ARCHAISM AND ORALITY IN HOMERIC SYNTAX

A DISSERTATION

SUBMITTED TO THE DEPARTMENT OF CLASSICS

AND THE COMMITTEE ON GRADUATE STUDIES

OF STANFORD UNIVERSITY

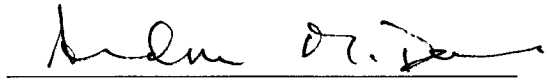
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

Daphne Kleps

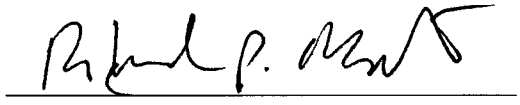
June 2009

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.



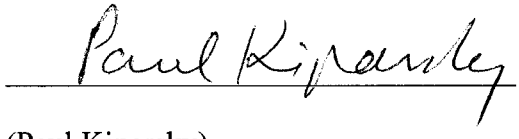
(Andrew Devine) Principal Adviser

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.



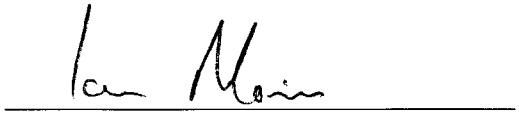
(Richard Martin)

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.



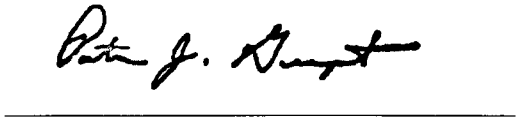
(Paul Kiparsky)

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.



(Ian Morris)

Approved for the Stanford University Committee on Graduate Studies.



Acknowledgments

I thank my advisor, Andrew Devine, above all. I also thank the members of my committee, Richard Martin, Paul Kiparsky, and Ian Morris; as well as David Beaver, Anna Maria Berger, Jim Fox, Meredith English Monaghan, Reviel Netz, Brent Sockness, Charles Stocking, Bill Tieman, and Laurel Watkins; Theodore and Frances Geballe; and Ka'ala Yezbick, Joan Kleps, Alice van Harten, Marija Vrljic, Elizabeth West, and Amanda Wilcox.

TABLE OF CONTENTS

List of Tables

Introduction

When a native speaker of a modern Indo-European language like English starts to read Homer, either in the original or in a fairly literal translation, a couple of style issues soon arise, and present problems of interpretation. First, there is a lot of verbatim repetition. That, one will read in the commentary or introduction, is because this poetry was orally composed and performed (see for example Kirk 1985:10-14; Lattimore 1951:37-40). The second issue is more difficult to pin down, and may take a little longer to be noticed, but is just as central to the general impression that Homeric language makes on the reader. Sentences tend to consist of series of clauses that are parallel rather than nested (1a):[1]

(1) a. ὣς ἄρα οἱ φρονέοντι δοάσσατο κέρδιον εἶναι· / βῆ ῥ' ἴμεν εἰς ὕλην· τὴν δὲ σχεδὸν ὕδατος εὗρεν / ἐν περιφαινομένῳ. δοιοὺς δ' ἄρ' ὑπήλυθε θάμνους / ἐξ ὁμόθεν πεφυῶτας· ὁ μὲν φυλίης, ὁ δ' ἐλαίης. / τοὺς μὲν ἄρ' οὔτ' ἀνέμων διάη μένος ὑγρὸν ἀέντων, / οὔτε ποτ' ἠέλιος φαέθων ἀκτῖσιν ἔβαλλεν, / οὔτ' ὄμβρος περάασκε διαμπερές· ὣς ἄρα πυκνοὶ / ἀλλήλοισιν ἔφυν ἐπαμοιβαδίς· οὓς ὑπ' Ὀδυσσεὺς / δύσετ'. ἄφαρ δ' εὐνὴν ἐπαμήσατο χερσὶ φίλῃσιν / εὐρεῖαν: φύλλων γὰρ ἔην χύσις ἤλιθα πολλή (Od. 5.474-483)
This way seemed to him best as he thought; he set off toward a wood, which he found near the water in a conspicuous place. And he went under two small trees growing from the same spot; the one was a shrub, the other a wild olive. The wet force of the gusting winds could not blow through these, nor the shining sun cast its rays, nor the rain get all the way through. So close together they grew, intertwined with each other; Odysseus made his way under them. And right away, he scraped together a wide bed with his own hands: there was a heap of leaves big enough

Even within clauses, information tends to filter in gradually, as in this arming scene where each line sketching out an action is followed by one filling in more detail (2a):

[1] Examples and citations from ancient texts are from *TLG* unless otherwise noted. Translations throughout are mine unless otherwise noted; translations of Homer are influenced by Lattimore (1951; 1967).

(2) a. αὐτὰρ ὅ γ' ἀμφ' ὤμοισιν ἐδύσετο / τεύχεα καλὰ δῖος Ἀλέξανδρος
Ἑλένης πόσις ἠϋκόμοιο. / κνημῖδας μὲν πρῶτα περὶ κνήμῃσιν
ἔθηκε / καλάς, ἀργυρέοισιν ἐπισφυρίοις ἀραρυίας· / δεύτερον αὖ
θώρηκα περὶ στήθεσσιν ἔδυνεν / οἷο κασιγνήτοιο Λυκάονος
(Il. 3.328-333)
And he put on his shoulders his beautiful armor, godlike Alexandros,
husband of lovely-haired Helen. First he put the greaves on his shins,
beautiful, fitted with silver straps; next he put on around his chest the
breastplate of his brother-in-law Lycaon

What is the reader to make of this quality of Homeric language? Considered as an aspect of poetic style, it has been characterized as rapid and plain (Arnold 1861/1911:215) and even as a "triumph of pure perception" because it gives the impression that "time and action move on at the same tune" (Vivante 1997:87). But because of the temporal, linguistic and cultural distance between modern readers and the context of creation of Homeric poetry, that kind of direct aesthetic and imaginative response, while valid on its own terms, also raises questions of perspective. Is this unfamiliar quality an aspect of poetic style that would distinguish Homeric language from other contemporary language, either poetic or ordinary, if we had access to any, or does Homeric language seem distinctive to modern readers primarily because it is so ancient and foreign in language and context of production? Discussions of these peculiarities of Homeric syntax that go beyond descriptive characterization tend to explain them as reflecting either an unfamiliar syntactic typology, or an unfamiliar context of production, or both. According to one theory, which I will call the *archaism* theory, Homeric language preserves features of an early syntactic typology in which this way of constructing and combining clauses is not primarily an aspect of a particular poetic style but rather a standard feature of ordinary everyday language. According to another, the *orality* theory, it is primarily the particular way in which the Homeric poems were composed and performed that is responsible for these features.

The first two chapters of this dissertation are focused on reframing the archaism and orality theories, which were originally proposed in the context of late 19th and early 20th century research into comparative-historical grammar on the one hand and oral poetics on the other, in light of relevant comparative evidence that has been built up in the context of late 20th century linguistic work on crosslinguistic syntax and structural differences between spoken and written language, and particularly on identifying areas where the two theories thus reframed make different predictions about what sorts of structural differences should exist between Homeric and Classical Greek; the final two chapters are focused on an analysis and comparison of Homeric and Classical Greek mechanisms of quantification that provides new evidence in support of the archaism theory.

In Chapter 1, I look at the two theories as they were originally proposed, along with one more recent formulation of the orality theory (Bakker 1997), and draw out their different implications for the relationship between the Homeric performance language and the ordinary everyday spoken language of the singers and their audiences. The archaism theory was originally proposed in the context of the 19th and early 20th century tradition of comparative-historical grammar; it looked at Homeric Greek syntax in the context of the historical syntax of the Indo-European language family, and argued that the syntax of Homeric Greek and other early Indo-European languages was paratactic and appositional (Meillet and Vendryes 1927; Chantraine 1953). According to the archaism theory, the syntax of the Homeric performance language will have originally been based on the syntax of the ordinary everyday language of the people who composed and performed it, though over time the conservatism typical of performance languages will have resulted in the preservation of archaic syntactic features, alongside archaic vocabulary and morphology. The orality theory is rooted in a roughly contemporaneous 19th and early 20th century tradition of research focused on showing that Homeric poetry is the product of oral composition and performance, and

investigating the literary and linguistic implications of that status (Parry 1928, 1929, 1930-32). I distinguish three different forms of the orality theory, which I call the *oral culture* theory, the *oral poetry* theory, and the *oral medium* theory. The implications of the oral culture theory for the relationship between the performance language and the everyday language of the singers are indistinct from those of the archaism theory, because the oral culture theory is basically a combination of the archaism theory with a much broader theory about the relationship between language and culture. The other two orality theories, however, have different implications for that relationship. According to the oral poetry theory, the peculiarities of Homeric syntax are to be explained primarily in terms of the specific demands of rapid online composition of hexameter verse; this theory implies that the performance language was distinguished from other contemporary registers by its paratactic and appositional syntax. According to the oral medium theory, those same peculiarities of Homeric Greek syntax are to be explained primarily in terms of constraints imposed by fast, online oral production and processing, and are comparable to peculiarities produced by the same constraints in spoken registers in languages like English. I argue that the oral medium theory presents an incoherent picture of the relationship between the performance language and the everday language of the singers, because medium was not a variable in the relevant context; Greek culture was primarily oral during the period when the Homeric performance language was being developed, and all contemporary registers will have been spoken registers, equally affected by any pressures exerted by the oral medium.

The archaism and orality theories both raise questions that can best be answered by reference to comparative evidence. The archaism theory raises the question of whether there are any living languages that have the sort of syntactic typology it proposes for Indo-European, and if so, whether they provide any additional evidence about the nature of that typology; the orality theories raise the question of exactly what sort of effects medium and other situational variables tend to have on the syntax of spoken

and written registers. In Chapter 2, I reframe these theories in light of such evidence. Evidence relevant for evaluating the oral poetry theory comes from studies of the structural characteristics of different registers in cultures that are primarily oral; I show that Homeric Greek was probably a high register relative to other contemporary registers, and that high registers in oral cultures tend to be characterized by, among other things, syntax that is relatively less, rather than more, paratactic and appositional than that of other registers. In practice, the oral medium theory is based on the idea that structural differences between Homeric and Classical Greek are comparable to structural differences between spoken and written registers in languages that have both; I outline differences that have been found to exist between such registers, and use them to identify predictions made by the oral medium theory about what sorts of structural differences should exist between Homeric and Classical Greek. Evidence relevant for evaluating the archaism theory comes from late 20th century work on so-called nonconfigurational languages, including pronominal argument languages, which have a typology that is very similar in many ways to the one hypothesized by the archaism theory for Indo-European. A recent version of the archaism theory proposes that Homeric Greek preserves features of an earlier, less configurational syntactic typology (Devine and Stephens 2000). I identify predictions made by that theory about what sorts of structural differences should exist between Homeric and Classical Greek, and compare them with the predictions made by the oral medium theory. There is considerable overlap between the predictions of the two theories, at least on a superficial level, but the archaism theory also makes one major set of predictions that are not made by the orality theory. For related reasons, determiners, prepositions, certain types of quantifiers, and noun phase reflexives and reciprocals tend not to occur in pronominal argument languages. None of those features tend to be missing from spoken registers of languages in which they are present in written registers. Three out of four of these features are missing from or less fully developed in Homeric Greek as compared with Classical Greek; this is already well-established

for determiners, and for prepositions, but has not previously been shown for quantifiers. In Chapters 3 and 4, I compare the quantifier inventories and quantifier syntax of Homeric and Classical Greek, and argue that Homeric Greek has mechanisms of quantification typically found in pronominal argument languages, while Classical Greek develops the sort of structures typically found in discourse configurational and configurational languages.

1 Two Theories of Homeric Syntax

1.1 Archaism

According to the archaism theory, the distinctive features of Homeric syntax can be explained primarily in terms of the age of the epic language. A shift in the syntactic typology of Greek took place between the earliest stages of the language and the Classical period, and the Homeric epics preserve syntactic features belonging to a relatively early stage. This line of thinking was dominant in the comparative-historical linguistics tradition of the 19th and early 20th centuries, and has been continued in the framework of late 20th century and present-day linguistics. In this section, my goal is to identify and summarize the main strands of the archaism theory as it appears in arguments made in the 19th and early 20th century comparative-historical linguistics tradition about how Homeric Greek syntax differs from Classical Greek syntax, and what is responsible for its distinctiveness. It will not be possible to evaluate these arguments here; in the next chapter, I will reframe the archaism theory in light of comparative evidence from recent 20th century linguistic work on living languages.

Many differences between Homeric Greek and Classical Greek were explained in terms of the general theory that in Homeric Greek, individual words and clauses were more grammatically independent from one another than they were in the later language (Meillet and Vendryes 1927:519-520, 578-579 etc.; Chantraine 1953:12-21, 232-235; 351-364 etc.). This independence was discussed under the heading of 'apposition' for relationships between words or phrases, and 'parataxis' for relationships between clauses. Apposition was defined in a very broad sense and contrasted with government and attributive modification, while parataxis was defined by contrast with 'hypotaxis' or subordination. Apposition and parataxis were said to

resemble Cyclopean masonry, in which no mortar was used (Schwyzer 1947:15; Schwyzer and Debrunner 1950:632).

1.1.1 Apposition

The term 'apposition' is used in two different ways in the 19th and early 20th century grammatical literature. First, it is used strictly, as it still is, to describe a particular kind of relationship between noun phrases. But it also came to be used broadly, particularly in some early 20th century literature, as a catch-all term to cover various other relationships that were thought to be based on a hidden or implicit apposition, or to derive from an earlier appositional structure, or to simply resemble apposition in some way. Though apposition even narrowly defined is particularly common in Homer, generally when Homeric syntax is characterized as more 'appositional' than Classical Greek syntax, it is on the broad, loose definition of the term.

Apposition narrowly defined is a relationship between independent noun phrases that share the same role in a sentence and refer to the same entity. The phrases are independent, not in an internal hierarchical relationship (neither governs, depends on, or attributively modifies the other), and related via shared reference.

(1) a. Alice, my friend from Ridderdorp, is coming to visit.
b. Yesterday I wrote a note to Alice, my friend from Ridderdorp.

In 1a and b above, the noun phrases 'Alice' and 'my friend from Ridderdorp' are in apposition to one another; they have the same role, and the same referent. Appositions of this type are abundant in Homeric Greek. They usually involve relational nouns like θυγάτηρ (2b), nouns describing a category of person or social role like γρῆυς (2c), νύμφης (2d), θεά (2a), and θαλαμήπολος (2c), or nominal epithets like Λευκοθέη (2b). Many examples of apposition in Homer, such as those in 2a, occur in formulaic phrases.

(2) a. θεὰ λευκώλενος Ἥρη (Il. 1.55 etc.); θεὰ γλαυκῶπις Ἀθήνη (Il. 1.206 etc.)
The goddess white-armed Hera; the goddess grey-eyed Athena
b. Κάδμου θυγάτηρ, καλλίσφυρος Ἰνώ / Λευκοθέη (Od. 5.333)
The daughter of Cadmus, beautiful-ankled Ino, Leukothea
c. γρῆυς Ἀπειραίη, θαλαμήπολος Εὐρυμέδουσα (Od. 7.8)
An old woman from Apeire, her chamber-maid Eurymedusa
d. νύμφης ἐν μεγάροισι Καλύψοῦς (Od. 5.14)
In the halls of the nymph, Calypso

Full noun phrases in apposition, though perhaps particularly common and likely to form extended series in Homer, look much the same in Classical Greek, so this prototypical form of apposition actually had relatively little to do with Homeric syntax coming to be described as 'appositional'.

A more distinctively Homeric form of apposition proper involves ὁ, the pronoun derived from the Indo-European demonstrative **so-, *to-* that becomes an article in Classical Greek. In Homeric Greek, ὁ is still primarily a demonstrative; the article has not fully developed yet (Monro 1891:232-4; Chantraine 1953:158-68). Pronominal use of ὁ is common (Schwyzer and Debrunner 1950:20-21, 207-8; Chantraine 1953:160-61). It often appears on its own at the beginning of a line, discontinuous from an agreeing proper name (3a-c).

(3) a. ὁ δὲ βοῦν ἕλε φαίδιμος Αἴας (Il. 23.779)
And famous Ajax took the ox
b. ἡ δ' ἄρα Κύπρον ἵκανε φιλομμειδὴς Ἀφροδίτη (Od. 8.362)
And smiling Aphrodite reached Cyprus
c. τῶν τινα καρρέζουσα Ἀχαιϊάδων ἐϋπέπλων (Il. 5.424)
Caressing some one of the beautifully dressed Achaean women

There are parallel examples involving personal pronouns, though these are less common (4a).

(4) a. οἵ μιν ἄδην ἐλόωσι καὶ ἐσσύμενον πολέμοιο/Ἕκτορα Πριαμίδην (Il. 13.315-16)
They can drive off Hektor the son of Priam well enough, even though he is eager for war

It was thought that in such contexts, though co-occurring with an agreeing nominal, ὁ should probably be interpreted not as a discontinuous article ('famous Ajax took the ox'), or demonstrative modifier ('that famous Ajax took the ox') but instead as an independent pronoun standing in apposition to the noun phrase: 'and he took the ox, famous Ajax' (Chantraine 1953:160-61). That interpretation makes for a striking contrast between Homeric and Classical Greek: what in the former is an independent pronoun standing in apposition to a noun phrase, ὁ... Αἴας 'he, Ajax' in the latter becomes a (usually continuous) determiner phrase, ὁ Αἴας 'Ajax'.

Most of the rest of what was discussed under the heading of 'apposition' requires a broader definition of the term. The broad use of the term 'apposition', and the definitions associated with it, are important because they attempt to identify a unifying principle behind a whole range of individual phenomena. 'Appositional' syntax in this broad sense is described as involving a certain freedom or looseness in agreement and explicit marking of relationships; instead, connections are made via "mental reactivation of an element of the sentence in another form, for the purpose of further explanation, clarification, or correction" (Schwyzer 1947:16); individual words are autonomous, each word itself containing sufficient information about its syntactic role (Chantraine 1953:12) and do not govern one another (Meillet and Vendryes 1927:519); sentences are built up bit by bit through addition of successive loosely attached expansions and extensions (Ammann 1922:7-10). The basic intuition captured by this sort of definition was that in the earliest recorded Indo-European languages, such as Homeric Greek, there was a syntactic principle at work that favored mechanisms similar to those involved in apposition narrowly defined, possibly heavier

reliance on relationships of coreference as opposed to relationships of government and attributive modification.

This principle was thought to express itself in the relationship between the verb and its arguments, between nouns and their modifiers, and between prepositions and their objects; in each case, these elements appeared to be somehow more loosely related to one another in the earliest recorded IE languages like Homeric Greek, and over time to gradually tend more and more to coalesce into verb, noun, and prepositional phrases (Meillet and Vendryes 1927:519-537; Schwyzer 1947:14-16; Schwyzer and Debrunner 1950:57; Chantraine 1953:12-21).

The argument that adjective and noun were mutually independent at some early stage, only gradually becoming more closely associated, was supported by pointing to the inflection of adjectives for case, number and gender, which made them capable of independently indicating their association with a particular referent, and to the frequent separation of adjective from noun (5a) (Meillet and Vendryes 1927:530-532).

(5) a. ἀμφὶ δὲ ποσσὶ πέδας ἔβαλε χρυσείας/ἀρρήκτους ἀλύτους (Il. 13.36-7)
And he put unbreakable unloosable golden fetters on their feet

This evidence was taken to suggest that the adjective should in many cases be interpreted not as a direct modifier of the noun but instead as an independent element contributing its information in some sort of separate operation; the nature of that operation was not precisely defined. Schwyzer (1947:16) suggests that postposed adjectives may have been less likely to be integrated with their nouns than preposed ones; in particular, they might be acting as equivalents to relative clauses, adding more information about the referent in a second predication.

(6) a. αἳ δὲ χολωσάμεναι πηρὸν θέσαν, αὐτὰρ ἀοιδὴν/θεσπεσίην ἀφέλοντο (Il. 2.600)

And they, angered, mutilated him, and took away his heavenly song

For 6a this would give the interpretation 'and took away his song, which was heavenly'. The tendency for adjectives to have independent status was thought to exist in both Homeric and Classical Greek, but to a greater degree in the former. Meillet argued that in Homer, even directly prenominal modifiers should not get an integrated interpretation, claiming for example that in the opening lines of the Iliad, "πόλλας is in fact in apposition to ψύχας in the same capacity as ἰφθίμους and ἡρώων, and without forming a group with the following words" (Meillet and Vendryes 1927:532; cf. Chantraine 1953:12):

(7) a. πολλὰς δ' ἰφθίμους ψυχὰς Ἄϊδι προΐαψεν/ἡρώων (Il. 1.3-4)
And he sent many strong souls of heroes to Hades

There are a number of different interpretations of the line that would be compatible with that description. One major problem is whether to interpret the adjectives as modifiers of implicit pronouns that corefer with the noun ('numerous ones, and strong ones, he sent souls to Hades, ones belonging to heroes') or as secondary predicates ('numerous and strong, he sent souls to Hades, belonging to heroes') — in other words, are the adjectives 'acting as substantives', or are they like reduced relative clauses, separate predications that consist of only one word, or are they sometimes one and sometimes the other? If they are sometimes one and sometimes the other, what determines the variation? Since the overall theory of appositional syntax is formulated in broad, general terms and leaves a lot to be explained, it is not surprising that the appositional accounts of relations between specific categories do too; these questions will come up again in Chapter 2.

Now for the relationship between the verb and its arguments. Here, the omissibility of lexical arguments was cited as evidence of a loose relationship (Meillet and Vendryes 1927:522-23, 536-37; Chantraine 1953:7). In both Homeric and Classical Greek, a

finite verb standing on its own is interpreted as having a pronominal subject (ἐρρύσατο in 8a), and may under various conditions also be interpreted as having a pronominal object (πέμψουσιν in 8b), though the verb carries person and number information only for the subject.

(8) a. ἀλλ' οὐδ' ὣς ἑτάρους ἐρρύσατο, ἱέμενός περ (Od. 1.6)
But even so he did not save his comrades, though he tried
b. οἵ κέν μιν περὶ κῆρι θεὸν ὣς τιμήσουσι, πέμψουσιν δ' ἐν νηῒ φίλην ἐς πατρίδα γαῖαν (Od. 5.37)
They will honor him as a god in their hearts, and send [him] in a ship to his own fatherland

It was argued by analogy that lexical and independent pronominal subjects and objects actually stand in apposition to the pronoun(s) implied by the verb rather than agreeing directly with the verb (9a) (Meillet and Vendryes 1927:519; Schwyzer and Debrunner 1950:242).

(9) a. ἔρχεται (S50:242)[2]
He goes
b. ὁ ἄνηρ ἔρχεται
He goes, the man

A stronger role for case was thought to come along with this: "an Indo-European verb did not 'govern' the case of its complement; the noun apposed to the verb would appear in the case demanded by the meaning that it itself expressed. This state is still recognizable in the most ancient Greek texts" (Meillet and Vendryes 1927:522; cf. Chantraine 1953:35). Various types of agreement mismatches were cited as evidence that so-called agreement was actually not grammatical but the accidental result of verb and noun both getting their number from the same referent (Meillet and Vendryes

[2] Sources of borrowed examples are indicated throughout by the first letter of the first author's last name followed by the final two digits of the date and the page number (e.g. M27:541 = Meillet and Vendryes 1927:541); for groups of examples from the same page of the same source, a single reference indicates the source of the entire group; glosses and English translations are from the original sources, but I have translated French and German translations into English.

1927:541). When the subject was a group noun, for instance (ἡ πληθύς in 10a), there could be a conflict between sense and grammatical number (Meillet and Vendryes 1927:541):

(10) a. Ὣς φάσαν ἡ πληθύς (Il. 2.278) (M27:541)
So they said, the crowd

It was observed that grammatical agreement seemed to become stronger over time; in Latin, plural agreement with group nouns was found to be more common in comedy and in Livy than in Caesar or Cicero (Meillet and Vendryes 1927:542). Like the appositional theory of the adjective-noun relationship, this account of how the verb relates to its subject and object raises several basic questions. Is the omissibility of pronominal subjects and objects good evidence that when a lexical subject or object occurs, it should be interpreted as standing in apposition to a pronoun implied by the verb? Is there evidence for a verb phrase? Is the argument weaker for objects because the verb is not marked for agreement with the object? What are the characteristics of the implied pronouns? These questions will come up again in Chapter 2.

The third major piece of evidence for 'independence of terms' in Homeric Greek was the status of preverbs/prepositions, which were thought to have developed from independent adverbs. The picture was that this process of development was still ongoing in Homer, where such words can act as adverbs, separable preverbs, or prepositions, but complete in Classical Greek, where they appear only as verb affixes or true noun-governing prepositions. Evidence for this theory came from optionality and word order. First, in some situations, use of a preposition is optional in Homer but required in Classical Greek. This was taken as more evidence that the role of case was stronger in Homer than in later Greek, so that there was less need for prepositions (Chantraine 1953:35). In Homer, for instance, the goal of a verb of directed motion

can be a simple noun phrase (11a), whereas in Attic prose, such verbs require a prepositional phrase object (11b) (Kühner-Gerth 1898-1904/1955:449-450):

(11) a. πεδίον δ' ἀφίκοντο (Il. 24.329); κλισίην Πηληϊάδεω ἀφίκοντο (24.448)
Arrived at the plain; arrived at the tent of the son of Peleus
b. ἀφικνοῦνται ἐπὶ τὸν Μάσκαν ποταμόν (Xen. *Anab.* 1.5.4)
They arrived at the river Maskas.

Second, in Homer such words can appear in a variety of different positions (12a, b, c) while in Classical Greek they must either be a verb prefix or directly precede a nominal object (12d) (Meillet and Vendryes 1927:520-522).

(12) a. ἕλκε δ' ὑπ' ἐκ βελέων (Il. 4.465)
And dragged him out from under the missiles
b. ἐκ δέ μοι ἔγχος / ᾔχθη παλάμηφιν (Il. 3.367-8)
And my spear flew out from my hands
c. ἐκ δὲ κλῆρος θόρε (Il. 23.353-54); ἐκ δ' ἔθορε κλῆρος (Od. 10.207)
The lot jumped out
d. Λύσανδρος δ' ἐκ τῆς Ῥόδου παρὰ τὴν Ἰωνίαν ἐκπλεῖ πρὸς τὸν Ἑλλήσποντον πρός τε τῶν πλοίων τὸν ἔκπλουν καὶ ἐπὶ τὰς ἀφεστηκυίας αὐτῶν πόλεις (Xen. *Hell.* 2.1.17)
Lysander sailed out from Rhodes along Ionia towards the Hellespont, against the rebel cities and against the sailing out of supply ships

It was also suggested that prepositional phrases might have developed from structures in which a lexical noun would stand in apposition to the implied pronominal object of a preposition (Schwyzer 1947:14): in 12b, for example, this would give the interpretation 'out of them, my hands'.

Common to all of these aspects of the theory of apposition is the idea that the syntax of Homeric Greek operated on a principle of 'independence of terms'. To say that Homeric Greek syntax is 'appositional' in this sense is to say that in Homer, there is a tendency for individual words of various categories to contribute information in

separate operations, rather than binding together into hierarchically organized phrases as they tend to do in later Greek. In spite of this independence, various kinds of relationships among these words have to be indicated somehow, and the theory is less clear about exactly how that is supposed to work. The general picture is that relations are 'loose' and 'flexible'. But when more specific suggestions are made, another common thread appears in the form of the recurring suggestion that these relatively independent relations may be based on apposition between implied pronouns and lexical nouns. 'Independent' adjectives and prepositions could be respectively modifiers and governors of implied pronouns standing in apposition to lexical nouns, rather than direct modifiers or governors of lexical nouns. 'Independent' subjects and objects could be standing in apposition to pronouns implied by the verb, rather than directly agreeing with or being governed by the verb. In more recent linguistic work, proposals very similar to these have been made about the structure of living languages, so this thread will resurface in Chapter 2.

1.1.2 Parataxis

The theory of parataxis and the theory of apposition broadly defined are similar in that they both characterize grammatical relationships in Homer as involving a high degree of 'independence' and 'looseness' as opposed to dependency and integration. According to the theory of apposition, the elements of simple clauses in Homer are organized on a principle of 'independence of terms'. According to the theory of parataxis, there is a similar tendency toward independence in relationships between Homeric clauses. The theory was based on a two-way distinction between 'parataxis' and 'hypotaxis' (Thiersch 1829; Lange 1852/1887). Generally speaking, 'hypotactic' meant 'subordinating', and subordination was defined roughly as a relationship in which one clause was primary and the other somehow dependent on or embedded in it (some definitions stressed the idea that subordination bound clauses tightly together, whereas non-subordination left the relationship looser (Kühner-Gerth 1898-

1904/1955:347-351)), while parataxis meant non-subordination, defined as a relationship in which neither clause was grammatically dependent on the other.[3]

By that definition, simple juxtaposition (13a) and clause linking by discourse particles (13b), and coordinated clauses (13c) are paratactic clause combinations.

(13) a. ἀλλὰ καὶ ὣς ἐθέλω δόμεναι πάλιν εἰ τό γ' ἄμεινον· βούλομ' ἐγὼ λαὸν σῶν ἔμμεναι ἢ ἀπολέσθαι (Il. 1.116-117)
But even so I am willing to give her back if that is better; I want the people to be safe, not to die

b. Ὣς ἔφαθ', Ἕκτωρ δ' οὔ τι θεᾶς ἔπος ἠγνοίησεν, αἶψα δ' ἔλυσ' ἀγορήν· ἐπὶ τεύχεα δ' ἐσσεύοντο (Il. 18.808-9)
So she spoke, and Hector did not disregard the advice of the goddess, but swiftly broke up the meeting, and they hastened to their weapons

c. οὐδ' ἀπέλυσε θύγατρα καὶ οὐκ ἀπεδέξατ' ἄποινα (Il. 1.95)
He did not release his daughter and he also did not accept the ransom

One influential typology of subordinate clauses divided them into three types based on their resemblence to elements of a simple clause (Herling 1827-1830). Nominal clauses, such as indirect statements, questions and fear clauses, act as subject or direct object of a verb (14a); adjectival clauses, such as relative clauses, act as modifiers of nominals (14b); and adverbial clauses act as modifiers of the verb phrase (14c).

(14) a. γιγνώσκω δ' ὅτι μοι πρόφρων κατένευσε Κρονίων / νίκην καὶ μέγα κῦδος (Il. 8.175-6)
I see that the son of Cronos assented graciously to victory and great glory for me

[3] There was considerable discussion about how exactly to define subordination, and many different types of criteria for identifying it were proposed (see for example Hermann 1895; Paul 1880:223-230; Kühner-Gerth 1898-1904/1955:347-351). Hermann (1895), for instance, setting out to list indicators of grammatical subordination, sets up two preliminary distinctions, between 'logical' versus 'grammatical' subordination on the one hand and 'implicit' versus 'explicit' subordination on the other. These distinctions were meant to deal with particular classes of confusing examples. For Hermann, a sentence like 'he's happy — he's eating ice cream' involves 'logical' but not 'grammatical' subordination, because the second sentence is 'logically' but not syntactically dependent on the first, and in the sentence 'he's happy he's eating ice cream', the grammatical subordination present is 'implicit' because it is overtly marked only by prosody.

b. ἡμεῖς δὲ μεγάλοιο Διὸς πειθώμεθα βουλῇ, / ὃς πᾶσι θνητοῖσι καὶ ἀθανάτοισιν ἀνάσσει (Il. 12.241-2)
Let us trust the counsel of great Zeus, who rules over all mortals and immortals
c. τιοίμην δ' ὡς τίετ' Ἀθηναίη καὶ Ἀπόλλων (Il. 8.540)
And be honored the way Athena and Apollo are honored

So, what gave rise to the characterization of Homeric syntax as 'paratactic'? Evidence cited in support of the parataxis theory was of two basic kinds. On the one hand, there was simply thought to be a relatively high rate of occurrence of paratactic as opposed to hypotactic clause combinations overall in Homer, as well as use of parataxis for a particularly wide range of purposes. And on the other hand, there was a lot of discussion centered around scenarios in which the gradual development of a subordinating construction out of a hypothesized paratactic antecedent was supposed to be either still underway, or at least visible via fossilization of various stages, in Homer, but complete in Classical Greek.

The characterization of Homeric syntax as 'paratactic' is partly just a matter of relative frequency of parataxis as opposed to hypotaxis. Though there was some debate about whether Indo-European had subordinate clauses at all (e.g. Hermann 1895, and see the useful summary of this debate in Harris and Campbell 1995:25-7), it was generally agreed that Greek, by the Homeric period, already had subordinate clauses. For Homeric Greek, discussion focused on how much and what sorts of subordination were present. Generally, there were thought to be at least some examples in Homer of all the basic types of subordination found in classical Greek, but there was more disagreement about how to analyse classes of examples that were ambiguous in one way or another and could be argued to be more or less hypotactic or paratactic; this resulted in somewhat differing estimations of the overall extent of development of subordination in Homer (Monro 1891; Delbrück 1893-1900; Kühner-Gerth 1898-

1904/1955; Meillet and Vendryes 1927; Schwyzer and Debrunner 1950; Chantraine 1953).

Regardless of how fully or not fully developed hypotaxis was thought to be, it was agreed that parataxis was particularly important in Homeric Greek (Classen 1879; Hentze 1888; Schwyzer and Debrunner 1950:633-634; Chantraine 1953:232-235; 351-364). Particular attention was paid in this context to Homeric examples that were thought to involve semantic but not syntactic subordination of one clause to another. In these cases, parataxis leaves implicit a semantic relationship between two clauses that could be syntactically marked by subordination (such as, for example, through the use of a temporal clause or clauses in 15a, a causal clause in 15b or relative clause in 15c) (Stanford 1959:lxxxi; Chantraine 1953:351-364).

(15) a. φύλλα τὰ μέν τ' ἄνεμος χαμάδις χέει, ἄλλα δέ θ' ὕλη / τηλεθόωσα φύει, ἔαρος δ' ἐπιγίγνεται ὥρη (Il. 6.147-8) (S59:lxxxi)
The wind scatters leaves to the ground, the wood grows others that flourish, the season of spring arrives

b. ἀλλὰ γλῶσσα μέμικτο, πολύκλητοι δ' ἔσαν ἄνδρες (Il. 4.437-8) (C53:357)
But their speech was mixed, and the men had been called from many places

c. οὕνεκ' Ἀχιλλεὺς / ἐξεφάνη, δηρὸν δὲ μάχης ἐπέπαυτ' ἀλεγεινῆς (Il.20.42-3) (C53:354)
Since Achilles was now to be seen, and he had quit the hard fight for too long

Classen, discussing this pattern, offers translations from Homeric parataxis into Classical Greek hypotaxis (16a-b):

(16) a. Ἰδομενεῦ περὶ μέν σε τίω Δαναῶν...ἀλλ' ὄρσευ πόλεμονδ' (Il. 4.257) (C79)
Idomeneus, I honor you above the Danaans....now then, rise to battle

b. ὥς σε τίω περὶ πάντων...οὕτω καὶ νῦν ὄρσεο πόλεμόνδε
Since I honor you above all...therefore now also rise to battle

Passages containing particularly long series of paratactically linked clauses were also cited as illustration of a systematic preference for parataxis in Homer (17a) (Chantraine 1953:355-6):

(17) a. Τὸν δ' ὃ γέρων Πρίαμος πρῶτος ἴδεν ὀφθαλμοῖσι / παμφαίνονθ' ὡς τ' ἀστέρ' ἐπεσσύμενον πεδίοιο, / ὅς ῥά τ' ὀπώρης εἶσιν, ἀρίζηλοι δέ οἱ αὐγαὶ / φαίνονται πολλοῖσι μετ' ἀστράσι νυκτὸς ἀμολγῷ / ὅν τε κύν' Ὠρίωνος ἐπίκλησιν καλέουσι. / λαμπρότατος μὲν ὅ γ' ἐστί, κακὸν δέ τε σῆμα τέτυκται, / καί τε φέρει πολλὸν πυρετὸν δειλοῖσι βροτοῖσιν (Il. 22.35-41) (C53:355)
Him the old man Priam was first to see with his eyes, shining like the star, speeding across the plain, which appears in late summer, and its brightness stands out, shining among many stars in the dark of night, which they call by the nickname dog of Orion. It is the brightest, but it was made as a baneful sign, and brings much fever to wretched mortals

So, a big part of why Homeric Greek was characterized as paratactic was just that parataxis was noted to be particularly abundant and versatile in Homeric Greek. But there was also another side to the argument, having to do with the kinds of hypotaxis found in Homer.

There is a basic story that is told repeatedly in the 'complex sentence' sections of the standard Greek grammars that came out of the 19th century comparative linguistics tradition. In this story, a hypotactic clause-combining construction develops gradually from a more paratactic form of clause combination, evidence for which is provided by Homer.[4] Discussion of subordination in Homer took place against that background. Different types of Homeric examples of a given construction were looked at as fossils left over from different (and potentially transitional and ambiguous) stages in the course of a hypothesized historical development. Particular examples, and particular classes of examples, were argued to be ambiguous between paratactic and hypotactic

[4] Use of the terms 'parataxis' and 'hypotaxis' (in German, 'beiordnung' and 'unterordnung') is tied up from the beginning with the idea that, historically, hypotaxis develops out of parataxis (Thiersch 1829; Lange 1852/1887).

structure, or to lean more toward one or the other end of the spectrum. Central to such argument was the identification of properties that could indicate the presence of subordination. Hermann (1895) lists eleven properties, including: presence of special subordinating connective words; change of person; change of mood; change of tense; intonation; tempo; duration of pause between clauses; clause positioning; word order; verb accent (for Sanskrit); tmesis (for German); and presence of words (other than conjunctions) that appear only in subordinate clauses. In what follows I summarize some of the main points made in 19th and early 20th century grammatical work about finite subordinate clauses in Homeric Greek, and about differences between Homeric and Classical Greek in the realm of subordination.

Mood as an indicator of subordination

Between the Homeric and Classical periods, the the use of mood became more restricted and associated with specific syntactic contexts (Monro 1891:293; Chantraine 1953:205-231). Evidence of this change comes in a few different forms. First, use of the subjunctive in independent sentences is in Classical Greek limited to hortatory, deliberative and prohibitive clauses, whereas in Homer it can appear in all types of independent clauses, including affirmatives (18a), negatives (18b) and interrogatives (18c) (Monro 1891:248-293).

(18) a. τὴν μὲν ἐγὼ σὺν νηΐ τ᾽ ἐμῇ καὶ ἑμοῖς ἑτάροισι / πέμψω, ἐγὼ δέ κ᾽ ἄγω Βρισηΐδα καλλιπάρῃον (Il. 1.183-4)
Her I will send with my ship and my companions, but I will take away fair-cheeked Briseis

b. οὐ γάρ πω τοίους ἴδον ἀνέρας οὐδὲ ἴδωμαι (Il. 1.262)
For I have never seen men like them nor will I

c. πῶς τίς τοι πρόφρων ἔπεσιν πείθηται Ἀχαιῶν (Il. 1.150)
How can anyone of the Achaeans willingly obey your commands?

Second, use of the particles ἄν and κεν becomes more mechanical over time; both subjunctive and optative can be used in conditional clauses in Homer either with or

without ἄν or κεν, with different shades of meaning, whereas in Classical Greek the subjunctive is almost always and the optative almost never accompanied by a particle (Monro 1891:293). Third, in Classical Greek, there is a sequence of mood system whereby the optative is often substituted for the indicative or subjunctive in a subordinate clause in secondary sequence. The optative is rare in primary-sequence subordinate clauses. This system is less developed in Homer (Monro 1891:248-293; Schwyzer and Debrunner 1950:302-338, 333-4; Chantraine 1953:205-231, 249, etc.). In Homer, the optative is used freely after present as well as past tenses. In sequence of mood it primarily replaces the subjunctive, apparently substituting for the indicative only in indirect questions. Overall, the use of mood in Homer was more semantically and less syntactically governed than in later Greek, and was used more often as a means for getting across specific shades of meaning in varied situations and less often as an indicator of subordination in specific syntactic contexts.

Relative clauses

Relative clauses, including correlatives, were reconstructed for Indo-European (Delbrück 1893-1900 vol. 5:316-318; Meillet and Vendryes 1927:570). A relative pronoun stem **yo-* was reconstructed, along with a demonstrative **so-, to-*, and an interrogative and indefinite **k^wi/k^wo*; derived from these were, respectively, the Greek relative ὅς, ἥ, ὅ, the demonstrative (and in some dialects relative and/or article) ὁ, ἡ, τό, which in Homer is the usual antecedent for the relative in correlatives, and the interrogative and indefinite τίς, τί/τις, τι, which can combine with the relative to form the indefinite relative ὅς τις (Monteil 1963:1-17).[5] Many of the conjunctions involved in other types of subordination in Greek were analyzed as being historically derived from relative pronouns, and the constructions they introduce as being derived from (cor)relative clauses.

[5] It was thought that ὁ, ἡ, τό in Homer was primarily demonstrative but showed some signs of development toward the relative function it had in dialects such as Ionic (Monteil 1963:21-22).

Some differences were observed to exist between Homeric and Classical Greek with regard to attraction in relatives. In Attic prose, it is common for a relative pronoun with omitted antecedent to take the case required by the main clause role of the relative clause, if its relative clause case would be accusative and its main clause case genitive or dative (Schwyzer and Debrunner 1950:640-41; Chantraine 1953:237)

(19) a. καὶ ἐμμένομεν οἷς ὡμολογήσαμεν δικαίοις οὖσιν ἢ οὔ; (Pl. *Cri.* 50a2-3) (S56:568)
And do we stand by what we agreed was just or not?

This so-called 'attraction' of the relative is very rare in Homer; when the antecedent is omitted the relative pronoun still retains the case required by its role in the relative clause (as in 20a below) (Schwyzer and Debrunner 1950:640-41; Chantraine 1953:237).

(20) a. οὐ γὰρ ξείνους οἵ γε μάλ' ἀνθρώπους ἀνέχονται / οὐδ' ἀγαπαζόμενοι φιλέουσ', ὅς κ' ἄλλοθεν ἔλθῃ (Od. 7.32-33)
For they do not much put up with strangers, and do not hospitably entertain people who come from elsewhere

The attraction seen in Attic was thought to tie the relative and main clause more strongly together, by allowing the relative clause to function directly as object of the main clause (Schwyzer and Debrunner 1950:640). It was noted that another type of attraction found in both Attic and Homer, so-called inverse attraction, in which the antecedent is attracted into the case of the relative (Chantraine 1953:237-238), does not have that effect (Schwyzer and Debrunner 1950:640-41).

(21) a. φυλακὰς δ' ἃς εἴρεαι ἥρως / οὔ τις κεκριμένη ῥύεται στρατὸν οὐδὲ φυλάσσει (Il. 10.416-7) (C53:237)
But as for the guards you ask about, sir, none is dedicated to watch and guard the camp
b. νῆες ὅσαι πρῶται εἰρύαται ἄγχι θαλάσσης ἕλκωμεν (Il. 14.75-6)
First, however many ships are drawn up close to the sea, let us drag them

The non-appearance of attraction of the relative to the case of the antecedent in Homer was seen as evidence of a trend toward increasing integration between main and subordinate clause between Homeric and Classical Greek.

Adverbial clauses

The clauses classed as adverbial include temporal, conditional and purpose and result clauses. These are usually introduced by a subordinating conjunction. Many of these subordinating conjunctions originated in forms of the relative pronoun stem ὅς, or adverbs derived from it. Relative adverbs, like pronouns, can appear in correlatives; there are matched pairs based on the same stem, like τότε...ὅτε, τόφρα...ὄφρα, and τὼς/ὥς...ὡς, and adverbs from different stems, like τόφρα and ἕως, are also used together to form correlatives. A typical route was outlined for development of a (cor)relative adverb into a subordinating conjunction. First, the correlative antecedent would come to be regularly omitted. This was thought to occur particularly easily in the case of adverbs, since unlike the correlative pronoun, which often differs from its antecedent in case, a correlative adverb is just a copy of its antecedent and can be omitted with no loss of information. Second, the adverb, or adverbial use of the pronoun, would through regular use in a particular context lose its adverbial (local, temporal, instrumental etc.) meaning and become a semantically bleached marker of subordination. The manner adverb ὡς, for example, appears to have undergone this type of development. In correlatives it has the adverbial meaning "in which manner… in that manner" (22a). When the correlative antecedent is omitted, ὡς on its own acts as an adverbial conjunction, "in the manner in which" (22b). In clauses expressing purpose or result, the meaning "in such a way as to/that" or simply "in order/so that" develops (22c).

(22) a. τὼς δέ σ' ἀπεχθήρω ὡς νῦν ἔκπαγλ' ἐφίλησα (Il. 3.415)[6]
And hate you just the way I now vehemently love you
b. τιοίμην δ' ὡς τίετ' Ἀθηναίη καὶ Ἀπόλλων (Il. 8.540)
And be honored the way Athena and Apollo are honored
c. οἷσιν ἐπὶ Ζεὺς θῆκε κακὸν μόρον, ὡς καὶ ὀπίσσω ἀνθρώποισι πελώμεθ' ἀοίδιμοι ἐσσομένοισι (Il. 6.357-8)
On whom Zeus set a bad fate, in order/so that later we may be made subjects of song for men of the future

Similar paths were proposed for the development of other subordinating conjunctions that could introduce purpose and result clauses, such as ἵνα, originally a locative and/or instrumental adverbial, ὅφρα, originally temporal, and ὅπως, the indefinite counterpart of ὡς. Correlative adverbial uses of such conjunctions tend to occur in relatively higher proportion in Homer than in Classical Greek. Ὡς for example is very often correlative in Homer (one count found 115 correlative manner adverbial, 15 non-correlative manner adverbial, 50 final and 2 consecutive uses of ὡς in Homer), but after Homer use of ὡς as a correlative becomes rare and its use as a non-correlative adverbial or final/consecutive conjunction becomes more common (Monteil 1963:330-364). This was taken as evidence of a trend toward development of more hypotactic clause combination between Homeric and Classical Greek.

Complement clauses

The use of finite complement clauses, including indirect statements, indirect questions, and clauses serving as objects with verbs of wishing and fearing, was argued to be more limited in Homer than in Classical Greek. Evidence cited in support of this argument came from correlative structure, differences in use of mood and tense, and frequency of occurrence compared with other competing constructions.

[6] The pair ὡς...τως is quite rare (Il. 3.415 is the only instance in Homer and there are few elsewhere); the usual demonstrative counterpart of ὡς in Homer is ὥς; ὧδε and οὕτος also occur (Monteil 1963:330-332).

The development of finite indirect statement and indirect question constructions was, like the development of adverbial clauses, ultimately traced back to the relative clause (Chantraine 1953:288-299). The conjunctions used to introduce indirect statements in Homer are ὅ, ὅτ(τ)ι and ὅτε, οὕνεκα and ὡς. The complementizer function of ὅ (sometimes accompanied by indefinite τι, ὅτι, or τε, ὅτε). The relative pronoun ὅ(τι) could as a neuter accusative have the meaning 'with respect to the fact that' and be used as a causal adverbial conjunction (23a and b).[7] In certain contexts, the causal meaning shifted in the direction of the complementizer meaning 'that' (23c and d).

(23) a. ἔγχεϊ δ' αὐτὸς / Τρωσὶ φιλοπτολέμοισι μεταπρέπω, ὅ σφιν ἀμύνω / ἦμαρ ἀναγκαῖον (Il. 16.834-6)
And I with my spear stand out among the warlike Trojans, because I ward off from them the day of necessity

b. ὃν περὶ πάσης τῖεν ὁμηλικίης ὅτι οἱ φρεσὶν ἄρτια ἤδη (Il. 5.325-6)
Whom he honored beyond all of his agemates because his character was suitable

c. χαῖρε δ' Ὀδυσσεύς,/ὅττι μιν ὣς ὑπέδεκτο (Od. 14.51-2)
Odysseus was delighted [because/regarding the fact that] he received him that way

d. οὔτε τι δήμιον ἄλλο πιφαύσκομαι οὐδ' ἀγορεύω,/ἀλλ' ἐμὸν αὐτοῦ χρεῖος, ὅ μοι κακὰ ἔμπεσεν οἴκῳ,/δοιά (Od. 2.44-6)
I will not raise or argue any other public issue, but my own need, [because/namely the fact that] twofold evils have come upon my house

The development was thought to be similar for the conjunctions οὕνεκα (from οὗ ἕνεκα, 'on account of which') (24a) and ὡς (24b), which could both have causal adverbial meaning and both showed up in the same kind of borderline adverbial/complement context.

(24) a. πεύθετο γὰρ Κύπρον δὲ μέγα κλέος οὕνεκ' Ἀχαιοὶ/ἐς Τροίην νήεσσιν ἀναπλεύσεσθαι ἔμελλον (Il. 11.21-22)

[7] In an example like 23a, the pronoun ὅ could be either a neuter singular accusative from the relative ὅς ἥ ὅ, or a masculine singular nominative from the primarily demonstrative ὁ ἡ τό (in 23a this would mean 'I who').

A great rumor had reached Cyprus, [regarding the fact that/that] the Achaeans were going to sail in ships to Troy

b. Ἀτρεΐδην δὲ καὶ αὐτοὶ ἀκούετε νόσφιν ἐόντες, / ὥς τ᾽ ἦλθ᾽ ὥς τ᾽ Αἴγισθος ἐμήσατο λυγρὸν ὄλεθρον (Od. 3.193-4)
You yourselves have heard, though you live far away, of Atreides, how he returned and how Aegisthus planned his miserable death

With the meaning 'that', ὅ(τι), ὡς and οὕνεκα are used in Homer to introduce clauses of indirect discourse governed by verbs of thought, perception, and speech (25b); (Goodwin 1890:261-62; Monro 1891:245; Chantraine 1953:289-91); ὅ(τι) can still be correlative in structure when used that way (25a).

(25) a. λεύσσετε γὰρ τό γε πάντες ὅ μοι γέρας ἔρχεται ἄλλῃ (Il. 1.120)
You all see this, [the fact that/that] my prize goes elsewhere

b. γιγνώσκω δ᾽ ὅτι μοι πρόφρων κατένευσε Κρονίων νίκην καὶ μέγα κῦδος (Il. 8.175-6)
I see that the son of Cronos assented graciously to victory and great glory for me

In both Homeric and Classical Greek, indirect questions are most commonly introduced by the indirect interrogative, which is identical in form to the indefinite relative (26c) (Monro 1891:237-238; Chantraine 1953:292-96).[8] Indirect questions introduced by direct interrogatives are rare (Monro 1891:216; Monteil 1963:145). The context for development of the indirect interrogative function of the indefinite relative was thought to be sentences in which a verb of asking had an overt nominal or pronominal object that was defined by an indefinite relative (26a and b) (Monteil 1963:145-158).

(26) a. εἶπ᾽ ὄνομ᾽, ὅττι σε κεῖθι κάλεον μήτηρ τε πατήρ τε (Od. 8.550) (M63:147)

[8] The regular relative is sometimes also used this way, with verbs of knowledge and recognition, but not verbs of asking (e.g. Il.-497-98 τότε δὲ γνώσεσθε ἕκαστος ἵππους Ἀργείων, οἵ δεύτεροι οἵ τε πάροιθεν 'then you will recognize the horses of the Argives, which are in front and which are second') (Monro 1891:237).

Tell me the name which/whatever your mother and father called you there

b. εἶπ' ἄγε μοι καὶ τόνδε φίλον τέκος ὅς τις ὅδ' ἐστί (Il. 3.192) (M63:148)
Come now, tell me about that one, dear child, who(ever) he is

c. αὐτὰρ ἔπειτα / δείπνου πασσαμένω εἰρησόμεθ' οἵ τινές ἐστον / ἀνδρῶν (Od. 4.60-62)
When you have had a meal we will ask you who among men you are

It was argued on the basis of various forms of evidence that in Homer, finite complement clause indirect discourse was not as fully developed as it was in Classical Greek. First, complement clause indirect statement occurs most often in Homer with verbs of emotion, thought and perception, and occurs only rarely with verbs of saying; instead, in Homer, the most common form of indirect statement with a verb of saying is φημι with the infinitive (27a) (Schmitt 1889 via Goodwin 1890:262):[9]

(27) a. μήτηρ γάρ τέ μέ φησι θεὰ Θέτις ἀργυρόπεζα/διχθαδίας κῆρας φερέμεν θανάτοιο τέλοσδε (Il. 9.410-11)
My mother, the goddess, silver-footed Thetis, says that I carry a twofold fate toward my day of death

Second, it was argued, against the background of the historical course of development outlined above, that the structure of finite indirect discourse in Homer is often open to being interpreted as adverbial and/or correlative, and so not that of a true complement clause acting as object of the main clause verb (Monro 1891:245; Chantraine 1953:288-92).[10] Third, the conjunctions used to introduce indirect statement became

[9] In Classical Greek, the finite clause construction is preferred with common verbs of saying like λέγω and εἶπον, and the infinitive with φημι. In Homer, one count found 130 instances of φημι with the infinitive, versus 16 instances of a verb of saying followed by a finite clause introduced by ὅ, ὅτι, ὅττι, ὅτε, ὡς or οὕνεκα; of four instances of indirect discourse with εἶπον in Homer, two take the infinitive and two a finite clause (Schmitt 1889 via Goodwin 1890:262).

[10] It was also noted that finite clauses as subjects of impersonal constructions are rare in Homeric Greek; in Homer, impersonal constructions are more likely to take infinitives, usually with a dative of interest, but sometimes with an accusative subject, as in νῦν δέ με λευγαλέῳ θανάτῳ εἵμαρτο ἁλῶναι 'now it is fated that I be overcome by a horrible fate' (Il. 21.281, Od. 5.312) (Schwyzer and Debrunner 1950:646).

more specialized over time. For indirect statement, only ὅτι and ὡς, of the five Homeric possibilities, appear in this role in Classical Greek (Monteil 1963:398-400).

Finally, Homeric Greek and Classical Greek have different systems for handling tense in indirect discourse. In Classical Greek, when the main clause verb is past tense, the subordinate clause verb has the same tense that a direct quote would have ('he said "I'm walking"' becomes 'he said he is walking'), so that the tense of the subordinate verb is interpreted relative to that of the main-clause verb. In Homer, however, after a past-tense main clause verb, a subordinate clause verb that would be present in a direct quote is imperfect ('he said "I'm walking"' becomes 'he said he was walking'), and one that would be perfect is pluperfect ('he said "I have walked"' becomes 'he said he had walked'). The aorist indicative of the subordinate clause in (28a) would in Attic most likely take the form of a present indicative or optative (28b) (Goodwin 1890:261-62):

(28) a. ἐπεὶ γίγνωσκον ὃ δὴ κακὰ μήδετο δαίμων (Od. 3.166) (G90:261-62)
Since I recognized that the god was devising evils
b. ἐγίγνωσκον ὅτι κακὰ μήδοιτο/μήδεται
I recognized that he was devising evils

Though sequence of tense was sometimes cited as a marker of subordination (Hermann 1895), it was also argued that the Homeric tense-shift system was more compatible with a paratactic interpretation than the Classical system (Goodwin 1890:262; Monro 1891:245). Each system can be seen as more or less hypotactic and integrating. The Classical Greek system could be seen as integrating, if it is a system of relative tense, in which subordinate clause verb tense is interpreted relative to main clause verb tense, or as non-integrating, if direct discourse tense is being reproduced as it would be in a quote (i.e. in 28a, the direct thought would be κακὰ μήδεται, 'he is devising evils'). The Homeric system could be seen as integrating, if it is a system of sequence of tense in which the subordinate clause verb tense changes according to

main clause verb tense, or as non-integrating, if what is happening is that the two clauses are actually independent, so that the statement clause has the tense it would have to have if it were not subordinated but independent (i.e. in 21a, the independent clauses would be ἐγίγνωσκον 'I recognized this/it' and κακὰ μήδετο 'he was devising evils').

So, some types of complement clause, such as indirect statement and the most common type of indirect question, were thought to have developed out of relative clauses. Others, such as the complement clause objects of verbs of fear or deliberation, were thought to have developed directly from corresponding independent clauses, like those in 29a and b below (Monro 1891:254-257).

(29) a. μή τι χολωσάμενος ῥέξῃ κακὸν υἷας Ἀχαιῶν (Il. 2.195) (M91:254)
May he not in anger do some harm to the sons of the Achaeans
b. αὖθι μένω μετὰ τοῖσι...ἦε θέω μετὰ σ' αὖτις (Il. 10.62-3) (M91:253)
Should I remain here with these men...or run after you immediately?

The story of this development was as follows. First, these clauses were habitually paired with other independent clauses of certain types. A negative wish would be introduced by a separate statement of fear, or a warning or command ('I am afraid; may he not...'; 'Take care/see to it; may he not'), and disjunctive deliberatives by a statement of deliberation ('I thought it over; should I...or should I...'). In such contexts, the independent clauses were reanalyzed as subordinate, and the particles that introduce them reinterpreted as subordinating conjunctions, yielding subordinate clauses of fear (30a), negative purpose clauses (30b), and subordinate clauses of deliberation (30c) (Monro 1891:254-255; Chantraine 1953:266-73).

(30) a. δείδω μὴ καὶ τεῖχος ὑπέρμορον ἐξαλαπάξῃ (Il. 20.30)
I am afraid lest he even, going beyond fate, attack their wall
b. τῶν ἀλεείνω φῆμιν ἀδευκέα, μή τις ὀπίσσω μωμεύῃ (Od. 6.273-4)

I watch out for their harsh speech, lest someone should blame me later

c. Δηΐφοβος δὲ διάνδιχα μερμήριξεν/ἤ...ἑταρίσσαιτο...ἦ πειρήσαιτο... (Il. 13.455-7)
Deiphobus debated between two possibilities, whether to take as a companion...or make an attempt...

Change of mood was used as a diagnostic for the presence of subordination; an example like 30a could possibly be interpreted as two sentences or as a main and subordinate clause, but in an example like 30c, the optative is best explained in terms of sequence of mood (Monro 1891:254). It was argued that in Homeric Greek contains a relatively large number of examples that could be interpreted as paratactic, or that at least show signs of not being very far removed from paratactic origins. Fear and negative purpose clauses of this type in Homer almost always express a present-tense fear on the part of the speaker, which leaves them open to a paratactic reading ('I'm afraid; may my enemy not kill me'); fear and purpose clauses expressing fear on the part of a third party or a speaker's past-tense fear, which do not make sense on a paratactic reading ('My enemy is afraid; may I not kill him'; 'Before I killed him, I was afraid; might my enemy not kill me') are rare (Monro 1891:256-257, 261-2, 267, 270-1, 287-88). In Classical Greek, it is unusual for negative purpose clauses to be introduced by μή standing alone; instead they are introduced by μή combined with one of the regular subordinating conjunctions used in positive purpose clauses. Such combinations also occur in Homer, but they are less common than bare μή.[11] Finally, Meillet (1927:587) notes that purpose clauses in general in Homer, including negative purpose clauses, are always placed after the main clause (the first example of a purpose clause that precedes the main clause is found in Aeschylus; in Herodotus and

[11] One count found in Homer 108 negative purpose clauses with bare μή, 26 with ἵνα μή, 10 with ὡς μή, and 3 with ὄφρα μή (ὄφρα, which is found only in epic, is the most common conjunction in purpose clauses in Homer), versus, in Aristophanes and Herodotus, 8 bare μή and 50 μή plus particle, and in a sample of Attic prose, only scattered examples of bare μή (Weber 1884:24-25, 27-28, 113-115, 128-130, 134, 184).

later texts it becomes common) and that this could be explained by their having originated in a juxtaposition of two independent clauses.

1.1.3 Summary

In the 19th and early 20th century comparative-historical linguistics tradition, syntactic differences between Homeric Greek and Classical Greek are explained primarily as reflections of a change over time in the syntactic typology of the Greek language. According to this version of the archaism theory, Homeric Greek preserves features of an earlier type of syntax, in which individual words and clauses were more grammatically independent from one another than they were in the later language (Meillet and Vendryes 1927:519-520, 578-579 etc.; Chantraine 1953:12-21, 232-235 etc.); this principle of 'independence of terms' manifests itself both in relations between words and phrases, which tend to be 'appositional', and in relations between clauses, which tend to be 'paratactic'.

Apposition, in this context, is defined very broadly and is contrasted with government and attributive modification. The basic historical picture associated with the theory of apposition is that relations between elements of the simple clause (between the verb and its arguments, between nouns and their modifiers, and between prepositions and their objects) were somehow relatively 'loose' and independent in the earliest recorded Indo-European languages like Homeric Greek, but over time gradually tended more and more to coalesce into verb, noun, and prepositional phrases. The exact nature of the earlier appositional relations is not discussed in much detail, but one possibility suggested in several different contexts is that it may involve co-reference between implied pronouns and lexical nouns standing in apposition to them (as in: 'Achilles, he killed him, Hector', 'his shoulders, on-them it swirled, the hair', 'the cup, he won it, the golden one'); it was also suggested that discontinuous modifiers might be acting

like one-word relative clauses (as in: 'he put them on, his sandals, which were golden').

Parataxis is defined by contrast with 'hypotaxis' or subordination. Paratactic clause-combining strategies are particularly abundant in Homeric Greek, while hypotactic ones that are common in Classical Greek are sometimes rare in Homer. The use of mood became more restricted and associated with specific syntactic contexts between the Homeric and Classical periods; the Classical Greek use of sequence of mood to mark subordination in certain types of clauses is not fully developed in Homer (Monro 1891:293, 248-99; Chantraine 1953:205-31, 249, etc.). The historical paths of development of various hypotactic clause-combining constructions found in Classical Greek are traced back to paratactic antecedents, based on Homeric evidence. Adverbial clauses and some types of complement clause, for example, appear to have developed from correlative clauses, and in Homer, examples can be found that seem to be transitional between correlative and adverbial or complement clause structure.

1.2 Orality

Another way of looking at Homeric syntax is rooted in research focused on how the Homeric poems were composed and performed. The idea that Homer is at least in part the product of oral tradition goes back a long way (Josephus *Ap.* 1.12) and grew increasingly popular during the 18th century (d'Aubignac, 1715/1925; Vico 1730-44/1999:374-76; Blackwell 1735/2005; Herder 1767-8/2002:54, 1772/2002:61-62; Wood 1769/1976); the theory as laid out by Wolf (1795/1985) became widely accepted by the beginning of the 19th century. Early arguments in support of the theory were based primarily on historical and literary evidence and issues of textual criticism; arguments based on linguistic evidence were developed later.

Already in the 18th century, however, the theory was accompanied by speculation about possible connections between orality and general qualities of Homeric language and style. Connections were drawn between oral culture, poetry, and simple, spontaneous language on the one hand, and literate culture, prose and periodic style on the other.[12] Homeric language was characterized as being close to nature, belonging to an early stage of cultural development, and therefore simple and full of wonder (Blackwell 1735/2005). Herder (1765/2002:28) thought that the poetic language of Homer was the prosaic language of his time: "In the oldest time of the Greek and Roman republics the language of the writer and of the common people was identical. Even the divine Homer spoke words which were in his time prose, as Blackwell shows, or the people of his time spoke poetry just as each *aoidos* sang it...poetry is older in common life than prose". Wood (1769:280-85) suggests that there are different stages in the development of language that are favorable for different purposes; the language of an oral society will be simple and clear, and well suited for poetry; a more periodic and burdened style that is better suited to science and philosophy arises after the development of the art of writing. Wolf (1795/1985: 90-92, 104-5) agrees that Homer's art is closer to nature than that of poets of more learned periods and links the development of prose to the use of portable writing materials. What all of these ideas have in common is the assumption that Homeric language and style are to be explained in terms of the effects of culture on language as a whole; early Greek oral culture produced a certain kind of language, and Homer used that language.

[12] In this paragraph, I use the term 'language' to refer to the grammar of a language, or what is possible in a language, and the term 'style' to refer to choices made about how to use the grammar. The basic idea underlying these 18th century theories on Homeric language seems to be that early, orally composed texts are 'simple and natural' not as a matter of choice (style), but as a matter of language (the grammar), whereas later literary texts have 'periodic' syntax as a matter of choice (style), since they could also affect a simple and natural style if they wanted to. That is why I describe the contrast they are interested in as one between 'simple, natural language' and 'periodic style'.

In the later 19th and early 20th century, a line of research focused on the language of Homer began to create a picture of Homeric Greek as a specialized poetic dialect, one that was never the spoken language of any community (Ellendt 1861/1864; Düntzer 1864/1872; Witte 1909-1914/1972; Meister 1921/1966). This research came out of the Analyst school of Homeric criticism, which held that the Homeric poems had been compiled from a variety of earlier songs and tried to distinguish relatively earlier and later material with the aim of recovering complete original songs from the mix. It was thought that, because Homeric Greek incorporates morphological forms and vocabulary that cannot be mapped to a single regional dialect and time period, close examination of the language used in different parts of the poems might provide evidence that would help to divide them up. Instead, it was found that the mixed dialect is used fairly consistently throughout the poems, with certain exceptions, and that the organizing principle behind the mixed dialect is metrical utility.[13] Homeric Greek will often have two or more versions of a single commonly used morphological form or vocabulary item, drawn from different dialects or periods; these versions are usually metrically distinct from one another (31a-c).

(31) a. genitive singular: -οιο (—⏑), -ου (⏑)
b. first person plural pronoun: ἡμεῖς (——), ἄμμες (—⏑)
c. *city*: πτόλις (will make preceding syllable heavy), πόλις (will not)

It was also argued that meter had a significant influence on word choice and phrasing in Homer. Metrical specialization was found in the inventory of adjectives used with certain nouns, and in the use of repeated phrases. These findings led to the claim that "the language of Greek epic is a creation of the epic verse" (Witte 1913:237), and that Homeric Greek was a *Kunstsprache*, a language of art, or artificial language (Meister 1921/1966).

[13] Patterns of differentiation subsequently found include clustering of late features in similes (Shipp 1972) and heavier use of late features overall in the Odyssey vs. the Iliad (Janko 1982:229-231 etc.); the latter finding is a subject of debate because of its relationship to questions of text-fixation (Nagy 1996a:108-9).

This new picture of Homeric Greek as an artificial language that was never the spoken language of any community meant that the earlier picture of it as the characteristically simple, spontaneous language of an oral culture could not be maintained in its most romantic form, since the language of the people and the singers was apparently not identical, at least when the poems we have were being composed. But further investigation of the relationship between Homeric language and meter actually paved the way for a new argument in support of the idea that Homer was the product of an oral tradition, and a new idea of how exactly that tradition would have worked. According to this argument, the nature of the Homeric language itself proves that it is the product of an oral poetic tradition (Parry 1971). Homeric Greek has features that distinguish it from both ordinary spoken languages and the language found in literary works of poetry or prose. These features facilitate oral composition in performance.[14] The paratactic nature of Homeric Greek syntax is explained in this new tradition as an adaptation to the context of oral performance, a matter of style rather than grammar. I will argue, however, that this conclusion does not necessarily follow from the basic picture the tradition presents of what Homeric Greek is and how it works. An explanation of apposition and parataxis as matters of grammar would be equally or more consistent with the rest of the basic picture.

1.2.1 Traditional oral poetry

Parry (1928/1971:6) drew a distinction between language, defined as "all the elements of phonetics, morphology, and vocabulary which characterize the speech of a given group of men at a given place and a given time", and diction, defined as "the same elements of phonetics, mophology, and vocabulary considered under another aspect, as the means by which an author expresses his thought", and argued that both Homeric language and Homeric diction are systematically adapted to facilitate oral composition in performance. Syntax is not included in these definitions. Did Parry acknowledge

[14] The term 'composition in performance' comes from Lord (1960/2000:13).

syntax as an element of language that could vary from one period and/or dialect to another? Right after defining language in a way that excludes syntax, he lists "constructions" as one of the necessary objects of study of both language and diction: the study of language has to explain the presence in Homer of "forms, words, and constructions of archaic, Aeolic, Ionic, artificial, and possibly even 'Achaean' origin", and the study of diction has to explain "why Homer chose certain words, certain forms, certain constructions to express his thought" (1928/1971:6). So, apparently not only words (vocabulary) and forms (morphology) but also constructions (syntax) can characterize the speech of a given group of men at a given place and a given time. To avoid terminological confusion between different uses of the term 'language', from now on I will refer to Parry's category *language* using the terms *grammar* (for phonology, morphology and syntax) and *lexicon* (for vocabulary). I will also usually refer to Parry's category *diction* using the broader term *style* (for choice of forms, words and constructions), in order to bring out the distinction between grammar and choices made (whether on the level of the individual or the tradition) about how to use the grammar.

Parry's programmatic statements divide the questions to be asked about Homeric Greek, and therefore Homeric Greek syntax, into two different categories. In the first category are questions about the grammar and lexicon, which deal with what sorts of forms, words and constructions are present in Homeric Greek, whether they are archaic, regional or artificial, and, most importantly for the study of Homeric Greek as the language of an oral poetic tradition, how the organization of these elements in Homer is influenced by the hexameter and the context of oral composition in performance (the existence in Homer of sets of metrically distinct versions of common morphological and vocabulary items, for example, is discussed as a matter of grammar). In the second category are questions of style, which deal with how the singer chooses a certain word or construction to use in a certain context, and how the

way that choice is made is influenced by the context of oral composition in performance. Parry discusses syntax only in the context of questions about style, but the discussion raises questions about issues of grammar. In what follows, I first describe the new model that Parry set up of the relationship between the Homeric language and the ordinary languages spoken by the singers, and then use it as a basis for raising questions about the analysis of formula systems, and the theory of parataxis as 'adding' or 'concatenated' style.

1.2.2 Formula systems

Parry accepted the conclusion that the organizing principle behind the mixed dialect of Homer was metrical utility, and set out to show that the same principle could explain an aspect of Homeric style, namely the abundant use of repeated phrases. The clearest evidence of the influence of meter on Homeric style comes from the use of epithets. One of the most distinctive features of Homeric style is the habitual and repetitive use of epithets with proper names, in phrases like δῖος Ὀδύσσευς, *godlike Odysseus*. The epithets used with a given name almost always form a set of metrically distinct alternatives. Each epithet expands the name into a phrase that can fill a certain part of the hexameter line. These phrases usually extend from the beginning or end of the line to an important caesura or the bucolic diaeresis; take for example some of the "principal-type" epithets used with the name Odysseus in the nominative case (32a-d) (Parry 1928/1971:39):

(32) —⏑⏑ —⏑⏑ — | ⏑ |⏑— | ⏑⏑ | —⏑⏑—×

a. διογενὴς Ὀδυσεὺς | ἀλλογνώτῳ ἐνὶ δήμῳ (Od. 2.366) (P71:39)

b. Τὸν δ' αὖτε προσέειπε | πολύτλας δῖος Ὀδυσσεύς (Il. 9.676)

c. αὐτὰρ ὃ πλησίον ἑστήκει | πολύμητις Ὀδυσσεύς (Il. 4.329)
ἔνθ' αὖτ' Εὐρυδάμαντα βάλε | πτολίπορθος Ὀδυσσεύς (Od. 22.283)

d. τείρεσθ', εἰ μή πού τι πατὴρ ἐμὸς | ἐσθλὸς Ὀδυσσεὺς (Od. 2.71)
Θερσίτης· τῷ δ' ὧκα παρίστατο | δῖος Ὀδυσσεύς (Il. 2.244)

Pairs of epithets that occur in the same position, like those in 32c and d, begin with different sounds, either vowel, consonant or double consonant, that have different effects on preceding syllables, either making them heavy through resyllabification or avoiding doing so, and avoiding hiatus and the creation of overly heavy syllables.

These sets of metrically useful epithets, like the sets of alternative forms and vocabulary from different dialects, can be seen as systems characterized by economy and extension (Parry 1928/1971:17-19; 1971:246). The systems are economical because for a given basic meaning and metrical shape, there will usually be only one form available. If, for instance, the singer wants to fill the space between the bucolic diaeresis and the end of the line with a phrase referring to Odysseus, and the preceding phrase ends with a short closed syllable that has to stay short, he only has one epithet that will form a phrase of the right shape, ἐσθλὸς Ὀδυσσεὺς. They are extensive because there is so often more than one form, and metrical shape, available to express a given meaning; the singer has a variety of different epithets that can help him to fit the name into different parts of the line. The system makes it easy to use the important name Odysseus, but predetermines the epithet that will accompany the name in each position. In the use of important proper names, then, it simultaneously maximizes flexibility (you can put something anywhere) and minimizes the need to invent or decide between equally viable options (once you decide where to put something, your job is done and you don't have any more decisions to make).

The argument that this analysis provides evidence that the Homeric poems are the product of an oral tradition takes the following form (Parry 1928/1971). First, this system of formulaic style seems like the kind of system that an oral tradition would produce. In its economy and extension, it seems more like the product of a long

process of development than the invention of a single person; that the system appears to be functionally adapted to on-the-spot composition suggests that the development occurred via an oral poetic tradition. Second, no system of formulaic style comparable with the one found in Homer exists in literary epics like Vergil's Aeneid, or even Apollonius' Argonautica, even though Apollonius copies Homeric vocabulary and other aspects of Homeric style. Third, there is comparative evidence for the use of formulaic style in living oral traditions, such as the Balkan tradition researched by Parry (Lord 1960/2000:30-67; Parry 1971:379-389; Foley 1999:66-83), and many other traditions (Foley 1985; 2007) .

1.2.3 Homeric language and ordinary spoken language

So, what is the overall picture that Parry's theory paints of the relationship between the Homeric language and the spoken languages of its singers' communities? Let's look first at morphology and vocabulary from the point of view of grammar and the lexicon. It is not clear how, where and when the tradition got started, but it is clear that the Homeric language was passed around over centuries from place to place, from one singer to another. Over time, the Homeric language was learned and sung by singers who were native speakers of various dialects belonging to different periods and regions. They modified it by adding to it forms and vocabulary from their various spoken languages. But, no singer or group of singers completely updated or localized it into their own spoken dialect; the Homeric language was more conservative than an ordinary spoken language, and held on to a lot of old and foreign material through all of this travel and time, for at least three different reasons (Parry 1930-32/1971:338; 1971:328-333).[15] First, heavy use of fixed phrases encouraged preservation of such material; think of the way English idioms like 'hue and cry' and 'leave in the lurch'

[15] Foley (1999:66-83) offers comparative evidence for the phenomena discussed in this section from what he calls the "traditional register" of South Slavic epic, including use of fixed phrases that preserve archaisms and regionalisms, retention of multiple metrically distinct forms of the same vocabulary items, and use of archaism perceived as being part of the style.

preserve words, or meanings of words, that are otherwise obsolete. Second, in an ordinary spoken language, multiple versions of the same morphological form or vocabulary item will not normally be allowed to coexist for long — if a new form comes in, it will usually compete with the corresponding old form, if there was one, until one of them wins. In the Homeric language, the pressure to simplify was opposed by the utility of having multiple metrically distinct forms, so that multiple versions were eliminated only if they were not metrically distinct from one another in a way that would be useful. Something like this can be seen in the use of metrically convenient regional and archaic alternative forms, like one-syllable ne'er, o'er and e'er for two-syllable never, over and ever, in literary poetry in English (Martin 1998). And finally, archaisms and regionalisms, according to Aristotle (*Rhetoric* 1406a-b; *Poetics* 1457b-1459a), were felt to be part of heroic (epic) style, and helped to create a dignified tone because of their distance from everyday language (this may have originally been a side effect of the more functional reasons listed above, but once it got going it would have had a life of its own).[16] According to this picture, Homeric Greek gets its morphological and lexical material from ordinary spoken languages, but it differs from ordinary spoken languages, in certain specific ways, in how it maintains and organizes its inventory of words and forms. The differences are mostly of degree (heavy use of fixed phrases, conservatism, deliberate use of archaisms and regionalisms) but sometimes of kind (coexistence of metrically useful multiple forms of basic elements).

It is important that, according to this picture, Homeric Greek got not only its concrete roots and forms, but also its abstract rules for word structure from the ordinary spoken languages of its singers. A good illustration of this is provided by the so-called

[16] Aristotle indicates that this principle can extend beyond vocabulary, when he says that it is wrong to criticize tragedians for using "what no one would use in conversation", like the pronouns σέθεν and νιν and postpositions (Ἀχιλλέως πέρι instead of περὶ Ἀχιλλέως, δωμάτων ἄπο instead of ἄπο δωμάτων) because such things lift the language above the commonplace (*Poet.* 1459a1).

'artificial' words, words made up of a mix of elements that would never have co-occurred outside the Homeric dialect, which actually show that singers of Homeric Greek could use its inventory of borrowed roots and forms productively, as they would if they were speaking an ordinary natural language. The form κύνεσσιν (Il. 1.4) for example, has an Aeolic dative ending topped off with an Ionic movable ν (Palmer 1980:88). The rules that nouns have case, that there is a dative case, that the root comes before the case-ending, and so forth, were shared by both dialects. So, when they formed new words, singers of Homeric Greek followed certain rules of grammar and word structure, rules that were probably for the most part shared by all the dialects the mixed dialect was based on. Breaking that kind of rule for the sake of metrical utility was apparently rare or not done at all. It would probably have been metrically useful for the singers to have the option of putting case or person marking at the beginning rather than the end of a word, but they did not create that option for themselves. So, the theory assumes that not just an assortment of particular words and phrases, but also at least some of the structural rules according to which they were formed, were absorbed into Homeric Greek from the everyday spoken languages of the singers.

When it comes to vocabulary and morphology from the point of view of grammar and the lexicon, this theory is quite explicit about exactly what sort of relationship there was between the Homeric language and the spoken languages of the singers. When it comes to style, what does that relationship look like? Parry's category of *diction*, or style, deals with the elements of language "considered as the means by which an author expresses his thought", and what is discussed under that heading is choice of words and phrasing (Parry 1928/1971:6). The focus is not on grammar, or what sorts of word structures (morphology) and phrase structures (syntax) are possible in the language, but on how, taking the existence of a particular morphology and syntax for granted, individual words and phrases are chosen to be used in specific circumstances.

In this area of choice of words and phrasing, the primary claim of the analysis is that the sort of system of formulaic style found in Homeric Greek is a distinctive feature of traditional oral poetry. It is explicitly described as being different from styles found in literary poetry, and is implicitly assumed to be different from styles found in ordinary spoken language, since the discussion consistently focuses on how the system is adapted to the hexameter, and to the specific context of oral composition in performance. So, the theory assumes that in this respect, Homeric Greek is significantly different from the spoken languages of its singers.

For illustration of this position, let's look again at the example of the noun-epithet phrases. When a singer wants to use the name 'Odysseus' in a particular portion of the line, he may expand the name into the right shape by using an epithet that is uniquely associated with use of that name in that position. If, for example, the singer wants to say that Odysseus answered a question, and he has started a line with the question-answering formula like τὸν δ' ἀπαμειβόμενος προσέφη, he will always end the line with the noun-epithet phrase πολύμητις Ὀδυσσεύς. The use of the adjective πολύμητις, in that particular location, according to Parry, does not add any meaning to the name Odysseus that is particularly relevant to the immediate context — the phrase as a whole simply evokes the traditional character "Odysseus".[17] The theory assumes that neither that degree of predictability nor much of that kind of contextually irrelevant use of adjectives would be found in a transcript made of the singer's speech in his native language over the course of a week.[18] In ordinary speech, the singer

[17] Though Parry's primary emphasis in the discussion of epithets is on their metrical utility, he also suggests that they evoke traditional associations: "the fixed epithet did not so much adorn a single line or even a single poem, as it did the entirety of Homeric song...even now, who among those of us who have any knowledge of the legend has asked why Odysseus should be *crafty* in this or that particular episode?" (1928/1971:137); this perspective on the meaningfulness of epithets and formulaic language in general has been picked up and emphasized in more recent work (e.g. Foley 1999:18-22, etc. on 'traditional referentiality').

[18] This difference is probably only a matter of degree, because there are plenty of bound expressions in ordinary spoken language (Kiparsky 1976). The economy and extension of the noun-epithet system in Homer, however, may be qualitatively different from anything found in ordinary spoken language.

wanting to use the name Odysseus would normally add an adjective to the name only for some communicative purpose, to add relevant descriptive information about the referent, for example ("you can't put one over on wily old Odysseus") or to narrow down the field of reference ("I mean long-suffering Odysseus, not that other Odysseus"). Irrelevant descriptive adjectives would cause confusion. According to Parry, a large part, or possibly all, of Homeric poetry is made up of formulas that are part of simple and economic systems.[19] The ordinary spoken language of the singers presumably was not. So, the analysis tells us that a singer would choose his words and phrasing in a different way, depending on whether he was singing in Homeric Greek or speaking his own language.

So far then, the picture is that Homeric Greek gets all of its words and forms, considered as elements of grammar and the lexicon, from ordinary spoken languages, but organizes them differently in certain specific ways; formulaic style, however, as a system for choosing what words and constructions to use in certain circumstances, is peculiar to oral poetry and would not have been found in the spoken language of the singers. What does the theory have to say about the relationship between Homeric Greek syntax and the syntax of the spoken languages of the singers? On this topic, the theory becomes difficult to interpret, for two reasons. First, the question of how that relationship would have worked is never explicitly addressed, and it is more difficult than it was in the case of formulaic style to figure out what is being implicitly assumed. Second, when it comes to syntax, Parry blurs his distinction between *language* (grammar and lexicon) and *diction* (style) by focusing exclusively on the latter, without regard for how it may be rooted in the former. Questions about what sorts of forms, words and constructions are present in Homeric Greek, whether they are archaic, regional or artificial, and to some extent how they are functionally

[19] Subsequent work has not found other systems that live up to the standard of extension and economy set by the noun-epithet systems, but there are tendencies toward extension and economy in other areas, such as systems involving preposition/adverb/preverbs (Horrocks 1981:157-60).

organized, were supposed to be matters of grammar and the lexicon. (The existence in Homer of sets of metrically distinct versions of common morphological and vocabulary items is discussed under the heading of grammar.) Questions about how the singer chooses a certain form, word or construction to use in a certain context were supposed to be matters of style. When the subject under discussion is how words are combined into phrases, and phrases into clauses, it is still necessary to make that distinction, but it becomes more difficult to do so. It is fairly straightforward to identify a case ending as archaic and/or regional, and to class the presence of that case ending in Homer as an issue of grammar. It is also fairly easy to classify the question of why the singer used one adjective rather than another, in a certain situation, as a matter of style. It is less immediately obvious whether, for example, a strong tendency to put proper noun subjects at the end of the sentence (and also the end of the line) is a matter of the importing into Homeric Greek of a particular syntactic feature that characterized the spoken language of a particular community, or a matter of how the singer expresses his thought in orally composed hexameters, or both, if, for example, a basically grammatical phenomenon is being exploited for a certain stylistic purpose.[20] With that potential for confusion in mind, let's look at what the theory has to say about syntax. Syntax comes up in two different contexts. First, various syntactic issues are raised by the theory of formula systems. Second, the issue of parataxis is raised in an analysis of enjambement.

1.2.4 Syntax and formula systems

Because formulas are usually phrases, like πολύμητις Ὀδυσσεύς, analysis of the organization of formula systems, and how formulas combine with one another, winds up touching on issues of syntax. Many of the facts about Homeric syntax that the comparative grammar tradition dealt with under the headings of apposition and

[20] Watkins (1995:30) proposes that one basic principle of relations between 'poetic grammar' and 'ordinary grammar' is that 'the poetic grammar may exploit variants generated in ordinary grammar and extend their use'.

parataxis come up in the orality tradition as aspects of formulaic structure. The comparative grammar tradition saw in Homeric Greek a tendency for the elements of the sentence to be relatively independent from one another, rather than tightly bound together into hierarchical phrases, and labeled these relatively loose relationships 'appositional'. The subject, rather than directly agreeing with the verb, is often dislocated, standing in apposition to a pronoun (as in sentences of the type ἡ δ' ἕσπετο Παλλὰς Ἀθήνη (Od. 1.125)). The determiner has not fully developed yet, so there are few determiner phrases; instead, the element that later becomes a determiner is still a pronoun, of a type that often stands in apposition to a lexical argument. Adjectives and other modifiers are often separated from nouns they modify, possibly forming separate phrases of their own. The words that are prepositions in later Greek are in Homer often ambiguous between prepositional and adverbial status. Paratactic clause combination, in which mutually independent clauses are juxtaposed or coordinated, is particularly common in Homer, compared with hypotactic combination in which one clause is subordinated to another. The comparative grammar tradition explained these aspects of the language of Homer in terms of the theory that the Greek language overall, between the time of the earlier language fossilized in Homer and the Classical period, changed from a language that favored appositional and paratactic structure into a language that had more hierarchical structure. This way of describing and explaining these phenomena could also be useful for understanding the particular inventory of formula types that Parry finds in Homer, and how those formula types combine with one another. Parry, however, puts this viewpoint aside and looks at the organization of formula systems exclusively from the perspective of their utility for oral composition in performance.

Parry defines the formula as "a group of words which is regularly employed under the same metrical conditions to express a given essential idea" (1930-32/1971:272).[21] This

[21] An earlier version of this definition is worded slightly differently: "an expression regularly used, under the same metrical conditions, to express an essential idea" (Parry 1928/1971:13).

definition does not include any grammatical criteria, unless grammar somehow enters into the definition of an "essential idea". Does it? Parry divides formulas into two categories, those that are part of larger formula systems (I will refer to these larger systems as "formula types"[22]) and those that are not (1930-32/1971:275-6). Formula types are defined partly by reference to grammatical criteria such as the parts of speech they contain (e.g. 'noun-epithet formula'), and sometimes by reference to their 'role in the sentence' (e.g. 'subject formula'; 'predicate formula').[23] It is the presence of simple and economic systems of formulae organized around different parts of speech, not the presence of individual repeated phrases, that distinguishes Homeric diction from that of later literary epics and shows that it is traditional (Parry 1928/1971:17). Parry proposes that in order to know how much of Homeric diction is traditional, it will be necessary to find out "to what extent nouns, pronouns, verbs, adjectives, adverbs, prepositions, conjunctions and particles of every variety of meaning and metrical value appear in series of formulae of like character" (1928/1971:17). For nouns, case can enter into the definition of formula systems. The collection of noun-epithet formulae associated with each case of a given proper name or noun is considered to constitute a separate formula system, partly because the grammatical roles associated with the cases make for different kinds of systems;

[22] Parry uses various terms for these, including "larger system" (1930-32/1971:276), "formula type" (1928/1971:16) and "system of...formulae" (1928/1971:16); at one point he calls the noun-epithet formulae "a system of formulae which is a set of subsystems" (1928/1971:19).

[23] I use the qualifier "partly" here because Parry's definition of what constitutes a "larger formula system" is somewhat confusing (1930-32/1971:275-6). He first says that formulas that are part of a system are like others which "express a similar idea in more or less the same words", and gives examples that are structurally dissimilar but share one or more words, leaving the impression that word repetition is the defining element (1930-32/1971:275). But on the next page, he gives an example of a formula system consisting of four related subsystems in which the particle αὐτὰρ is followed by a form of the subordinating conjunction ἐπεὶ and an indicative or subjunctive verb form of one of several different metrical shapes (1930-32/1971:276). The only word repetitions in this system are the functional words αὐτὰρ and ἐπεὶ, and Parry calls the system "an exact device...for fitting into the verse verb-forms of certain moods and measures" (1930-32/1971:276). This leaves the impression that structure is important after all, and that impression is supported elsewhere by Parry's consistent description of the noun-epithet formulas as a larger system (defined not by word repetition but by structure) (1971:17, etc.). This ambiguity has fed subsequent arguments about how the concept 'formula' should be defined.

nominative proper-name formulae, for example, are tailored in various ways to combine well as subjects with verb formulae, whereas genitives are designed to combine well as possessives with noun formulae (Parry 1928/1971:19, 38, 61-62).[24] All of this shows that Parry did, to some extent, define "essential ideas" in grammatical terms.

He did not, however, define the formula in terms of syntactic constituency. The use of the term "group of words" rather than something like "phrase or clause", in the definition above, seems designed to include strings that are not syntactic constituents, and some examples Parry cites of formulae are not syntactic constituents, such as members of the "numerous class of formulas made up of relative words, particles, pronouns and adverbs, which begin a clause of which the principal words will be found in the next line" (33a) (1930-32/1971:310).

(33) a. ...πᾶσι μνηστήρεσσιν ἀπειπέμεν, οἵ τέ οἱ αἰεὶ / μῆλ' ἀδινὰ σφάζουσι καὶ εἰλίποδας ἕλικας βοῦς
(Od. 1.91-2; elsewhere as [ὅς ὅν ἥ οἵ] [τέ] [μοι τοι μευ κεν] [αἰει])
...and give the suitors a warning, who are always killing his thronging sheep and his shambling curvy-horned cattle

Nevertheless, most by far of the examples Parry (1971) cites are (potential) phrases or clauses, sometimes accompanied by a conjunction or particle, such as noun phrases (34a), prepositional phrases (34b), verb phrases (34c), clauses with pronominal and lexical arguments (34d-f), and complex clauses (34g).

(34) a. ποντοπόρος νηῦς (Od. 12.69 etc.)
sea-going ship
b. κοίλας ἐπὶ νῆας (Il. 5.26 etc.)

[24] For proper-noun formulas that follow the trochaic caesura, nominatives, which often follow a verb form ending in a vowel, tend to begin with consonants, while genitives, which often follow a noun form ending in a consonant, tend to begin with vowels (Parry 1928/1971:61-62). Proper names have extensive nominative systems and less extensive oblique systems, while the reverse is true for inanimates like 'ship', because proper names are more likely than inanimates to be subjects (Parry 1928/1971:38).

to the hollow ships

c. πήματα πάσχει (Od. 1.49 etc.)
suffers sorrows

d. ὁ δέ μ' αὐτίκ' ἀμείβετο (Od. 9.272 etc.)
And he answered me immediately

e. τὸν δ' ἠμείβετ' ἔπειτα (Il. 1.121 etc.)
And then he answered him

f. οἳ δ' ἐπ' ὀνείαθ' ἑτοῖμα προκείμενα χεῖρας ἴαλλον (Il. 9.91 etc.)
And they put their hands to the good things that were laid out ready

g. ἦμος δ' ἠέλιος κατέδυ καὶ ἐπὶ κνέφας ἦλθε, / δὴ τότε κοιμήθημεν ἐπὶ ῥηγμῖνι θαλάσσης (Od. 9.168 etc.)
But when the sun went down and dusk came on, then we went to bed by the shore of the sea

Parry does not discuss this tendency for formulas to be phrases or clauses in any detail, but the discussion of formula types, which are defined partly according to grammatical criteria, indicates that he does not think that the structure of formula systems is directly shaped by grammar. Parry attributes the existence of formula types to formation by analogy. Each type becomes established through imitation of some particular original: "...each system of formulas comes, in the last analysis, from some single expression. The simple fact that two phrases are too closely alike to be due to chance implies that one of them imitates the other, or that they go back to a common model" (1930-32/1971:322-3). The examples Parry gives of formula types created by analogy include the noun-epithet type and various predicate types, such as αὐτὰρ ἐπεί ῥ' [ἵκοντο, εὔξαντο, ἤγερθεν, ὄμοσαν etc.] (Il. 1.484 etc.). He also identifies as a type formed by analogy the pattern in which a hemistich clause containing a pronoun argument is followed by a subject noun-epithet formula (in apposition to the pronoun, if it is a subject) (35a and b).

(35) a. τὸν δ' ἠμείβετ' ἔπειτα ποδάρκης δῖος Ἀχιλλεύς (Il. 1.121) (P71:323)
And then swift-footed godlike Achilles answered him

b. αὐτὰρ ὁ βοῦν ἱέρευσεν ἄναξ ἀνδρῶν Ἀγαμέμνων (Il. 2.402)
But Agamemnon leader of men sacrificed an ox

According to this argument, the reason for the structural resemblance between 35a and b is that there was some single original sentence that had this structure and was used by singers as a model for other sentences, resulting eventually in the production of these particular verses.

This way of explaining the origin of formula types loses sight of the relationship between the language of Homer and the ordinary languages of the singers. If all the various general formula types are based on single original phrases or clauses, how were those originals formed? The ordinary spoken languages of the singers will have had syntactic rules of some kind governing the formation of phrases and clauses. Since Homeric Greek gets its grammar from the languages of the singers, one would expect the originals to have been formed according to the syntactic rules of the everyday language of some singer. The originals would then be grammatical expressions of some kind, and it is hard to imagine how one could distinguish copies of those originals from more originals produced according to the same rules. The "fact that two phrases are too closely alike to be due to chance" could just as easily be explained by the two phrases having been formed in accordance with the same syntactic rules as by their being based on a common model. In any case, even if formula types did go each back to a single original model, they would still ultimately be derived from phrase types that existed in the everyday languages of (some of) the singers.

Later work in the tradition started by Parry points out that formula structures are probably at least partly based on the syntax of ordinary language (e.g. Lord 1960/2000:35-6 and others). Nevertheless, though there has been plenty of discussion in this tradition of how best to define the formula, with prominent proposals emphasizing different aspects of Parry's definitions, including grammatical structure (Russo 1963; 1966), word repetition (Hainsworth 1964; 1968), puns (Nagler 1967; 1974), and the function of 'flexible' (optional) material in shaping formulae centered

on 'fixed' (necessary) material (Visser 1988/1999; Bakker and Fabricotti 1991/1999; Bakker 1995; 1997:184-206; 2005), for the most part these approaches have not focused much attention on the relationship between the syntax of the ordinary languages of the singers and the syntactic structure of formulas. Russo, for example, conceives of the structural formula primarily as a device that facilitates rapid oral composition: "The [structural] repetitions are necessary to oral recitation because they provide pre-established verbal configurations with which the poet is comfortable and through the use of which he is spared much of the mental effort that a non-oral poet would invest in deciding where best to place his verb, his object, his adjective or qualifying participle or adverb, and so on" (1966:223).

Other proposals have focused more closely on the relationship between the nature and structure of formulas and the nature and structure of ordinary language. Kiparsky (1976) proposes that formulas can be thought of as poetic counterparts of bound expressions in ordinary language, like *pitched battle* or *leave* x *in the lurch*. This approach predicts that formulas will be syntactic phrases, and also explains flexibility in formulas without reference to analogy: the model of formula as bound expression "allows for the inflection, separation, and modification of formulas without singling out one form as the prototype and postulating analogical processes to generate the others" (1976:85).[25] Watkins (1995) argues that it is possible to reconstruct aspects of an Indo-European poetic language, including various specific formulas as well as general types of formulas, using the methods of comparative-historical linguistics, and that part of this task of reconstruction is to describe the relationship between early poetic languages and corresponding ordinary languages, and also the relationship between the reconstructed poetic and ordinary protolanguages.

[25] The models proposed by Nagler (1967; 1974) and by Visser (1988/1999) and Bakker (1991/1999, 1995; 1997; 2005) also account for flexibility without reference to analogy.

If formulas are thought of as bound expressions whose syntactic structure will have been shaped by the grammar of the ordinary language of (some of) the singers, it is natural to ask, when looking at the array of formula types found in Homer, what kind of grammar (or syntactic typology) would have been likely to give rise to them. This kind of question arises, for example, when Parry argues that not just the individual formula systems (e.g. 'Odysseus as a subject') but also the larger systems of formula types (e.g. 'noun-epithet subject formulas') have internal organization of a kind that could only be the product of an oral tradition. He groups the nominative proper name noun-epithet formulas into four major categories and eleven subcategories, based on the part of the line they occur in and what sort of verb and predicate formulas they tend to combine with (Parry 1930-32/1971:38-55). Each formula subtype is well-suited to fit together metrically with certain other word, formula and/or phrase types. It is common, for example, for various kinds of word group formed around the verb to occur between the third-foot caesura and the bucolic diaeresis.

(36) a. πλησίον· ἡ δ' ἀνὰ ἄστυ | μετώχετο | Παλλὰς Ἀθήνη (Od. 8.7) (P71:38-55)
...but Pallas Athena went through the city
b. ἐν γαίῃ δ' ἐπάγη·| ἀνὰ δ' ἤρπασε | Παλλὰς Ἀθήνη (Il. 22.276)
...but Pallas Athena seized it
c. ὣς εἰπὼν ἡγεῖθ', | ἡ δ' ἕσπετο | Παλλὰς Ἀθήνη (Od. 1.125)
...and Pallas Athena followed
d. Ὣς ἔφατ' εὐχόμενος· | τοῦ δ' ἔκλυε | Παλλὰς Ἀθήνη (Il. 5.101 etc.)
...And Pallas Athena heard him
e. νήπιοι· ἐκ γάρ σφεων | φρένας εἵλετο | Παλλὰς Ἀθήνη (Il. 18.311)
...For Pallas Athena had taken away their wits

Noun-epithet formulae that fit between the bucolic diaeresis and line end can follow word groups of all these types. Though Parry treats these patterns as a matter of style, they raise various questions about syntax as a matter of grammar. Almost all of the eleven subtypes of subject noun-epithet formulae, for example, are apparently

designed to combine with a preceding verb phrase. Postverbal subjects are possible, but by no means standard, in other contexts in Homer and in later Greek. Why is this such an important formula type? Was this kind of configuration common in some ordinary dialect of Greek, or a relatively unusual option that was exploited as a stylistic device, or an entirely artificial creation, or something else? The type of verse seen in (36a and b), where a subject noun-epithet formula stands in apposition to a pronoun in a predicate formula, is also distinctive. What sort of syntactic typology would be likely to give rise to the particular set of formula types found in Homeric Greek? An answer to that question would provide a better understanding of Homeric formulaic style.

1.2.5 Unperiodic enjambement and 'concatenated' style

In the comparative grammar tradition, the distinctive flavor of Homeric sentences, as oppposed to Classical Greek sentences, was explained as being primarily a matter of grammar. The broad outline of the picture was that Homer preserved aspects of an earlier form of Greek that had appositional and paratactic syntax as a matter of grammar. In an essay on enjambement, Parry suggests a different approach toward these patterns, one that views them as matters of style, whose presence in Homer is determined by the context of oral composition in performance.

Parry argues that patterns of enjambement in Homer reveal that "the order of thought in the Homeric sentence" is, at least in so far as it relates to enjambement, specially adapted for oral composition of hexameter verse (Parry 1929/1971:251). The phrase "the order of thought in the Homeric sentence" refers to syntax looked at from the point of view of style. Background for the discussion comes from literary-critical characterizations of syntactic style by Aristotle and Dionysius of Halicarnassus. Aristotle makes a distinction between εἰρομένη λέξις, 'concatenated' style, in which the parts are united only by connective particles, and κατεστραμμένη λέξις, 'directed'

style, which uses periods: a period "has a beginning and end in itself and is of the right size to be understood all at once" (*Rh.* 1409a-b).[26] The contrast between the two styles is expressed through comparison of the audience to a man running a race: the directed style puts the goal in sight, so that he knows he is getting somewhere, while the concatenated style leaves it out of view, so that he cannot see what is ahead of him (*Rh.* 1409a-b). Dionysius makes a similar distinction using the terms 'periodic' and 'unperiodic' (*Comp.* 26.82). Parry adopts this distinction and uses it as the basis for distinguishing two different types of enjambement: 'unperiodic' and 'necessary' enjambement (Parry 1929/1971:253). In unperiodic enjambement, the material that occurs before the line end would by itself be sufficient to constitute an independent sentence, and the elements that follow the line end are optional expansions. There are four basic kinds of optional expansion. In order of frequency of occurrence, they are either verbal (optional dependent clause, participial phrase, or genitive absolute) (37a), adjectival (37b), adverbial (37c), or consist of a coordinated word, phrase or clause (37d).

(37) a. πολλὰ δ' ὅ γ' ἐν πόντῳ πάθεν ἄλγεα ὃν κατὰ θυμόν, / ἀρνύμενος ἥν τε ψυχὴν καὶ νόστον ἑταίρων (Od. 1.4-5) (P71:255-256)
He suffered much trouble on the sea, in his spirit, struggling for his own life and the homecoming of his companions

b. Μῆνιν ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος / οὐλομένην, ἣ μυρί' Ἀχαιοῖς ἄλγε' ἔθηκε (Il. 1.1-2)
Sing, Muse, of the terrible anger of Achilles son of Peleus, which caused measureless suffering for the Achaeans

c. στέμματ' ἔχων ἐν χερσὶν ἑκηβόλου Ἀπόλλωνος / χρυσέῳ ἀνὰ σκήπτρῳ (Il. 1.14-15)
Holding in his hands the fillets of far-striking Apollo, on a golden staff

d. αὐτοὺς δὲ ἑλώρια τεῦχε κύνεσσιν / οἰωνοῖσί τε πᾶσι (Il. 1.4)
And made them a feast for dogs and all [kinds of] birds

[26] The first thing Aristotle says about concatenating style, after introducing it, is that it is the archaic style and everyone used to use it, but now few do: ἡ μὲν οὖν εἰρομένη λέξις ἡ ἀρχαία ἐστίν "Ἡροδότου Θουρίου ἥδ' ἱστορίης ἀπόδειξις" (ταύτῃ γὰρ πρότερον μὲν ἅπαντες, νῦν δὲ οὐ πολλοὶ χρῶνται) (*Rh.* 1409.27-29).

In necessary enjambement, the material that follows the end of the line is more closely bound, or 'necessary', to the material that precedes it. There are two basic types of necessary enjambement. In one, the line end separates a subordinate and main clause, and the first clause does not make sense without the second (38a). In the other, line end intervenes between elements of "the unbroken complex formed by the basic parts of the clause — subject, verb and object, and...the words directly modifying these basic parts" (38b-c) (Parry, 1929/1971:263).[27]

(38) a. οἳ δ' ἐπεὶ οὖν ἤγερθεν ὁμηγερέες τε γένοντο, / τοῖσι δ' ἀνιστάμενος μετέφη πόδας ὠκὺς Ἀχιλλεύς (Il. 1.57-58) (P71:263)
But when they had gathered and gotten assembled, swift-footed Achilles stood up and addressed them

b. Ἠτοι ὅ γ' ὣς εἰπὼν κατ' ἄρ' ἕζετο· τοῖσι δ' ἀνέστη / ἥρως Ἀτρεΐδης εὐρὺ κρείων Ἀγαμέμνων (1.101-2, several others with τοῖσι δ' ἀνέστη)
Saying that, he sat down; and there stood up among them the hero son of Atreus, wide-ruling Agamemnon

c. μένεος δὲ μέγα φρένες ἀμφιμέλαιναι / πίμπλαντ' (Il. 1.103-4, cf. Od. 4.662)
His great heart was filled black all over with rage

d. σὺν δὲ νεφέεσσι κάλυψε / γαῖαν ὁμοῦ καὶ πόντον·(Od. 5.293-4, 9.69-70, 12.315-16)
And he covered with clouds both land and sea

Patterns of enjambement in Homer differ significantly from those found in the literary epics of Apollonius and Virgil. For one thing, coincidence of sentence end and line end is slightly more common in Homer, as are lines filled by a single sentence or two short sentences. But there is also a difference in what sort of enjambement does occur. Homer has more unperiodic and less necessary enjambement than Apollonius and Virgil. Parry finds in Homer about double the rate of unperiodic enjambement (once

[27] Parry cites an example, and gives a partial list of other examples, for every kind of enjambement he discusses except this one; for this type he gives only the total number of examples (1929/1971:203). So, examples of this type are chosen by me, based on Parry's definition.

every four versus once every eight lines) and about half the rate of necessary enjambement (once every five versus once every two or three lines) present in Apollonius and Virgil. He also notes that one kind of necessary enjambement found in the literary epics is almost never found in Homer, namely the kind in which an adjective is separated by line end from a following noun that it modifies (39a-c).

(39) a. ἦε βαθείαις / αὐτόματοι βόες ὔμμιν ἐνιζευχθέντες ἀρούραις / γειοτόμον νειοῖο διειρύσσουσιν ἄροτρον (Ap. Arg. 1.685-687) (P71:264-265)
Will your oxen, having yoked themselves for the deep fields, drag the earth-cutting plough through the land?

b. at non, Euandre, pudendis / volneribus pulsum aspicies, nec sospite dirum / optabis nato funus pater (V. Aen. 11.55-57)
Evander, you will not look upon him beaten with shameful wounds, nor will you, as a father, wish for harsh death while your son is safe

c. ἦ γὰρ ὀΐομαι ἄνδρα χολωσέμεν, ὃς μέγα πάντων / Ἀργείων κρατέει (Il. 1.78-79)
I think I will anger a man who has great power over all the Argives

The overall picture is that Homer has a lower incidence of mismatch between metrical boundaries (line end) and syntactic units (clauses and phrases) than Apollonius and Virgil do.

According to Parry, the context of oral composition in performance is responsible for the characteristic patterns of enjambement found in Homer. He makes two arguments in support of this theory, one based on the use of formulas and another based on the need for rapid composition. The argument about formulas is indirectly implied, rather than explicitly stated. Though Parry says that he intends to "show the action of the formula upon the movement", and "deal with this fact that the use of set phrases by Homer is closely bound up with the way in which his verses join" (1929/1971:256), in practice the argument he makes about formulas concerns audience interpretation of certain ambiguous cases of enjambement, rather than the motivation behind the overall pattern. That argument is as follows. Homer's formulaic style instills in his audience

the habit of reading or listening for formulaic units, and that that habit biases the audience toward unperiodic readings. In reading or listening to Homer, the audience gets acquainted with many formulas that end with line end. Familiarity with that pattern leads the audience to interpret as unperiodic those instances of enjambement that could be either unperiodic or necessary. The effect will be particularly strong if the material that precedes line end resembles or is identical to material found in a formula that ends with the line. Parry suggests that the pattern of 40a, for example, is what leads the audience to "close the thought" at the end of the first line in 40b (1929/1971:259).

(40) a. αἶψά κε Πάτροκλον ἐρυσαίμεθα Ἴλιον εἴσω (Il. 17.159) (P71:259)
We could quickly drag Patroclus into Troy
b. καὶ νήεσσ' ἡγήσατ' Ἀχαιῶν Ἴλιον εἴσω / ἣν διὰ μαντοσύνην, τήν οἱ πόρε Φοῖβος Ἀπόλλων (Il. 1.71-72)
And he led the ships of the Achaeans to Troy, by the prophecy which Phoebus Apollo gave him

So, on the face of it, all this theory proposes is that an audience used to formulas that end at line end will tend to interpret ambiguous cases of enjambement as unperiodic. That does not really address the issue of the "action of the formula upon the movement", so there must be a larger argument implied by this one. Why are there so many formulas that end at line end in the first place? A system of formulaic style could, in theory, either feature or avoid 'unperiodic' and/or 'necessary' enjambement. A formula could, for example, be made up of a pair of lines containing an adjective in the first that could not be understood without a noun in the second. This is where an unstated premise has to be supplied to produce an argument about the effect of formulaic style on enjambement patterns. That premise is that Homeric formulas are, by definition, (pieces of) prosodic constituents, corresponding fairly regularly to (pieces of) syntactic constituents, that match up with metrical constituents in such a

way as to avoid boundary clashes.[28] Parry never defines the formula as a syntactic constituent, but he does argue that the system of formulaic style facilitates oral composition by providing 'word groups' that fit perfectly into metrical slots of various types. If it is assumed that these 'word groups' are prosodic constituents, usually corresponding to syntactic constituents, then according to Parry, the formula by definition tends to match up syntactic, prosodic and metrical boundaries. If the context of oral composition motivates the use of formulaic style, and formulaic style tends to match up syntactic, prosodic and metrical boundaries, then the context of oral composition is at least partly responsible for the prevalence of matched syntactic, prosodic and metrical boundaries in Homer.

The second argument is that the speed of oral composition forces the singer to use concatenating style. Whereas Apollonius and Virgil wrote their epics with plenty of time to think, plan ahead, and revise, the oral poet has to produce coherent verse very rapidly, so he adopts an open-ended style that allows him as much flexibility as possible: "...Homer was ever pushed on to use unperiodic enjambement. Oral versemaking by its speed must chiefly be carried on in an adding style. The Singer has not time for the nice balances and contrasts of unhurried thought: he must order his words in such a way that they leave him much freedom to end the sentence or draw it out as the story and the needs of the verse demand" (Parry 1929/1971:262). According to this theory, concatenating style is a strategy adopted by the singer for dealing with a constraint on his expression. Presumably, the strategy did not have to be adopted individually by each singer in each performance, but rather was built into the system of formulas by generations of singers who were operating under the same constraint. Taken as a theory about the design of the system of formulaic style, the argument would be as follows. The system of formulaic style was developed through and for oral composition in performance. In response to the need for rapid composition, the

[28] Diachronically, prosodic constituents (perhaps formulas) generate metrical constituents (Nagy 1974; 1992a:30).

singers developed, or adopted, concatenating syntactic style, because it is flexible and open-ended. Concatenating style became part of the system of formulaic style.

1.2.6 Orality theories

Put the latter two arguments together, and you have Parry's proposal about why Homeric syntax is paratactic. The Homeric language was created by generations of singers who had to be able to rapidly compose hexameter verse in performance. In order to be able to do that, they developed a system of formulaic style, which gave them an inventory of pre-formed phrases and clauses that matched up syntactic and metrical boundaries. Because the singers were composing rapidly and without being able to plan exactly what they were going to do next at any given moment, their favored way of combining these pre-formed phrases was to string them along one after another in such a way as to avoid boxing themselves into any corners. Therefore, it is the context of oral composition in performance that is primarily responsible for the paratactic syntax of Homer.

The trouble with this theory is that it does not directly acknowledge the existence of syntax as a matter of grammar, or questions about the relationship between the everyday language of the singers and the language of Homer. Is paratactic syntax in Homeric Greek a matter of grammar, something that was standard in the language of (some of) the singers and so became standard in the language of Homer, or is it a matter of some kind of restriction or expansion of what was available in the grammars of the languages of the singers, something that was imposed or encouraged by the context of production? There are at least three different ways of interpreting the theory that the context of rapid oral composition of hexameters is responsible for the paratactic syntax of Homer, which offer different answers to that question. I will call these three versions the *oral medium* theory, the *oral poetry* theory, and the *oral*

culture theory. Each of these theories requires support from comparative evidence, in each case of a different type.

On the oral medium interpretation, the 'oral' part of rapid oral composition of hexameter verses directly gives rise to paratactic syntax. In order for this interpretation to make sense, non-paratactic syntax has to have been available as an option, in order for the oral context to have had a chance to work against it. The full picture would be that (at least some of) the singers spoke ordinary everyday languages that allowed for some kind of non-paratactic syntax, but when they sang in Homeric Greek the oral medium forced or encouraged them to adopt a paratactic style. A problem for this theory arises from the historical context in which the Homeric texts were produced. The poetic tradition that gave rise to these texts appears to have already been developing for centuries before the rise and spread of alphabetic literacy in Greece, which means that most or many of the singers who contributed to the Homeric language will have lived in oral or primarily oral cultures. Assuming that the oral medium imposes or encourages parataxis, would any context of language production, in an oral culture, ever produce anything but parataxis? It could be maintained that no context would, and that all language produced in such a culture would be paratactic. But if that were the case, parataxis would again be a matter of grammar, not a specialized alternative type of syntax imposed or encouraged by the medium. It is that kind of consideration that leads to both the oral poetry and oral culture versions of the orality theory. But first, what kind of comparative evidence could be used to evaluate the theory that parataxis in Homer results directly from the oral medium? If comparison of spoken and written discourse, in a wide variety of the world's languages, found a general tendency for spoken discourse to be more paratactic than written discourse in the same language, that would seem to support the theory. There is some evidence to that effect, and some of it has been used as the basis for an

extended argument about the nature of Homeric syntax, which will be introduced in section 1.2.7 below.

Another possible orality theory could be called the oral poetry interpretation, and would give a different answer to the question about non-paratactic style in an oral culture.[29] On this interpretation, it would not be primarily the 'oral' part of rapid oral composition of hexameter verse, but the combination of the 'oral', 'rapid' and 'verse' parts, that gives rise to parataxis. Comparative evidence to support such a theory would have to come from comparison of language produced in various contexts within an oral culture, showing that the specific context of composition-in-performance of verse tends to give rise to parataxis, more than other contexts. Imagine, for example, an oral culture whose members speak a language that has both paratactic and hypotactic syntax available as options in the grammar. They use hypotactic syntax when they make speeches at important meetings, recite poetry that is preplanned or memorized rather than composed in performance, and perhaps just when they are talking with one another informally. But, when they engage in composition-in-performance of verse, they are forced or encouraged to use paratactic syntax. One important thing to note about this kind of explanation is that, while it would be incompatible with the oral medium theory, it would not necessarily be incompatible with the archaism theory, if it were found that the specific context of composition-in-performance of verse tended to involve the use of archaisms, more than other contexts. An argument that deals with one aspect of that picture, namely a general association of parataxis with oral poetry, has been made in work on Homer that draws on comparative evidence from other oral poetic traditions (after Parry and Lord, also e.g. Foley 1999:47-48). In general, comparative evidence to support or disprove the oral poetry theory would have to come from work on the syntax of speech produced in

[29] It seems likely that if Parry's theory were more explicit, this is the category that it would fall into, but I am not aware of any argument about Homeric syntax that explicitly takes exactly this approach.

different contexts in oral cultures. This kind of argument and evidence will come up again in Chapter 2.

On the oral culture interpretation of the theory, Homeric Greek has paratactic syntax because it is the product of an oral culture. This version of the orality theory is also an archaism theory: it revives the 18th century idea that oral culture gives rise to a particular kind of language, and the singers of Homeric Greek used that language. In practice, this proposal has not been put forward in the form of a detailed argument about the Homeric language specifically but rather as part of a larger proposal about differences in the patterns of thought prevalent in Greek culture before and after the rise and spread of literacy, and how those patterns of thought manifest themselves in various aspects of culture (Notopoulos 1949; Havelock 1982). Notopoulos finds paratactic organization in not only literature but also vase painting, sculpture and architecture, and argues that parataxis is "a state of mind rather than a form of literature", and that "parataxis and the type of mind which expresses it are the regular form of thought and expression before the classical period" (1949:11, 13). Havelock argues that Homer preserves a distinct kind of thought and language characteristic of oral culture which is organized around description of concrete things and events (the latter preferably actions performed by a specific agent) occurring in running sequence (1982:7-8, 137-140, 236-231), and has "a grammar of connection which is correspondingly paratactic" (1982:140). Evidence for or against this theory, in so far as it specifically concerns the relationship between culture and language, could come from patterns in what types of syntax tend to be found in literate and in primarily oral cultures, and from patterns of language change associated with the introduction of literacy.

1.2.7 The oral medium theory

The oral medium theory has recently been developed by Bakker, who proposes that apposition and parataxis, as well as various other features of Homeric Greek, can be explained and should be understood as inherent characteristics of spoken as opposed to written language, rather than as aspects of a particular kind of grammar, or as archaisms, because "...speech, our own everyday language, is pervasively paratactic too — the feature appears to be an inherent property of spoken discourse, naturally resulting from its production, and essential in some ways to its comprehension. If this is the case, parataxis can hardly be an archaism..." (1997:43).

Theoretical background for this theory comes from research on differences between written language and spontaneous spoken language, particularly a study done by Wallace Chafe (1980) in which subjects were shown a short film in and asked to describe what they had seen, and it was found that their descriptions tended to be delivered in bursts of sound averaging two to three seconds in duration. Chafe (1994:63) called these bursts "intonation units", and hypothesized that an intonation unit "verbalizes the information active in a speaker's mind at its onset" or "the speaker's focus of consciousness at that moment". Bakker (1997:49) adopts the intonation unit as the basis of his model for the analysis of Homeric Greek, arguing that because the Homeric poems were meant to be spoken, it will be more illuminating to think about the language of Homer in terms of units geared toward the analysis of speech than in terms of units which he argues are geared toward the analysis of texts (such as sentences): "The concept of sentence...the primary stylistic unit of written discourse and the principal domain for the operation of written syntax, is much less relevant in spoken discourse. Speakers may regularly produce sentences by intonational means (sentences that may or may not correspond to what is for us a finished, syntactically correct sentence), but the syntax of their speech is the syntax of the intonation unit as it reflects the flow of ideas through their consciousness." Bakker

analyses various peculiarities of Homeric Greek in terms of this intonation-unit model, and compares them to features that occur in transcripts of spontaneous spoken English. The peculiarities that he focuses on are the same ones that attracted the attention of the comparative grammar tradition; I review the three main points of the oral medium theory below, in each case contrasting them with corresponding points made in the comparative grammar tradition.

First, in the comparative grammar tradition, Homeric Greek was described as building up sentences by stringing together short clauses and phrases (whose syntactic boundaries typically coincide with metrical boundaries such as a major caesura or line end). Bakker (1997:48-53) proposes that these phrases and clauses, which are at the same time metrical units, should be thought of as stylized intonation units, which are of a size ideal for production by speakers and comprehension by listeners. He suggests that Homeric Greek is in this respect similar to spontaneous spoken English, because the latter, more than written English, is also organized in terms of intonation units.

Second, in the comparative grammar tradition, Homeric Greek was described as making particularly heavy use of paratactic clause combination, which included clause linking with discourse particles, often in contexts where Classical Greek would be likely to use some type of subordination instead. Bakker (1997:51, 54-85) proposes that in Homer, discourse particles such as μέν, δέ, ῥα and γάρ mark transitions between intonation units, and serve various discourse regulating functions such as marking the movement from one step in the narrative to another, establishing common ground between speaker and listener, building up anticipation for the next addition, and so forth, whereas in the written language of Classical Greek, there is less call for the discourse regulating uses of these particles, so that their functions tend to be more limited and specific, such as for example the use of μέν...δέ to mark contrasted constituents. He argues that the Homeric use of discourse particles is similar to the use

in spoken English of connectives like 'and', 'you know' and so forth to link series of short phrases (1997:51).

Third, in the comparative grammar tradition, Homeric Greek grammar was described as operating on the principle of apposition (broadly defined), as opposed to government. It was proposed that in Indo-European and to some extent still in Homer, the subject, object and so forth are independent elements standing in apposition to pronouns implied by or contained in the verb (Meillet and Vendryes 1927:536-537; Chantraine 1953:7, 12-21). It was also argued that in Homer, sentences tend to be built up gradually, with information parceled out in small chunks added one by one (Ammann 1922:7-10). Bakker accepts both of these ideas, but explains them as features uniquely well-suited to or characteristic of spoken language. First, he claims that the gradual parceling out of information in small chunks is necessitated by the oral medium, as opposed to the written medium: "[a sentence in which] subject, direct object, and indirect object are all integrated within an overarching construction... would be unlikely to occur in speech, whether ordinary or special; its conglomeration of detail would be too complex to be grasped by the verbalizing consciousness as an integrated whole" (1997:95). The appositional relationship between the verb and its arguments "facilitate[s] the loose and fragmented speech that is in accordance with the processes of the human mind in general...due to the limits of human consciousness no linguistic unit can contain two separate ideas, or distinct items of information" (1997:99).

There are at least two basic problems with this analysis. The first problem is with Bakker's argument that it is more accurate and illuminating to think of speech as being organized in terms of intonation units that verbalize a focus of consciousness than in terms of phrases and clauses. In practice, Bakker does not demonstrate what there is to be gained from substituting the intonation unit, as the basic unit of analysis, for

familiar syntactic units of analysis such as phrases and clauses, since the intonation units he cites as examples are almost always syntactic phrases or clauses. In his initial definition of the intonation unit, for example, he cites no examples that are not also clauses or phrases: "Intonation units may be also be something other than a clause and are in principle not predetermined by any kind of linguistic structure. In terms of syntax, intonation units can be anything from complete clauses to all kinds of nonclausal elements: prepositional phrases...phrases involving participles...or even separate noun phrases when they are the verbalization of the idea on which the speaker focuses." (1997:48-49).

The second problem is that the oral medium theory, which is based on research on speech and writing in the same language in literate cultures, becomes difficult to interpret when it is applied to language produced in an oral culture. Let's say that we have in front of us two appositional and paratactic passages, one from a transcript of someone speaking English, and the other from a trancript of someone speaking S, where S is the language of an oral culture. Assuming, for the purpose of argument, that the oral medium encourages speakers of English to use syntax that is paratactic relative to the syntax they use when they write, we could then coherently claim that the English passage is paratactic because it is spoken. Furthermore, we could compare that transcript with a passage of English composed in writing, and claim that any differences we found between the two had to do with the different mediums in which they were originally produced. But we cannot coherently make the same kind of claim about the passage from the transcript of speech in S. All our examples of S will have been originally produced in the oral medium. In S, we can only compare speech with speech. That makes it more complicated to explain peculiarities of speech in S in terms of medium alone, since it is a variable that cannot be controlled for. If all speech in S has paratactic syntax, is it a matter of the medium or of the grammar, or of influence of the medium on the grammar? To test that, we would have to find out what

would happen if the speakers of S adopted the practice of writing their language — would they keep using paratactic syntax, or begin using hypotactic syntax, either immediately or gradually? On the other hand, if some transcripts of speech in S have hypotactic syntax, then there must be some variable that has greater influence than the medium over whether or not speech is paratactic.

Bakker claims that since parataxis is an "inherent property of spoken discourse" it cannot be an archaism in Homer (1997:43). But he is not explicit about when and in exactly what way the oral medium is supposed to have exerted its parataxis-inducing influence on Homeric Greek. At least in the earlier stages development of the tradition, the singers belonged to cultures that were primarily oral, so they spoke languages that existed primarily in the oral medium. If the claim is that those singers were encouraged by the oral medium to use paratactic syntax, then the questions outlined above arise. In order to answer those questions satisfactorily, it is necessary to claim either that those singers' speech was always paratactic, or that some variable other than medium is what encouraged or necessitated the use of parataxis rather than hypotaxis. If the former, then the oral medium theory reduces (or rather, expands) to the oral culture theory, and if the latter, it reduces to some other kind of theory, probably the oral poetry theory.

Finally, it is possible to imagine a more complicated version of the oral medium theory, which would claim that the medium exerted its pressure later, during a period when there was an alternative, in the form of written and more hypotactic Greek. In that case, the claim would still presuppose the oral culture theory, because it depends on a scenario involving two stages: an early, oral, paratactic stage, and a later stage in which the rise and spread of literacy encouraged the development of more hypotactic syntax. The idea would be that (some of) the people who shaped the language of Homer had a choice of two registers in their everyday language, a more hypotactic

written register and a more paratactic spoken register. Parataxis would have been preserved in Homeric Greek primarily because Homeric material was still always spoken or transcribed from speech, instead of being composed in writing; in that sense it could be said to be paratactic because it was spoken. But that version of the theory, though it seems more coherent at first, ultimately raises the same questions as the simpler version. What sort of syntax did the Homeric language, and the dialects it was based on, have before the hypotactic option arose? If it was paratactic when there was no other option and remained paratactic after there was, is that because the language continued to be spoken or because the language was conservative? We are confronted with a text that is both linguistically old (the performance tradition is very old, and the performance language preserves old words, forms, phrases and sentences) and in some sense a transcript of language produced in the oral medium (it is at least 'orally derived'). If parataxis is both an archaism and a feature associated with the oral medium, how are we going to tell whether the parataxis in this text is 'oral medium' parataxis or 'archaic grammar' parataxis?

Bakker does not deal directly with that kind of question, but nevertheless explicitly presents his analysis of Homeric Greek as setting up an oral medium model as an alternative to the historical grammar model, in which many of the same features that were explained in the historical and comparative grammar tradition as aspects of a particular syntactic typology associated with a particular period in the history of the Greek language, can instead be explained as typical features of spoken as opposed to written language.

1.3 Conclusion

In this chapter, I have discussed two different ways of thinking about and explaining certain characteristics of Homeric syntax. According to the archaism theory, rooted in the tradition of comparative-historical linguistics, these characteristics primarily

reflect a change over time in the syntactic typology of the Greek language. The most prominent 19th and early 20th century version of this theory proposes that Homeric Greek preserves features of a relatively early syntactic typology in which individual words and clauses were more grammatically independent from one another than they were in the later language (Meillet and Vendryes 1927:519-520, 578-579 etc.; Chantraine 1953:12-21, 232-235 etc.). In this hypothesized early typology, relations between words and phrases tend to be 'appositional' and relations between clauses 'paratactic'. Apposition is defined in contrast to attributive modification and government, so that an appositional relationship is one in which individual words of various categories contribute information in separate operations, rather than binding together into hierarchically organized phrases; parataxis is similarly defined in contrast to subordination.

The *orality* theory, rooted in traditions of research on distinctive characteristics of poetic and/or ordinary language composed and/or produced in the spoken as opposed to the written medium, explains many of the very same characteristics of Homeric syntax as resulting in one way or another from the effects of orality. Different versions of the theory paint different pictures of the influence of orality, and of the relationship between the syntax of Homeric Greek and the syntax of the ordinary spoken languages of its singers. According to the oral culture theory, the ordinary spoken language of early Greek oral culture was characterized by a particular kind of syntactic typology (which could be called 'paratactic') that was well-suited to the oral medium, and features of the syntax of that ordinary language have been preserved in Homeric Greek. According to the oral poetry theory, the use of paratactic syntax by the singers of Homeric Greek was necessitated or strongly encouraged by the specific situation of rapid oral composition-in-performance of verse; this explanation implies that the syntactic typology of the ordinary languages of the singers was not itself fundamentally paratactic. According to the oral medium theory, parataxis and other

related features of Homeric syntax are typical not just of oral poetry but of spontaneous spoken language in general; Homeric syntax is paratactic because it was conceived for and produced in the oral medium. This third theory, though it has been presented as a distinct alternative, must reduce to either the oral culture theory or the oral poetry theory when it is applied in the context of an oral culture.

The theories described above can also be divided along different lines, according to the pictures they present of the relationship between the syntax of the ordinary language of the singers and the syntax of Homeric Greek. Looked at from this perspective, the archaism theory, the oral culture theory, and the oral medium theory if it reduces to the oral culture theory, can be grouped together, because they all propose that the syntactic typology of the ordinary language of (some of) the singers was fundamentally paratactic, and that that is what explains the paratactic syntax of Homeric Greek. The oral poetry theory, on the other hand, and the oral medium theory if it reduces to the oral poetry theory, both propose that the paratactic syntax of Homer is necessitated or strongly encouraged by the specific situation of rapid oral composition-in-performance of verse; this proposal implies that the syntactic typology of the ordinary language of (some of) the singers was *not* fundamentally paratactic. These two models of the nature of Homeric parataxis are not only different but mutually incompatible.

In order to figure out which of these two models better explains the properties of Homeric syntax, it will be necessary to look at comparative evidence. The 19th and early 20th century version of the archaism theory hypothesizes the existence of a fundamentally appositional and paratactic syntactic typology, without supporting the proposal with comparative evidence from living languages. The oral poetry theory, on the other hand, has typically been supported by reference to comparative evidence, from research on both poetic and ordinary language composed and produced in the

oral as opposed to the written medium. In order to compare the archaism and oral poetry theories, however, it will be necessary to look at aspects of the relevant evidence that have not been discussed in previous presentations of the latter theory. In Chapter 2, I review some recent linguistic work on syntactic typology as well as work on differences between spoken and written language, in order to identify predictions made by these two theories about differences between Homeric and Classical Greek.

2 Orality and Syntactic Typology

In this chapter, I reframe the theories of Homeric syntax described in Chapter 1 in light of comparative evidence from recent linguistic work on structural differences between spoken and written registers (the oral medium theory), differences between high and low registers in languages that are primarily spoken (the oral poetry theory) and the syntax of nonconfigurational and pronominal argument languages (the archaism theory). My main aim is to identify major predictions that the orality theories and archaism theory make about what sorts of differences should exist between Homeric and Classical Greek, in order to identify areas where those predictions differ.

2.1 Structural differences between spoken and written language

The orality theories of Homeric syntax are based on the idea that medium affects syntactic structure. The three main versions of the theory differ primarily in regard to the pictures they paint of how exactly this effect has operated to produce the sort of syntactic structure found in Homeric Greek. According to the oral medium and oral poetry theories, use of the oral medium, in the latter case for the specific purpose of rapid composition of hexameter verse, shaped the grammar of the Homeric poetic performance language (Parry 1971; Bakker 1997). According to the oral culture theory, the orality of pre-Classical Greek culture shaped the overall grammar of pre-Classical Greek, and through it the grammar of the Homeric performance language (Havelock 1982:7-8, 137-140, 236-231). As I pointed out in section 1.2, the oral medium and oral poetry theories do not directly address the question of how the syntax of the Homeric performance language was similar to or different from the syntax of the ordinary everyday language of the singers, but instead address parataxis and associated peculiarities of Homeric syntax as matters of style. The oral culture theory, meanwhile, looks at them as matters of grammar, but does not focus very

closely on language, instead presenting it as just one part of a broad hypothesis about the effects of orality on culture. In this section, I put the oral culture theory aside and focus on the oral medium and oral poetry theories. My aim in this section is to look at how the picture painted by these theories fits in with what is currently known about structural differences between spoken and written varieties of the same language.

2.1.1 Medium and register

Before moving on to look at what sort of predictions the oral medium and oral poetry theories make about particular features of Homeric syntax (in sections 2.1.2 and 2.1.3 below), it will be helpful to think for a moment about general relationships between the concepts of medium, register and syntactic typology. In section 1.2, I made a preliminary distinction between matters of *grammar*, which have to do with the rules that define a language, and matters of *style,* which have to do with how those rules are used in a particular situation. The term style, however, is still potentially confusing in this context, because it has a wide range of meaning. Are we talking about individual style (e.g. the style of Jack Kerouac), broader literary style (e.g. 'stream of consciousness'), general styles used in particular situations (e.g. 'colloquial' style in casual conversation), or all of the above? In what follows, instead of specifying a narrower definition of style, I will use the term *register* to refer to a variety of language that is defined in terms of the situation in which it is used. Other kinds of language varieties can be defined in different terms; a dialect, for instance, is a variety that is associated with a particular group of users (e.g. French Canadian) rather than a particular situation.

The concept of register is a tool for thinking about patterns of correspondence between structural and lexical characteristics of texts and the sorts of situations in which they are produced.[30] First- and second-person pronouns, for instance, tend to appear more

[30] Throughout this chapter, I use the term 'text' in a medium-neutral way, to refer to both written texts and transcripts of spoken language.

often in transcripts of conversation than they do in texts produced in less interactive contexts (Chafe and Danielewicz 1987). In order to be able to describe such patterns consistently, it is helpful to have a system for classifying situations in terms of variables that can affect language use. The *medium,* or physical means by which a linguistic message is transmitted, such as sound, graphic symbols, or hand gestures (Matthews 1997), is only one such variable. One very fine-grained system classifies situations of language use according to parameters grouped under seven general headings: communicative characteristics of participants (singular vs. plural adressor and addressee, etc.); relations between addressor and addressee (formal vs. informal, etc.); setting (private vs. public, etc.); "channel" or medium (spoken vs. written, etc.); relation of participants to the text (planned vs. unplanned production, on-line vs. at-leisure comprehension, etc.); purposes, intents, and goals; and topic/subject (Biber 1994, building on earlier proposals including Crystal and Davy 1969, Hymes 1974 and Halliday 1975/2007). In this system the situation typically associated with giving a sermon, for example, is characterized by the following attributes among others: singular addressor and plural addressee; public setting in religious domain; spoken medium; planned production and on-line comprehension; and a primarily persuasive and informative purpose.

With that concept of register in mind, it would seem that the best way to find out how medium affects linguistic structure would be to compare texts produced in situations that are as similar as possible with respect to everything but medium. But another way of attacking the problem is to start by identifying extremes of variation between speech and writing; the sharpest differences between spoken and written language have been found when the comparison is between registers that are unlike one another in most other respects as well, namely the registers of conversation and expository prose, which have been described as "typical speech" and "typical writing" respectively. I will return to the approach of comparing written and spoken texts that

are more similar in other respects in a moment, but let's look first at the idea of typical speech and typical writing, the nature of the situations in which they are produced, and how aspects of those situations have been used to explain variations in linguistic structure.

Face-to-face conversation is the best candidate for typical speech, since it is the most universal use of not only speech but language in general (Clark 1996:8-9). Clark and Brennan (1991; Clark 1996:8-11) list ten features of face-to-face conversation, which depend on the combination of medium and other factors, including the following: copresence, visibility, audibility and instantaneity (participants share a physical environment and can see and hear each other, with no perceptible delay); evanescence, recordlessness and simultaneity (participants' speech fades away quickly, leaving no record, and participants can talk and listen at the same time); and extemporaneity (participants formulate and execute their contributions in real time). Other speech situations have different sets of properties. Participants in video conversations are not copresent, and participants in telephone conversations are neither copresent nor visible to one another; speech can be recorded and videotaped; the State of the Union address is not extemporaneous.

It is more difficult to identify a universal or most common use of written language, partly because writing itself is not universal or as natural as speech and conversation (Clark 1996:8-11). Not all languages are written; when a language does have a written variety, not all of its speakers read and write; children, who can learn to speak with no explicit instruction, have to be taught to read and write and learn to do so later than they learn to speak (Clark 1996:8-11); and the ways in which writing is used can vary fairly widely from culture to culture (Scribner and Cole 1981; Heath 1983; Street 1984; Besnier 1988). In practice, orality researchers have focused on expository prose as representative of typical writing, because it has features which maximally exploit

inherent and distinctive properties of the written medium, and which provide the sharpest possible contrast with the features of face-to-face conversation (Chafe and Danielewicz 1987; Biber 1988:36-37; 1995). Typically, the writer of expository prose is separated from his audience in time and space (no copresence, visibility, audibility or instantaneity), creates without immediate reaction from an audience a text that endures for some amount of time as a record (no evanescence, simultaneity or recordlessness), and has time to plan and revise (no extemporaneity). Whereas conversation is produced and understood in real time, expository prose can be produced slowly, with planning and revision, as a static object that the reader can read and reread at any speed and in any order; typical speech can be thought of as a process and typical writing as a product (Halliday 1987). Other writing situations have different properties: the composition of personal letters tends to be relatively extemporaneous; students passing notes in class share the same physical environment and can see and hear one another; written records can last for only a few seconds (instant messaging with recording turned off) or for millennia (inscriptions on stone).

Structural differences between conversation and expository prose have been explained by orality researchers as functionally motivated by aspects of the situations in which they are produced, and in particular by their respective mediums. So, for instance, expository prose, relative to conversation, tends to be syntactically dense and highly integrated, containing a higher proportion of content as opposed to function words, more varied and precise vocabulary (higher average word length and higher type/token ratio), more elaborate noun phrases (more attributive adjectives, more nominalizations, and the like), and more of certain kinds of subordinate clauses (Drieman 1962; Gibson, Gruner, Kibler, and Kelly 1966; O'Donnell 1974; Pawley and Syder 1983; Biber 1986; Chafe and Danielewicz 1987; Biber 1988:102-103 etc.; Halliday 1989:61-75; Biber 1994; 1995:141-235, 236-280; Miller and Weinert 1998).

Compare examples 1a (written) and 1b (spoken); 1a has a function word to lexical word ratio of 2:1, while 1b has a ratio of 1:2 (Halliday 1989:61).

(1) a. The trust has offered advice to local government authorities on cemetery conservation. (H89:61)
b. The only real accident that I've ever had was in fog and ice.

These differences are usually explained partly in terms of a contrast between pressures exerted by rapid, spontaneous oral production and opportunities offered by leisurely, planned written production. Speech is fast, and writing is slow; speech is not editable, and writing is editable; syntax that packs a lot of lexical content into dense, highly integrated bundles may be easier to produce at slow speed with time for planning and revision and also easier to comprehend when it is encountered in the form of a permanent record that can be read and reread in any order and at any speed (Pawley and Syder 1983; Biber 1986; Chafe and Danielewicz 1987; Biber 1988:36-46; Mithun 1992; Biber 1994; Chafe 1994; Miller and Weinert 1998:22-23).

Conversation, on the other hand, compared to expository prose, tends to contain a lot of discourse particles like "well" and "you know", emphatics like "really" and "just", first- and second-person pronouns, references to concrete as opposed to abstract objects and events, and inexplicit, context-dependent references via demonstratives, pronouns and pro-verbs (2a) (Devito 1966; 1967; Biber 1986; 1988:102; 1995).

(2) a. I just this year have …dropped down to teaching half time …which is what I've always wanted. …You know I'm happy about it. …It's a …terribly long commute, …and now I'm just going two days a week. …And just teaching one course a quarter. …Cause the regular … teaching load for us is six courses a year. (C87)

These differences are usually explained in terms of inherent features of medium and situation, or the "social interaction which is inherent in speaking, as contrasted with the social isolation which is inherent in writing" (Chafe and Danielewicz 1987:4).

Participants in face-to-face conversation interact directly, sharing a spatial, temporal and physical environment to which they can make concrete reference, and react and monitor one another's reactions in real time, so any confusion caused by inexplicit reference can be easily cleared up; writers of expository prose and their audiences are usually separated in time and space and do not interact directly.

So, there are certain linguistic features that are more common in conversation and others that are more common in expository prose. But what about other situations? Are there differences that distinguish all spoken registers from all written registers? No such clear-cut differences have yet been identified, but there are general patterns. Biber, on the basis of the most thorough and fine-grained analysis to date of relevant linguistic features occurring in a large corpus containing many different types of spoken and written texts, concluded that there was no set of features that distinguished all forms of speech from all forms of writing (1988:160-64).[31] Instead, he found several dimensions of register variation, each associated with different communicative functions (1988:109-169): "informational vs. involved production"; "narrative vs. non-narrative concerns"; "explicit vs. situation-dependent reference"; "overt expression of persuasion"; "abstract vs. non-abstract information"; and "on-line informational elaboration". Spoken and written registers overlapped along each dimension. Though features associated with involvement are more common in face-to-face conversation compared with expository prose, there are also written registers that are more involved than many spoken registers. Personal letters, for instance, score higher on a scale of involvement than non-conversational spoken registers such as spontaneous and prepared speeches, interviews, and broadcasts (see example 3a

[31] Biber (1988) looks at 67 linguistic features occurring in 481 spoken and written texts (960,000 words total) representing 23 different genres, identifies sets of features that are highly likely (and highly unlikely) to co-occur in the same texts (Biber 1986; 1988), and measures the occurrence of these sets of features in different text types, with the aim of finding correspondences between situational variables and structural characteristics. This method has also been used to investigate diachronic (Biber and Finegan 1989) and cross-linguistic (Besnier 1988; Hared 1994; Kim and Biber 1994; Biber 1995) register variation.

below) (Biber 1988:128). On certain measures, such as the use of first person pronouns and concrete reference to times and places through the use of spatial and temporal adverbs and adverbial phrases, writers of personal letters can outscore even conversationalists (Chafe and Danielewicz 1987).

(3) a. How you doing? I'm here at work waiting for my appointment to get here, it's Friday. Thank goodness, but I still have tomorrow, but this week has flown by, I guess because I've been staying busy, getting ready for Christmas and stuff....Me and L went shopping at Sharpstown last Monday and I got a lot done, I just have a few little things to get. (B88:132)

Features associated with informational purpose are conversely more common in expository prose and less common in conversation. But, there are also spoken registers that are more informational than many written registers. Broadcasts appear closer to the informational end of the spectrum than personal and professional letters and all types of fiction except for science fiction; in (4a), taken from a broadcast description of a state funeral, there is quite a lot of precise vocabulary, and a high proportion of content to function words (Biber 1988:128):

(4) a. flanked # by its escort of the Royal Air Force # the gun carriage # bearing the coffin # [pause] draped with the Union Jack # [pause] on it # the gold # and enamel # of the insignia of the Garter # [pause] and as it breasts # the slight rise # [pause] the naval crew that draws it # presents # an overwhelming impression # of strength # and solidarity # [pause] (B88:134)

Though Biber found no absolute distinction between speech and writing, he also found overall patterns of distribution of spoken and written registers that are compatible with earlier hypotheses about differences between "typical speech" and "typical writing". Along the dimensions of "informational vs. involved production", "explicit vs. situation-dependent reference" and "abstract vs. non-abstract information", there was a general tendency for spoken registers to be relatively involved, situation-dependent

and non-abstract, while the top ten or so highest scores for informational production, explicit reference and abstract information all went to written registers; even the most abstract, explicit and informational spoken registers were still less so than a good number of the written registers. This means that, at least for English, there is empirical justification for considering some structural characteristics of texts (those associated with involvement, for instance) to be prototypically "oral", and and others (those associated with informationality) to be prototypically "literate"; using the terms "oral" and "literate" in that sense, you could say that broadcasts are a relatively literate spoken register and personal letters a relatively oral written register.

Another factor that has to be taken into account in thinking about influence of medium on linguistic structure is syntactic typology. The oral medium theory of Homeric syntax likens characteristic features of the language of the Iliad and Odyssey to features that appear in transcripts of spontaneous spoken English, and explains them by reference to a situational variable that these texts share: they were both produced in the oral medium (Bakker 1997). But the structure of Ancient Greek is quite different from that of English, most obviously with regard to inflection and what sort of information is conveyed by word order. Do the same sorts of differences between spoken and written registers, such as conversation and expository prose, show up no matter what sort of grammar a language has to begin with? To a large extent, they do. The same general tendency for spoken registers, relative to written registers, to display less lexical and syntactic elaboration, and more situation-dependent as opposed to explicit reference, as well as more features associated with involvement as opposed to informationality, shows up in Korean (Kim and Biber 1994) and Somali (Biber 1994). Japanese spoken narratives collected as part of the Pear Film Project (Chafe 1980) show less syntactic elaboration than corresponding written narratives and contain a higher proportion of politeness forms, discourse particles, and situation-dependent references (Clancy 1982). In Mohawk, a polysynthetic Iroquoian language, written

texts tend to have denser and more integrated syntax (more constituents per clause; more complex constituents; more coordination and embedding of clauses) and more morphologically complex vocabulary, than spoken texts (Mithun 1992). Russian and German conversations, compared with news articles, tend to contain more pronouns and fewer complex noun phrases (Miller and Weinert 1998:159-176).

This does not mean, however, that a particular linguistic feature that is associated with spoken or written registers in one language will necessarily be associated with the same range of registers in another language. Correlative clauses, for example, occur in Russian primarily in informal spoken registers, but in Bengali are used in both spoken and written registers (Miller and Weinert 1998:113-117). Left-dislocation ("Marija, she swam from Alcatraz yesterday") is highly marked and almost entirely limited to informal spoken registers in English, but is not particularly marked in European Spanish and regularly appears in both informal and formal spoken registers (Hidalgo 2000). Discontinuous noun phrases ("the blue she wore swimsuit") do not occur in either spoken or written English, and are mostly limited to informal spoken registers in Russian (Miller and Weinert 1998:164-169), but regularly occur in written registers of Classical Greek (Devine and Stephens 2000). General patterns in register variation are realized in different ways in languages with different structural characteristics. In highly inflected languages with relatively flexible word order, certain ways of encoding pragmatic information via word order, or a combination of use of discourse particles and word order, can be more common in spoken than in written registers (Japanese: Clancy 1982; Russian: Miller and Weinert 1998:164-169), though use of word order to encode pragmatic information tends to be a feature of both spoken and written registers in such languages (Hungarian and Finnish: Miller and Weinert 1998:253). In spoken registers of English, where the internal word order of phrases and clauses is fairly fixed, pragmatic relations can be encoded through the ordering of short clauses and phrases (which may each contain only one or two lexical elements)

relative to one another, as well as intonation, focus particles, and certain syntactic constructions like left and right dislocation (Miller and Weinert 1998:142-43, 196-98, 237-39).

2.1.2 Register and Homer

Homeric Greek belongs to a special class of registers used for performing or writing traditional poetry; in what follows, I will refer to it as a *performance register* (Foley 1995:16; De Vet 1996; Foley 1999:100; 2005). Performance registers share distinctive characteristics, such as mixing words and forms from different dialects (even different languages) and time periods that would never have coexisted in any other spoken or written register (Foley 1995:82-84; De Vet 1996; Foley 1999:66-83; 2005). While keeping these special traits in mind, it will nevertheless be useful to ask the kind of questions about the Homeric performance register that could be asked about any other register. How can the situation(s) that Homeric poetry was produced in be described in terms of situational variables? What sort of range of registers is likely to have existed in Greek during the time when the Iliad and Odyssey were under development, and how would the Homeric performance register have fit into that range — how would it have compared to other varieties of language?

Let's consider two historical scenarios for how the Homeric texts we have were created: the dictation (Lord 1960/2000:150-57; Powell 1991:231-233; Janko 1998:37-38; Powell 2004:30-34) and evolutionary (Nagy 1992b; 1996b:109-110) theories. According to both theories, the Iliad and Odyssey are rooted in an oral tradition that probably already existed in some form in the 2nd millennium (Janko 1994:9-12; Nagy 1996b:109-110). According to the dictation theory, our texts are descended by textual transmission from original texts that were dictated by a monumental poet and transcribed in the recently invented alphabet, sometime in the 8th century (Powell 1991:231-233; Janko 1998:37-38; Powell 2004:30-34). According to the evolutionary

theory, the texts we have are the result of a gradual process of text-fixation, which can be divided into five stages: in the earliest period, the tradition was entirely oral and very fluid, with form and content varying and being given different emphasis from performance to performance; in the mid-8th through mid-6th centuries, the tradition was still entirely oral, but became less fluid as it was performed in pan-Hellenic contexts for a wide range of audiences; in the period between the mid-6th and late 4th century, transcripts began to be made, perhaps first under the Peisistratids in the context of performance at the Panathenaian Festival, and later under Pericles; in the late 4th century, there was an effort to standardize oral performances, in which written texts may have been used as scripts; and finally in the 2nd century, Hellenistic scholars, working with multiple written source texts, edited what were meant to be definitive written versions of the Iliad and Odyssey (Nagy 1996b:109-10).

According to both theories, the tradition that gave rise to Homeric poetry was entirely oral between the second millennium and the 8th century. The first concrete evidence of alphabetic literacy in Greece dates to the early 8th century; in the 13th century, Mycenean Greek was written in Linear B, but it seems to have been used only for keeping lists and inventories (Harris 1989:vii; Chadwick 1990:26). So, during this period all Greek registers, with one restricted exception, were spoken registers. The Homeric performance register was not distinguished from other Greek registers by the situational variable of medium. What else can be said about the sorts of situations in which the performance register would have been used during this period? And what sorts of other registers are likely to have existed? There are two basic types of evidence that can be used in trying to answer these questions. First, there is the internal evidence of how speech and song are represented in the Iliad and Odyssey themselves, and second, there is comparative evidence that comes from anthropological and linguistic studies of register differences in oral and predominantly oral cultures.

Performances of epic poetry are likely to have belonged to the general class of speech-acts referred to in Homer as *muthos* or when accompanied by music to the class of *aoidē,* "song" (Martin 1989; 2005). The marked term *muthos* is used in Homer to refer to "a speech act indicating authority, performed at length, unsually in public, with a focus on full attention to every detail"; the unmarked term *epos* can be used to refer to any kind of speech, but is most often used to refer to "an utterance, ideally short, accompanying a physical act, and focusing on message, as perceived by the addressee, rather than on performance as enacted by the speaker" (Martin 1989:12). *Aoidē* seems to be distinguished from *muthos* primarily by the presence of musical accompaniment and the professional as opposed to amateur status of the performer; Phemius and Demodocus sing (Od. 1.325-52; 8.43-6, 469-521), but when Nestor and Machaon (Il. 11.643) and Odysseus and Penelope (Od. 23.301) tell each other stories, they are said to "delight in *muthoi*" (Martin 2005:11). The category *muthos* can be further subdivided into three basic types of speech-acts: commands, flyting, and feats of memory (epic narrative would fall into the latter category), while the category *epos* includes all forms of speech that do not fall into the category of *muthos,* such as private conversation and prayer (Martin 1989:37-42, 47-88). This opposition between *muthos* and *epos* could be described according to the system introduced in section 2.1.1 as a register distinction defined primarily in terms of the situational variables of purpose (persuasion, antagonism or performance of feat of memory vs. unspecified), setting (public vs. unspecified), and relations between speaker and addressee (authoritative speaker vs. unspecified).

Register distinctions based on similar criteria are found in contemporary cultures that are predominantly oral or have only recently begun to use writing (Bauman and Sherzer 1974/1989; Martin 1989:10-12). In the Chamula Tzotzil folk taxonomy of speaking, speech is divided into three main categories: ordinary speech (e.g. conversation), 'speech for heated hearts' (e.g. political oratory and court speech), and

'pure words' (e.g. wordplay, narrative, ritual speech, and song) (Gossen 1974/1989).[32] In the San Blas Cuna taxonomy, there are categories designated 'the people's language' (everyday language such as conversation) and 'chief's/congress language' (narrative speeches given by chiefs at assembly) as well as separate categories for the language used in various types of ceremonial rituals (Sherzer 1974/1989).[33] Many North American languages have distinct registers for ritual speech, which is distinguished in part by its authoritative status (DuBois 1986; Mithun 1990; Chafe 1993; Mithun 1999:281-89).

So, it looks as though at least up to the 8th century, the register landscape of Greek is likely to have involved a distinction between a high register or registers associated with public, authoritative, and lengthy speech, and a low register associated with everyday speech. The Homeric performance register will have been a high register. What sorts of linguistic features are typically associated with high spoken registers in languages that are entirely or primarily spoken? First, there are various forms of archaism and parallelism. These features are present in traditional oral poetry in many primarily spoken languages (Finnegan 1977:109-118). Archaism is a feature of high registers in Zuni (narratives; Tedlock 1971), Menomini (ritual language; Bloomfield 1927), and other North American languages (DuBois 1986; Mithun 1999:281-89).[34] Both archaism and parallellism are distinguishing features of high registers in Zinacanteco Tzotzil (prayers, songs, and scolding; Bricker 1974/1989), Ch'orti' (narratives and ritual prayers; Hull 2003), and Cuna ('chief's/congress language' and

[32] Ttzotzil is a Tzeltalan Mayan language spoken in Southern Mexico. Tzotzil texts first began to be produced in the 1970's and 1980's (Haviland 1996).
[33] Cuna is a Central American language spoken in Northeastern Panama. Cuna began to be written in the first half of the 20th century (Howe 1979).
[34] Zuni is a North American language spoken in New Mexico; Menomini is an Algonquian language spoken in Wisconsin (Mithun 1999:583, 333-35). The North American languages discussed in this section generally began to be written between the late 19th and late 20th centuries; the usual scenario is that the Americanist who writes the first grammar develops an orthography for the language.

ceremonial language; Sherzer 1974/1989).[35] Also common are recurrent formulas, dialect- and language-mixing, and use of euphemism, metaphor, and periphrasis: recurrent formulas are found in Seneca and Cayuga ritual speech; borrowed Keresan words that are unintelligible to speakers of Hopi occur in Hopi ritual language; euphemism, periphrasis and metaphor are features of high-register speech in Wintu, Hopi and Zuni (Mithun 1999:281-89).[36] In the Australian language Warlpiri, high-register speech is distinguished by lexical elaboration, including extensive use of synonyms in repetition, morphological complexity (an example of the latter is the use of multiple preverbs attached to a single verb), and the use of 'difficult and learned' grammatical features (Cataldi 2001:184).[37]

Second, there is some evidence that high spoken registers, in languages that are primarily spoken, tend to be characterized by denser, more integrated syntax than everyday registers. There are few studies that discuss this kind of contrast in any detail, but they report similar patterns. Linguistic features occurring in three Seneca registers fall along a continuum running from maximally free structure in conversation to maximally stylized and constrained structure in ritual chanting; chanting is characterized not only by stylized and constrained prosody and and abundant use of formulaic material, but also by lengthy and complex sentences (more elaborate clause combination, more noun phrases per clause); conversation is correspondingly characterized not only by free prosody and scant use of formulaic material, but also by short and fragmented sentences (simple clauses, few noun phrases per clause, many

[35] Ch'orti' is a Ch'olan Mayan language spoken in Guatemala which began to be written in the late 20th century (Hull 2003). Mayan was written in a logosyllabic script between the 3rd century BC and the 16th century, and some Mayan languages were written by native speakers in a Spanish-based alphabet during the colonial period, but in the postcolonial period they were mostly not written by native speakers until late in the 20th century (Suárez 1983:142-44).

[36] Wintu is a North American language of Northern California (Mithun 1999:560-63); Hopi is a North American language spoken in Arizona that began to be written in the late 19th century (Clemmer 1995).

[37] Lexical diversity is also a characteristic feature of oral poetry in Somali, which has a short but voluminous and varied written tradition (dating from 1972, when it began to be used as the official written language of Somalia); high-quality oral poetry has greater lexical diversity than even informational written registers (Biber 1995:412).

afterthoughts and repairs); the preaching style falls in between these extremes (Chafe 1993) .[38] In Kiowa, traditional narratives feature denser and more integrated syntax (more elaborate incorporation, more use of relative clauses and adverbial dependent clauses, and less paratactic stringing together of clauses) than unplanned personal narratives (Watkins 1985).[39] Wintu shaman speech features longer words and sentences, more left-branching and subordination and fewer hesitation forms than everyday speech (Schlichter 1981). This second kind of difference between low- and high-register speech in primarily spoken languages to some extent parallels structural differences between conversation and expository prose in languages with literary traditions. Possible pragmatic motivations for these differences resemble those that lie behind spoken-written contrasts. High-register speech, like writing, tends to involve more planning than conversation (Mithun 1990; Chafe 1993). Prayers, songs and narratives are often meant to function as relatively fixed texts that derive their authority from sources outside the speaker (Chafe 1993), and endure through time as objects, like writing, rather than being purely evanescent, like conversation.[40]

This latter type of comparative evidence, in particular the association found in high-register Seneca between constrained, stylized prosody, use of formulaic material, and syntactic density and integration, undermines the oral poetry theory, which holds that the loose, paratactic syntax of Homeric Greek (relative to Classical Greek) resulted from or was designed to meet the specific demands of rapid oral composition-in-performance of hexameter verse: "Oral versemaking by its speed must chiefly be carried on in an adding style. The Singer has not time for the nice balances and contrasts of unhurried thought: he must order his words in such a way that they leave

[38] Seneca is an Iroquoian language spoken in upper New York State and Southern Ontario (Chafe 1963/2007).
[39] Kiowa is a Kiowa-Tanoan language spoken in Oklahoma (Mithun 1999:441-447).
[40] Oral texts are usually more mutable than written ones (Serbo-Croatian texts, for example (Lord 1960/2000:99-120)), but in extraordinary cases (Vedic texts, for example (Kiparsky 1976)) they may be completely fixed.

him much freedom to end the sentence or draw it out as the story and the needs of the verse demand" (Parry 1929/1971:262). Instead, this evidence suggests that in the pre-8th century context, the Homeric performance register may have been distinguished from other registers not only by archaism and dialect-mixing, metrical form and use of formulas, but also by relatively dense and integrated syntax.

For the period after the 8th century, the dictation and evolutionary theories have different implications. According to the dictation theory, after a monumental 8th century dictation, the text of Homer was fixed, and changes to it will have come only from the wear and tear of textual transmission; performances occurring after the dictation will have been based on rote memorization of the fixed written text (Powell 2004). For the dictation theory, there is little reason to try to figure out how the Homeric performance register would have fit into post-8th century ranges of Greek registers, because it was used creatively, like a living language, only by pre-8th century *aoidoi*; what post-8th century rhapsodes did was memorize a fixed text written in an extinct performance register that they would not have had to be fluent in. According to the evolutionary theory, however, there is no sharp dividing line between *aoidos* and rhapsode; post-8th century rhapsodes were creative producers of Homeric poetry, who were fluent in the performance register. They will have learned and used the Homeric register for performing epic poetry, while using spoken and written registers of Classical Greek in all other situations.[41] For the evolutionary theory, then, there is some reason to think about how the performance register was used and perceived by speakers of Classical Greek.

The Homeric performance register continued to be a high register even after the advent of alphabetic literacy and the introduction of written registers into Classical

[41] Rhapsodes may have used written texts (Sandys 1903; Thomas 1992:118-119); Xenophon's Socrates asks a young man who owns the complete works of Homer whether he is training to become a rhapsode (*Mem.* 4.2.20-22).

Greek. Study of Homer was a main feature of the education of literate Greeks; Homeric poetry was competitively performed on important public occasions such as religious festivals; and a specialist level of fluency in the performance register was a basis for membership in the dedicated profession of rhapsode (Sandys 1903; Harris 1989:39, 59, 85; Thomas 1992:113-123). Plato, in the course of arguing that Homer should be banned from the Republic, discusses the more orthodox view that Homer was the educator of Greece and that people should conduct their entire lives in such a way as to be in accordance with his works (*Rep.* 606e1-5), and that view is directly put forward by a character in Xenophon's *Symposium* (4.6).

The literate critical tradition judged the style of the Iliad and Odyssey to be serious, stately, weighty, elevated and noble. Aristotle says that Homer is supreme in the serious style (τὰ σπουδαῖα μάλιστα ποιητὴς Ὅμηρος ἦν *Poet.* 1448b.34-35); that the Iliad and Odyssey surpass everything else in diction and thought (λέξει καὶ διανοίᾳ πάντα ὑπερβέβληκεν *Poet.* 1459b.16); and that hexameter is the most stately and weighty meter and narrative *mimesis* more elevated than other types (τὸ γὰρ ἡρωικὸν στασιμώτατον καὶ ὀγκωδέστατον τῶν μέτρων ἐστίν...περιττὴ γὰρ καὶ ἡ διηγηματικὴ μίμησις τῶν ἄλλων (*Poet.* 1459b.34-7).[42] Plato's Socrates says that when arguing with admirers of Homer one should concede that he is supremely poetic and first among tragedians (*Rep.* 607a3). Later critics make similar comments: writers aiming at sublime style should ask themselves "how would Homer have said this?" (*De Sublimitate* 14.1); the style of Homer is very elevated (*De Elocutione* 37.3).

[42] Aristotle contrasts the dignity of hexameter with the commonplace nature of iambic meter, which he says is conversational and suitable for representations of everyday life. Iambic often occurs naturally in Classical Greek conversation whereas hexameter does not: μάλιστα γὰρ λεκτικὸν τῶν μέτρων τὸ ἰαμβεῖόν ἐστιν· σημεῖον δὲ τούτου, πλεῖστα γὰρ ἰαμβεῖα λέγομεν ἐν τῇ διαλέκτῳ τῇ πρὸς ἀλλήλους, ἑξάμετρα δὲ ὀλιγάκις καὶ ἐκβαίνοντες τῆς λεκτικῆς ἁρμονίας (*Poet.* 1449a.24-28); the trochaic tetrameter and the iambic are lively and suitable respectively for dancing and the representation of everyday life: τὸ δὲ ἰαμβεῖον καὶ τετράμετρον κινητικὰ καὶ τὸ μὲν ὀρχηστικὸν τὸ δὲ πρακτικόν (*Poet.*1459b.37-1460a.1).

The archaic and dialect-mixing features of the performance register were considered to be an important part of its appeal, and were actively studied. Aristotle considers the use of γλῶτται, words from archaic and regional dialects, to be a distinctive feature of noble style, and particularly appropriate for epic: [43]

> Λέξεως δὲ ἀρετὴ σαφῆ καὶ μὴ ταπεινὴν εἶναι. σαφεστάτη μὲν οὖν ἐστιν ἡ ἐκ τῶν κυρίων ὀνομάτων, ἀλλὰ ταπεινή...σεμνὴ δὲ καὶ ἐξαλλάττουσα τὸ ἰδιωτικὸν ἡ τοῖς ξενικοῖς κεχρημένη. ξενικὸν δὲ λέγω γλῶτταν καὶ μεταφορὰν καὶ ἐπέκτασιν καὶ πᾶν τὸ παρὰ τὸ κύριον (*Poet.* 1458a.18-23); τῶν δ' ὀνομάτων τὰ μὲν διπλᾶ μάλιστα ἁρμόττει τοῖς διθυράμβοις, αἱ δὲ γλῶτται τοῖς ἡρωικοῖς, αἱ δὲ μεταφοραὶ τοῖς ἰαμβείοις (*Poet.* 1459a.9-10).
> The best diction is clear but not low. Diction made up of ordinary words is the clearest, but it is low...diction that uses strange words is noble and removed from the commonplace. By strange words I mean dialect and archaic words, metaphors, 'lengthening' [note: this seems to include archaic uncontracted forms] and everything out of the ordinary (*Poet.* 1458a.18-23); compounds fit best in dithyrambs, archaic and dialect words in hexameters, and metaphors in iambics (*Poet.* 1459a.9-10).

Learning Homer in school was supposed to mean, among other things, learning the special vocabulary of the performance register. In a fragment from Aristophanes' *Banqueters*, an old-fashioned parent is dissatisfied with the education pursued by one of his sons and tries to show up his deficiencies by testing his knowledge of Homeric γλῶτται (Πρὸς ταῦτα σὺ λέξον Ὁμήρου ἐμοὶ γλώττας, τί καλοῦσι κόρυμβα;...Τί καλοῦσ' ἀμενηνὰ κάρηνα; (*Fragmenta Dait.* 15.1)).

Similar ways of using traditional oral performance registers or performance languages, and attitudes toward their characteristic linguistic features, are found in some living

[43] When Aristotle introduces the term γλῶττα, he explains: λέγω δὲ κύριον μὲν ᾧ χρῶνται ἕκαστοι, γλῶτταν δὲ ᾧ ἕτεροι· ὥστε φανερὸν ὅτι καὶ γλῶτταν καὶ κύριον εἶναι δυνατὸν τὸ αὐτό, μὴ τοῖς αὐτοῖς δέ "I call ordinary what each group severally uses, and dialect what all the others use, so it is clear that something can be both ordinary and dialect, but not for the same people" (*Poet.* 1457b.3-5), and gives as an example a word from a regional dialect; in a later discussion of the proper use of γλῶτται, he gives a number of examples involving archaisms; in the Rhetoric, he uses the phrase τὴν ἀρχαίαν γλῶτταν in discussing an archaism: τὸ γὰρ τέκμαρ καὶ πέρας ταὐτόν ἐστι κατὰ τὴν ἀρχαίαν γλῶτταν "the words τέκμαρ and πέρας are the same in the archaic dialect" (*Rh.* 1357b.9-10).

cultures where they exist alongside written registers and/or are written down themselves. It is common for archaism and dialect or language mixing to be regarded as high-register features that create a noble, elevated tone. Traditional Balinese oral poetry is composed in a performance language that is made up of a mixture of Sanskrit and Old Javanese (former prestige languages of the royal court); it is performed in a variety of public settings, including festivals and puppet plays, as well as reading groups where one person reads the text aloud, another translates it into Balinese, and the audience and readers discuss issues related to the text, including linguistic issues (De Vet 1996). Performers are speakers and writers of Balinese and Indonesian, who belong to "the most literate groups on the island"; they are singled out for their interest and talent at an early age and "undergo special purification rituals which procure the assistance and protection of Saraswati, the goddess who brought language, culture and civilization to humans"; they learn the performance register through apprenticeship to experienced performers and through study of texts, word lists and style manuals; their parents assist in this process, teaching and testing them on the special vocabulary; oral performances involve improvisation, and performers are judged on their level of fluency in the performance register (De Vet 1996:62). Even in cultures where oral traditional literature in general is classed as low-status in relation to written literature, relative distinctions are sometimes made within the realm of oral traditional literature between archaic or archaizing high registers and low registers that use the language of everyday conversation. Within the Chinese *Yangzhou pinghua* storytelling tradition, which is passed down through storyteller families in both written and oral form, a distinction is made between 'round mouth' style, homogeneous with the ordinary *Yangzhou* dialect, and 'square mouth' style, which is characterized by archaic phonological and grammatical features and use of formulas and parallellism; public and some private speech by high-status characters is delivered in square-mouth, while all of the speech of low-status characters and some of the private speech of high-status

characters is delivered in round-mouth (the latter often to comic effect) (Bøhrdal 1997).

The oral medium theory compares characteristic features of Homeric Greek to features that are typical of spontaneous spoken language as opposed to expository prose in languages that are both spoken and written. This comparison runs the risk of creating a distorted picture of what sort of animal the living Homeric performance register actually was and how it would have been perceived by contemporary audiences, in so far as it elides distinctions between different kinds of spoken registers, and the linguistic features associated with them. Homeric Greek was a spoken register, but it will never have been a low spoken register. Instead, during the period when all Greek registers were spoken, it was most likely a high register, used for persuasive, public, authoritative, and lengthy speech (*muthos*). Comparative evidence indicates that for pre-8th century audiences, the Homeric performance register may have been distinguished from other registers in part by its relatively dense and integrated syntax; this evidence undermines the oral poetry theory that the loose and paratactic syntax of Homeric Greek relative to Classical Greek results from or is designed to meet the demands of rapid composition-in-performance of hexameter verse. During the period when Homeric poetry was performed by literate speakers of Classical Greek, the Homeric performance register continued to be a high register; its linguistic archaism was thought to elevate it above the commonplace realm of everday life. Having established that the comparison drawn by the oral medium and oral poetry theories between Homeric Greek and spoken registers in languages like English is misleading in that respect, I nevertheless proceed in section 2.1.3 to look at similarities between features of Homeric Greek and features of spontaneous spoken language in general in languages that are both written and spoken.

2.1.3 Homer and the syntax of spoken language

In practice, the peculiarities of Homeric Greek syntax have not been defined in relation to the conversational registers that would have been contemporary with it over most of the course of its development, since there is no direct evidence to indicate what those registers were like, but instead in relation to the syntax of written registers of Classical Greek. The oral medium theory claims that syntactic differences between the Homeric performance register and Classical Greek written registers are analogous to syntactic differences between typical speech and typical writing in living languages like English that have both spoken and written registers. In the rest of this section, I survey some of the syntactic differences that have been found between such registers, covering some material that has not previously been discussed in relation to the oral medium theory. My primary aim is to identify major predictions made by the oral medium theory about what sorts of syntactic differences should exist between Homeric and Classical Greek, in order to be able to compare those predictions with the predictions made by the archaism theory that will be identified in section 2.2 and identify areas where the two theories make different predictions; in Chapters and I look in depth at one such area, quantification. Along the way, I give some brief and superficial evaluations of how well various other predictions of each theory match up with differences between Homeric and Classical Greek.

Phrases and simple clauses

In 19th and early 20th century comparative grammar tradition, the structure of Homeric phrases and clauses was characterized as being 'appositional'. It was argued that this appositional type of syntax operated on a principle of 'independence of terms', whereby individual words of various categories, such as nouns, verbs, adjectives, and adverb/prepositions, tended to constitute separate phrases on their own and contribute information in separate operations, rather than binding together into hierarchically

organized phrases (section 1.1.1). There are some strong similarities between this broad characterization and the broad characterization of phrase- and clause-level structural differences between spoken and written registers (already outlined in section 2.1.1). Many of the features that have been found to be generally less common in spoken registers are ones that allow information to be bound together into large chunks with complex internal structure. Conversely, certain features that allow information to be added to clauses in small chunks tend to be more common in spoken registers, or even exclusive to them. The form that such strategies take tends to vary with the typology of the language. Functional motivations behind this overall tendency may include greater ease of speech production and parsing when phrases and clauses are kept small and light, and, in some cases, a higher priority placed on the encoding of pragmatic information through word order. Finally, it is useful to keep in mind that the kinds of structural differences identified in the literature on spoken and written language can be divided into two main categories. First, there are statistical differences in the frequency of occurrence of various features; attributive adjectives, for example, are common in both written and spoken registers, but their rate of occurrence tends to be higher in literate and written registers than in oral and spoken registers. Second, there are features that are more specifically associated with one medium or the other; in English, certain discourse particles tend to occur only in spoken registers, and accusative and infinitive indirect statement only in written registers; in Russian, hyperbaton tends to occur only in spoken registers.

There are significant differences between oral and literate registers with respect to the frequency of occurrence of lexical nouns and complex noun phrases; this is well-documented for English and has also been found in studies of other languages. First- and second-person pronouns, indefinite and demonstrative pronouns (Biber 1988:102-3), and prodrop in languages that allow it (Clancy 1982, Miller and Weinert 1998:219), tend to occur more frequently in spoken than in written registers. This

probably has to do with the contextualized nature of typical speech; participants share the same context, the speaker knows who the audience is, and any problems can be cleared up through immediate interaction, so the speaker can refer to the shared context, make appropriate assumptions about the knowledge of the audience, and gauge their reaction in real time, whereas the typical writer has to prepare something that will be understood by an unknown audience without shared immediate context and with no opportunity for further interaction (Jahandarie 1999:136-9). Literate registers of English have a higher rate of occurrence of lexical nouns than spoken registers (Biber 1988:102-108, 129-135) and also a higher rate of occurrence of complex noun phrases (phrases consisting of more than just a single constituent like *books* or a single constituent plus a determiner like *the books*) and features that are or can be used to construct those phrases, such as attributive adjectives (*the yellow book*), prepositional phrases (*the books on the table*), and pre- and post-modifier participles (*the whirring fan, the book written by Alice*) (Chafe 1982; Chafe and Danielewicz 1987; Biber 1988:101-69; Halliday 1989:69-73; Miller and Weinert 1998:133-59). Nominalizations (Chafe and Danielewicz 1987; Biber 1988:102-3; 110, 142-48) and gerunds (Chafe 1982; Miller and Weinert 1998:133-59) are also more common in typical writing in English; complex noun phrases based on nominalizations and gerunds (*the explosion of Mt. St. Helens generated a huge cloud of ash)* are often used where a separate, conjoined or subordinate clause would be used in typical speech (*when Mt. St. Helens exploded, it generated a huge cloud of ash*) (cf. Halliday 1989:61-2).

The same pattern appears in other languages. In Russian and German, nouns, and noun phrases with adjective, prepositional phrase, and participle modifiers, are more common in written than in spoken texts (Miller and Weinert 1998:159-64, 169-73). In Korean and Somali, nouns and features such as attributive adjectives that are used to construct complex noun phrases are more common in written than in spoken registers

(Biber 1995:181-235), and in Somali, nominalizations and gerunds are likewise more common in written registers (Biber 1995:213-18). In written Japanese Pear Film narratives, previously introduced referents are more often referred to with full noun phrases than in spoken narratives, where reduced noun phrases or pronominal forms tend to be used instead (Clancy 1982).

While written registers tend to specialize in building up complex noun phrases, spoken registers, conversely, tend to specialize in distributing information across multiple short clauses and phrases. This general tendency is realized differently in languages with different typological characteristics. In the passage of spoken-register English in example 5a below, which is taken from a first-person narrative about a New Zealander's trip to America, adjectives tend to get their own copular clauses (most often with dummy subjects), either as predicates (*mind-boggling, fantastic, so magnificently turned out*) or as attributives with light nouns in predicative noun phrases (*an incredible place, an incredible city, a marvellous city*); there are only two lexical subjects, which are not directly modified (*New York, the negroes)*; and of three noun phrases modified by relative clauses, two are not clearly part of any clause (*the clothes they wear, flamboyancy that they just seem to carry off)* (Miller and Weinert 1998:142).

(5) a. New York's an incredible place... we went through the Bowery... and we had to keep the windows locked through there but it's an incredible city it's mind-boggling and the negroes are fantastic the clothes they wear they are so magnificently turned out flamboyancy that they just seem to carry off I was very impressed with the way that they dressed... it's a marvellous city (M98:142)

In some languages such as Russian, Polish and Japanese, where grammatical relations are marked morphologically, certain structures that mark pragmatic relations by word order are either more common in or limited to spoken registers. In spoken but not written registers of Russian, adjectives and other modifiers may be separated from

nouns with which they agree (Miller and Weinert 1998:164-165, 167). In examples like 6a, the modifier is focused relative to the noun (bring me an *interesting* book, not a dull one) and in 6b, it is sometimes, but not always, an afterthought and marked as such by intonation (I brought a shawl, a warm one; I brought a shawl that was warm).

(6) a. interesnuju prinesi mne knigu (M98:164-65)
interesting bring to-me book
Bring me an interesting book
b. ja tože platok vzjala teplyj (M98:167)
I too shawl took warm
I took a warm shawl too

In spoken registers of Polish, discontinuity of the type found in 6a is permitted when there is strong focus on the modifier (Devine and Stephens 2000:115). There are different ways of analyzing the relationship between modifier and noun in such examples; some involve taking the syntactic discontinuity to be superficial and interpreting the whole structure as equivalent to a standard modified noun phrase, while others involve taking it more seriously and interpreting the discontinuous elements as somehow contributing information in separate operations (Devine and Stephens 2000:591-602). Assuming that the latter approach is correct, the association of discontinuous modifier structures with spoken registers fits the general pattern because they distribute information in small chunks, relative to their continuous written counterparts (Miller and Weinert 1998:176-80). In spoken Japanese Pear Film narratives, word order was more flexible, or more likely to be used to mark the pragmatic status of constituents; standard word order in Japanese is SOV, with modifiers preceding heads, but in spoken narratives postverbal subjects, objects, and other constituents, and posthead modifiers, including relative clauses, occurred more often than in written narratives; some of these postposed constituents had tail status, and some were marked by intonation as afterthoughts (Clancy 1982).

So, to the extent that Homeric Greek has more flexible word order than Classical Greek (allows more noun phrase discontinuity, and has a greater tendency to build up clauses piecemeal, with 'appositions' added after the main predication, according to the theory of apposition described in section 1.1.1) the broad outline of differences between Homeric and Classical Greek resembles the broad outline of differences between spoken and written registers in languages like Russian and Japanese. That does not mean, however, that it is possible to claim that Homeric Greek resembles spoken Russian or Japanese, and Classical Greek resembles written Russian or Japanese — instead, on a scale of flexibility of word order, written Classical Greek and spoken Russian and Japanese would probably be located near to one another, with written Russian and Japanese off to one side in the direction of less flexibility and Homeric Greek off to the other in the direction of more flexibility. The types of modifier-noun discontinuity (hyperbaton) illustrated in spoken Russian 6a and b above, for instance, are very similar to the types that are found in written Classical Greek. In one commonly occurring Classical Greek structure, the modifier precedes and the noun follows a superordinate head (noun, adjective, participle or verb; examples with prepositions are limited, see below); this is allowed when the modifier bears strong focus as in example 7a (Devine and Stephens 2000:33-87); compare 6a above. In another, the noun precedes and the modifier follows the head; the noun may be a weak focus or a topic, and the modifier may be a second weak focus following the weakly focused noun (7b), have primary weak focus relative to the topic noun, or be tail or afterthought material (Devine and Stephens 2000:88-103); compare 6b above.

(7) a. ὁ παλαιός κελεύει νόμος (Dem 20.99) (D00:91)
The old law prescribes (old, not new)
b. νόμος δ'εἴη πάτριος (Andoc. Myst. 110)
There is an old law (there is a law that is old)

In Homeric Greek, hyperbaton is less constrained than it is in Classical Greek (Devine and Stephens 2000:112-115), and less constrained than it is in spoken Russian or Polish.[44] Prehead discontinuous modifiers do not have to be strongly focused like παλαιός in 7a, or even restrictive, but can be simply descriptive like καλῇ in (8a); in Classical Greek, preposition hyperbaton occurs only with περί and semi-prepositional ἕνεκα, but in Homeric Greek it is fully productive, occurring with all prepositions (8b).

(8) a. αὐτοῦ δ' ὠκὺ βέλος καλῇ προσέκλινε κορώνῃ (Od. 21.138, 165)
In the same spot he leaned the swift arrow against the beautiful handle
b. θοὰς ἐπὶ νῆας Αχαιῶν (Il. 1.12); χρυσέῳ ἀνὰ σκήπτρῳ (Il. 1.15); θοῇ παρὰ νηΐ μελαίνῃ (Il. 1.300); etc.
To the swift ships of the Achaeans; on a golden staff; by my swift black ship

So, as far as hyperbaton is concerned, it turns out that written Classical Greek closely resembles spoken Russian and Polish, while spoken Homeric Greek does not resemble any register discussed in the literature on structural differences between oral and literate registers.

Similar issues come up in regard to another type of flexible word order, the rate of occurrence of postverbal arguments. One of the differences between spoken and written Japanese Pear Film narratives was that postverbal subjects and objects occurred only in spoken narratives and not at all in written narratives. Postverbal objects occur fairly often in both Homeric and Classical Greek, but probably more often in the latter (Taylor 1994), so in that respect the contrast is the opposite of what would be predicted by the orality theory. Postverbal subjects, however, may be more common in Homeric Greek. The appositional structure with topic-changing pronoun

[44] It is also less constrained in Classical Greek verse (Devine and Stephens 2000:107-115 etc.), which I am assuming is conservative and archaising.

and postverbal proper name (9a) was noted as a Homeric peculiarity in the grammatical tradition, and Parry (1971:47-49) noted the existence of a common pattern in which various types of word group formed around the verb and occurring between the third-foot caesura and the bucolic diaeresis are followed by noun-epithet formulae that fit between the bucolic diaeresis and line end (9b).

(9) a. ἡ δ' αὖτ' ἄλλ' ἐνόησε | περίφρων Πηνελόπεια (Od. 16.409)
Circumspect Penelope devised another plan
a. νήπιοι· ἐκ γάρ σφεων | φρένας εἵλετο | Παλλὰς Ἀθήνη (Il. 18.311)
Fools; for Pallas Athena had taken away their wits

The appositional structure in 9a is rare or nonoccurring in Classical Greek, and postverbal subjects in general may be less common than they are in Homer (in a preliminary count, I found 17 postverbal lexical subjects out of 50 in Thucydides, and 22 out of 50 in Homer; of the postverbal subjects, one in Homer had the appositional structure exemplified above).[45]

In the spoken Japanese narratives, postposed subjects were used only when there was a change of subject, and were separated by a pause from the main predication, so that they appeared to be corrective afterthoughts (10a) (Clancy 1982:67-68).

(10) a. Sorede, ...sono...hitori no ko ni, ...mitsu agete, ...de minna ni wakete ageru wake ne, ...sono moratta ko ga (C82:67)
And then, ...(he) gives three (pears), ...to one of the boys, ...and (he) divides (them) up for everyone, ...the boy who received them

The Homeric appositional postposed subjects tend to be used for reactivation of a character who has previously but not immediately recently been active in a given scene; when the character has been more recently active, the topic-changing pronoun appears alone with no postposed subject (Bakker 1997:108-111). These subjects are usually separated from the verb by the caesura or bucolic diaeresis (9a) (but may also

[45] Lexical subjects included proper names; the Thucydides was a narrative passage about naval battle (1.44-51), and the Homer also a battle scene (5.1-106).

not be (11a), which suggests that they may not always form separate prosodic or syntactic phrases):

(11) a. Ὣς ὅρμαινε μένων, | ὃ δέ οἱ σχεδὸν | ἦλθεν Ἀχιλλεὺς (Il. 22.131)
So he deliberated, waiting, and Achilles came closer to him

Change of subject is not the primary context that licenses postverbal subjects in general, however, in either Classical or Homeric Greek. In both Classical and Homeric Greek, postverbal subjects tend to occur either when the subject is highly familiar (οἱ Κερκυραῖοι in 12a) or predictable (πικρὸς ὀϊστός in 12c) and backgrounded relative to other information in the clause, or when the verb is passive (ἐλύοντ' in 12a, κλονέοντο in 12d) or unaccusative (ἐξίησι in 12b, ἐπιβρίσῃ in 12e) and sentence-initial.[46]

(12) a. εἰ γὰρ ἐπὶ Κόρινθον ἐκέλευον σφίσιν οἱ Κερκυραῖοι ξυμπλεῖν, ἐλύοντ' ἂν αὐτοῖς αἱ πρὸς Πελοποννησίους σπονδαί (Thuc. 1.44)
For if the Corcyraeans commanded them to join in sailing against Corinth, they themselves would be breaking the peace treaty with Sparta
b. ἐξίησι δὲ παρ' αὐτὴν Ἀχερουσία λίμνη ἐς θάλασσαν (Thuc. 1.46)
Near it the lake of Acheron discharges into the sea
c. διὰ δ' ἔπτατο πικρὸς ὀϊστός (Il. 5.99)
The sharp arrow flew through it
d. ὣς ὑπὸ Τυδεΐδῃ πυκιναὶ κλονέοντο φάλαγγες / Τρώων (Il. 5.93-94)
Thus the dense ranks of Trojans were driven in confusion by the son of Tydeus
e. ὅτ' ἐπιβρίσῃ Διὸς ὄμβρος (Il. 5.91)
When the rain of Zeus falls on it

Both spoken Japanese and Homeric Greek feature constructions involving postverbal subjects that are used to keep track of who is who in topic changes, constructions which are rare or nonoccurring in written Japanese and Classical Greek respectively. This is a fairly superficial parallel, however, and postverbal subjects seem to be more

[46] Sentence-initial verbs are often passive or presentational in Latin (Devine and Stephens 2006:150-54).

of a marked feature in spoken Japanese (associated specifically with change of subject) than they are in written Classical Greek. In this case, on a scale of word order flexibility, starting from the more flexible end, you might get Homeric Greek first, then Classical Greek, then spoken Japanese, and then written Japanese.

Finally, according to the analogy set up by the orality theory, Homeric Greek, which is supposed to resemble spoken registers, should have a lower rate of occurrence of lexical nouns and other features that are used to build complex noun phrases than Classical Greek, which is supposed to resemble written registers. Fully testing this set of predictions will not be possible here. At first sight, these predictions seem to fit in some respects, but not in others. On the one hand, the prediction that Homeric Greek, compared with Classical Greek, will have a lower rate of occurrence of attributive adjectives, and of prepositional phrase modifiers, seems intuitively plausible, and corresponds to the comparative-historical grammar analysis of modifiers in Homer as being more independent than they were in later Greek; this prediction requires further investigation. As for the prediction of a lower rate of occurrence of participle pre- and post-modifiers, postmodifier participles seem to be common in both Homeric (13a-c) and Classical Greek (13d), but premodifier participles seem to be more common in Classical Greek (13e, f); this too requires further investigation.

(13) a. θεοὶ αἰὲν ἐόντες (Il. 1.290)
The gods who live forever
b. δώσω τοι κρητῆρα τετυγμένον (Od. 4.615)
I will give you a well-made bowl
c. μέσσῳ δ' ἐν σκοπέλῳ ἐστὶ σπέος ἠεροειδές, πρὸς ζόφον εἰς Ἔρεβος τετραμμένον (Od. 12.80-81)
And in the middle of the headland there is a dim cave, turned facing the west, toward Erebus
d. περιτρέψῃ τὸν λόγον τὸν μέλλοντα ἔσεσθαι (Plato Phaed. 95b5-6)
Might upset the argument that is coming into existence
e. ἔχοντες ἡγεμόνα τὸν ἁλόντα ἄνθρωπον (Xen. *An.* 4.4.19)
Having as a guide the captured man

f. διέβησαν τὸν παρὰ τὴν πόλιν ῥέοντα ποταμόν (Xen. *Hell.* 5.3.3)
They crossed the river that flows by the city

Null-head modifier participles occur in both Homeric (14a, b) and Classical Greek (14c).

(14) a. οὐδέ πῃ ἔστι κελαινεφέϊ Κρονίωνι / αἵματι καὶ λύθρῳ πεπαλαγμένον εὐχετάασθαι (Il. 6.274-275)
It is not right for [a man/me] spattered with blood and gore to pray to the cloud-gathering son of Kronos
b. ἀϋτὴ δ' οὐρανὸν ἶκεν / οἴκαδε ἰεμένων (Il. 2.153-4)
The clamor of [the men] who longed to go home reached heaven
c. ὁ δὲ κελεύει τὸν ἁρπάζοντα ἄγειν πρὸς αὑτόν (Xen. *An.* 6.6.6-7)
He commanded him to bring before him the one who was stealing

As for the prediction that Homeric Greek will have a lower overall rate of occurrence of lexical nouns, or a lower noun-to-verb ratio, a preliminary count found a very slightly higher lexical-noun-to-verb ratio in Thucydides (2.1:1) than in Homer (1.9:1) (109 LN : 52 V in two OCT pages of Thucydides, versus 102 LN : 53 V in two OCT pages of Homer).[47]

Clause combination

As was the case for simple phrases and clauses, in the area of clause combination the broad outline of differences between Classical and Homeric Greek matches up with the broad outline of differences between spoken and written registers in languages that have both. In English, paratactic methods of clause combination in which independent clauses are linked together with discourse markers are more common in typical speech than in typical writing (Chafe 1982; Chafe & Danielewicz 1987; Biber 1986; 1988:102-3, 245; 1995). Clauses linked with *and* are the most common representatives of this type (Kroll 1977; Chafe 1982; Beaman 1984). *And* in such contexts serves as a connective discourse marker (Beaman 1984:59). Discourse markers in general can be

[47] The texts used were battle narrative: Thuc. 1.44-48 and Il. 5.1-100.

defined as elements that mark the boundaries of utterances, and their relations to the utterances that precede and/or follow them; the marker *and* in particular seems to mark continuity with the preceding utterance (Schiffrin, 1982:35-52, 171-90). In the following spoken narration of events from a short film 15a, eight successive clauses are linked together with *and* (Beaman 1984).

(15) a. And then he gets down out of the tree, and he dumps all his pears into the basket, and the basket's full, and one of the pears drops to the floor, and he picks it up, and he takes his kerchief off, and he wipes it off, and places it in the basket, which is very full. (B84:59)

Biber (1988:102-3, 245) found that this type of clause combination belonged to a group of features that marked interactivity as opposed to informationality and were most common in oral spoken registers such as conversation. The strength of the association between the occurrence of discourse particles and the spoken medium, however, seems to vary from language to language. Discourse particles are a characteristic feature of spoken registers in English, French and Russian but are commonly found in both spoken and written registers in some other languages such as German, Finnish and Hungarian (Miller and Weinert 1998:196, 253).

We saw in section 1.1.2 that paratactic clause linking with discourse markers was noted in the comparative-historical grammar tradition as being particularly common in Homer and often used to link clauses that in Classical Greek would most likely be linked by a subordinating conjunction. Bakker points out that there is a close correspondence between the function in Homer of the particle δέ, which marks discourse continuation (16a), and the function of discourse marker *and* in spoken English (1997:51, 62-71):

(16) a. ἐν τῷ ῥά σφι κύκησε γυνὴ εἰκυῖα θεῇσιν / οἴνῳ Πραμνείῳ, ἐπὶ δ' αἶγειον κνῆ τυρὸν / κνήστι χαλκείῃ, ἐπὶ δ' ἄλφιτα λευκὰ πάλυνε, / πινέμεναι δ' ἐκέλευσεν (Il. 638-641)

> In that the woman, equal of the goddesses, mixed a drink for them with Pramnian wine, and she grated goat cheese onto it with a bronze grater, and she sprinkled white barley on it, and told them to drink

Though δέ, and particles in general, are common in Homer, it is worth noting that both it and many other particles are also a standard feature of written Classical Greek. On the average page of Xenophon or Thucydides, almost every main clause contains one or another postpositive particle in second position; δέ is by far most common, followed by μέν and γάρ.

Some early studies found subordination in general to be more common in writing than in speech (O'Donnell 1974). Chafe (1982) found that complement and restrictive relative clauses were more common in academic prose than in conversation; he argued that they, along with features such as attributive adjectives, nominalizations and prepositional phrases, were integrating devices; that the slow pace of writing encourages use of such devices to "mold a succession of ideas into a more complex, coherent, integrated whole"; and that a reader "proceeding at a greater speed than even a listener, can assimilate very quickly the larger span of ideas that the writer has taken time to integrate" (1982:37). Other studies found more subordination in speech than in writing (Poole and Field 1976; Beaman 1984). Halliday (1989:61-89) argued that typical speech and typical writing are characterized by different types of complexity, with the complexity of writing lying in the lexical density of the clause (high ratio of lexical to functional words per clause, with multiple lexical words densely packed into complex phrases, particularly noun phrases), and the complexity of speech lying in complex clause combination (long strings of clauses, linked together in a great variety of ways).

Biber (1988:102-3, 229-236, etc.), looking at a wide variety of different types of subordinate clauses in a wide variety of spoken and written registers of English, did not find any general association between subordination overall and medium, but

instead found a number of specific associations between particular types of subordinate clauses and particular types of registers; some types of subordinate clause were typically used as integrating devices in writing, while others were typically used for informational elaboration in speech. In a similar study looking at spoken and written registers in several different languages, he found that though there were significant crosslinguistic patterns of similarity in associations between specific types of subordinate clause and specific types of registers, there was also variation in the overall closeness of the association between subordination and medium; in Somali, for example, subordinate clauses in general belonged to a group of integrating features, including attributive adjectives, nominalizations and prepositional phrases, which were most likely to occur in literate written registers (Biber 1995:261-264, 206).

This overall picture matches up pretty well with the overall picture of differences in the area of subordination between Homeric and Classical Greek. First, differences between spoken and written registers in regard to subordination tend to be statistical rather than absolute. Second, for some languages, subordination in general is more common in written registers, but for English, it is not clear whether subordination in general is more or less common in written than in spoken registers. Third, in English and other languages, there are associations between particular types of subordination and particular types of spoken and written registers. All or almost all of the types of subordination that are present in Classical Greek are also present in Homeric Greek, in some form; it is not clear whether subordination in general is more or less common in either; and there are differences between them in the frequency of occurrence of various specific types of subordination.

I will now move on to look at what the oral medium theory would predict about the occurrence and structure of specific types of subordinate clauses, based on studies of the occurrence and structure of those types in spoken and written registers of English

and a few other languages. Differences in this area fall into two main categories; first, there are differences in the frequency of occurrence of various types of subordination in spoken and written registers, and second, there are specific types of construction that are strongly associated with either spoken or written registers. Differences of the first type are often explained in terms of the purposes typically associated with spoken and written register texts, whereas differences of the second type are often explained in terms of processing factors.

Relative clauses

It is not clear whether the frequency of occurrence of all types of relative clauses is higher overall in literate or oral registers of English; some types of relative have been found to occur most often in literate written registers such as academic prose, others most often in literate spoken registers such as interviews and speeches, and still others most often in oral spoken registers such as conversation. [48] Several early studies found significantly more relative clauses overall in written than in spoken texts of English, but did not count all types of relative or did not count them separately (Chafe 1982; O'Donnell 1974; Kroll 1977). A study that counted *that, wh-* and zero relatives separately in spoken and written English Pear Film narratives found a higher overall frequency of occurrence of relatives in spoken than in written narratives (Beaman 1974). Biber (1988:101-169) found that relatives of different types were associated with three distinct types of registers in English. *Wh-* relatives in general, and pied piping relatives, cooccurred with a group of features that were most common in literate written registers, while *that* and *wh-* relatives on object position cooccurred with a group of features that were most common in informational spoken registers such as interviews and speeches, and occurred at about the same rate in academic prose and face-to-face conversations (Biber 1988:102-3). Sentence relatives (17a) and

[48] In this section I use the terms 'literate' and 'oral' as defined in section 2.1.1, p. 80; according to that definition, conversation is an oral spoken register; personal letters are an oral written register; prepared speeches are a literate spoken register; and academic prose is a literate written register.

free relatives (17b) belonged to a group of features that were most common in oral spoken registers like conversation (Biber 1988:102-3).

(17) a. Bob likes fried mangoes, which is the most disgusting thing I've ever heard of (B88:231)
b. I believed what he told me (B88:235)

Besides sentence relatives and free relatives, there are also various other types of relative clause constructions that are closely associated with oral spoken registers of English and other languages such as French; many of these are nonstandard and do not normally occur at all in written registers (Miller and Weinert 1998:104-132; Pawley and Syder 1983). Miller and Weinert (1998:109) argue that relative clause constructions peculiar to spoken registers tend to resemble main clauses (preserving main clause word order, for instance) more than standard relatives; these include relatives containing shadow pronouns (18a-b) and vague relatives (18c-d).

(18) a. an address which I hadn't stayed there for several years (M98:106)
b. il y a des personnes qu'ils ont de la répugnance à le faire (M98:112)
there are some people that they are reluctant to do it
c. you can leave at Christmas if your birthday's in December to February which I think is wrong like my birthday's March and I have to stay on to May which when I'm 16 in March I could be looking for a job (M98:110)
d. vous avez des feux qu'il faut appeler les pompiers tout de suite (M98:112)
you have fires that you have to call the firemen immediately

In some languages, correlatives are a spoken register feature. In Russian, which has both relatives (19a) and correlatives (19b), correlatives are associated with spoken registers and are not used in formal writing; in Bengali, however, correlatives are used in both spoken and written registers (Miller and Weinert 1998:113-117).

(19) a. kniga, v kotoroj ja našel eti teorii (M98:116)
book in which I found these theories

the book in which I found these theories

b. kotorye vot klienty est' u menja, i tem ja smotru
which [particle] customers are at me, and to-these I look
I look after the customers who are mine

Finally, in some languages, relative clauses in general occur more frequently in written registers. In Korean, relative clauses are likely to cooccur with features such as attributive adjectives, long sentences, and noun complements, and unlikely to cooccur with features such as direct questions, contractions, fragmentary sentences, demonstratives, and discourse conjuncts (Biber 1995:181-87). In Somali, relative clauses are likely to cooccur with other types of dependent clauses, and features such as long words and attributive adjectives, and unlikely to cooccur with questions, contractions, focus markers and pronouns (Biber 1995:204-213). In both languages, relative clauses and cooccurring features are most common in literate registers and least common in oral registers, with some overlap in the middle between literate spoken and oral written registers, so that they occur at about the same rate in unscripted public speeches and personal letters in Korean and in Quranic sermons and personal letters in Somali (Biber 1995:181-87, 204-213).

How do these differences compare to differences between Classical and Homeric Greek? First, the oral medium theory does not make any strong predictions about the overall frequency of occurrence of relative clauses in Homeric versus Classical Greek. Relative clauses are common in Homer and other early Indo-European texts, and the relative is the type of subordinate clause that is most commonly reconstructed for Indo-European (Comrie 1998; Fortson 2004:147-48), so there is no conflict there. Second, it is clear from the discussion above that many different types of relative are associated with oral registers in different languages, including sentence relatives, free relatives, relatives containing shadow pronouns, vague relatives, and correlatives. Of these, one type, correlatives, clearly forms a link to differences between Homeric and Classical Greek. Correlatives occur in oral but not literate registers of Russian, and

various types of correlatives are more common in Homeric than in Classical Greek (Monteil 1963:276, 331-332, etc.; cf. section 1.1.2).

Adverbial clauses

Again, it is not clear whether adverbial clauses in general tend to be more common in either written (O'Donnell 1974; Chafe 1984; Beaman 1984) or spoken (Biber 1995:263) registers. As was the case for relative clauses, certain types tend to be more common in spoken registers and others in written registers. For adverbial clauses, these associations seem to be at least partly based on the different purposes typically associated with certain spoken and written registers, but there is also evidence for differences that might have more to do with processing factors. Independent or coordinated constructions are also often used in spoken registers as alternatives to subordinating constructions, and the types of subordinate adverbial clause that are most common in spoken registers may often be adjoined or coordinated rather than embedded.

Causative and conditional adverbial clauses tend to be more common in oral registers. Adverbial clauses with *because* occurred at a rate of 1.3 instances per 1000 words in the spoken English Pear Film narratives, and did not occur at all in the written narratives (Beaman 1984). The rate of occurrence of causal and conditional adverbials is higher in the London-Lund Corpus of spoken British English than in the Lancaster-Oslo/Bergen Corpus of written British English (Tottie 1986). Biber found that causative clauses with *because* and conditional clauses with *if* and *unless*, like sentence relatives and headless relatives, belonged to a cluster of features that were likely to occur in oral registers and unlikely to occur in literate ones (Biber 1988:102-3). The same was true for causative and conditional adverbial clauses in Korean (Biber 1995:262-63). In Somali, conditional adverbials cooccur with involved and fragmented features, and both conditional adverbials and causative conjunct clauses

cooccur with argumentative features, all of which are most common in oral registers (Biber 1995:262-63).

The primary reason for this is probably that oral registers tend to be more affective than literate registers, and are more likely to contain discussion of reasons for and conditions on speakers' beliefs and actions (Biber 1988:107). In example 20a, a *because* clause contains justification for the belief expressed in the main clause; in 20b, the *if* clause explains what made it possible for the speaker to do something.

(20) a. ...and he doesn't seem to be paying all that much attention because you know the pears fall (B74:132)
b. I reckon I wouldn't have been able to do it if I hadn't've been able to read music (M98:85)

There are also issues that may have more to do with processing. In many cases it is not clear whether an adverbial clause in a spoken text should be counted as dependent or independent. In speech, a main clause ending with sentence-final intonation may be followed by an adverbial clause with the intonation of an independent sentence (21a-c) (Chafe 1984).

(21) a. ...And I feel a little bad. Because in some sense her ... I mean her kid's really a ... I think a great kid. (C84:446)
b. ...So .. the purpose of the course is to — ... create something like that. ...If that's possible.
c. ...I went to the doctor after the first one. ... When I fainted.

Miller and Weinert (1998:103-4) note that in their sample of spontaneous Scottish English, *because* clauses tend to follow the main clause, are often preceded by a long pause, and can be very loosely related to the preceding clause, as in the dialogue in example 22a where the *because* clause explains why the speaker asked a preceding question (i.e. *do you have to do go up? I'm asking because...*):

(22) a. A: then...do you have to go up to avoid the... (M98:104)

B: well...if...there's a very, very thin line I ca...I can go up though...yes
A: because that's how this map indicates...so I want you to go up...

Biber (1988:236, 245, 102-3) counts clause-initial *because* under the heading of causative subordination, and the sequence *and because* separately under the heading of independent clause coordination, and finds that both belong to a group of features marking interactivity as opposed to informationality.

It is not clear whether temporal adverbial clauses are more common in either oral or literate registers, but it is clear that they are most common in registers with narrative purpose. In Beaman's (1984) study of written and spoken narratives, adverbial clauses with *when, as, while, after, since* and *before* occurred more often in the written texts; this could be explained by the lack of extralinguistic context and consequent need for greater explicitness in writing. In Somali, temporal adverbial clauses are most likely to occur in the narrative and relatively oral written registers of folktales and fiction, followed by the literate spoken register of Quranic sermons, and are about equally common in literate written academic prose and oral spoken conversation; in Korean, temporal adverbial clauses are most likely to occur in narrative oral spoken registers like folktales and private conversations (Biber 1995:262-63).

For English spoken registers, there is reason to think that coordinating constructions, as in 23a, are used to convey some of the temporal information that is conveyed in written registers via temporal adverbials, as in 23b. Temporal adjunct clauses with *and then, but then, so then,* and *and so* were more common in spoken than in written Pear Film narratives (Beaman 1984).

(23) a. Alice turned around and looked the other way, and then a seal poked its head out of the water.

b. When Alice turned around and looked the other way, a seal poked its head out of the water

Independent clause coordination, including coordination with *and so* and *and then*, belonged to a cluster of features that Biber found to be most likely to occur in oral spoken registers of English, such as conversation, and least likely to occur in literate written registers, such as official documents and academic prose (Biber 1988:102-3, 128, 245).

So, there are two types of differences that the oral medium theory could predict between Homeric and Classical Greek, on different grounds. Different rates of occurrence of clauses with particular functions (causal, conditional, temporal) have to do mainly with the purpose and topic of the text (Biber 1988:101-169). This is not the sort of difference that the oral medium theory of Homeric syntax focuses on; instead, the focus is on the pressure of online production. The occurrence of adverbials with the intonation patterns of independent sentences, and the use of coordinate clauses (e.g. *and, and then*) in place of subordinate adverbial clauses (e.g. *when*-clauses), however, have less to do with the purpose and topic of the text and more to do with the difference between planned written and unplanned online spoken production (Chafe 1984; Beaman 1984).

Both of these latter predictions are generally compatible with differences between Homeric and Classical Greek that were discussed under the heading of the theory of parataxis in section 1.1.2. Independent clause coordination with particles, in particular with the particle δέ, which has a function parallel to English continuative *and*, is particularly common in Homer and is sometimes used in situations where a temporal adverbial clause could be used instead (24a), though temporal adverbials also occur regularly (24b).

(24) a. φύλλα τὰ μέν τ' ἄνεμος χαμάδις χέει, ἄλλα δέ θ' ὕλη τηλεθόωσα φύει, ἔαρος δ' ἐπιγίγνεται ὥρη (Il. 6.147)
The wind scatters leaves to the ground, the wood grows others that flourish, and the season of spring arrives
b. οἳ δ' ὅτε δὴ λιμένος πολυβενθέος ἐντὸς ἵκοντο ἱστία μὲν στείλαντο, θέσαν δ' ἐν νηῒ μελαίνῃ (Il. 1.432-3)
And when they reached the deep harbour, they folded the sails and stowed them in the black ship

Correlative adverbial clauses, which are more independent than non-correlatives in that they are adjoined to the main clause (25a) rather than embedded in it (25b) (Hindi examples from Srivastav 1991)

(25) a. [IP [CP$_i$ jo laRkii khaRii hai] [IP vo$_i$ lambii hai]] (Sr91)
b. [IP [NP [Det vo [N′ [N laRkii [CP jo khaRii hai]]]]][VP lambii hai]]

are like correlatives in general more common in Homer (and other early Indo-European texts) than they are in later Greek (cf. section 1.1.2).

(26) a. Ἀλλ' ὅτε δή ῥ' ἐκ τοῖο δυωδεκάτη γένετ' ἠώς, καὶ τότε δὴ πρὸς Ὄλυμπον ἴσαν θεοὶ αἰὲν ἐόντες (Il. 1.493-494)
But when the twelfth dawn after that arrived, then also the immortal gods went to Olympus
b. τὼς δέ σ' ἀπεχθήρω ὡς νῦν ἔκπαγλ' ἐφίλησα (Il. 3.415)
And hate you just the way I now vehemently love you

Also, the marking of various types of subordinate clause, including adverbials such as conditional clauses, by sequence of mood is more consistent and regular in Attic prose than in Homeric Greek (Goodwin 1890:1-6, etc.; Monro 1891:293, 248-99; cf. section 1.1.2).

Complement clauses

Finite complement clauses in general appear to be more common in spoken than in written registers of English (O'Donnell 1974, Beaman 1984, Biber 1986, 1988:102-3,

128-35, 154-60). In studies that distinguish between several different types of finite complement clause, all types have been found to appear more often in spoken registers (Beaman 1984, Biber 1986, 1988:102-3, 128-35, 154-60). The most likely functional explanation for this is the affectivity and interactivity of speech; complement clauses are commonly used to talk about one's own and other people's thoughts, feelings, statements and questions (Biber 1988:104-8, 113-14). Both indirect statement complements introduced by *that* or zero (27a, b) and indirect question complements (27c) were more common in spoken than in written English Pear Film narratives (Beaman 1984).

(27) a. He doesn't even notice that the pears are stolen yet. (B84)
b. I think [] his ego was hurt.
c. You wonder how he's going to take it.

Biber found that complement clauses belonged to two different groups of co-occurring features, both of which were more likely to occur in spoken registers (1988:102-3,104-8, 113-14). Bare complement clauses (as in 27b above), along with verbs of cognition, belonged to a group of features marking interactive as opposed to informational presentation, which were most common in conversation and least common in academic prose and official documents (Biber 1988:102-3, 128). *That* clauses as verb and adjective complements belonged to a group of features marking online informational presentation, which were most common in literate spoken registers such as speeches and interviews (Biber 1988:102-3, 155). In 28a below, a judge uses multiple finite complement clauses in summarizing the testimony of parties to a lawsuit.

(28) a. the plaintiff says that the defendant came up from behind... the defendant says that there was and had been for some time before the accident a motor car ahead of him... and that the that motor car... that the defendant followed the motor car... and that when the defendant was ... (B88:156-57)

In Korean, private verbs and verb complements, indirect questions and noun complements belong to a group of features that mark overt expression of personal stance and occur most often in spoken registers such as TV dramas and private conversations and oral written registers such as personal letters and essays; noun complements, however, also belong to a group of features that mark elaborated structure, and occur at the highest rate in literate written registers such as literary criticism and college textbooks (Biber 1995:193-96, 181-87). In Somali, the picture is different: verb complements, and dependent clauses in general, belong to a group of features that mark structural elaboration and are most common in literate written registers; they also belong to a group of features marking personal persuasion that are most common in written petitions, personal letters and memos, and are about equally common in conversation and academic prose (Biber 1995:205-13, 232-34).

In Miller and Weinert's sample of spontaneous Scottish English speech, there were few occurrences of standard indirect statement and question constructions; instead, speakers tended to use direct speech or mixed constructions (1998:82-84). There were also no occurrences of accusative plus infinitive indirect statements (29a), which are high register in English compared with finite complements (29b) (1998:85).

(29) a. I considered her to be the best candidate (M98:85)
b. I thought she was the best candidate

In 30a, neither verb tense nor person are changed from what they would have been in the corresponding direct statement, and in 30b person but not tense is adjusted (Miller and Weinert 1998:83).

(30) a. Brenda passed the message over to me when I kick you knock the cup into Andrew's face (M98:83)
b. They said if they get us there again they're going to wrap the air-rifle around my neck

Change of tense and person are among the indicators of subordination in indirect statement, so such examples are less clearly subordinate than their standard equivalents. In the studies described above that have found more complement clauses in spoken registers (O'Donnell 1974, Beaman 1974 and Biber 1988) these distinctions are not discussed, so examples like 30a and b may have been lumped together with examples like those in 28a.[49]

This picture does not match up very well with differences between Homeric and Classical Greek. The clearest difference between Homeric and Classical Greek in this area is that finite complement clauses are less common in Homer. First, with verbs of saying in Homer, by far the most common form of indirect statement is the accusative-infinitive construction (31a).[50] Second, though what may be finite complement clauses do occur in Homer with verbs of emotion, thought and perception (31b-d), some examples are overtly correlative rather than embedded (31b), and it is not clear whether those that are not overtly correlative should be interpreted as true complement clauses or as (cor)relative or adverbial clauses (as in 31c, d) (cf. section 1.1.2).

(31) a. καὶ δὲ σέ φασι Διὸς κούρης Ἀφροδίτης / ἐκγεγάμεν (Il. 20.105-6)
They say also that you are born of the daughter of Zeus, Aphrodite
b. λεύσσετε γὰρ τό γε πάντες ὅ μοι γέρας ἔρχεται ἄλλῃ (Il. 1.120)
You all see this, that my prize goes elsewhere
c. γιγνώσκω δ' ὅτι μοι πρόφρων κατένευσε Κρονίων νίκην καὶ μέγα κῦδος (Il. 8.175-6)
I see [this,] that the son of Cronos assented graciously to victory and great glory for me
d. πεύθετο γὰρ Κύπρον δὲ μέγα κλέος οὔνεκ' Ἀχαιοὶ/ἐς Τροίην νήεσσιν ἀναπλεύσεσθαι ἔμελλον (Il. 11.21-22)

[49] If this were the case, instances where nothing was changed to indicate subordination would be limited to the bare type, since *that*-complements require that at least person be changed: *Alice$_i$ said *(that) 'I'm$_i$ coming over at eight'*. In Biber's study (1988:102-3), bare complements belonged to a group of features that were most common in oral spoken registers such as conversation; *that*-complements belonged to a group that were most common in literate spoken registers such as speeches and interviews.
[50] One count found 130 instances of φημι with the infinitive, versus 16 instances of a verb of saying followed by a finite complement clause (Schmitt 1889 via Goodwin 1890:262).

A great rumor had reached Cyprus, [on account of the fact that/that] the Achaeans were going to sail in ships to Troy

This pattern is the reverse of what is found in oral versus literate registers of English, where accusative-infinitive complements are a feature of written registers and finite complements are more common in spoken than in written registers.

Differences in person and tense marking also do not match up. In oral registers of English, direct quotations and mixed constructions, which are less clearly subordinate than indirect statement complement clauses, are particularly common. Differences between Classical and Homeric Greek in this regard are not about direct versus indirect quotation but instead seem to be either about Homeric and Classical Greek having different systems for marking subordination or about (cor)relative clauses being used in Homer where complement clauses would be used in Classical Greek. In Classical Greek indirect statement, there is optional sequence of mood and no sequence of tense (32a). In Homer, there is no sequence of mood, but instead there is what may be sequence of tense: after a past tense main clause verb, verbs that would be present tense in direct statement are past tense (32b). Another possibility is that an example like 32b is not a complement clause marked by sequence of tense but instead a relative clause with a null pronominal object antecedent in the main clause: 'I fled, since I recognized the way in which the god was devising evils'.

(32) a. ἐγίγνωσκον ὅτι κακὰ μήδοιτο/μήδεται
I recognized that he was devising evils
b. φεῦγον, ἐπεὶ γίνωσκον, ὃ δὴ κακὰ μήδετο δαίμων (Od. 3.166)
I fled, since I recognized, that the god was devising evils

In either case, the difference between Homeric and Classical Greek does not resemble differences between typical speech and typical writing. Finally, it is worth noting that though Classical Greek has a standard indirect statement construction that involves change of person and usually mood, direct discourse is also very common (both occur

in 33a), and mixed constructions like those that occur in oral registers of English also occur; in 33b neither person nor tense is changed, and in 33c tense is not changed:

(33) a. Ξενοφῶν δὲ ἀπεκρίνατο ὅτι οὐδὲν ἂν τούτων εἴποι εἰς τὴν στρατιάν· ὑμεῖς δὲ ξυλλέξαντες, ἔφη, εἰ βούλεσθε, λέγετε (Xen. *An.* 5.6.37)
Xenophon answered that he would say nothing of this to the army; "you round them up", he said, "and tell them if you want"

b. ὁ δὲ ἀπεκρίνατο ὅτι οὐδ' εἰ γενοίμην, ὦ Κῦρε, σοί γ' ἄν ποτε ἔτι δόξαιμι (Xen. *An.* 1.6.8-9)
And he answered that not even if I should become one, Cyrus, would I ever again seem like one to you

c. ἢ ἐροῦμεν πρὸς αὐτοὺς ὅτι "Ἠδίκει γὰρ ἡμᾶς ἡ πόλις καὶ οὐκ ὀρθῶς τὴν δίκην ἔκρινεν;" ταῦτα ἢ τί ἐροῦμεν; (Pl. *Cri.* 50c1-2)
Or shall we say to them that "The city wronged us and did not decide the case correctly"? Either that, or what else shall we say?

There are no examples of direct quotation following a complementizer in Homer; the earliest example occurs in Herodotus (2.115) (Goodwin 1890:285-286).

Nonfinite verbs

Finally, nonfinite subordination, and the use of nonfinite verb forms in general, seem to be more common in written than in spoken registers. Chafe (1982) found that participles (both attributive as in 34a and b and postmodifier as in 34c and d) and gerunds (34e) were about four times as common in formal writing as in informal speech, and infinitive complements (34f) about three times as common.

(34) a. the bleating sheep
b. the shorn sheep
c. the sheep walking north
d. the sheep tracked with GPS
e. GPS tracking is convenient
f. It's convenient to track sheep with GPS

Chafe and Danielewicz (1987) found the same two classes of participles to be most common in academic prose, followed by letters, lectures and conversations in that

order. Participles and infinitive complements and adverbial purpose clauses were more common in spoken than in written English Pear Film narratives (Beaman 1974). In Biber's study, infinitives cooccurred with a group of features marking persuasion and not closely linked to medium; they were about equally common in conversation and academic prose (1988:102-3, 149). Postmodifier participles cooccurred with three different groups of features; both past and present participles of this type cooccurred with a group of features marking informationality that were most common in literate written registers (Biber 1988:102-3, 128). Past-tense postmodifier participles cooccurred with a group of features marking non-narrative concerns and abstract information that were also on the whole most common in literate written genres; attributive adjectives, including participles in attributive position, cooccurred with a group of features marking informationality (Biber 1988:102-3, 128, 152, 232-233, 237-238). In Korean, nonfinite complementation cooccurred with a group of features marking planned exposition and structural elaboration that were most common in literate written registers (Kim and Biber 1994; Biber 1995:181-87), and in Somali, gerunds cooccurred with a group of features marking lexical elaboration and planned/integrated production (Biber and Hared 1994; Biber 1995:213-218).

Participles and infinitives are very common in both Homeric and Classical Greek; where there are differences they are not of the same type as the differences between spoken and written registers described above. First, nonfinite subordination tends to be more important in Homeric Greek. In contrast to finite subordination, which may have been limited to (cor)relatives in Indo-European, and seems to have developed and become more important over time, the system of verbal adjectives and nouns present in later languages like Classical Greek already exists in the earliest languages, like Sanskrit and Homeric Greek. Comrie (1998:95) argues that "it is highly plausible that Proto-Indo-European made relatively little use of finite subordinate clauses, preferring

instead various non-finite constructions, which are richly reflected in the early IE languages".

In both Homeric and Classical Greek, participles are frequently used in contexts where finite clauses, either independent (35a) or subordinate (adverbial in 35b and d, purpose and complement in35c) would normally appear in English; this includes absolute constructions in which the subject of the participle is not an argument of the main clause (35d).

(35) a. τοτὲ δ' ὀρθὸς ἀναστὰς / δινεύεσκ' ἀλύων (Il. 24.11-12)
Then he stood straight up, and wandered in circles, distraught
b. μηκέτι ταῦτα λεγώμεθα, εἰδότες ἄμφω κέρδε' (Od. 13.296-7)
Let us no longer speak of these things, since we both know tricks
c. Γρηῢς δ' εἰς ὑπερῷ' ἀνεβήσετο καγχαλόωσα, / δεσποίνῃ ἐρέουσα φίλον πόσιν ἔνδον ἐόντα (Od. 23.1-2)
The old woman went upstairs, rejoicing, to tell her mistress that her dear husband was inside
d. οὔ τις ἐμεῦ ζῶντος...χεῖρας ἐποίσει (Il. 1.88-89)
No one will lay hands on you...while I am alive

Infinitives appear as complements of nouns (36a), adjectives (36b, c) and verbs (36d-h). The range of lexical items that take infinitive complements is particularly wide in Homeric Greek (Goodwin 1890:297-310; Chantraine 1953:300-305); Chantraine (1953:300) comments that the infinitive "is used in Homeric syntax with remarkable freedom".

(36) a. θαῦμα ἰδέσθαι (Il. 5.725)
A wonder to see
b. εὐρύτερος δ' ὤμοισιν ἰδὲ στέρνοισιν ἰδέσθαι (Il. 3.194)
Broader to look at, in the chest and shoulders
c. λευκότεροι χιόνος, θείειν δ' ἀνέμοισιν ὁμοῖοι (10.437)
Whiter than snow, and equal to the winds at running
d. ξεῖν', οὔ μοι τοιοῦτον ἐνὶ στήθεσσι φίλον κῆρ / μαψιδίως κεχολῶσθαι (Od. 7.309-10)

Stranger, the heart in my breast is not such as to get angry for no reason

e. βῆ δ' ἰέναι (Il. 4.199)
He went on his way

f. οἳ πατρὸς μὲν ἐς οἶκον ἀπερρίγασι νέεσθαι (Od. 2.52)
They shudder to enter her father's house

g. ὃς ἀριστεύεσκε μάχεσθαι (Il. 6.460 etc.)
Who excelled in fighting

h. κεῖνός γ' οὐκ ἐθέλει σβέσσαι χόλον (Il. 9.678)
He is not willing to quench his anger

i. ἅμ' ἕσπετο μῆλα ἰδέσθαι (Il. 4.476)
She followed along to watch the flock

Further evidence for relatively heavier reliance on infinitive constructions in Homeric Greek comes from indirect discourse, result clauses, and the use of infinitives as imperatives. As we saw above, Homeric Greek uses primarily the accusative and infinitive construction for indirect discourse (see 31a above), while in Classical Greek finite clause indirect discourse becomes more common. Result clauses are another example; in Classical Greek, result clauses are introduced by ὥστε and are finite or nonfinite depending on whether the result is actual or natural; in Homer, the finite construction with ὥστε does not occur and the nonfinite construction occurs only twice; instead, infinitive complements on their own indicate result (37a) (Goodwin 1890:223-26, 310). In Homer, infinitives are often used as imperatives (37b); in Classical Greek this becomes much less common.

(37) a. ποταμοὺς δ' ἔτρεψε νέεσθαι κὰρ ῥόον, / ᾗ περ πρόσθεν ἴεν καλλίρροον ὕδωρ (Il. 12.32-33)
And he turned the rivers so that they went with the stream, along the way in which the sweetly flowing water flowed before

b. ὑμεῖς δ' ἄλλοθεν ἄλλος ἐρητύειν ἐπέεσσιν (Il. 2.75)
And you, from all directions, check them with words

2.1.4 Summary

The main focus of the oral medium and oral poetry theories is on how the different circumstances of production and processing typically associated with the spoken and written mediums — the speed and evanescence of typical speech and the slowness and permanence of typical writing — shape register. Parry's claim is that "oral versemaking by its speed must chiefly be carried on in an adding style" (1929/1971:262), and Bakker's claim, based on Chafe's (1994) theory of the two- to three-second intonation unit as verbalization of the speaker's focus of consciousness, is that parataxis is "an inherent property of spoken discourse, naturally resulting from its production, and essential in some ways to its comprehension" (1997:43). Sections 2.1.1 and 2.1.2 presented some problems with this strong emphasis on the influence of processing. In section 2.1.1, I showed that medium is only one of several factors that go into shaping a given register, and that discussions of the influence of medium on register have to be viewed in that context. In section 2.1.2, I showed that the parallel drawn by the oral medium theory between Homeric Greek and oral registers of languages that have both oral and literate registers is misleading; during most of the course of development of the Homeric Greek performance register, it was a high register compared to other contemporary registers, all of which were also oral, and comparative evidence indicates that as such, it was likely distinguished by, among other things, relatively dense and integrated syntax.

In the overview of recent research on structural differences between spoken and written registers given in section 2.1.3, some of the results were mostly about processing. These are the sort of differences that the oral medium theory focuses on. On the level of the phrase and clause, fast online production and processing is associated, on the one hand, with a low rate of occurrence of features that allow information to be bound together into large chunks with complex internal structure, such as lexical nouns and complex noun phrases, and features such as attributive

adjectives, prepositional phrases, and pre- and post-modifier participles that are or can be used to build complex noun phrases, and on the other hand, with a high rate of occurrence of features that allow information to be added to clauses in small chunks (often in a way that prioritizes encoding of pragmatic information), such as demonstratives and pronouns, short phrases and clauses, various forms of flexible word order in languages that allow it, and strategies such as left- and right-dislocation in languages with more fixed word order. On the level of clause combination, there was some disagreement about what sort of influence is exerted by fast online processing; one claim is that it discourages subordination (Chafe 1982), but another is that its tendency to discourage use of complex phrases and clauses is balanced out by a tendency to encourage use of subordination, because subordination is a form of structural complexity that is easier to achieve under the pressure of fast online production (Halliday 1989:61-89). Subordination in general is more common in written registers in some languages, such as Somali, but not in others, such as English; in English and other languages, various non-embedding forms of clause combination, like parataxis, clause linking with discourse particles, coordination, and various forms of adjoined subordination have been found to be more common in oral registers. The oral medium theory, reframed in terms of this research, predicts that differences between Homeric Greek and Classical Greek should resemble these general processing-related differences between spoken and written registers. It was not possible to fully test this prediction, but I concluded that the broad outline of these differences does match up quite well with the broad outline of well-established differences between Classical and Homeric Greek.

Other evidence presented in section 2.1.3, however, supported the general point made in section 2.1.1 that the influence of conditions of production and processing on the structural characteristics of a given register should not be overestimated at the expense of other factors, such as syntactic typology, and purpose or typical subject matter.

Written Classical Greek in some respects more closely resembles spoken registers of typologically similar languages (languages that mark grammatical relations morphologically) such as Russian, than it does written registers of typologically dissimilar languages like English: hyperbaton and correlative clauses, for instance, are features of both spoken Russian and written Classical Greek. Discourse particles, which are common in written Classical Greek, are a feature of both spoken and written registers in (again, more typologically similar) languages like German, Finnish and Hungarian, but are mostly restricted to spoken registers in English. The prevalence of complement clauses in spoken registers of English shows that the influence of the purpose or typical subject matter associated with a particular register can outweigh the influence of processing; complement clauses are a prototypical example of a feature that allows information to be bundled into large chunks, since they allow an entire clause to function as the subject or object of a verb, and could for that reason be expected to be used less under fast online processing conditions, but they are nevertheless very common in oral registers of English because people like to talk about what they and other people think and say. Similarly, though the slow, planned production involved in writing generally tends to encourage use of varied and precise vocabulary (long average word length and a high type-token ratio), the high value placed on use of such vocabulary in Somali oral poetry means that high-quality oral poetry outscores even informational writing in terms of lexical diversity.

Having identified a number of predictions made by the oral poetry and oral medium theories about what sorts of differences should exist between Homeric and Classical Greek, I move on in section 2.2 to identify predictions made by the archaism theory, which gives priority in explaining the structural properties of the Homeric Greek performance register mainly to syntactic typology, one of the influences that the oral medium theory tends to deemphasize. The archaism theory is also more compatible than the oral medium theory with the overall picture of the nature, purpose, and typical

subject matter of high registers in oral cultures, and performance registers and languages, that was presented in section 2.1.2, not only for the reasons that have already been mentioned (the purposes shared by such registers and typical writing, and related tendency to be distinguished from corresponding conversational registers by relatively dense, integrated syntax), but also because one important feature of such registers is that they tend to preserve linguistic archaisms, which are seen as helping to create a dignified, elevated and authoritative tone. It is generally accepted that Homeric Greek, as a performance register, preserves archaic vocabulary and morphology; the archaism theory of Homeric syntax assimilates syntax to that model.

2.2 The archaism theory

Another possible explanation for the syntactic differences between Homeric Greek and Classical Greek is that they reflect a change over time in the syntactic typology of the Greek language. In the 19th and early 20th century comparative-historical grammar tradition, Homeric Greek was described as preserving features of an earlier type of syntax in which individual words and clauses were more grammatically independent from one another than they were in the later language; independence in relations between words and phrases was described under the heading of 'apposition', and independence in relations between clauses under the heading of 'parataxis' (Meillet and Vendryes 1927:519-520, 578-579 etc.; Chantraine 1953:12-21, 232-235 etc.). Appositional relationships between verbs and their arguments, nouns and their modifiers, and prepositions and their objects were defined in opposition to the hierarchical relationships of government and agreement found in integrated verb, noun and prepositional phrases; parataxis was defined in opposition to subordination. It was sometimes suggested that appositional relationships were based on co-reference between lexical nouns and pronouns implied by heads, particularly by verbs (as in 'Achilles, he killed him, Hector'), and it was also thought that case marking on

nominals might have carried more of the burden of marking relationships between words and phrases than it did in the later language.

The archaism theory, like the orality theory, needs to be reframed to take into account a backlog of relevant comparative evidence that has been built up since it was first proposed. There are living languages whose syntax resembles, in broad outline, the type of syntax that Meillet was hypothesizing for early Indo-European languages or Indo-European. In late 20th century linguistics, a lot of attention began to be focused on these so-called 'nonconfigurational' languages; in at least some of them ('pronominal argument' languages), relationships of coreference between lexical nouns with adjunct rather than argument status and pronouns which obligatorily serve as the true arguments of heads such as verbs are fundamental to the syntax; in others, grammatical relations and relations between nouns and their modifiers may additionally or alternatively be encoded by case marking rather than phrase structure. It has recently been suggested that the typology of Greek may have started out nonconfigurational and gotten more configurational over time (Devine and Stephens 2000:141-153). In this section, I look at how well differences between Classical and Homeric Greek match up with differences that exist between languages occupying different positions along the configurationality spectrum.

2.2.1 Nonconfigurationality

The term 'nonconfigurational' was originally coined to describe languages whose syntax showed little or no evidence of being based on the same kind of configurational phrase structure as the syntax of languages like English. In English, word order alone is what tells you who is the agent and who is the patient in a typical transitive sentence (38a-b):

(38) a. Achilles killed Hector
b. Hector killed Achilles

This makes it easy to argue that grammatical functions like subject and object should be defined in terms of their positions in phrase structure. In X′ theory terms (Chomsky 1970; Jackendoff 1977:14-18), objects are sisters of X (complements), and subjects are sisters of X′ (specifiers). The object of a verb forms a constituent with it, a verb phrase (*chopped the cabbage*), that excludes the subject (39a); the subject can combine with the verb phrase to form a clause (*Alice chopped the cabbage*), but cannot form a constituent with the verb that excludes the object (*chopped the cabbage is what Alice did; *Alice chopped is who did the cabbage*).

(39) a. [IP [NP$_i$ Alice] [I′ [I] [VP [NP t_i] [V′ [V chopped] [NP the cabbage]]]]]

All the arguments associated with a predicate, like transitive *chop*, which requires an agent and a patient, have to be syntactically realized as noun phrases (40a-c).

(40) a. Alice chopped the cabbage
b. *Chopped the cabbage
c. *Alice chopped []

These noun phrases must be continuous; elements of the noun phrase cannot be separated from one another (41a-d).

(41) a. Alice chopped the red cabbage
b. *Alice red chopped the cabbage
c. Helpful volunteers chopped the cabbage
d. *Helpful chopped volunteers the cabbage

Many languages, however, do not share all of these properties with English, and some languages do not share any of them. In the Australian language Warlpiri, for instance, word order does not encode grammatical relations, arguments of predicates do not have to be syntactically realized as noun phrases, and elements of noun phrases may be discontinous from one another (Hale 1983). In each of the sentences in (42), the subject is the man and the object is the kangaroo:

(42) a. Ngarrka-ngku ka wawirri panti-rni (H83:6)
man-ERG *AUX* *kangaroo* *spear-NONPAST*
'The man is spearing the kangaroo'
b. Wawirri ka panta-rni ngarrka-ngku
kangaroo *AUX* *spear-NONPAST* *man-ERG*
c. Panti-rni ka ngarrka-ngku wawirri
spear-NONPAST *AUX* *man-ERG* *kangaroo*

Any or all of the arguments of the predicate *panti-rni* may be omitted: subject (43a), object (43b) or both (43c):

(43) a. Ngarrka-ngku ka panti-rni (H83:7)
man-ERG *AUX* *spear-NONPAST*
'The man is spearing him/her/it'
b. Wawirri ka panti-rni
kangaroo *AUX* *spear-NONPAST*
'He/she is spearing the kangaroo'
c. Panti-rni ka
spear-NONPAST *AUX*
'He/she is spearing him/her/it'

Finally, a demonstrative associated with the noun 'kangaroo' may be either continuous with (44a) or discontinuous from it (44b):

(44) a. Wawirri yalumpu kapi-rna panti-rni (H83:6)
kangaroo *that* *AUX* *spear-NONPAST*
'I will spear that kangaroo'
b. Wawirri kapi-rna panti-rni yalumpu
kangaroo *AUX* *spear-NONPAST* *that*

Warlpiri also differs from English in two other obvious ways, one or both of which are probably the key to explaining the differences listed above. First, person and number of subject and object are marked by clitic pronouns that attach to the second-position auxiliary (the only element of the clause whose position is fixed). Second, there is a case-marking system for nominals. In examples 42a-c it is always clear regardless of word order that *ngarrka-ngku* is the subject, because *ngarrka-ngku* is marked as

ergative; in 43a-c the (zero) clitics in the auxiliary cluster indicate that the subject and object that are not realized as lexical nouns are 3rd person singular; and in 44b, the discontinuous constituents share the same (zero) absolutive case marking (Hale 1983).

Languages near the nonconfigurational end of the configurationality spectrum mark grammatical relations morphologically; they are either head-marking or dependent-marking or some combination of both (double/split-marking) (Nichols 1992:46-64; Nordlinger 1998:47-49). In head-marking morphology, the grammatical structure or function of a constituent is marked on the head, the part of the constituent that determines its category (e.g. *chop* (V) in *chop cabbage* (VP), *book* (N) in *yellow book* (NP), *on* (P) in *on the countertop* (PP)). In dependent-marking languages, it is marked on the dependent (e.g. *cabbage, yellow, the countertop* in the examples above). Here are some examples of head- and dependent-marking morphology in Greek.

(45) a. φυλάττει τοὺς ἵππους
He is guarding the horses
b. σὺν τῷ φύλακι
With the guard
c. ἀγαθὸς φύλαξ
A brave guard

In the verb phrase in 45a, the head φυλάττει has head-marking morphology indicating that its subject is 3rd person singular; its complement, τοὺς ἵππους, has dependent-marking morphology indicating that it is a direct object. In the prepositional phrase in 45b, the head σὺν requires a dative object, and its complement τῷ φύλακι is marked as dative. In the noun phrase in 45c, the head φύλαξ has masculine gender, and the modifier ἀγαθὸς, has dependent-marking morphology indicating that the noun it modifies is masculine.

Not all nonconfigurational languages share the three properties listed above (so-called 'free word order', null anaphora, and discontinuous constituents) as distinguishing

languages like Warlpiri from languages like English. Instead, there seems to be not only a spectrum of configurationality, but also variation within the territory of nonconfigurationality, at least some of which seems to be associated with the distinction between head-marking and dependent-marking languages (Nordlinger 1998:44-50; Baker 2001a). Warlpiri is double-marking; it has both head-marking and dependent-marking morphology. The Native American language Mohawk is head-marking. Like Warlpiri, it allows free word order (46a-f) and null anaphora (47a):

(46) a. Sak ra-núhwe'-s ako-[a]tyá'tawi (B96:10)
Sak MSS-*like*-HAB FSP-*dress*
'Sak likes her dress'
b. Ra-núhwe'-s Sak ako-[a]tyá'tawi
Like Sak her-dress
c. Sak ako-[a]tyá'tawi ra-núhwe'-s
Sak her-dress like
d. Ra-núhwe'-s ako-[a]tyá'tawi ne Sak
Like her-dress Sak
e. Ako-[a]tyá'tawi ra-núhwe'-s ne Sak
Her-dress like Sak
f. Ako-[a]tyá'tawi Sak ra-núhwe'-s
Her-dress Sak like

(47) a. Ra-núhwe'-s (B96:10)
MsS-like-HAB
'He likes it'

Discontinuous constituents, however, are more limited in Mohawk (48a) (occurring mainly with quantifier and determiner-like elements) than in Warlpiri (48b).

(48) a. ?*KΛ 'tsu ne auhá'a te-wak-éka'-s rababhót (B01:1437)
fish NE *most* CIS-*1SO-like*-HAB *bullhead*
'I like bullhead fish the best'
b. Kuyu Ø-rna luwa-rnu wawirri
animal PERF-*1SS* *shoot*-PAST *kangaroo*
'I shot a kangaroo'

This probably has something to do with the presence of case-marking on nominals in Warlpiri, which makes it easier to tell what goes with what. The idea that case-marking facilitates discontinuity is supported by case-marking patterns. When an agreeing adjective and noun are continuous (49a-b), case-marking may appear on both adjective and noun or only on the final element, but when they are discontinuous (49c-d), they must both be case-marked (Laughren 2002).

(49) a. Ngulya-ngka jinta-ngka ka=lu paka-rni (L02:108)
burrow-LOC one-LOC CENTR=PL.S hit-NPAST
'They kill them in one burrow'
b. Ngulya jinta-ngka ka=lu paka-rni
burrow one-LOC CENTR=PL.S hit-NPAST
c. Ngulya-ngka ka=lu jinta-ngka paka-rni
d. *Ngulya ka=lu jinta-ngka paka-rni

Another factor may be that the interpretation of nominals in double- and dependent-marking nonconfigurational languages tends to be flexible; in Warlpiri, there is little evidence for a categorial distinction between nouns and adjectives, and almost all nominals can be interpreted as referential or predicative (Simpson 1991:265). In 50a, either of the contiguous nominals *kurdu-ngku* and *wita-ngku* can be interpreted as a modifier:

(50) a. *kurdu-ngku* *wita-ngku* *ka* *wajili-pi-nyi* (S91:265)
child- ERG small- ERG PRES chase-NPST
'The small child is chasing it'
'The childish small thing is chasing it'

In 51a, the discontinuous nominals *kurdu-jarra-rlu* and *wita-jarra-rlu* can be interpreted either together or separately (Simpson 1991:257):

(51) a. *kurdu-jarra-rlu* *ka-pala* *maliki* *wajili-pi-nyi*
child-DUAL-ERG PRES-3duSUBJ dog-ABS chase-NPAST
wita-jarra-rlu (S91:257)

small-DUAL-ERG
'(The) two small children are chasing the dog'
'Two children are chasing the dog and they are small'

Finally, another noteworthy difference is that head-marking but not dependent-marking languages tend to feature productive noun incorporation (52a) (Baker 1996:14-23).

(52) a. Wa'-ke-nakt-a-hnínu-' (Mohawk, B01b:1439)
FACT-1ss-bed-Ø-buy-PUNC
I bought the/a bed ('I bed-bought')

This feature seems to fit in with the general tendency of such languages to pack a lot of information into the verb (Baker 2001a).[51]

What is it that is different about these languages? Is this just a randomly collected set of different syntactic properties, or are the differences related to one another in some principled way? Recall the suggestions made in the context of the theory of apposition and parataxis about what might be behind the early typology. On the one hand, it was thought that various grammatical relationships may have been based on coreference between implied pronouns, and on the other that roles played by nominals were indicated through case-marking rather than government by verbs and prepositions. These same possibilities are at the center of current debates about the structure of living nonconfigurational languages. In the case of double- and dependent-marking languages, there are two main competing theories, one of which seeks to explain their structure as being based on the ubiquitous presence of implied or overt bound pronouns with which adjoined lexical elements corefer, while the other claims that rich morphology, and particularly case-marking, makes syntactic phrase formation largely unnecessary. My aim in this chapter is to compare the predictions the orality

[51] This association is a matter of debate; Baker (1996) considers productive noun incorporation to be a defining feature of polysynthesis, but Evans (2002) argues for a less restrictive definition based on clustering of features.

theory with the predictions of the theory that syntactic differences between Homeric and Classical Greek can be understood in terms of change over the history of Greek from a less configurational to a more configurational type of syntax. In order to do that, it will be necessary to briefly describe these general theories about how nonconfigurationality works. They lead not only to different conclusions about exactly what such a change would have consisted of, but also in some cases to different conclusions about what tests can be used to evaluate whether such a change took place or not.

Nonconfigurationality theories

There is more agreement about how head-marking nonconfigurationality works than there is about how dependent-marking nonconfigurationality works. Most analyses of the structure of head-marking nonconfigurational languages are in one way or another based on the *pronominal argument* theory: the idea that the inflected verb incorporates or licenses null or overt pronouns, which serve as arguments (nominals required by the verb; intransitives like *dance* require a subject; transitives like *chop* require a subject and direct object; ditransitives like *give* require a subject, direct object, and indirect object), while lexical nominals have the status of optional adjuncts that are associated with the verb only indirectly, through their relationship with the argument pronouns (Jelinek 1984; Baker 1996:41-137; Bresnan 2001:144-79; Mithun 2003).[52] Informally, the idea is that the structure of Mohawk clauses (like those in (46) above) resembles

[52] This basic idea is given different form in different accounts. According to Jelinek's (1984) account of pronominal argument structure in Warlpiri, the clitic pronouns themselves serve as the true arguments of the verb. In Baker's (1996:41-137) account of pronominal argument structure in Mohawk, inflectional morphology and incorporated nouns absorb the case features assigned by the verb, so lexical nominals are prohibited from appearing in argument positions because they cannot receive case there; the only elements that can appear in the standard argument positions are null pronouns (*pro*) or traces left behind by arguments that have undergone obligatory movement to positions outside the clause. In Bresnan's (2001:144-79) account of Chicheŵa and Navajo as having optional and partial pronominal argument structure respectively, the argument status of incorporated pronouns is not encoded in phrase structure, but their presence in functional structure is taken to have many of the same consequences as it has in other accounts.

that of English clauses with pronominal arguments and dislocated adjunct lexical nouns (as in 53a).

(53) a. He, the doctor, tells me, the patient, what to do (J84:50)

According to this analysis, the adjunct status of lexical nominals explains the traditionally nonconfigurational properties of free word order and omissibility of lexical arguments (Jelinek 1984); the behavior of all lexical nominals in such languages resembles the behavior in English of adjuncts as opposed to arguments. In English, arguments are obligatory and occur in fixed positions (54a-e).

(54) a. Carol built a treehouse (E02)
b. *A treehouse built Carol
c. *Built a treehouse

Adjuncts, however, are optional and tend to show more flexibility in their ordering (Ernst 2002:130-2); in example 55a, all noun phrases apart from the subject *Carol* and object *treehouse* are adjuncts and can occur in any relative order, and in many different positions relative to the verb and its arguments (55b, c): [53]

(55) a. Carol built a treehouse for her brother in the backyard with her new tools (E02:132)
b. In the backyard, Carol built a treehouse with her new tools for her brother
c. Carol built, with her new tools, a treehouse, in the backyard, for her brother

So, the pronominal argument theory describes languages like Mohawk and languages like English as having the same basic phrase structure configuration, including the same structurally defined subject and object positions, but with one major difference, namely that in the former, argument positions are never filled by lexical nominals.

[53] Different classes of adjuncts differ in the flexibility of their ordering; the examples in (55) involve so-called 'participant adjuncts', which can be reordered with no change in meaning (Ernst 2002:130-2).

There is less agreement about how to analyze the structure of double-marking and dependent-marking nonconfigurational languages, but there are two main theories.[54] According to one theory, they have pronominal argument structure, just like head-marking nonconfigurational languages (Jelinek 1984; Laughren 1989; Speas 1990:162-8; Hale 1994; Baker 2001b). For a double-marking language like Warlpiri, this would mean that the clitic pronouns that appear in the second-position auxiliary cluster (like the first person subject and second person object pronouns *rna* and *ngku* in 56a) serve as or license pronominal arguments, while any lexical arguments or free pronouns (like *ngajulu-rlu* and *nyuntu* in 56a) are adjuncts.

(56) a. ngajulu-rlu ka-rna-ngku nyuntu nya-nyi (S91:158)
I-ERG *PRES-1SGNOM-2SGACC* *YOU-ABSSEE-NPAST*
'I see you'

For a purely dependent-marking language like Jiwarli, it would have to mean that none of the arguments of the verb have any overt syntactic or morphological realization, since there are no clitic pronouns or verbal agreement morphology which could be argued to constitute or license pronominal arguments (Baker 2001a; 2001b). In the Jiwarli clause in 57a, the free pronouns *ngatha* and *nhurra-nha* are not doubled by clitics (compare the combination of free and clitic pronouns in Warlpiri in example 56a above) and the verb *mana-ra* does not contain any information about the person or number of its arguments (Austin 2001).

(57) a. Ngatha nhurra-nha murrurrpa mana-ra (A01a:7)
1sg.erg *2sg-acc* *cicatrice-acc* *get-fut*
'I will get you cicatrices'

[54] Falling into neither of these categories is the theory that Warlpiri, like English, has both lexical arguments and hierarchical phrase structure that marks grammatical relations, and that highly flexible word order is to be explained by optional movement of arguments out of the verb phrase; this approach has recently been argued for primarily on the basis of patterns of occurrence of clitic pronouns in the AUX cluster in applicative constructions (Legate 2001).

Applying the pronominal argument theory to double- and dependent-marking languages, which tend to feature extensive noun phrase discontinuity, raises the question of whether or how pronominal argument structure licenses such discontinuity. Arguments, apart from occurring in fixed positions and not being omissible, are also unique and must stand in a one-to-one relationship with roles specified by the verb; adjuncts are technically not subject to that condition, so pronominal argument structure could make discontinuous constituency possible by allowing multiple coreferent dislocated noun phrases to be identified with a single pronominal argument (Jelinek 1984). In comparable dislocation structures in Romance languages, however, there tends to be only one dislocated noun phrase per pronoun, and the limited sorts of discontinuity that occur in head-marking nonconfigurational languages may result not from the adjunct status of lexical arguments but instead from various forms of movement that also exist in configurational languages, such as quantifier float and wh-movement (Baker 1996: 138-85). That would leave the more widespread and varied noun phrase discontinuity in double- and dependent-marking languages still in need of explanation. One proposal is that the occurrence of discontinuity is related to the tendency for such languages to allow nominals to shift easily between referential and predicative interpretations, so that besides standing as coreferential adjuncts to pronominal arguments lexical nominals can also be predicated of them (Speas 1990:159-72; Baker 2001b); compare example 51a above, where one possible interpretation of the discontinuous noun phrase involves a second predication; on this version of the pronominal argument theory, the interpretation of such a sentence could be something like '(the) two children, (they) are chasing the dog, (and they are) small'.

According to another theory, Warlpiri and other double- and dependent-marking nonconfigurational languages differ from languages like English in having a flat phrase structure, which does not encode grammatical functions like subject and object;

such relations are instead directly encoded by morphology, either by a combination of agreement and case marking or, in purely dependent-marking languages, by case marking alone (Hale 1983; Simpson 1991:65-111; Austin and Bresnan 1996; Nordlinger 1998:60-69; Bresnan 2001:5-10).[55] The three central nonconfigurational properties of free word order, omission of lexical arguments and discontinuous noun phrases do not all flow from a single source, as in the pronominal argument theory, but instead result from independent, though interrelated, factors (Austin and Bresnan 1996): word order is free because morphology rather than phrase structure is being used to mark grammatical relations; omission of lexical arguments is possible because the second-position clitics are optionally pronominal; noun phrases can be discontinuous because constituency is marked by case, and because nominals readily shift between referential and predicative interpretations. This theory does not raise the same questions that the pronominal argument theory raises about the status of lexical nominals, since it maintains that lexical nominals can have all the same functions in Warlpiri as they do in English, acting as arguments, adjuncts and secondary predicates in different contexts.

Discourse configurationality

Early descriptions of word order in nonconfigurational languages as 'free' were qualified by the observation that word order was nevertheless not meaningless and that its meaning needed to be investigated (see e.g. Hale 1983:6); since then it has been

[55] The second theory has primarily been developed in the context of Lexical-Functional Grammar (hereafter LFG) (Bresnan 2001). One of the motivations for the design of LFG is the idea that the dominant Chomskyan model of Universal Grammar is heavily influenced by non-universal aspects of the structure of English and related languages, and is not well-suited for analyzing languages like Warlpiri, in which morphology does the work of encoding grammatical relations that is done by phrase structure in languages like English (Bresnan 2001:5-14). In LFG, there are separate components describing argument structure (roles, like subject and object, associated with events) functional structure (abstract relations between roles, like subject and object, and ways of expressing them) and categorial structure (overt forms of expression like morphology and phrase structure) which are related by linking principles (Bresnan 2001:19-22). Morphology and syntax have equal status in functional structure; a given grammatical function, like 'object', can be defined in terms of phrase structure or morphological structure (e.g. as as being complement of the verb, and/or having accusative case).

found that word order in some of the most well-known nonconfigurational languages is discourse configurational (Laughren 2002; Hale, Jelinek, and Willie 2003). A language can be said to be discourse configurational if it associates discourse-semantic functions like topic and focus with particular phrase structure positions (Kiss 2001), but the term is usually used to describe languages where the occurrence of arguments in such positions is overt and standard.[56] In Hungarian, for instance, the main structural dichotomy in a categorical sentence is between topic and predicate, and the topic can be any of the arguments of the predicate (Kiss 2001); in 58a, the topic is the grammatical object. Immediately preverbal position is associated with identificational focus; according to Kiss (2001), there is a structural focus position that is obligatorily filled by the verb (hívta in 58b) and focused arguments move to the specifier position of that projection (Marit in 58b).

(58) a. [$_{TP}$ Évát [$_{VP}$ János várta a mozi előtt]] (K95:208)
Eve-ACC John waited the cinema in-front-of
'Eve was waited for in front of the cinema by JOHN'

b. [$_{TP}$ János$_k$ [$_{FP}$ Marit$_j$ [$_F$ hívta$_i$ [$_{VP}$ meg t$_i$ t$_j$ t$_k$]]]] (K01:1451, simplified)
John Mary-ACC invited PREV
'John invited MARY'

At least some nonconfigurational languages are also discourse configurational, and if what is described as 'free' word order is usually discourse configurational word order, most of them may be. Hale, Jelinek and Willie (2003) argue that Navajo is both a pronominal argument language and a discourse configurational language.[57] Pronouns incorporated into the verb are ordered according to their grammatical functions, while lexical nominals are distributed into left-peripheral topic and focus positions according to an animacy hierarchy; coindexing between lexical nominals and incorporated pronouns depends on a combination of constraints related to the animacy hierarchy,

[56] English probably meets the broader definition, but overt occurrence of arguments in topic and focus positions (in left-dislocation and clefts, for instance) is relatively restricted and marked, so it is usually not described as a discourse configurational language.

[57] For arguments against pronominal argument structure for Navajo, see Speas (2000).

and direct versus inverse marking on the verb (the former indicating that the agent is the topic and the latter indicating that the patient is the topic); in 59a, for instance, 'boy', outranking 'horse', appears in topic position, and the verb is marked as direct, so the topic is coindexed with the subject pronominal argument (Hale, Jelinek, and Willie 2003).

(59) a. Ashkii łį̨į' yiztał (H03:11)
Boy horse 3Obj-3Subj-kicked
Topic Focus Foc-Top-V
'The boy kicked the horse'

Warlpiri also associates discourse-semantic functions with particular structural positions. There are various proposals about how exactly these positions are arranged (Austin and Bresnan 1996; Legate 2001; Laughren 2002; Simpson 2007), but they all allow for at least the left-peripheral topic and focus found in other discourse configurational languages (cf. 60b).[58] Legate (2001), building on Laughren (2002), proposes two topic positions, to account for cooccurrence of hanging or dislocated topics and regular topics, and two focus positions, to account for cooccurrence of wh-elements and other focused constituents, which would give the leftmost edge of the Warlpiri clause the discourse-functional projections shown in 60a.

(60) a. [$TopP_{HTLD}$ [TopP [FocP [$FocP_{wh}$ [CP]]]]] (L02)
b. Pikirri-ji-npa nyarrparla-rla warunka-ma-nu-rnu
spearthrower-nom-2sg where-loc forget-CAUSE-PST-HITHER
Topic Focus Verb
'Where did you forget the spearthrower on your way here?'

The issue of whether a language has 'free word order', originally one of the defining characteristics of nonconfigurationality, breaks down into two different questions. One question is whether arguments of predicates regularly and overtly appear in phrase

[58] Simpson (2007) suggests a particular arrangement of functional projections in the left periphery but then goes on to argue that relative discourse prominence and newness might be associated with spans in the clause rather than specific positions, and that information structure might be better represented as a dimension separate from phrase structure.

structure positions associated with discourse functions like topic and focus (whether the language is discourse configurational). Another and separate question is whether lexical arguments of predicates can also overtly appear in phrase structure positions associated with grammatical relations like subject and object (whether it is configurational). There are various different possibilities for how discourse-functional phrase structure positions can be related to argument positions in the verb phrase or sentence nucleus. First, discourse configurationality can be combined with a standard hierarchical verb phrase. Lexical nominals sitting in discourse-functional positions may govern traces of themselves sitting in phrase-structurally defined argument positions in a configurational verb phrase; this is generally assumed to be how discourse configurationality works in languages like German and Japanese (Baker 2001b), is debatable for Hungarian (Kiss 2008), and has been suggested for Warlpiri (Legate 2002:62). Second, discourse configurationality can be combined with various flavors of nonconfigurationality. The same type of relationship (movement and government of traces) could apply, but with arguments starting out in a flat sentence nucleus, with no hierarchical verb phrase; this has been argued for Hungarian (Kiss 1995; 2008); it has similarly been proposed that Warlpiri has a phrase structure with some hierarchical discourse functional projections on the left periphery but a flat sentence nucleus (though in a non-movement framework) (Austin and Bresnan 1996; Simpson 2007). When discourse configurationality is combined with pronominal argument structure, lexical nominals sitting in discourse-functional projections are related by a system of coreference to (null) pronouns occupying (or having been incorporated into the verb from) argument positions in a hierarchical verb phrase (Hale, Jelinek, and Willie 2003).

2.2.2 Homer and nonconfigurational syntax

Free word order, null anaphora, and discontinuous constituents were the three main properties originally associated with nonconfigurationality (Hale 1983). These all

appear in some form in both Classical and Homeric Greek. As shown in section 2.2.1, two properties are subsumed under the description 'free word order': discourse configurational word order and lack of a hierarchical VP containing lexical arguments. Classical Greek has discourse configurational word order; it has the clause-level topic and focus illustrated above for Hungarian, Navajo and Warlpiri (see Dik 1995 for evidence from Herodotus and Dik 2007 for evidence from tragic dialogue), and the projection of focus is cross-categorial, appearing at the level of the (noun, adjective, verb and in poetry, prepositional) phrase as well as the clause (Devine and Stephens 2000:9-15; see also Devine and Stephens 2006:87-98, 377-91 on cross-categorial focus and scrambling projections in Latin). The discourse configurationality of Classical Greek appears to be inherited. Clause-level topic and focus positions can be reconstructed for Indo-European based on evidence from Homeric Greek, Vedic Sanskrit and Hittite (Hale 1987:12; Garrett 1990:28-32) (61a, with Hale's COMP node relabeled as Focus, following Kiparsky 1995). Evidence comes partly from examples in which both positions are clearly filled. In Homer, an interrogative in focus position can be preceded by a single topicalized constituent (61b-c).

(61) a. [S" Topic [S' Focus [S]]]
b. τῶν δ' ἄλλων τίς κεν ᾖσι φρεσὶν οὐνόματ' εἴποι (Il. 17.260) (G90:31)
Of the others, who could say their names from memory
c. ἀνδρῶν δ' ἐν πολλῷ ὁμάδῳ πῶς κέν τις ἀκούσαι ἢ εἴποι; (Il. 19.81)
Amidst the great roar of men, how can anyone hear or speak?

The question of whether there was a hierarchical verb phrase in Ancient Greek has for the most part not been directly addressed. In the literature on nonconfigurationality, arguments about this topic are mostly based on word order and the application of movement rules, and binding and coreference phenomena. First, there is the issue of unmarked word order; even in a language where word order is highly flexible and all orders of, say, S, O, and V are equally grammatical, if one order can be shown to be unmarked, it can be argued that that order is basic and the others are derived from it by

movement rules. It is claimed for Warlpiri not only that all of the word order permutations in a series like (42a-c) above are grammatical, but that none of them is unmarked. The same claim has been made for postverbal word order in Hungarian, as part of the argument for a flat head-initial VP, from which constituents raise to preverbal discourse-functional projections, as in 58b above (Kiss 1995, 2008).

Taylor (1994) argues on the basis of clitic positioning and the statistical distribution of word order permutations that there was a change over time in the basic word order of Ancient Greek, from SOV in Homeric to SVO in Koine, with Classical Greek showing competition between SOV and SVO. The conclusion reached about the nature of word order permutations is that Homeric Greek has basic SOV order reflecting the location of arguments in a hierarchical head-final VP, from which all other orders are derived by rightward extraposition of subject and/or object. The main problem with this picture is that it does not take into account the existence of the left-peripheral topic and focus projections illustrated in (61), and it gives no alternative account of pragmatic or other motivations for the proposed rightward movement.[59] Iliad 23.897 (62a), for example, is cited as an example of SXVY order (Taylor 1994:22):

(62) a. ὅ γ' ἥρως / Ταλθυβίῳ κήρυκι δίδου περικαλλὲς ἄεθλον (Il. 23.897)
Topic Focus Verb Tail
Then the hero gave to the herald Talthybius the beautiful prize.

There is no apparent reason in 62a for the direct object to be singled out as a target for extraposition (heaviness, for instance, is sometimes a reason for extraposition, but the direct object here is no heavier than the indirect object); there are reasons, however, for the arguments to be distributed as they are if the topic and focus structure illustrated in 61a is assumed. The subject, Agamemnon, and object, a cauldron offered

[59] It also does not take into account the order of arguments on either side of the verb, so that for instance, in clauses with three lexical arguments, the probability of occurrence of examples with the order O-IO-S-V versus those with the order S-IO-O-V is not discussed; both would be counted simply as instances involving no extraposition (Taylor 1994).

as a prize, are old information (the cauldron is described in detail in line 885 and Agamemnon is a main character in the scene) and appear in topic and tail position respectively; the indirect object Talthybius the herald has not been mentioned since book 19 (Richardson 1993:271), and appears in the directly preverbal focus position. Even if it were to be shown that Homeric Greek has SOV word order in pragmatically neutral contexts, that would not show that SOV order reflects the order of occurrence of arguments in a hierarchical verb phrase. SOV order could also result from raising of arguments from a (hierarchical or flat) S or VP to higher discourse-functional projections: objects together with the verb tend to be part of the new information being asserted in a clause, and would show an affinity for preverbal focus position. The latter scenario has been argued to account for neutral SOV word order in Latin (with raising from a hierarchical verb phrase) (Devine and Stephens 2006:25-9, 87-98). On that kind of analysis, word-order based arguments for or against a hierarchical VP in Classical or Homeric Greek could potentially be based on evidence or lack of evidence for an unmarked postverbal word order, as in the case of Hungarian. As far as I am aware, no such evidence has been collected; this would make a good topic for future research.

Evidence about the structure of VP can also come from the operation of movement rules; in so far as these rules target constituents, if they can be shown to target the finite verb plus direct object, that is evidence for a VP constituent containing the object. For English, evidence for the existence of a VP including the object and excluding the subject comes from movement operations that target the verb plus object and cannot operate on the verb plus subject (cf. *Chopped the cabbage is what Alice did* vs. **Alice chopped is what did the cabbage*). For Warlpiri, some evidence about constituency comes from what can appear in the position immediately preceding the second-position AUX cluster; noun phrases (including modified and conjoined noun phrases), nonfinite verb phrases (including objects), preverbs, propositional particles,

and finite verbs (with or without preverbs) (63a) can appear there, but a finite verb plus a lexical argument cannot (Laughren 2002) (63b-c):

(63) a. Warru-pu-ngu kala=lu kuyu yapa-patu-rlu
Around-kill-PAST past=PL.S animal:NOM person-PL-ERG
'The people used to kill animals all over'
b. *Warru-pu-ngu kuyu kala=lu
Around-kill-PAST animal:NOM past=PL.S
c. *Kuyu warru-pu-ngu kala=lu
(L02:97)

Laughren (2002) argues based on this evidence that the Warlpiri finite verb is phrasal, and that the finite verb phrase does not contain overt embedded arguments; if it did, they would be able to appear together with it in pre-AUX position, like nominals embedded in noun phrases, and nonfinite verb phrases. This is the sort of evidence that has been used to argue for the existence of topic and focus projections in Homeric Greek; exactly one syntactic constituent can appear before an interrogative in Homer (61b-c above). It has not been used to make arguments about the nature of the verb phrase; again, this would make a good topic for future research.

Arguments about the structure of VP can also be based on coreference and binding phenomena. This type of test is valid only in so far as the rules governing these phenomena are defined in terms of c-command relationships in a hierarchical phrase structure (Chomsky 1981:188, 183-222); they can also be defined in terms of a hierarchy of grammatical functions or thematic roles, independent from phrase structure (Pollard and Sag 1994:238-81; Bresnan 2001:212-235). Results of such tests in nonconfigurational languages are mixed. On the one hand, in all or almost all languages, including nonconfigurational languages such as Warlpiri, reflexives and reciprocals can only be objects or obliques coreferent with subjects (64a), not the other way around (64b) (Baker 2001b; Bresnan 2001:7); rules governing this type of

relationship may be defined in terms of the thematic hierarchy rather than phrase structure.

(64) a. Napaljarri-rli ka-nyanu paka-rni (B01:7)
Napaljarri-ERG PRES-REFL hit-NONPAST
'Napaljarri is hitting herself'
b. *Napaljarri ka-nyanu paka-rni
Napaljarri-abs pres-refl hit-nonpast
'Herself is hitting Napaljarri'

But nonconfigurational languages also show some coreference effects that seem to show a lack of phrase-structural subject-object asymmetry, and head-marking and dependent-marking languages show different effects (Baker 2001b). In English, coreference between an object and a possessive inside a subject is possible (compare the glosses in 65a-b), but not the other way around: there is obligatory disjoint reference in cases like 65a. In Mohawk, both are possible (regardless of word order) (65a-b) (Baker 1996:45-6):

(65) a. Wa'-t-há-ya-'k-e' ne thíkʌ Sak raó-[a]'share'
FACT-DUP-1sS-break-Punc NE that Sak MsP-knife
'*He* broke that knife of *Sak's* (coreference OK) (B96:45-46)
b. Ro-ya'takéhnha-s thíkʌ ne Sak raó-[a]'share'
MsO-help-HAB that NE Sak MsP-knife
'That knife of *Sak's* is helping *him'* (coreference OK)
(B96:46)

Mohawk also behaves differently with respect to so-called 'weak crossover' with interrogatives; in English, an interrogative subject can bind an overt possessive pronominal inside the object ('Who$_i$ loves his$_i$ mother'), but not vice versa (*'Who$_i$ does his$_i$ mother love'). In Mohawk, neither pattern occurs (Baker 2001b). Baker (1996:43-48) argues that this set of facts makes sense if lexical nominals are always adjoined to the clause as a whole and are therefore not c-commanded by pronominal arguments or traces occupying argument positions. On that theory, the null pronoun in

subject position in 65a can co-refer with the object because it does not c-command it, and sentences like 'Who$_i$ loves his$_i$ mother' are ruled out because the trace of the interrogative does not c-command the lexical object, and therefore cannot bind the pronoun inside it (Baker 1996:43-73).

It seems unlikely that coreference of the sort seen in 65a occurs in Ancient Greek, Classical or Homeric. Some positive evidence that parallels to 65a are not possible in Homeric Greek may be found in the second half of the Odyssey; when Odysseus has returned to Ithaca in disguise, there are frequent third-person references to 'Odysseus' house', and so forth, by Odysseus himself and by others that are meant to be amusing, and would at minimum have a different effect if coreference between the subject and possessive pronoun inside the prepositional phrase were possible (66a-b):

(66) a. καί κ' ἐλθὼν πρὸς δώματ' Ὀδυσσῆος θείοιο ἀγγελίην εἴποιμι περίφρονι Πηνελοπείῃ (Od. 15.313-314)
And I will go to godlike Odysseus' house and give the message to circumspect Penelope (external audience, but not addressee, knows that the speaker is Odysseus)
b. αἴ κ' ἔλθῃ πρὸς δώματ' Ὀδυσσῆος θείοιο (Od. 17.230-232)
If he goes to the house of godlike Odysseus (external audience but not speaker knows that the subject of ἔλθῃ is Odysseus)

There is positive evidence that Homeric Greek does not have the sort of two-way weak crossover effect with interrogatives that is found in Mohawk. There are no examples in Homer of a subject interrogative binding an overt possessive pronominal inside an object in the same clause, but there are examples involving an overt possessive pronominal inside an oblique (67a-b):

(67) a. τῶν δ' ἄλλων τίς κεν ἧσι φρεσὶν οὐνόματ' εἴποι, ὅσσοι δὴ μετόπισθε μάχην ἤγειραν Ἀχαιῶν; (Il. 17.260-261)
And who could say the names of the others from memory [lit: with his mind]
b. ὦ φίλε, τίς γάρ σε πρίατο κτεάτεσσιν ἑοῖσιν; (Od. 14.115)

My dear man, who bought you with his wealth?

So, by this measure, it looks as though null subject pronominals (66a-b) and interrogatives (67a-b) are able to c-command lexical arguments in Homeric Greek.

Warlpiri has disjoint reference patterns that are different from those found in English, and the opposite of those found in Mohawk. Coreference between a nominal and a possessive inside another argument is ruled out altogether (regardless of word order) (68a-b) (Simpson 1991:179-80):

(68) a. Jakamarra-kurlangu maliki-rli ka nyanungu wajijli-pi-nyi
Jakamarra-POSS dog-ERG PRES he chase-NPAST
*Jakamarra's dog chases him=Jakamarra

b. Jakamarra-kurlangu maliki-rli ka nyanungu-rlu wajijli-pi-nyi
Jakamarra-POSS dog-ERG PRES he-ERG chase-NPAST
*He chases Jakamarra's=his own dog
(S91:179-80)

Hungarian patterns with Warlpiri in this respect (69a-b)(Kiss 2008):

(69) a. *János$_i$ anyja szereti őt/pro$_i$
John's mother loves him
'John's mother loves him'

b. *Ő/pro$_i$ szereti János$_i$ anyjat
He loves John's mother
'He loves John's mother'
(K08:ex.19a-b)

With respect to weak crossover, Warlpiri (Baker 2001b) again differs from English but in an opposite way from Mohawk; an object interrogative can bind a pronoun inside the subject, and vice versa (i.e. both 'Who$_i$ does his$_i$ mother love' and 'Who$_i$ loves his$_i$ mother' are OK); Hungarian again patterns with Warlpiri (Kiss 2008). Different ways of explaining these facts have been proposed. Simpson (1991:179-180) argues that coreference in 68a-b is ruled out by mutual c-command of the subject and object in a flat phrase structure. Kiss (2008) argues that both can be explained either by mutual c-

command in a flat phrase structure or by obligatory verb-phrase internal topicalization of pronominal and wh-objects in a layered hierarchical verb phrase; on the latter analysis, the object pronoun would c-command the subject in 69a and therefore be unable to co-refer with it, and an intermediate trace of the wh-object would c-command the subject in 'Who$_i$ does his$_i$ mother love' and therefore be able to bind the possessive pronoun. Baker (2001b) argues that both patterns in Warlpiri could result from a structure in which pronominal arguments obligatorily raise out of a hierarchical verb phrase to specifier positions that c-command both argument positions in the verb phrase, which contain secondary-predicate-like lexical nominals.

If Homeric Greek behaved like Warlpiri and Hungarian with respect to disjoint reference, the evidence would be negative rather than positive, consisting only of a lack of examples of the types seen in 68a-b and 69a-b. A search for genitive forms of the proper names 'Achilles' and 'Odysseus' in Homer yielded no such examples. With respect to weak crossover, there could be positive evidence that Homeric Greek resembles Warlpiri and Hungarian, in the form of examples of an object or oblique interrogative binding an overt pronominal inside a subject; a search of overt possessive pronouns in Homer yielded no such examples. So, with respect to disjoint reference effects and weak crossover with interrogatives, I am not aware of any positive evidence one way or another about whether Homeric Greek resembles Warlpiri and Hungarian.

Apart from free word order (or discourse configurational word order in the absence of a hierarchical verb phrase containing lexical arguments) the other two central features originally associated with nonconfigurationality are null anaphora (illustrated above in 43 and 47), and discontinuous constituents (illustrated above in 44, 48, 50 and 51). These properties are shared by both Homeric and Classical Greek. Person and number features of the subject are marked on the verb, and pronominal subjects that are not

focused are usually null unless they are necessary for disambiguation; though there is no such marking for objects, definite referential pronominal objects are also often null. According to Luraghi (2003), null objects are obligatory in certain contexts, most notably where a conjunct participle and verb (70a-b), or coordinated clauses (70c-d), share an object; occurrence of null objects is otherwise discourse-conditioned, and most likely when the object is highly topical (70e-f).

(70) a. υἱὸς$_i$ μὲν δή τοι λέλυται γέρον ὡς ἐκέλευες, κεῖται δ' ἐν λεχέεσσ'· ἅμα δ' ἠοῖ φαινομένηφιν ὄψεαι Ø$_i$ αὐτὸς ἄγων Ø$_i$.
(Il. 24.599-601)
Your *son*, old man, is given back according to your wish, and lies upon a bier; at the break of day you shall yourself behold *him* as you bear *him* hence (L03:176)

b. ὁ δὲ ἐμπιμπλὰς ἁπάντων$_i$ τὴν γνώμην ἀπέπεμπε Ø$_i$. (Xen. *An.* 1.7.8)
Having fulfilled the expectations of *all*, he dismissed *them* (L03:170)

c. ἱστία$_i$ μὲν στείλαντο, θέσαν Ø$_i$ δ' ἐν νηῒ μελαίνῃ (Il. 1.433)
They furled *the sail* and stowed *it* in the black ship (L03:181)

d. καί μιν$_i$ Ἀθηναῖοι δημοσίῃ τε ἔθαψαν αὐτοῦ τῇ περ ἔπεσε καὶ ἐτίμησαν Ø$_i$ μεγάλως (Hdt. 1.30-31)
The Athenians buried *him* at public expense on the spot where he fell and gave him much honor (L03:179)

e. ἐνέπλησθεν δέ οἱ$_i$ ἄμφω αἵματος ὀφθαλμοί· τὸ δ' ἀνὰ στόμα καὶ κατὰ ῥῖνας πρῆσε χανών· θανάτου δὲ μέλαν νέφος Ø$_i$ ἀμφεκάλυψεν
(Il. 16.348-350)
Both his eyes were filled with blood; and up through mouth and nostrils he spurted blood as he gaped, and a black cloud of death enfolded him (L03:186)

f. …ἦ οὐ τοῦτο λήθην λέγομεν, ὦ Σιμμία, ἐπιστήμης$_i$ ἀποβολήν; Πάντως δήπου, ἔφη, ὦ Σώκρατες. Εἰ δέ γε οἶμαι λαβόντες Ø$_i$ πρὶν γενέσθαι γιγνόμενοι ἀπωλέσαμεν Ø$_i$ (Pl. *Phd.* 75d10-e3)
'…the loss of *knowledge* is just what we mean when we speak of forgetting, is it not, Simmias?' Certainly, Socrates, said he. 'But, I suppose, if we acquired *knowledge* before we were born and lost *it* at birth…' (L03:188)

Definite null objects also occur in many other early IE languages, such as Latin, Sanskrit, Persian, Old English, and Old Icelandic (van der Wurff 1997), which suggests that they may have been a feature of Indo-European.

Discontinuous constituents occur in both Classical and Homeric Greek, though their occurrence is less restricted in Homeric Greek (Devine and Stephens 2000:112-115) (this was briefly discussed in section 2.1.3 above), and probably also more common overall (in Chapter 3 it will be shown that quantifiers, at least, are more often discontinuous from their restrictions in Homer). Hyperbaton appears to be licensed under similar discourse-pragmatic conditions in Ancient Greek and in some nonconfigurational languages. In Classical Greek prose, and sometimes in Homeric Greek, premodifier hyperbaton encodes strong contrastive focus on the modifier (71a-b) (Devine and Stephens 2000:33-87).

(71) a. ὁ παλαιός κελεύει νόμος (Dem 20.99) (D00:91)
The old law prescribes (old, not new)
b. ἠὲ νέον μεθέπεις, ἦ καὶ πατρώϊός ἐσσι/ξεῖνος (Od. 1.175-6) (D00:198)
If you have come here as a stranger or if you are a friend of my father

Premodifier hyperbaton in Warlpiri can encode strong focus, as illustrated by the following question and answer sequence, in which a cardinal numeral appears before the verb and a tail noun after it (Legate 2002:111):

(72) a. A: Jangari mayi ka-npa marda-rni? (L02:111)
Shanghai Interr Pres-Impf-2sg have-Npast
B: Yuwayi. Jirrama ka-rna marda-rni jangari-jarra
Yes. Two Pres-Impf-1sg have-Npast shanghai-dual

A: Do you have a shanghai?
B: Yes. I have two shanghais!

In head-marking languages, where noun phrase discontinuity tends to be more restricted, elements that do appear in hyperbaton tend to be those that attract focus: quantifiers, numerals, interrogatives and demonstratives (73a) (Baker 1996:138-85). In Fox, a head-marking nonconfigurational language, these elements normally appear in preverbal focus position, with a tail noun on the right (Dahlstrom 2003).

(73) a. Akwéku wa'-e-tshʌri-' ne onhúhsa'(B96:138)
All FACT-FsS-find-PUNC NE eggs
'She found all the eggs'

b. Ke·swi=ya·pi i·ni e·h-ketemino·-hki
How.many=may.I.ask then AOR-bless-3(PL)S:2O
maneto·w-aki? (D03:154)
spirit-PL
'How many spirits blessed you then'?

In a crosslinguistic survey of discontinuous noun phrases, the two most commonly occurring types were focused modifiers preceding tail nouns (as above) and topic nouns preceding focused modifiers (Fanselow and Féry 2006). In both Homeric and Classical Greek, a topic noun may be followed by a modifier in preverbal focus position (sometimes stranded after verb raising, as in 74a-b).

(74) a. στρατιὰν ἔχων οὐ πολλὴν (Thuc. 8.61.1) (D00:98)
With a small force

b. ἀλλ' ἄγε νῦν ἱππεῦσιν ἐπότρυνον πολέεσσι (Il. 15.258)
But come now command many horsemen

Baker (1996:182) reports that discontinuous noun phrases with the noun to the left of the verb and the modifier to the right are of questionable grammaticality in Mohawk but may be possible under certain conditions, such as when the noun is a topic, so that the meaning of 75a would be 'As for the eggs, she found all of them':

(75) a. Onhúhsa' wa'-e-tshʌri-' akwéku (B96:138)
Eggs FACT-FsS-find-PUNC all
'She found all the eggs'

Warlpiri examples like 76a appear to have a similar structure, with a nominal in topic position and a modifier in preverbal focus position (and in this case a third nominal added as an amplification or afterthought) (Legate 2002:109):

(76) a. Kuyu ka-rlipa jaya-jala (L02:109)
Meat PresImpf-1plExcl a.lot-actually
paka-rni janganpa-rlangu
kill-Npast possom-for.example
'We are killing a lot of possums'

Homeric Greek, unlike Classical Greek, allows weakly focused and even unfocused, descriptive adjectives in premodifier hyperbaton, though this is most likely when the posthead noun is presentational or predictable (Devine and Stephens 2000:169-72). In 77a (repeated from 8a above), for instance, there is no question of excluding an alternative non-beautiful handle, but the handle is accommodated rather than new information since the bow has been the main topic of the preceding passage; similarly in 77b, there is no question of excluding the possibility that people may have given larger dowries for daughters not their own, but 'daughter' is old information, since Agamemnon has just listed his by name and said that Achilles may marry one of them.

(77) a. αὐτοῦ δ' ὠκὺ βέλος καλῇ προσέκλινε κορώνῃ (Od. 21.138, 165)
In the same spot he leaned the swift arrow against the beautiful handle
b. ἐγὼ δ' ἐπὶ μείλια δώσω / πολλὰ μάλ', ὅσσ' οὔ πώ τις ἐῇ ἐπέδωκε θυγατρί (Il. 9.147-148)
And I will give a dowry, a very big one, such as nobody has ever given for his daughter

It is not entirely clear whether the hyperbaton with descriptive adjectives found in Homer is paralleled in double- and dependent-marking nonconfigurational languages, because there is a tendency in the literature on nonconfigurationality for the occurrence of discontinuous constituents to be noted without further discussion of their information structure. Most examples of discontinuous noun phrases cited in the

literature involve categories of modifier that tend to attract focus, such as demonstratives, numerals, and measure adjectives. However, there is some indication that strong focus is not required for premodifier hyperbaton in such languages. In Jaminjung, premodifier hyperbaton occurs in presentational contexts (Schultze-Berndt 2008); in (78a), an out-of-the-blue announcement made by a passenger in a car about an oncoming truck, the posthead noun is new but predictable. In Jiwarli, possessives can appear in premodifier hyperbaton (Austin 2001); no context is given for 78b, but exclusion of the sun making other people's heads sore seems unlikely.

(78) a. gujugu ga-ram motika thanthiya (S-B08:4)
Big 3sg-come.PRS car DEM:ADV
'a big car is coming there!'

b. Juru-ngku ngatha-nha kulypa-jipa-rninyja parna (A01:8)
sun-erg 1sg-acc be-sore-tr-past head-acc

Amplificatory and secondary-predicate-like discontinuous modifiers seem to be particularly common in Homer (Devine and Stephens 2000:194-7, 66-72); compare the postverbal amplification in 76a, and the general availability in double-marking nonconfigurational languages like Warlpiri of predicative interpretations for discontinuous modifier/nominals as illustrated in 50a and 51a.

Pronominal argument theory

Besides these three traditional nonconfigurational properties, more predictions about structure are made by one particular theory of nonconfigurationality, namely the pronominal argument theory. Certain features that commonly occur in languages that allow lexical arguments tend not to occur in pronominal argument languages and can be argued to be incompatible with pronominal argument structure; these include, among other things, determiners, nonreferential quantifiers, adpositions that take lexical noun objects, and embedded subordinate clauses that are not nominalized or adjoined (Baker 1996; Faltz 2000; Willie and Jelinek 2000; Baker 2001a; 2001b; Hale,

Jelinek, and Willie 2003). Most of these features are fully present in Classical Greek, and either not present or less fully developed in Homeric Greek. In what follows, I will limit myself to briefly describing the main arguments put forward about why these elements are not present in pronominal argument languages, and pointing out correspondences to differences between Classical and Homeric Greek. I explore one of these correspondences, the prediction about nonreferential quantifiers, in depth in Chapters 3 and 4.

Pronominal argument languages tend to lack determiners (Baker 1996:244-56). This has been argued to follow from the same principle that is responsible for pronominal arguments being incorporated into verbs, which can be framed in purely syntactic terms as a requirement that phrases bearing theta-roles assigned by heads always be coindexed with morphemes attached to those heads (Baker 1996:17), or in semantically based terms as a ban on syntactically visible fully unsaturated predicates (Faltz 2000). Basically, the idea is that freestanding (unincorporated) NPs in pronominal argument languages may themselves contain incorporated pronominal arguments, which like definite determiners in lexical argument languages serve to turn predicative common nouns (syntactic NPs) into referential noun phrases (like syntactic DPs). In some languages, such as Warlpiri (Bittner and Hale 1995) and Mohawk (Baker 1996:127), bare nouns can be interpreted as definite or indefinite (79a-b).

(79) a. Maliki wiri-ngki ka-Ø-ju (ngaju) wajilipi-nyi
dog big-E_1 PRS-$3s_1$-$1s_2$ (me_2) chase-NPST
'A/the big dog is chasing me' (Bi95:84)

b. Érhar te-wak-atʌhutsóni
dog DUP-1sO-want/STAT
'I want a dog' OR 'I want the dog' (B96:253)

In others, they get a default definite interpretation. Faltz (2000:32-3) argues that common nouns in Navajo, which as lexical entries are fully unsaturated predicates (having the meaning (λx)boy(x), loosely speaking 'the property of being a boy'),

undergo obligatory definite closure when they appear as syntactically independent NPs, so that the meaning of a noun like 'boy', when it appears as an independent nominal, is (ιe_1)boy(e_1), or 'the one who is a boy'. Outside of copular and existential constructions, bare nouns in Navajo get a default definite interpretation, and indefinite particles must be used to get indefinite interpretations; of the examples in 80, neither 80a nor 80b can introduce an unfamiliar referent; 80c can introduce either a presuppositional specific or unfamiliar nonspecific referent (Willie and Jelinek 2000; Hale, Jelinek, and Willie 2003).

(80) a. at'ééd yicha
girl 3Subj-cry
"The girl (familiar, presuppositional), she is crying"
b. at'ééd ła' yicha
girl one 3Subj-cry
"One of the (presupposed set of) girls, she is crying"
c. at'ééd léi' yicha
girl a 3Subj-cry
"A/some/a certain girl (ambiguous), she is crying"
(H03:2-3)

If this is true, in many languages these incorporated arguments are often null, which would not be too surprising, since most of the time they would be third-person, and zero marking is common for third-person pronominal agreement (Baker 1996:244-56; Faltz 2000:33). In some languages, pronominal arguments identical to those that appear on the verb can also appear on nouns; in Nahautl, nouns can be inflected with the same (overt) first-, second-, and (zero) third-person pronominal affixes that appear on intransitive verbs; the resulting words can either be adjoined to a verbal clause or function as nominal clauses (81a-b) (Baker, 1996:248-252).

(81) a. n-oquich-tli (B96:248-252)
1sS-man-NSF/SG
'I, the man; I am a man'
b. am-oquich-tin

2PS-man-NSF/PL
'You men; you (pl.) are men'

c. Ø-oquich-tli
3S-man-NSF/SG
'the man; he is a man'

Mithun (2003) argues that, in general, pronominal affixes in pronominal argument languages are referential and definite, like independent pronouns like *he, she* and *it* in languages like English; indefinite non-specific reference is partly accomplished by various alternative strategies, mainly forms of detransitivization, noun incorporation and verbal derivation. In Yup'ik Eskimo and Navajo, when indefinite non-specific NPs, such as independent indefinite proforms (like *somebody* and *something*), are coindexed with definite pronominal arguments, they introduce hypothetical referents which serve as antecedents in an intraclausal version of the interclausal anaphora allowed between indefinite and definite pronouns in English (as in 'Somebody has been eating my porridge. He must have been very hungry'); compare the gloss for 80c above (Mithun 2003). There is parametric variation in pronominal versus lexical argument structure within the Athabaskan language family that suggests that when pronominal argument structure starts to become optional, indefinites are the first lexical nouns to be allowed to function directly as arguments; in Southern Athabaskan (including Navajo), no NPs appear in object argument positions, and object clitics are obligatory; in Northwestern Athabaskan, only indefinite NPs appear in object positions, and they are mutually exclusive with object clitics; in Northern Athabaskan, both definite and indefinite NPs may appear in object positions and are mutually exclusive with object clitics (Hale, Jelinek, and Willie 2003).

As was noted in section 1.1.1, Homeric Greek has no definite determiner; the element that becomes a definite determiner in Classical is still primarily a demonstrative in Homeric Greek (Monro 1891:232-4; Chantraine 1953:158-166). In Classical Greek, nouns with a determiner get a definite interpretation and bare nouns get an indefinite

interpretation (82a); in Homer, bare nouns are interpreted as definite or indefinite depending on context (82b).

(82) a. Ὁρῶσιν ἱππέας που πέραν τοῦ ποταμοῦ (Xen. *An.* 4.3.3)
They saw some horsemen in a spot across the river
b. ἐς κλισίην ἐλθόντες ἐπὶ κλισμοῖσι κάθιζον (Il. 11.623)
They went into the hut and sat down on chairs

One factor that may be relevant in this context and would be worth investigating is the extent to which nonreferential indefinite NPs tend to be semantically incorporated in Homeric Greek, as they appear to be in many of the most common verb plus object formulas:

(83) a. πότμον ἐπισπεῖν
Meet one's fate
b. (κατὰ) δάκρυ(ον)(α) χέειν/εἴβειν/λείβειν
Shed a tear/tears
c. (πρὸς) μῦθον εἰπεῖν
Make a speech (to); address

Definite articles are not found in early Indo-European languages, and no definite article is reconstructed for Indo-European (Hewson 1997).

Nonreferential determiner quantifiers such as *every, no,* and singular determiner *each*, along with pronominal counterparts like *everyone/body/thing* and *noone/body/thing*, are systematically absent from pronominal argument languages (Bach, Jelinek, Kratzer, and Partee 1995; Baker 1995; 1996:53-66). This is argued to follow either directly from the definiteness and referentiality of pronominal arguments that appear on verbs or from the same factors that rule out definite determiners; either truly nonreferential NPs do not make good antecedents for the intraclausal anaphora that as adjuncts they must participate in in order to appear in clauses (compare 'Every soldier$_i$ has a gun. *He$_i$ will shoot.') (Baker 1995) or the lack of bare common NPs means that

there are no suitable complements for determiner quantifiers (Hale, Jelinek, and Willie 2003). Homeric Greek for the most part lacks quantifiers corresponding to *every(one/ body/thing), no(one/body/thing),* as well as other quantifiers that this theory predicts will not occur, while Classical Greek develops them. This issue is explored in depth in Chapters 3 and 4.

Pronominal argument structure extends to adpositions. In lexical argument languages, adpositions, like nouns and verbs, are, in semantic terms, unsaturated predicates that combine with lexical arguments and, in syntactic terms, heads that assign theta-roles to lexical arguments. According to the pronominal argument theory, then, adpositions should either not occur as independent words, or should, like other predicates and heads, have their own pronominal arguments (Baker 1996:399-451; Faltz 2000). According to Baker (1996:399-451), pronominal argument languages tend to have adpositions that incorporate lexical arguments, or themselves incorporate into the verb complex, or if independent have their own pronominal arguments that adjunct lexical arguments can be coindexed with. In Navajo, these pronominal arguments are overt (Faltz 2000):

(84) a. Jooł bee naashné (F00:43)
Ball 3=INST 1SG=play=I
'I'm playing with the ball'

Such adpositions tend to have flexible positioning relative to the lexical nominals associated with them, to the extent that they can be separated from them by other material, and sometimes associate more closely with the verb than with those nominals (85a) (Faltz 2000).

(85) a. Báda'ólta'í ałchíní bilagáanak'ehjí yich'į yádaałti' (F00:43)
PL=teacher children in-English 3=to 3=PL=speak=I
'The teachers speak to the children in English'

One of the clearest differences between Homeric and Classical Greek, and one of the main differences cited as part of the theory of apposition, is that Homeric Greek lacks true prepositions while Classical Greek develops them. Horrocks (1981:90-163) argues that the same elements that in Classical Greek become either prepositions taking lexical nouns as complements or preverbs compounded with verbs, in Homer form a single category of adverbial particles that sometimes function independently, but more often have a dual prepositional and adverbial function, simultaneously qualifying the case ending of an adverbial noun phrase and modifying the meaning of the verb. In Homer, adverbial/adpositional particles have flexible positioning relative to nouns and verbs they associate with, whereas in Classical Greek they directly precede their nominal complements, or are inseparably prefixed to verbs (Horrocks 1981:143-48, etc.).

(86) a. βίοτον δ' ἀπὸ πάμπαν ὀλέσσει (Od. 2.49) (H80:100)
And will completely destroy my livelihood
b. λούσῃ ἄπο βρότον αἱματόεντα (Il. 14.7) (H80:100)
Washes away the bloody gore
c. νηυσὶν ἔπι γλαφυρῇσιν ἐλαυνέμεν (Il. 5.327) (H80:107)
To drive them to the hollow ships
d. ἀπέδρασαν εἰς Κλαζομενάς (Xen. *Hell.* 1.1.10) (H80:145)
Ran away to Klazomenas
e. ἐκ Ῥόδου εἰς Ἑλλήσποντον εἰσέπλει (Xen. *Hell.* 1.1.2) (H80:145)
Sailed from Rhodes into the Hellespont

In Homer, noun phrases can still function as adverbial phrases by virtue of their case endings alone, whereas in Classical Greek adverbial noun phrases must be headed by prepositions (Kühner-Gerth 1898-1904/1955:448-453; Horrocks 1981:144-145) (87a-b repeated from 11a-b).

(87) a. πεδίον δ' ἀφίκοντο (Il. 24.329); κλισίην Πηληϊάδεω ἀφίκοντο (Il. 24.448)
Arrived at the plain; arrived at the tent of the son of Peleus
b. ἀφικνοῦνται ἐπὶ τὸν Μάσκαν ποταμόν (Xen. *Anab.* 1.5.4)

They arrived at the river Maskas

The situation reconstructed for Indo-European is about the same as what is found in Homer, whereas the behavior of such particles in Mycenean is very similar to that found in Classical Greek; this indicates that Homeric Greek is capable of preserving very archaic syntax (Horrocks 1981:143-48).

Noun phrase reflexives and reciprocals generally do not occur in pronominal argument languages; verbs with incorporated reflexive and reciprocal anaphors appear instead (Baker 1996:49-53; Willie and Jelinek 2000). At least two different arguments can be made about why this is the case. Baker (1996:49-53) argues that in Mohawk, the absence of NP reflexives and reciprocals results from violation of binding rules: NP reflexives and reciprocals cannot be adjuncts coindexed with pronominal arguments in object position, because this would force coindexing between the subject and object pronominal arguments, which in turn would violate the rule that pronominals must not have c-commanding antecedents (in 88a, both pro_i and pro_n must be coindexed with NP_k, which implies that they are also coindexed with each other).

(88) a. [S [NP_i Sak] [S [S [NP pro_i [VP like pro_n]]] [NP_k himself]]] (B96:49)

Willie and Jelinek (2000) argue that it results from detransitivization of the verb as a result of the incorporation of reflexive and reciprocal anaphors; verbs containing such anaphors are overtly marked as intransitive, and would be incapable of assigning case to any independent reflexives or reciprocals coindexed with the incorporated anaphors. In this area, there is either no correspondence, or perhaps a weak correspondence, to differences between Classical and Homeric Greek. Reflexive pronouns appear in many early Indo-European languages and a reflexive pronoun, **se(-), *swe(-)*, is generally reconstructed for Indo-European (Watkins 1998), though it has been suggested that this may have originally been not a reflexive but a third-person pronoun (Sihler 1995:373-4). There are some wrinkles in the Homeric situation, however. In Homeric

Greek, the descendant of **se(-), *swe(-)*, ἑέ, is used as both a third-person pronoun and a reflexive; first- and second-person pronouns are used as first- and second-person reflexives; possessives related to ἑέ (ὅς, ἑός) and regular first- and second-person possessive pronouns are also used both ways; ἑέ is sometimes reinforced by intensive αὐτός, but this occurs in both reflexive and nonreflexive contexts, and αὐτός remains syntactically independent from the pronouns (Bolling 1947; Chantraine 1953:153-58). A similar situation exists in Old English, where the personal pronouns are used in both reflexive and non-reflexive contexts; when *-self* is added, it still has intensive meaning (Traugott 1972:88). In Classical Greek, there is a contrast between αὐτός in its role as a third-person pronoun (and certain forms of ἑέ) and the reflexive pronouns ἐμαυτοῦ, σεαυτοῦ, ἑαυτοῦ. The reciprocal pronoun ἀλλήλων appears in both Homeric and Classical Greek.

In this section, we have seen that the pronominal argument theory predicts that determiners, nonreferential quantifiers, and adpositions taking lexical arguments will not occur in pronominal argument languages, either as a direct result of the rule that predicates must be saturated before they can be syntactically realized, or as a result of the necessity for adjunct lexical nominals to be capable of coreferring with definite and referential pronominal arguments. There are strong correspondences between these three predictions and differences between Homeric and Classical Greek. It was also predicted, on somewhat different grounds, that NP reflexives and reciprocals will not occur in pronominal argument languages, and there the correspondence to differences between Homeric and Classical Greek did not hold up.

Clause combination

The pronominal argument theory also makes certain predictions about clause combination. In lexical argument languages, finite subordinate clauses can be

embedded in main clauses and act as modifiers of nominals (relative clauses, as in 89a) or arguments of verbal and nominal predicates (complement clauses, as in 89b).

(89) a. The cabbage that Alice chopped was red.
b. Nathalie saw that Alice had chopped the cabbage.

Relative clauses like the one in 89a are structures that turn whole clauses into predicates ('the property of having been chopped by Alice') which can then combine with nominal predicates ('the property of being cabbage') to form more complex predicates ('the property of being cabbage that has been chopped by Alice'); if unsaturated nominal predicates (nominals that have not undergone definite closure) cannot be syntactically realized, there will be nothing for such clauses to combine with, and they should not appear (Faltz 2000). Along the same lines, since arguments of heads must be morphologically realized as incorporated nominals or pronouns, complement clauses should no more be able to occur in argument positions than independent lexical nominals (Baker 1996:458-465).

This has three consequences for subordination in pronominal argument languages. First, paratactic clause combining strategies are often used in place of subordination; direct discourse may be used in place of indirect discourse, and conjunction may be used in place of complementation (Mithun 1984; Baker 1996:458-60). Second, finite subordinate clauses tend to be adjoined or to stand in relationships of apposition to incorporated arguments (Baker 1996:461-9). In Navajo internally headed adjoined relative clauses, the relative is predicated of its main clause argument via obligatory coreference with the head of the relative (Hale, Jelinek, and Willie 2003):

(90) a. adą́ą́dą́ą́' yiyiiłtsą́-nę́ę́ yidoots'os
yesterday 3Obj-3Subj-saw-REL 3Obj-3Subj-will kiss
"He$_i$ who saw her$_j$ yesterday, he$_i$ will kiss her$_j$"
(H03:16)

Mohawk complement clauses appear to stand in apposition to incorporated nominals; in 91a, the main clause verb contains an incorporated nominal *rihw* meaning 'matter, affair, fact' (Baker 1996:461-4), so that 91a means something like 'Sak approves the fact (that) he is willing to wash the car':

(91) a. Sak ro-rihw-a-nuhwé'-u a-ha-'sere-ht-óhare-'
Sak MsO-matter-Ø-like-stat OPT-MsS-car-NOM-wash-PUNC
'Sak has agreed to wash the car' (B96:462)

In many Australian languages, finite subordinate clauses of various types are adjoined, and have systems of subordinate clauses that work along the lines of the following system found in Warlpiri (Hale 1976). Warlpiri has adjoined finite relative clauses (92a) and adverbial clauses of various types, including temporal, conditional, counterfactual, causal and purpose clauses, which are introduced by overt complementizers attached to the left edge of the subordinate-clause AUX cluster (Hale 1976). These clauses are positioned only at the left or right margin of the main clause, not in the middle of it next to the modified NP; when the subordinate clause appears on the left (92b), it is more clearly set off from the main clause by intonation than when it appears on the right and an anaphoric element may optionally appear at the beginning of the main clause (92b) (Hale 1976). The meaning of relative clauses is ambiguous between an NP-relative and a temporal interpretation (92a-c) (Hale 1976).

(92) a. ŋatjulu-lu φ-na yankiri pantu-nu, kutja-lpa ŋapa ŋa-nu
I-erg AUX emu spear-past, COMP-AUX water drink-past
'I speared the emu which was/while it was drinking water'
b. yankiri-li kutja-lpa ŋapa ŋa-nu, ŋatjulu-lu φ-na pantu-nu
emu-erg COMP-AUX water drink-past I-erg AUX spear-past
'The emu which was drinking water, I speared it
While the emu was drinking water, I speared it'
c. yankiri-li kutja-lpa ŋapa ŋa-nu, ŋula φ-na pantu-nu ŋatjulu-lu
'The emu which was drinking water, that one I speared
While the emu was drinking water, then I speared it'
(H76:1-2)

Third, abundant use is made of various nonfinite or nominalized verb forms (Simpson, 1991:106-111, 139-148; Baker 1996:465-469). In Warlpiri, these may either appear at the margin of the main clause (93a) or, unlike subordinate clauses, may be embedded in the main clause (93b) (Hale 1976).

(93) a. ŋatjulu-lu φ-na wawiri luwa-nu, panka-njtja-kura (H76)
I-erg AUX kangaroo shoot-past, run-infinitive-COMP
'I shot the kangaroo while it was running'
b. panka-njtja-kura φ-na wawiri luwa-nu ŋatjulu-lu
run-infinitive-COMP AUX kangaroo shoot-past I-erg

The correspondences between these predictions and differences between Classical and Homeric Greek are strong. Finite subordinate clauses in Indo-European were adjoined rather than embedded; adjoined correlative clauses occur in many early Indo-European languages, and can be reconstructed for Indo-European (Kiparsky 1995). The three most prominent peculiarities of subordination in Homeric Greek are: a) abundant parataxis (cf. 1.1.2); b) heavier use of correlative structures, in which the subordinate clause is adjoined to the main clause rather than embedded in it, for all types of subordination including relatives, adverbials, and complements (cf. 1.1.2); and c) the use of non-finite verb forms, particularly infinitives, in situations where Classical Greek begins to use finite forms (cf. the final section of 2.1.3).

2.3 Conclusion

The aim of this chapter was to reframe both the orality and archaism theories by relating them to the rather enormous backlog of relevant empirical data and theoretical refinement that has built up in the discipline of linguistics since they were both initially put forward. The aim of sections 2.1.3 and 2.2.2 was to identify what sort of structural differences between Homeric and Classical Greek each theory predicts, based on evidence about the syntactic structures typical of spoken registers as opposed to written registers on the one hand and nonconfigurational as opposed to

configurational languages on the other. It was not possible to give more than a brief and superficial evaluation of how well these predictions match up to the facts about Homeric and Classical Greek; instead, the goal was to identify the overall range of predictions made by each theory, to point out areas where each initially appears to be correct or incorrect, and above all to compare the predictions to find out where they are similar and where they differ significantly. It will have been immediately apparent to the reader of sections 2.1.3 and 2.2.2 that there is significant overlap, at least in broad general terms, between the predictions of the orality and archaism theories; but there are also some differing predictions, which offer opportunities for comparative evaluation.

The following is a summary of the orality theory predictions identified in section 2.1.3 in bulleted list format. Homeric Greek, viewed primarily as a spoken register defined in opposition to written-register Classical Greek, should:

- Have a lower rate of occurrence of complex noun phrases relative to pronouns
- Have a lower rate of occurrence of features used to construct complex noun phrases, such as attributive adjectives, prepositional phrases, and attributive pre- and postmodifier participles
- As a highly inflected language, make more use of flexible word order for indicating information structure and breaking up information into small chunks that are easy to produce and process; this includes use of hyperbaton
- A wide variety of relative constructions show a special association with spoken registers in various languages; among these are correlatives in Russian, though the association is not at all consistent and they are a feature of written registers as well in some languages, such as Bengali, Classical Greek, and Medieval Russian; it may be that they are never a feature of written registers only
- Use, to some extent, coordination in place of adverbial subordination

- Have a high rate of occurrence of finite complement clauses
- Have a low rate of occurrence of nonfinite verb forms such as infinitives and participles

The following is a corresponding summary of the predictions identified in 2.2.2 for Homeric Greek viewed primarily as a language that is closer to the nonconfigurational end of the configurationality spectrum than Classical Greek, with nonconfigurationality defined primarily in terms of the pronominal argument theory; the following properties are predicted to occur in pronominal argument languages, which Homeric Greek is almost certainly not; they represent the extreme that it is hypothesized to approach more closely than Classical Greek:

- So-called free word order, consisting of
- Discourse configurational word order and
- Lack of a hierarchical verb phrase admitting lexical arguments
- Null anaphora (omission of subject and object pronouns)
- Discontinuous constituents (hyperbaton)
- Lack of a definite article
- Lack of nonreferential and/or strong determiner quantifiers
- Lack of lexical-argument-taking prepositions
- Lack of noun phrase reflexives and reciprocals
- Lack of embedded relative and complement clauses; in their place
- Parataxis as an alternative to subordination
- Adjoined finite relative and other subordinate clauses (this includes correlatives)
- Nonfinite subordination as an alternative to finite subordination

The area where these predictions differ most sharply is in the predictions made by the archaism theory but not the orality theory that, in so far as Homeric Greek preserves (highly) archaic pronominal argument syntax, it will lack a definite article, prepositional phrases, nonreferential quantifiers, and noun phrase reflexives and reciprocals, and that in so far as Classical Greek has gone further in discarding pronominal argument syntax, it will develop those features. Three of these predictions are correct; that is well-established for the definite article (Chantraine 1953:158-166) and for prepositional phrases (Horrocks 1981:143-148 etc.), but has not previously been established for quantifiers, which are the subject of Chapters 3 and 4.

3 Homeric and Classical Greek Quantifiers

In this chapter and the next, I present evidence from comparison of Homeric and Classical Greek mechanisms for the expression of quantification that supports the archaism theory of Homeric syntax. Homeric Greek has the kind of quantifier inventory and quantifier syntax typically found in pronominal argument languages, while Classical Greek develops structures that are typical of discourse configurational and configurational languages. This chapter is data-focused: I discuss, in turn, universal, negative, existential and partitive, and vague count and mass quantifiers in Homeric Greek and a sample of Classical Greek. In each section, I deal first with Classical Greek, to set up a basis against which to contrast Homeric Greek. Analysis of Homeric and Classical Greek quantifier semantics and syntax and their relation to syntactic typology follows in Chapter 4. Unless otherwise noted, generalizations for Classical Greek are based on a sample consisting of Xenophon's *Anabasis* and *Cyropaedia*, Plato's *Republic*, Thucydides' *History*, and the speeches of Demosthenes; for Homer on the complete text of the *Iliad* and *Odyssey*; and for Herodotus on the complete text of the *Histories*.

3.1 Universal quantifiers in Classical Greek

In both Homeric and Classical Greek, quantifiers have the morphological properties of adjectives, and share some of their syntactic behavior. Like other Greek adjectives, they inflect for case, number and gender, and may either modify a noun (1a and c) or stand on their own like pronouns (1b and d).

(1) a πᾶσαι αἱ πόλεις ἑκοῦσαι Κῦρον εἵλοντο (Xen. *An.* 1.9.9)
All the cities willingly chose Cyrus
b. οὐδεὶς ἔτι ἡμῖν μάχεται (Xen. *An.* 2.1.4)
Nobody is fighting against us anymore
c. πολλοὺς δ' ἄνδρας ἔπεφνεν ἐν αἰνῇ δηϊοτῆτι (Od. 11.516; 22.229)

And he killed many men in dread combat

d. νῆες δ' ὁδὸν ἀμφιέλισσαι / εἰρύαται· πᾶσιν γὰρ ἐπίστιόν ἐστιν ἑκάστῳ (Od. 6.265)
And double-turning ships are drawn up along the road; since for all of them there is a slip, for each one

The universal quantifiers in Classical Greek are πᾶς and ἕκαστος.[60] Πᾶς is more common than ἕκαστος and has a wider range of meaning. I will be distinguishing three different types of quantificational meaning handled by πᾶς. First is what I will call πᾶς-whole, which predicates various kinds of totality of singular and plural entities and abstracts (2a-c).

(2) a. ἀναλαβὼν τὴν πᾶσαν στρατιὰν ἐχώρει πρὸς τὰς Ἐπιπολάς (Thuc.7.43.2)
Taking the whole army, he set out for Epipolae

b. τούτων δὲ κατεχομένων οὐδ' ἂν οἱ πάντες ἄνθρωποι δύναιντ' ἂν διελθεῖν (Xen. *An.* 5.6.7)
With those (positions) occupied, all mankind couldn't get through it

c. βοηθήσειν παντὶ σθένει (Xen. *Cyr.* 8.5.25)
To help with all (your) strength

Second, πᾶς can be a kind or free-choice distributive, or a free-choice kind distributive, like English *every kind of*, free-choice *any*, or *any kind of* (3a-b).[61] It can be difficult to tell for sure exactly which of these is meant in a given context.

(3) a. πάσας προφάσεις προφασίζεσθέ (Pl. *Resp.* 475a1)
You make all kinds of excuses

b. πάντα οἶνον ἐπὶ πάσης προφάσεως ἀσπαζομένους (Pl. *Resp.* 475a6)
Welcoming any kind of wine on any pretext

[60] Πᾶς has some (less common) strengthened forms, such as ἅπας (intensive) σύμπας (collective) and συνάπας (collective intensive). Homer also has πρόπας. Most of the generalizations made here about πᾶς have also been checked out for ἅπας.

[61] There is no generally agreed-upon definition of the term 'free-choice quantifier'. What the term refers to are items like the English *any* that appears in sentences like 'Anyone could do that' (as distinct from polarity sensitive *any*, which appears in negative and other related contexts: 'I didn't see any deer today'). There is debate about whether free-choice items are best analyzed as basically universal (Dayal 2004) or basically indefinite (Giannakidou 2001).

Third, πᾶς has two types of universal quantifier meaning. It can be a plural universal, like English *all* (4a) (which is often ambiguous between a collective and a distributive reading), or a singular universal distributive, like English *every* (4b).

(4) a. πάντες γὰρ οἱ τῶν ἀρίστων Περσῶν παῖδες ἐπὶ ταῖς βασιλέως θύραις παιδεύονται (Xen. *An.* 1.9.3)
All the noblest Persians' children are educated at the King's court
b. πᾶς γὰρ ἀσκὸς δύ' ἄνδρας ἔξει τοῦ μὴ καταδῦναι (Xen. *An.* 3.5.12)
Every hide will keep two men from sinking

Ἕκαστος is always distributive (5a-b).

(5) a. ἐφ' ἑκάστης δὲ τῆς προδρομῆς πλέον ἢ δέκα ἅμαξαι πετρῶν ἀνηλίσκοντο. (Xen. *An.* 4.7.10)
With each sally, more than ten cartloads of stones were squandered
b. ἰδεῖν, ὡς ἕκασται αἱ ψυχαὶ ᾑροῦντο τοὺς βίους (Pl. *Resp.* 619e6)
to see how the souls (each) chose their lives

If ἕκαστος and singular πᾶς can both be universal distributive, what is the difference between them? It's very similar to the difference between English *each* and *every*. This is partly a matter of shade of meaning: *every* is universal distributive with the emphasis on the universal, and *each* is universal distributive with the emphasis on the distributive (*Oxford English Dictionary*, 1989). In the following examples with other universal or distributive elements in the predicates, the alternative, mismatched quantifier is possible but slightly less appropriate (6a-b):

(6) a. Anna has read every (each?) essay Orwell ever wrote.
b. Each (every?) Beatle has a different hairstyle.

Beyond that, English *each* is more strongly partitive than *every* or *all*, and therefore requires the presence of either an explicit partitive or some sort of set already established in the discourse which limits its domain; in (6) above, for example, the restriction 'essay written by Orwell' does not evoke any well-known definite set,

whereas the restriction 'Beatle' does. Related to the more tied-down nature of *each* and ἕκαστος is their relative unacceptability compared with *every* and *all* in most proverbial contexts (7a-b):

(7) a. πᾶν γὰρ ἑρπετὸν πληγῆι νέμεται (Heracl. Frag. 55)
Every beast is driven to pasture with blows
b. πάντων χρημάτων μέτρον ἐστὶν ἄνθρωπος (Protag. Frag. 1)
Man is the measure of all things

If you replace the non-anaphoric quantifier with the anaphoric one, the most natural reading is specific; you have to imagine some set, to each member of which the predicate applies (8a-b).

(8) a. ?ἕκαστον γὰρ ἑρπετὸν πληγῆι νέμεται
?Each beast is driven to pasture with blows
b. ?ἑκάστων χρημάτων μέτρον ἐστὶν ἄνθρωπος
?Man is the measure of each thing

That set does not have to be specific, though. *Each* is fine in generalizing statements if it is tied to a partitive (9a-b):

(9) a. All happy families are alike; every unhappy family is unhappy in its own way.
b. Furthermore, each member of an unhappy family is unhappy in his own way.

In the sections that follow it will become apparent that these various types of universal quantifier meaning are sometimes associated with different types of syntactic behavior. One recurrent pattern is that the singular quantifiers tend to behave differently than the plurals; another is that the kind-distributive/free choice singulars behave differently than the simple distributive singulars. I will primarily focus on the universal and distributive meanings of πᾶς, and usually leave aside the meaning πᾶς-whole. The diachronic relationship of πᾶς-whole with the universal and distributive

meanings of πᾶς will be discussed in more detail in the section on universal quantification in Homer.

3.1.1 In the phrase

In this section I present evidence that in Classical Greek, plural πᾶς and ἕκαστος form configurational quantifier phrases (QPs), while singular πᾶς and ἕκαστος may even form quantificational determiner phrases (DPs). The first kind of evidence comes from position in the nominal complex. Plurals and singulars behave differently. Plural πᾶς and ἕκαστος are usually contiguous with noun phrases they quantify over, but in a DP-external position, unlike attributive adjectives, which appear in a DP-internal position. Singular distributive πᾶς and sometimes ἕκαστος are in complementary distribution with the determiner. The second kind of evidence concerns discontinuity of quantifier and restriction (with quantifiers, this can be called 'floating' — in the sentence 'The children have all been given a balloon', *all* is floated). Again, plurals and singulars behave differently. Plural πᾶς and ἕκαστος can float, but they are less often floated than not. Singular distributive πᾶς and ἕκαστος are almost never floated. And finally, I discuss quantifier-noun order in continuous phrases; in Classical Greek, all types of universal quantifier are more often pre- than post-nominal.

Definiteness and relationship with the determiner

In definite noun phrases in Classical Greek, attributive adjectives must be directly preceded by the determiner ὁ (10a). If they are not preceded by a determiner, they are interpreted as predicates (10b).

(10) a. ἡ καλὴ πόλις; ἡ πόλις ἡ καλή; πόλις ἡ καλή
The beautiful city
b. καλὴ ἡ πόλις; ἡ πόλις καλή
The city is beautiful

The universal quantifier, however, occurs outside the determiner phrase, in what would be predicate position for an adjective (11a-b).[62]

(11) a. πᾶσαι αἱ πόλεις (and see 4a above)
All the cities
b. ἑκάστη ἡ πόλις (and see 5a-b above)
Each city

This difference in the distribution of adjectives and quantifiers suggests that they occupy distinct structural positions with respect to the noun phrase. Since attributive adjectives in definite noun phrases must always follow the determiner, they probably form phrases which can be taken as complements by determiners. Quantifiers, however, appear to be DP-external, possibly forming QPs that take DP complements (12a-b):

(12) a. [$_{QP}$ πᾶσαι [$_{DP}$ αἱ πόλεις]]
b. [$_{QP}$ ἑκάστη [$_{DP}$ ἡ πόλις]]

Singular distributive πᾶς does not co-occur with the determiner when it quantifies over definites.[63] Ἕκαστος sometimes does (see 5a-b above), but it can also appear alone, still with a definite interpretation (13a-b).

(13) a. πᾶσα πόλις, *πᾶσα ἡ πόλις/ἡ πᾶσα πόλις
every city
b. ἑκάστη πόλις
each city

[62] Πᾶς-whole, in contrast, can appear in either position, as can its synonym ὅλος. It is suggested in the grammars (Smyth 1956:296) that the two positions are associated with different meanings.

i) a. κατεκαύθη πᾶσα ἡ πόλις (Xen. *An.* 5.2.27)
All the city was burned down
b. ἡ πᾶσα πόλις
The city in its entirety
c. ὅλη ἡ ἡμέρα; ἡ ὅλη ἡμέρα
The whole day

[63] Except with participles, which may have a different structure.

The appearance of the two singular distributive quantifiers in complementary distribution with the determiner suggests that they may themselves (sometimes) belong to the category D, rather than Q (14a-b):

(14) a. [$_{DP}$ πᾶσα [$_{N}$ πόλις]]
b. [$_{DP}$ ἑκάστη [$_{N}$ πόλις]]

Quantifier order

Since the quantifier is DP-external, for those quantifiers that can co-occur with the determiner (ἕκαστος and plural πᾶς), there are four possible configurations for a continuous quantified phrase: Q[DP], [DP]Q; N[Q], Q[N] (15a-d).[64] In the Classical Greek sample, the configurations in which the quantifier precedes the DP are more common than those in which it follows the DP: Q[DP] occurs more often than [DP]Q, and Q[N] occurs more often than N[Q] (see Tables 1 and 2 in 3.4 below).[65]

(15) a. αὐτὸς δ' ἔμενεν ἀναχωρίσας ἅπαντας τοὺς πελταστάς (Xen. *An.* 5.2.10)
He himself remained, having held back all the peltasts
b. πρὸς πάσας μαθήσεις (Pl. *Resp.* 527c6)
For all disciplines
c. ἦγεν ἕκαστος ὁ στρατηγὸς τὸν αὑτοῦ λόχον ἐπὶ κώμην (Xen. *An.* 6.3.2)
Each general led his own company against a village
d. ἐξιόντες δ' ἑκάστης ἡμέρας σὺν τοῖς ὑποζυγίοις (Xen. *An.* 6.6.1)
Going out each day with their pack animals

For distributive πᾶς singular, which does not co-occur with the determiner, the possibilities are limited to Q[N] and [N]Q. All instances in the sample are Q[N] (16a), with one pair of exceptions involving contrastive topics in a conjunction (16b).[66]

[64] The configurations DQN and (very occasionally) NDQ are also found, but they involve πᾶς-whole, which I am leaving aside for the most part.
[65] In unconjoined contiguous phrases with lexical restriction and no other modifiers.
[66] It is noted in Kühner-Gerth (1898-1904/1955:631) that article-replacing singular πᾶς is rarely postnominal.

(16) a. Οὐκοῦν οἶσθ' ὅτι ἀρχὴ παντὸς ἔργου μέγιστον (Pl. *Resp.* 377a12)
Don't you think the beginning is the greatest part of every labor?
b. σὺν δὲ σωφροσύνῃ καὶ φίλος πᾶς χρήσιμος καὶ θεράπων πᾶς ἀγαθός (Xen. *Cyr.* 3.1.17)
But with moderation, every friend is useful and every servant good.

For all universal quantifiers in Classical Greek, QN order is more common than NQ order.

Discontinuity

As we have already seen, adjectives in Classical Greek can be discontinuous from nouns they modify; the most important form of modifier-noun discontinuity encodes strong focus (Devine and Stephens 2000:33-87).

(17) a. πραγματευόμενός τε οὐδὲ νῦν πω πέπαυμαι ὅ τι δύναμαι ἀγαθὸν ὑμῖν, τοιαύτην ἔχετε γνώμην περὶ ἐμοῦ (Xen. *An.* 7.6.35-6)
I who have even now not stopped trying to do what good I can for you, you have that kind of opinion of me
b. παῖς μέγας μικρὸν ἔχων χιτῶνα παῖδα μικρὸν μέγαν ἔχοντα χιτῶνα ἐκδύσας αὐτὸν τὸν μὲν ἑαυτοῦ ἐκεῖνον ἠμφίεσε (Xen. *Cyr.* 1.3.17)
A big boy who had a small tunic stripped a small boy who had a big tunic and put his own tunic on him

In English, quantifiers can float but adjectives cannot. It is common for languages which do not allow adjective-noun discontinuity to allow quantifier floating, but the reverse is not true; some sort of implicational universal is probably at work (compare the different rules for head-marking and dependent-marking nonconfigurational languages described in section 2.2). It is not surprising then that a language like Classical Greek, which allows 'floated' adjectives, also allows floated quantifiers. Nevertheless, though floated quantifiers do regularly occur, they are still less common than quantifiers in continuous phrases: the rate of discontinuity is around 25% (of 263 instances).[67] Rates of discontinuity are different for plural and singular quantifiers;

[67] Πᾶς plural in Plato *Republic,*Thucydides, Xenophon *Anabasis*, and Demosthenes 19-24.

plurals float much more easily than singulars. It is a bit difficult to tell because of small sample size with singular πᾶς, but floatability may also differ according to type of quantificational meaning, with kind-distributive singular πᾶς floating more easily than simple distributive singular πᾶς or ἕκαστος. Overall, plural πᾶς is most liable to be discontinuous (18a), followed at a distance by plural ἕκαστος (18b).

(18) a. καὶ κραυγῆς γενομένης εἰς τὰ ὅπλα πάντες ἔδραμον οἱ Ἕλληνες (Xen. *An.* 6.4.27)
There was shouting, and all the Greeks ran to their weapons
b. ἐπειδὴ χωρὶς ἕκαστα διῄρηται τὰ τῆς ψυχῆς εἴδη (Pl. *Resp.* 595a7)
Since each of the parts of the soul has been separately distinguished

There is one instance in the sample of discontinuous kind-distributive singular πᾶς (19a).[68]

(19) a. ἡ γὰρ κατὰ μικρὸν παράλλαξις πᾶσαν ποιεῖ φύσιν ὑποφέρειν τὰς μεταβολάς (Xen. *Cyr.* 6.2.29)
Gradual alteration makes every nature capable of tolerating changes.

There are no instances of discontinuous universal distributive singular πᾶς or ἕκαστος.

3.1.2 In the clause

In this section I look at two aspects of how universally quantified phrases relate to other elements in the clause. First, quantified subject phrases in Classical Greek usually agree in number with their verbs. Verbal number agreement with quantified subjects is not very interesting on its own, but it has to be documented here so that it can later be contrasted with the Homeric situation, in which singular quantified subject

[68] There is also one example in which kind-distributive πᾶς is separated from its restriction by a reporting clause.

i) a. Παντός, ἦν δ' ἐγώ, σπέρματος πέρι ἢ φυτοῦ, εἴτε ἐγγείων εἴτε τῶν ζῴων (Pl. *Resp.* 491d1)
Concerning every, I said, kind of seed or growth, either of vegetables or of animals

phrases with ἕκαστος usually appear with plural verbs. Second, though the most common location for the direct object in a Classical Greek sentence is directly preverbal focus position, QN-order universally quantified object phrases almost never appear there. In this case, there is no contrast; the same is true for Homeric Greek.

Verbal number agreement

In the Classical Greek sample, subject quantifier phrases with πᾶς always agree in number with their verb (see examples 4a and 18a above). This is also usually the case for subject ἕκαστος (20a), but singular ἕκαστος occasionally appears with a plural verb (20b) (the ratio is about 88% singular to 12% plural agreement with singular ἕκαστος).

(20) a. καὶ οἱ μὲν πελτασταὶ καὶ οἱ ψιλοὶ ἐσδραμόντες ἥρπαζον ὅ τι ἕκαστος ἐδύνατο (Xen *An.* 5.2.16.2)
And the peltasts and the light infantry, running in, snatched whatever each one was able to.

b. τέως μὲν αὐτοὺς ἀναβαίνοντας ὅπῃ ἐδύναντο ἕκαστος οἱ βάρβαροι ἐτόξευον καὶ ἔβαλλον (Xen. *An.* 4.2.12)
While they were climbing up by whatever route they were able, each one (of them), the natives shot arrows and threw rocks at them.

One way of analyzing the structure of these two sentences would be as follows. In 20a, the subject of the verb is filled by a variable that is bound by the quantifier — the meaning would be something like 'for each x, x snatched what he could'. In 20b, the subject of the verb is a definite pronoun that serves as the antecedent for a null definite partitive in the quantifier phrase — 'wherever they were able, each of them'. In Homer, ἕκαστος appears more often with plural verbs than with singular ones. If the analysis just given is correct, Classical Greek is preferring a structure that is based on variable binding, while Homeric Greek is preferring a structure that is based on coreference between definite pronouns.

Object position

In Classical Greek, probably the most common location for the direct object is focus position, directly preceding the verb. In the sample, pronominal or null-complement quantifier objects regularly appear in this position (21a).

(21) a. ᾧτινι ἐντυγχάνοιεν Ἕλληνι ἢ δούλῳ ἢ ἐλευθέρῳ πάντας ἔκτεινον. (Xen. *An.* 2.5.33)
Whoever they encountered who was Greek, slave or free, they killed them all

Q(D)N-order quantifiers occur more rarely in preverbal object position (22a-b).

(22) a. εἰς δὲ τὴν θυσίαν ταύτην καὶ τὴν πανήγυριν πάντας τοὺς τεχνίτας συνήγαγεν (Dem. 19 192.6)
And to the sacrifices and the festival he invited all sorts of craftsmen
b. ἀρξάμενος ἀπὸ τῶν θυρωρῶν πάντας τοὺς περὶ τὸ ἑαυτοῦ σῶμα θεραπευτῆρας ἐποιήσατο εὐνούχους (Xen. *Cyr.* 7.5.65)
Starting with the doorkeepers, he made all of his personal attendants eunuchs

More commonly found in preverbal focus position are (D)NQ-order phrases (23a), which share an important property with examples in which the quantifier is discontinuous from a noun that directly follows the verb (23b). In both of these configurations, the quantifier itself is probably standing alone in either a local or clausal focus position, and it appears right next to the verb. In 23a, the DP τοὺς ἄνδρας is a local topic, which accomplishes a shift from talking about ships to talking about men. The quantifier is more closely associated with the verb, and together with it answers the question 'what did they do to the men?' — 'they killed them all'. In 23b, the quantifier is again closely associated with the verb, but in this case the highly predictable noun is a tail rather than a topic.

(23) a. δυοῖν δὲ δεούσας εἴκοσιν οἱ Συρακόσιοι καὶ οἱ ξύμμαχοι ἔλαβον αὐτῶν καὶ τοὺς ἄνδρας πάντας ἀπέκτειναν. (Thuc. 7.53.3)

The Syracusans and their allies took eighteen of them and killed all the men.

b. καὶ πάντας ὠφελήσειεν ἀνθρώπους κοινῇ (Dem. 19 259)
And would be a benefit to all men in common

So, it is not impossible for QN-order quantified phrases to occur in preverbal focus position, but it is more common for the quantifier to appear there on its own, whether or not it has a restriction. Even in a highly configurational language like English, the universal quantifiers *all* and *each* (but not the determiner quantifier *every*) are floatable, so it is not too surprising that Homeric and Classical Greek agree on this point.

3.1.3 Summary

Classical Greek has two universal quantifiers, πᾶς and ἕκαστος, that have quantificational meaning in both plural and singular form. In their plural form, they form quantifier phrases in which the quantifier takes a DP complement (πάντες οἱ στρατιῶται, ἕκαστοι οἱ στρατιῶται). In their singular form, they can (or must, in the case of πᾶς) replace the determiner when quantifiying over definites (πᾶς στρατιώτης, ἕκαστος στρατιώτης), which may indicate that they are functioning as determiner quantifiers. The typical quantifier phrase has QN order and is continuous. Subject quantifier phrases agree in number with their verbs. QN-order continuous quantified object phrases only rarely appear in object position.

3.2 Universal quantifiers in Homeric Greek

The universal quantifier inventory of Homeric Greek differs from that of Classical Greek. In Homer, as in Classical Greek, the most important universal quantifiers are πᾶς and ἕκαστος, but for Homer, πᾶς in the singular is basically limited to its adjectival meaning of 'whole' (24a), and regularly functions as a universal quantifier only in the plural (24b).

(24) a. πᾶν δ' ἐξηράνθη πεδίον (Il 21.345)
The whole plain was dried up
b. κεχάροντο δὲ πάντες Ἀχαιοί (Od. 4.344)
All the Achaeans were delighted

Singular distributive universal πᾶς occurs only twice in the Homeric corpus (25a-b); one of these two examples is in apposition to a plural pronoun and participle, and occurs in the context of a simile (25b).

(25) a. ἦ γάρ κεν δειλός τε καὶ οὐτιδανὸς καλεοίμην / εἰ δὴ σοὶ πᾶν ἔργον ὑπείξομαι ὅττί κεν εἴπῃς (Il. 1.294)
For indeed I could be called a coward and a good-for-nothing if I yield to you in every action, whatever you may say.
b. οἳ δ' ἄλκιμον ἦτορ ἔχοντες / πρόσσω πᾶς πέτεται καὶ ἀμύνει οἷσι τέκεσσι (Il. 16.265)
But they, having stout heart, every one rushes forth and protects his children

There are nine instances of singular πᾶς that are of the free-choice or kind-distributive type (26a-b).

(26) a. Ἀρχέλοχός τ' Ἀκάμας τε μάχης εὖ εἰδότε πάσης (Il 2.823)
Archelochos and Akamas, well versed in every kind of warfare
b. πᾶσαν ἐπ' ἰθύν (Il. 6.79, Od 4.434)
For every kind of undertaking

Crosslinguistic parallels provide support for analyzing the virtual absence of singular universal distributive πᾶς in Homer in terms of diachronic change.[69] Adjectives meaning 'whole' are a common diachronic source of universal quantifiers meaning 'all'; in the Romance family, for example, there are several universal quantifiers descended from Latin *totus*, which can only mean 'whole', and ὅλος, which can only

[69] There are various accounts of the etymology of πᾶς. Brugmann (1894) links it to a Sanskrit participle **kuati* 'is swollen, is full'. Frisk (1960-72:477) comments that ἅπας is possibly identical to Sanskrit **saśvant* 'always repeating itself, uninterrupted, complete, all one after another, every' (which based on that collection of meanings could itself have already undergone this process); Brugmann explicitly rejects that account.

mean 'whole' in Ancient Greek, can be used as a universal quantifier in Modern Greek; there are parallel cases from Sanskrit, Gothic and German (Brugmann 1894). The generalization of meaning may be an example of grammaticalization via conceptual metonymic inferencing in a specific context (Hopper and Traugott 1993:80-87; Haspelmath 1995). In this case the enabling context could be the use of adjectives meaning 'whole' with group nouns: with a group noun, the meaning of a totality-predicating adjective could easily become ambiguous between a collective reading and a distributive one indicating that all the members of the group are involved (Brugmann 1894; Haspelmath 1995). If the whole group of Achaeans retreated, probably all the individual Achaeans did too.

Parallels for the apparent development of a quantifier meaning 'every' from a quantifier meaning 'all' come from not only Indo-European languages (Brugmann 1894) but also from Hebrew and Arabic, where (just as in Classical Greek) a quantifier meaning 'whole/all' means 'every' when used with a singular noun and no determiner; Portuguese *todo*, derived from Latin *totus*, illustrates both patterns (27a-b):

(27) a. *todas as casas* (H95:378)
All the houses
b. *toda casa*
Every house

It is also interesting to note, since there are more examples in Homer of kind-distributive or free-choice singular πᾶς than of the universal distributive type, that free-choice quantifiers are a common diachronic source of quantifiers meaning 'every'; (Haspelmath 1995). It looks as though, in Homeric Greek, the adjective πᾶς has traveled only the first part of this trajectory: it has already acquired a more abstract quantificational meaning, 'all', in the plural, but has not yet been extended to mean 'every' in the singular.

3.2.1 In the phrase

Homeric Greek does not have a determiner that marks definiteness, like Classical Greek ὁ. That means it is more difficult to tell what the structure of universal quantifier phrases is in Homer, because with no determiner, quantifiers cannot be obviously distinguished from attributive adjectives by being DP-external rather than DP-internal, or by standing in complementary distribution with the determiner. Their ability to appear in enjambement, however, may indicate that they are less tightly integrated with their nouns than restrictive adjectives are. The relative order of quantifier and noun differs in Homer for πᾶς and ἕκαστος. QN order is more common for πᾶς, but by a smaller margin than it was in Classical Greek (68% versus 77%). For ἕκαστος, which was also usually QN in Classical Greek, NQ is more common in Homer. A comparison of QN and NQ order quantifier phrases reveals that the order seems to have a lot to do with the pragmatic status of the quantifier and noun relative to one another. The rate of discontinuity between quantifier and restriction is higher in Homer than it was in Classical Greek; in Homer almost half of the quantifiers that have lexical restrictions are discontinuous from them, whereas in Classical Greek the rate of discontinuity was about 20%. Interestingly, one of the differences between singular and plural universals that was found in Classical Greek also holds up in Homer, for those singular universals that occur. In Classical Greek, the singular universals were never or almost never discontinuous from their singular restrictions. The same is true in Homer. Simple distributive πᾶς singular with a singular restriction occurs only once in Homer, as a continuous phrase. Singular ἕκαστος, when it has a singular restriction, is always continuous with it (though it frequently appears with plural nouns, and is discontinuous from them).

Definiteness and relationship with the determiner

As we have already seen, Homeric Greek, unlike Classical Greek, has no real definiteness-marking determiner, and the element that becomes a determiner in Classical Greek, ὁ, is still a demonstrative in Homeric Greek. In the first hundred lines of the Iliad, for instance, the priest Chryses is introduced as "that Chryses", τὸν Χρύσην (Il. 1.11), and thereafter referred to as Χρύσην (1.100, 390 etc.), which is the exact opposite of what would be expected for a definite determiner and of what actually occurs in Classical Greek, where new characters are introduced without a determiner but get one in subsequent references, as for instance in Thuc. 1.126 where Cylon is introduced as Κύλων and thereafter referred to as τῷ Κύλωνι and so forth. Bare nouns in Homeric Greek can be definite or indefinite (28a):

(28) a. ἀλλ' ἕνεκ' ἀρητῆρος, ὃν ἠτίμησ' Ἀγαμέμνων / οὐδ' ἀπέλυσε θύγατρα καὶ οὐκ ἀπεδέξατ' ἄποινα, / τοὔνεκ' ἀρ' ἄλγε' ἔδωκεν ἑκηβόλος
(Il. 1.94-6)
But on account of the priest, whom Agamemnon dishonored, and did not release his daughter, and did not accept the/a ransom, on account of this the far-shooter afflicted us with miseries

In Classical Greek, the position of quantifiers relative to the determiner distinguishes them from ordinary adjectives (29a-b), and the singular universal distributive quantifier πᾶς is in complementary distribution with the definite determiner. In Homeric Greek, it is more difficult to determine whether the relationship between a universal quantifier and its restriction is structurally different from the relationship between an ordinary adjective and the noun it modifies, because a quantifier-noun string looks just like an adjective-noun string (29c-d).

(29) a. πάντες οἱ ἄνθρωποι; οἱ πάντες ἄνθρωποι; πάντες ἄνθρωποι
All the people; the whole of the people; all people
b. οἱ καλοὶ ἄνθρωποι; καλοὶ ἄνθρωποι
The beautiful people; beautiful people

c. πάντες πελέκεες (cf. Il. 23.851)
   All the axes / all axes / the whole axes / whole axes
d. καλοὶ πελέκεες
   The beautiful axes/ beautiful axes

Some evidence for a syntactic distinction in Homeric Greek between quantifiers and ordinary adjectives comes from a difference in their acceptability in enjambement (Devine and Stephens 2000:197-202, using data from La Roche 1867 and Edwards 1966). Ordinary prenominal restrictive adjectives cannot be separated from their nouns by line end unless they are focused, but prenominal quantifiers, demonstratives, pronominal adjectives, location adjectives (the modifiers that appear in predicate position in Classical Greek) and a few other things can (30a-c):

(30) a. ὃς μέγα πάντων / Ἀργείων ἥνασσε (Il. 10.32-3)
   Who ruled all the Argives with great strength
b. κέκλετο δ' ἄλλους / Τρῶας φευγέμεναι (Il. 16.657-8)
   And he commanded the other Trojans to flee
c. ὀϊζύος ἥν ἐν ἐκείνῳ / δήμῳ ἀνέτλημεν (Od. 3.103) (D00:198)
   Of the misery that we endured in that country

Classical Greek makes a syntactic distinction between quantifiers and demonstratives on the one hand and ordinary adjectives on the other by placing them in distinct structural positions within the nominal complex. In Homeric Greek, a quantifier phrase would look just like an adjective phrase, but the evidence from enjambement suggests that quantifiers and demonstratives, even when directly prenominal, are less tightly integrated with their nouns than unfocused ordinary restrictive adjectives are.

Quantifier order

In the absence of a determiner, there are two possible configurations for a contiguous quantifier phrase in Homeric Greek, Q[N] and [N]Q. It turns out that there is a difference between πᾶς and ἕκαστος in this respect. For πᾶς plural, QN is more common than NQ, but by a lower margin in Homer than in Classical Greek: 68% of

examples are QN in Homer, while 77% are QN in Classical Greek.[70] For ἕκαστος however, Homer has more NQ than QN (31a-c), while Classical Greek had the reverse: QN examples are 25% of the total in Homer, versus 58% in the Classical Greek sample. The one instance of adnominal simple distributive πᾶς singular has QN order (25a above), as did almost all such phrases in the Classical Greek sample.

(31) a. ἔνθα διαγνῶναι χαλεπῶς ἦν ἄνδρα ἕκαστον (Il. 7.424)
There it was difficult to recognize each man
b. ἔγειρε δὲ φῶτα ἕκαστον (Il. 17.552)
And woke up each man
c. τοῖσιν ἕκαστος ἀνὴρ σημαινέτω οἷσί περ ἄρχει (Il. 2.805)
To them let each man give sign, just those he commands.

The preference for NQ order with ἕκαστος carries through in the only two instances where the same lexical item in the same case occurs in both orders, the pairs ἕκαστον φῶτ' (Od. 9.431) and φῶτα ἕκαστον (Il. 2.164, 2.180, 17.552; Od. 17.365), and φωτὶ ἑκάστῳ (Il. 13.230, 20.353; Od. 14.514) and ἑκάστῳ φωτὶ (Od. 2.384). It is worth noting in this context that singular ἕκαστος appears in this kind of configuration, contiguous with a lexical restriction with which it agrees, with only five different lexical items. Of the 28 examples, 24 are with either ἀνήρ or φώς, which are semantically very light.

For πᾶς plural in the *Iliad*, pre-nominal quantifier order is twice as common as post-nominal order; the ratio is QN (47) to NQ (22).[71] All but four of the NQ examples are neuter nominative or accusative, and about half of the QN examples are masculine nominative or accusative (with only two neuter nominative/accusative). Many neuter plural nouns have a dactylic metrical shape, which combines with postposed but not preposed trochaic πάντα. Does this mean that the order is just a matter of meter?

[70] In unconjoined contiguous phrases with lexical restriction and no other modifiers.
[71] In unconjoined contiguous phrases with lexical restriction and no other modifiers.

Meter is certainly playing a role, but there is more going on than that. First, the masculine nominative or accusative half (26) of the 47 QN examples are accounted for by five formulas involving three lexical items: πάντες Ἀχαιοὶ (5), πάντας Ἀχαιούς (5), πάντες ἄριστοι (2), πάντας ἀρίστους (9) and πᾶσι θεοῖσι(ν) (5). This has pragmatic consequences. These entities, the Achaeans, the best of the Achaeans, and the gods, are highly familiar in the Homeric context. They are prime candidates for tail status. A tail noun that constitutes the restriction of a quantifier is likely to form a configurational QN phrase with it; the quantifier will then be focused with respect to the noun at the phrase level, and the whole phrase will be treated as a unit at the clause level. In 32a, the important thing is not that the Achaeans see the gifts, but that all the Achaeans see the gifts; in 32b, there is contrastive focus on both πάντας and Ἀτρεΐδα.

(32) a. τὰ δὲ δῶρα ἄναξ ἀνδρῶν Ἀγαμέμνων / οἰσέτω ἐς μέσσην ἀγορήν, ἵνα πάντες Ἀχαιοὶ / ὀφθαλμοῖσιν ἴδωσι, σὺ δὲ φρεσὶ σῇσιν ἰανθῇς (Il 19.173)
Those gifts, let Agamemnon lord of men carry them into the middle of the assembly, so all the Achaeans can see them with their eyes, and you be delighted in your heart

b. καὶ λίσσετο πάντας Ἀχαιούς, / Ἀτρεΐδα δὲ μάλιστα δύω (Il. 1.15)
And he supplicated all the Achaeans, but especially the two Atreides

Neuters, in contrast, tend to be passive or existential subjects, or as objects tend to occur in list-type contexts. In 33a, ἕλκεα is topic with respect to the quantifier in preverbal focus position: 'the blood has been washed off, and the wounds are all closed'. In 33b, the noun is again topic with respect to the quantifier.

(33) a. περὶ δ' αἷμα νένιπται, / οὐδέ ποθι μιαρός· σὺν δ' ἕλκεα πάντα μέμυκεν (Il. 24.419-21)
The blood has been washed off, and there is no defilement; and the wounds are all closed

b. φύσας μέν ῥ' ἀπάνευθε τίθει πυρός, ὅπλά τε πάντα / λάρνακ' ἐς ἀργυρέην συλλέξατο (Il. 18.412-3)

The bellows he set away from the fire, and all the tools he collected in a silver chest

The few examples where the pattern is reversed, and a quantifier directly follows a masculine noun or precedes a neuter one, show the same relationship between word order and pragmatics. In 34a, the Myrmidons are a contrastive topic; their reaction to the armor of Hephaestus is being contrasted with that of Achilles. The quantifier πάντας has normal weak focus together with the verb. In 34b, the noun is extremely predictable in context, since it is the category that all the items in the preceding list belong to, while the quantifier is strongly focused in relation to it: 'when he had wrought *all* the gear' (contrast this with 34b, where comparable emphasis on the quantifier with respect to the noun would be out of place; also, note that 34b would not work if rephrased as 'when as for the gear, he had wrought it all').

(34) a. Μυρμιδόνας δ' ἄρα πάντας ἔλε τρόμος, οὐδέ τις ἔτλη ἄντην εἰσιδέειν, ἀλλ' ἔτρεσαν. αὐτὰρ Ἀχιλλεὺς ὡς εἶδ', ὥς μιν μᾶλλον ἔδυ χόλος (Il 19.14-16)
Trembling took hold of all the Myrmidons, and no one dared to face it, rather they shrank back. But Achilles, the longer he looked at it, the angrier he got

b. Αὐτὰρ ἐπεὶ δὴ τεῦξε σάκος μέγα τε στιβαρόν τε, / τεῦξ' ἄρα οἱ θώρηκα φαεινότερον πυρὸς αὐγῆς, / τεῦξε δέ οἱ κόρυθα βριαρὴν κροτάφοις ἀραρυῖαν / καλὴν δαιδαλέην, ἐπὶ δὲ χρύσεον λόφον ἧκε, / τεῦξε δέ οἱ κνημῖδας ἑανοῦ κασσιτέροιο. / Αὐτὰρ ἐπεὶ πάνθ' ὅπλα κάμε κλυτὸς ἀμφιγυήεις (Il. 18.609-614)
And when he had made the shield, big and sturdy, he made him a breastplate that was shinier than firelight, and made him a helmet that was sturdy and fitted to the temples, beautiful and intricately wrought, and on it put a golden crest, and he made him greaves of pliant tin. But when the famous crooked-legged one had wrought all the gear

Examples involving demonstratives, quantificational pronouns, and intensified forms of πᾶς were excluded from the sample used for the count and discussion above,[72] but it is interesting to look at them separately. When πᾶς-plural or one of its intensified forms occurs together with the quantificational pronoun ἄλλος, with or without an accompanying demonstrative or intervening particles and regardless of grammatical gender, the universal usually comes second (35a-e).

(35) a. εὗρον δ' εὐρύοπα Κρονίδην, περὶ δ' ἄλλοι ἅπαντες / εἵαθ' ὁμηγερέες μάκαρες θεοὶ αἰὲν ἐόντες (Il. 24.98-9)
They found the broad-browed son of Cronos, and around him all the others were sitting assembled, the blessed gods who live forever
b. Ἔνθ' ἄλλοι μὲν πάντες ἐπευφήμησαν Ἀχαιοὶ (Il. 1.22)
Then all the rest of the Achaeans gave assent
c. μίμνετε δ' ἄλλοι πάντες ἀολλέες (Il. 19.190)
All the rest of you stay here together
d. ἄλλά τε πάντα εἵλυται καθύπερθ' (Il. 12.285)
And all the rest is blanketed from above (when it snows; follows long list of specific things affected)
e. οἱ δ' ἄλλοι πάντες δίδοσαν (Od. 17.411)
And those others all contributed (in contrast with Antinoos)

If it is focused relative to the pronoun, however, it comes first. The focused examples involve intensified variants of πᾶς and an accompanying demonstrative (36a-b):

(36) a. ὃς κακὰ πόλλ' ἔρρεξεν ὅσ' οὐ σύμπαντες οἱ ἄλλοι (Il. 22.380)
Who has done more evils than all those others combined
b. τὸν ἔξοχα τῖες ἁπάντων τῶν ἄλλων ἑτάρων μετὰ Πάτροκλόν γε θανόντα (Od. 24.78-9)
Whom you honored above all those other companions after the death of Patroclus

In the one example of branching universal distributive πᾶς singular, the quantifier is pre-nominal and clearly focused (25a above).

[72] Inclusion of the intensified forms would not significantly affect the counts. Ἅπας does not occur with neuter plurals, and when it combines with masculine plurals it is usually preposed.

Discontinuity

In Homeric Greek, πᾶς plural is discontinuous from its restriction almost half the time (37a). In the Iliad, there are 116 continuous and 94 discontinuous instances (a rate of about 48%).[73] The rate of discontinuity is significantly higher than that found for πᾶς plural in the Classical Greek sample (about 25%). Ἕκαστος plural may also be discontinuous (37b).

(37) a. αὐτὰρ ἐπεὶ δὴ πάντες ἀολλίσθησαν Ἀχαιοί (Il. 19.54)
But when they were all assembled, the Achaeans
b. λῦτο δ' ἀγών, λαοί δὲ θοὰς ἐπὶ νῆας ἕκαστοι / ἐσκίδναντ' ἰέναι (Il. 24.1)
The assembly broke up, and the people each scattered to go to their swift ships.

In the Classical Greek sample, singular ἕκαστος was never discontinuous from a singular noun with which it agreed. The same is true in Homeric Greek. When ἕκαστος singular is discontinuous from its noun, the noun is plural, usually a topic, and the quantifier is a postverbal amplification or part of a separate pair-listing clause (38a-c).

(38) a. Οὗτοι ἄρ' ἡγεμόνες Δαναῶν ἕλον ἄνδρα ἕκαστος (Il. 16.351)
They, the leaders of the Danaans, killed a man, each one (or: "a man each")
b. Τρῶας δὲ τρόμος αἰνὸς ὑπήλυθε γυῖα ἕκαστον (Il. 7.215, 20.44)
A terrible trembling took hold of the Trojans at the knees, each one
c. ἵπποι δὲ παρ' ἅρμασιν οἷσιν ἕκαστος λωτὸν ἐρεπτόμενοι ἐλεόθρεπτόν τε σέλινον ἕστασαν (Il. 2.775)
The horses, each by his chariot, stood munching marsh parsley

The one Homeric example of branching πᾶς-*every* is continuous (25a above).

[73] With lexical restriction.

3.2.2 In the clause

At the clausal level, the main points of difference between Homeric and Classical Greek center on the same theme. Homeric Greek has a preference for performing distributive quantificational operations separately from the main predication of the sentence. This emerges in two different ways. First, the singular distributive quantifier ἕκαστος often appears together with plural verbs, nouns and pronouns, in variants on the basic structure 'they did it, each one'. Second, when ἕκαστος appears in the same sentence with another quantifier, they both tend to be shunted off into a separate small clause together, in variants on the pattern 'they followed, ten to each man'. Both of these structures have the effect of dividing the main predication and the distributive quantification into two separate operations. Classical Greek, in contrast, usually has singular agreement with ἕκαστος, and happily puts it and other quantified phrases together in the same clause with the main predication. A point of similarity between Homeric and Classical Greek is that in both of them, QN-order phrases are very rare in preverbal focus position.

Apposition to plural pronouns and nouns

In Homeric Greek, both πᾶς plural and ἕκαστος frequently appear together with personal or topicalized demonstrative pronouns (39a-f). With ἕκαστος singular, the pronoun is always plural.

(39) a. οἱ δ' ἄρα πάντες ἀκὴν ἐγένοντο σιωπῇ (Il. 7.92 and elsewhere)
And they all fell silent
b. οἳ δὲ κλῆρον ἐσημήναντο ἕκαστος (Il. 7.175)
And they marked a lot, each one
c. ἶσον γάρ σφιν πᾶσιν ἀπήχθετο κηρὶ μελαίνῃ (Il. 3.451)
For he was hated by them all equally as black death
d. παρὰ δέ σφιν ἑκάστῳ δίζυγες ἵπποι (Il 10.473)
And beside them, each one, were horses yoked in pairs
e. ἀλλ' ὑμεῖς μὲν πάντες ὕδωρ καὶ γαῖα γένοισθε (Il. 7.99)

May you all become water and earth

f. οὐδ' ὑμεῖς περ ἐνὶ φρεσὶ θέσθε ἑκάστη (Il. 4.729)
Nor did you remember, each of you

Sometimes there is also an amplifying noun (40a-b):

(40) a. οἳ δ' ἄρα πάντες ἐπίαχον υἷες Ἀχαιῶν (Il. 7.403, 9.50)
And they all shouted approval, the sons of the Achaeans

b. ἐν δ' ὑμῖν ἐρέω πάντεσσι φίλοισι (Il. 9.528)
I will tell of it among you all [who are] my friends

This construction, particularly the type with the topicalized demonstrative, is typically Homeric and is much less common in Classical Greek. The relationship between pragmatics and word order seems to be similar to that described earlier for quantifiers and their lexical restrictions. The pronoun and quantifier may be sitting in different clausal positions, usually with the pronoun in a topic position and the quantifier in a focus position. In 39e, for example, a topic pronoun, weak focus quantifier interpretation would be: 'as for you, may you all become water and earth', which seems likely, particularly since this line is followed shortly by a contrastive 'I will go out myself' (Il. 7.101)). It is also possible, however, that some such examples may involve appositional pronoun-quantifier units like English 'them all' (39c would be a candidate). The appearance of ἕκαστος with plural pronouns is significant, because it is part of a pattern of 'plural agreement' with ἕκαστος in Homer, as will be seen in the next section.

Verbal number agreement

Singular subject ἕκαστος in Homer usually appears with a plural verb (the ratio is 49 plural to 19 singular examples, or 72% plural); I will call this 'plural agreement' for now (41a-b). In the Iliad, the ratio of plural to singular agreement with subject pronoun ἕκαστος is about 3½:1 (33:9), whereas in the Odyssey it is about 1½:1 (16:10). So in both epics, plural agreement is more common than singular agreement,

but in the Iliad plural agreement is favored over singular by more than twice as much as it is in the Odyssey. The Odyssey has been dated later than the Iliad on the basis of statistical analysis of other linguistic criteria (Janko 1982:229-231). In Classical Greek, singular agreement with ἕκαστος was much more common than plural (88% singular, 12% plural).

(41) a. ἔνθα δὲ πῦρ κήαντο, τίθεντο δὲ δόρπα ἕκαστος (Il. 9.88)
There they lit a fire, and made their dinners, each one.
b. πάπτηνεν δὲ ἕκαστος ὅπῃ φύγοι αἰπὺν ὄλεθρον (Il. 16.283)
And each one looked for how he might flee sheer destruction.

Πᾶς plural and the one subject example of universal distributive πᾶς singular take normal verbal number agreement. If 'plural agreement' with singular distributive quantifiers is based on coreference via a null partitive of some kind ('they did it, each one of them'), as I suggested earlier, then Homer is using a structure that is based on coreference where Classical Greek uses one based on agreement.

Object position

As in Classical Greek, in Homeric Greek there is a preverbal focus position that is most often occupied by the object in transitive clauses. Null-head modifier πᾶς regularly appears in preverbal focus position (42a-b).

(42) a. Αἴας γὰρ μάλα πάντας ἐπῴχετο πολλὰ κελεύων (Il. 17.356)
Ajax was busily ranging around them all giving lots of orders
b. θεὸς διὰ πάντα τελευτᾷ (Il. 19.90)
The god accomplishes all things.

Πᾶς with a discontinuous restriction is usually in preverbal position, with the restriction in tail position (43a-c):

(43) a. ἔνθα δὲ πάντας ἐνίκα Καδμείωνας (Il. 23.680)
There, he bested all the Cadmeians

b. οἳ δὲ ἰαχῇ τε φόβῳ τε / πάσας πλῆσαν ὁδούς (Il. 16.374)
And those men, with shouting and fear, filled all the roads
c. μή τοι κατὰ πάντα φάγωσι / κτήματα (Od. 3.313)
Lest they gobble up all your possessions

NQ-order branching πᾶς can also appear in preverbal focus position (44a-c):

(44) a. οὔτ' αὐτὸς κτενέει ἀπό τ' ἄλλους πάντας ἐρύξει (Il. 24.156, 185)
He will not kill him himself, and he will hold back all the others
b. αἱ δὲ σπόγγοισι τραπέζας / πάσας ἀμφιμάσασθε (Od. 20.149)
And some of you clean all the tables with sponges
c. ἀμβροσίῃ μὲν πρῶτον ἀπὸ χροὸς ἱμερόεντος / λύματα πάντα κάθηρεν (Il. 14.171)
First, with ambrosia, she cleansed her lovely body of all impurities

There are only a few examples of QN-order branching πᾶς in focus position (45a-b).

(45) a. βῆ δὲ κατασχομένη ἑανῷ ἀργῆτι φαεινῷ / σιγῇ, πάσας δὲ Τρῳὰς λάθεν· ἦρχε δὲ δαίμων (Il. 3.419-20)
She went, covering herself with the shining silver robe, silently, and escaped the notice of all the Trojan women; and the goddess led her
b. Αὐτὰρ ἐπεὶ πάνθ' ὅπλα κάμε κλυτὸς ἀμφιγυήεις (Il 18.614)
But when the famous crooked-legged one had wrought all the gear

QN-order phrases with πᾶς are often in directly postverbal position (46a-b). There are parallel examples in which adverbial material intervenes between the verb and the postposed object (46c).

(46) a. αὐτὸς γὰρ χάρμῃ προκαλέσσατο πάντας ἀρίστους (Il. 7.285)
For he in his battle-lust called forth all the best men
b. θάμβος δ' ἔχε πάντας Ἀχαιούς (Il. 23.815)
Wonder held all the Achaeans
c. ἀλλ' ἀναχασσάμενος κάλει ἐνθάδε πάντας ἀρίστους (Il. 13.740)
Draw back and call all the best men over here

There is also a parallel example in which adverbial material intervenes between the postposed quantifier and its restriction; in this case it is conjoined and in contrastive focus with the possessive adjective modifying the other object (47a).

(47) a. ὡς σύ τ' ἐϋφρήνῃς πάντας παρὰ νηυσὶν Ἀχαιούς, / σούς τε μάλιστα ἕτας καὶ ἑταίρους (Il. 7.294)
So you may delight both all the men beside the ships, the Achaeans, and your (men) most of all, (your) kinsmen and companions

Null-head modifier object ἕκαστος can be pre- or postverbal in both plural (the plurals are all neuters, usually meaning 'every detail') and singular (48a-d). For the plural, the ratio is 7:16 pre- to post-verbal, and for the singular it is 1:7.

(48) a. ἐλθόντες δ' εἰς ἄντρον ἐθηεύμεσθα ἕκαστα (Od. 9.218)
When they entered the cave, they marvelled at all the various things
b. ἡ δ' εὖ δεξαμένη φιλέει καὶ ἕκαστα μεταλλᾷ (Od. 14.128)
And she receives them well and is hospitable and asks questions about every detail
c. τοὺς δ' ἐξ ἀλλάων πολίων οἶκόνδε ἕκαστον / πέμπον ἄγειν ἁλιεῦσι θοῇσ' ἐπὶ νηυσὶ τιθέντες (Od. 24.418)
Those from other cities, homeward each one they sent. for fishermen to carry, putting them on swift ships
d. αὐτὰρ ἐγὼ βούλευον, ὅπως ἐρέοιμι ἑκάστην. (Od. 11.229)
But I took thought, as to how I might question each one individually

Branching object QPs with ἕκαστος do not occur in directly preverbal position; they are usually directly postverbal (49a). The one preverbal example is separated from its verb by the subject, and relegated to a separate hemistich (49b), in a pattern that will be discussed in the next section.

(49) a. σοῖς ἀγανοῖς ἐπέεσσιν ἐρήτυε φῶτα ἕκαστον (Il. 2.164,180)
With your winning words hold back each man
b. τρεῖς δὲ ἕκαστον φῶτ' | ὄϊες φέρον· αὐτὰρ ἐγώ γε (Od. 9.431)
Three to each man, the sheep carried them; but I

The only candidate examples of preverbal branching object ἕκαστος are NQ order, with demonstratives (50a). The only discontinuous example is of the same type (50b).

(50) a. μή τι σὺ ταῦτα ἕκαστα διείρεο μηδὲ μετάλλα. (Il. 1.550)
Do not inquire about these things in detail, or ask questions
b. ἀλλὰ τί ἢ ἐμὲ ταῦτα διεξερέεσθε ἕκαστα; (Il. 10.432)
But why are you questioning me about these things, in detail?

This situation is similar to what was found for Classical Greek: QN-order universally quantified phrases in preverbal object position are very rare.

3.2.3 Separate hemistich quantification with ἕκαστος

In Homer, anaphoric pronouns usually agree in person and number with singular ἕκαστος rather than with a plural pronoun or verb. This makes it completely clear in certain examples that the distributive relationship and the nuclear predication are expressed in separate clauses, the nuclear predication in a finite main clause and the distributive relationship in an adjunct clause. Instead of "each one called out to his own horse", or even "they called out to their own horses, each one", it is "they called out, each to his own horse". The main clause and adjunct clause are usually separated by the main caesura (51a-b).

(51) a. — ⏑ ⏑ —— —⏑ | ⏑—⏑⏑ —⏑ ⏑—×
οἳ μὲν ἄρ' ἐσκίδναντο ἑὴν ἐπὶ νῆα ἕκαστος (Il 19.277)
But the others scattered, each one to his own ship.
b. — ⏑ ⏑———— ⏑ | ⏑ —⏑⏑ —⏑ ⏑— ×
καὶ κατεκοιμήθημεν ἐν ἕντεσιν οἷσιν ἕκαστος (Il. 11.731)
And we went to sleep, each one in his own armor

This pattern is also visible in examples that do not contain anaphoric pronouns (52a-d):

(52) a. δέκα δ' ἀνδρὶ ἑκάστῳ /νῆες ἕποντο θοαί (Il. 2.618)
Ten to each man, there followed swift ships

b. πολέες δ' ἐν νηΐ ἑκάστῃ / Ἀρκάδες ἄνδρες ἔβαινον (Il. 2.610-11)
Many in each ship, went Arcadian men
c. ἓξ δ' ἀφ' ἑκάστης νηὸς ἐϋκνήμιδες ἑταῖροι / ὤλονθ'· (Od. 9.60-61)
Six from each ship (of) my well-greaved companions died
d. πεντηκόσιοι δ' ἐν ἑκάστῃ / εἵατο, καὶ προὔχοντο ἑκάστοθι ἐννέα ταύρους (Od. 3.78)
Fifty in each, they were settled, and they sent forth from each nine bulls

This kind of structure seems designed to avoid what would otherwise be transitive clauses with multiple quantifier phrase arguments, or intransitive clauses with complex quantified subjects: *ten swift ships followed each man, many Arcadians went on each ship, [six comrades from each ship] died, [each of fifty settlements] sent nine bulls.* Clauses of that kind are rare or nonoccurring in Homeric Greek, but perfectly normal in Classical Greek (53a-c).

(53) a. ἐν δὲ ἑκάστῳ λόχῳ πεντηκοστύες ἦσαν τέσσαρες (Thuc. 5.68.3)
In each company there were four bodies of fifty
b. πέμψατε ἀπὸ λόχου ἕκαστος πέντε ἄνδρας τῶν σπουδαιοτάτων (Xen. *Cyr.* 4.2.45)
Send from each company five of the most zealous men
c. τὴν δὲ συμμορίαν ἑκάστῳ τῷ μέρει σφῶν αὐτῶν τρεῖς ἀποδοῦναι τριήρεις (Dem 14 18-19)
And that the symmory assign three triremes to each of its own parts

Homeric Greek seems to want to do its quantification in a separate operation, apart from the main predication of the sentence. In sentences with multiple quantified phrases like those in 53a-c, both operations are happening at once. In a sentence like 'ten to each man, there followed swift ships', the main predication and the quantification are communicated as two separate chunks of information: there are ships following, and the ratio of ships to men is ten to one. The general principle at work has something in common with the use of singular ἕκαστος in combination with plural verbs, pronouns and nouns. In sentences like 'they lit a fire and made their dinners, each one', two things are communicated separately: first the fact that fires

were lit and dinners made, and then the fact that there was a one-to-one relationship between men and fire-lighting and dinner-making events.

3.2.4 Summary

In Homeric Greek, πᾶς in the plural and ἕκαστος are regularly used as universal quantifiers; πᾶς in the singular occurs only a couple of times as a simple distributive and a few more times as a kind-distributive. Homer has no definite determiner, so there is no clear evidence from interaction with a determiner about quantifier phrase formation or quantificational determiner status for either universal quantifier. When it comes to continuity and quantifier-noun order, there are differences in behavior between πᾶς plural and ἕκαστος. Πᾶς plural is as likely to be discontinuous from its restriction as continuous with it; when it is continuous, it is usually pre-nominal. Ἕκαστος is often discontinuous from plural pronouns and nouns, but is never discontinuous from a singular restriction, and usually has NQ order. At the level of the clause, Homer has a preference for doing quantification separately from the main predication. Ἕκαστος usually appears with plural rather than singular verbs, and when it occurs together with another quantifier in the same sentence, they tend to be removed from the main clause and placed together in a separate small clause structure.

3.3 Universal quantifiers in Herodotus

In this section I look briefly at Herodotus, after comparing Classical and Homeric Greek, to see whether Herodotean Greek falls in between the two on any measures, or has any mixed behavior which could be explained by the language having been in transition from one state to another. It turns out that with respect to the universal quantifiers, Herodotus acts like Classical Greek on almost all measures, but does have one point of agreement with Homeric Greek, and falls in between the two on another measure.

In terms of quantifier inventory and relationship with the determiner, Herodotus is closer to Classical than Homeric Greek. Herodotus has the full range of quantifiers available in Classical Greek, as well as the determiner (54a-d). Distributive universal πᾶς singular is in complementary distribution with the determiner (54a), and quantifiers appear in predicate position, which distinguishes them clearly from ordinary adjectives (54b-c).

(54) a. Ἐφόρεε αὐτὴν ἀνὰ πᾶσαν ἡμέρην ἐς τὸ τῆς Ἑλένης ἱρόν (6.61.18)
She carried her every day to the shrine of Helen
b. Ὡς δὲ παρεγένοντο ἐς τὴν Αἴγιναν πᾶσαι αἱ νέες (8.132.1)
When all the ships arrived at Aegina
c. Ἅπαξ δὲ τοῦ ἐνιαυτοῦ ἑκάστου ὁ νομάρχης ἕκαστος ἐν τῷ ἑωυτοῦ νομῷ κιρνᾷ κρητῆρα οἴνου (4.65.11)
Once each year, each chief, in his own district, mixes a bowl of wine
d. κατὰ πόλις δὲ ἕκαστοι φεύξονται (8.68.22)
They will each-pl flee to their (own) city

At the level of the phrase, Herodotus again usually looks more like the Classical Greek sample than like Homer. In my count for quantifier order, Herodotus agreed with Homer in having NQ order for ἕκαστος (54c), but with Classical Greek in having a higher rate of QN order for πᾶς plural (54b). For ἕκαστος, Homer has 25% Q(D)N order, Herodotus 24%, and Classical Greek 58%. For πᾶς plural, Homer has 68% Q(D)N order, while both Herodotus and Classical Greek have 77%. Singular distributive universal πᾶς always has QN order in Herodotus, as it does in the Classical Greek sample (with one exception), and as it does in the one example of singular distributive universal πᾶς in Homer. The ratio of discontinuous to continuous quantifier phrases in Herodotus (31% of 269 instances) is in between the Classical Greek (25% of 263 instances) and Homeric (48% of 210 instances) rates, though closer to the Classical.

At the level of the clause, the behavior of the universal quantifiers in Herodotus resembles Classical Greek more than it does Homeric Greek. Apposition of quantifiers to pronouns is less common than it is in Homer, occurring at about the same rate as in Classical Greek. Verbal agreement with ἕκαστος is almost always singular. There are infrequent examples of branching QN-order quantifier phrases in preverbal object position (55a-b).

(55) a. Τούτων δὲ κατύπερθε πρὸς νότον ἄνεμον ἐν τῇ θηριώδεϊ οἰκέουσι Γαμφάσαντες, οἳ πάντα ἄνθρωπον φεύγουσι καὶ παντὸς ὁμιλίην (Hdt. 4.174.2)
Inland of those people in the direction of the south wind, in the beast-infested area, live the Garamantes, who avoid every human (or: everyone human) and the company of anyone
b. οἱ γὰρ Πέρσαι πάντας τοὺς Σκύθας καλέουσι Σάκας. (Hdt. 7.64.8)
For the Persians call all the Scythians Sakai.

But, as in both Classical and Homeric Greek, NQ-order phrases are much more common in that position. And, finally, there are examples of clauses that have multiple quantified arguments (56a-c).

(56) a. Ἡ δὲ ἰητρικὴ κατὰ τάδε σφι δέδασται· μιῆς νούσου ἕκαστος ἰητρός ἐστι καὶ οὐ πλεόνων.
Medicine is organized by them along the following lines: each man is a doctor of one disease and not of many.
b. ἀνέβαινε γὰρ ἕκαστος τῶν ἐρσένων τούτων εἴκοσι ἵππους. (Hdt. 192.16-17)
For each of those males mates with twenty mares
c. Εἰ γὰρ κείνων ἕκαστος δέκα ἀνδρῶν τῆς στρατιῆς τῆς ἐμῆς ἀντάξιός ἐστι (Hdt. 7.103.8-9)
For if each of those men is worth ten men of my army

Herodotus looks like the Classical Greek sample on all measures except quantifier-noun order with ἕκαστος (Herodotus' rate of Q(D)N to N(D)Q order matches the rate in Homer, rather than the rate in the Classical Greek sample) and a slightly higher rate of discontinuity.

3.4 Summary: Universal quantification

I have identified two basic kinds of differences in how Classical and Homeric Greek express universal quantification: differences in quantifier inventory, and differences in the syntactic behavior of quantifiers. Classical Greek has one universal quantifier that is basically lacking in Homeric Greek, the simple singular distributive πᾶς, meaning 'every'. Where Classical Greek has πᾶς plural 'all', πᾶς singular 'every', and ἕκαστος 'each', in Homeric Greek only πᾶς plural 'all' and ἕκαστος 'each' are present in full force, with πᾶς singular 'every' occurring only twice. This difference might seem unimportant at first, but when combined with other gaps I will describe later, it adds up to the conclusion that Homer lacks not just various specific quantifiers, but quantifiers that have specific properties.

Differences in syntactic behavior are present at both the phrasal and clausal level. In Classical Greek, evidence from interaction with the determiner suggests that universal quantifiers form configurational quantifier phrases, and possibly that the singular distributive quantifiers can act as quantificational determiners. In Homeric Greek that kind of evidence is not present because the determiner has not developed yet. There is a general increase between the Homeric and Classical periods in the ratio of Q(D)N to (D)NQ order for quantifiers that are contiguous with their restrictions; πᾶς plural, which was already more often QN in Homer, is even more often Q(D)N in Classical Greek (Table 2), and ἕκαστος, which was usually NQ in Homer, is usually Q(D)N in Classical Greek (Table 1).[74] Herodotus falls in between the two, agreeing with Homer on the order of ἕκαστος and Classical Greek on the order of πᾶς plural, which may

[74] Some of the counts discussed here and in what follows are statistically significant (differences between HG and CG in rates of occurrence of discontinuity with universal and vague count and mass quantifiers, for instance, and differences in rates of occurrence of QN versus NQ order with ἕκαστος) and some are not (differences between HG and CG in rates of occurrence of QN versus NQ order with πᾶς plural and upward monotonic vague count and mass quantifiers, for instance); some of the latter might be able to be made significant by increasing the size of the sample.

suggest a gradual shift. For ἕκαστος the combined rate of Q(D)N order is 25% in Homer, 23% in Herodotus, and 58% in Classical Greek. For πᾶς plural the combined rate of Q(D)N order is 68% in Homer, 77% in Herodotus, and 77% in Classical Greek.

Table 1: Quantifier order with ἕκαστος

ἕκαστος	Homer		Herodotus		Classical Greek	
	Total	%	Total	%	Total	%
NQ	21	75	56	62	17	24
QN	7	25	19	21	23	32
DNQ	—		12	13	13	18
QDN	—		3	3	19	26
Total	28	100	90	100	72	100

Table 2: Quantifier order with πᾶς

πᾶς plural	Homer *Il.*		Herodotus		Classical Greek	
	Total	%	Total	%	Total	%
NQ	22	32	11	7	7	4
QN	47	68	66	43	53	29
DNQ	—		24	16	35	19
QDN	—		51	34	88	48
Total	69	100	152	100	183	100

There is also a change in the rate of discontinuity of quantifiers from their agreeing restrictions. In Homer, the rate of discontinuity is about 48%. In Herodotus and Classical Greek, it hovers around 20%. If QN order phrases are syntactically more coherent than NQ ones, then these two shifts are probably related; Classical Greek likes to bind quantifiers together with their restrictions into larger units, while Homer likes to keep them separate. Homer also more often floats quantifiers off of overt demonstrative or personal pronouns. At the clausal level, there were two main differences in the behavior of the universals in Homeric and Classical Greek, and one similarity. First, as a subject, ἕκαστος usually appears with a plural verb in Homer, whereas it almost always appears with a singular verb in Classical Greek. Second, in

Homer, when ἕκαστος appears together in the same sentence with another quantifier, they tend to both be separated from the main clause in a separate small clause, as in: 'Ten to each man, there followed swift ships'. Classical Greek would happily render such a sentence as 'Each man was followed by ten swift ships'. And finally, both Homeric and Classical Greek have a restriction on the appearance of universally quantified object phrases with QN order in preverbal focus position; they are very rare, while two structures in which the quantifier likely sits alone in that position (NQ order and QVN-type discontinuity) are more common.

In the next section I will discuss negative and existential quantification. In Classical Greek these are handled separately for the most part, but in Homer they are two sides of the same coin and have to be considered together.

3.5 Negative quantifiers in Classical Greek

Classical Greek has a negative quantifier, οὐδείς, that like the universal quantifiers πᾶς and ἕκαστος can be either pronominal (57a) or adnominal (57b).[75]

(57) a. στρουθὸν δὲ οὐδεὶς ἔλαβεν (Xen. *An.* 1.5.3)
Nobody caught an ostrich.
b. ἄνευ δὲ εὐψυχίας οὐδεμία τέχνη πρὸς τοὺς κινδύνους ἰσχύει (Thuc. 2.87.4.5)
Without courage, no skill will have power in the face of danger

This is the plain negative form, though it originated as an emphatic, οὔδε ἕν, οὔδε εἷς (Chantraine 1968). Emphatic negatives are subject to frequent loss and renewal, and several rounds of loss and renewal have occurred in the recorded history of Greek

[75] In this section, general statements and counts include forms in both ου- and μη-. The variant οὐδαμός, which appears in Herodotus, does not appear in the Classical Greek sample, except as a base for adverbials such as οὐδαμοῦ "nowhere", οὐδαμόθεν "from nowhere", οὐδαμοῖ "to nowhere", and so forth.

(Kiparsky and Condoravdi 2006). The separate forms can still be used emphatically (58a):

(58) a. οὐδ' ἂν εἷς αὐτοῖς ἐπίστευεν, ὥσπερ οὐδὲ νῦν πιστεύει οὐδὲ εἷς ἔτι
(Xen. *Cyr.* 8.8.3)
Not one person would trust them, just as now not one person does still trust them

3.5.1 Definiteness and relationship with the determiner

The negative quantifier can take either an indefinite, agreeing restriction (59a), or a definite, partitive genitive one (59b).

(59) a. οὐδεμία πόλις; *οὐδεμία ἡ πόλις
No city
b. οὐδεμία τῶν πόλεων
None of the cities, none among the cities

There is no evidence from relationship with articulated agreeing restrictions about whether οὐδεμία πόλις is structurally a quantifier phrase [$_{QP}$ οὐδεμία [$_{DP}$ [$_{NP}$ πόλις]]] or a determiner phrase with a quantificational determiner [$_{DP}$ οὐδεμία [$_{NP}$ πόλις]]. One thing that counts against analyzing it as a quantificational determiner is that, unlike the Classical Greek singular distributive candidates for quantificational determiner status πᾶς-*every* and ἕκαστος, it can be discontinuous from its restriction, even in the singular (62a-b below).

3.5.2 Quantifier order

For πᾶς and ἕκαστος in both Classical and Homeric Greek, quantifier-noun order was largely pragmatically determined. When the noun was highly predictable and the quantifier was focused within the phrase, or the whole phrase was focused, the quantifier was preposed. When the noun was a local topic, it was preposed and the quantifier followed in focus position. The same is true for οὐδείς in Classical Greek.

In 60a, for example, δένδρον and θηρία are contrastive topics. In 60b, πόλιν is highly predictable in context and there is weak focus on the quantifier.

(60) a. δένδρον δ' οὐδὲν ἐνῆν, θηρία δὲ παντοῖα, πλεῖστοι ὄνοι ἄγριοι, πολλαὶ δὲ στρουθοὶ αἱ μεγάλαι (Xen. *An.* 1.5.2)
There were no trees in it, but there were wild beasts of all sorts, very many wild donkeys, but also many ostriches, the big ones
b. ἀποπλευσεῖσθαι ἔφη καὶ κηρύξειν μηδεμίαν πόλιν δέχεσθαι αὐτούς, ὡς πολεμίους (Xen. *An.* 6.6.9)
He said that he was going to sail away, and give orders that no city should receive them, since they were enemies

This again suggests that only preposed quantifiers form demonstrably continuous branching phrases with their restrictions. The idea that only QN-order quantifier-noun strings are actually continuous quantifier phrases will be relevant not only for gauging the relative rates of occurrence of continuous quantifier phrases in Homeric and Classical Greek, but also for determining what, if any, are the constraints on quantified objects in preverbal focus position at each stage. In the Classical Greek sample, the ratio of QN:NQ order for οὐδεις is about 1:2, or about 33% QN. This contrasts with the preference for QN order found with the universals.

3.5.3 Discontinuity

In the sample, adnominal οὐδείς is continuous about four times as often as it is discontinuous (22% discontinuity). With genitive restrictions, it is discontinuous almost twice as often (43% discontinuity), which suggests that genitive restrictions may be more loosely connected to their quantifiers than agreeing ones. In English, the pronominal negative quantifier 'none' can be separated from a genitive more easily than from an agreeing restriction (61a-d):

(61) a. Of all those cakes, there were none that she liked.
b. ?(All) those cakes, there were none (of them) that she liked.
c. She found none that she liked, of all those cakes.

d. *She found none that she liked, (all) those cakes.

Most of the discontinuous examples with οὐδείς are of the familiar head-interrupted type, where the quantifier is pre-head and bears strong focus. In 62a-b, there is contrastive focus on οὐδείς relative to a quantifier in the preceding clause.

(62) a. λαβὼν τὸ ἀμφ' αὑτὸν καὶ τοὺς γυμνῆτας πάντας, Ξενοφῶν δὲ σὺν τοῖς ὀπισθοφύλαξιν ὁπλίταις εἵπετο οὐδένα ἔχων γυμνῆτα (Xen. *An.* 4.1.6)
Taking his division plus all the light-armored infantry, and Xenophon followed with the rearguard hoplites, having no light infantry
b. ἤν τε εἷς πῃ δυνηθῇ τῶν λόχων ἐπὶ τὸ ἄκρον ἀναβῆναι, οὐδεὶς μηκέτι μείνῃ τῶν πολεμίων (Xen. *An.* 4.8.13)
If one of the companies can somehow climb to the top, no one of the enemy will endure any longer.

The rate of discontinuity found for adnominal οὐδείς (22%) is about the same as that found for πᾶς plural (25%).

3.5.4 Negative concord

Classical Greek allows negative concord; a negative head followed by one or more negative arguments expresses a single negation (63a-b) (Smyth 1956:628-629; Cooper and Krüger 1998:1122-1123; Kiparsky and Condoravdi 2006).

(63) a. καὶ οὔποτε ἐρεῖ οὐδεὶς ὡς ἐγὼ Ἕλληνας ἀγαγὼν εἰς τοὺς βαρβάρους (Xen. *An.* 1.3.5)
And never will anyone say that I, having led Greeks against the Persians
b. καὶ οὔτε ἐπέθετο οὐδεὶς οὐδαμόθεν οὔτε πρὸς τὴν γέφυραν οὐδεὶς ἦλθε τῶν πολεμίων (Xen. *An.* 2.4.23) (S56:628)
And no one attacked them from anywhere, nor did any of the enemy come toward the bridge

As we will see, negative concord of the type found in Classical Greek is not present in Homeric Greek.

3.5.5 Object position

Both pronominal οὐδείς and continuous phrases formed with adnominal οὐδείς appear in preverbal focus position (64a-e). As was argued above, possibly only preposed οὐδείς should be interpreted as forming a continuous phrase with its restriction. In 64b, for example, the noun may be a topic, and the quantifier in focus position: "excuses it provides none". Preposed οὐδείς in 64c however is probably part of a continuous phrase. The same pattern holds for genitive examples (64d-e).

(64) a. ὁ δὲ Κλέανδρος οὐδένα ἐπεπράκει (Xen. *An.* 7.2.6)
But Cleander had sold none of them
b. καὶ πρόφασιν οὐδεμίαν δίδωσιν (Dem. 43 53)
And it provides no excuse
c. καὶ πλέον ἢ πέντε μηνῶν οὐδένα λόγον ἐποιήσατο (Dem. 52 6-7)
And for more than five months he didn't say a word about it
d. οὐδὲν τούτων μέμνησθε (Xen. *An.* 5.8.25)
None of these things do you remember
e. ἡμῶν δ' οὐδεὶς οὐδὲν ἀντεπιμελεῖται (Xen. *An.* 3.1.16)
But as for us, no one is paying corresponding attention

QN-order universally quantified object phrases very rarely appear in preverbal focus position in Classical Greek; QN-order negatively quantified phrases appear there more often, though still at a lower rate than NQ phrases.

3.5.6 Summary

Classical Greek has a negative quantifier, οὐδείς, that takes indefinite agreeing and definite genitive restrictions. Οὐδείς differs from the universals in preferred order; where they were usually QN, it is more often NQ. Its rate of discontinuity is the same as that of the universals when it is adnominal (22%) but higher when the restriction is a partitive genitive (43%). Negatively quantified phrases appear more often with QN order in preverbal focus position than universally quantified phrases do.

3.6 Existential and partitive quantifiers in Classical Greek

Existential quantification is accomplished via the indefinite enclitic τις, which can be pronominal or adnominal. Greek indefinite and interrogative adverbs and pronouns are distinguished only by accent, with the interrogative tonic and the indefinite clitic: πότε/ποτε "when/sometime", ποῦ/που "where/somewhere", πῶς/πως "how/somehow". Τις is the enclitic indefinite half of such a pair; tonic τίς is the interrogative "who". It is cross-linguistically common for interrogatives and indefinite pronouns to be identical or closely related (Haspelmath 1997:26-27; Lyons 1999:150); the pattern occurs not only in Indo-European (Fortson 2004), but also in many other languages from unrelated families, including Native American (Mohawk: Baker 1995) and Australian languages (Dixon 1980:376). Ancient Greek τις covers a wide range of indefinite meanings (Kühner-Gerth 1898-1904/1955:662-666, Smyth 1956:310, Cooper and Krüger 1998:548-553). Like English *some(body)*, it can be non-specific (65a) or specific (65b) indefinite. It is sometimes used in cases when the identity of the referent is already known to the speaker but not to the audience, like English *a certain* (65c).

(65) a. παίοντα δ' αὐτὸν ἀκοντίζει τις παλτῷ ὑπὸ τὸν ὀφθαλμὸν βιαίως (Xen. *An.* 1.8.27)
But as he struck, somebody hit him hard with a spear under the eye
b. ἐν ᾧ Κῦρος ἀπέκτεινεν ἄνδρα Πέρσην Μεγαφέρνην, φοινικιστὴν βασίλειον, καὶ ἕτερόν τινα τῶν ὑπάρχων δυνάστην (Xen. *An.* 1.2.20)
At which time Cyrus executed a Persian man, Megaphernes, a wearer of the royal purple, and another powerful lieutenant
c. πλὴν Ἀπολλωνίδης τις (Xen. *An.* 3.1.26)
Except a certain Apollonides

Pronominal τις is also used, like English *one,* as a generic or arbitrary pronoun (66d). Adnominal τις can be used as a qualifier (66e), meaning "some sort of".[76]

[76] There is also a philosophical τις, used to distinguish an individual or particular instance of something from the abstract type, e.g. ὁ τις ἄνθρωπος "a particular person". It occurs in attributive position

(66) a. ἧσσόν τις ἐπ' ἀδίκοις ἔργοις λόγους καλοὺς ζητήσει (Thuc. 3.67.7)
One would be less likely to seek beautiful words for unjust actions
b. ἀριστοκρατίαν τινὰ ἐκ τῶν δυναστειῶν ποιήσαντες ἢ καί τινα βασιλείαν (Pl. *Leg.* 681d3)
Forming from the leadership some sort of aristocracy or even some sort of monarchy

So far, we have seen only existential and other non-partitive interpretations of τις. What about partitive interpretations? The English indefinite quantifier *some* can be existential (67a) or partitive (67b).

(67) a. Some ants are getting into the house.
b. Some ants are scouts, and some are members of the supply chain.

These are examples of weak and strong, or cardinal and quantificational, readings, in the sense of Milsark 1977; they are customarily distinguished in the literature by the spellings *sm* and SOME respectively (this reflects the fact that the two readings of *some* can usually be distinguished by the presence of stress; unfortunately, the correspondence is not perfect: if the quantifier is not stressed, it is cardinal, but if it is stressed, it is not necessarily quantificational).[77] The weak reading tells you something about the size of the set of ants, whereas the strong reading tells you something about the proportion of the set of ants for which the predicate is true. The overtly partitive form of the determiner (with *of the*) tends to be associated with the strong interpretation in English (68a), but it can get a weak interpretation if the set being referred to is established in the context (68b).

(68) a. SOME of the ants are scouts
b. *Sm* of the ants (the ones we've been watching on the fire escape all week) are getting into the house

---

(between an article and noun) only in that context (Cooper and Krüger 1998:548).

[77] Witness Milsark's (1977:19) example: "SOME unicorns got into the house, but not enough, thank God, to spoil the carpet" (with stress resulting from an implied contrast between the quantity of unicorns indicated by the existential quantifier and other possible quantities like MANY (on the weak reading "lots of") or FEW (on the weak reading "a few").

This is relevant because τις regularly appears with partitive genitives. Most of the time, however, it does not get a strong reading, even with in combination with a partitive (69a).

(69) a. ἐπακούσαντες δέ τινες τῶν στρατιωτῶν ταῦτα, ἢ καὶ τῶν λοχαγῶν τις διαγγέλλει εἰς τὸ στράτευμα (Xen. *An.* 7.1.14)
Either some of the soldiers overheard this, or maybe one of the company commanders passed it on to the army

There are a few cases in which τις must get a strong, partitive interpretation. Though it is a clitic and usually unaccented, there are scattered examples in Classical Greek prose in which τις appears clause-initially and is accented; this is true also for the other clitic pronouns. In the sample, there are four instances of this type. Some of them get a weak interpretation (70a). Others, such as (70b) are most likely partitive (the weak interpretation, that as for the crews, there were some that they killed and some that they took prisoner, is a bit of a stretch in the context).

(70) a. Ἦσαν ἐν Ὀλύνθῳ τῶν ἐν τοῖς πράγμασιν τινὲς μὲν Φιλίππου καὶ πάνθ' ὑπηρετοῦντες ἐκείνῳ, τινὲς δὲ τοῦ βελτίστου καὶ ὅπως μὴ δουλεύσουσιν οἱ πολῖται πράττοντες. (Dem. 9 56)
There were in Olynthus, among those in power, some who belonged to Philip and were utterly subservient to him, and some who were of the better sort and were acting to prevent the citizens from being enslaved.
b. ἄνδρας τε τοὺς μὲν ἀπέκτειναν, τινὰς δὲ καὶ ἐζώγρησαν (Thuc. 2.92)
As for the crews, some they killed, and some they took prisoner

This leads to the unexciting conclusion that τις is weak, except when it's not. Nevertheless, it will still be relevant for comparison with the Homeric situation to observe that Classical Greek τις seems to be basically weak, getting a strong reading only when it is behaving in a way that is unusual for it.

There are in Classical Greek a couple of other, less frequently occurring quantifiers that supply meanings not easily handled by clitic τις.[78] Though it does not normally occur as a negative polarity item in negative contexts, where it is supplanted by οὐδείς because of negative concord, τις does occur in conditional, interrogative and other negative polarity contexts (71a). If an emphatic is needed in such a context, the strengthened form ὁστισοῦν is used (71b-c).

(71) a. εἴ τίς τί σε ἐρωτᾷ (Pl. *Resp.* 337a7)
If anybody asked you anything
b. ἐν τῇ μὲν ὅτι ἀνωφελῆ καὶ πλέον οὐδέν, ἐν δὲ τῇ ὅτι τὰ μὲν αὐτῶν κἂν ὁστισοῦν εὕροι (Pl. *Resp.* 427a5-6)
In the one because they are useless and do nothing, and in the other because some of them anybody at all could discover
c. Ὃς ἂν ἐκ προνοίας τε καὶ ἀδίκως ὁντιναοῦν τῶν ἐμφυλίων αὐτόχειρ κτείνῃ (Pl. *Leg.* 871a2-3)
Whoever wrongly and with forethought kills with his own hand anyone at all of his tribesmen

There is also a non-clitic indefinite quantifier, ἔνιοι, that regularly gets a strong interpretation.[79] In the examples below, the quantifier picks out part of a group and predicates a particular property only of that part.

(72) a. ἔχοντες τούτους τε τοὺς πολυτελεῖς χιτῶνας καὶ τὰς ποικίλας ἀναξυρίδας, ἔνιοι δὲ καὶ στρεπτοὺς περὶ τοῖς τραχήλοις καὶ ψέλια περὶ ταῖς χερσίν (Xen. *An.* 1.5.8)
Though they were wearing their extravagant tunics and embroidered trousers, and some even necklaces around their necks and bracelets on their wrists.
b. ἅμα δὲ ἐπεδείκνυσαν τῶν ναρθήκων τὰς πληγὰς καὶ ἐν χερσὶ καὶ ἐν τραχήλοις, ἔνιοι δὲ καὶ ἐν προσώποις (Xen. *Cyr.* 2.3.20)

[78] The (usually indeclinable) ὁ δεῖνα, which is used to refer indirectly to some specific person, or to stand in for mention of a specific person, like English *so-and-so*, may also serve this purpose, since τις can be used in the same way.
[79] In *LSJ*, ἔνιοι is glossed as *some*. In the standard grammars, very little if anything is said about ἔνιοι; when it is mentioned, it is simply equated with τινες and Herodotean μετεξέτεροι (Cooper and Krüger 1998:2311-2312).

At the same time, they displayed the marks from the canes on their hands and necks, and some even on on their faces.

The difference between (unaccented) τις and ἔνιοι is further illustrated by their use in οἱ μέν...οἱ δέ constructions, which are contrastive (73a).[80] Τινες is frequently used together with οἱ μέν... οἱ δέ, which results in a strong, partitive reading (73b). Ἔνιοι is not used together with it, presumably either because it would be redundant, since ἔνιοι is contrastive on its own, or unnecessary, since ἔνιοι is regularly accented. Instead, like accented τις, it appears clause-initially, followed by the particle (73d). Occasionally (though not in the sample), τινες and ἔνιοι are used together, with τινες adding specificity (in 73d, Isocrates likely has specific writers, including Xenophon, in mind (Norlin 1945)).

(73) a. οἱ μὲν ἐπὶ τὸ δεξιὸν οἱ δὲ ἐπὶ τὸ εὐώνυμον (Xen. *An.* 4.8.17)
Some on the right and some on the left

b. οἱ μέν τινες ἔλεγον περὶ τοῦ Κύρου τοιάδε...οἱ δέ τινες αὐτῶν ἔλεγον (Xen. *Cyr.* 8.4.31)
Some said the following about Cyrus...and some of them said

c. τὰς δέ τινας ξηραίνοντες τραγήματα ἀπετίθεσαν (Xen. Anab. 2.3.15)
Some they dried and put away for dessert.

d. ἣν οἱ μὲν πολλοὶ μετρίως ἐπαινοῦσιν, ἔνιοι δέ τινες ὥσπερ τῶν ἡμιθέων ἐκεῖ πεπολιτευμένων μέμνηνται περὶ αὐτῶν (Isoc. *Panath.* 41)
Which many people praise in a measured way, but some people just as if their memory about them was that demigods ruled there

Classical Greek, then, has a clitic indefinite quantifier that is almost always weak, and a non-clitic indefinite quantifier that is strong.

[80] The prevalence of this construction should probably be considered an enabling factor supporting the non-partitivity of τις and infrequent occurrence of ἔνιοι. My subjective impression is that many or most contrastive and partitive situations in Classical Greek are handled by this construction alone, without any quantifiers involved.

3.6.1 Definiteness and relationship with the determiner

Like οὐδείς, τις can take an indefinite agreeing restriction (74a) or a definite partitive genitive one (74b).

(74) a. πόλις τις; *ἡ πόλις τις
Some city
b. τις τῶν πόλεων
One of the cities, some one among the cities

According to Cooper and Krüger (1998:199-200), τις never follows the article in an unmodified partitive genitive phrase (τῶν τις πόλεων) in Classical Greek except in Herodotus, where it does so regularly. The post-determiner positioning in Herodotus may be a side effect of the determiner still being more independent and demonstrative in Herodotus than in later authors (in the sample of universally quantified phrases, there were fewer articulated phrases overall in Herodotus than in the Attic sample).

3.6.2 Quantifier order

On the basis of a classification system that defines clitics as phrasal affixes and describes their distribution in terms of three binary parameters, defined as P1: Initial/Final, P2: Before/After, and P3: Proclitic/Enclititic (Klavans 1985), and assumes that clitics originate in the XP they would be immediately dominated by if they were ordinary words (Zwicky 1977, Kaisse 1982), τις in Classical Greek has been analysed as appearing in first or second position (P2: Before/After) with respect to the first constituent (P1: Initial) of its domain, where it attaches leftward phonologically (P3: Enclitic) (Taylor 1990:15-19, 131-164). On this analysis, adnominal τις originates in NP, but may move to other domains (Taylor 1990:138-143). In my sample, adnominal τις usually appears in second position in IP or VP (75a) or NP (75b).[81]

[81] In most cases, it is ambiguous whether a clitic in second position in the clause is in IP or VP; instances of unambiguous VP clitics are indirect object clitics in examples like Κροῖσος μὲν δὴ ταῦτά οἱ

(75) a. οἱ δὲ ὡς ἕκαστοί τινα εἶχον ἐλπίδα σωτηρίας (Thuc. 4.96)
And others in whatever way each had any hope of safety
b. πολέμιοι γὰρ ἄλλοι ἐφαίνοντο ἐπ' ἄκροις τισὶν ἰσχυροῖς (Xen. *An* 5.2.16)
Other enemy forces kept appearing in some secure high positions

Since the position of τις is partly determined by phonological rules specific to clitics, it differs from the other quantifiers I have looked at so far, in forming a continuous phrase with its nominal when it is postposed. Furthermore, though according to the analysis above τις can take either first or second position in its domain and thus can form a constituent with following nominals, in many such instances it is ambiguous whether the clitic is taking first position in NP or second position in IP (or VP), followed by a stranded noun (76a-b). At first glance these examples seem likely to be integrated, but in very similar examples adverbial material can intervene between the clitic and a following noun (76c-e).[82]

(76) a. ἐάν τέ τις θόρυβος γίγνηται, δεῖ ἐπισάξαι τὸν ἵππον Πέρσῃ ἀνδρὶ καὶ χαλινῶσαι (Xen. *An.* 3.4.35)
And if there is any disturbance, a Persian man has to saddle and bridle his horse
b. καί τινα ἐλπίδα εἶχον ἐς τὸ ἐγγυτέρω αὐτοὺς μὴ προϊέναι (Thuc. 2.21)
And they had any hope that it would not come into their near vicinity
c. κατὰ γῆν δὲ πόλεμος, ὅθεν τις καὶ δύναμις παρεγένετο, οὐδεὶς ξυνέστη (Thuc. 1.15)
As for a war on land, at least one from which any power arose, none occurred
d. ἐκλιποῦσα μὲν οὐδένα χρόνον τὸ παντάπασιν, ἐγένετο δέ τις ὅμως διοκωχή (Thuc. 3.87)
Having at no time left them completely, though there had been some cessation
e. καὶ γάρ τινα καὶ ὑποψίαν ὑπὸ τῶν παρόντων κακῶν ἐς ἀλλήλους εἶχον (Thuc. 6.103)

ὑπετίθετο (Her. 1.156) 'Croesus suggested these things to him' (Taylor 1990:144-46).

[82] In Thucydides, there are multiple examples of adverbial και between τις and a following noun, and there are no examples of και between a noun and following τις.

For they also even had, under their present bad circumstances, some suspicion against one another

In the case of τις the principle that postposed quantifiers are less likely and preposed quantifiers more likely to be integrated with the noun is reversed; it is postposed τις that is integrated and preposed τις that is often a separate phrase.

Another fact about the placement of τις lends support to the theory that QN-order quantifier phrases are more integrated than NQ ones, though the support again comes in the form of evidence about modifier-noun integration, which may or may not be relevant for quantifier-noun integration. As an NP clitic, τις appears in second position in AN-order adjectivally modified phrases (A τις N); it does not, however, appear in second position in NA-order phrases (*N τις A). Instead, in such phrases it follows the modifier (NA τις). This would be explained if in the latter case the N and the A are separate phrases, because if that were true the clitic would be in second position in its domain, the adjective phrase (Taylor 1990:141-143).

3.6.3 Discontinuity

In the sample, adnominal τις is continuous with agreeing restrictions about five times as often as it is discontinuous from them (34:7 for τις in the *Anabasis*). It is discontinuous from genitive restrictions somewhat more often, with a ratio of about 3:2 in favor of continuity (28:18 for τις in the *Anabasis*). The higher rate of discontinuity with genitives is probably partly to be accounted for by more topicalization of genitives (as in 77a).

(77) a. τῶν δὲ στρατιωτῶν ἀντέλεγόν τινες αὐτῷ μὴ ἰέναι πάντας τοὺς λοχαγοὺς καὶ στρατηγοὺς (Xen. *An.* 2.5.29)
As for the soldiers, some argued with him, saying that the company commanders and generals should not all go

Discontinuity with an agreeing nominal is usually the result of τις appearing in second position in IP instead of NP (see example 75a above). In this respect, the behavior of τις again differs because of its clitic status from that of the universal and negative quantifiers. Discontinuous universal and negative quantifiers were usually in strong contrastive focus in head-interrupted hyperbaton of the same type seen with strongly focused adjectives (Devine and Stephens 2000:33-87).

3.7 Existential and negative quantifiers in Classical Greek

Classical Greek has a lexical negative quantifier, οὐδείς. It also has a weak clitic indefinite quantifier, τις, and a non-clitic indefinite quantifier, ἔνιοι, that is regularly strong. These quantifiers can all be either pronominal or adnominal, and when adnominal they are more likely to form continuous phrases with their restrictions than to be discontinuous from them. Preposed adnominal οὐδείς is usually part of a continuous quantifier phrase, while postposed οὐδείς can usually be analyzed as involving a topic noun coindexed with a focused quantifier argument. The distribution of τις is determined by rules specific to clitics, but it is important to note that in Classical Greek τις can cliticise at the NP level, so it does clearly combine with NP into some kind of constituent. The negative quantifier οὐδείς can participate in negative concord. QN-order continuous object quantifier phrases with οὐδείς appear more often in preverbal focus position than their universally quantified counterparts did.

3.8 Existential and negative quantification in Homeric Greek

The negative quantifier οὐδείς is present only in very limited form in Homeric Greek. [83] Of the 21 instances in all of Homer, more than half are adverbial, in the form of the neuter accusative οὐδέν, which has emphatic negative meaning "in no way; not at all"

[83] Counts in this section are for the Iliad only unless otherwise specified.

(78a). As for the rest, there are two tokens of a formula with independent dative οὐδείς (78d), and six or seven instances of οὐδέν that are pronominal (78b) or adnominal (78c) rather than adverbial.[84]

(78) a. ἀλλ' ἐγὼ οὐδέν σε ῥέξω κακά (Il. 24.370)
But I will in no way do you harm
b. ὡς οὐδὲν γλύκιον ἧς πατρίδος οὐδὲ τοκήων γίνεται (Od. 9.34)
So nothing is sweeter than one's country and parents
c. τῇ μὲν κτέρας οὐδὲν ὁμοῖον (Il. 10.216)
To that one no gift will be equal.
d. ἀλλὰ πολὺ προθέεσκε, τὸ ὃν μένος οὐδενὶ εἴκων (Il. 22.459, Od. 11.515)
But he ran far forward, in his fury yielding to no one

There is no other lexical negative quantifier in Homeric Greek that corresponds in function to Classical Greek οὐδείς. Instead, negative quantification in Homeric Greek is normally expressed by the negative particle οὐ used together with the indefinite clitic τις (79a-b).

(79) a. οὔ τις ἐμεῦ ζῶντος καὶ ἐπὶ χθονὶ δερκομένοιο / σοὶ κοίλῃς παρὰ νηυσὶ βαρείας χεῖρας ἐποίσει / συμπάντων Δαναῶν (Il. 1.88)
No one while I am living and looking on the earth will lay heavy hands on you next to the hollow ships, of all the Achaeans
b. οὔτέ τί με δέος ἴσχει ἀκήριον οὔτέ τις ὄκνος (Il. 5.817)
No lifeless fear holds me back, and no hesitation

In Homer, the negative adverb οὐ appears in first or second position 95% of the time (74% first, 24% second), and is directly followed by the verb about 50% of the time; in Classical Greek, the rate of first position negation hovers around 60%, and the rate of coherence with the verb around 80% (Moorhouse 1959). At the same time, in Homer the enclitic pronouns take VIP (a VP indistinct from IP) as their domain 99% of the time regardless of where they might be thought to originate; this exends even to

[84] About two thirds of instances of οὐδείς in Homer occur in the Odyssey (13:8). Of the eight or nine non-adverbial examples, six are from the Odyssey.

arguments of subordinate infinitive and participial clauses (Taylor 1990:33-71, 50 as modified by Kiparsky 1996). Because of this, οὐ and τις are very often directly adjacent, so it is reasonable to wonder whether they are actually one lexical item masquerading as two separate words, like English *no one.* Examples in which they are separated by other particles provide clear evidence that they are separate words (80a-e).

(80) a. ὅσσ' οὔ πώ τις ἐῇ ἐπέδωκε θυγατρί (Il. 9.148, 290)
So many as no one has ever given with his daughter
b. οὐ γάρ τίς μ' ὑπὲρ αἶσαν ἀνὴρ Ἄϊδι προϊάψει (Il. 6.487)
For no man will send me to Hades contrary to fate
c. οὔ κέν τίς μιν ἐρύκακεν ἀντιβολήσας νόσφι θεῶν (Il. 12.465)
No one could have come up against him and warded him off, apart from the gods
d. ἐπεὶ οὐκ ἄρα τις χάρις ἦεν μάρνασθαι δηΐοισιν ἐπ' ἀνδράσι (Il. 9.316)
Since there was no gratitude for fighting against deadly enemies
e. τῶν δ' ἄλλων οὔ πέρ τιν' ἀναίνομαι οὐδ' ἀθερίζω (Od. 8.212)
Of the others I refuse not even one, nor scorn them

In the examples above, the effect of negative quantification is achieved by sentential negation scoping over an indefinite pronoun. When the indefinite occurs outside the scope of the negative, it gets an existential or specific reading. There are two instances in Homer where τις occurs together with sentential negation but outside its scope, and in both of them the quantifier is or could be interpreted as specific (81a-b).

(81) a. ἅ τιν' οὐ πείσεσθαι ὀΐω (Il. 1.289)
With regard to which I think someone will not obey him (someone = Agamemnon, the speaker)
b. ἀλλά τιν' οὐ φεύξεσθαι ὀΐομαι αἰπὺν ὄλεθρον (Od. 22.67)
But someone, I think, will not escape sheer destruction (someone = Eurylochos, the interlocutor)

In Homeric Greek, then, the standard mechanism for expressing negative quantification is not a lexical negative quantifier, but rather sentential negation scoping over an indefinite.

Existential quantification is expressed by τις, as it was in Classical Greek. As in Classical Greek, τις can be specific (82a), non-specific (82b), generic/arbitrary (82c), or qualifying (82d) (Kühner-Gerth 1898-1904/1955:662-666, Smyth 1956:310, Cooper and Krüger 2002:2308-2315).

(82) a. νῆσός τις Συρίη κικλήσκεται (Od. 15.403)
There is a certain island, called Syria
b. ἐπεί κέ τις ὀξέϊ χαλκῷ / τύψας ἠὲ βαλὼν ῥεθέων ἐκ θυμὸν ἕληται (Il. 22.67-8)
When someone, having struck or hit me with sharp bronze, takes the life from my limbs
c. ὣδε δέ τις εἴπεσκεν ἰδὼν ἐς πλησίον ἄλλον (Il. 2.271 and elsewhere)
So a man would say, looking at another nearby
d. μνημοσύνη τις ἔπειτα πυρὸς δηΐοιο γενέσθω (Il. 8.181)
Let it then be a kind of reminder of the deadly fire

The strong partitive quantifier ἔνιοι does not occur in Homer.[85] Contrast between various parts of a group is usually expressed via the combination of demonstrative pronouns and contrastive particles discussed above for Classical Greek, the pattern οἱ μέν...οἱ δέ (83a-b).

(83) a. αὐτὰρ ἐπεὶ κατὰ μὲν Τρώων θάνον ὅσσοι ἄριστοι, / πολλοὶ δ' Ἀργείων οἳ μὲν δάμεν, οἳ δὲ λίποντο, / πέρθετο δὲ Πριάμοιο πόλις δεκάτῳ ἐνιαυτῷ (Il. 12.13-15)
But when the best Trojans had died, and of the Achaeans many had been conquered and others had left, the city of Priam was sacked in the tenth year
b. οἳ δ' ἄλλοι πρὸς Ὄλυμπον ἴσαν θεοὶ αἰὲν ἐόντες, / οἳ μὲν χωόμενοι, οἳ δὲ μέγα κυδιόωντες (Il. 21.518-19)

[85] Nor does the emphatic indefinite ὁστισοῦν.

And the other immortal gods went toward Olympus, some angry, others very triumphant

Negative and existential quantification are done very differently in Homeric and Classical Greek. In terms of lexical inventory, where Classical Greek has a negative quantifier and two indefinite quantifiers, one a clitic that is almost always weak and one a non-clitic that is often strong, Homeric Greek has only a weak existential quantifier. In terms of syntax, Classical Greek quantifies at the phrase level, where Homeric Greek does more of its quantification at the clause level.

3.8.1 In the phrase

Because τις almost always occurs in second position, any element that wants to form a continuous constituent with it must appear either in first position or directly following second position. There are abundant examples in which τις is adjacent to an agreeing nominal or modifier, or a partitive genitive. Here are some examples with the agreeing element or genitive in first position (84a-c):

(84) a. ἀγγελίην τινά τοι γαιήοχε κυανοχαῖτα / ἦλθον δεῦρο φέρουσα παραὶ Διὸς αἰγιόχοιο (Il. 15.174)
A certain message for you, dark-haired earth-embracer, I came here bearing from the side of aegis-bearing Zeus

b. εἰσὶν μέν μοι παῖδες ἀμύμονες, εἰσὶ δὲ λαοὶ / καὶ πολέες, τῶν κέν τις ἐποιχόμενος καλέσειεν (Il. 10.171)
I have blameless sons, and many followers, some one of whom could go and call them

c. ὀλίγον δέ τί μ' ἦσσον ἐτίμα (Od. 15.365)
It was by a small amount that I was less honored

When there is negation, it follows the element in first position, separating it from the indefinite (85a-b). Adverbial negative polarity particles, which normally appear in between the negative adverb and indefinite pronouns in the clitic cluster, may also intervene (85c-d).

(85) a. ποινὴ δ' οὔ τις παιδὸς ἐγίγνετο τεθνηῶτος (Il. 13.659)
There was no blood price for his dead son
b. τῶν μή τις ὑπεκφύγοι αἰπὺν ὄλεθρον (Il. 6.57)
May none of them escape sheer destruction
c. τέλος δ' οὔ πώ τι πέφανται (Il. 2.122)
And no end has yet been seen
d. τῶν δ' ἄλλων οὔ πέρ τιν' ἀναίνομαι οὐδ' ἀθερίζω (Od. 8.212)
Of the others I refuse not even one, nor scorn them

Agreeing elements and genitives can also directly follow the clitic cluster (86a-c).

(86) a. ἤριπε δ' ὡς ὅτε τις δρῦς ἤριπεν ἢ ἀχερωΐς / ἠὲ πίτυς βλωθρή (Il. 13.389)
He fell, as when some oak falls, or a poplar, or a tall pine
b. ἵετο δ' αἰεὶ / ἠέ τινα Τρώων ἐρεβεννῇ νυκτὶ καλύψαι (Il. 13.425)
And was always eager either to cover some one of the Trojans with dark night
c. ἀλλά τις ἀρτιεπὴς καὶ ἐπίκλοπος ἔπλεο μύθων (Il. 22.281)
But you are someone quick with words and were tricky in your speech

Negation and clitic adverbials precede this type of potential phrase (87a).

(87) a. καλὰ μάλ', οἷ' οὔ πώ τις ἀνὴρ ὤμοισι φόρησεν (Il. 19.11)
Very beautiful, such as no man has ever worn on his shoulders

Definite pronominal clitics, however, usually follow indefinites in the second position cluster, and when they do, they separate the indefinite from anything that follows (88a-f).

(88) a. ἀλλ' εἴ τίς μοι ἀνὴρ ἅμ' ἕποιτο καὶ ἄλλος (Il. 10.222)
But if some other man were to go along with me
b. οὐκ οἶδ', ἤ τίς μιν θεὸς ὤρορεν (Od. 4.710)
I do not know if some god stirred him up
c. ἦλυθον εἴ τινά μοι κληηδόνα πατρὸς ἐνίσποις (Od. 4.316)
I came in hope that you might give me some news of my father
d. οὐκ ἄν τίς σε βροτῶν ἐπ' ἀπείρονα γαῖαν / νεικέοι (Od. 19.107)
No one of the mortals on the boundless earth would quarrel with you

f. φραζέσθω μή τίς οἱ ἀμείνων σεῖο μάχηται (Il. 5.411)
Let him take thought lest someone better than you fight against him

It is also common for τις to be separated from agreeing elements by all manner of non-clitic material (89a-f).

(89) a. εἴ τινά οἱ σὺν μῆτιν ἀμύμονα τεκτήναιτο (Il. 10.19)
If he might frame together with him some faultless plan
b. εἰ δέ τινα φρεσὶν ἧσι θεοπροπίην ἀλεείνει (Il. 11.794)
If in his heart he is trying to evade some oracle
c. ἤ τευ σῆμα βροτοῖο πάλαι κατατεθνηῶτος (Il. 23.331)
Either the grave of some long-dead mortal
d. μοῖραν δ' οὔ τινά φημι πεφυγμένον ἔμμεναι ἀνδρῶν (Il. 6.488)
I say that no one among men has ever escaped fate
e. οὐδ' ἄρα τίς σφι μετὰ φρεσὶ γίγνεται ἀλκή (Il. 4.245)
And there is no strength in their hearts
f. ὣδε δέ τις εἴπεσκεν Ἀχαιῶν τε Τρώων τε (Il. 3.319)
So a man would say, of the Achaeans and the Trojans

In Classical Greek, τις could cliticize at the NP level as well as at the clause level. In Homer, it almost always cliticizes at the clause level. That alone casts some doubt on the likelihood of τις forming continuous phrases with NPs, since its placement is defined in terms of the clause and not the phrase. Nevertheless, it seems possible that τις could be part of a continuous quantified phrase, as long as that phrase was located or relocated in a way that would allow τις to satisfy phonological constraints on clitic placement by appearing in second position. If that were the case, however, one would think that when there were other elements in second position, such as negation, indefinite adverbs, and definite pronouns, τις would appear at the edge of the clitic cluster so as to stick together with agreeing lexical material. But that is not what happens. Instead, it and other clitics seem to follow independent rules of clitic ordering within second position, while agreeing lexical items independently move around to topic, focus, and tail positions.

3.8.2 In the clause

The clausal syntactic behavior of τις is determined by its status as a second-position sentential clitic. Like other second-position indefinite clitics, it is sententially rather than lexically negated. Where English has negative polarity and Classical Greek negative concord, Homeric Greek has multiple indefinite clitics, including τις, appearing together under sentential negation. Since τις, as a sentential clitic, does not form branching noun phrases, there is no question of whether object phrases with τις appear in preverbal focus position.

Homeric Greek does not have negative concord. Multiple indefinites regularly appear under the scope of a single negation (90a-b).

(90) a. ἔνθ' οὔ τίς ποτε μῆτιν ὁμοιωθήμεναι ἄντην / ἤθελ' (Od. 3.120-1)
There no one ever tried to compete against him in craftiness
b. οὐδέ τί πῃ δύναμαι προχέειν ῥόον (Il. 21.219)
And I am not at all able to pour forth my current anywhere

There are no morphologically negative adverbials like those found in Classical Greek, nor are there special negative polarity forms like those found in English and other languages. Instead, the same indefinite adverbs appear in both positive and negative contexts (91a-d).

(91) a. καί ποτέ τοι τρὶς τόσσα παρέσσεται ἀγλαὰ δῶρα (Il. 1.213)
And someday there will be three times that many splendid gifts for you
b. οὐ μὲν σοί ποτε ἶσον ἔχω γέρας (Il. 1.163)
I never get a prize equal to you
c. ὦ 'Οδυσεῦ μάλα πώς με καθίκεο θυμὸν ἐνιπῇ / ἀργαλέῃ (Il. 14.104-5)
Odysseus, you somehow very much struck me at the heart with this harsh rebuke
d. οὐ γάρ πως ἂν γυμνὸς ἐὼν Τρώεσσι μάχοιτο (Il. 17.711)
For there is no way he would fight the Trojans unarmed

In Classical Greek, not only does negation get lexically combined with indefinites, but the lexical negative adverbs are themselves in turn usually closely associated with the verb phrase (92a-b).

(92) a. αἱ δὲ τοιαῦται δέσποιναι αἰκιζόμεναι τὰ σώματα τῶν ἀνθρώπων καὶ τὰς ψυχὰς καὶ τοὺς οἴκους οὔποτε λήγουσιν (Xen. *Oec.* 1.23.2)
Mistresses of that sort never cease tormenting the bodies and souls and households of men
b. πονηρία μὲν γὰρ ἀρετήν τε καὶ αὐτὴν οὔποτ' ἂν γνοίη (Pl. *Resp.* 409d8)
For badness could never understand both virtue and itself

In Homer, negation is usually sentential and the basic indefinite adverbs are always in second position. This is another area in which Homeric Greek prefers to do things at the level of the clause rather than at the level of the phrase.

Universally quantified QN-order branching phrases were very rare in preverbal focus position in Homer. Potentially branching phrases with τις do occur in preverbal position (93a-b).

(93) a. ἀλλ' ἄγε δή τινα μάντιν ἐρείομεν ἢ ἱερῆα (Il. 1.62)
But come, let us ask some soothsayer or priest
b. οὐ μὲν γάρ τι κακώτερον ἄλλο πάθοιμι (Il. 19.321)
I could not suffer anything else worse

As I argued above, however, the independence of clitic ordering within second position seems to argue against the integrated interpretation. If, for example, in 81a the exhortation was not just to call a soothsayer but to call a soothsayer for him, or me, or them, the definite pronominal clitic would likely be placed between the indefinite and noun. There are some examples in which adverbial particles break up a directly preverbal τις plus genitive string (94a-b).

(94) a. ἦν τινά που Δαναῶν προκαλέσσεται (Il.7.39)

If perhaps he will challenge someone of the Danaans

b. εἴ τινά που δηΐων ἕλοι (Il. 10.06)
If perhaps he could kill someone of the enemy

In the realm of negative and existential quantification, then, there are no clear cases of branching QN-order quantified phrases in focus position in Homeric Greek.

3.9 Existential and negative quantifiers in Herodotus

In Herodotus, negative and existential quantification are accomplished in much the same way as they are in Attic prose. Herodotus has the negative quantifier οὐδείς (95a). He also has both strong and weak indefinite quantifiers, the clitic τις that is usually weak (95b) and a couple of non-clitics that are usually strong. Ἔνιοι occurs only a few times in Herodotus (95c). More common is μετεξέτεροι, which seems to have the same function (95d).[86]

(95) a. οὐδέ σφι ἐκδίδοσθαι οὐδεὶς θυγατέρα ἐθέλει (Hdt. 2.47)
No one is willing to give his daughter in marriage to them

b. Εἰσὶ δέ τινες νομάδες ἄνθρωποι, Σαγάρτιοι καλεόμενοι (Hdt. 7.85)
There are some nomadic people called the Sagartians

c. ἐς τοσοῦτον θόρυβον ἀπίκοντο ὡς ἔνιοι τῶν στρατηγῶν οὐδὲ κυρωθῆναι ἔμενον τὸ προκείμενον πρῆγμα, ἀλλ' ἔς τε τὰς νέας ἐσέπιπτον καὶ <τὰ> ἱστία ἀείροντο ὡς ἀποπλευσόμενοι (Hdt. 8.56)
They fell into such confusion that some of the generals didn't wait for the question at hand to be decided, but rushed off to their ships and raised sail to run away.

d. οἰσύπῃ προβάτων καίουσι τὰς ἐν τῇσι κορυφῇσι φλέβας, μετεξέτεροι δὲ αὐτῶν τὰς ἐν τοῖσι κροτάφοισι (Hdt. 4.187)
They burn the veins in their scalps with wool fat, and some of them those in their temples

The syntactic behavior of the negative and existential quantifiers in the clause and phrase in Herodotus is basically similar to that of Attic prose. Τις can cliticise either at

[86] Μετεξέτεροι does not occur in Attic Greek, but it does occur in the Hippocratic Corpus, which shares Herodotus' Ionic dialect.

the clausal (96a) or phrasal level (96b). QN-order branching quantified phrases with οὐδεὶς can occur in object position.

(96) a. Ἡ δὲ Αἰγιναίη, τῆς ἐτριηράρχεε Ἀσωνίδης, καί τινά σφι θόρυβον παρέσχε (Hdt. 7.181)
The Aeginetan ship, whose captain was Asonides, even gave them some trouble
b. Οἱ δὲ Πελασγοὶ ἱρόν τινα λόγον περὶ αὐτοῦ ἔλεξαν (Hdt. 2.51)
The Pelasgians tell some holy story about this
c. καὶ ἑωυτῶν μὴ προκατημένων Ἴωνας οὐδεμίαν ἐλπίδα εἶχον χαίροντας πρὸς τῶν Περσέων ἀπαλλάξειν (Hdt. 9.106)
And without themselves defending them, they had no hope that the Ionians would escape the hands of the Persians without being punished

The existence of separate strong counterparts to τις in Herodotus and Attic Greek raises an important issue. The difference in existential and partitive quantification between Homer and Classical Greek is not just that Classical Greek developed another word for 'some', but that it developed a new type of quantifier that was not found in Homer. That Herodotus has the same type of new quantifier, but represented by a different lexical item, suggests that there is something more general and systematic going on than just vocabulary change.

3.10 Summary: Negative and existential quantification

In the section on universal quantification, I pointed out differences of both inventory and syntactic behavior of quantifiers between Homeric Greek and Classical Greek. In the realm of negative and existential quantification, there are the same two types of difference. Again, Classical Greek has quantifiers that Homeric Greek lacks. Classical Greek has a lexical negative quantifier, οὐδείς, a weak clitic indefinite/existential, τις, and a strong non-clitic indefinite/partitive, ἔνιοι. Homer has only the weak indefinite/existential clitic, τις, and no lexical negative or strong/partitive quantifier.

Instead, Homer uses other mechanisms to accomplish negative and strong/partitive indefinite quantification. Negative quantification is accomplished by sentential negation scoping over τις. Most situations calling for strong/partitive indefinite quantification are probably handled by the οἱ μὲν...οἱ δὲ construction.

These differences in inventory have more obvious syntactic correlates than did the differences found with the universals. For one thing, even the shared item, the clitic τις, is a different type of clitic in Homer than it is in Classical Greek. In Classical Greek, τις can take a DP or NP as its domain of cliticization; when it does, it forms a syntactic unit with its restriction. In Homeric Greek, τις is almost purely a sentential clitic, appearing in second position in the clause. Where Classical Greek has three different lexical quantifiers, all of which can combine with nominal restrictions to form larger syntactic units, Homeric Greek has one quantifier that does not. This means at minimum that in Homer, negative and existential quantification happen at the level of the sentence, while in Classical Greek, they more often happen at the level of the phrase.

3.11 Vague count and mass quantifiers in Classical Greek

Classical Greek has vague count and mass quantifiers, πολύς/πολλοί and ὄλιγος/ὀλίγοι, that like their English counterparts *many/much* and *few/little* can be either weak or strong. For these quantifiers, the weak reading tells you that the cardinality of the intersection of the restriction and predicate is large or small relative to some contextual domain, whereas the strong reading takes the cardinality of the intersection of the restriction and predicate and tells you whether it is large or small relative to the cardinality of the restriction as a whole. In 97a below, it is asserted that the number of cedars in the park is large, and the number of redwoods small; *many* and *few* are interpreted as weak. In 97b, it is asserted that the number of white boats is

large relative to the total number of boats in the harbor, and the number of yellow boats small.

(97) a. There were many cedars in the park, but few redwoods.
b. Many of the boats in the harbor are white; few are yellow.

Both readings are also available for the vague mass quantifiers (98a-b).

(98) a. They gave us much water but little food.
b. Much of the water was contaminated, and little of the food was edible.

In Classical Greek, the count and mass quantifiers are both formed from the same root; πολύς and ὀλίγος , which like other Greek quantifiers have the morphological characteristics of adjectives and inflect for case, number, and gender, can quantify over both grammatically plural count nouns and grammatically singular abstract and mass nouns. Here are some strong and weak examples of each (99a-d).

(99) a. ὁ δὲ πολὺς τοῦ λόγου τουτοισὶ ἔσται ὡς εἰσεποιήθησαν (Dem. 44 6.2)
The large part of their argument will be that they were adopted
b. πλὴν εἴ τι παρέλιπον ἐγὼ πρὸς ὀλίγον ὕδωρ ἀναγκαζόμενος λέγειν (Dem. 41 30.6-7)
Unless I have left something out because I am forced to speak with little water (remaining)
c. ταῦτ' ἐννοούμενοι καὶ ἀθύμως ἔχοντες ὀλίγοι μὲν αὐτῶν εἰς τὴν ἑσπέραν σίτου ἐγεύσαντο, ὀλίγοι δὲ πῦρ ἀνέκαυσαν, ἐπὶ δὲ τὰ ὅπλα πολλοὶ οὐκ ἦλθον ταύτην τὴν νύκτα (Xen. *An.* 3.1.3)
Having these things in mind and being dispirited, few of them tasted food in the evening, few burnt a fire, and many did not go to their camp that night
d. ἐντεῦθεν ἄνθρωποι μὲν πάνυ ὀλίγοι ἐλήφθησαν, βόες δὲ καὶ ὄνοι πολλοὶ καὶ πρόβατα
In that place very few men were captured, but many cattle and sheep

Vague count and mass quantifiers can also function as predicate adjectives (100a), and be coordinated with regular adjectives (100b).

(100) a. οὗτοι ὀλίγοι τε ἦσαν καὶ ὑπήκοοι τῶν Μοσσυνοίκων (Xen. *An.* 5.5.1)
These men were few and subject to the Mossunoikoi
b. ἡ δὲ ἄλλη χώρα καλὴ καὶ πολλή, καὶ κῶμαι ἐν αὐτῇ εἰσι πολλαὶ καὶ οἰκούμεναι (Xen. *An.* 6.4.6)
The rest of the country is beautiful and plentiful, and there are villages in it [that are] numerous and inhabited

Examples of this predicate type are very common in the Classical Greek sample, much more common than their English counterparts ('the reasons for not doing that are many and very convincing') which sound a bit old-fashioned.

3.11.1 In the phrase

In Classical Greek, the vague count and mass quantifiers can be either strong or weak. With an agreeing restriction, they are weak; with partitive genitive restriction, they are sometimes strong. Definite restrictions are usually partitive genitive, and indefinite restrictions agreeing, but when a definite restriction is agreeing, the quantifier appears in DP-internal position. Both types of phrase, those with agreeing and those with genitive restrictions, have Q(D)N order at a rate of about 65%, and are 90% continuous. So far then, in Classical Greek, the universals and the vague count and mass quantifiers are more likely to be Q(D)N than (D)NQ; only the negative quantifier is more likely to be (D)NQ. The vague count and mass quantifiers have the lowest rate of discontinuity yet: for πᾶς plural, the rate was about 25%, for οὐδείς with agreeing restriction 22% and with partitive genitive restriction 43%, whereas for vague count and mass quantifiers the rate is about 10% regardless of type of restriction. The lower rate of discontinuity may be accounted for by the predominance of weak readings, which are more adjectival than quantificational, since adjectives are in general less likely to float in Classical Greek than quantifiers are.

Definiteness and relationship with the determiner

Definiteness plays a role in the strong/weak distinction, both in English and Greek, as well as other languages. The most well-known test for quantifier strength is acceptibility in existential sentences; definites and strong quantifiers are unacceptable, while indefinites and weak quantifiers are acceptable (Milsark 1977).

(101) a. There is/are *the/every/all/SOME/most/both guest(s) in the garden.
b. There is/are a/some/no/few/many guest(s) in the garden.

Proportional readings are dependent on an overt or contextually established definite or specific restriction set. In English, determiner or adnominal vague quantifiers can be either weak or strong, but when they are combined with a definite partitive genitive restriction, it becomes much more difficult, if not impossible, to get a weak reading. if *many* in 102a is weak, a large number of salesmen walked in, and if it is strong, a large proportion of some definite set of salesmen walked in. In 102b, the weak reading is difficult or not available.

(102) a. Many salesmen walked in.
b. Many of the salesmen walked in.

In Classical Greek, adnominal πολλοί and ὀλίγοι get a weak interpretation, whether the agreeing noun is definite or indefinite.[87] Here are some examples with indefinite restrictions.

(103) a. ἐνταῦθα ἦσαν κῶμαι πολλαὶ μεσταὶ σίτου καὶ οἴνου (Xen. *An.* 1.4.19)
There were many villages there full of food and wine

[87] In Kühner-Gerth (1898-1904/1955:339), it is noted that adnominal πολλοί and ὀλίγοι and cardinal numerals, in contrast to πολλοί and ὀλίγοι and cardinal numerals with the partitive genitive, get an adjectival reading, or what would be described as a weak reading according to the criteria laid out above: 'πολλοί, ὀλίγοι ἄνθρωποι express a totality consisting of many or few people, a large or small number of people, just the same as οἱ πολέμιοι ἦσαν; τρεῖς ἡμεῖς ἦμεν, we were three in all, where one says in German: there were three of us [es waren unser drei], τρεῖς ἡμῶν ἦσαν, there were three of us [es waren drei von uns], of our number'.

b. καὶ αὐτὸν ἄνδρες ὀλίγοι ἐπήγοντο, ἑτοῖμοι ὄντες τὴν πόλιν παραδοῦναι (Thuc. 4.110.1)
And a few men invited him in, being prepared to betray the city

The universal quantifiers πᾶς and ἕκαστος occupy a DP-external position in the nominal complex, except for πᾶς on its adjectival meaning 'whole', which occupies a DP-internal position. Like adjectival πᾶς, the vague count/mass quantifiers are DP-internal. When they combine with an agreeing articulated noun, they follow the determiner and get a weak, adjectival interpretation.

(104) a. πάντες οἱ ἄνθρωποι
All the people
b. οἱ πάντες ἄνθρωποι
The people in their entirety
c. *πολλοὶ οἱ ἄνθρωποι, ὀλίγοι οἱ ἄνθρωποι
*(Many of the/the many) people, (few of the/the few) people
(OK as: The people are many, the people are few)
d. οἱ πολλοὶ ἄνθρωποι, οἱ ὀλίγοι ἄνθρωποι
The many people, the few people

With a definite partitive genitive restriction, strong readings are possible.

(105) a. ἐγὼ γάρ, ἔφη, οἶδα ὅτι ἕψονται πολλοὶ τῶν νέων ἐμοῦ ἡγουμένου (Xen. *An.* 4.1.27)
For I know, he said, that many of the young men will follow if I am the leader
b. "Ἐπὶ πάντας," ἔφη ὁ Ζεύς, "καὶ πάντες μετεχόντων· οὐ γὰρ ἂν γένοιντο πόλεις, εἰ ὀλίγοι αὐτῶν μετέχοιεν ὥσπερ ἄλλων τεχνῶν (Pl. *Prt.* 322c1-4)
"To all", said Zeus, "and let them all share; for they would not become cities, if few of them were to have a share, as they do of the other skills"

Greek differs from English, however, in that the presence of such a restriction does not guarantee a strong reading (106a-b). If you want to say that a bunch of footsoldiers died, and also some cavalrymen were killed, for example, you can say "many of the

footsoldiers died, and also some of the cavalrymen", without necessarily incurring a proportional interpretation.

(106) a. καὶ αὐτὸς ἀποθνῄσκει καὶ τῶν Χίων πολλοὶ καὶ ὅπλα ἐλήφθη πολλά (Thuc. 8.55)
Both he himself died and many of the Chians and a lot of weaponry was lost
b. Καλλίας δ' αὖ ὁ τῶν Ἀθηναίων στρατηγὸς καὶ οἱ ξυνάρχοντες τοὺς μὲν Μακεδόνας ἱππέας καὶ τῶν ξυμμάχων ὀλίγους ἐπὶ Ὀλύνθου ἀποπέμπουσιν (Thuc. 1.62)
Callias, the general of the Athenians, and his colleagues sent the Macedonian cavalry and a few of the allied forces to Olynthus

English *few* can be rendered unambiguously weak by the addition of an indefinite article or quantifier (107a-c). Even if a definite partitive genitive is added, the interpretation remains weak (107d-e).

(107) a. There are a few children in the park.
b. A few redwoods fell on cars.
c. Some few redwoods remain in the park.
d. There are a few of the children in the park.
e. Some few of the redwoods will be visible from the road.

Greek does not have an indefinite determiner, but ὀλίγοι can be combined with the indefinite quantifier τινες, yielding a clearly weak interpretation, also with or without a definite partitive restriction.

(108) a. τοὺς δ' ἐπελθόντας ὀλίγας τινὰς ἡμέρας ἐν τῇ γῇ μείναντας ἀπέπεμψεν ἐπ' οἴκου (Thuc. 8.71.3)
And the reinforcements he sent home after they had stayed some few days in the country
b. οὗτοι δὲ τοῖς Ἀθηναίοις ἐβεβοηθήκεσαν, καὶ Ἴμβριοι καὶ Λήμνιοι καὶ τῶν ἄλλων ὀλίγοι τινὲς ξυμμάχων (Thuc. 3.5)
These people had helped the Athenians, and [so had] the Imbrians and Lemnians and some few of the other allies.

So far I have been discussing only examples involving overt restrictions. What happens when the count and mass quantifiers stand on their own? They can be either weak or strong. Weak examples tend to be null-restriction quantifiers over highly predictable and therefore omissible nouns, with meanings like 'many men/women' (109a), or 'a lot of stuff/money' (109b).

(109) a. παρὰ δὲ βασιλέως πολλοὶ πρὸς Κῦρον ἀπῆλθον (Xen. *An.* 1.9.29)
Many people defected from the King to Cyrus

b. ἔστι δὴ λοιπόν, οἶμαι, πάντας εἰσφέρειν, ἂν πολλῶν δέῃ, πολλά, ἂν ὀλίγων, ὀλίγα. (Dem 1 20.6)
What is left, I think, is for everyone to contribute, if there is need of a lot, a lot, if of little, a little.

Strong examples refer back to an already established definite set (110a).

(110) a. οἱ δὲ Θρᾷκες ἠθροίζοντο οἱ διαφεύγοντες· πολλοὶ δὲ διέφευγον πελτασταὶ ὄντες ὁπλίτας ἐξ αὐτῶν τῶν χειρῶν (Xen. *An.* 6.3.4)
The Thracians who got away were gathering together; and many of them were escaping, since they were light-armored, out of the very hands of the hoplites

This last type is perhaps the most common strong type; a definite set is established in the context, and subsequent predications involve various proportions of that set.

When πολλοί or ὀλίγοι is itself articulated, it can get a comparative/superlative proportional interpretation (Smyth 1956:298, Kühner-Gerth 1898-1904/1955:635-37). "The many" means "the large part" which implies "the larger/est part". This configuration can be proportional not only with genitive restrictions (111a) but also with an agreeing topicalized restriction (111b).

(111) a. οἱ μὲν πολλοὶ τῶν Χίων οὐκ εἰδότες τὰ πρασσόμενα, οἱ δὲ ὀλίγοι καὶ ξυνειδότες (Thuc. 8.9.3)
That the majority of the Chians did not know what was being done, and the minority who were in on it…

b. καὶ οἰκίαι αἱ μὲν πολλαὶ ἐπεπτώκεσαν, ὀλίγαι δὲ περιῆσαν (Thuc. 1.89.3)
And as for houses, the majority had fallen down, but a few survived

The point that will be most important for later comparison with Homer is that, though weak readings are more common, there are unambiguous examples of strong readings of πολλοί and ὀλίγοι in Classical Greek.

Quantifier order

In the Classical Greek sample, QN order is almost twice as common as NQ order for branching continuous phrases with adnominal πολύς and ὀλίγος (Table 3).

Table 3: Quantifier order with adnominal πολύς and ὀλίγος in Xenophon[88]

	πολύς		ὀλίγος		Both	
	Total	%	Total	%	Total	%
QN	79	61	23	85	102	65
NQ	50	39	4	15	54	35
Total	129	100	27	100	156	100

The two orders are associated with different pragmatic configurations. The typical QN example involves weak focus on the entire phrase (112a-b).

(112)a. ὁ δ' Εὔνομος ὀλίγον χρόνον ὑπομείνας ἀπέπλει (Xen. *Hell.* 5.1.8)
Eunomos, having remained a short time, sailed away
b. ὅτι εἰδείη πολλοὺς ἀνθρώπους καὶ ἐς τοῦ περιπολάρχου καὶ ἄλλοσε κατ' οἰκίας ξυνιόντας (Thuc. 8.92.2)
That he knew that many people gathered at houses, both at the commander of the patrol's and elsewhere

In the typical NQ example, the noun is topic, and the quantifier focused (113a-b).

[88] For this and all other tables in this section, the sample for πολύς is all instances in the *Anabasis*, and for ὀλίγος all instances in Xenophon.

(113) a. ὑποψίας δὲ πολλὰς παρεῖχε τῇ τε παρανομίᾳ καὶ ζηλώσει τῶν βαρβάρων (Thuc. 1.132.2)
Suspicions, however, he incited in abundance, by means of his lawlessness and emulation of the barbarians

b. φεύγειν κελεύει ἅρματα ἐξαναστάντα δύο ἢ τρία καὶ ἵππους ὀλίγους (Xen. *Cyr.* 5.4.4)
He commanded two or three chariots and a few cavalrymen to get up and flee

QN order strings are more often continuous branching phrases, while NQ order strings are more likely to be distributed over separate functional projections. In this respect, the vague count and mass quantifiers resemble the other Classical Greek quantifiers I have looked at so far. The main point to keep in mind is that in Classical Greek the more coherent QN configuration is much more common than the less coherent NQ configuration.

Discontinuity

Adnominal πολύς and ὀλίγος are very rarely discontinuous from their restrictions in the Classical Greek sample; ninety percent of instances were continuous (Table 4).

Table 4: Continuity with adnominal πολύς and ὀλίγος in Xenophon

	πολύς		ὀλίγος		Both	
	Total	%	Total	%	Total	%
Continuous	129	91	27	87	156	90
Discontinuous	13	9	4	13	17	10
Total	142	100	31	100	173	100

From what few discontinuous examples there are, a couple of patterns are discernible. More common with these quantifiers than with the others seen so far are presentational verb raising constructions, where the preverbal noun is a topic and the quantifier a stranded focus (114a-f) (see Devine and Stephens 2006 on this pattern in Latin). The usual context is a list of events.

(114) a. νικᾶται καὶ τὸ ἄλλο τὸ περὶ τὸν Πεδάριτον, καὶ αὐτὸς ἀποθνῄσκει καὶ τῶν Χίων πολλοὶ καὶ ὅπλα ἐλήφθη πολλά (Thuc. 8.55.3)
The rest of the force surrounding Pedaritus was defeated, and he himself died, and many of the Chians, and weapons were lost in large numbers

b. ἄνθρωποι δ' ἐν τῶν τειχῶν τῇ ἁλώσει ἀπέθανον καὶ ἐζωγρήθησαν πολλοί, καὶ χρήματα πολλὰ τὰ ξύμπαντα ἑάλω (Thuc. 7.24.2)
Men, in the taking of the forts, were killed and captured in large numbers, and a lot of money was taken altogether

c. καὶ ἄνδρες τέ τινες ἀπέθανον αὐτῶν ὀλίγοι καὶ ὅπλα ἐλήφθη (Thuc. 4.56.1)
And a few men among them died, and weapons were seized

d. Λεοντῖνοι γὰρ ἀπελθόντων Ἀθηναίων ἐκ Σικελίας μετὰ τὴν ξύμβασιν πολίτας τε ἐπεγράψαντο πολλοὺς καὶ ὁ δῆμος τὴν γῆν ἐπενόει ἀναδάσασθαι (Thuc. 5.4.2)
The Leontines, when the Athenians left Sicily after the treaty, enrolled citizens in large numbers, and the commons was considering redistributing the land

e. καὶ ἄνδρας τέ τινας ἀπέκτειναν οὐ πολλούς (Thuc. 8.70.2)
And they killed a few men

f. καὶ ἐψηφίσαντο κινεῖν καὶ ναῦς πληροῦν οὐκ ὀλίγας (Thuc. 8.15.1)
And they voted to put it to use and man a large number of ships

Proportionally less common for these quantifiers is the quantifier-first head-interrupted type, which involves strong focus on the quantifier and a predictable tail noun (115a-b).

(115) a. ὀλίγῳ μὲν γὰρ στρατεύματι οὐ τολμήσει ἐφέπεσθαι· πολὺν δ' ἔχων στόλον οὐ δυνήσεται ταχέως πορεύεσθαι (Xen. *An.* 2.2.12)
For with a small army he will not dare to pursue us; but with a large force he will not be able to march quickly

b. καὶ πολλὴν εἶχον αἰτίαν (Xen. *An.* 7.7.57)
And they got a lot of blame (emphasized in context)

There are also a number of sentences with subjects in quantifier-first hyperbaton across the verb (116a-b). In these, the noun tends to be new information, and the quantifier closely associated with the verb: "There was a lot of x in the/at the…".

(116) a. καὶ πολὺς ἦν ὠθισμὸς ἀμφὶ τὰ θύρετρα. (Xen. *An.* 5.2.17)
And there was a lot of pushing around the gates
b. πολλαὶ γὰρ ἦσαν ἑταῖραι ἐν τῷ στρατεύματι. (Xen. *An.* 4.3.19)
For there were many concubines in the army

What about branching phrases with genitive restrictions? Though this sample is much smaller, the ratios of QN to NQ order and continuous to discontinuous phrases are almost exactly the same as they were for the other group. QN is almost twice as common as NQ (Table 5), and ninety percent of instances in the sample are continuous (Table 6).

Table 5: Quantifier order of πολύς and ὀλίγος with genitive restriction in Xenophon

	πολύς		ὀλίγος		Both	
	Total	%	Total	%	Total	%
QN	14	70	7	58	21	66
NQ	6	30	5	42	11	34
Total	20	100	12	100	32	100

Table 6: Continuity of πολύς and ὀλίγος with genitive restriction in Xenophon

	πολύς		ὀλίγος		Both	
	Total	%	Total	%	Total	%
Continuous	20	87	12	100	32	91
Discontinuous	3	13	0	0	3	9
Total	23	100	12	100	35	100

The discontinuous configurations that occur are like those found in the adnominally quantified group. In example 117a the verb is raised, the noun is topic and the quantifier is focused; in 117b the quantifier is focused and the noun tail.

(117) a. ἐν ταύτῃ τῇ διώξει τοῖς βαρβάροις τῶν τε πεζῶν ἀπέθανον πολλοὶ καὶ τῶν ἱππέων ἐν τῇ χαράδρᾳ ζωοὶ ἐλήφθησαν εἰς ὀκτωκαίδεκα (Xen. *An.* 3.4.5)

In that pursuit, the barbarians had many of their infantry die and of their cavalry there were men taken alive in the ravine to the number of eighteen

b. χαλεπῶς διεσῴζοντο ἐς τὰς Ὄλπας, καὶ πολλοὶ ἀπέθανον αὐτῶν (Thuc. 3.108.3)
With difficulty they made it through to Olpae, and many of them died

The overall rate of discontinuity for the vague count and mass quantifiers in the Classical Greek sample is much lower than the rate found for the universal πάντες or the negative quantifier οὐδείς, in the same sample. This can probably be attributed to the dual weak/strong nature of πολύς and ὀλίγος, and the high ratio of weak to strong instances, even in the partitive genitive restriction group. When weak, these quantifiers are not much different from adjectives, which seem to have a lower average rate of discontinuity in Greek than strong quantifiers like πάντες. Crosslinguistically, quantifiers are more likely to be movable (compare quantifier floating in English) than adjectives.

3.11.2 In the clause: object position

Branching phrases with both partitive genitive complement taking and adnominal πολύς and ὀλίγος regularly appear in preverbal focus position in the Classical Greek sample. Not only the less-coherent NQ order (118a-d),

(118) a. καὶ ὁ Ἱππίας διὰ φόβου ἤδη μᾶλλον ὢν τῶν τε πολιτῶν πολλοὺς ἔκτεινε καὶ πρὸς τὰ ἔξω ἅμα διεσκοπεῖτο (Thuc. 6.59.2)
And Hippias, already being more fearful, had many citizens executed and at the same time started to look toward the outside

b. ᾧ δὲ μάλιστα ἡμῶν προύχουσιν, ἵππους τε πολλοὺς κέκτηνται καὶ σίτῳ οἰκείῳ καὶ οὐκ ἐπακτῷ χρῶνται (Thuc. 6.20.4)
What they most have an advantage over us in is, they have horses in great numbers and use domestic grain and not imported

c. τῶν μὲν Φλειασίων ὀλίγους ἀπέκτειναν, ὑπὸ δὲ τῶν Κορινθίων αὐτοὶ οὐ πολλῷ πλείους διεφθάρησαν (Thuc. 5.59.1)
They killed a few of the Phleiasians, and were themselves killed by the Corinthians in not much smaller number

d. ναῦς μὲν ὀλίγας ἔλαβον οἱ Ἀθηναῖοι (Thuc. 8.106.1)
The Athenians took [only] a few ships

but also the more-coherent QN order can appear in this position (119a-e)

(119) a. οἶδα γὰρ ὅτι καὶ Μυσοῖς βασιλεὺς πολλοὺς μὲν ἡγεμόνας ἂν δοίη (Xen. *An.* 3.2.24)
For I know that to the Mysians the King would give many guides
b. καὶ ἀντιταχθέντες πολλοὺς μὲν τῶν ἁρπαζόντων ἀπέκτειναν, οἱ δὲ καὶ αὐτῶν ἀπέθανον (Xen. *An.* 1.10.3)
Having put themselves in line, they both killed many of the plunderers, and were some of themselves also killed
c. ἃ σάφ' ἴσθι τοῦ εὐφραίνεσθαι πολλὰς ἀσχολίας παρέχει (Xen. *Cyr.* 8.7.13)
Which, know you well, provide many obstacles to happiness
d. ἐνθυμούμενος ὅτι ὀλίγων μὲν ἡμερῶν ἀνάγκη ἔσοιτο ἀπιέναι (Xen. *Hell.* 7.5.18)
Considering that within a few days it would be necessary for him to leave
e. ἀλλὰ τοῦτο δὴ ἴσως οὐκ ὀλίγης παραμυθίας δεῖται καὶ πίστεως (Pl. *Phd.* 70b2)
But this thing requires perhaps not a little persuasion and proof

Continuous branching phrases in object position are somewhat more common with these quantifiers than they were with the universals, negatives, and existential/partitives.

3.11.3 Summary

Classical Greek has vague count and mass quantifiers that can be either strong or weak. When they form phrases with their lexical restrictions, those phrases usually have Q(D)N order (65%) and are far more frequently continuous (90%) than discontinuous. And, those QN-order continuous phrases occur more often in preverbal focus position than their universal, negative, and existential/partitive counterparts do.

3.12 Vague count and mass quantifiers in Homeric Greek

Homeric Greek differs a bit from Classical Greek in how it divides up the territory of vague mass and count quantification. As it does in Classical Greek, the range of meaning of πολύς/πολλοί in Homer includes not only *much/many* but also *numerous* and *large*. Like *much/many*, it quantifies over mass nouns and plural count nouns.[89] It can take either an agreeing (120a-c) or partitive genitive (120d) restriction, and like most other Greek quantifiers can also stand on its own like a pronoun (120e).

(120) a. πολλὸς δ' ἐπελήλατο χαλκός (13.804)
And a lot of bronze was laid onto it
b. πολλὸν δὲ διήφυσε σαρκὸς ὀδόντι (Od. 19.450)
And it drew off a lot of flesh with its tooth
c. πολλὰς δ' ἰφθίμους ψυχὰς Ἄϊδι προΐαψεν / ἡρώων (Il. 1.3)
And sent many strong souls of heroes to Hades
d. ἧς εἵνεκα πολλοὶ Ἀχαιῶν / ἐν Τροίῃ ἀπόλοντο (Il. 2.161)
On account of whom many Achaeans died in Troy
e. πολλοὶ δ' οὐτάζοντο κατὰ χρόα νηλέϊ χαλκῷ (Il. 12.427)
And many were wounded in the flesh by the pitiless bronze

But unlike *much/many*, πολύς/πολλοί can also modify singular group and count nouns, with the meaning 'large' or 'numerous' (121a-e).

(121) a. πολλὸς δ' ἱμερόεντα χορὸν περιίσταθ' ὅμιλος / τερπόμενοι (Il. 18.603)
And a big crowd stood around a charming dance, delighting in it
b. πολὺς δέ μοι ἕσπετο λαός (Od. 6.164)
And a large host followed me
c. ὀλλύντ' Ἀργείων πουλὺν στρατὸν αἰχμητάων (Il. 8.472)
Destroying the large army of Argive spearmen
d. πολὺς δ' ἀμφ' ὀστεόφιν θὶς (Od. 12.45)
And around them is a big heap of bones
e. τὸν δὴ μήκιστον καὶ κάρτιστον κτάνον ἄνδρα· / πολλὸς γάρ τις ἔκειτο παρήορος ἔνθα καὶ ἔνθα (Il. 7.156)

[89] Homer has some extra morphological options: both singular and plural forms for both stems, and a third stem, πουλ-.

That man, very tall and strong, I killed; for he lay there, a huge fellow, sticking out this way and that

Ὀλίγος/ὀλίγοι, which quantifies over both singular mass and group nouns and plural count nouns in Classical Greek, in Homer quantifies only over singular non-group nouns (122a). In that capacity, it can also be used on its own with the adverbial meaning "a bit, a little" (unit of time or space) (122b). When it appears with singular or plural count nouns, it is an adjective of size, meaning 'small' (122c-d).[90] This latter adjectival use is rare or nonoccurring in the Classical Greek sample.[91] There are no instances in Homer in which ὀλίγος modifies a group noun.

(122) a. ἅμα δ' ἠελίῳ καταδύντι / κάππεσον ἐν Λήμνῳ, ὀλίγος δ' ἔτι θυμὸς ἐνῆεν (Il. 1.593)
At the same time as the setting sun I fell down into Lemnos, and there was little life still in me

b. κρείσσων εἰς ἐμέθεν καὶ φέρτερος οὐκ ὀλίγον περ / ἔγχει (Il. 19.217)
You are stronger than I am and better by not just a little with a spear

c. δίφρον ἀεικέλιον καταθεὶς ὀλίγην τε τράπεζαν (Od. 20.259)
Having set down an unseemly stool and a small table

d. ὡς δ' ὅτ' ἐπὶ προβόλῳ ἁλιεὺς περιμήκεϊ ῥάβδῳ / ἰχθύσι τοῖς ὀλίγοισι δόλον κατὰ εἴδατα βάλλων / ἐς πόντον προΐῃσι βοὸς κέρας ἀγραύλοιο (Od. 12.252)
As when on an outcropping a fisherman with a long rod, throwing out bait as food for fish, those little ones, casts out into the sea the horn of a field-dwelling ox

Quantification over plural count nouns is handled by a different lexical item, παῦρος/ παῦροι, which also appears once in the singular, with a group noun, meaning either 'small' or 'few in number' (123d). The plural count noun restrictions can be either

[90] The standard Classical Greek adjective (σ)μικρός 'small' occurs only three times in Homer (Il. 5.801, Od. 3296 and Il. 17.757); its comparative μείων occurs three times; βραχύς 'short' does not occur; there is a special Homeric adjective for 'lasting a short time', μινυνθάδιος. The corresponding Classical adjectives μέγας 'large' and μακρός 'long', however, are present in full force.

[91] In *LSJ*, ὀλίγος of size is described as being frequent in Homer and "rarer later"; the only classical examples cited are from poetry and Herodotus.

agreeing (123b) or partitive genitive (123c), and the quantifier can also stand on its own (123a).

(123) a. αὐτὰρ ἐμοὶ μάλα παῦρα δόσαν (Od. 14.210)
But to me they gave very few things
b. οὐ μὲν γάρ κε δάμη παύροισι βροτοῖσι (Il. 9.545)
For it couldn't have been killed by few men
c. παῦροι γὰρ Ἀχαιῶν ἦσαν ὁμοῖοι (Od. 19.340)
For few Achaeans were his equal
d. ἀλλ' ἀλαπαδνὸς ἔην, παῦρος δέ οἱ εἵπετο λαός (Il. 2.675)
But he was feeble, and only a small host followed him

In the scholia (*TLG,* Erbse 1969), πολλός with singular count nouns is glossed as μέγας; ὀλίγος with singular count nouns as μικρός; παῦρος with a group noun as ὀλίγος; and παῦροι with plural count nouns as ὀλίγοι.

(124) a. πολλὸς γάρ τις ἔκειτο παρήορος ἔνθα καὶ ἔνθα· ἀπὸ τῶν ἀριθμουμένων ἐπὶ τὰ μετρούμενα μεγέθη, ὡς τὸ "τύμβον †δὲ οὐ† μάλα πολλὸν ἐγὼ πονέεσθαι ἄνωγα" (On Il. 7.156) (*TLG* and Erbse vol. 2:256)
'A large guy, he lay there stretched out here and there' — from things counted to magnitude measured, as in 'I commanded that a not very large tomb be made'
b. Πολλός. Ἀντὶ τοῦ, μέγας. (On Il. 7.156) (D scholia, *TLG*)
Pollos. Instead of large.
c. πολλόν: μέγαν (On 23.245) (*TLG* and Erbse vol. 5:405)
d. ὀλίγον σάκος: μικρὰν ἀσπίδα—πηλικότητος. (On Il. 14.376) (*TLG* and Erbse vol. 3:653)
Small shield: the shield is small — of size
e. Παῦρα μέν. Ὀλίγα μέν. (On Il. 3.214) (D scholia, *TLG*)

The range of meaning possible for each of these quantifiers in Homeric and Classical Greek is as shown in Table 7 below.

Table 7: Range of meaning of vague mass and count quantifiers in Homeric and Classical Greek

	πολύς	ὀλίγος	παῦρος
CG	Large individual	? Small individual	
	Large amount of stuff	Small amount of stuff	
	Large-in-number crowd	Few-in-number crowd	
	Numerous people	Few-in-number people	
HG	Large individual	Small individual	Few-in-number crowd
	Large amount of stuff	Small amount of stuff	Few-in-number people
	Large-in-number crowd		
	Numerous people		

So far, I have pointed out two differences between Homeric and Classical Greek in this area. First, ὀλίγος can do something that its Classical Greek counterpart does not do or does only rarely, namely modify singular count nouns, with the meaning 'small'. Second, Homeric Greek has two downward-monotonic vague quantifiers, one of which, ὀλίγος, is used for quantifying over singular mass nouns, while the other, παῦρος, is used for quantifying over singular group and plural count nouns. This distribution differs from that of both Classical Greek ὀλίγος and English *few/little.* In Classical Greek, group (125a-b), mass and count quantification are all handled by ὀλίγος. In English, the count quantifier *few* cannot be used with group nouns (the mass quantifier *little* can be, but only as an adjective of size) (126a-b).

(125) a. ὁρμηθεὶς σὺν ὀλίγῃ Περσῶν στρατιᾷ (Xen. *Cyr.* 1.1.4)
Having set out with a small army of Persians
b. οἱ δ' ἦλθον Κίμωνος στρατηγοῦντος πλήθει οὐκ ὀλίγῳ (Thuc. 1.102)
And they went with Cimon as general in no small force

(126) a. *The few crowd stormed the gate.
b. The little/small crowd stormed the gate.

Instead, the Homeric division of the territory suggests another possibility: that the core meaning of ὀλίγος is 'small', while the core meaning of παῦρος is 'few in number'. Both of these meanings are essentially adjectival rather than quantitative. The meaning of πολλός may likewise be fundamentally adjectival, but cover both 'large' and 'numerous'.

There is another difference between Homeric and Classical Greek in how these quantifiers are used. In Classical Greek, the mass and count quantifiers can be either weak or strong; weak instances are much more common, but there are examples that are clearly strong. In Homer, there are no or almost no examples that are clearly strong. This will be discussed in the next section.

3.12.1 Strength of vague count and mass quantifiers in Homer

As in Classical Greek, in Homer the vague quantifiers can be used as predicate adjectives (127a-e). In Homer, they also sometimes appear with demonstrative pronouns, as floated secondary predicates or null-partitive coreferents (128a-b). Both of those settings necessitate a weak/cardinal reading.

(127) a. ὡς ἡμεῖς παῦροι κεκακωμένοι ἐν Πύλῳ ἦμεν (Il. 11.689)
Since we in Pylos were few and put-upon
b. ἡμεῖς δ' εἰμὲν τοῖοι οἵ ἂν σέθεν ἀντιάσαιμεν / καὶ πολέες (Il. 7.232)
We are the sort of men who can meet you, and numerous
c. οὐδ' ἄρα μιν μίμνον πολέες περ ἐόντες (Il. 5.94)
Nor did they wait for him, though they were many
d. οὐδ' ἐδύναντο / παυροτέρους περ ἐόντας ἀπώσασθαι παρὰ νηῶν (Il. 15.07)
Nor were they able, though they were fewer, to push them back from the ships
e. ὀλίγη δέ τ' ἀνάπνευσις πολέμοιο (Il. 11.801; 16.43; 18.201)
Scant is the time to breathe during fighting

(128) a. πάρ τοι ὁδός, νῆες δέ τοι ἄγχι θαλάσσης / ἑστᾶσ', αἵ τοι ἕποντο Μυκήνηθεν μάλα πολλαί (Il. 9.44)
Beside you is the road, and your ships stand close to the sea, those that followed you from Mycenae in very large numbers (or: a very large number of them)

b. οἳ πολλοὶ περὶ βόθρον ἐφοίτων ἄλλοθεν ἄλλος / θεσπεσίῃ ἰαχῇ (Od. 11.42-3)
These men in large numbers (or: a large number of them) were coming up to the pit, from here and there, with eerie wailing

In Classical Greek, branching adnominally quantified phrases with πολύς and ὀλίγος usually get weak interpretations. The same is true for Homer. Here are some typical Homeric examples of branching πολύς, παῦρος, and ὀλίγος, all clearly weak (129a-c).

(129) a. πολλὰς δὲ δρῦς ἀζαλέας, πολλὰς δέ τε πεύκας / ἐσφέρεται, πολλὸν δέ τ' ἀφυσγετὸν εἰς ἅλα βάλλει (Il. 11.492-5)
And carries many dry oaks in it, and many pines, and throws a lot of mud into the sea

b. παύρους μνηστῆρας κατερύκετε πολλοὶ ἐόντες (Od. 2.241)
Do you, being numerous, hold off few suitors

c. ὀλίγος δ' ἔτι χῶρος ἐρύκει (Il. 10.161)
Only a little space still holds them off

Here are a couple of branching adnominally quantified phrases that could be strong, but could also just as easily be interpreted as weak (130a-b).

(130) a. ὣς ἄρ' ὑπ' Ἀτρεΐδῃ Ἀγαμέμνονι πῖπτε κάρηνα / Τρώων φευγόντων, πολλοὶ δ' ἐριαύχενες ἵπποι / κείν' ὄχεα κροτάλιζον ἀνὰ πτολέμοιο γεφύρας (Il. 11.158-161)
So then beneath Agamemnon son of Atreides there fell the heads of fleeing Trojans, and many arch-necked horses rattled empty carts along the edges of the battle

b. παῦροι γάρ τοι παῖδες ὁμοῖοι πατρὶ πέλονται (Od. 2.276)
Few children are equal to their father / Few are the children who are equal to their father / There are few children who are equal to their father

In (130a), the strong interpretation would be that a large proportion of the horses in question lost their riders. The weak interpretation would be that there were a lot of horses running around with empty carts. The problem with the strong interpretation is that the horses are not really in question. The point is to describe the rout, an event which involved heads falling and (weak interpretation) lots of horses running around with empty carts. There are at least three possible readings of παῦροι in (130b); it could be a strong adnominal quantifier, or a weak predicate adjective, or a weak adnominal quantifier in an existential context. Since the sentence is a maxim, the context does not provide much help in interpretation.

In Classical Greek, vague quantifiers with partitive genitive restrictions can be either weak or strong. In Homer too, the likeliest candidates for strong readings have partitive genitive restrictions. But as in Classical Greek, a genitive restriction does not entail a strong interpretation. Here is an almost certainly weak example with a genitive restriction (131a).

(131) a. ἐπεὶ μάλα πολλοὶ Ἀχαιῶν / Ἕκτορος ἐν παλάμῃσιν ὀδὰξ ἕλον ἄσπετον οὖδας (Il. 24.737)
Since very many of the Achaeans in the hands of Hektor took the boundless surface of the earth in their teeth

It is very unlikely that what is meant here is that a large proportion of the Achaeans bit the dust at Hector's hands. Instead, this must mean that there were numerous Achaeans who did. Here are some possibly strong examples (132a-d).

(132) a. ἧς εἵνεκα πολλοὶ Ἀχαιῶν / ἐν Τροίῃ ἀπόλοντο (Il. 2.161; 2.177)
On account of whom many Achaeans died in Troy
b. αὐτὰρ ἐπεὶ κατὰ μὲν Τρώων θάνον ὅσσοι ἄριστοι, / πολλοὶ δ' Ἀργείων οἳ μὲν δάμεν, οἳ δὲ λίποντο, / πέρθετο δὲ Πριάμοιο πόλις δεκάτῳ ἐνιαυτῷ (Il. 12.14)

But when the best men of the Trojans had died, and many of the Argives had either been conquered or departed, the city of Priam was sacked in the tenth year

c. ἀγορῇ δέ ἑ παῦροι Ἀχαιῶν / νίκων, ὁππότε κοῦροι ἐρίσσειαν περὶ μύθων (Il. 15.283)
In the assembly few of the Achaeans bested him, whenever the young men competed at speechmaking

d. καὶ τότε δὴ Ζεὺς λυγρὸν ἐνὶ φρεσὶ μήδετο νόστον / Ἀργείοισ', ἐπεὶ οὔ τι νοήμονες οὐδὲ δίκαιοι πάντες ἔσαν· τῶ σφεων πολέες κακὸν οἶτον ἐπέσπον (Od. 3.134)
And then Zeus devised in his mind a baneful homecoming for the Achaeans, since by no means were they all thoughtful or just; for which reason many of them came to a bad end

In each of these examples, the quantifier phrase could mean either 'a large/small number of ' or 'a large/small proportion of '. Either interpretation would make sense. In the Classical Greek sample, there were instances of πόλλοι and ὀλίγοι which required a strong interpretation to make sense.

3.12.2 In the phrase

The vague count and mass quantifiers in Homeric Greek are discontinuous from their restrictions about 50% of the time. When they are continuous with them, the phrase is about equally as likely to have QN as NQ order.

Quantifier order

For adnominally quantified phrases with πολύς/πολλός in Homer, QN and NQ order are about equally common; all instances of adnominal παῦρος and (quantificational) ὀλίγος are QN, but the sample size is tiny (five instances) (Table 8).

Table 8: Quantifier order with adnominal πολύς/πολλός, παῦρος, and ὀλίγος in Homeric Greek[92]

	πολύς/ πολλός		παῦρος		ὀλίγος		All	
	Total	%	Total	%	Total	%	Total	%
QN	80	53	3	100	2	100	85	54
NQ	72	47	0	0	0	0	72	46
Total	152	100	3	100	2	100	157	100

In Classical Greek, QN order was twice as common as NQ order for vague count and mass quantifiers (Table 3 above). Homeric Greek has a significantly higher proportion of less-coherent NQ order phrases.

Even the QN strings in Homer may for the most part actually consist of two separate phrases. In the most common type of QN string with πολύς, the quantifier is in clause-initial position (133a-d), followed by any second-position discourse particles, and a predicative interpretation is possible (e.g. in 133b, 'few, mind you, are the children who are equal to their father').

(133) a. πολλὰ δὲ τεύχεα καλὰ πέσον περί τ' ἀμφί τε τάφρον (Il. 17.760)
And many good weapons fell around and on both sides of the ditch
b. παῦροι γάρ τοι παῖδες ὁμοῖοι πατρὶ πέλονται (Od. 2.276)
Few children, mind you, are equal to their father
c. πολλοὺς δ' ἄνδρας ἔπεφνεν ἐν αἰνῇ δηϊοτῆτι (Od. 11.516)
And he killed many men in terrible battle
d. ἀτὰρ ἀσπίδες ὀμφαλόεσσαι / ἔπληντ' ἀλλήλῃσι, πολὺς δ' ὀρυμαγδὸς ὀρώρει (Il. 8.62-3)
And the studded shields met one another, and a lot of loud noise arose

In parallel examples with clitic pronouns in second position, the clitic cluster separates the quantifier from the agreeing noun (134a-b).

[92] For πολύς, ὀλίγος and παῦρος the sample consists of all instances in Homer; for πολλός of all instances in the Iliad.

(134) a. εἰ δ' ἐθέλεις καὶ ταῦτα δαήμεναι ὄφρ' ἐῢ εἰδῇς / ἡμετέρην γενεήν, πολλοὶ δέ μιν ἄνδρες ἴσασιν (Il. 6.150-1, 20.213-4)
And if you wish, learn these things too, in order that you may know my descent well, and many men know it

b. πολλῇσίν μ' ἄτῃσι παρὲκ νόον ἤγαγεν Ἕκτωρ (Il. 10.391)
Hector drove me out of my mind with many foolish ideas

QN order sometimes occurs with a fronted verb (135a-d).

(135) a. πρὸς Τρώων, οἳ ἔχουσι πολὺν πόνον εἵνεκα σεῖο (Il. 6.525)
From the Trojans, who have a lot of trouble on your account

b. ἅμα δ' ἕσπετο πουλὺς ὅμιλος, / μυρίοι (Od. 8.109)
And a large crowd followed along, countless in number

c. ἔχει δ' ὀλίγον σάκος ὤμῳ (Il. 14.376)
And has a small shield on his shoulder

d. οὐ μὲν γάρ κε δάμη παύροισι βροτοῖσι (Il. 9.545)
It could not be overcome by a few men

In directly preverbal position, NQ order is much more common (136a-c).

(136) a. κέδρινον ὑψόροφον, ὃς γλήνεα πολλὰ κεχάνδει (Il. 24.192)
Cedar, high-roofed, that holds much jewelry

b. περὶ δ' ἠέρα πουλὺν ἔχευε (Il. 5.776)
And poured a lot of mist around them

c. ἐν νηῒ γλαφυρῇ βίοτον πολὺν ἐμπολόωντο (Od. 15.456)
And in their hollow ship they got by trade a lot of livelihood

Adverbials almost always have QN order (137a-b).

(137) a. Τηλέμαχ', εἰ γάρ κεν σὺ πολὺν χρόνον ἐνθάδε μίμνοις (Od. 15.545)
Telemachus, for if you stay here a long time

b. ἐπεὶ οὐκ ὀλίγον χρόνον ἔσται / φύλοπις (Il. 19.157)
Since the battle will not be for a short time

The sample contains five instances of continuous branching πολύς with a genitive restriction, two of παῦρος, and none of ὀλίγος. All are QN, and in all the noun is an ethnic. Of these seven instances, three are clause-initial (138a-c).

(138) a. πολλοὶ δ' Ἀργείων οἳ μὲν δάμεν, οἳ δὲ λίποντο (Il. 12.14)
And many of the Argives had either been killed or left behind
b. πολλοὺς γὰρ Τρώων καταλείψομεν / οὕς κεν Ἀχαιοὶ χαλκῷ
δῃώσωσιν ἀμυνόμενοι περὶ νηῶν (Il. 12.226-7)
For we will leave behind many of the Trojans, whom the Achaeans will cut down with bronze, warding them off around the ships
c. παῦροι γὰρ Ἀχαιῶν ἦσαν ὁμοῖοι (Od. 19.240)
For few of the Achaeans were his equal

In two more examples (139a-b), the continuous phrase is still clause-initial except for conjunctions.

(139) a. ἧς εἵνεκα πολλοὶ Ἀχαιῶν / ἐν Τροίῃ ἀπόλοντο (2.161, 177)
On account of whom many of the Achaeans died in Troy
b. ἐπεὶ μάλα πολλοὶ Ἀχαιῶν / Ἕκτορος ἐν παλάμῃσιν ὀδὰξ ἕλον
ἄσπετον οὖδας (Il. 24.737)
Since very many of the Achaeans at the hands of Hector took the boundless earth in their teeth

In the last, the quantifier phrase follows a topicalized adverbial and the clitic cluster (140a).

(140) a. ἀγορῇ δέ ἑ παῦροι Ἀχαιῶν / νίκων (Il. 15.283-4)
In the assembly few of the Achaeans bested him

In each of these examples, the noun is a predictable ethnic and therefore a good tail; that probably explains the QN order. Position within the clause, however, is similar to that of phrases with agreeing restrictions.

Discontinuity

For adnominal πολύς/πολλός, παῦρος and ὀλίγος in Homeric Greek, the ratio of discontinuous to continuous phrases is about 1:1 (Table 9); this is approximately the same rate of discontinuity as was found for πᾶς plural in Homer.

Table 9: Continuity with adnominal πολύς/πολλός, παῦρος and ὀλίγος in Homeric Greek

	πολύς/ πολλός		παῦρος		ὀλίγος		All	
	Total	%	Total	%	Total	%	Total	%
Continuous	152	49	3	75	2	29	157	49
Discontinuous	158	51	1	25	5	71	164	51
Total	310	100	4	100	7	100	321	100

In Classical Greek, the rate of discontinuity was only about 10% (Table 4 above). There is much more discontinuity in Homeric Greek.

Most discontinuous examples are of the quantifier-first head-interrupted type, with focused quantifier and tail noun. With verbal heads, this pattern occurs with existential and intransitive subjects (141a-c), and objects (141d-f).

(141) a. ὀλίγη δ' ἦν ἀμφὶς ἄρουρα (Il. 3.115)
And there was little space in between
b. ἀμφὶ δ' ἄρά σφι / πρυμνοῖσιν κεράεσσι πολὺς ἀνακηκίει ἱδρώς (Il.13.705)
And around the base of their horns a lot of sweat gushes forth
c. πολλοὶ γὰρ τεθνᾶσι κάρη κομόωντες Ἀχαιοί (Il. 7.328)
For many long-haired Achaeans have died
d. πολέας δ' ἐνέπασσεν ἀέθλους (Il. 3.126)
And she was weaving in many contests
e. ἐπεὶ πολὺν ὤλεσα λαόν (Il. 2.115, 9.22)
When I have lost a large host
f. αἵ οἱ πολέας κτάνον υἷας (Il. 24.479)
Which had killed his many sons

This type is cross-categorial, also occurring with nouns, adjectives and prepositions (142a-e).

(142) a. ἐσθλὸν Ὀτρυντεΐδην πολέων ἡγήτορα λαῶν (Il. 20.383)
Brave son of Otrynteus, leader of many people
b. ὅς ῥα Χίμαιραν θρέψεν / ἀμαιμακέτην πολέσιν κακὸν ἀνθρώποισιν (Il. 16.329)

Who raised the unconquerable Chimaera, an evil for many men

c. ἰητρὸς γὰρ ἀνὴρ πολλῶν ἀντάξιος ἄλλων (Il. 11.514)
For a man who is a doctor is worth many others

d. πολλέων ἐκ πολίων (Il. 2.131)
From many cities

e. ὀλίγῳ ἐνὶ χώρῳ (Il. 12.423)
In a small space

Less common is the type with topicalized noun, raised verb and quantifier stranded in focus position (143a-b).

(143) a. χάρις δ' ἀπελάμπετο πολλή (Il. 14.183, 18.298)
And much grace shone forth

b. ἀλλ' ἄγε νῦν ἱππεῦσιν ἐπότρυνον πολέεσσι (Il. 15.258)
But come now command many horsemen

There are some examples in which the quantifier appears sentence-initially, with the noun in preverbal position (144a-d). In these cases, both quantifier and noun may be focused, the quantifier sitting in a higher, CP focus position, and the noun sitting in the preverbal focus position.

(144) a. πολέες γὰρ ἅμ' αὐτῷ / λαοὶ ἕποντ' (Il. 16.550-1)
And many people followed together with him

b. πολὺν δ' ἅμα λαὸν ὄπασσε (Il. 18.452)
And he sent with me a large host

c. πολλὸν δὲ παρὲξ ἅλα φῦκος ἔχευεν (Il. 9.7)
And pours forth a lot of seaweed out along the sea

d. ὀλίγος δ' ἔτι χῶρος ἐρύκει (Il. 10.161)
Little land still holds them back

There were no instances of πολύς, παῦρος or ὀλίγος discontinuous from a genitive restriction in the sample. It appears that this is not impossible but just relatively infrequent, however: there is at least one such example from the Odyssey (145a).

(145) a. πολλοὶ δὲ κακὰ φρονέουσιν Ἀχαιῶν / τοὺς Ζεὺς ἐξολέσειε πρὶν ἥμιν πῆμα γενέσθαι (Od. 17.596)

Many of the Achaeans are planning bad things, may Zeus destroy them before evil arises for us

This example probably has the double-focus structure described above, in this case with the quantifier in the higher focus position, the object in preverbal focus position, and the subject noun following the verb in tail position.

3.12.3 In the clause: object position

Continuous QN-order branching phrases with πολύς/πολλός, παῦρος and ὀλίγος regularly occur in preverbal object/focus position in Homeric Greek (146a-e).

(146) a. καὶ πολλὰ περικλυτὰ δῶρ' ὀνόμαζον (Il. 18.449)
And I named many glorious gifts
b. ὣς καὶ ἐγὼ πολλὰς μὲν ἀΰπνους νύκτας ἴαυον (Il. 9.325)
So I also spent many sleepless nights
c. πολὺν δ' ὀρυμαγδὸν ὄρινε / φιτρῶν καὶ λάων (Il. 21.313)
And stir up a big noise, from treetrunks and stones
d. πολλοὺς γὰρ Τρώων καταλείψομεν (Il. 12.226)
And we will leave behind many of the Trojans
e. παύρους μνηστῆρας κατερύκετε πολλοὶ ἐόντες (Od. 2.241)(= 18b)
You, being numerous, hold off few suitors

There is a significant difference on this score between the vague count and mass quantifiers and the universals; there were only a couple of QN-order continuous phrases with πᾶς plural in directly preverbal position, and none with ἕκαστος.

3.12.4 Summary

Homeric Greek has three vague count and mass quantifiers; πολύς, ὀλίγος, and παῦρος. Πολύς can take as its restriction singular mass ('much water'), group ('large-in-number crowd') and count ('large table') nouns, and plural count nouns ('many/numerous tables'). For their part, ὀλίγος and παῦρος divide up these responsibilities. Ὀλίγος takes only singular mass ('little water') and count ('small

table') nouns; παῦρος handles singular group nouns ('small-in-number crowd') and plural count nouns ('few/small-in-number people'). This latter division of labor suggests that the basic meaning of ὀλίγος is 'small' and the basic meaning of παῦρος 'small in number'. There are some instances of πολύς, ὀλίγος or παῦρος in Homer that may have a strong reading, but none that clearly require it. The rate of discontinuity of vague count and mass quantifiers from their restrictions is about 50%, and slightly over half of all continuous phrases have QN order (54%). Continuous QN-order phrases with vague count and mass quantifiers regularly occur in preverbal object position, unlike universally quantified phrases of the same type.

3.13 Summary: Vague count and mass quantifiers

In this section, I described two basic kinds of differences between Classical and Homeric Greek with respect to vague count and mass quantification. One kind of difference has to do with inventory and meaning; there are two of these. First, Homeric Greek divides up the territory of vague count and mass quantification a bit differently than Classical Greek does. In Classical Greek, both πολύς and ὀλίγος are primarily used with singular mass ('much/little water') and group ('large/small in number crowd') and plural count nouns ('many/few books'). In Homeric Greek, πολύς is used with all of those categories, but there is a split between ὀλίγος, which seems to have a basic meaning of 'small', and παῦρος, which seems to have a basic meaning of 'small in number'. Second, vague count and mass quantifiers in Classical Greek can be either weak (cardinal) or strong (proportional); weak readings are more common, but there are examples that are clearly strong. In Homer there are some examples that are ambiguous, but none that are clearly strong. Differences in syntactic behavior are some of the same ones found for the universals. Homer has both a higher rate of NQ order (46%) for continuous phrases, and a higher rate of discontinuity (51%) than Classical Greek (NQ order 35%, discontinuity 10%). Homeric and

Classical Greek agree in allowing QN-order phrases with vague count and mass quantifiers to regularly appear in preverbal object position, while their universal counterparts appear there only rarely.

4 Quantification and Syntactic Typology

In Chapter 3, I identified various differences in how Homeric and Classical Greek handle quantification. I grouped the differences into two categories: differences of inventory and basic meaning, and differences in syntactic behavior. In this chapter, I argue that these differences are systematically related: Homeric Greek lacks precisely the type of quantifiers and quantifier syntax that are predicted by the pronominal argument theory to be missing from pronominal argument languages, while Classical Greek develops the sort of structures typically found in discourse configurational and configurational languages.

4.1 Background: What is a quantifier?

In this section, I introduce some basic ideas about quantification in natural language, which will serve as background for the analysis in sections 4.2-4.4 of the quantifier data presented in Chapter 3 above. These ideas come from the discipline of formal semantics, which aims to do for linguistic meaning something like what generative grammar aims to do for syntax. One of the foundational working hypotheses of generative grammar is that natural language can be analysed as a formal system; the foundational working hypothesis of formal semantics is that it can be analysed as an interpretable formal system (Bach 1989:7-8). What would an analysis of natural language as an interpretable formal system look like? In practice, this analysis has been done using a method called model-theoretic semantics, which has its roots in philosophical logic. The most influential early work on formal semantics was done by Montague, a philosophical logician (Montague 1973/2002).

To understand this method, it is useful at first to think about a very small, artificially restricted language fragment and a model world. The language fragment lists the

categories of expression found in the language, and the individual members of those categories. The formal system for interpretation of the fragment consists of one set of rules that can mechanically generate all possible grammatical expressions in the language, and another set of rules that can mechanically assign meanings to these expressions. The meaning possibilities are very limited: sentences can be either true or false. Truth and falsity are defined with respect to the model world. Here is an extremely simple language and model:

Language H:
Terms: *Homer; Thucydides; Hobbes*
Predicates: *Sing*; *Grouchy*; *Greek*

World H:
Sing: {*Homer*}
Grouchy: {*Thucydides; Hobbes*}
Greek: {*Homer*; *Thucydides*}

This representation of a model world and language makes use of the mathematical concepts of set theory and function application. The world is represented as being made up of sets of individuals, for instance the set of singers, whose sole member here is Homer, and the language is represented as being made up of functions (predicates) and potential arguments of functions (terms).[93] Once you have set up such a model, you can define rules for forming expressions using the objects contained in the language, and rules for interpreting those expressions. Here is an example of how such rules can work, stated in informal terms. The rule for forming expressions in Language H will be to combine a term and a predicate, on the following pattern: (Predicate)Term. The rule for assigning a truth value to the resulting expression will be to check, in World H, whether the individual denoted by the term is a member of the set denoted by the predicate. For instance, using the rule just defined, I can form the expression (*Grouchy*)*Homer*. To check whether this expression is true or false, I

[93] A function can be informally described as a thing that takes something as input, performs a particular operation on it, and returns the operated-on thing as output. An 'argument' is the input to the function.

refer to the model world, and find that the term *Homer* is not a member of the set *Grouchy*, so I conclude that the expression is false.

It is that sort of basic approach to linguistic meaning that underlies the research on and analysis of natural language quantification that I will be making use of in this chapter. So, back to the original question — what is a quantifier? In a system based on set theory and function application, it is no surprise that that question will be answered in terms of set theory and function application. In the model world above, all of the predicates are represented as sets of individuals, while all of the terms refer to individuals. When predicates are thought of as sets, statements like 'Homer is grouchy' or 'Homer sings' are understood as meaning that Homer is a member of the set of grouchy people, or singers. Predicates can also be thought of as functions that take individuals as input and return truth values as output. For instance, the function 'Grouchy' takes as input the argument 'Homer' and returns as output the truth-value 'False'. There is also more than one way to think about individuals. 'Homer' can be defined as the set of all sets of which he is a member. This may seem like a strange idea at first, but if you think about it for a minute, all it amounts to is defining individuals in terms of their properties (Bach 1989:42-43). In terms of functions, this same perspective makes individuals functions from predicates to truth-values (e.g., in the model, Homer is the function that makes 'sings' and 'Greek' true, but 'grouchy' false). To sum up, thinking in terms of sets, predicates are sets of individuals, and terms are sets of sets; thinking in terms of functions, predicates are functions from individuals to truth-values, and terms are either individuals or functions from predicates to truth-values.

Are quantifiers like predicates, or terms, or both or neither? Let's look at some sentences with quantifiers in them (1a-b), to try to figure out what they do.

(1) a. Everybody is grouchy.

b. Some Greek sings.

The first sentence (1a) involves a quantificational pronoun, 'everybody', which constitutes a complete quantifier all on its own. There are at least three ways of thinking about what 'everybody' means. First, it can be thought of as expressing a relationship between two sets; the universal set is a subset of the set of grouchy people. Second, like a term, it can be thought of as a set of sets: the set of all sets that contain everybody. And third, it can also be thought of as a function that takes the predicate as input and returns a truth-value as output. In this case, if the set of grouchy people contains everybody, the value will be 'true'.

The quantifier in the second sentence (1b), 'some', is what is called a quantificational determiner. Quantificational determiners cannot stand on their own like 'everybody', but instead combine with common nouns to form quantifying phrases. Again, there are at least three ways of thinking about the meaning of 'some'. First, like 'everybody', it can be thought of as expressing a relationship between two sets, this time the set of Greeks and the set of singers; the intersection of these two sets is non-empty. Second, though 'some' on its own is neither a set of individuals nor a set of sets, the complete phrase 'some Greek' can be thought of as the set of all sets that contain at least one Greek. And finally, as a function, 'some' is a bit more complicated, because it has two predicates to deal with, 'Greek' and 'sings'. It first has to take the predicate 'Greek' and make the quantificational phrase 'some Greek' out of it. In functional application terms, then, the quantificational determiner takes a predicate as input and returns a quantifier as output. The quantifier 'Some Greek' in turn takes the predicate 'sings' as input, and returns a truth value as output ('true', if the intersection between the set of Greeks and the set of singers is non-empty). The end result of this process is that the quantificational determiner takes two predicates and makes a truth-claim about a relationship between them.

So far, quantifiers look more like terms than predicates, because both quantifiers and terms can be thought of as sets of sets. But there is another respect in which quantifiers resemble predicates. Some of the definitions above characterized quantifiers as expressing relationships between things. There are also predicates that tell you about relationships. In the model above, I included only intransitive predicates. Transitive predicates, in such models, are represented as sets of pairs of individuals. As an example, I will now add to the language and model world the following entries:

Predicate: *Translate*

Translate: {Hobbes, Thucydides; Hobbes, Homer}

The set denoted by the predicate *Translate* is a set of ordered pairs: the same terms in a different order (*Thucydides, Hobbes*) would be a different pair from the one in the model. An expression using the predicate *Translate* will look like this: (*Translate*) *Hobbes, Thucydides*. As sets, transitive predicates are sets of ordered pairs, which amounts to being sets of relationships between individuals. As functions, they take two individuals as input and return a truth-claim about a relationship between them as output. With that in mind, it is now possible to specify the difference between quantifiers and predicates. Two-place predicates relate individuals, while quantifiers relate sets of individuals. That distinction is important enough to have its own associated terminology: relations between individuals are said to be 'first-order' and relations between sets to be 'second-order'.

That is one answer to the question 'what is a quantifier?': quantifiers express second-order relations, that is, relations between sets of individuals. That definition distinguishes them from predicates. But is there anything that distinguishes quantifiers from terms? According to one line of thinking, there is not. All noun phrases in natural language — things like 'Homer', 'a cat', 'the book' and so forth (but not common nouns like 'Greek' or 'man', which are predicates) are basically the same kind of thing

as quantifying phrases, because they can all be thought of as sets of sets, or functions from predicates to truth values (Montague 1973/2002; Barwise and Cooper 1981/2002). This is called the theory of generalized quantifiers, because in it, all noun phrases are described as generalized quantifiers.

This idea, that all noun phrases are quantificational, seems to leave out some of the story. The part of the story left out is how different kinds of noun phrases are used by speakers in the context of discourse. Traditional grammar describes definites, like 'the book', as being used by speakers to refer to things that they expect their listeners to be familiar with, whether from context or from previous mention, and indefinites, like 'a cat', as being used to introduce unfamiliar things. The kind of model-theoretic semantics I have been talking about so far is not designed to express that kind of distinction. But there is a modified form of model-theoretic semantics, known as 'dynamic semantics', that was designed to pay more attention to the role of discourse in meaning, and to give better solutions for various discourse-related problems that had come up in work done within the plain model-theoretic framework (Kamp 1984; Heim, 1983). The main innovation of dynamic semantics is that it sets up an intermediary between the language and the model-world that represents the discourse, or the accumulation of information exchanged between speakers in a particular conversation. Again, it will be useful to think about an example. Here is a possible discourse (2a):

(2) a. A: There's a seal over there.
B: Yeah, I saw it.
A few minutes later…
A: Oh no, a boat hit the seal!

In dynamic semantics, the noun phrases in this exchange are thought of as making changes to the intermediary representation , the one corresponding to the discourse. The intermediary representation is sometimes described using a file-card metaphor

(Heim 1983). Indefinites create new cards; definites prompt updates to old cards. For instance, in the first sentence of the discourse above, the indefinite 'a seal' will create a new card. In the second sentence, the definite pronoun 'it' will prompt an update to the card identified with 'seal', something like 'seen by B'. And in the third sentence, the indefinite 'a boat' will create a new card, and the definite 'the seal' will prompt updates to the 'seal' and 'boat' cards, something like 'hit by boat' and 'hit seal' respectively. So, indefinites create new cards, and definites update old cards.

Quantifiers seem to do something else. Consider the following example (3a):

(3) a. Every seal swam.

What this does is not so much create a new card or update one, but set up a condition on cards in the file. It is easier to think about this in terms of truth-conditions than in terms of direct file-update actions. Truth, in this kind of model, is not determined by checking statements directly against the model world, but instead by checking the intermediary representation against the model world; this means that sentences get their truth-conditions only indirectly, by virtue of whether the updates they make to the intermediary representation render it true with respect to the model or not. So, for instance, a sentence like 'there is a seal', which creates a card for 'seal', will be false if there is no seal in the model, because it has created a false card. Thinking in these terms, what the quantifier does is force a one-by-one evaluation of all cards. Any card that satisfies the condition 'is a seal' must also be able to satisfy the condition 'swam'. Cards that do not satisfy this condition will be eliminated. If, after this process has taken place, the information in the file box still corresponds to what is in the model world, the sentence is true. So, in the dynamic semantic framework, quantifiers are seen as distinct from noun phrases. Noun phrases either introduce new discourse referents or update old ones, while quantifiers set up conditional relationships between properties.

There are three basic parts involved in the condition set up by the quantifier. First, there is the quantifier itself, which triggers the structure and specifies a particular relationship between the two other parts; it is referred to as an 'operator'. The other two parts can be thought of as corresponding to the two halves of a typical conditional sentence: the part corresponding to the 'if-clause' is the 'restriction', and the part corresponding to the 'then-clause' is the 'scope'. In a simple sentence like 'Every seal swam', the operator is 'every', the restriction 'seal', and the scope 'swam'.

In this section, I have outlined three different possible answers to the question 'what is a quantifier?' I framed the discussion as a search for properties that distinguish quantifiers from other kinds of linguistic elements. The first answer was grounded in classical model-theoretic semantics, and distinguished quantifiers from predicates. Quantifiers express second-order relations, or relations between sets of sets, while predicates express first-order relations, or relations between sets of individuals. In the classical framework, quantifiers were not necessarily clearly distinguished from noun phrases; in fact, one theory claimed that all noun phrases were essentially quantificational. For a formal treatment of properties that distinguish quantifiers from noun phrases, I turned to dynamic semantics, a modified version of the classical framework that focuses more on the discourse properties of language. In dynamic semantics, definite and indefinite noun phrases are distinguished from quantifiers on the basis of their interaction with the discourse representation, and are not considered to be essentially quantificational. Definites and indefinites introduce new discourse referents or update old ones, while quantifiers create conditions on them. Since my aim here was to provide a general orientation to formal semantic approaches to quantification, I will leave it at that for now, and cover other specific topics as they come up.

There is one last thing I would like to introduce in this section. In order to be able to talk about quantifiers in terms of functional application, it will be helpful at times to use a little bit of formal shorthand. The design of the shorthand is based on the idea that all expressions can be analysed as some sort of function involving two basic types of thing: individuals and truth-values. This can be represented in the following way. The two basic types are individuals, *e*, and truth values, *t*. Functions involve two (simple or complex) terms between brackets: the first term is the input to the function, or what it operates on, and the second term is its output, or the kind of thing it makes out of the input.

Basic types:

Individuals: e
Truth-values: t

Some functions involving these types:

Predicates: <e, t>
Quantifiers: <<e, t> t>
Quantificational Determiners: <<e, t>, <<e, t> t>>

The formula <e, t> is read as 'function from individuals to truth-values', the formula <<e,t> t> as 'function from functions from individuals to truth values to truth values' (or, more comprehensibly, as 'function from predicates to truth values'), and so on.

4.2 Quantifier inventory

I will deal first with the differences in inventory (these are summarized in Table 10). The basic picture is that Classical Greek has all of the quantifiers and quantifier meanings that Homer has, plus some more. My primary aim here will be to identify some property or properties that distinguish the quantifiers and quantifier readings that appear only in Classical Greek from those that appear in both Homer and Classical

Greek. There are a few different ways of making distinctions between different kinds of quantifier that I will run through in pursuit of that aim: the cardinal/proportional split, monotonicity properties, and the indefinite/quantifier split in dynamic semantics.

Table 10: Quantifier inventory of Homeric and Classical Greek

Type	Lexical Item	Eng. paraphrase	In HG	In CG
Universal	πᾶς plural	All	Yes	Yes
	πᾶς singular, simple distributive	Every	2 instances	Yes
	πᾶς singular, kind-distributive	Every kind of	Yes	Yes
	ἕκαστος	Each	Yes	Yes
Negative	οὐδείς	No	7 instances, supplanted by οὐ τις	Yes
Indefinite/Existential	τις	Sm	Yes	Yes
Indefinite/Partitive	ἔνιοι	Some	No	Yes
Up. Monotone Vague Count and Mass	πολύς	Large (table)	Yes	? [Rare]
		Much (water)	Yes	Yes
		Large in number (crowd)	Yes	Yes
		Many/numerous (tables)	Yes	Yes
Down. Monotone Vague Count and Mass	ὀλίγος	Small (table)	Yes	Rare
		(A) little (water)	Yes	Yes
		Small in number (crowd)	No	Yes
		Few/small in number (tables)	No	Yes
	παῦρος	Small in number (crowd)	Yes	No
		Few/small in number (tables)	Yes	No

First, a general comment on how I will talk about the inventory differences. I will refer to the two quantifiers that are only marginally present in Homer, πᾶς singular simple distributive and the negative quantifier οὐδείς, as being absent or 'missing' in Homeric Greek, unless I have particular reason to talk about the few examples of them that do occur. It is standard practice to describe Homeric Greek as lacking the determiner, even through there are a few scattered examples where what is primarily a demonstrative in Homer seems to be acting like a Classical Greek determiner. My claim about the few instances of πᾶς and οὐδείς in Homer is that they are like those early determiners; they are probably evidence of the beginning of one of the changes that would eventually turn Homeric Greek into Classical Greek. In each of these cases, there is positive evidence either that the element in question is primarily something else in Homer, or that its function is usually carried out in some other way. The element that is a determiner in Classical Greek has a different primary function in Homer, as a demonstrative. Πᾶς singular has a different basic meaning, 'whole' (and there are abundant crosslinguistic parallels for the development of quantifiers meaning 'every' from adjectives meaning 'whole', but not for the reverse development). In the case of οὐδείς, there is a different mechanism present that is clearly the dominant way of achieving negative quantification in Homeric Greek, namely sentential negation combined with the indefinite existential, τις. Furthermore, the parallel between the determiner and these two quantifiers is particularly strong because singular simple distributive πᾶς and οὐδείς may sometimes belong to the same category as the determiner in Classical Greek; if that is the case, it would not be surprising to see them start to appear around the same time. I adopt a similar policy with regard to the vague count and mass quantifiers, which I argued are never demonstrably strong in Homer; even though it is possible that some of the ambiguous examples may actually be strong, I rely on that argument here and refer to these quantifiers as being weak in Homer.

The first basis for distinction is the strong/weak or cardinal/proportional split. I already made use of this distinction in my presentation of the negative/existential and vague count and mass data, but I will review it in a bit more detail here. This distinction is grounded in the classical model-theoretic framework, in which quantifiers are thought of as relations between sets (Milsark 1977:22-25). Different quantifiers specify different kinds of relations. The most intuitive definitions of these relations do not make them maximally commensurable. In the examples in 4a-c, for instance, the universal quantifiers could be described as specifying that the set of seals is a subset of the set of swimmers, and the existential quantifier 'some' as specifying that the intersection of the set of seals with the set of swimmers is non-empty:

(4) a. Every seal swam.
b. All seals swam.
c. Some seal swam.

So universals specify a subset relationship between two sets, whereas existentials place a condition on their intersection. That may seem clear enough, but there is another way of describing these relations that makes it easier to see what the minimal difference between them is. All quantifiers can be thought of as creating conditions on the intersection of the two sets they relate. Universals, for instance, can be thought of as specifying that the intersection between the restriction set and the scope set must be equal to the restriction set. In 4a-b, that means that the set of seals who are swimmers must be equal to the set of seals. This intersection-based definition has the same truth-conditions as the subset definition; if you check the model world and find that all seals are seals who are swimmers, the sentence is true. But the intersection-based way of defining the universal quantifier relation allows for a clearer comparison between it and the existential relation, which was already intuitively defined as intersection-based. One difference that becomes clear when the two relations are compared this way is that the universal quantifier requires you to take the intersection and compare it

with the restriction. To know whether all seals are swimmers, you have to compare the set of seals with the set of seals that are swimmers. The existential does not require you to do that. To know whether some seal is a swimmer, the only set you have to look at is the set of seals that are swimmers. The existential relation specifies that the intersection must have at least one member; it says nothing about the relation between the intersection and the restriction. This distinction is the basis for the division of quantifiers into two categories known as cardinal and proportional (Keenan and Stavi 1986). Cardinal quantifiers tell you something about the intersection alone, while proportional quantifiers tell you something about the relation between the intersection and the restriction.

Does the quantifier inventory difference between Homeric Greek and Classical Greek have anything to do with quantifier strength? The lexical quantifiers that are missing in Homer are πᾶς 'every', οὐδείς 'no', and ἔνιοι 'SOME'. The quantificational meanings that are missing are the proportional readings of πολύς, ὀλίγος, and παῦρος. This looks very promising; Homer may lack proportional quantifiers. The universal πᾶς 'every' is proportional, as are the relevant readings of the vague count and mass quantifiers, and ἔνιοι, which is a proportional counterpart of τις. What about οὐδείς (5a)?

(5) a. οὐδεὶς γὰρ ἵππος ἐπέλαζε (Xen. *Cyr.* 7.1.49)
For no horse would approach

This sentence is true if the intersection of the set of horses and the set of approachers is empty, so the negative quantifier would seem to be cardinal. But there is a wrinkle to the definition of 'no' in terms of proportionality and cardinality. The meaning of 'no' can also be thought of in a proportional way, as setting a condition on the relation between horses and horses who approach: the latter have to be zero percent of the former (Partee 1995). This means that the negative quantifier, like the existential and

vague count and mass quantifiers, is ambiguous between a cardinal and proportional meaning. It would still be possible then to claim that οὐδείς is ruled out because it has a proportional reading. But if that were the case, why would it be missing, instead of being present in full force but only as a cardinal, like the vague count and mass quantifiers? In fact, there is a sense in which it is present as a cardinal, because in Homer, negative quantification is accomplished via sentential negation of a cardinal (6a).

(6) a. ὅσσ' οὔ πώ τις ἐῇ ἐπέδωκε θυγατρί (Il. 9.290)
Such-as not ever someone to-his gave daughter
Such as no one ever before gave to his daughter

So, Homer does not have a lexical negative quantifier, but he does have a non-lexical mechanism for expressing negative quantification, which is explicitly cardinal. Again, Homeric Greek has only a cardinal quantifier meaning where Classical Greek has one that is ambiguous between cardinal and proportional. This state of affairs makes it possible to claim that in every case where Classical Greek has both cardinal and proportional versions of a given quantifier (as in the case of the indefinites ἔνιοι and τις) or a quantifier that is ambiguous between cardinal and proportional readings (οὐδείς, πολύς, ὀλίγος), Homer has only a cardinal version.

So far, things look pretty good for the hypothesis that Homeric Greek lacks proportional quantifiers. All of the lexical quantifiers that are present in Classical Greek but not in Homeric Greek are proportional, and furthermore, Homer lacks the proportional but not the cardinal version or reading of ambiguous quantifiers. But there is a problem. What about the quantifiers Homeric Greek does share with Classical Greek? These include two universals, πᾶς plural and ἕκαστος, which are both proportional:

(7) a. δὸς καὶ τούτῳ ἔπειτα δέπας μελιηδέος οἴνου / σπεῖσαι, ἐπεὶ καὶ τοῦτον ὀΐομαι ἀθανάτοισιν / εὔχεσθαι· πάντες δὲ θεῶν χατέουσ' ἄνθρωποι (Od. 3.46-8)
Give then also to this man a cup of honey-sweet wine, to pour a libation with, since I think that he too prays to the gods; all men have need of the gods

b. ὣς ἡ πορφυρέῃ νεφέλῃ πυκάσασα ἑ αὐτὴν δύσετ' Ἀχαιῶν ἔθνος, ἔγειρε δὲ φῶτα ἕκαστον (Il. 17.551-2)
So she having enveloped herself in a purple cloud descended into the band of Achaeans, and roused each man

In (7a), it is necessary to compare the set of men with the set of men who have need of the gods, in order to know that they are identical. In (7b), it is similarly necessary to compare the set of men with the set of men roused by Athena (though this time the restriction 'men' applies within a specific context, or 'domain', namely the band of Achaeans). The presence in Homer of two proportional universal quantifiers means that it is not possible to claim that Homer lacks proportional quantifiers. Still, the proportional/cardinal split does seem to be somehow important, with that caveat. What can be claimed is that Classical Greek has a much larger assortment of proportional quantifiers than Homeric Greek does, and that Homer specifically lacks the proportional counterpart or meaning of those quantifiers that in Classical Greek can be either cardinal or proportional.

The next basis for distinguishing between different types of quantifier has to do with the kinds of inferences that they allow you to make about super- and subsets of the sets denoted by their scopes (Ladusaw 1979). Here some valid and invalid inferences of this type (the arrow stands for 'if…then'):

(8) a. All seals swim fast. → All seals swim. (valid)
b. All seals swim. → All seals swim fast. (invalid)
c. No seals swim. → No seals swim fast. (valid)
d. No seals swim fast. → No seals swim. (invalid)

The universal quantifier allows inference to supersets of its scope (8a): if all seals swim fast they must also necessarily swim. Inference to subsets (8b) does not work: if all seals swim, it is not also necessarily true that they swim fast. The reverse is true for the negative quantifier. It allows inference to subsets, but not to supersets (8c and d). Quantifiers that allow inferences only about supersets are said to be 'right upward monotone'; quantifiers that allow inferences only about subsets are 'right downward monotone'. The terminology is based on a spatial metaphor; you get to larger sets (supersets) by moving 'up' and smaller sets (subsets) by moving 'down'; the 'right' part indicates that the inference concerns the scope, which in English is usually to the right of the restriction. There are other types of monotonicity distinction, but this one will be most useful for what follows.

The other universals besides 'all' are upward monotonic, as is the indefinite/existential, the cardinal 'small quantity' vague count and mass quantifier, and both the cardinal and proportional 'large quantity' vague count and mass quantifiers. In each of the examples in 9a and b, inference in the direction shown is valid, but inference in the opposite direction is not.

(9) a. Every/each/every kind of seal swims fast → Every/each/every kind of seal swims.
b. Some seals swim fast → Some seals swim.
c. Many seals swim fast. → Many seals swim.
d. Much city air is polluted with carbon monoxide. → Much city air is polluted.
e. A lot of water spilled on the table. → A lot of water spilled.
f. A few seals swim fast. → A few seals swim.
g. A little water spilled on the table. → A little water spilled.

Besides the negative universal, the proportional 'small quantity' vague count and mass quantifiers are downward monotone (10a-b):

(10) a. Few seals swim. → Few seals swim fast.

b. Little water spilled. → Little water spilled on the table.

How does this split match up with the inventory split between Classical and Homeric Greek? It does allow for another generalization: Homer lacks lexical downward monotone quantifiers (οὐδείς and proportional ὀλίγος/παῦρος). The two proportional quantifiers that Homer does have are upward monotone: πᾶς plural and ἕκαστος. Montonicity properties alone can't explain the quantifier inventory split between Homeric and Classical Greek, because Homer also lacks a bunch of upward monotone quantifiers: πᾶς 'every', as well as proportional ἔνιοι 'some' and πολύς 'many'. But both proportionality and monotonicity will prove to be relevant in the context of the next scheme for classification of quantifiers, the indefinite/quantifier distinction in dynamic semantics.

Both of the ways of distinguishing different kinds of quantifier that I have talked about so far have been grounded in the classical model-theoretic framework; they focus on set-theoretic implications of quantifier meaning. The next basis for distinction that I will discuss is grounded in the dynamic semantic framework, which was designed to take into account not only set-theoretic but also discourse properties of noun phrases. In the background section on quantification in formal semantics, I did not use a very wide variety of quantifiers in my examples; I used 'every' and 'some' when I was talking about the classical model-theoretic framework, but then limited myself to 'every' when I was talking about the dynamic semantic framework. There was a reason for that. 'Every' is quantificational according to each definition I gave. But 'some' is not. Different definitions of 'quantifier' include and exclude different individual lexical items from membership in the set of quantifiers. According to the dynamic semantic definition of 'quantifier', not all of the elements I have been referring to as quantifiers are actually quantificational.

In dynamic semantics, quantifiers are distinguished from definite and indefinite noun phrases on the basis of how they affect the discourse representation. In terms of the file change metaphor, indefinites create new cards and definites update old ones. Quantifiers do not create new cards, or update old ones; they create conditions on them. One of the pieces of evidence used to support this claim is that unlike definites and indefinites, quantified noun phrases cannot be referred to by definite pronouns that are outside of their scope (Heim 1983). This makes sense, if quantifiers are thought of as not creating cards; if no card is created by a quantified noun phrase, then no card is made available for subsequent update. When a definite pronoun tries to update the card (11c), it will fail, and the sentence containing that definite will not compute.

(11) a. There is a soldier with a gun. He will shoot.
b. The soldier has a gun. He will shoot.
c. Every soldier has a gun. #He will shoot.

This failure occurs only when the pronoun is outside the scope of the quantifier. Inside the scope of a quantifier, definite pronouns can be interpreted either as referent-updaters (12a) or as 'bound variables' that refer back to the quantifier (12b).

(12) a. I've asked a few people whether they think that guy will shoot. Every soldier says he will shoot.
b. I asked the soldiers whether they will shoot. Every soldier says he will shoot.

This second function for the definite pronoun makes intuitive sense if you think about it in terms of the condition-creating properties of the quantifier. In the context of a condition, which triggers an evaluation of cards rather than a direct update of them, definite pronouns can optionally be put to work in a special capacity, as mechanisms that help to create complex properties, rather than as referent-updaters. In (12b), the quantifier will trigger a one-by-one evaluation of 'soldier' cards, which will eliminate all soldiers who do not say they will shoot. Pronouns help to create complex meanings

by acting as variables, which are placeholders whose reference can vary from context to context: 'if x is soldier, x says x will shoot'. As operators, quantifiers are said to 'bind' variables because they create functions in which particular variables have particular fixed roles, even though their reference varies. This comes in handy when evaluating cards: when the quantificational condition is evaluating the card associated with Joe, the variable can stand in for him, and see whether it is true both that Joe is a soldier and that Joe says Joe will shoot; when it is evaluating Bill, it can stand in for Bill, and so on. So, within the context of a quantifier's tripartite condition-like structure, a definite pronoun can refer back to it, but outside of that structure, reference to quantifiers by definite pronouns fails because quantifiers do not actually create discourse referents.

According to this definition of 'quantifier', cardinal quantifiers are not quantificational, but indefinite, because they introduce discourse referents. In each of the sentences in (13), the cardinal quantifier in the first sentence introduces a discourse referent that the definite pronoun in the second sentence can update (example template from Heim 1983):

(13) a. Some soldier is armed. He will shoot.
b. Sm soldiers are armed. They will shoot.
c. Many (a large number of) soldiers are armed. They will shoot.
d. A few soldiers are armed. They will shoot.

Singular proportional quantifiers are clearly quantificational, by this measure (14a-b).[94]

(14) a. Every soldier is armed. #He will shoot.
b. Each soldier is armed. #He will shoot.

[94] There is a specialized context in which singular proportional quantifiers do support anaphora with unbound pronouns. It is known as 'telescoping' (Roberts 1989), because it basically involves extending the scope of the quantifier past the end of the sentence, so the unbound pronoun can act like a bound variable: 'Every soldier takes his gun. He puts it on his shoulder, then he puts it down again.' (example from Corblin, Comorovski, Laca, and Beyssade 2004:16).

Plural proportional quantifiers are harder to evaluate. At first, it appears that they can be referred back to by definite pronouns outside their scope (15a-c). It has been argued on the basis of this evidence that they are not truly quantificational (Baker 1995; 1996:53-66).

(15) a. All the soldiers are armed. They will shoot.
c. SOME soldiers are armed. They will shoot.
d. Many (a large proportion of) soldiers are armed. They will shoot.

But there are some complicating factors. These quantifiers are grammatically plural, so any pronoun that referred back to them would also have to be plural. Unfortunately, this fact muddies the waters, because plural pronouns that are outside of a quantifier's scope (I will refer to these as 'unbound' pronouns) appear to be capable of doing something different from what singular ones do. The same singular quantifiers that cannot be referred back to by singular unbound pronouns can be referred back to by plural unbound pronouns (16a-b).

(16) a. Every soldier is armed. They will shoot.
b. Each soldier is armed. They will shoot.

There are indications that it is not actually the proportional quantifier that licenses the reference back (anaphora) in these cases. Instead, the plural pronoun seems to be licensed by something else. With some proportionals, it is possible to construct examples in which the pronoun clearly refers to the restriction set, rather than to any more complex discourse referent that could have been created by the quantifier. In 17a below (example from Chao 1983 via Roberts 2004), the pronoun 'they' refers to 'women from the village', rather than to 'the proportionally large number of women from the village who went to the fair'. In 17b, the pronoun refers to all of the lettuces, not the subgroup of lettuces that are half-eaten.

(17) a. Many women from the village came to the fair. They like that sort of thing. (R04:533)
b. Some of the lettuces are half-eaten. They are being attacked by rabbits.

Roberts (2004) argues that a plural unbound pronoun can be pragmatically licensed by the restriction of a quantifier: the restriction makes the property it denotes salient (in 17a, brings up the property 'woman from the village') and thereby makes it possible for pronouns to refer to instantiations of that kind (so in 17a, 'they' is standing in for 'women from the village'). It can be particularly clear that the restriction alone is the licenser when a downward monotonic quantifier is involved (Roberts 2004). In 18a, the meaning of the second sentence is not 'no soldiers handed their guns in on Tuesday', but rather 'the soldiers handed their guns in on Tuesday':

(18) a. None of the soldiers have guns. They handed them in on Tuesday.
b. Few (of the) soldiers have bayonets. They don't really need them, now that they have guns.

Pragmatic licensing by the restriction does not account for all examples of apparent anaphora between unbound pronouns and proportional quantifiers, however. The unbound plural pronoun is not always licensed by the restriction alone. Sometimes, it is clearly licensed by at least the intersection of the restriction and the scope, if not some sort of accomodated cardinal reading. This seems to be possible only with upward monotone quantifiers (19a-b). With downward monotone quantifiers (20a-b), the unbound pronoun is very awkward if the example is designed to bring out the intersective/accomodated cardinal reading:

(19) a. Many of the soldiers are wearing overcoats. They won't get cold, but the other soldiers will.
b. SOME of the soldiers have guns. They will have to do all the shooting.

(20) a. Few of the soldiers are wearing overcoats. #They won't get cold, but the other soldiers will.

b. Few of the soldiers have guns. #They will do all the shooting.

In 19a, the pronoun 'they' could either be interpreted as generic, 'soldiers who are wearing overcoats', or as referring to the discourse referent that would have been introduced if 'many' were cardinal: 'the proportionally large group of soldiers who are wearing overcoats'. The pronoun in 20a should be able to do the same thing, but doesn't, or at least does it less easily.

Parallel examples with the upward monotone universal and downward monotone negative quantifiers are not available, because they don't create subgroups. But there is some contrast between them along similar lines. With the negative, it is always clear that the pronoun refers to the kind denoted by the restriction, because dynamically speaking, after the evaluation of cards triggered by the quantifier, all armed soldiers will be eliminated (no soldiers are armed soldiers) (21a).

(21) a. None of the soldiers are armed. #They (the nonexistent armed soldiers) will shoot./They (the soldiers) won't shoot

With the universal, it is not obvious, because after the evaluation, all soldiers are armed soldiers (22a).

(22) a. All the soldiers are armed. They (the universally armed soldiers) will shoot.

The upward monotone proportional quantifiers as a group seem to be more able than the downward monotone quantifiers to produce discourse referents that are more than just instantiations of the kind denoted by their restriction. But, the universal also differs from the two upward monotonic proportionals 'many' and SOME, precisely because they create subgroups and it doesn't. With 'many' and SOME, there is a pragmatically significant meaning difference between the restriction-based pseudo-anaphoric reading of the pronoun found in the examples in (17), and the intersection-

based pseudo-anaphoric or accomodated cardinal reading found in the examples in (19). With 'all', the difference between these two readings will never be pragmatically significant. Unbound pronouns construed with 'many' and SOME have ambiguous reference, while unbound pronouns construed with 'all' have vague reference.

I have been talking in detail about intersentential anaphora because it is one of the tests used in the dynamic semantic framework to distinguish quantifiers from indefinites; indefinites support anaphora with unbound pronouns, and quantifiers do not. The test is not entirely straightforward, because it can be difficult to distinguish true anaphora from pragmatic licensing of reference to kinds (I will call this latter type 'pseudo-anaphora'). Nevertheless, it is possible to group proportional quantifiers into some new categories on the basis of it. I list these groups below, and look at how the Homeric and Classical Greek inventories match up for each group.

1) Cardinals. In dynamic semantics, cardinals are indefinites, rather than quantifiers. They introduce discourse referents that can be updated by unbound pronouns (23a):

(23) a. {Sm, many (a large number of), a few} soldiers are armed. They will shoot.

Classical Greek and Homeric Greek share cardinal πολύς, τις and ὀλίγος; Homer also has παῦρος, which does part of the work that ὀλίγος does in Classical Greek. There is more agreement between Classical and Homeric Greek here than in any other group. Homer apparently has no problem with quantifiers that allow true anaphora.

2) The grammatically singular proportional quantifiers 'every', 'each', and 'no'. With these quantifiers, it is easy to distinguish true anaphora from pseudo-anaphora (24a-b). True anaphora would require a singular pronoun, and is not licensed. Pseudo-anaphora is licensed, and involves a plural pronoun.

(24) a. Every/each soldier is armed. #He will shoot./They will shoot.
b. No soldier will shoot. #He won't be able to./They won't be able to.

How does this group fare in Homeric and Classical Greek? Classical Greek has πᾶς singular 'every', ἕκαστος 'each', and οὐδείς 'no' (25a-c). Πᾶς singular and οὐδείς as subjects take singular agreement, and singular subject ἕκαστος has an 88% rate of singular agreement.

(25) a. πᾶς δὲ ἰδιώτης πλούσιος ἂν ᾤετο γενέσθαι, εἴ τι Κύρῳ χαρίσαιτο (Xen. *Cyr.* 8.6.23)
Every individual thought that he would become rich, if he did something to please Cyrus
b. ἐπειδὴ ἡμῖν κατὰ γῆν οὐδεὶς ἐβοήθει (Thuc. 1.74.2)
Since nobody sent us aid by land
c. ἦγεν ἕκαστος ὁ στρατηγὸς τὸν αὑτοῦ λόχον ἐπὶ κώμην (Xen. *An.* 6.3.2)
Each general led his own company against a village

Homeric Greek lacks πᾶς singular 'every' and οὐδείς 'no'. It has ἕκαστος 'each', but singular subject ἕκαστος usually takes plural verb agreement (72%), particularly in the Iliad (89% Iliad, 62% Odyssey) (26a).

(26) a. οἳ δ' οὐ γιγνώσκοντες ἀπηνήναντο ἕκαστος (Il. 7.185)
But they, not knowing it, each rejected it

Homer also has kind-distributive πᾶς singular 'every kind of' (27a).

(27) a. Ἀρχέλοχός τ' Ἀκάμας τε μάχης εὖ εἰδότε πάσης (Il. 2.823, 12.100)
Archelochos and Akamas, well-versed in every kind of combat

Interestingly, kind-distributive 'every' does support anaphora with singular unbound pronouns. This is not surprising if it is viewed as a form of pseudo-anaphora. With singular kind-quantifying 'every', a singular unbound pronoun can refer to a representative instantiation of the type, or, when it is used with an abstract, to the abstract type. That would be the singular equivalent of the plural pseudo-anaphora

seen in 17a-b above. In 28a, 'he' means something like 'a president' or 'any president', and in 28b, 'it' means 'combat' or 'combat of every kind':

(28) a. Every president has a vice president. He also has a secretary of state.
b. All (= every kind of) combat requires courage. It also requires strength.

Homeric Greek seems to have a problem with these quantifiers that relates to their inability to support true anaphora with agreeing unbound pronouns. It lacks singular 'no', as well as 'every', except kind-distributive 'every', which licenses pseudo-anaphora with singular pronouns. It does have 'each' but primarily with plural agreement, the type associated with pseudo-anaphora. Classical Greek has no such problem, and allows both types. Homer also is more sensitive to the true anaphora vs. pseudo-anaphora distinction.

3) Grammatically plural downward monotone proportionals. These quantifiers allow only pseudo-anaphora; plural unbound pronouns are always licensed by the restriction, not by the intersection of the restriction and scope, or an accomodated cardinal reading of the quantifier. Classical Greek has proportional ὀλίγος; οὐδείς is always singular, at least in the sample, and so belongs in category 2. Homer lacks both; instead it has cardinal ὀλίγος and παῦρος and sentential negation of cardinal τις.

4) Group-dividing grammatically plural upward monotone proportionals. The upward monotone proportionals support more types of anaphora with unbound pronouns than the downward monotone proportionals. Unbound pronouns can apparently be licensed by the restriction, the intersection of the restriction and scope, and/or an accomodated cardinal reading of a plural upward monotone proportional quantifier. Classical Greek has plural proportional πολύς, ὀλίγος, and ἔνιοι. Homer lacks all three; instead it has cardinal πολύς, ὀλίγος, παῦρος and existential τις.

5) Universal grammatically plural upward monotone proportionals. With universals, it is unclear what licenses the unbound pronoun. It could be licensed by the restriction, or the intersection of the restriction and scope. The pronoun could also have some sort of accomodated reading that includes the meaning of the quantifier in adverbial or adjectival form: 'the soldiers in their entirety/the soldiers who all x' or 'the soldiers individually/the soldiers who each x' (the idea of treating 'all' and 'each' as adverbial will come up again in the next section, where I discuss syntactic differences). Because of the particular meaning of universals, the difference between these readings is never going to be pragmatically significant, so the meaning of the pronoun remains vague. Both Homeric and Classical Greek have plural πᾶς and ἕκαστος.

Does the indefinite/quantifier distinction make the inventory split between Homeric and Classical Greek look systematic in any way? It explains at least as much as the cardinal/proportional distinction does, because it takes over the cardinal/proportional distinction and characterizes it in different terms. Almost all of the inventory differences between Homer and Classical Greek involve Homer lacking proportional quantifiers and quantifier meanings, but Homer does have two proportional quantifiers, πᾶς and ἕκαστος. In dynamic terms, this would mean that the only true quantifiers Homer has are πᾶς and ἕκαστος. The dynamic perspective also adds a possible syntactic motivation for the inventory difference. Homer may have a problem with true quantifiers because they do not introduce discourse referents. Sticking with that as the working conclusion of this section leaves the presence of πᾶς plural, kind-distributive πᾶς singular, and ἕκαστος in Homer as a problem that has to be explained in some other way.

Another option would be to try to take the indefinite/quantifier split as a starting point but also make a bit more out of the finer-grained distinctions between the numbered groups above. Among the plural proportional quantifiers, Homer lacks those for which

the distinction between true anaphora and pseudo-anaphora is pragmatically significant — everything but the universals. The singular negative quantifier οὐδείς can be ruled out for the same reason ('no soldier' doesn't make a good antecedent for 'he', but 'soldier' can license 'they'). The singular universals raise a different set of issues. For them, the difference between true anaphora and pseudo-anaphora is syntactically significant. Whereas true anaphora would involve an agreeing bound-variable type pronoun, pseudo-anaphora involves a non-agreeing, definite pronoun. There is a clear syntactic distinction between true anaphora and pseudo-anaphora. The exception to that rule is kind-distributive πᾶς, which Homer does have. Because kind-distributive πᾶς quantifies over kinds in the first place, it licenses pseudo-anaphora with a singular, agreeing pronoun, which means it looks just like true anaphora. So both types of πᾶς that are present in Homer, the plural and the kind-distributive type, allow pseudo-anaphora that might as well be true anaphora, for all practical purposes.

The worst problem for the theory that Homer doesn't like quantifiers for which the difference between true anaphora and pseudo-anaphora is syntactically or pragmatically significant is the presence in Homer of ἕκαστος singular. It is not possible to claim that πᾶς singular 'every' is ruled out because pseudo-anaphora with it is syntactically distinguished from true anaphora, because the same thing should apply for ἕκαστος. It is also not possible to claim that ἕκαστος appears because it is a universal, and the difference between pseudo-anaphora and true anaphora is insignificant for universals, because the same should apply for πᾶς. But there is at least one difference between πᾶς singular and ἕκαστος in Classical Greek, and a similar difference between 'every' and 'each' in English, that may have some bearing on this issue. In Homeric Greek, ἕκαστος usually takes plural verbal agreement, which looks like some kind of pseudo-anaphora within the sentence: 'they saddled their horses, each one of them'. Even in Classical Greek, singular subject ἕκαστος

sometimes appears with plural verbal agreement, whereas singular subject πᾶς does not. In English, 'each' can float off of a plural, and 'every' cannot: 'the children each got a balloon' is OK, but 'the children every got a balloon' is not. There seems to be something about the more specifically distributive singular universal that is more compatible with pseudo-anaphora, which is the only type of anaphora that is possible for singular universals. Nevertheless, the presence of ἕκαστος singular in Homer still goes against the main line of argument I have been pursuing, which is that Homer doesn't like quantifiers for which the difference between true anaphora and pseudo-anaphora is syntactically or pragmatically significant. So, for now, that line of argument leaves the presence of ἕκαστος singular unexplained.

In this section, I have argued that the quantifier inventory differences between Classical and Homeric Greek are at least partially systematic. At minimum, I can claim that the differences all involve Homeric Greek lacking proportional quantifiers and quantifier meanings that are present in Classical Greek, and that in several cases Homer lacks specifically the proportional reading of a quantifier that is ambiguous in Classical Greek. That claim would leave the presence of proportional ἕκαστος and kind-distributive and plural πᾶς, which goes against the trend, to be explained in some other way, perhaps in terms of their syntactic behavior. I also outlined another, less firmly grounded line of explanation, which was based on the idea that Homer prefers quantifiers for which the distinction between anaphora and pseudo-anaphora is syntactically and pragmatically insignificant, and which focused more closely on the precise anaphora-licensing properties of several different subtypes of proportional quantifiers. It had the advantage of predicting the presence of kind-distributive and plural πᾶς, but left the presence of ἕκαστος singular still unexplained. In the next section, I will look at the differences in syntactic behavior of quantifiers in Classical and Homeric Greek, which can now be discussed with this semantic background in mind.

4.3 Quantifier syntax

In the last section, I argued that quantifier inventory differences between Homeric and Classical Greek are at least partially systematic. In this section, I discuss differences in syntactic behavior of quantifiers, and argue that they too are systematically related. I look first at the structure of the noun phrase, which is less hierarchical in Homeric than in Homeric Greek, and then at quantifier-noun continuity and relative order, and their implications for quantifier-noun coherence; in general, quantifiers and their restrictions are less likely in Homeric than in Classical Greek to be bound together into constituents. I pay some extra attention here to the behavior of the universals πᾶς and ἕκαστος, because they are the proportional quantifiers that are present in both Homeric and Classical Greek.

The first difference at the phrase level has to do with the categorial status of quantifiers, and the overall structure of the noun phrase. Classical Greek has a determiner that combines with noun phrases to form determiner phrases (Abney 1987; for Greek, see Devine and Stephens 2000).

(29) a. [DP ὁ [NP ἄνθρωπος]]

Quantifiers can be divided into several different groups based on their relation to the determiner. The first such division corresponds to the cardinal/proportional split, which is also known as the weak/strong split. The terms 'weak' and 'strong' can also can be applied more broadly to other elements that share syntactic properties with cardinal or proportional quantifiers, and are more widely used in the literature, so I will adopt them in this section.

Weak quantifiers, and weak readings of ambiguous quantifiers, can follow the article in definite noun phrases, like attributive adjectives (30a-b).

(30) a. ἐγένοντο δὲ καὶ οἱ πολλοὶ σεισμοὶ τότε τῆς γῆς, ἔν τε Ἀθήναις καὶ ἐν Εὐβοίᾳ καὶ ἐν Βοιωτοῖς καὶ μάλιστα ἐν Ὀρχομενῷ τῷ Βοιωτίῳ (Thuc. 3.87.4)
It was also at that time that the many earthquakes happened, in Athena and Euboea and Boeotia, and especially in Boeotian Orchomenos.

b. ἀγγέλλονται αἱ δύο καὶ τεσσαράκοντα νῆες καὶ ὁ Ἀγησανδρίδας ἀπὸ τῶν Μεγάρων τὴν Σαλαμῖνα παραπλεῖν (Thuc. 8.94.13)
The forty-two ships, and Agesandridas, were reported to be sailing from Megara along the coast of Salamis.

But, that does not mean that a weak quantifier necessarily sits in the same structural position as any other attributive adjective. When weak quantifiers and attributive adjectives are stacked in the noun phrase, the neutral order is quantifier first. Stacking of vague quantifiers, such as πολύς, with adjectives is less common than coordination, but does occur. When stacked, weak quantifiers follow possessives but precede adjectives of quality (31a-d).

(31) a. καὶ συὶ δὲ ἀσθενεῖ χαλεπὸν πολλοὺς ἁδροὺς χοίρους ἐκτρέφειν (Xen. *Oec.* 17.10-11)
And it is hard for a weak sow to bear numerous sturdy piglets

b. Αθηναίων γὰρ οὐδεὶς ἐν ταύτῃ τῇ ἡμέρᾳ οὐδενὸς σπουδαίου ἔργου τολμήσαι ἂν ἅψασθαι (Xen. *Hell.* 1.4.12-13)
None of the Athenians on that day would dare to take up any serious task

c. καὶ νῦν δύο καλώ τε καὶ ἀγαθὼ ἄνδρε τέθνατον (Xen. *An.* 4.1.19)
And now two noble men are dead

d. αἱ σφέτεραι δέκα νῆες (Thuc. 1.50-1)
Their ten ships

This relative order corresponds to the unmarked order for adjective stacking observed in Italian and other languages (32) (Coene and d'Hulst 2003:26):

(32) Possessive > Cardinal > Ordinal > Quality > Size > Shape > Color > Nationality (C03:26)

This neutral order, among other evidence, has been used to argue for the existence of multiple different functional projections between the determiner and noun, which host specific types of adjective (Cinque 1994; Crisma 1996). Based on the neutral order shown in 32, I assume that the Classical Greek noun phrase has at least the functional projections shown in 33a (structure based on Zamparelli 2000:16, 124, 240 and Heycock and Zamparelli 2003 for English and Italian, and Devine and Stephens 2006:517 for Latin).

(33) a. [DP determiner [WQP weak quantifiers [NP [modifiers][noun]]]]

Quantifiers on their strong readings do not appear in attributive position. Instead, they do one of three things: appear outside an agreeing determiner phrase in so-called predicative position, appear outside a partitive genitive determiner phrase, or take an agreeing bare noun restriction. I will talk first about the type that appears outside an agreeing determiner phrase.

The strong quantifiers that can appear outside agreeing determiner phrase restrictions are πᾶς and ἕκαστος. The external quantifier can co-occur with an adjective or other DP-internal modifier (34a-c):

(34) a. καὶ ἐρημῶσαι πάντας τοὺς οἰκείους τόπους συμπάσης τῆς πατρίδος (Pl. *Leg.* 865e8-9)
And to abandon all the familiar places of all his native country
b. καὶ ἐδέξαντο πάντες οἱ ἐπὶ Θρᾴκης ξύμμαχοι Λακεδαιμονίων τὰ πεπραγμένα (Thuc. 4.122.2-3)
And all the allies in Thrace of the Spartans accepted what had been done
c. Οὐκοῦν σμικρὸν ῥῆμα κατασβέννυσι πάσας τὰς τοιαύτας ἡδονάς; (Pl. *Leg.* 838b7-8)
Isn't there a short saying that extinguishes all such pleasures?

A DP-external strong quantifier can also co-occur with a DP-internal weak quantifier, as in 35a.

(35) a. τοὺς δὲ δικαστὰς κληροῦσι πάντες οἱ ἐννέα ἄρχοντες (*Ath. Pol.* 59.7)
All the nine archons cast lots to choose jurors

There are at least two possible structural representations of this quantifier position. The first (36a) would take the quantifier to be a head which selects a determiner phrase complement (Giusti 1991):

(36) a. [SQP πάντες [DP οἱ [WQP ἐννέα [NP ἄρχοντες]]]]

The second would be based on the similarity of this placement of πᾶς and ἕκαστος to that of English *all* and *both*, which can appear outside an agreeing determiner phrase.[95] In some languages, quantifiers that can appear in this position share other distinguishing properties. *All* and *both*, along with *each*, constitute the 'floatable' class of English determiners, which can be discontinuous from their (subject) restrictions.

(37) a. {All, both / *no(ne), some, few, many} the children have been given balloons
b. The children ({all, both /*no(ne), some, few many }) have ({all, both /*no(ne), some, few, many}) been given balloons

A correspondence between DP-external position and floating is also present in Romance languages such as French and Italian (Sportiche 1988; Zamparelli 2000:170).

(38) a. *Tous les enfants ont vu ce film* (S88:426)
All the children have seen this movie
b. *Les enfants ont tous vu ce film.*
The children have all seen this movie
c. *Tutti i molti sigari che lui fumava* (Z00:170)
All the many cigars that he smoked
d. *I ragazzi avevano {tutti, entrambi} telefonato a casa*
The boys had {all, both} called home

[95] Classical Greek ἀμφότερος also works this way: see for example Thuc. 4.123 ἀμφοτέρας τὰς πόλεις.

Based on this kind of evidence, floatable quantifiers have been analyzed as an adjuncts to NP (Sportiche 1988) or DP (Zamparelli 2000:173). On this analysis, they are thought of as forming their own phrases, possibly with null pronominal restrictions, which then get adjoined to the DP restriction, as in 'all of them, the boys'. Though the correlation between floatability and DP-external position does in a sense hold up for πᾶς and ἕκαστος, because they are both DP-external and floatable, the combination does not distinguish them as a class from other Greek quantifiers since most if not all other Greek quantifiers can also float. Nevertheless, they could be analyzed as adjuncts just on the basis of their position (and the inventory similarity with the floatable class identified for Romance and Germanic). That analysis, rather than adding a strong quantifier layer to the noun phrase structure as in (36a), would just make use of the possibility of adjoining a QP to the noun phrase complex (39a):

(39) a. [DP [QP πάντες] [DP οἱ [WQP ἐννέα [NP ἄρχοντες]]]]

I will hold off on choosing between these two options, to see how the possibilities for other strong quantifiers might fit in with them. Only a subset of the possible readings of πᾶς and ἕκαστος occupy this external position; I discuss readings of πᾶς and ἕκαστος that are associated with other positions below.

The other quantifiers with proportional readings, οὐδείς, ἔνιοι, πολύς and ὀλίγος, show a slightly different pattern. They take definite restrictions only as partitive genitives, and indefinites as agreeing bare nouns. The proportional readings of these quantifiers occur with definite restrictions, whereas the reading of the indefinite restriction type is cardinal. The cardinal type with indefinite restriction can be assimilated to the position already identified for cardinals, with the difference that the whole phrase is not preceded by a determiner (40a):

(40) a. [WQP πολλοὶ [NP ἄνθρωποι]]

The basic choice that came up in the case of πᾶς and ἕκαστος with agreeing definite restrictions, namely whether to analyze the quantifier as taking the restriction as a complement or as being adjoined to it, comes up again in the case of the quantifiers that take partitive determiner phrase restrictions, οὐδείς, ἕνιοι, πολύς, ὀλίγος and (optionally) ἕκαστος (see Ionin, Matushansky, and Ruys 2006 on adjunct vs. complement analyses of partitives). As in the case of the universals, on the adjunct interpretation (41b) it is assumed that there is some sort of null pronominal element, or unpronounced copy of the noun from the restriction, that serves as the restriction of the quantifier. These two possibilities would look like this:

(41) a. [QP πολλοὶ [DP τῶν [NP ἀνθρώπων]]]
b. [DP [QP πολλοὶ [NP e]] [DP τῶν [NP ἀνθρώπων]]]

Another possibility is to have the null or deleted element first compose with the partitive to form the complex 'boys of the boys'. That creates a constituent of type NP, which the quantifier can then adjoin to (42b) or take as a complement (42a).

(42) a. [QP πολλοὶ [NP e [DP τῶν [NP ἀνθρώπων]]]]
b. [NP [QP πολλοὶ] [NP e [DP τῶν [NP ἀνθρώπων]]]]

These latter options combine most easily with the layered structure proposed in 33a above, because they are separable into a quantifier and a noun phrase that can be distributed into the DP-layers already proposed (based on Zamparelli 1998, 2000:16, 124, 240). Strong and weak readings of partitives can be represented by locating the quantifier in the appropriate layer, or in the case of the strong quantifier possibly in an adjunct phrase (41b). For the weak reading, the quantifier would sit in WQP (43a).

(43) a. [DP [WQP πολλοὶ [NP e [DP τῶν [NP ἀνθρώπων]]]]]

For the strong reading, there are at least a couple of possible locations besides the adjunct one. If there is an SQP that houses πᾶς and ἕκαστος, strong readings of

partitive-taking quantifiers might also sit there (44a). That option is less appealing than it was for the universals because the original motivation for proposing an SQP was that πᾶς and ἕκαστος take agreeing DP rather than NP restrictions, whereas the type of the proposed complement constituent for partitives is NP. The other option would be to locate strong readings of partitive-taking quantifiers in the determiner layer (44b).

(44) a. [SQP πολλοὶ [DP [WQP [NP [e] [DP τῶν [NP ἀνθρώπων]]]]]]
b. [DP πολλοὶ [WQP [NP [e] [DP τῶν [NP ἀνθρώπων]]]]]

This would not necessarily have to amount to a claim that οὐδείς, ἔνιοι, πολύς, ὀλίγος and ἕκαστος can function as quantificational determiners. Though this is one of the standard analyses of strong quantifiers in English, including strong *many*, *few* etc., it might not be appropriate for Greek, since almost all Greek quantifiers float, whereas the definite determiner really stays put and does not move around separately from its noun. Zamparelli (2000:258-266) argues that vague quantifiers, in contrast to determiners, are not heads but full phrases located in specifier positions. This allows the possibility of locating strong vague quantifiers in the determiner layer without actually claiming that they are determiners, and that analysis could possibly be extended to the other partitive-restriction strong quantifiers. I will again leave it undecided whether or not there is an SQP layer above DP, but the discussion of the strong partitives has added another element to the question. As it stands according to the options outlined, if there is no SQP layer, then DP-external πᾶς and ἕκαστος are QP adjuncts to DP, and strong readings of quantifiers that take partitive genitive restrictions are either QP adjuncts to NP or are located somewhere in the DP layer.

There are a number of different readings of the universals πᾶς and ἕκαστος that are associated with different positions in the basic structure introduced above. Since πᾶς

and ἕκαστος are the strong quantifiers that appear in both Homer and Classical Greek, I will discuss their various readings in Classical Greek in a bit more detail.

First, the readings of the universals that are associated with DP-external position. As described above, πᾶς can take an agreeing determiner phrase restriction in both singular and plural (45a-b). Πᾶς plural quantifies over members of a set, while πᾶς singular quantifies over parts of a whole. Ἕκαστος can also take a determiner phrase restriction in both singular and plural and is always distributive.

(45) a. τῇ δ' ὑστεραίᾳ ὁ Κῦρος συνέλεξε πάντας τοὺς στρατιώτας (Xen. *Cyr.* 2.3.1)
The next day Cyrus called together all the soldiers
b. πρὶν ἐποίησαν πᾶσαν τὴν πόλιν ὁμολογεῖν Λακεδαιμονίους καὶ αὐτῶν ἡγεμόνας εἶναι (Xen. *An.* 6.1.27-8)
Until they made all the city agree that the Spartans would be rulers also of them

The most interesting aspect of this group of meanings for later comparison will be that singular πᾶς, when it occurs in a DP-external position parallel to that of plural πᾶς, does not have the count-distributive meaning 'every' but rather the mass-distributive meaning 'all'. This means that singular πᾶς has structurally distinct count and mass-distributive meanings.

For ἕκαστος, a definite partitive genitive restriction is also possible; this structure is particularly common when the restriction is pronominal, but it also occurs with lexical nouns (46a). Πᾶς on its own does not take partitive genitive restrictions, but in combination with τις it can, and in this form it is distributive and emphatic as in English *every (single) one* (46b).

(46) a. καὶ ἐκέλευεν αὐτὸν λαμβάνειν μέρος παρ' ἑκάστου τῶν ἡγεμόνων (Xen. *An.* 1.6.2-3)

And he ordered him to take a detachment from each of the commanders

b. καὶ τῶν λειπομένων πάντα τινὰ εἰκὸς ἐθέλειν ὑπὲρ αὐτῆς κάμνειν (Thuc. 2.41.5)
And it is fitting that every one of those who are left should be willing to suffer on her behalf

When πᾶς occurs in the WQP layer, it gets a weak adjectival interpretation (47a-b). Ἕκαστος does not occur in the WQP layer, at least when the determiner is filled.

(47) a. πολὺ δέ γε αἴσχιον καὶ ἀδικώτερον τοὺς πάντας Ἕλληνας καταπροδοῦναι, οἷς ξυνωμόσατε, ἢ Ἀθηναίους μόνους (Thuc. 3.63.3)
It was much more shameful and unjust to utterly betray the Greeks as a whole, with whom you made a pact, than the Athenians alone

b. ἐνταῦθα δὲ Ἀγασίας ὁ Στυμφάλιος λοχαγὸς τιτρώσκεται, τὸν πάντα χρόνον μαχόμενος πρὸς τοὺς πολεμίους (Xen. *An.* 7.8.19)
There Agasias the Stymphalian company commander was wounded, fighting the whole time against the enemy

Πᾶς and ἕκαστος can also take a bare noun phrase restriction, when the restriction on its own would lack an article (Smyth 1956:296, Kühner-Gerth 1898-1904/1955:631-33). In practice, such restrictions are usually generics, which can be bare plurals in Greek (48a):

(48) a. ἄνθρωποι δὲ ἐπ' οὐδένας μᾶλλον συνίστανται ἢ ἐπὶ τούτους οὓς ἂν αἴσθωνται ἄρχειν αὐτῶν ἐπιχειροῦντας (Xen. *Cyr.* 1.1.2)
Men revolt against nobody more readily than those they think are trying to rule over them

So, for example, πᾶντες ἄνθρωποι means 'all men' (49a), whereas πᾶντες οἱ ἄνθρωποι usually means 'all the men' (Smyth 1956:296, Kühner-Gerth 1898-1904/1955:631-33).[96] Singular πᾶς with a bare noun phrase can also get a generic

[96] Πᾶντες οἱ ἄνθρωποι can also mean 'all men', probably because definites can express generic reference in Greek (this is possible only in the singular in English: 'the blue whale is in danger of extinction'):

interpretation (49b). It is difficult to find parallel examples for ἕκαστος, which seems to require that its restriction be definite.

(49) a. κυοῦσιν γάρ, ἔφη, ὦ Σώκρατες, πάντες ἄνθρωποι καὶ κατὰ τὸ σῶμα καὶ κατὰ τὴν ψυχήν (Pl. *Symp.* 206c1-3)
"Socrates", he said, "All men are pregnant in both body and soul"
c. Πολλῶν μὴν ἐλπίδων, ὡς ἐλέγομεν ἄρτι, πᾶς ἄνθρωπος γέμει; (Pl. *Phlb.* 40a3)
But as were just saying, every man is full of many hopes?

Πᾶς here is probably not, like weak quantifiers with agreeing indefinite restrictions, located in the WQP layer, because πᾶς in the WQP layer has a collective meaning (47a-b); the meaning of (49a) is not 'the whole of mankind is pregnant'. Plural πᾶς in generic contexts seems to quantify over members of a set, and the meaning of singular πᾶς with a generic restriction is distributive; these meanings correspond to those of DP-external πᾶς. Plural πᾶς in generic contexts could be in DP-external position, whether as an adjunct (50a) or in an SQP layer, but this time without the DP layer itself being filled (50b). Or, if it is preferable not to have structures in which DP-external position is filled without DP being filled, generic πᾶς could be an adjunct to NP (50c).

(50) a. [DP [QP πάντες] [DP [WQP [NP ἄνθρωποι]]]]
b. [SQP πάντες [DP [WQP [NP ἄνθρωποι]]]]
c. [NP [QP πάντες] [NP ἄνθρωποι]]

The option of putting plural πᾶς into the DP layer for this type of example seems unappealing, since it would be strange for plural πᾶς to be a determiner only in generic contexts, and it is clearly not a determiner in non-generic contexts. Singular πᾶς in

---

(i) a. ἐπειδὰν γὰρ ὁ μετοπωρινὸς χρόνος ἔλθῃ, πάντες που οἱ ἄνθρωποι πρὸς τὸν θεὸν ἀποβλέπουσιν, ὁπότε βρέξας τὴν γῆν ἀφήσει αὐτοὺς σπείρειν (Xen. *Oec.* 17.3.2)
For when the autumnal season is over, I suppose all men look to God, to see when he will rain on the earth and free them to sow.

generic contexts, however, may have the same structure as regular singular distributive πᾶς, which takes the same type of restriction.

Singular distributive πᾶς, in contrast to plural πᾶς, always takes an NP restriction, even when the restriction is a previously introduced discourse referent. Ἕκαστος can also take this type of restriction. In 51a, a referent is introduced with the indefinite ασκῶν 'hides', reactivated with the definite τοὺς ἀσκοὺς, and then quantified over in ἕκαστον ἀσκὸν and πᾶς ἀσκὸς.

(51) a. **Ἀσκῶν**, ἔφη, **δισχιλίων** δεήσομαι· πολλὰ δ' ὁρῶ πρόβατα καὶ αἶγας καὶ βοῦς καὶ ὄνους, ἃ ἀποδαρέντα καὶ φυσηθέντα ῥᾳδίως ἂν παρέχοι τὴν διάβασιν. δεήσομαι δὲ καὶ τῶν δεσμῶν οἷς χρῆσθε περὶ τὰ ὑποζύγια· τούτοις ζεύξας **τοὺς ἀσκοὺς** πρὸς ἀλλήλους, ὁρμίσας **ἕκαστον ἀσκὸν** λίθους ἀρτήσας καὶ ἀφεὶς ὥσπερ ἀγκύρας εἰς τὸ ὕδωρ, διαγαγὼν καὶ ἀμφοτέρωθεν δήσας ἐπιβαλῶ ὕλην καὶ γῆν ἐπιφορήσω· ὅτι μὲν οὖν οὐ καταδύσεσθε αὐτίκα μάλα εἴσεσθε· **πᾶς** γὰρ **ἀσκὸς** δύ' ἄνδρας ἕξει τοῦ μὴ καταδῦναι. (Xen. *An.* 3.5.9-12)
I will need **two thousand hides**, he said; I see many sheep and goats and cows and asses, which having been skinned and blown up would easily provide the means of crossing. I will also need the straps which you use around the pack animals; I will bind **the hides** to one another with those, and anchor **each hide** by fastening stones to it and letting them down like anchors into the water, then carry it over, tie it on both sides, and pile branches and dirt on top of it. And you can know right away that you will not sink. For **every hide** will keep two men from sinking.

Since the singular distributive quantifiers are in complementary distribution with the article, they may be determiner quantifiers and have the structure shown in (52a-b).[97] English *every* and *each*, which unlike *all* can take definite bare noun restrictions in non-generic contexts, are usually analyzed as belonging to the category of determiners.

[97] In the case of ἕκαστος this would have to be optional since it can also take a singular DP restriction.

(52) a. [DP πᾶς [NP ἀσκός]]
b. [DP ἕκαστον [NP ἀσκόν]]

I pointed out in the data section that singular simple distributive πᾶς differs from other Greek quantifiers in that it almost never floats and almost never has NQ order. In that respect its behavior is more like that of the article than a typical quantifier. Singular ἕκαστος has the same strong tendency to be continuous with its restriction, but does not show the same consistently QN order.[98] This behavior is evidence in favor of analyzing πᾶς as a quantificational determiner, which would put it in a separate category from the rest of the quantifiers under consideration here. The case of ἕκαστος is more doubtful, but it too may be a determiner when it takes a bare singular restriction.

To sum up, Classical Greek has the basic noun phrase structure shown in 33a above. Different readings of quantifiers are associated with location in different layers; weak readings with the weak layer, strong readings with some kind of DP-external position, whether it be adjunct position or a dedicated strong quantifier layer. Two types of quantifier are candidates for location in the determiner layer. There is some reason to think that strong quantifiers with partitive restrictions may be located in the DP layer, though not as determiners. Singular distributive πᾶς appears to be a quantificational determiner, and ἕκαστος may optionally be one as well.

Is there evidence for a similarly layered noun phrase structure in Homeric Greek? To begin with, since the demonstrative ὁ has not fully developed into an article in Homeric Greek, the most conservative option would be to leave the determiner phrase out of the Homeric structure. The next question is whether there is any evidence for a syntactic distinction between strong and weak quantifiers, or between weak quantifiers

[98] Ἕκαστος singular, in Plato *Republic,* Xenophon *Anabasis* and Thucydides, has a 100% rate of continuity with its restriction (63 instances).

and ordinary adjectives, such as the preferred neutral ordering patterns illustrated above for Classical Greek.

Let's look first at whether there is evidence for a weak quantifier layer. There are abundant examples in Homer where a weak vague quantifier or cardinal numeral occurs together with an adjective. Stacking is less common with vague quantifiers than with cardinal numerals but does occur (as in Classical Greek, there is a lot of coordination of vague quantifiers with adjectives). For both cardinal numerals (53a-d) and vague count and mass quantifiers (54a-f), the most common and apparently neutral order is QAN:

(53) a. τῷ δ' ἅμα τεσσαράκοντα μέλαιναι νῆες ἕποντο (Il. 2.534, 545, 630, 644, 710, 737, 759; w. πεντήκοντα, Il. 2.556; w. τοῖσι and ὀγδώκοντα, Il 2.652)
And with him followed forty/fifty/eighty black ships
b. τέσσαρες ἀθλοφόροι ἵπποι αὐτοῖσιν ὄχεσφιν (Il. 11.698)
Four prizewinning horses with their carriage
c. ἔξει μιν καὶ πέντε περιπλομένους ἐνιαυτοὺς (Il. 23.833-4)
He will have it for five circling years
d. τοῖσιν δ' Ἀλκίνοος δυοκαίδεκα μῆλ' ἱέρευσεν, / ὀκτὼ δ' ἀργιόδοντας ὕας, δύο δ' εἰλίποδας βοῦς (Od. 8.59-60)
For them Alcinoos slaughtered twelve sheep, eight white-tusked boars, and two shambling oxen

(54) a. ὣς καὶ ἐγὼ πολλὰς μὲν ἀΰπνους νύκτας ἴαυον (Il. 9.325)
So I too spent many sleepless nights
b. πολλοὶ δ' ἐριαύχενες ἵπποι (Il. 11.159)
Many horses with high-arched necks
c. πολλὰς δ' ἰφθίμους ψυχὰς Ἄϊδι προΐαψεν / ἡρώων (Il. 1.3-4)
And sent many strong souls of heroes to Hades
d. οὕνεκ' ἔμελλε / πολλὰς ἰφθίμους κεφαλὰς Ἄϊδι προϊάψειν (Il. 11.54-5)
Because he was going to send many brave heads to Hades
e. τὸν δὲ λίσσοντο γέροντες / Ἀργείων, καὶ πολλὰ περικλυτὰ δῶρ' ὀνόμαζον (Il. 18.448-9)
The Argive elders entreated him, and named many fine gifts

f. πολλὰ δὲ ἴφια μῆλα καὶ εἰλίποδας ἕλικας βοῦς / πρόσθε πυρῆς ἔδερόν τε καὶ ἄμφεπον (Il. 23.166-7)
Next to the pyre they flayed and prepared many fat sheep and shambling curvy-horned cattle

So, there is evidence in Homer for a preferred order for weak quantifiers and adjectives, of the kind that has been used to argue for the presence of distinct functional projections for different types of adjective in the noun phrase. I will assume for now that there is a weak quantifier layer in the Homeric Greek noun phrase (55a):

(55) a. [WQP πολλὰ [NP περικλυτὰ δῶρ']]

Next, is there evidence for a strong quantifier layer that is distinct from the weak quantifier layer? There are a few examples in which πᾶς directly precedes a modified noun phrase, but none of them are good evidence for neutral order; in the first, the quantifier is more closely associated with the verb than the noun phrase (56a); in the second, the quantifier has to be weak ('I divided all my well-greaved companions in two' does not work) (56b), and in the third, the noun is enjambed (56c).

(56) a. ἀλλ' ἄγε μίμνετε πάντες | ἐϋκνήμιδες Ἀχαιοὶ (Il. 2.331)
But come now, remain, all you well-greaved Achaeans
b. αὐτὰρ ἐγὼ δίχα πάντας ἐϋκνήμιδας ἑταίρους / ἠρίθμεον, ἀρχὸν δὲ μετ' ἀμφοτέροισιν ὄπασσα (Od. 10.203-4)
But I divided in two (parts) the whole group of my well-greaved companions, and appointed a leader to both (parts)
c. ὅθ' εἵατο πάντες ἄριστοι / Ἀργεῖοι (Od. 8.512-13)
In which there sat all the best Argives

There are numerous examples in which a weak quantifier directly precedes πάντες, but not the other way around. Examples with the order WQ-πᾶς-N are ambiguous between the weak meaning 'whole' and an adverbial meaning 'in all' (57a-b):

(57) a. χρυσοῦ δὲ στήσας ἔφερεν δέκα πάντα τάλαντα (Il. 24.232)
Of gold he weighed and brought out ten (whole) talents (in all)

b. χρυσοῦ δὲ στήσας Ὀδυσεὺς δέκα πάντα τάλαντα (Il. 19.247)
Of gold Odysseus weighed out ten (whole) talents (in all)

In most examples, it seems as though the two quantifiers form a separate unit, with the strong quantifier having an adverbial meaning: 'in all' or 'altogether'. The weak/strong quantifier combination can occur as a unit separated from the noun (58a), in this case with the quantifier combination in focus position and the predictable noun in tail position:

(58) a. τῇσιν δώδεκα πᾶσαι ἐπερρώοντο γυναῖκες (Od. 20.107)
At which, twelve in all, women went back and forth

More often, the noun or pronoun is topicalized, sententially or locally, and the quantifier combination is in focus (59a-d):

(59) a. Ὣς νείκεσσ' ὃ γέρων, οἳ δ' ἐννέα πάντες ἀνέσταν (Il. 7.161-2)
Thus the old man challenged them, and they stood up, nine in all
b. τρίποδας γὰρ ἐείκοσι πάντας ἔτευχεν (Il. 18.373)
For he was making tripods, twenty in all
c. οἶνον ἐν ἀμφιφορεῦσι δυώδεκα πᾶσιν ἀφύσσας (Od. 9.204)
Having drawn off the wine into jars, twelve in all
d. ἐνθάδε τ' αἰπόλια πλατέ' αἰγῶν ἕνδεκα πάντα / ἐσχατιῇ βόσκοντ' (Od. 14.103-4)
And here too wide flocks of goats, eleven in all, pasture on the edge of the island

A parallel example with ἕκαστος means 'numbering fifty each' (60a).

(60) a. ἑπτὰ βοῶν ἀγέλαι, τόσα δ' οἰῶν πώεα καλά, / πεντήκοντα δ' ἕκαστα (Od. 12.129-30)
Seven herds of cattle, and as many lovely flocks of sheep, numbering fifty each

The absence of SQ-WQ-N examples in Homer could be a matter of pragmatic unlikeliness, since to get that kind of example you have to have a previously established or familiar group of a certain number and specify that all or each of them

did something (as in the rather unusual Classical Greek example in 35a above). But there is at least one candidate for that kind of example in Homer.[99] The nine Muses, like the nine archons, are a familiar group with a familiar cardinality. The context of the passage in 61a is Agamemnon's description of Achilles' funeral; emphasis throughout is on the lavishness of the proceedings, and divine participation in them, so πᾶσαι δ' ἐννέα Μοῦσαι, 'all nine Muses', would make sense, but does not occur.

(61) a. Μοῦσαι δ' ἐννέα πᾶσαι ἀμειβόμεναι ὀπὶ καλῇ / θρήνεον
(Od. 24.60-1)
The Muses, nine in all, alternating in sweet voices, sang the lament

Altogether, there is very little evidence from the universals for a distinct strong quantifier phrase in Homeric Greek. When there is more than one quantifier in a phrase or clause, instead of forming hierarchically arranged quantifying phrases that act as arguments of the verb, strong quantifiers in Homer tend to band together into separate quantifying expressions that act more like adverbs, or small clauses. This construction with πᾶς is reminiscent of the standard Homeric pattern for distributive relationships involving ἕκαστος (section 3.2.3), where the quantities being put into relation are shunted off together into a separate unit (62a-b):

(62) a. δέκα δ' ἀνδρὶ ἑκάστῳ νῆες ἕποντο θοαί (Il. 2.618)
Ten to each man, there followed swift ships
b. πεντηκόσιοι δ' ἐν ἑκάστῃ/εἵατο, καὶ προὔχοντο ἑκάστοθι ἐννέα ταύρους (Od. 3.78)
Fifty in each, they were settled, and they sent forth from each nine bulls

[99] There are two more possibilities. One at Il. 23.882, Μηριόνης πελέκεας δέκα πάντας ἄειρε 'Meriones carried off all ten axes' (which were previously established as discourse referents, numbering ten, at 23.851), and another at Od. 19.578 and 21.76, where whoever διοϊστεύσῃ πελέκεων δυοκαίδεκα πάντων 'shoots through all twelve axes' (which were previously established as discourse referents numbering twelve at 19.573-4) will get to marry Penelope. But, these depend on the interpretation of πᾶς in combination with the term πέλεκυς, which has an unclear meaning (either 'axe', or an axe-shaped wedge of iron constituting a standard measure (Leaf 1900-02 vol. 2:531-32)), and is contrasted with ἡμιπέλεκκον 'half-axe' at 23.851, so πᾶς may even mean 'whole' here. In context, the meanings 'all ten' and 'all twelve' make more sense.

So, in Homer, universals seldom form continuous constituents with modified nouns, and they never or almost never form a constituent with a weakly quantified noun. They do often appear to form units with unmodified nouns, however (63a-b):

(63) a. ἦκε δὲ δινήσας· γέλασαν δ' ἐπὶ πάντες Ἀχαιοί (Il. 23.840)
And whirled and threw it; and all the Achaeans laughed
b. δύσετ' Ἀχαιῶν ἔθνος, ἔγειρε δὲ φῶτα ἕκαστον (Il. 17.552)
She descended into the crowd of Achaeans, and roused each man

One option for dealing with this would be to propose a general, weak/strong quantifier phrase that holds all quantifiers, on the grounds that strong quantifiers and weak quantifiers don't ever seem to combine in the same phrase (61a, 62a-b). But strong and weak quantifiers do seem to show different syntactic behavior in Homer; strong quantifiers almost never form continuous phrases with modified nouns, whereas weak quantifiers do (53a-d, 54a-f), so it seems desirable to reserve WQP for weak quantifiers only. Based on the adjunct analysis option for the universals in Classical Greek (the floating behavior which argued for that analysis is even more marked in Homer), I will adopt an adjunct analysis for universal quantifier-noun combinations in Homeric Greek (64a-b):

(64) a. [NP [QP πάντες] [NP Ἀχαιοί]]
b. [NP [NP φῶτα] [QP ἕκαστον]]

Quantifiers that take genitive restrictions in Homer are always or almost always weak, with the exception of ἕκαστος. For the weak ones, the same structure proposed for Classical Greek can be used, but with the genitive an NP rather than a DP (65a).

(65) a. [WQP πολλοὶ [NP e [NP Ἀχαιῶν]]]

Since there is no SQP layer in Homer, what is left for ἕκαστος is the adjunct analysis (66a).

(66) a. [NP [QP ἕκαστος] [NP e [NP ἡγεμόνων]]]

There is some reason to doubt even the adjunct analysis of strong quantifiers that appear to form constituents with their nominal restrictions. Even when the two elements are contiguous, they may often be located in different discourse configurational projections. I return to this below.

How does the Classical Greek noun phrase complex compare to the Homeric one? In Classical Greek, there is at minimum the structure shown in 33a, repeated below for convenience, with some quantifiers appearing in WQP and some possibly in DP.

(33) a. [DP determiner [WQP weak quantifiers [NP [modifiers][noun]]]]

In Homeric Greek the minimal structure is as in 55a, repeated below, with quantifiers that appear in WQP.

(55) a. [WQP πολλὰ [NP περικλυτὰ δῶρ']]

It is just those Classical Greek quantifiers that show signs of being located in the DP layer, namely the singular distributive quantifiers and the strong quantifiers with genitive restrictions, that are missing in Homeric Greek. The strong quantifiers that Homeric and Classical Greek share are those that are most likely to be adjuncts even in Classical Greek. These are the universals that take agreeing DP restrictions in Classical Greek: πᾶς plural with the meaning 'all' and singular with the meaning 'whole/all', as well as both singular and plural ἕκαστος. Another possibility outlined was that in Classical Greek there is an additional layer of structure above the DP layer that houses strong quantifiers (36a repeated below), a layer which does not appear to be available for Homeric Greek.

(36) a. [SQP πάντες [DP οἱ [WQP ἐννέα [NP ἄρχοντες]]]]

In either case, these noun-phrase level syntactic differences between Homeric and Classical Greek are systematic, because the differences add up to the Homeric noun phrase being less hierarchically structured than the Classical Greek one. If it is exactly those quantifiers that are located in the DP layer in Classical Greek that are missing in Homeric Greek, then the inventory differences discussed in section 4.2 above are all associated with the absence of the determiner layer in Homeric Greek.

Next, quantifier-noun order. The overall trend observed in Chapter 3 was that Homer has a higher ratio of NQ to QN order than Classical Greek.[100] Why does that matter? In general, an NQ string is less likely than a QN string to be a continuous quantified noun phrase. In Chapter 3, I outlined (following Devine and Stephens 2006:79-136, 481-520 for Latin) a few ways in which the quantifier and its restriction could be distributed into different discourse functional projections within the sentence, and also possibly within the noun phrase. Just as there is (at minimum) Topic-Focus-Tail structure in the clause, there is also Topic-Focus-Tail structure in the noun (or determiner) phrase (67a-c):

(67) a. [TOP [FOC [VP [V [DP]]]]]
b. [TOP-WQP [FOC-WQP [WQP [NP]]]]
c. [TOP-DP [FOC-DP [DP [WQP [NP]]]]]

Since most sentences do not have all possible positions filled, many strings can be analyzed in at least a couple of different ways. Let's look for example at the case of quantified object nouns with sentence-final verbs. Say you have the elements N-Q-V, in that order (68a):

(68) a. ναῦς μὲν ὀλίγας ἔλαβον οἱ Ἀθηναῖοι (Thuc. 8.106.1)
The Athenians took [only] a few ships

[100] In continuous phrases involving no other modifiers.

The noun can be the sentential topic, and the quantifier and verb the focus (69a). Or, the noun can be topic within its own phrase, and the quantifier focus, but with the phrase as a whole located in sentential focus position (69b):

(69) a. [TOP ναῦς$_j$ [FOC ὀλίγας$_i$ [VP ἔλαβον [WQP t_i [NP t_j]]]]]
b. [TOP [FOC [TOP-WQP$_k$ ναῦς$_j$ [FOC-WQP ὀλίγας$_i$ [WQP t_i [NP t_j]]]]][VP ἔλαβον [WQP t_k]]]]

If you have Q-N-V, your options are more limited because of the association between quantification and focus. The most likely analysis of this type is that it is a continuous quantified phrase sitting in focus position. On the noun phrase level, the quantifier is either in focus (70b) or in its default position, and the noun tail (70c) ('tail' in this case means it remains in its default position within the noun phrase complement of the verb).

(70) a. οἶδα γὰρ ὅτι καὶ Μυσοῖς βασιλεὺς πολλοὺς μὲν ἡγεμόνας ἂν δοίη (Xen. *An.* 3.2.24)
b. [TOP [FOC [FOC-WQP$_k$ πολλοὺς$_j$ [WQP t_j [NP ἡγεμόνας]]] [VP δοίη [WQP t_k]]]]
c. [TOP [FOC [WQP$_k$ πολλοὺς [NP ἡγεμόνας]][VP δοίη [WQP t_k]]]]

Several factors work together to make QN order more likely to be coherent than NQ order. First, the default order in the noun phrase is QN, so quantified phrases that have not been broken up and distributed into different discourse projections will have QN order. Second, given that Topic precedes Focus in the basic order of discourse configurational projections, and quantification is associated with focus, an NQ string will map easily onto Topic followed by Focus, whereas a QN string is more likely to be a unit sitting in focus position. In NQ Topic-Focus structures, both parts of the quantified phrase are moved to pragmatically defined projections and the semantically defined part of the noun phrase is left empty. If the noun is in sentential topic position and the quantifier in sentential focus position, as in (69a), then the two elements are not even part of the same extended phrase. In QN structures, either the quantifier

moves, and the noun stays in its semantically defined position, or neither of them move, though the QN phrase as a whole moves to preverbal focus position. In the former structure, quantifier and noun both move and go their separate discourse configurational ways, whereas in the latter structure, they stick together more. The higher ratio of NQ to QN order in Homer adds another layer to the differences in Homeric and Classical Greek noun phrase structure already noted. Homer not only has a less hierarchical noun phrase than Classical Greek, but also is more likely to disperse the elements of the noun phrase across different discourse configurational projections.

That dispersion is particularly obvious when the components of the noun phrase are actually separated from one another by intervening lexical items. Homeric Greek has a consistently higher rate of quantifier-noun discontinuity than Classical Greek; the overall Classical rate is somewhere around 20%, whereas the Homeric rate is around 50% (Table 11).

Table 11: Quantifier-noun discontinuity in Homeric and Classical Greek

	HG	CG
πᾶς (plural)	48%	25%
πολύς	51%	11%
παῦρος/ὀλίγος	55% (tiny sample)	13%

The discontinuous structures that are common in Homer can be understood in relation to the continuous structures described above. One common type involves a focused quantifier and a tail noun. In the QNV structure above, the entire noun phrase moved out of tail position; in the QVN structure in 71a below, only the quantifier moves to focus position, leaving the noun behind in tail position. The ethnic Καδμείωνας is tail because the preceding line establishes that the action takes place in Thebes.

(71) a. ἔνθα δὲ πάντας ἐνίκα Καδμείωνας (Il. 23.680)
There, he bested all the Cadmeians

There, he bested them all, the Cadmeians
b. [TOP ἔνθα [FOC πάντας$_i$ [VP ἐνίκα [NP [QP t$_i$][NP Καδμείωνας]]]]]

Another type involves a topic noun and focused quantifier. The structure of this type is identical to that of some continuous NQV structures. On the first analysis of the continuous NQV example above, the whole noun phrase moves up to the focus position, and then the noun moves to a local topic position. On the second, the noun and quantifier move separately to sentential topic and focus positions. In the discontinuous example below (72a), the noun and quantifier are separated by an element that is not part of the noun phrase, so they are probably in sentential topic and focus positions (72b). Both the Trojans and Hector are not only highly predictable in this context, but were mentioned by name two lines earlier, so the interesting part is that they are all coming this way:

(72) a. Τρῶας δ' ἐνθάδε πάντας ἄγει κορυθαίολος Ἕκτωρ (Il. 17.96)
Hector is leading all the Trojans here
The Trojans, he is leading them all this way, shiny-helmeted Hector
b. [TOP Τρῶας$_j$ [FOC πάντας$_i$ [VP ἄγει [NP [QP t$_i$][NP t$_j$]]]]]

Many NQ examples may be structurally the same as 72a, but just happen to have no intervening elements to make it clear whether the noun and quantifier are actually in the same layer. The higher rate of quantifier-noun discontinuity in Homeric Greek is consistent with the less hierarchically structured noun phrase and the higher rate of NQ order. A final point to be made on the subject of quantifier-restriction coherence concerns the indefinite clitic τις. As I pointed out in sections 3.5-3.10, in Classical Greek, τις can cliticise at the level of the sentence, the verb phrase, or the noun phrase, which means that it does sometimes form units with noun phrases. In Homeric Greek, τις is almost always a sentential clitic (99% of instances according to Taylor 1990:50). It is consistent with the picture of greater mutual independence of noun and quantifier in Homeric Greek that it handles both existential and negative quantification with

sentential (οὐ) τις, rather than noun-phrase clitic τις and adnominal οὐδεις. In Homeric Greek, a quantifier and its restriction are very likely to be distributed into different sentential-level operator, clitic, or discourse configurational positions, whereas in Classical Greek, they are more likely to be combined together into a quantified noun phrase constituent.

4.4 Quantification and configurationality

In sections 4.2 and 4.3, I argued that there are systematic differences between Homeric Greek and Classical Greek in the expression of quantification. In this section, I look at variation in the expression of quantification among different languages, and argue that the quantifier inventory and behavior found in Homer, and that found in Classical Greek, are characteristic of different syntactic typologies. The way languages express quantification tends to vary with their overall structure. As already mentioned in section 2.2.2, one important correlation is between argument type and quantifier type (Willie and Jelinek 2000); pronominal argument structure has been found to have some specific implications for quantificational expression. Discourse configurational and configurational languages share the property of having lexical arguments, so in what follows I will consider them together and contrast them with pronominal argument languages. The implications of pronominal argument structure for quantification fall under two headings. The first has to do with a distinction between adverbial and determiner quantification. The second has to do with incompatibility of certain nonreferential quantifiers with pronominal argument structure.

The distinction between adverbial and determiner quantification is easiest to think about in terms of the tripartite structure of quantification introduced in section 4.1. A quantifying sentence can be thought of as consisting of three parts, a quantifier, a restriction, and a nuclear scope; the quantifier is an operator that sets up a relationship between the other two parts, which resemble the two halves of a conditional, the

restriction corresponding to the if-clause and the nuclear scope corresponding to the then-clause. Determiner quantification creates a syntactic unit that combines the quantifier with its restriction, rendering a semantically tripartite structure syntactically bipartite. Adverbial quantification maps more directly onto the tripartite structure. Here are versions of 'if it is a seal, it swims' rendered with adverbial (73a) and determiner (73b) quantification:

(73) a. Seals always swim
Restriction Quantifier Scope
b. [Every seal] swims
[Quantifier + Restriction] Nuclear Scope

Floated quantifiers are more like adverbials than determiner quantifiers in this respect (74a) (Jelinek 1995):

(74) a. Seals all swim
Restriction Quantifier Nuclear Scope

There is a significant correlation between pronominal argument structure and the absence of determiner quantifiers (Jelinek 1995, Baker 1995, 1996:53-66; Hale, Jelinek and Willie 2003). This pattern has been found in head-marking pronominal argument languages such as Straits Salish (Jelinek 1995), Navajo (Faltz 1995; 2000; Willie and Jelinek 2000; Hale, Jelinek, and Willie 2003), Mohawk (Baker 1995, 1996:53-66), and Asurini do Trocará (Vieira 1995), as well as in dependent-marking languages such as Warlpiri (Bittner and Hale 1995). One possible explanation for this correlation is that the function of determiner quantifiers is to restrict the scope of quantification to a specific argument position (Jelinek 1995). In terms of logical types, determiner quantifiers are functions of type <<e, t>, <<e, t> t>> that take common nouns of type <e,t> and make argument quantifiers out of them. Argument quantifiers are functions of type <<e, t> t> that are ready to combine with predicates of type <e,t> to form propositions (sentences) of type <t>. In a language that does not allow

common nouns to be arguments, this function will not be called for. Instead, weak quantifiers, which make first-order claims about sets (in this case about the cardinality of an intersection set) will take the form of modifiers or predicates, while strong quantifiers, which make second-order claims about relations between sets (in this case about the proportional relationship between a set and the intersection of that set with another set) will be adverbial. In Straits Salish, for example, weak quantifiers are predicates, and strong quantifiers are adverbials (Jelinek 1995). Adverbial quantifiers, because they unselectively scope over the predication as a whole, can scope over lexical nominals in non-argument positions. This picture also, however, leaves room for a somewhat closer association of strong quantifiers with particular nominals, as long as the association is not of the argument-creating type. In Mohawk, for example, universal quantifiers have been analyzed as basically adverbial elements that can adjoin at the sentence, verb phrase, or noun phrase level; here is an example of adjunction at the noun phrase level (75a) (Baker 1995):

(75) a. [$_{NPk}$ Akwéku [$_{NPi}$ ne ron-úkwe]] [$_{S}$ pro$_{i}$ wa-hoti-yéshu-']
All NE Mp-person fact-MpII-laugh-punc
'All the men laughed' (B95:50)

Instead of a determiner-type universal quantifier that would create quantifying phrases of argument type, Mohawk has an adverbial-type universal that can scope over different kinds of phrase, including nominal phrases appearing in non-argument positions.

So, the lack of lexical nouns in argument position has implications for the structure of quantification. What about the implications of having all argument positions obligatorily filled by pronouns? Looking at things from that angle, a different set of considerations emerges. Pronominal arguments in pronominal argument languages are definite and referential (Mithun 2003). Lexical nominals in adjunct or discourse configurational operator positions are identified with pronominal arguments via a

system of coreference (Baker 1996). The rules that govern this coreference are a lot like the rules that govern intersentential anaphora in configurational languages like English (76a-b). In both structures, definites and indefinites introduce discourse referents that can be (co-)referred to by definite pronominal arguments; compare the Navajo examples in 77a-b (Hale, Jelinek and Willie 2003):

(76) a. I picked up the apple. Then I took a bite out of it.
b. There was an apple on the table. I took a bite out of it.

(77) a. bilasáana yíyąą' (H03)
Apple 3-ACC-1SNOM-ate
'The apple, I ate it'
b. bilasáana ła yíyąą'
Apple one 3-ACC-1SNOM-ate
'One/an apple, I ate it'

In dynamic semantics, quantifiers are distinguished from definite and indefinite noun phrases by their failure to introduce discourse referents (Heim 1983). This property is visible primarily in the context of intersentential anaphora. As I concluded in section 4.2, plural universal quantifiers, and singular universal quantifiers referred back to by plural pronouns, get past this problem via a kind of pseudo-anaphora (examples based on Heim 1983):

(78) a. (The, a, some) soldier has a gun. He will shoot.
b. (Every, each, no) soldier has a gun. #He will shoot.
c. (All, every, each) soldier(s) ha(s/ve) (a) gun(s). They will shoot.

If a lexical argument can appear in a sentence in a pronominal argument language only by entering into a relationship of coreference of the same type involved in intersentential anaphora in English, that would predict that quantifiers that fail to support intersentential anaphora in English would not occur in pronominal argument languages at all (Baker 1995, 1996:53-66). The quantifier inventory of Mohawk, for example, does not include any equivalent of the singular distributive quantifier *every*

or the negative quantifier *no*. It does, however, have quantifiers corresponding to *all, each,* and *some*. The universal and universal distributive quantifiers require that their coreferent pronominal arguments be plural, in what appears to be a sentence-internal form of pseudo-anaphora (79a-b) (Baker 1995):

(79) a. Akwéku wa'-ti-shakoti-noru'kwányu-'ne raotí-skare'
All FACT-DUP-MPS/3PO-kiss-PUNC NE MPP-friend
'All of them kissed their girlfriends'
b. Skátshu ne ron-úkwe' ne raotí-'sere' wa-hati-'sere-ht- óhare'
Each NE MP-person NE MPP-car FACT-MPS-car-NOM-wash-PNC
'Each of the men washed their car'
(B96:55, 58)

Negative quantification is accomplished by sentential negation scoping over an indefinite pronoun. This mechanism evades referentiality clash by splitting negative quantification into two parts, an unselective adverbial operator and a discourse-referent introducing indefinite, rather than combining those elements into a determiner quantifier like *no*, that in turn would combine with a common noun to create a nonreferential quantifying phrase. In 80a, the indefinite pronoun co-refers with the pronominal argument, and the whole proposition is negated, giving the meaning 'it is not the case that some x did y'. If the indefinite is placed outside the scope of the negation, you get the meaning 'some specific x did not do y':

(80) a. Yah úkha te-t-yakaw-é-nu (B96:61-62)
not someone NEG-CIS-FSO-come-STAT
'Nobody came' (¬ (∃x (x came)))
b. Ukhák yah te-yako-yéshu-0
Someone not NEG-FSO-laugh-STAT
'Somebody didn't laugh' (∃x (¬ (x laugh)))

In practice, the referentiality-based prediction rules out only a subset of the quantifiers ruled out by the adverbial/determiner distinction, because the quantifiers that fail to support intersentential anaphora in configurational languages like English are also

determiners. The predicted correlation has been argued to hold for all of the languages listed above as lacking determiner quantifiers, as well as Classical Nahuatl, Nunggubuyu, Mayali, and Wichita (Baker 1996:53-66). What the referentiality theory adds to the adverbial/determiner theory is an explanation for certain distinctions that are made in both configurational and pronominal argument languages between different kinds of strong quantifier. In configurational languages, strong quantifiers of the *every* and *no* type are found only in the form of nonreferential determiner quantifiers; in pronominal argument languages, they are entirely absent (Baker 1995, 1996:53-66). Strong quantifiers of the *all* and *each* type, meanwhile, are found in configurational languages in two forms: as nonreferential determiner quantifiers, but also as floatable adverbial quantifiers that can scope either over the whole predication or over some subsection of it, such as a lexical nouns that they adjoin to; in pronominal argument languages, these quantifiers are found only in the latter form (Baker 1995, 1996:53-66).

In previous sections of this chapter, I argued that there were systematic differences in both quantifier inventory and syntactic behavior between Classical and Homeric Greek. It is now possible to characterize those systematic differences in typological terms. Let's look first at determiner versus adverbial quantification. Classical Greek has at least a couple of determiner quantifiers: singular simple distributive πᾶς and ἕκαστος, as well as a number of quantifiers like οὐδείς and πολύς that show signs of having determiner status when they are strong. In Homeric Greek, simple singular distributive πᾶς is absent, and singular ἕκαστος behaves like an adverbial adjunct rather than a determiner quantifier. Singular subject ἕκαστος usually takes singular verbal agreement in Classical Greek, but plural verbal agreement in Homer; the latter behavior is like that of adverbial strong quantifiers in pronominal argument languages, which are linked to pronominal arguments via a kind of sentence-internal pseudo-anaphora. The other candidates for strong determiner status in Classical Greek, such as

οὐδείς and πολύς, are weak or absent in Homer. So, the quantifiers that have determiner status in Classical Greek are missing or adverbial in Homeric Greek, and Homeric Greek does not have any other candidates for determiner quantifier status. What about nonreferential quantifiers? Classical Greek has the lexical negative quantifier οὐδείς, as well as determiner πᾶς and ἕκαστος. Homer lacks all three. In place of οὐδείς, Homer has negative quantification accomplished by cooperation between the negative operator οὐ and the indefinite pronoun τις, which is exactly the kind of negative quantificational structure typically found in pronominal argument languages. The plural universal quantifier πᾶς, like English *all*, is floatable, and probably adverbial, in both Homeric and Classical Greek, but in Classical Greek it floats less, and forms constituents with nouns more, than it does in Homeric Greek. Overall, the differences between the Classical and Homeric Greek mechanisms for expression of quantification described in this chapter correspond very closely to differences between quantificational structures typically found in configurational languages and those typically found in pronominal argument languages.

BIBLIOGRAPHY

Abney, S. 1987. The English Noun Phrase in Its Sentential Aspect. Ph.D. dissertation, Linguistics and Philosophy, Massachusetts Institute of Technology, Cambridge, MA.

Ammann, H. 1922. *Untersuchungen zur Homerischen Wortfolge und Satzstruktur, mit besonderer Berücksichtigung der Stellung des Verbums. Erster, allgemeiner Teil.* Freiburg: J. Boltze.

Arnold, M. 1861/1911. On Translating Homer. In *Essays Literary and Critical.* London: J.M. Dent & Sons.

Austin, P. 2001. Word Order in a Free Word Order Language: The Case of Jiwarli. In *Forty Years On: Ken Hale and Australian Languages*, edited by J. Simpson, D. Nash, M. Laughren, P. Austin and B. Alpher. Canberra: Pacific Linguistics.

Austin, P., and J. Bresnan. 1996. Non-Configurationality in Australian Aboriginal Languages. *Natural Language and Linguistic Theory* 14:215-68.

Bach, E. 1989. *Informal Lectures on Formal Semantics*. Albany, NY: State University of New York.

Bach, E., E. Jelinek, A. Kratzer, and B.H. Partee. 1995. *Quantification in Natural Languages*. 2 vols. Dordrecht: Kluwer.

Baker, M.C. 1995. On the Absence of Certain Quantifiers in Mohawk. In *Quantification in Natural Languages*, edited by E. Bach, E. Jelinek, A. Kratzer and B. H. Partee. Dordrecht: Kluwer.

———. 1996. *The Polysynthesis Parameter*. New York: Oxford University Press.

———. 2001a. Configurationality and Polysynthesis. In *Language Typology and Language Universals: An International Handbook*, edited by M. Haspelmath. Berlin: Walter de Gruyter.

———. 2001b. The Natures of Nonconfigurationality. In *The Handbook of Contemporary Syntactic Theory*. Cambridge, MA: Blackwell.

Bakker, E. 1995. Noun-Epithet Formulas, Milman Parry, and the Grammar of Poetry. In *Homeric Questions: Essays in Philology, Ancient History, and Archaeology*, edited by J. P. Crielaard: J.C. Gieben.

———. 1997. *Poetry in Speech: Orality and Homeric Discourse*. Ithaca: Cornell University Press.

———. 2005. *Pointing at the Past: From Formula to Performance in Homeric Poetics*. Vol. 12, *Hellenic Studies*: Center for Hellenic Studies.

Bakker, E., and F. Fabricotti. 1991/1999. Peripheral and Nuclear Semantics in Homeric Diction: The Case of Dative Expressions for 'Spear'. In *Homer: Critical Assessments*, edited by I. J. F. De Jong. London and New York: Routledge.

Barwise, J., and R. Cooper. 1981/2002. Generalized Quantifiers and Natural Language. In *Formal Semantics: The Essential Readings*, edited by P. Portner and B. H. Partee. Oxford: Blackwell.

Bauman, R., and J. Sherzer. 1974/1989. *Explorations in the Ethnography of Speaking.* 2nd ed, *Studies in the Social and Cultural Foundations of Language.* Cambridge: Cambridge University Press.

Beaman, K. 1984. Coordination and Subordination Revisited: Syntactic Complexity in Spoken and Written Narrative Discourse. In *Coherence in Spoken and Written Discourse*, edited by D. Tannen. Norwood, NJ: Ablex Publishing Corporation.

Besnier, N. 1988. The Linguistic Relationships of Spoken and Written Nukulaelae Registers. *Language* 64 (4):707-36.

Biber, D. 1986. Spoken and Written Textual Dimensions in English: Resolving the Contradictory Findings. *Language* 62 (2):384-414.

———. 1988. *Variation across Speech and Writing.* Cambridge: Cambridge University Press.

———. 1994. An Analytical Framework for Register Studies. In *Sociolinguistic Perspectives on Register*, edited by D. Biber. Cary, North Carolina: Oxford University Press.

———. 1995. *Dimensions of Register Variation.* Cambridge: Cambridge University Press.

Biber, D., and E. Finegan. 1989. Drift and the Evolution of English Style: A History of Three Genres. *Language* 65 (3):487-517.

Bittner, M., and K. Hale. 1995. Remarks on Definiteness in Warlpiri. In *Quantification in Natural Languages*, edited by E. Bach, E. Jelinek, A. Kratzer and B. H. Partee. Dordrecht: Kluwer Academic Publishers.

Blackwell, T. 1735/2005. *An Enquiry into the Life and Writings of Homer*. Whitefish, MT: Kessinger Publishing.

Bloomfield, L. 1927. Literate and Illiterate Speech. *American Speech* 2 (10):432-9.

Bøhrdal, V. 1997. Professional Storytelling in Modern China: A Case Study of the *Yangzhou Pinghua* Tradition. *Asian Folklore Studies* 56:7-32.

Bolling, G.M. 1947. Personal Pronouns in Reflexive Situations in the Iliad. *Language* 23 (1):23-33.

Bresnan, J. 2001. *Lexical-Functional Syntax*. Malden, Mass.: Blackwell.

Bricker, V.R. 1974/1989. The Ethnographic Context of Some Traditional Mayan Speech Genres. In *Explorations in the Ethnography of Speaking*, edited by R. Bauman and J. Sherzer. Cambridge: Cambridge University Press.

Brugmann, K. 1894. *Die Ausdrücke für den Begriff der Totalität in den Indogermanischen Sprachen: Eine semasiologisch-etymologische Untersuchung* Leipzig: Edelmann.

Cataldi, L. 2001. Rhetoric and Diction in the Oral Epic: Molly Tasman Napurrurla's Jajirdikirli. In *Forty Years On: Ken Hale and Australian Languages*, edited by J. Simpson, D. Nash, M. Laughren, P. Austin and B. Alpher. Canberra: Pacific Linguistics.

Chadwick, J. 1990. *The Decipherment of Linear B*. Cambridge: Cambridge University Press.

Chafe, W. 1963/2007. *Handbook of the Seneca Language*. Toronto: Global Language Press.

———. 1980. *The Pear Stories: Cognitive, Cultural and Linguistic Aspects of Narrative Production*. Norwood, NJ: Ablex Publishing Corporation.

———. 1982. Integration and Involvement in Speaking, Writing and Oral Literature. In *Spoken and Written Language: Exploring Orality and Literacy*, edited by D. Tannen. Norwood, NJ: Ablex.

———. 1993. Seneca Speaking Styles and the Location of Authority. In *Responsibility and Evidence in Oral Discourse*, edited by J. H. Hill and J. T. Irvine. Cambridge: Cambridge University Press.

———. 1994. *Discourse, Consciousness and Time: The Flow and Displacement of Conscious Experience in Speaking and Writing*. Chicago: University of Chicago Press.

Chafe, W., and J.M. Danielewicz. 1987. Properties of Spoken and Written Language. Berkeley, CA: Center for the Study of Writing, University of California.

Chantraine, P. 1953. *Grammaire Homérique*. Vol. 2. Paris: Klincksieck.

———. 1968. *Dictionnaire étymologique de la langue grecque*. Paris: Klincksieck.

Chomsky, N. 1970. Remarks on Nominalization. In *Readings in English Transformational Grammar*, edited by R. A. Jacobs and P. S. Rosenbaum. Waltham, Mass.: Ginn.

———. 1981. *Lectures on Government and Binding: The Pisa Lectures*. Berlin: Walter de Gruyter.

Cinque, G. 1994. On the Evidence for Partial N-Movement in the Romance Dp. In *Paths Towards Universal Grammar: Studies in Honor of Richard S. Kayne*, edited by G. E. A. Cinque. Washington, D.C.: Georgetown University Press.

Clancy, P.M. 1982. Written and Spoken Style in Japanese Narratives. In *Spoken and Written Language: Exploring Orality and Literacy*, edited by D. Tannen. Norwood, NJ: Ablex Publishing Corporation.

Clark, H.H. 1996. *Using Language*. Cambridge: Cambridge University Press.

Clark, H.H., and S.E. Brennan. 1991. Grounding in Communication. In *Perspectives on Socially Shared Cognition*, edited by L. Resnick, J. Levine and S. Teasley. Washington: APA Books.

Classen, J. 1879. *Beobachtungen über den Homerischen Sprachgebrauch*. 2nd ed. Frankfurt: Christian Winter.

Clemmer, R.O. 1995. *Roads in the Sky: The Hopi Indians in a Century of Change*. Boulder, CO: Westview Press.

Coene, M., and Y. d'Hulst. 2003. Introduction: Theoretical Background. In *From NP to DP: The Syntax and Semantics of Noun Phrases*, edited by M. Coene and Y. d'Hulst. Amsterdam: John Benjamins.

Comrie, B. 1998. The Indo-European Linguistic Family: Genetic and Typological Perspectives. In *The Indo-European Languages*, edited by A. G. Ramat and P. Ramat. London: Routledge.

Cooper, G.L., and K.W. Krüger. 1998. *Attic Greek Prose Syntax*. Ann Arbor: University of Michigan Press.

Cooper, G.L., and K.W. Krüger. 2002. *Greek Syntax: Early Greek Poetic and Herodotean Syntax*. Ann Arbor: University of Michigan Press.

Corblin, F., I. Comorovski, B. Laca, and C. Beyssade. 2004. Generalized Quantifiers, Dynamic Semantics, and French Determiners. In *Handbook of French Semantics*, edited by F. Corblin and H. de Swart. Stanford, CA: CSLI Publications.

Crisma, P. 1996. On the Configurational Nature of Adjectival Modification. In *Grammatical Theory and Romance Languages*, edited by K. Zagona. Amsterdam: John Benjamins.

Crystal, D., and D. Davy. 1969. *Investigating English Style*. Bloomington: Indiana University Press.

d'Aubignac, A.F.H. 1715/1925. *Conjectures académiques, ou, Dissertation sur L'Iliade*. Translated by V. Magnien. Paris: Hachette.

Dahlstrom, A. 2003. Focus Constructions in Meskwaki (Fox). In *Proceedings of the LFG03 Conference*, edited by M. Butt and T. H. King. Stanford, CA: CSLI Publications.

Dayal, V. 2004. The Universal Force of Free Choice Any. *Linguistic Variation Yearbook* 4:5-40.

De Vet, T. 1996. The Joint Role of Orality and Literacy in the Composition, Transmission and Performance of the Homeric Texts: A Comparative View. *Transactions of the American Philological Association* 126:43-76.

Devine, A.M., and L.D. Stephens. 2000. *Discontinuous Syntax: Hyperbaton in Greek.* Oxford: Oxford University Press.

———. 2006. *Latin Word Order: Structured Meaning and Information.* Oxford: Oxford University Press.

Devito, J.A. 1966. Psychogrammatical Factors in Oral and Written Discourse by Skilled Communicators. *Speech Monographs* 32:124-8.

———. 1967. Levels of Abstraction in Spoken and Written Language. *Journal of Communication* 17:354-61.

Dik, H. 1995. *Word Order in Ancient Greek: A Pragmatic Account of Word Order Variation in Herodotus.* Amsterdam: Brill.

———. 2007. *Word Order in Greek Tragic Dialogue.* Oxford: Oxford University Press.

Dixon, R.M.W. 1980. *The Languages of Australia.* Cambridge: Cambridge University Press.

Drieman, G.H.J. 1962. Differences between Written and Spoken Language: An Exploratory Study. *Acta Psychologica* 20:36-57, 78-100.

DuBois, J.W. 1986 Self-Evidence and Ritual Speech. In *Evidentiality: The Linguistic Coding of Epistemology*, edited by W. Chafe and J. Nichols. Norwood, NJ: Ablex.

Düntzer, H. 1864/1872. Über den Einfluss des Metrums auf den Homerischen Ausdruck. In *Homerische Abhandlungen.* Leipzig: Hahn.

Edwards, M.W. 1966. Some Features of Homeric Craftsmanship. *Transactions of the American Philological Association* 97:115-79.

Ellendt, J.E. 1861/1864. Einiges über den Einfluss des Metrum's auf den Gebrauch von Wortformen und Wortverbindungen im Homer. In *Drei Homerische Abhandlungen von Joh. Ernst Ellendt.* Leipzig: B. G. Teubner.

Erbse, H., ed. 1969. *Scholia Graeca in Homeri Iliadem.* Berlin: Walter de Gruyter.

Ernst, T. 2002. *The Syntax of Adjuncts.* Cambridge: Cambridge University Press.

Evans, N., and H.-J. Sasse. 2002. Introduction: Problems of Polysynthesis. In *Problems of Polysynthesis*, edited by N. Evans and H.-J. Sasse. Berlin: Akademie verlag.

Faltz, L.M. 1995. Towards a Typology of Natural Logic. In *Quantification in Natural Languages*, edited by E. Bach, E. Jelinek, A. Kratzer and B. H. Partee. Dordrecht: Kluwer.

———. 2000. A Semantic Basis for Navajo Syntactic Typology. In *The Athabaskan Languages: Perspectives on a Native American Language Family*, edited by T. B. Fernald and P. R. Platero. New York: Oxford University Press.

Fanselow, G., and C. Féry. 2006. Prosodic and Morphosyntactic Aspects of Discontinuous Noun Phrases: A Comparative Perspective. Unpublished Ms.: University of Potsdam.

Finnegan, R. 1977. *Oral Poetry: Its Nature, Significance and Social Context.* Cambridge: Cambridge University Press.

Foley, J.M. 1985. *Oral-Formulaic Theory and Research: An Introduction and Annotated Bibliography*. New York: Garland Publishing.

———. 1995. *The Singer of Tales in Performance*. Bloomington: Indiana University Press.

———. 1999. *Homer's Traditional Art*. University Park, Pennsylvania: The Pennsylvania State University Press.

———. 2005. Analogues: Modern Oral Epics. In *A Companion to Ancient Epic*, edited by J. M. Foley. Oxford: Blackwell.

———. 2007. *Oral-Formulaic Theory: Annotated Bibliography*. Center for Studies in Oral Tradition 2007 [cited 20 September 2007]. Available from http://www.oraltradition.org/bibliography/.

Fortson, B.W. 2004. *Indo-European Language and Culture: An Introduction*. London: Blackwell.

Frisk, H. 1960-72. *Griechisches etymologisches Wörterbuch*. Heidelberg: Carl Winter.

Garrett, A. 1990. The Syntax of Anatolian Pronominal Clitics. Ph.D. dissertation, Linguistics, Harvard University, Cambridge, MA.

Giannakidou, A. 2001. The Meaning of Free Choice. *Linguistics and Philosophy* 24:659-735.

Gibson, J.W., C.R. Gruner, R.J. Kibler, and F.J. Kelly. 1966. A Quantitative Examination of Differences in Written and Spoken Messages. *Speech Monographs* 33:444-51.

Giusti, G. 1991. The Categorial Status of Quantified Nominals. *LInguistische Berichte* 136:438-52.

Goodwin, W.W. 1890. *Syntax of the Moods and Tenses of the Greek Verb*. Boston: Ginn & Company.

Gossen, G. 1974/1989. To Speak with a Heated Heart: Chamula Canons of Style and Good Performance. In *Explorations in the Ethnography of Speaking*, edited by R. Bauman and J. Sherzer. Cambridge: Cambridge University Press.

Hainsworth, J.B. 1964. Structure and Content in Epic Formulae: The Question of the Unique Expression. *Classical Quarterly* (14):155-64.

———. 1968. *The Flexibility of the Homeric Formula*. Oxford.

Hale, K. 1976. The Adjoined Relative Clause in Australia. In *Grammatical Categories in Australian Languages*, edited by R. M. W. Dixon: Australian Institute of Aboriginal Studies.

———. 1983. Warlpiri and the Grammar of Non-Configurational Languages. *Natural Language and Linguistic Theory* 1:5-47.

———. 1994. Core Structures and Adjunctions in Warlpiri Syntax. In *Studies on Scrambling: Movement and Non-Movement Approaches to Free Word-Order Phenomena*, edited by N. Corver and H. van Riemsdijk. Berlin: Walter de Gruyter.

Hale, K., E. Jelinek, and M. Willie. 2003. Topic and Focus Scope Positions in Navajo. In *Word Order and Scrambling*, edited by S. Karimi. Malden, MA: Blackwell.

Hale, M. 1987. Studies in the Comparative Syntax of the Oldest Indo-Iranian Languages. PhD dissertation, Linguistics, Harvard University, Cambridge, MA.

Halliday, M.A.K. 1975/2007. Language as Social Semiotic: Towards a General Sociolinguistic Theory. In *The Collected Works of M.A.K. Halliday, Volume 10: Language and Society*, edited by J. J. Webster. London: Continuum.

———. 1987. Spoken and Written Modes of Meaning. In *Comprehending Oral and Written Language*, edited by R. Horowitz and S. J. Samuels. San Diego: Academic Press.

———. 1989. *Spoken and Written Language*. Oxford: Oxford University Press.

Hared, M. 1994. Linguistic Correlates of the Transition to Literacy in Somali: Language Adaptation in Six Press Registers. In *Sociolinguistic Perspectives on Register*, edited by D. Biber. Cary, North Carolina: Oxford University Press.

Harris, A.C., and L. Campbell. 1995. *Historical Syntax in Cross-Linguistic Perspective*. Cambridge: Cambridge University Press.

Harris, W.V. 1989. *Ancient Literacy*. Cambridge, MA: Harvard University Press.

Haspelmath, M. 1995. Diachronic Sources of 'All' and 'Every'. In *Quantification in Natural Languages*, edited by E. Bach, E. Jelinek, A. Kratzer and B. H. Partee. Dordrecht: Kluwer.

———. 1997. *Indefinite Pronouns*. Oxford: Oxford University Press.

Havelock, E.A. 1982. *The Literate Revolution in Greece and Its Cultural Consequences*. Princeton: Princeton University Press.

Haviland, J. 1996. Text from Talk in Tzotzil. In *Natural Histories of Discourse*, edited by M. Silverstein and G. Urban. Chicago: University of Chicago Press.

Heath, S.B. 1983. *Ways with Words: Langage, Life and Work in Communities and Classrooms*. Cambridge: Cambridge University Press.

Heim, I. 1983. File Change Semantics and the Familiarity Theory of Definiteness. In *Meaning, Use and the Interpretation of Language*. Berlin: Walter de Gruyter.

Hentze, C. 1888. *Die Parataxis bei Homer*. Göttingen: Druck der Dieterichschem Univ-Buchdruckerei.

Herder. 1767-8/2002. Fragments on Recent German Literature. In *Philosophical Writings*, edited by M. N. Forster. Cambridge: Cambridge University Press. Original edition, 1767.

Herder, J.G. 1765/2002. How Philosophy Can Become More Useful and Universal for the Benefit of the People. In *Philosophical Writings*, edited by M. N. Forster. Cambridge: Cambridge University Press.

Herder. 1772/2002. Treatise on the Origin of Language. In *Philosophical Writings*, edited by M. N. Forster. Cambridge: Cambridge University Press. Original edition, 1772.

Herling, S.H.A. 1827-1830. *Die Syntax der Deutschen Sprache*. 2nd ed. Frankfurt: Verlag der Hermannschen Buchhandlung.

Hermann, E. 1895. Gab es im Indogermanischen Nebensätze? *Zeitschrift für vergleichende Sprachforschung auf dem Gebiete der Indogermanischen Sprachen* 33:481-535.

Hewson, J. 1997. The Typological Shift to Configurational Syntax in Indo-European Languages. In *Linguistic Reconstruction and Typology*, edited by J. Fisiak. Berlin: Walter de Gruyter.

Heycock, C., and R. Zamparelli. 2003. Coordinated Bare Definites. *Linguistic Inquiry* 34:443-69.

Hidalgo, R. 2000. Establishing Topic in Conversation: A Contrastive Study of Left-Dislocation in English and Spanish. In *Talk and Text: Studies on Spoken and Written Discourse*, edited by A. Downing, J. Moya and J. I. Albentosa. Cuenca: Ediciones de la Universidad de Castilla-La Mancha.

Hopper, P., and E. Traugott. 1993. *Grammaticalization*. Cambridge: Cambridge University Press.

Horrocks, G. 1981. *Space and Time in Homer: Prepositional and Adverbial Particles in the Greek Epic*. New York: Arno Press.

Howe, J. 1979. The Effects of Writing on the Cuna Political System. *Ethnology* 18 (1):1-16.

Hull, K.M. 2003. Verbal Art and Performance in Ch'orti' and Maya Hieroglyphic Writing. In *Department of Anthropology*. Austin, TX: University of Texas at Austin.

Hymes, D. 1974. *Foundations in Sociolinguistics: An Ethnographic Approach.* Philadelphia: University of Pennsylvania Press.

Ionin, T., O. Matushansky, and E.G. Ruys. 2006. Parts of Speech: Toward a Unified Semantics for Partitives. In *Proceedings of NELS 36*, edited by C. Davis, A. R. Deal and Y. Zabbal. Amherst, Massachusetts: University of Massachusetts.

Jackendoff, R. 1977. *X' Syntax: A Study of Phrase Structure.* Cambridge, MA: The MIT Press.

Jahandarie, K. 1999. *Spoken and Written Discourse: A Multi-Disciplinary Perspective.* Stamford, Connecticut: Ablex.

Janko, R. 1982. *Homer, Hesiod and the Hymns.* Cambridge: Cambridge University Press.

———. 1994. *The Iliad: A Commentary.* Vol. IV: books 13-16. Cambridge: Cambridge University Press.

———. 1998. The Homeric Poems as Oral Dictated Texts. *Classical Quarterly* 48 (1):135-67.

Jelinek, E. 1984. Empty Categories, Case, and Configurationality. *Natural Language and Linguistic Theory* 2 (1):39-76.

———. 1995. Quantification in Straits Salish. In *Quantification in Natural Languages*, edited by E. Bach, E. Jelinek, A. Kratzer and B. H. Partee. Dordrecht: Kluwer.

Kaisse, E. 1982. Sentential clitics and Wackernagel's law. In *Proceedings of the 1st West Coast Conference on Formal Linguistics*, 1-14.

Kamp, H. 1984. A Theory of Truth and Semantic Representation. In *Truth, Interpretation and Information: Selected Papers from the Third Amsterdam Colloquium*, edited by J. E. A. Groenendijk. Dordrecht: Foris.

Keenan, E.L., and J. Stavi. 1986. A Semantic Characterization of Natural Language Determiners. *Linguistics and Philosophy* 9:253-326.

Kim, Y.-J., and D. Biber. 1994. A Corpus-Based Analysis of Register Variation in Korean. In *Sociolinguistic Perspectives on Register*, edited by D. Biber. Cary, North Carolina: Oxford University Press.

Kiparsky, P. 1976. Oral Poetry: Some Linguistic and Typological Considerations. In *Oral Literature and the Formula*, edited by B. A. Stolz and R. S. Shannon. Ann Arbor.

———. 1995. Indo-European Origins of Germanic Syntax. In *Clause Structure and Language Change*, edited by A. Battye and I. Roberts. New York: Oxford University Press.

———. 1996. The Shift to Head-Initial VP in Germanic. In *Studies in Comparative Germanic Syntax II*, edited by H. Thráinsson, S. Epstein and S. Peter. Dordrecht: Kluwer.

Kiparsky, P., and C. Condoravdi. 2006. Tracking Jespersen's Cycle. Preprint. In *Proceedings of the 2nd International Conference of Modern Greek Dialects and Linguistic Theory*, edited by M. Janse, B. Joseph and A. Ralli. Mytilene: Doukas. Preprint available at: http://www.stanford.edu/~kiparsky/Papers/lesvosnegation.pdf.

Kirk, G.S. 1985. *Volume I: Books 1-4*. Edited by G. S. Kirk, *The Iliad: A Commentary*. Cambridge: Cambridge University Press.

Kiss, K. 1995. Np Movement, Operator Movement, and Scrambling in Hungarian. In *Discourse Configurational Languages*, edited by K. Kiss. New York: Oxford University Press.

———. 2001. Discourse Configurationality. In *Language Typology and Language Universals*, edited by M. Haspelmath. Berlin: Mouton de Gruyter.

———. 2008. The Structure of the Hungarian VP Revisited. In *Approaches to Hungarian. 10., Papers from the Veszprém Conference*, edited by C. Pinón and S. Szentgyörgyi. Budapest: Akadémiai Kiadó.

Klavans, J. 1985. The independence of syntax and phonology in cliticization. *Language*, 61, 95-120.

Kroll, B. 1977. Ways Communicators Encode Propositions in Spoken and Written English: A Look at Subordination and Coordination. In *Discourse across Time and Space*, edited by E. O. Keenan and T. Bennett. Los Angeles: Department of Linguistics, University of Southern California.

Kühner, R., and B. Gerth. 1898-1904/1955. *Ausführliche Grammatik der Griechischen Sprache: Satzlehre*. 3 ed. 4 vols. Hannover: Hahnsche Buchhandlung.

La Roche, J. 1867. Die Stellung des attributiven und appositiven Adjectivs bei Homer. *Wiener Studien* 19:161-88.

Ladusaw, W. 1979. Negative Polarity Items as Inherent Scope Relations. Ph.D. dissertation, University of Texas at Austin.

Lange, L. 1852/1887. Andeutungen über Ziel und Methode der syntaktischen Forschung. In *Kleine Schriften aus dem Gebiete der Classischen Alterthumswissenschaft*. Gottingen: Vandenhoeck & Ruprecht. Original edition, 1852.

Lattimore, R. 1951. *The Iliad of Homer*. Chicago: University of Chicago Press.

———. 1967. *The Odyssey of Homer*. New York: HarperCollins.

Laughren, M. 1989. The Configurationality Parameter and Warlpiri. In *Configurationality : The Typology of Asymmetries*, edited by L. Marácz and P. Muysken. Dordrecht: Foris.

———. 2002. Syntactic Constraints in A "Free Word Order" Language. In *Language Universals and Variation*, edited by M. Amberber and P. Collins. Westport, Connecticut: Praeger.

Leaf, W. 1900-02. *The Iliad. Edited, with Apparatus Criticus, Prolegomena, Notes, and Appendices*. 2 vols. London: Macmillan.

Legate, J.A. 2001. The Configurational Structure of a Nonconfigurational Language. *Linguistic Variation Yearbook* 1:61-104.

———. 2002. Warlpiri: Theoretical Implications. Ph.D. dissertation, Department of Linguistics and Philosophy, Massachusetts Institute of Technology, Boston, MA.

Lord, A. 1960/2000. *The Singer of Tales*. Edited by S. Mitchell and G. Nagy. 2nd ed, *Harvard Studies in Comparative Literature*. Cambridge, Mass.: Harvard University Press.

Luraghi, S. 2003. Definite Referential Null Objects in Ancient Greek. *Indogermanische Forschungen* 108:167-94.

Lyons, C. 1999. *Definiteness*. Cambridge: Cambridge University Press.

Martin, R.P. 1989. *The Language of Heroes: Speech and Performance in the Iliad.* Ithaca: Cornell University Press.

———. 1998. Homer's *Iliad* and *Odyssey*. In *Teaching Oral Traditions*, edited by J. M. Foley. New York: The Modern Language Association.

———. 2005. Epic as Genre. In *A Companion to Ancient Epic*, edited by J. M. Foley. Oxford: Blackwell.

Matthews, P. 1997. *The Concise Oxford Dictionary of Linguistics*. Oxford: Oxford University Press.

Meillet, A., and J. Vendryes. 1927. *Traité de grammaire comparée des langues classiques*. 2 ed. Paris: H. Champion.

Meister, K. 1921/1966. *Die Homerische Kunstsprache*. Darmstadt: Wissenschaftliche Buchgesellschaft.

Miller, J., and R. Weinert. 1998. *Spontaneous Spoken Language: Syntax and Discourse*. Oxford: Oxford University Press.

Milsark, G.L. 1977. Toward an Explanation of Certain Peculiarities of the Existential Construction in English. *Linguistic Analysis* 3 (1):1-29.

Mithun, M. 1984. How to Avoid Subordination. *Berkeley Linguistics Society* 10 (493-509).

———. 1990. Studies of North American Indian Languages. *Annual Review of Anthropology* 19:309-30.

———. 1992. The Impact of Sudden Literacy on Text Comprehensibility: Mohawk. In *Cooperating with Written Texts: The Pragmatics and Comprehension of Written Texts*, edited by D. Stein. Berlin: Mouton de Gruyter.

———. 1999. *The Languages of Native North America*. Cambridge: Cambridge University Press.

———. 2003. Pronouns and Agreement: The Information Status of Pronominal Affixes. *Transactions of the Philological Society* 101 (2):235-78.

Monro, D.B. 1891. *A Grammar of the Homeric Dialect*. 2nd ed. Oxford: Clarendon.

Montague, R. 1973/2002. The Proper Treatment of Quantification in Ordinary English. In *Formal Semantics: The Essential Readings*, edited by P. Portner and B. H. Partee. Oxford: Blackwell.

Monteil, P. 1963. *La phrase relative en grec ancien*. Paris: Klincksieck.

Moorhouse, A.C. 1959. *Studies in the Greek Negatives*. Cardiff: University of Wales Press.

Nagler, M.N. 1967. Towards a Generative View of the Oral Formula. *Transactions of the American Philological Association* 98 (269-311).

———. 1974. *Spontaneity and Tradition: A Study in the Oral Art of Homer*. Berkeley: University of California Press.

Nagy, G. 1974. *Comparative Studies in Greek and Indic Meter*. Vol. 33, *Harvard Studies in Comparative Literature*. Cambridge, MA: Harvard University Press.

———. 1992a. *Greek Mythology and Poetics*. Ithaca: Cornell University Press.

———. 1992b. Homeric Questions. *Transactions of the American Philological Association* 122:17-60.

———. 1996a. *Homeric Questions*. Austin: University of Texas Press.

———. 1996b. *Poetry as Performance: Homer and Beyond*. Cambridge: Cambridge University Press.

Nichols, J. 1992. *Linguistic Diversity in Space and Time*. Chicago: University of Chicago Press.

Nordlinger, R. 1998. *Constructive Case: Evidence from Australian Languages*. Stanford, CA: CSLI Publications.

Norlin, G. 1945. *Isocrates*. Translated by G. Norlin and L. Van Hook. 3 vols. Vol. 2. Cambridge, MA: Harvard University Press.

Notopoulos, J.A. 1949. Parataxis in Homer: A New Approach to Homeric Literary Criticism. *Transactions of the American Philological Association* 80:1-23.

O'Donnell, R.C. 1974. Syntactic Differences between Speech and Writing. *American Speech* 49:102-10.

"each, *a.* (quasi-*pron.*)" *The Oxford English Dictionary.* 2nd ed. 1989. OED Online. Oxford University Press. 3 Apr. 2009 <http://dictionary.oed.com>.

"every, *a.* (quasi-*pron.*)" *The Oxford English Dictionary.* 2nd ed. 1989. OED Online. Oxford University Press. 3 Apr. 2009 <http://dictionary.oed.com>.

Palmer, L. 1980. *The Greek Language.* London: Faber and Faber.

Parry, M. 1928/1971. The Traditional Epithet in Homer. In *The Making of Homeric Verse*, edited by A. Parry. Oxford: Oxford University Press.

———. 1929/1971. The Distinctive Character of Enjambement in Homeric Verse. In *The Making of Homeric Verse*, edited by A. Parry. Oxford: Oxford University Press.

———. 1930-32/1971. Studies in the Epic Technique of Oral Verse-Making. In *The Making of Homeric Verse*, edited by A. Parry. Oxford: Oxford University Press.

Partee, B.H. 1995. Quantificational Structures and Compositionality. In *Quantification in Natural Languages*, edited by E. Bach, E. Jelinek, A. Kratzer and B. H. Partee. Dordrecht: Kluwer.

Paul, H. 1880. *Prinzipien der Sprachgeschichte.* Halle: Max Niemeyer.

Pawley, A., and F.H. Syder. 1983. Natural Selection in Syntax: Notes on Adaptive Variation and Change in Vernacular and Literary Grammar. *Journal of Pragmatics* 7 (5):551-79.

Pollard, C., and I.A. Sag. 1994. *Head-Driven Phrase Structure Grammar*. Chicago: University of Chicago Press.

Poole, M.E., and T.W. Field. 1976. A Comparison of Oral and Written Code of Elaboration. *Language and Speech* 19 (44):305-12.

Powell, B.B. 1991. *Homer and the Origin of the Greek Alphabet*. Cambridge: Cambridge University Press.

———. 2004. *Homer*. Oxford: Blackwell.

Richardson, N. 1993. *The Iliad: A Commentary*. Edited by G. S. Kirk. Vol. VI: books 21-24. Cambridge: Cambridge University Press.

Roberts, C. 1989. Modal Subordination and Pronominal Anaphora in Discourse. *Linguistics and Philosophy* 12:683-721.

———. 2004. Pronouns as Definites. Preprint. In *Descriptions and Beyond*, edited by M. Reimer and A. Bezuidenhout. Oxford: Oxford University Press. Preprint available at: http://ling.osu.edu/~croberts/pronouns.pdf.

Russo, J. 1963. A Closer Look at Homeric Formulas. *Transactions of the American Philological Association* 94:235-47.

———. 1966. The Structural Formula in Homeric Verse. *Yale Classical Studies* 20:219-40.

Sandys, J.E. 1903. *A History of Classical Scholarship*. Vol. 1. Cambridge: Cambridge University Press.

Schiffrin, D. 1982. Discourse Markers: Semantic Resource for the Construction of Conversation. Ph.D. dissertation, Department of Linguistics, University of Pennsylvania.

Schlichter, A. 1981. Notes on the Wintu Shamanistic Jargon. *SCOIL* 1:95-130.

Schmitt, P. 1889. *Über den Ursprung des Substantivsatzes mit Relativpartikeln im Griechischen*. Würzburg: A. Stuber.

Schultze-Berndt, E. 2008. Discontinuous Noun Phrases as an Iconic Strategy of Marking Thetic Clauses. Paper read at Syntax of the World's Languages III, 28 September 2008, at Berlin.

Schwyzer, E. 1947. Zur Apposition. *Abhandlungen der Deutschen Akademie der Wissenschaften zu Berlin, Philosophisch-historische Klasse* Jahrgang 1945/46 (3).

Schwyzer, E., and A. Debrunner. 1950. *Griechische Grammatik : Auf der Grundlage von Karl Brugmanns Griechischer Grammatik*. Edited by W. Otto. 3 vols, *Handbuch der Altertumswissenschaft*. München: C. H. Beck.

Scribner, S., and M. Cole. 1981. *The Psychology of Literacy*. Cambridge, MA: Harvard University Press.

Sherzer, J. 1974/1989. *Namakke, Sunmakke, Kormakke*: Three Types of Cuna Speech Event. In *Explorations in the Ethnography of Speaking*, edited by R. Bauman and J. Sherzer. Cambridge: Cambridge University Press.

Shipp, G.P. 1972. *Studies in the Language of Homer*. Cambridge: Cambridge University Press.

Sihler, A.L. 1995. *New Comparative Grammar of Greek and Latin*. New York: Oxford University Press.

Simpson, J. 1991. *Warlpiri Morpho-Syntax: A Lexicalist Approach*. Dordrecht: Kluwer.

———. 2007. Expressing Pragmatic Constraints on Word Order in Warlpiri. In *Architecture, Rules and Preferences: Variations on Themes by Joan W. Bresnan*, edited by A. Zaenen, J. Simpson, T. H. King, J. Grimshaw, J. Maling and C. Manning. Stanford, CA: CSLI Publications.

Smyth, H.W. 1956. *Greek Grammar*. 2 ed. Cambridge: Harvard University Press.

Speas, M. 1990. *Phrase Structure in Natural Language*. Dordrecht: Kluwer.

———. 2000. Projection and Pronominal Arguments. In *Lexical Specification and Insertion*, edited by P. Coopmans. Philadelphia: John Benjamins.

Sportiche, D. 1988. A Theory of Floating Quantifiers and Its Corrolaries for Constituent Structure. *Linguistic Inquiry* 19 (3):425-49.

Srivastav, V. 1991. The Syntax and Semantics of Correlatives. *Natural Language and Linguistic Theory* 9:637-86.

Street, B. 1984. *Literacy in Theory and Practice*. Cambridge: Cambridge University Press.

Suárez, J.A. 1983. *The Mesoamerican Indian Languages*. Cambridge: Cambridge University Press.

Taylor, A. 1990. Clitics and Configurationality in Ancient Greek. Ph.D. dissertation, University of Pennsylvania.

———. 1994. The Change from SOV to SVO in Ancient Greek. *Language Variation and Change* 6 (1):1-37.

Tedlock, D. 1971. On the Translation of Style in Oral Narrative. *The Journal of American Folklore* 84 (331):114-33.

Thesaurus linguae Graecae. Irvine, CA: University of California, Irvine.

Thiersch, F.W.v. 1829. *Griechische Grammatik.* Leipzig.

Thomas, R. 1992. *Literacy and Orality in Ancient Greece.* Cambridge: Cambridge University Press.

Tottie, G. 1986. The Importance of Being Adverbial: Adverbials of Focusing and Contingency in Spoken and Written English. In *English in Speech and Writing: A Symposium*, edited by G. Tottie and I. Bäcklund. Stockholm: Almqvist and Wiksell.

Traugott, E. 1972. *The History of English Syntax.* New York: Holt, Rinehart and Winston.

van der Wurff, W. 1997. Syntactic Reconstruction and Reconstructibility: Proto-Indo-European and the Typology of Null Objects. In *Linguistic Reconstruction and Typology*, edited by J. Fisiak. Berlin: Walter de Gruyter.

Vico, G. 1730-44/1999. *New Science.* Translated by D. Marsh. London: Penguin Classics.

Vieira, M.D. 1995. The Expression of Quantificational Notions in Asurini Do Trocará. In *Quantification in Natural Languages*, edited by E. Bach, E. Jelinek, A. Kratzer and B. H. Partee. Dordrecht: Kluwer.

Visser, E. 1988/1999. Formulae or Single Words? Towards a New Theory on Homeric Verse-Making. In *Homer: Critical Assessments*, edited by I. J. F. De Jong. London and New York: Routledge. Original edition, 1988.

Vivante, P. 1997. *Homeric Rhythm: A Philosophical Study*. Vol. 82, *Contributions to the Study of World Literature*. Westport: Greenwood Press.

Watkins, C. 1995. *How to Kill a Dragon: Aspects of Indo-European Poetics*. New York: Oxford University Press.

———. 1998. Proto-Indo-European: Comparison and Reconstruction. In *The Indo-European Languages*, edited by A. G. Ramat and P. Ramat. London and New York: Routledge.

Watkins, L. 1985. Spoken and Written Style in Kiowa. Presented at Annu. Meet. Am. Anthropol. Assoc., 84th, Washington, DC.

Weber, P. 1884. *Entwickelungsgeschichte der Absichtssätze*. Würzburg: A. Stuber.

Willie, M., and E. Jelinek. 2000. Navajo as a Discourse Configurational Language. In *The Athabaskan Languages: Perspectives on a Native American Language Family*, edited by T. B. Fernald and P. R. Platero. Oxford: Oxford University Press.

Witte, K. 1909-1914/1972. *Zur Homerischen Sprache*. Darmstadt: Wissenschaftliche Buchgesellschaft.

Witte, K. 1913. Die Vokalkontraktion Bei Homer. *Glotta* 4:209-32.

Wolf, F.A. 1795/1985. *Prolegomena to Homer*. Translated by A. Grafton, G. W. Most and J. E. G. Zetzel. Princeton: Princeton University Press.

Wood, R. 1769/1976. *An Essay on the Original Genius of Homer*. Hildesheim & New York: Georg Olms Verlag.

Zamparelli, R. 1998. A Theory of Kinds, Partitives and of/z Possessives. In *Possessors, Predicates and Movement in the Determiner Phrase*, edited by A. Alexiadou and C. Wilder. Amsterdam: John Benjamins.

———. 2000. *Layers in the Determiner Phrase*. New York: Garland Publishing.

Zwicky, A.M. 1977. On Clitics. Bloomington: Indiana University Linguistics Club.