

‘For no small share in that benefit would have accrued to me also’

This oratorical example is somewhat more complex than the preceding narrative ones. The preexisting proposition is ‘If it were true that these men had done nothing wrong, there would be a benefit in that for many people’ (that is, the wrongdoers’ numerous victims would be better off); τούτου τὰγαθοῦ *τούτου tagathou* and μέρος *méros* are thus discourse-active or -inferable. The additively focused element is ἐμοί *emoí* ‘for me’. οὐκ ἐλάχιστον *ouk elákhiston* ‘not (the) smallest’ seems also to be in focus, and to begin its own prosodic unit (based both on the fact that it is separated from the preceding focus ἐμοί *emoí* by a discourse-active NP, and on the usually introductory nature of the negator οὐ *ou*). We thus have a distribution of the discourse-active words into two different prosodic units, though the general principle that they cannot begin such a unit is still maintained. (Readers of Greek will perhaps share my intuition that in this example, practically *any* distribution of the discourse-active words across the three prosodic units would have been possible.)

In this example, the preexisting proposition is probably not to be regarded as a salient part of the common ground at the time of utterance (in other words, the QUD ‘Who would be better off if these men had done nothing wrong?’ is not a readily predictable one), but it is easily accommodated as such, and this kind of accommodation should not surprise us in a rhetorical text.<sup>10</sup>

### 2.3 Adjunct focus

The following examples illustrate additive-focus καί with various kinds of adjuncts: a PP κατ’ ἡπειρον *kat’ épeiron* ‘by land’ in (14), an oblique noun παισί *paisí* ‘among boys’ in (15), and an adverbial phrase τὴν ἡμέραν *tèn hēméran* ‘during the day’ in (16).

(14) [‘The early Greeks on the coast and islands turned to piracy.’]

ἐλήζοντο δὲ | καὶ κατ’ ἡπειρον ἀλλήλους (Thuc. 1.5.3)

*elēizonto*            *dè*    | *kaì kat’ épeiron allélous*  
 they plundered    PART    also by land    each other  
 ‘They plundered each other by land too.’

<sup>10</sup>A comparison of the types and frequency of pragmatic accommodation in oratory as compared with other genres, or of the types of QUD transitions in these genres, could make an interesting study.

The preexisting proposition is ‘The Greeks plundered each other on the sea’, expressed in the preceding sentence; the additive focus is κατ’ ἥπειρον *kat’ ḗpeiron* ‘by land’, adding a further part of the answer to the QUD ‘Where did the Greeks plunder each other?’. Note that in this example, the placement of the reciprocal pronoun ἀλλήλους *allélous* ‘each other’ probably guarantees a prosodic boundary before the focus domain: although this pronoun is not, to my knowledge, used as a diagnostic in the colon tradition, it appears to be generally postpositive and can thus probably serve that purpose.

(15) [‘The officers spend much of the day in judging cases for the youths.’]

γίγνεται γὰρ δὴ | καὶ παισὶ πρὸς ἀλλήλους ὥσπερ ἀνδράσιν ἐγκλήματα καὶ κλοπῆς  
καὶ ἀρπαγῆς καὶ βίας καὶ ἀπάτης καὶ κακολογίας καὶ ἄλλων οἴων δὴ εἰκός (Xen.  
*Cyr.* 1.2.6)

*gígnetai gàr dē* | *kaì paisì pròs allélous hósper*  
arise PART PART also for boys towards each other just as  
*andrásin egklémata kaì klopês kaì harpagês kaì bías kaì*  
for men accusations and of theft and of robbery and of assault and  
*apátēs kaì kakologías kaì állōn hoíōn dē eikós*  
of cheating and of slander and of other things such PART likely  
‘For there arise accusations against each other among boys too, just as  
among men, of theft, robbery, assault, cheating, slander, and other things  
that naturally come up’

The preexisting proposition can be expressed as ‘Accusations for various crimes arise among (adult) men’. Though this has not been stated, it is obviously in the common ground as being a part of world knowledge, and it is made explicit by ὥσπερ ἀνδράσιν *hósper andrásin* ‘just as among men’. The additive focus domain is παισὶ *paisí* ‘for or among boys’.

(16) [‘The Persian youths spend their nights guarding the city buildings.’]

παρέχουσι δὲ | καὶ τὴν ἡμέραν ἑαυτοῦς τοῖς ἄρχουσι χρῆσθαι (Xen. *Cyr.* 1.2.9)

*parékhouσι dē* | *kaì tēn hēméran heautoùs toís árkhouσι*  
they provide PART also the day themselves to the authorities  
*khresthai*  
to use

‘During the day, too, they place themselves at the disposal of the authorities’

Here the preexisting proposition is ‘The youths serve the city authorities at night’, expressed in the preceding sentence. The additive focus domain is τὴν ἡμέραν *tēn hēméran* ‘by day’, and everything that follows it is discourse-active or -inferable.

### 3 Adversative and exclusive focus

Though examples of the adversative and exclusive subtypes of counter-presuppositional focus are less numerous in my corpus, their structure is identical with that of additive-focus sentences: they consist of a PVU followed by the focus domain, or in many cases, more than one focus domain. The formal markers used are somewhat more diverse than in the case of additive focus. For adversative focus we find most frequently οὐ X ἀλλά Y *ou X allà Y* ‘not X but Y’, but also other constructions such as X καὶ οὐ Y *X kai ou Y* ‘X and not Y’, and X μᾶλλον ἢ Y *mállon è Y* ‘X rather than Y’ (as well as the negated version of the latter, οὐ X μᾶλλον ἢ Y *ou X mállon è Y* ‘not X rather than Y’). For exclusive focus, the most common marker is μόνον *mónon* ‘only’ (but others, such as οὐχ ὅτι μή *oukh hóti mē* ‘not/nothing except’ are also found, though there happen to be no examples in the present corpus).

In terms of prosodic segmentation, it appears that in the adversative focus type, the PVU is followed by two distinct prosodic units: the first corresponding to the information that is to be discarded, the second to that which is to replace it.<sup>11</sup> In the most common construction, the οὐ X ἀλλά Y *ou X allà Y* ‘not X but Y’ type, the fact that both the negator οὐ *ou* and the conjunction ἀλλά *allà* are considered introductives allows us to identify both prosodic boundaries with confidence. But, as elsewhere, I will assume that the nature of focus domains as prosodic units does not depend on the specific focus marker used, and will therefore mark them as such in all cases. In the exclusive focus type, likewise, I will mark the focus domain as a prosodic unit; it seems likely that this analysis could be supported by cases with clitic evidence or other such diagnostics, though these happen not to occur in my corpus.

Examples (17)-(20) illustrate adversative focus:

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<sup>11</sup>The idea that adversatives associate with two distinct focus domains is suggested for English by Toosarvandani (2010:12).

(17) ἔστιν ὁ πόλεμος | οὐχ ὄπλων τὸ πλεόν, | ἀλλὰ δαπάνης (Thuc. 1.83)

*éstin ho pólemos | oukh hóplōn tò pléon | allà dapánēs*  
is the war not of arms the most but of expenditure  
'War is for the most part a matter not of arms but of money'

The preexisting proposition, which the speaker Arkhidamos here assumes (or pretends to assume) that his audience believes, is 'War is a matter of arms'. This is rejected as an answer to the QUD 'What is war a matter of?', and replaced with a new answer, 'War is a matter of money'. In the PVU ἔστιν ὁ πόλεμος *éstin ho pólemos*, the subject NP ὁ πόλεμος *ho pólemos* 'war' is discourse-active.

In (18), the NP that follows the verb in the PVU is a direct object rather than a subject, but its discourse-pragmatic status is the same:

(18) λύουσι γὰρ σπονδὰς | οὐχ οἱ δι' ἐρημίαν ἄλλοις προσιόντες, | ἀλλ' οἱ μὴ  
βοηθοῦντες οἷς ἂν ξυνομόσωσιν (Thuc. 1.71)

*líousi gàr spondàs | oukh hoi di' erēmían állois*  
break PART treaties not the through isolation to others  
*prosióntes, | all' hoi mē boēthoúntes hoîs àn ksunomosōsin*  
approaching but the not aiding those PART they swear  
'For treaties are broken not by those who when left unsupported join  
others, but by those who fail to succor allies they have sworn to aid'

The QUD 'Who breaks treaties?' is here given the new answer 'Those who fail to succor allies'; the Corinthian speaker, who is concerned with defending Corinth against the potential charge of treaty-breaking by deflecting it against his Spartan hearers if they should fail to come to Corinth's aid, assumes or pretends to assume that his hearers believe a preexisting proposition such as 'Treaties are broken by those who ally themselves with others when they have been deserted by their own allies.'

In (19) below, the order of the focus domains is the opposite: the new answer βοῆ *boēi* 'by shout' is given first, then the old answer it is intended to replace, ψήφῳ *pséphōi* 'by ballot':

(19) κρίνουνσι γὰρ | βοῆ | καὶ οὐ ψήφῳ (Thuc. 1.87)

*krínousi gâr | boêi | kai ou pséphōi*  
 they vote PART by shout and not by ballot

‘For [the Lacedaemonians] in their voting decide by shout and not by ballot’

Here the second focus domain’s status as a prosodic unit is shown by the introductory sequence καὶ οὐ *kai ou*; presumably the first focus domain, the single word βοῆ *boêi*, also constitutes such a unit, despite the absence of an explicit diagnostic in this case.

A more complex series of focus markers, οὐ X μᾶλλον ἢ Y *ou X mállon è Y* ‘not X rather than Y’, occurs in (20):

(20) ῥηθήσεται δὲ | οὐ παραιτήσεως μᾶλλον ἔνεκα | ἢ μαρτυρίου καὶ δηλώσεως (Thuc. 1.73)

*rhēthēsetai dè | ou paraitéseos mállon héneka | è*  
 will be spoken PART not exoneration rather on account of than  
*marturíou kai dēlóseos*  
 evidence and showing

‘Our speech will be not so much for the purpose of exoneration as in order to show evidence’

Here the first focus domain is shown to be a prosodic unit by the appearance of οὐ *ou*; notice also that the postposition ἔνεκα *héneka* ‘on account of’ appears at the end of the focus domain rather than directly after the noun it governs, suggesting that there is a single prosodic peak here, on παραιτήσεως *paraitéseos* ‘exoneration’, to which everything that follows within the focus domain is enclitic. The second focus domain is introduced and prosodically demarcated by ἢ *è* ‘than’, a subordinator which Scheppers (2011:72), too, recognizes as being generally or always introductory.

Exclusive focus, with the marker μόνον *mónon* ‘only’, is illustrated by example (21):

(21) [‘You are mistaken in saying I don’t pay for what I learn from others. I do pay what I am able.’]

δύναμαι δὲ | ἐπαινεῖν μόνον (Pl. *Rep.* 338B)

*dúnamai dè* | *epaineîn mónon*  
I can PART praise only  
'And I am able only to give praise.'

In exclusive-focus cases of this kind, the preexisting proposition can be harder to express, because it is not specific. The QUD is clearly 'What am I able to do as payment for what I learn?' But there is no preexisting specific answer of the form 'I am able to do X'. In this sense, the inclusion of such exclusive-focus sentences in the counter-presuppositional focus class is perhaps debatable. I place this example here because exclusive focus has traditionally been seen as a subtype of counter-presuppositional focus and because its structure is clearly comparable to that of the other examples above.

## 4 The function of PVUs in counter-presuppositional focus clauses

The preceding sections have shown that sentences with counter-presuppositional focus have the same structure as those considered in the previous chapters: namely, they consist of a PVU followed by one or more focus domains. In other words, counter-presuppositional focus sentences pattern together in Greek with sentences that introduce and answer new QUDs. Why is this so? It would obviously be desirable to answer this question by showing that the former are pragmatically a subtype of the latter. I believe that this can indeed be shown to be the case.

Consider the discourse-pragmatic situation in which counter-presuppositional focus arises. This can be described as follows: the speaker assumes the hearer to believe some preexisting proposition P, which, like any proposition, can be stated in the form of a question and answer pair Q-A.<sup>12</sup>

P: Hilary ate the bagels.

Q: Who ate the bagels?

A: Hilary.

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<sup>12</sup>This is not to imply that there is only one such pair; e.g. another Q-A pair representing the same P of the example would be 'What did Hilary eat?' — 'The bagels'. The identification of Q and A will depend on which part of the preexisting proposition we think the speaker intends to manipulate.

The crucial point to notice is that at this point in the discourse, *Q does not represent an active QUD*. The hearer (so the speaker assumes) believes she already knows the answer to *Q*, namely *A*; the question therefore needs no discussion as far as the hearer is concerned. (Possibly *Q* was raised as a QUD earlier in the discourse and provided with an answer, or possibly it was never a QUD, and the source of *P* in the hearer's mind is something other than the current discourse.) The speaker, however, wishes to replace *A* with some other answer *A'*. This new answer *A'* may include *A* (additive focus), replace *A* (adversative focus), or it may consist of the same arguments in *A* plus the entailment that there are no others (exclusive focus).<sup>13</sup>

Additive *A'*: Hilary and Bob.

Adversative *A'*: Bob (and not Hilary).

Exclusive *A'*: Hilary and no one else.

Given this state of affairs, it is natural that the speaker's first discourse move should be to open *Q* as a topic for discussion, that is, to activate it as a QUD. Since *Q* is not currently an open question in the hearer's mind, it would be relatively uncooperative pragmatically to present *A'* as an answer without first signaling that *Q* should be reopened for discussion. In the QUD model, for a speaker to proffer an answer to a question that is assumed to have been answered already (that is, to a previously active but now closed QUD) would be at cross purposes with the basic aims of communication. A clear formal signal that *Q* is to be (re)introduced as an open QUD is therefore easily understandable in terms of communicative cooperation.

To illustrate this with some of the Greek examples. In (2), 'This city the Corcyraeans founded... And some Corinthians and other people of Dorian stock co-founded it too', Thucydides assumes the reader believes the *P* 'Epidamnos was founded by the Corcyraeans' (because he himself has just said so). The *Q* 'Who founded Epidamnos?' therefore has an answer in the reader's mind, *A* 'The Corcyraeans', and is thus closed. If *A* is to be replaced by the additive *A'* 'The Corcyraeans and some Corinthians and other Dorians', it is a natural cooperative discourse move to signal the reactivation of *Q* as a QUD, with the PVU  $\xi\upsilon\nu\acute{\omega}\kappa\iota\sigma\alpha\nu\ \delta\grave{\epsilon}\ ksun\acute{o}i\kappa\iota\sigma\alpha\nu\ \delta\grave{\epsilon}$  'co-founded (it)'.

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<sup>13</sup>Combinations of these functions are possible, as adversative-exclusive ('Not Hilary, but Bob and Bob only', etc.



Likewise in (8), ‘Polemarkhos’s father Kephalos was also inside’, Plato’s reader believes the P ‘At Polemarkhos’s house were Lysias, Euthydemos, etc.’. The Q ‘Who was at Polemarkhos’s house?’ is therefore closed, but its A needs to be replaced with the additive A ‘... and also Kephalos’. Q is therefore reopened as a QUD with the PVU ἦν δ’ ἔνδον *ên d’ êndon* ‘was inside’.

For an adversative example, consider (17), ‘War is for the most part a matter not of arms but of money’. The assumed P is ‘War is a matter of arms’; the Q ‘What is war a matter of?’ is to be given a new, adversative A ‘Money’ instead of the old A ‘arms’; the PVU ἔστιν ὁ πόλεμος *êstin ho pólemos* ‘war is’ signals the introduction of Q as an active QUD.

To conclude, consideration of the discourse pragmatics of counter-presuppositional focus leads us to predict that statements containing such focus should involve the introduction of a QUD. The formal signaling of such an introduction, though not grammatically obligatory, is obviously a cooperative move on a speaker’s part, as it contributes to clarity by making the intended structure of the discourse more explicit. It should thus come as no surprise to find that in Greek, sentences containing counter-presuppositional focus take the same form as ones that more obviously introduce a QUD, such as those discussed in the preceding chapter.

## 5 Counter-presuppositional focus and Matic’s ‘minor model’

The strength of the QUD analysis of counter-presuppositional focus proposed in this chapter is, then, that it is able to unify the pragmatic function of such constructions with that of others with which they are formally identical (those traditionally described as featuring ‘verb topicalization’), under the general rubric of QUD introduction. The apparent functional disparity of the counter-presuppositional focus and the verb topicalization classes has been a sticking point for previous analyses of Greek word order. Specifically, for Matic (2003), capturing the former cases was the main reason for positing an alternative ‘minor model’ of Greek word order, which he supposes to appear in a minority of sentences for no identifiable reason. In this section, I attempt to show that Matic’s own examples can be satisfactorily accounted for in my model, and that the ‘minor model’ is therefore unnecessary.

The two additive-focus examples given by Matic as part of the evidence for his ‘minor model’ are reproduced below with his context notes, glossing and transla-

tions (the second modified to reflect the passive clause structure of the original). It should be noted that, unlike the present study, Matic' does not limit his analysis to main clauses, and both of these examples happen to involve subordinate clauses. I believe that in fact principles of word order in main and subordinate clauses in Greek are broadly the same (on this question see Chapter 6, section 2), so that my model should be applicable to the latter as well as the former; in any case, if my argumentation in this section is convincing, it is obviously a strength of the model that it can capture phenomena beyond those for which it was originally developed.

(22) (= Matic's 60) ['He fastened their heads together.']

ὃ ἂν τὸ ἕτερον παραγένηται, ἐπακολουθεῖ ἕστερον καὶ τὸ ἕτερον. (Plato *Phaed.* 60c)

*hōi*     *àn*     *tò*     *héteron*     *paragénētai*,     *epakoloutheî*     *hústeron*     *kaì*     *tò*  
 to who PART the other approaches follows later also the  
*héteron*.  
 other

'When one of them comes to anyone, the other follows after, too.'

(23) (= Matic's 55) ['Leading the army straight ahead he encamped...in the nearest villages,']

ἐξ ὧν διήρπαστο ὑπὸ τοῦ βασιλικοῦ στρατεύματος καὶ αὐτὰ τὰ ἀπὸ τῶν οἰκίων ξύλα (Xen. *Anab.* 2.2.16)

*eks*     *hōn*     *diērpasto*     *hupò*     *toû*     *basilikoû*     *strateúmatos*     *kaì*  
 from which was plundered by the royal army even  
*autà*     *tà*     *apò*     *tōn*     *oikíōn*     *ksúla*  
 themselves the from the houses timbers

'from which even the very timbers of the houses had been plundered by the King's army'

Matic' regards both of these as '[n]arrow foci placed postverbally in a clause without verb topicalization' (Matic' 2003:616), and thus as necessitating a separate type of analysis. I believe that both examples are explicable under the present QUD-introduction account, as follows.

In (22), the preexisting proposition P is the one expressed in the relative clause that precedes the *καί*-clause: it can be paraphrased (a bit awkwardly, due to its indefiniteness) as ‘one of them [sc. pleasure and pain] comes to a person’. The additively focused element in the *καί*-phrase is τὸ ἕτερον τὸ *héteron* ‘the other’; this is the added information that distinguishes A’ ‘both of them’ from A ‘one of them’. The Q ‘Which of the two, pleasure and pain, comes to a person (under the circumstances described)?’ thus needs to be reopened as a QUD. This example is no different in structure from the ones already discussed. The only slight difficulty is the choice of verb, *ἐπακολουθεῖ epakoloutheî* ‘follows’, which on the face of it is not part of Q since Q does not mention ‘following’, only ‘coming’. But recall from an early example in this chapter, example (2), that the additive semantics of *καί* can be incorporated lexically in the verb. Just as in that example the verb *ξυνόκισαν ksunôikisan* ‘co-founded’ represented the semantic sum of the preexisting-proposition verb ‘founded’ plus the idea of ‘also’ or ‘together’, so here *ἐπακολουθεῖ epakoloutheî* ‘follows’ represents the sum of the verb ‘come’ of the preexisting proposition plus the same additive idea. Once this lexical complication is recognized, *ἐπακολουθεῖ ὕστερον epakoloutheî hústeron* ‘follows next’ can be seen as a PVU, performing its usual function of introducing (here, reopening) a QUD.

The verb *διήρπαστο diêrpasto* ‘had been plundered’ in example (23) is more difficult to explain as part of a preexisting proposition: at this point in the discourse, after all, there seems to be no active proposition in the common ground of the form ‘A had been plundered’. But rather than posit an *ad hoc* alternative model to describe this example, it should instead be regarded as a case of pragmatic accommodation. The effect of Xenophon’s using a *καί*-clause in this sentence is precisely to evoke a proposition P such as ‘Things in the villages had been plundered’, even though no such statement has been explicitly made. A new, additive A’ ‘the timbers of the houses’ is now to be added to this implicit Q, which is therefore activated as a QUD by the single-verb PVU *διήρπαστο diêrpasto*. Like all appeals to accommodation, of course, this analysis may smack of circularity. But it seems all but inevitable that, given the existence of a focus construction that is capable of evoking common-ground propositions, that construction should come to serve as an occasional means of evoking propositions that have not actually been explicitly asserted, especially in the hands of literary writers. This strikes me as a more satisfying explanation, at any rate, than Matić’s claim that such examples simply obey a completely different set of word-order rules for no reason that we can discern.

I conclude that the PVU in counter-presuppositional focus sentences serves

the same pragmatic function—QUD introduction—that PVUs do in Greek generally, and that there is thus no need to posit a different model to account for such sentences.

## Chapter Six

# Further implications

In this final chapter, I examine some of the implications of this dissertation's findings for the study of Greek word order as well as for discourse pragmatics and the Question Under Discussion model more generally. Section 1 raises the question of whether the discourse-pragmatic apparatus I have employed here is sufficient as a basis for a general theory of word order in Greek. Section 2 considers the prospects of its extension to subordinate clauses. Section 3 observes, and suggests some tentative explanations for, some differences between my five authors' use of verb-initial constructions. Finally, section 4 proposes some ways in which this dissertation, as the first study to apply the QUD framework to real texts, can point to fruitful modifications of the model.

### 1 Pragmatic categories and Greek word order

As I have described in Chapter 2, recent theories of Greek word order from a discourse-pragmatic or information-structural perspective work with a variety of pragmatic categories and a variety of definitions. In this study I have used a relatively austere approach which recognizes only three such categories: topic, focus, and discourse-active elements. To define these within the QUD framework, I understand *topic* to mean the set of referents that form the basis for a new QUD, i.e. one that is being introduced in the present clause, and that differ from those of the previous QUD; *focus* is the set of referents that represent the answer being proffered to the current QUD; while *discourse-active* referents are those which are neither topical or focal but are part of the common ground (whether because of prior evocation in the discourse, because of general world knowledge, by accommodation, etc.).

My conjecture about Greek word order, at least at the clause and sentence levels, is that it can be captured largely using these three categories and no others, given prosodic segmentation. The general principles are these:

- Topics and foci (together, *discourse-prominent* words) always begin an intonational phrase.
- Discourse-active words never begin an intonational phrase.
- Topical intonational phrases precede focal ones.

These principles (which are similar to some of those proposed by Scheppers 2011, though his pragmatic framework is more complex than mine) account, I believe, for many or most of the phenomena of Greek word order. A strong version of the conjecture would be that Greek word order (at least above some relatively low prosodic or syntactic level, e.g. that of the prosodic word) can be *entirely* captured with these three categories, given some small number of further ordering principles to add to the list above. This cannot be proven at present, but is very much worthy of further investigation. The main questions still to be answered, as I see them, are the following.

First, what is the status of verbs in our model? The most influential current theories of Greek word order consider the verb a primary category, alongside topic, focus, etc.: Dik's (1995) system operates with a 'preverbal focus' slot, while Matic (2003) bases his (largely correct) distinction between 'broad' and 'narrow' focus on the information status of the verb, but without considering the question of why verbs – a morphosyntactic category – should behave differently from other words in a discourse-configurational language. These theories, like the analyses of word order in other discourse-configurational languages that inspired them (for some recent examples of these see Kiss 1994, Sabel and Saito 2005), thus have the curious and unremarked-upon feature of relying on two quite different types of linguistic entities: a set of pragmatic or information-structural categories, plus one specific morphosyntactic category. This incongruity is presumably an artefact of the origin of such theories in generative syntax and the word-order typology tradition (with its SOV, SVO, etc., types); whatever the reasons for it, it is certainly worth challenging. Perhaps it will turn out that the category 'verb' really is an irreducible prime in so-called discourse-configurational languages like Greek (in which case the term needs qualification); or perhaps it will prove possible to account for verb position with the same kinds of pragmatic factors that govern the placement of other words.

As should be obvious given the topic of this thesis, I tend to the latter opinion, at least as far as Greek is concerned. The fact that initial verbs in Greek perform discourse functions comparable to those of initial nominals suggests that yet stronger generalizations can be drawn. Specifically, the Matić narrow-focus pattern, in which the verb follows a focused argument but is not in focus itself, seems to correspond in my terms to the situation in which the content of the verb is discourse-active; the verb then, given the principles above, cannot stand first in its intonational phrase but attaches to the focus, which does. How to account for the broad-focus pattern (focused verb followed by focused argument) is less clear to me: do the two focused elements represent two separate intonational phrases, and if so, why do these appear in that order? Or does the argument attach prosodically to the verb, and if so (as my principles above would predict) can it be shown to be in some sense not a real focus, but something more akin to a discourse-active element? These questions should be at least partly answerable by clitic placement and other such diagnostics, and await further study.

A second outstanding question concerns the distribution of discourse-active words. As we have seen, and as Matić and Scheppers both observe, these are not constrained to appear within the intonational phrase where they semantically belong; their placement is at present largely unpredictable. My identification of the contrastive topic construction (Chapter 4, section 5) goes some way towards answering this question: in that construction, the verb is discourse-active (since it does not represent the new content of the subquestion being introduced, but continuous content from the superquestion), and its placement within the QUD-introducing intonational phrase appears to signal a specific type of question hierarchy. Possibly other types of pragmatic contexts will be found to correspond to other patterns of distribution of discourse-active words. If so, it may turn out that at least some aspects of Greek word order are best captured by a Construction Grammar (CxG) approach (Fillmore 1988; Fillmore, Kay, and O'Connor 1988; Goldberg 1995, 2006; Croft 2001; Fried and Östman 2004; Fried and Boas 2005; for Greek, Cristofaro 2008, Barðdal and Danesi 2014), laying out an inventory of word-order constructions with their pragmatic meanings. Since constructions in CxG are related in hierarchies in which the root constructions can be highly general, such an approach would not necessarily conflict with the 'general principles' approach I have outlined above, but could complement it by expressing similar concepts in a different way.

Finally, an issue which is of importance to any general theory of Greek word order is the question whether a clause can contain multiple topic phrases. Dik's model has a single Topic slot, preceded by an optional Setting slot; Matić posits

(unnecessarily, as I argued in Chapter 2) a variety of subtypes of Topics, each with their own position in the left periphery. It is clear that a Greek clause can begin with a number of units, each coded as a separate intonational phrase, which can all be seen as ‘topical’ in some very broad sense of the word. The question is whether these are best unified as a single category ‘Topic’, in which case the possibility of more than one topic in a clause must be allowed, or whether clauses should be limited to a single topic and additional quasi-topical units should be seen as an essentially different category, or whether some kind of hierarchical model – in which topics can be nested and their domains can, but do not have to, correspond to a clause – best captures the phenomena (in which case the QUD model could obviously be of use). Since multiple topics rarely co-occur with initial verbs in Greek, I have not been able to consider them in this study and can do little more than pose the question here.

## 2 Beyond finite main clauses

In this study I have considered only finite verbs in main clauses, since it seemed best to establish a starting point based on a syntactically unitary phenomenon before attempting to extend the findings to other syntactic contexts. But such verbs, of course, are only a relatively small proportion of the verbal tokens in any Greek text, especially a highly hypotactic one as many literary texts are. An obvious next step should be to examine verbs in subordinate clauses, both finite verbs as well as infinitives and participles.

To what extent the QUD model, which is most suitable to the analysis of discourse at the sentence level and above, will be useful in the case of subordinate clauses remains to be seen. But it seems likely that some such hierarchical approach can be applied to units below the sentence level, too, as sub-sentential topic-focus structures do occur in Greek not infrequently (for an example, see [41] in Chapter 4, section 5).

It is plausible that the behavior of verbs in indirect speech clauses of any type should turn out to be shaped by the same factors that apply to their main-clause equivalents: especially in long stretches of indirect speech, there seems to be no difference in structure between such passages and direct speech, other than the morphology of the accusative and infinitive construction, when this is used. The placement of other types of infinitives, however, such as complementary infinitives with verbs like  $\delta\epsilon\acute{\iota}$  *dei* ‘it is necessary’ and the like, is perhaps best captured by other means than a QUD approach. Even in such cases, though, it is likely that



such infinitives can stand in various types of topic-focus relationships with their arguments, and that this affects their relative order. This is a question that has been hardly touched upon in Greek word order studies (which mostly focus, as this one does, on main clauses).

Likewise, participial clauses of various kinds present their own difficulties, but will, I suspect, be found to be largely amenable to an analysis in my three categories of topic, focus, and discourse-activeness. A genitive absolute, for example, contains a subject and predicate which can represent various combinations of these pragmatic roles, and it might be expected that the word orders that such relationships dictate in finite main clauses will also be found in genitives absolute and other such subordinate clauses. The main difficulty in testing this prediction is the theoretical one of defining and identifying these pragmatic categories in the context of a subordinate clause, whose content is in a sense pragmatically dependent on that of its matrix clause and can therefore be trickier to characterize than an independent assertion. The information structure of subordinate clauses is currently an understudied area; this means that an investigation of this topic in a language like Greek, where the pragmatics of main-clause word order are well enough understood to serve as a basis of comparison, could be of broad theoretical significance.

### **3 Style and genre: Inter-authorial differences**

A naturally arising question is whether and to what extent Greek authors vary in their use of verb-initial clauses, and inasmuch as they do, how far this variation should be ascribed to genre and how far it is a matter of individual style. This question requires a larger corpus to address satisfactorily, and I can only offer some tentative observations here.

Table (1) shows the breakdown of the two types of verb-initial clauses I have identified – those in which the verb is topical or QUD-introducing, and those in which it is focal, or QUD-answering – for the five authors in my corpus. It can be seen that for four of the authors – all except Lysias – the ratio of the two types is roughly comparable, namely around two to one. In Lysias, however, topical and focal initial verbs are about equally common.

<b>Work</b>	<b>Initial verbs: Total</b>	<b>Topical</b>	<b>Focal</b>
Herodotus 3	195	121 (62.1%)	74 (37.9%)
Lysias, <i>Against Eratosthenes</i>	49	25 (51%)	24 (49%)
Plato, <i>Republic</i> 1	73	50 (68.5%)	23 (31.5%)
Thucydides 1	197	137 (69.5%)	60 (30.5%)
Xenophon, <i>Cyropaedia</i> 1	80	51 (63.8%)	29 (36.2%)

Table 1: Verb-initial clause types by author

This difference is interesting in itself, but it needs to be seen in the broader context of the overall frequency of verb-initial clauses in my five texts. Do all five authors use verb-initial clauses (of either type) equally frequently? How many words on average of a given author do we need to read before we encounter an initial verb? Table (2) shows the occurrence frequency of initial verbs (IVs) in general, and of the two subcategories, calculated with reference to total word count. That is, Herodotus in Book 1 uses an initial verb about once every 149 words, and a specifically topical initial verb about once every 240 words, and so on.

<b>Work</b>	<b>Words / IV</b>	<b>Words / top. IV</b>	<b>Words / foc. IV</b>
Herodotus 3	149.16	240.38	393.1
Lysias, <i>Against Eratosthenes</i>	99.22	194.48	202.58
Plato, <i>Republic</i> 1	129.1	188.48	409.74
Thucydides 1	113.88	163.76	373.92
Xenophon, <i>Cyropaedia</i> 1	151.85	238.2	418.9

Table 2: Frequencies of verb-initial clause types by author

Some more interesting differences emerge from these data. In terms of the overall frequency of verb-initial clauses, the authors range from Herodotus and Xenophon (least frequent) to Lysias (most frequent), with Plato and Thucydides in between. When we look at the frequencies of the two subtypes, however, the picture that results is a more complex one. For topical initial verbs, Herodotus and Xenophon are the least inclined to use these; the other three authors roughly cluster together, with Thucydides being the most frequent user of topical IVs. For focal initial verbs, though, Lysias is a pronounced outlier: he uses this construction about twice as often as the other four authors (who are comparable among themselves).

We must be cautious about trying to interpret these differences, because the sample of authors is a small one and because it is possible that the same author's usage may vary in different works or in different parts of the same work. Still, the last-noted difference, Lysias's frequent use of focal initial verbs, is perhaps reflective of the specific discourse structure of courtroom oratory: recall from Chapter 3, section 4, that focal initial verbs appear in QUD-continuous passages where the main content of the QUD answer is represented by the verb, rather than by its arguments. It is plausible that in forensic speeches, where the question is often one of establishing *what* someone did in a given situation, QUD answers should often be centered on verbal content, and that such answers should appear in stretches of text that are governed by a single continuous QUD (like 'What did he do?').

The strong similarity between Herodotus and Xenophon in their relatively infrequent use of topical initial verbs is somewhat harder to explain. Since such verbs mark QUD transitions, it is possible that such transitions are simply less frequent in these authors – that is, that their QUDs tend to persist over a longer stretch of discourse. Alternatively, it may be that Herodotus and Xenophon are less concerned with explicitly signaling QUD transitions, or that they prefer to structure their discourse around nominal rather than verbal QUDs. Whatever the explanation, it is at least suggestive, and inspiring of confidence in the value of this kind of comparative stylistic analysis, that these two authors – whose styles many readers of Greek would probably regard *a priori* as the most similar to each other out of our group of five – should turn out to behave almost identically in this regard.

## 4 Implications for the QUD model

This study represents, as far as I am informed (Craig Roberts, p.c.), the first large-scale application of the QUD model to naturally occurring discourse. As such, it points to at least two areas where the model could be fruitfully modified or extended.

First, the QUD framework, as this is currently conceived, operates mainly in terms of argument questions: that is, the focus domains in the example sentences of most QUD work correspond to syntactic arguments of the verb in the strict sense (that is, constituents that are required by its argument structure). In real texts, however, it is not infrequently the case that the QUD is syntactically complete

in terms of verbal arguments, and the focus domain is an adjunct.<sup>1</sup> Thus, to choose some examples from the inventory given in Chapter 4, we find participial-phrase focus (6, 12), adjunct prepositional-phrase focus (11), and adverb focus (20). Adjuncts tend to stand in a looser semantic relationship to the verb than arguments do, and it becomes less straightforward in such cases to frame the relevant QUD in a satisfactory way. A model of discourse that is based on questions like ‘Who ate the pasta?’ is neater in a way than one based on questions like ‘Karen ate the pasta after doing what?’, in that it is intuitively easier to see communication as shaped by the former kind of question than by the latter, but any model that aims to account for naturally occurring discourse must be able to capture both.

Second, as I have mentioned before, the QUD model when applied to real discourse sooner or later encounters the difficulty that not all communication actually has the goal of collaboratively finding assertions that answer given questions. A substantial part of real discourse is not assertive at all, but directive, interrogative, etc., and it is not clear how the model can or should deal with non-assertive clauses. In fact, in texts such as the ones I have considered, this problem does not present itself as often as might be thought, because most of them are to a large extent monologic; the absence of an immediate audience in, for example, a historiographic narrative means that non-assertive clauses are rare outside of reported speech. Nevertheless, such constructions do appear (more in oratory and dialogue than in narrative, naturally), and it would be useful to have a way of describing them in a QUD framework. Whether this can be done without changing the framework beyond recognition is not clear to me, since it is so fundamentally based on assertions and their relationship to implicit questions; still, it seems undesirable to have to conclude that the principles of focus, word order, and the like that apply in assertive clauses are essentially different from those that apply in other types of clauses. This question would, I think, be best addressed based on natural discourse of a different and much more dialogic type than my texts – such as spontaneous conversation – so I will make no attempt to answer it here.

In any case, I hope to have shown in this dissertation that theoretical frameworks like the Question Under Discussion model can be applied with advantage to complex naturally occurring texts, and that such applications are both productive and necessary to the further development of any discourse pragmatics theory. I hope, too, that readers will have been persuaded of the importance of close consideration of the interactions of sentence prosody, pragmatics, and the informational

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<sup>1</sup>I am indebted to Line Mikkelsen for this observation.

architecture of discourse at levels above the clause, in the interpretation of word-order variation in Greek and, by implication, in other discourse-configurational languages.

# Bibliography

- Agbayani, Brian, and Chris Golston. 2010. 'Phonological movement in Classical Greek'. *Language* 86.1:133-167.
- Barðdal, Jóhanna, and Serena Danesi. 2014. 'Construction Grammar and Greek'. In *Encyclopedia of Ancient Greek Language and Linguistics*, ed. Georgios K. Giannakis, pp. 375–379. Leiden: Brill.
- Bolinger, Dwight. 1972. 'Accent is predictable (if you're a mind-reader)'. *Language* 48.3:633-644.
- Büring, Daniel. 1999. 'Topics'. In *Focus: Linguistic, cognitive, and computational perspectives*, ed. P. Bosch and R. van der Sandt, pp. 142–165. Cambridge: Cambridge University Press.
- . 2003. 'On D-Trees, Beans, and B-Accents'. *Linguistics and Philosophy* 26.5:511-545.
- . 2006. 'Intonation und Informationsstruktur'. In *Text—Verstehen. Grammatik und darüber hinaus*, ed. H. Blühdorn, E. Breindl, and U. H. Waßner, pp. 144–163. Berlin: de Gruyter.
- . 2009. 'Towards a typology of focus realization'. In *Information structure*, ed. Malte Zimmermann and Caroline Féry, pp. 177–205. Oxford: Oxford University Press.
- Carlson, Laurie. 1983. *Dialogue games: An approach to discourse analysis*. Dordrecht: Reidel.
- Chafe, Wallace. 1976. 'Givenness, contrastiveness, definiteness, subjects, topics, and point of view'. In *Subject and topic*, ed. Charles N. Li, pp. 25–55. New York: Academic Press.
- . 1987. 'Cognitive constraints on information flow'. In *Coherence and grounding in discourse*, ed. Russell S. Tomlin, pp. 21-52. Amsterdam and Philadelphia: Benjamins.
- . 1994. *Discourse, consciousness, and time: The flow and displacement of conscious experience in speaking and writing*. Chicago University Press.
- Cristofaro, Sonia. 2008. A constructional approach to complementation: evidence from Ancient Greek. *Linguistics* 46.571-606.

- Croft, William. 2001. *Radical Construction Grammar. Syntactic theory in typological perspective*. Oxford University Press.
- Cruttenden, Alan. 2006. 'The de-accenting of given information: a cognitive universal?' In *Pragmatic organization of discourse in the languages of Europe*, ed. Giuliano Bernini and Marcia L. Schwartz, pp. 311-355. Walter de Gruyter.
- Daneš, Frantisek. 1966. A three-level approach to syntax. In *Travaux linguistiques de Prague*, vol. 1, ed. Frantisek Daneš et al., pp. 224-240. University of Alabama Press.
- Denniston, J. D. 1954. *The Greek particles*, 2nd ed. Oxford University Press.
- Devine, A. M., and L. D. Stephens. 1990. 'The Greek phonological phrase'. *Greek, Roman, and Byzantine Studies* 31:421-446.
- . 1994. *The prosody of Greek speech*. Oxford University Press.
- . 1999. *Discontinuous syntax: Hyperbaton in Greek*. Oxford University Press.
- Dik, Helma. 1995. *Word order in Ancient Greek*. Amsterdam: Brill.
- . 2007. *Word order in Greek tragic dialogue*. Oxford University Press.
- Dik, Simon. 1989. *The theory of functional grammar. Part I: The structure of the clause*. Dordrecht: Foris.
- Dover, Kenneth J. 1960. *Greek word order*. Cambridge University Press.
- Fillmore, Charles. 1976. 'Frame semantics and the nature of language'. In *Origins and evolution of language and speech*, ed. Stevan R. Harnad, Horst D. Steklis, and Jane Lancaster, pp. 20-32. *Annals of the NY Academy of Sciences*, Vol. 280.
- . 1982. 'Frame semantics'. In *Linguistics in the morning calm*, ed. Linguistic Society of Korea, pp. 111-137. Seoul: Hanshin Publishing Company.
- . 1988. 'The mechanisms of "Construction Grammar"'. In *Proceedings of the fourteenth annual meeting of the Berkeley Linguistics Society*, ed. Shelley Axmaker, Annie Jaisser, and Helen Singmaster, pp. 35-55. Berkeley: Berkeley Linguistics Society.
- Fillmore, Charles, Paul Kay and Mary K. O'Connor. 1988. 'Regularity and idiomaticity in grammatical constructions: The case of *let alone*'. *Language* 64:501-538.
- Fraenkel, Eduard. 1932. 'Kolon und Satz, I: Beobachtungen zur Gliederung des antiken Satzes'. *Nachrichten der Göttinger Gesellschaft der Wissenschaften, Phil.-hist. Klasse*, 197-213.
- . 1933. 'Kolon und Satz, II: Beobachtungen zur Gliederung des antiken Satzes'. *Nachrichten der Göttinger Gesellschaft der Wissenschaften, Phil.-hist. Klasse*, 319-354.

- . 1964. ‘Nachträge zu “Kolon und Satz”’, in *Kleine Beiträge zur klassischen Philologie*, vol. 1, pp. 93-130. Rome: Storia e Letteratura.
- . 1965. *Noch einmal Kolon und Satz*. Munich: Bayerische Akademie der Wissenschaften.
- Fried, Mirjam, and Jan-Ola Östman. 2004. ‘Construction Grammar: A thumbnail sketch’. In *Construction Grammar in a cross-language perspective*, ed. Mirjam Fried and Jan-Ola Östman, pp. 11–86. Amsterdam: John Benjamins.
- Fried, Mirjam, and Hans C. Boas, eds. 2005. *Grammatical constructions: Back to the roots*. Amsterdam and Philadelphia: John Benjamins.
- Givón, Talmy. 1985. ‘Iconicity, isomorphism and non-arbitrary coding in syntax’. In *Iconicity in syntax*, ed. John Haiman, pp. 187-219. Amsterdam: John Benjamins.
- . 2001. *Syntax: An introduction*. Vol. 2. Amsterdam: John Benjamins.
- Goldberg, Adele. 1995. *Constructions: A Construction Grammar approach to argument structure*. Chicago: University of Chicago Press.
- . 2006. *Constructions at work: The nature of generalization in language*. Oxford University Press.
- Goldstein, David Michael. 2010. *Wackernagel’s Law in fifth-century Greek*. Ph. D. dissertation, Dept. of Classics, University of California, Berkeley.
- . 2012. ‘Review of Frank Scheppers, *The Colon Hypothesis: Word Order, Discourse Segmentation and Discourse Coherence in Ancient Greek* (Brussels 2011).’ *Bryn Mawr Classical Review* 05.49.
- . 2013. ‘Wackernagel’s Law and the Fall of the Lydian Empire’. *Transactions of the American Philological Association* 143:2.325-347.
- . 2015. *Classical Greek syntax: Wackernagel’s Law in Herodotus*. Leiden: Brill.
- Golston, Chris. 1995. ‘Syntax outranks phonology: Evidence from Ancient Greek’. *Phonology* 12:3.343-368.
- de Groot, Casper. 1981. ‘Sentence intertwining in Hungarian’. In *Predication and expression in functional grammar*, ed. A. M. Bolkestein et al., pp. 41-62. London and New York: Academic Press.
- Gundel, Jeanette K. 1985. “‘Shared knowledge’ and topicality’. *Journal of Pragmatics* 9.1:83-107.
- Gussenhoven, Carlos. 1984. *On the grammar and semantics of sentence accents*. Dordrecht: Foris.
- Haberland, Helmut. 2006. ‘Thetic-categorical distinction’. In *Encyclopedia of Language and Linguistics*, vol. 12.2, ed. Keith Brown, pp. 676-677. Oxford: Pergamon Press.
- Hajnal, Iwo. 2004. ‘e-ke-qe oder e-ke? - Mündlichkeit und Schriftlichkeit in



- den mykenischen Palastarchiven'. In *Analecta Homini Universalis Dicata. Arbeiten zur Indogermanistik, Linguistik, Philologie, Politik, Musik und Dichtung. Festschrift für Oswald Panagl zum 65. Geburtstag*, ed Thomas Krisch, Thomas Lindner, and Ulrich Müller. Stuttgart: Hans-Dieter Heinz, 233–251.
- Hale, Kenneth. 1983. 'Warlpiri and the grammar of non-configurational languages'. *Natural Language and Linguistic Theory* 1:5-47.
- Halliday, M. A. K. 1967. 'Notes on transitivity and theme in English, part 2'. *Journal of Linguistics* 3:177–274.
- Hannay, Michael. 1991. 'Pragmatic function assignment and word order variation in a functional grammar of English'. *Journal of Pragmatics* 16:131-155.
- Hirschberg, Julia. 1993. 'Pitch accent in context: Predicting intonational prominence from text'. *Artificial Intelligence* 63:305-340.
- . 1999. 'Communication and prosody: function aspects of prosody'. In *Proceedings of ESCA International Workshop on Dialogue and Prosody*, pp. 7-15. Veldhoven: ESCA.
- Holland, Gary. 1980. *Problems of word order change in selected Indo-European languages*. Ph. D. dissertation, Dept. of Linguistics, University of California, Berkeley.
- Husserl, Edmund. 2001 (1913). *Logical investigations*. London: Routledge.
- Jacobs, Joachim. 2001. 'The dimensions of topic-comment'. *Language* 39.4:641-681.
- Jackendoff, Ray S. 1972. *Semantic interpretation in generative grammar*. Cambridge, MA: MIT Press.
- Janse, Mark. 1993. 'The prosodic basis of Wackernagel's Law.'. In *Les langues menacées. Actes du XV<sup>e</sup> Congrès international des linguistes, Québec, Université Laval, 9-14 août 1992*, Vol. 4, ed. A. Crochetière, J.-C. Boulanger, and C. Ouellon, pp. 19–22. Sainte-Foy: Presses de l'Université Laval.
- . 1994. 'L'ordre des mots dans les langues classiques. Bibliographie 1939-1993.' *Techniques et Méthodologies Modernes Appliquées à l'Antiquité* 1:187-211.
- Jary, Mark, and Mikhail Kissine. 2014. 'Imperatives'. *Key topics in semantics and pragmatics*. Cambridge: Cambridge University Press.
- de Jonge, Casper C. 2007. 'From Demetrius to Dik: Ancient and modern views on Greek and Latin word order'. In *The language of literature: Linguistic approaches to classical texts*, ed. Rutger J. Allan and M. Buijs, pp. 211-232. *Amsterdam Studies in Classical Philology* 13. Leiden: Brill.
- Kiss, Katalin E. 1981. 'Structural relations in Hungarian, a "free" word order

- language'. *Linguistic Inquiry* 12.2:185-213.
- . 1987. *Configurationality in Hungarian (Studies in Natural Language and Linguistic Theory, vol. 3)*. Springer Science and Business Media.
- . 1994. *Discourse-configurational languages*. Oxford University Press.
- Krifka, Manfred. 2007. 'Basic notions of information structure'. *Interdisciplinary Studies on Information Structure* 6:13–55.
- Kubota, Yusuke, and Ai Matsui. 2010. 'Modes of comparison and Question under Discussion: Evidence from "contrastive comparison" in Japanese'. In *Proceedings of the 20th Annual Semantics and Linguistic Theory Conference (SALT20)*, ed. Nan Li and David Lutz, pp. 57-75. Ithaca: CLC Publications.
- Ladd, D. Robert. 1980. *The structure of intonational meaning: Evidence from English*. Bloomington: Indiana University Press.
- Ladusaw, William. 1994. 'Thetic and Categorical, Stage and Individual, Weak and Strong'. In *Proceedings from Semantics and Linguistic Theory IV*, ed. Mandy Harvey and Lynn Santelmann, pp. 220-229. Ithaca: Cornell University Press.
- Lakoff, George. 1987. 'Cognitive models and prototype theory'. In *Concepts and conceptual development: Ecological and intellectual factors in categorization*, ed. Ulric Neisser, pp. 63-100. New York: Cambridge University Press.
- Lambrecht, Knud. 1996. *Information structure and sentence form: Topic, focus, and the mental representations of discourse referents*. Cambridge University Press.
- Lewis, David. 1975. 'General semantics'. In *Semantics of natural language*, ed. D. Davidson and G. Harman, pp. 169-218. Boston: D. Reidel.
- . 1979. 'Scorekeeping in a language game.' *Journal of Philosophical Logic* 8:339-359.
- Luraghi, Silvia. 1995. 'The pragmatics of verb initial sentences in some ancient Indo-European languages'. In *Word order in discourse*, ed. Pamela A. Downing and Michael Noonan, pp. 355-386. Amsterdam: John Benjamins.
- Marshall, M. H. 1987. *Verbs, nouns, and postpositives in Attic prose*. Edinburgh: Scottish Academic Press.
- Marty, Anton. 1918. *Gesammelte Schriften*, vol. 2, part 1. *Abteilung*. Halle: Max Niemeyer Verlag.
- Matić, Dejan. 2003. 'Topic, focus, and discourse structure: Ancient Greek word order'. *Studies in Language* 27.3:573-633.
- McNally, Louise. 1998. 'Stativity and theticity'. In *Events and grammar*, ed. Susan Rothstein, pp. 293-307. *Studies in Linguistics and Philosophy* 70. Springer Netherlands.
- Prince, Ellen F. 1981. 'Topicalization, focus-movement, and Yiddish-movement:

- A pragmatic differentiation'. In *Proceedings of the Seventh Annual Meeting of the Berkeley Linguistics Society* ed. Danny K. Alford et al., pp. 249-264. Berkeley: Berkeley Linguistics Society.
- . 1997. 'On the functions of left-dislocation in English discourse'. In *Directions in functional linguistics*, ed. A. Kamio, pp. 117–44. Philadelphia/Amsterdam: John Benjamins.
- Reinhart, Tanya. 1982. *Pragmatics and linguistics: An analysis of sentence topics*. Bloomington, Indiana: Illinois University Linguistics Club.
- Rijksbaron, Albert (ed.). 1997. *New approaches to Greek particles*. Amsterdam: J. C. Gieben.
- Roberts, Craige. 1996. 'Information structure in discourse: Towards an integrated formal theory of pragmatics'. In *OSU Working papers in linguistics 49: Papers in semantics*, ed. Jae-Hak Yoon and Andreas Kathol, pp. 91-136. Columbus: Ohio State University. Amended and reprinted as Roberts 2012.
- . 1998. 'Focus, the flow of information, and universal grammar'. In *The limits of syntax*, ed. Peter Culicover and Louise McNally (*Syntax and Semantics* 29), pp. 109-160. New York: Academic Press.
- . 2004. 'Context in dynamic interpretation'. In *The handbook of pragmatics*, ed. L. R. Horn and G. Ward, pp. 197–220. Oxford: Blackwell.
- . 2011. 'Topics'. In *Semantics: An international handbook of natural language meaning*, ed. K. von Stechow, C. Maienborn, and P. Portner, vol. 2, pp. 1908-1933. Mouton de Gruyter.
- . 2012. 'Information structure in discourse: Towards an integrated formal theory of pragmatics'. *Semantics and Pragmatics* 5, Article 6:1-69.
- Rumelhart, D. E. 1975. 'Notes on a schema for stories'. In *Representation and understanding: Studies in cognitive science*, ed. D. G. Bobrow and A. Collins, pp. 185-210. New York: Academic Press.
- Sabel, Joachim, and Mamoru Saito. 2005. *The free word order phenomenon: Its syntactic sources and diversity (Studies in Generative Grammar 69)*. Walter de Gruyter.
- Sasse, Hans-Jürgen. 1987. 'Thethetic/categorical distinction revisited'. *Linguistics* 25:511-580.
- Schank, Roger C. and Robert P. Abelson. 1977. *Scripts, plans, goals, and understanding*. Hillsdale: Lawrence Erlbaum.
- Scheppers, Frank. 2011. *The colon hypothesis: Word order, discourse segmentation and discourse coherence in Ancient Greek*. Brussels: VUBPress.
- Selkirk, Elizabeth. 1995. 'Sentence prosody: Intonation, stress, and phrasing.' In *Handbook of Phonological Theory*, vol. 1, ed. John A. Goldsmith, pp. 550-

569. Blackwell.
- Stalnaker, Robert. 1979. 'Assertion'. *Syntax and Semantics* 9:147-161.
- Szabolcsi, Anna. 1980. 'Az aktuális mondattagolás szemantikájához'. *Nyelvtudományi Közlemények* 82:59–83.
- Szekely, Rachel. 2015. *Truth without predication: The role of placing in the existential there-sentence*. Palgrave Macmillan.
- Toosarvandani, Maziar. 2010. *Association with foci*. Ph. D. dissertation, Department of Linguistics, University of California, Berkeley.
- Wackernagel, Jacob. 1892. 'Über ein Gesetz der indo-germanischen Wortstellung'. *Indogermanische Forschungen* 1:333-436.
- Ward, Gregory L. 1988. *The semantics and pragmatics of preposing*. New York and London: Garland.
- . 1990. 'The discourse functions of VP preposing.' *Language* 66:742-766.